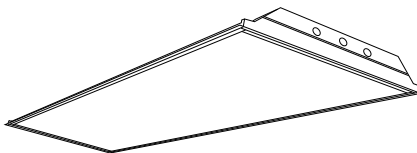


Columbia
LIGHTING

JT824-2, JT824-3

2' x 4' Dedicated T8 Lensed Troffer / 2 or 3-Lamp T8



PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

FEATURES

- T8 optimized fluorescent lensed troffer
- Shallow design frees up plenum space
- Hemmed fixture edges reduce risk of injury during fixture handling and installation
- Integral T-bar clips quickly secure fixture to the grid
- Corner hinging for easy insertion and removal of shielding frame
- Housing embossments provide extra strength and rigidity
- Housing ends secured by unique corner interlock and screws
- Snap-in ballast cover requires no tools for wireway access
- Flush steel shielding frame, screw assembled for easy diffuser replacement
- Rotary action cam latches. Smooth operating for secure shielding retention
- Metal to metal light leak protection on all four sides of shielding frame
- Rotary lock lampholders for positive lamp contact
- Heat sink embossments behind ballasts for cooler operation, longer life
- Recessed, surface or cable mount
- **UL listed 1598**

CONSTRUCTION

Housing is constructed of heavy gauge steel, die formed for extra rigidity. Four T-bar clips integral to housing. Housing features hemmed edges. Door frame hinges and latches from either side. Wireway accessible from below for upgrades or maintenance.

SHIELDING

100% virgin acrylic prismatic 12, extruded and roll-embossed, diagonally oriented female prisms standard. Other shielding may be specified. If desired shielding media is not shown in ordering guide, contact your local Hubbell Lighting representative.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class "P", high power factor, sound rated A, unless otherwise specified. For a specific vendor and/or ballast, specify as option. CEE NEMA Premium compliant.

CEILING COMPATIBILITY

Designed for recessed installation in standard inverted tee grid ceilings (G), recessed installation in hard ceilings (G with FK accessory), Surface mount at ceiling plane (SM) or cable mount suspension below ceiling plane (CM). For compatibility with specific ceilings contact your Hubbell Lighting representative.

ELECTRICAL

Standard class "P", thermally protected, autoresetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC compliant ballast disconnect is standard.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

FINISH

All metal parts processed with a phase phosphate bonding treatment. Grid units are pre-painted with high gloss baked white enamel, 86% reflective. Polyester powder coat paint after fabrication (PAF) option available, reflectance 90%.

ORDERING INFORMATION

EXAMPLE JT824-232G-FSA12-EU-F0735-C388-GLR

MODEL	NO. OF LAMPS	CEILING TYPE	SHIELDING	VOLTAGE	OPTIONS
JT8 Dedicated T8 Lensed Troffer	2 Two 3 Three	G Inverted T-Bar ¹ SM Surface Mount CM Cable Mount ²	A12 Pattern 12 Acrylic 0.100" Nominal (Std.) A12.125 Pattern 12 Acrylic 0.125" Nominal A19 Pattern 19 Acrylic 0.156" Male Prism PC1 Silver Parabolic Louver 1/2" x 1/2" x 1/2"	U 120V-277V 347 347V	F0730 T8, 70CRI, 3000K Lamps, Furn/Inst. F0735 T8, 70CRI, 3500K Lamps, Furn/Inst. F0741 T8, 70CRI, 4100K Lamps, Furn/Inst. GLR Fast Blow Fuse EL Emergency Battery Pack Installed PAF Paint After Fabrication MS9 Master/Satellite w/9' Harness C388 3/8" Flex with 3 No. 18 Wires C384 3/8" Flex with 3 No. 14 Wires C488 3/8" Flex with 4 No. 18 Wires C424 1/2" Flex with 4 No. 14 Wires M4R Specular Reflector G1 Single Gasket (Door to Housing) G2 Double Gasketing (G1 and Lens to Door) G3 Triple Gasketing (G2 and Housing to Ceiling) WIH wiHUBB Enabled ^{3,4} EOR End of Row (SM/CM only) ^{5,6} INT Intermediate (SM/CM only) ^{5,6}
SIZE	DOOR STYLE	ACCESSORIES (ORDER SEPARATELY)	For more shielding, see Options and Accessories.		
24 2' x 4'	FS Flush Steel FA Flush Aluminum	FK24 2' x 4' Flange Kit FKCR Flange Kit Continuous Row Connector CM48Y25C3F-KIT 48" Cable Mount Kit for 2' wide CM ceiling type, 3 Wire Feed Cord	For a specific ballast vendor, show as option.		
LAMP TYPE	For additional door styles contact your local Columbia Lighting representative.				
32 4', T8: 32, 30, 28 or 25 Watt					

¹ For drywall order flange kit accessories separately.

² Order hanger accessories separately.

³ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

⁴ Not available with Surface Mount ceiling types.

⁵ Provides ends with wiring access for continuous row mounting.

⁶ Contact Hubbell representative for continuous row, 3-lamp fixtures.



Columbia LIGHTING

JT824-2, JT824-3

2' x 4' Dedicated T8 Lensed Troffer / 2 or 3-Lamp T8

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	JT824-332G-FSA12 J Lensed Troffer 2' x 4' 3-Lamp with A-12 Pattern Acrylic Prismatic Lens
Ballast	B3321120RH-A
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	84
Shielding Angle	N/A
Spacing Criterion	0° = 1.23 90° = 1.36

AVG. LUMINANCE (Candela/Sq. M.)

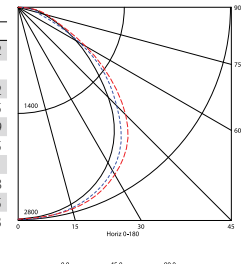
	0.0	22.5	45.0	67.5	90.0
0	4289	4289	4289	4289	4289
30	4196	4277	4409	4495	4518
40	3635	4032	4230	4421	4515
45	3655	3764	3994	4218	4355
50	3299	3469	3761	3940	4047
55	2993	3133	3443	3569	3647
60	2706	2694	2903	3078	3161
65	2420	2238	2231	2547	2631
70	2178	1908	1643	2223	2326
75	2101	1792	1501	2130	2368
80	2255	1822	1831	2229	2583
85	2344	2009	2079	2555	2696

COEFFICIENTS OF UTILIZATION (%)

RC	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	93	89	85	82	90	87	84	81	83	81	79	72				
2	85	78	73	68	83	77	72	67	74	70	66	61				
3	78	69	63	58	76	68	62	57	65	60	56	52				
4	71	62	55	49	70	61	54	49	59	53	48	45				
5	66	55	48	43	64	54	48	42	53	47	42	39				
6	61	50	43	38	59	49	42	37	48	42	37	35				
7	57	45	38	33	55	45	38	33	44	37	33	31				
8	53	42	35	30	51	41	34	30	40	34	29	28				
9	49	38	31	27	48	38	31	27	37	31	27	25				
10	46	35	29	24	45	35	29	24	34	28	24	23				

Test 13120 Test Date 11/07/2003

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	84.6%
Luminaire Efficacy Rating (LER)	77
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.12 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMENS SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	2232	25.7	30.3
0-40	3678	42.3	49.9
0-60	6216	71.4	84.4
0-90	7364	84.6	100.0
0-180	7364	84.6	100.0

LUMINAIRE DATA

Luminaire	JT824-232G-FSA12 J Lensed Troffer 2' x 4' 2-Lamp with A-12 Pattern Acrylic Prismatic Lens
Ballast	B3321120RH-A
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	60
Shielding Angle	N/A
Spacing Criterion	0° = 1.23 90° = 1.36

AVG. LUMINANCE (Candela/Sq. M.)

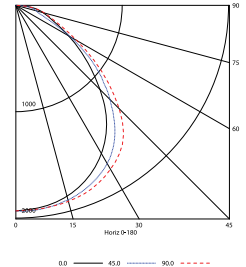
	0.0	22.5	45.0	67.5	90.0
0	2967	2967	2967	2967	2967
30	2850	2921	3045	3133	3155
40	2638	2733	2893	3073	3160
45	2430	2537	2719	2912	2986
50	2198	2308	2513	2669	2714
55	1973	2046	2220	2327	2394
60	1757	1754	1806	1923	2036
65	1577	1461	1377	1563	1752
70	1509	1302	1100	1361	1603
75	1596	1329	1169	1377	1650
80	1716	1450	1389	1512	1778
85	1780	1656	1568	1709	1850

COEFFICIENTS OF UTILIZATION (%)

RC	80					70					50					0
	RW	70	50	30	10	70	50	30	10	50	30	10	0			
1	94	91	87	84	92	89	85	83	85	82	80	74				
2	87	80	74	70	84	78	73	69	75	71	67	62				
3	79	71	64	59	77	69	63	58	67	62	57	54				
4	73	63	56	50	71	62	55	50	60	54	49	46				
5	67	57	49	44	66	56	49	44	54	48	43	40				
6	62	51	44	39	61	50	43	38	49	43	38	36				
7	58	47	39	34	56	46	39	34	45	38	34	32				
8	54	43	36	31	53	42	35	31	41	35	30	28				
9	50	39	32	28	49	39	32	28	38	32	27	26				
10	47	36	30	25	46	36	29	25	35	29	25	23				

Test 13121 Test Date 1/8/03

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

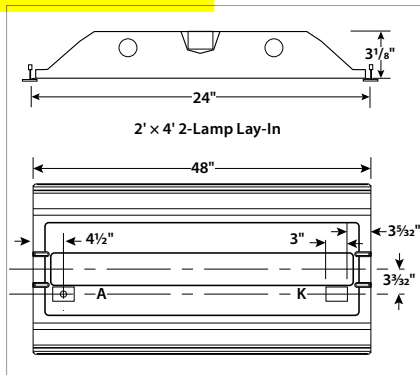
ENERGY DATA

Total Luminaire Efficiency	86.3%
Luminaire Efficacy Rating (LER)	73
IESNA RP-1-2004 Compliance	Non-Compliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.29 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMENS SUMMARY

Zone	Lumens	Lamp	Fixt.
0-30	1542	26.6	30.8
0-40	2538	43.8	50.7
0-60	4234	73.0	84.6
0-90	5004	86.3	100.0
0-180	5004	86.3	100.0

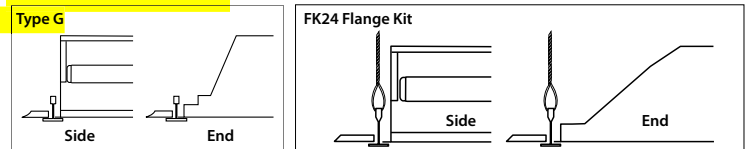
DIMENSIONAL DATA



A: 7/8" Diameter knockout
K: 2" x 3" through hole for access plate.

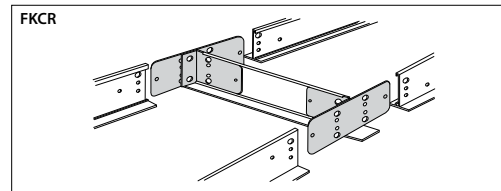
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

CEILING COMPATIBILITY



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

For hard ceiling applications order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



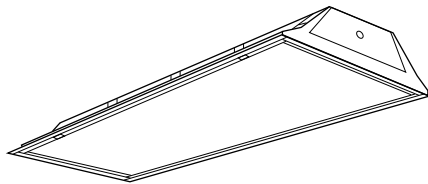
Row cut out dimensions using FK24 & FKCR adapters:
Width 24", Length [48" x (# in row)] + 3/8". Example: (48" x 2) + 3/8" = 96 3/8"
Flange kit rough in dimensions for single unit only: 24 3/8" x 48 3/8"

For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

Columbia
LIGHTING

ST814

1' x 4' Shallow Specification Troffer / 2-Lamp T5, T5HO, 2 or 3-Lamp T8



FEATURES

- Optical performance designed for T8 and T5 lamp technology
- Mechanical light seal
- Mitered corners on door present a clean uninterrupted appearance
- Spring loaded latches optional
- Rolled fixture edges reduce risk of injury during fixture handling and installation
- Integral T-Bar clips quickly secure fixture to grid system without the need for time consuming loose parts
- Snap-on ballast covers can be removed with lamps installed
- Corner hinging for easy insertion and removal of door frame from either side
- Optional flush or regressed aluminum shielding frames available with positive action or spring loaded latches
- Housing ends secured by unique corner interlock and screws

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

FLANGED FEATURES

Four adjustable Uni-Lugs for quick easy installation. Optional plaster frames available for individual or row mounting. Fixture end flanges are removable for row mounting. Joiner cables are included.

HOUSING

Heavy gauge steel. Die formed for extra rigidity. Designed for installation in standard inverted tee grid ceilings.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, unless otherwise specified.

FINISH

All metal parts are processed with a five phase phosphate bonding treatment. Grid units are pre-painted with high polyester baked white enamel, 86% reflective. Flanged units are painted after fabrication with a polyester powder coat, reflectance of 90%.

SHIELDING

100% acrylic prismatic, extruded and roll-embossed, diagonally oriented female prisms, unless otherwise specified.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE ST814-232G-FSA12-EU-F0735-C488

ST8		14 - 2		32		G - FS		A12125 - E		U			
MODEL	NO. OF LAMPS	CEILING TYPE		SHIELDING		VOLTAGE		OPTIONS					
ST8 Shallow Specification Troffer	1 One 2 Two 3 Three (T8 only)	G Inverted T-Bar (Std.) F Overlap Flange (4½" overall fixture height)		A12 Pattern 12 Acrylic 0.100" Nominal (Standard) A12.125 Pattern 12 Acrylic 0.125" Nominal A19 Pattern 19 Acrylic 0.15" Male Prism		U 120V-277V 347 347V		F0730 T8, 70CRI, 3000K Lamps, Furn/Inst. F0735 T8, 70CRI, 3500K Lamps, Furn/Inst. F0741 T8, 70CRI, 4100K Lamps, Furn/Inst. F0835 35K 80CRI T8 Lamps Installed					
SIZE	LAMP TYPE	DOOR STYLE		BALLAST									
14 1'x4'	28 4', T5: 28 Watt (2-Lamp only) 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt (2-Lamp Only)	FS Flush Steel FA Hush Aluminum RA Regressed Aluminum PS Premium Steel		E Electronic T8, Instant Start 3E 3-Lamp Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start 3EP 3-Lamp Electronic T8, Programmed Start		For specific ballast vendor, show as option.		GLR Fast Blow Fuse EL Emergency Battery Pack PAF Paint After Fabrication SLL Spring Loaded Latches MS9 Master/Satellite Pair w/9' Harness C388 ¾" Flex with 3 No. 18 Wires C488 ¾" Flex with 4 No. 18 Wires NYC NYC Compliant NYCU NYC Compliant, Union Label					



Columbia LIGHTING

ST814

1' x 4' Shallow Specification Troffer / 2-Lamp T5, T5HO, 2 or 3-Lamp T8

PHOTOMETRIC DATA

Test 13767 Test Date 12/27/04

LUMINAIRE DATA

Luminaire	ST814-232G-FSA12-E-PAF ST8 Lensed Troffer 1 x 4 2-Lamp with A12 Prismatic Acrylic Lens
Ballast	REL-2P32-SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Total Input Watts	59
Mounting	Recessed
Reflectance	PCW 95.2
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.23 90° = 1.16

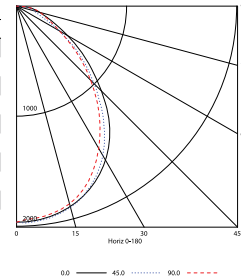
AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	6843	6843	6843	6843	6843
30	6504	6472	6311	6094	6009
40	5896	5782	5446	5222	5191
45	5381	5263	4918	4716	4696
50	4840	4667	4417	4194	4189
55	4324	3977	3813	3588	3618
60	3732	3300	3083	3027	3139
65	3243	2814	2459	2732	2864
70	2968	2580	2101	2682	2794
75	2924	2601	2224	2763	3032
80	3194	2732	2651	3033	3374
85	3402	3082	2801	3562	3642

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	82	79	76	73	80	77	75	72	74	72	70	64	
2	76	70	65	61	74	69	64	61	66	62	59	55	
3	70	62	57	52	68	61	56	52	59	55	51	48	
4	64	56	50	45	63	55	49	45	53	48	44	42	
5	59	50	44	40	58	50	44	39	48	43	39	37	
6	55	46	40	35	54	45	39	35	44	39	35	33	
7	51	42	36	31	50	41	35	31	40	35	31	29	
8	48	38	32	28	47	38	32	28	37	32	28	26	
9	45	35	30	26	44	35	29	26	34	29	25	24	
10	42	33	27	23	41	32	27	23	32	27	23	22	

INDOOR CANDELA PLOT



RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	74.9%
Luminaire Efficacy Rating (LER)	65
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.69 based on 3000 hrs. and \$0.08 per KWH

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1497	25.8	34.5
0-40	2368	40.8	54.5
0-60	3715	64.0	85.5
0-90	4346	74.9	100.0
0-180	4346	74.9	100.0

LUMINAIRE DATA

Luminaire	ST814-332G-FSA12-E ST8 Lensed Troffer 1' x 4' 3-Lamp with A12 Pattern Acrylic Prism Lens
Ballast	REL3P32SC
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Total Input Watts	85
Shielding Angle	N/A
Spacing Criterion	0° = 1.25 90° = 1.28

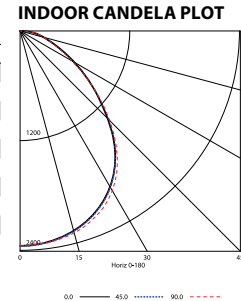
AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	8240	8240	8240	8240	8240
30	7964	7984	7992	8154	8166
40	7333	7333	7333	7465	7484
45	6729	6749	6764	6858	6888
50	6071	6093	6104	6115	6164
55	5434	5428	5422	5288	5355
60	4797	4741	4712	4488	4579
65	4215	4115	4082	3883	3991
70	3783	3691	3660	3578	3650
75	3604	3549	3549	3658	3658
80	3857	3736	3736	3998	3998
85	4104	3983	4104	4586	4425

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	72	69	66	64	70	67	65	63	65	63	61	56	
2	66	61	57	53	64	60	56	53	57	54	51	48	
3	60	54	49	45	59	53	48	45	51	47	44	41	
4	56	48	43	39	54	47	42	38	46	41	38	36	
5	51	43	38	34	50	43	37	34	41	37	33	31	
6	48	39	34	30	46	39	33	30	38	33	29	28	
7	44	36	30	26	43	35	30	26	34	30	26	25	
8	41	33	27	24	40	32	27	24	32	27	24	22	
9	39	30	25	22	38	30	25	21	29	25	21	20	
10	36	28	23	20	36	28	23	20	27	23	19	18	

Test 13385 Test Date 4/14/03



RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

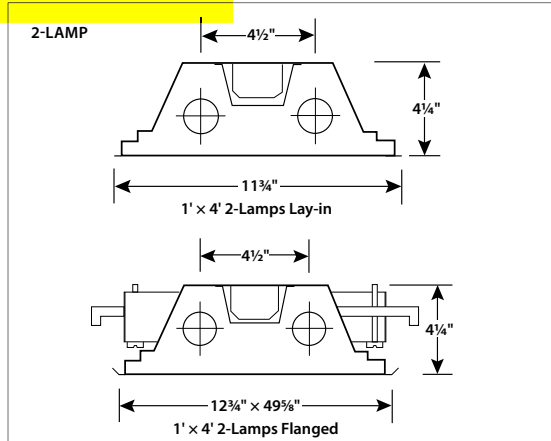
ENERGY DATA

Total Luminaire Efficiency	65.6%
Luminaire Efficacy Rating (LER)	59
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$4.07 based on 3000 hrs. and \$0.08 per KWH

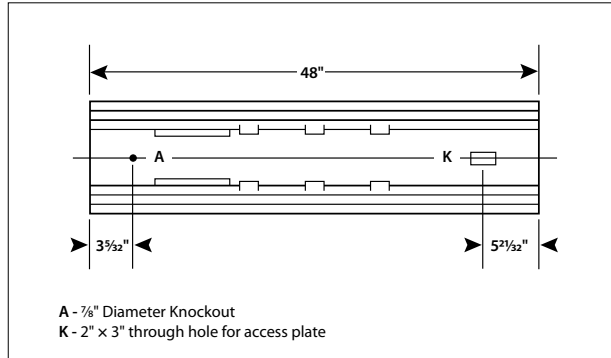
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1838	21.1	32.2
0-40	2974	34.2	52.1
0-60	4821	55.4	84.5
0-90	5706	65.6	100.0
0-180	5706	65.6	100.0

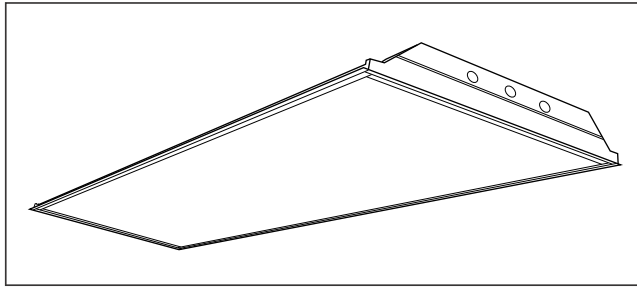
DIMENSIONAL DATA



Flanged cut out dimensions for single unit only: 12" x 48 1/8"



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

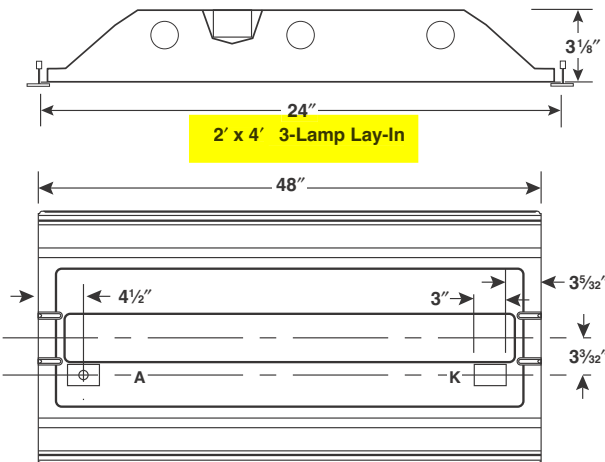


JT824-3
T8 GRID TROFFER
2' x 4', 3 T8 Lamps

Model: _____

Job Description: _____

Cross Section



A - 7/8" Diameter Knockout
K - 2" x 3" through hole for access plate.
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

Features

- T8 optimized fluorescent lensed troffer.
- Shallow design frees up plenum space.
- Hemmed fixture edges reduce risk of injury during fixture handling and installation.
- Integral T-bar clips quickly secure fixture to the grid.
- Metal to metal light leak protection on all four sides of shielding frame.
- Snap-in ballast cover requires no tools for wireway access.
- T-thinging for easy insertion and removal of shielding frame from either side of the housing.
- Flush steel shielding frame is equipped with simple-to-use corner tabbing for diffuser replacement.
- Housing embossments provide extra strength and rigidity.

Housing

Heavy gauge steel. Die formed for extra rigidity. Designed for installation in standard inverted tee grid ceilings.

Ballasts

Energy efficient, T8 electronic, thermally protected, automatic resetting, Class P, high power factor, CBM, sound rated A, unless otherwise specified. Generic ballasts may be supplied by a wide variety of reputable vendors. For a specific vendor and/or ballast, specify as option.

Finish

All metal parts are processed with a 5 phase phosphate bonding treatment. Grid units are pre-painted with high gloss baked white enamel, 86% reflective. Polyester powder coat paint after fabrication (PAF) option available, reflectance 90%.

Shielding

100% virgin acrylic prismatic A12, extruded and roll-embossed, **diagonally oriented female prisms standard**. Other shielding may be specified. If desired shielding media is not shown, contact your local Columbia Lighting representative.

Labels

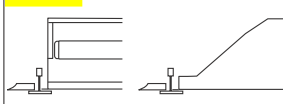
All fixtures carry the UL label. CSA label available as option.

Ceiling Compatibility

Available to fit most standard ceiling types as shown at left. For information on compatibility with specific ceilings, contact your local Columbia Lighting representative.

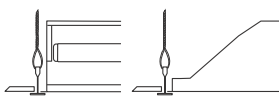
Ceiling Compatibility

Type G



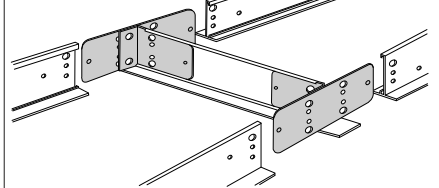
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

FK24 Flange Kit



For hard ceiling applications order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.

FKCR



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

Row cut out dimensions using FK24s & FKCR adapters:
Width 24 3/8", Length [48"x(# in row)]+3/8". Example: (48"x2)+3/8"=96 3/8"

Flange kit cut out dimension for single unit only: 24 3/8" x 48 3/8"

Complete ordering information on back. Dimensions and specifications subject to change without notice.

JT824-3 – 2' x 4', 3 T8 lamps

T8 GRID TROFFER



Tel 509 824 7000
PO Box 2787 (99220) 8808 North Sullivan Road Spokane WA 99216

Environmental Laboratories

REPORT # 13120
DATE: 4/25/2

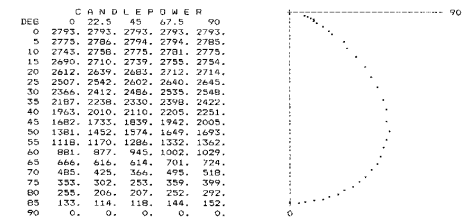
LUMINAIRE: JT824-332G-FSA12-3EB8-PAF

2'x4' 3-LAMP WITH A-12 PATTERN ACRYLIC PRISMATIC LENS
BALLAST: B3321120V-HH-LAMPS: F3216; BAL. FAC.: .88; WATTS: 84
LAMPS RATED AT 2500 LUMENS EACH
LUMINOUS AREA: 46 X 21.9

REFLECTANCE: .92 MOUNTING: RECESSED

S/PH: PARL 1.26 NORM 1.35

PLOT OF NORMAL PLANE SHIELDING: PARL 90 NORM 90



ZONAL SUMMARY

ZONE	LUMENS	LAMP	FIXT
0-30	2230	25.6	30.3
0-40	3674	42.2	49.9
0-60	6210	71.4	84.3
0-90	7363	84.6	100.0
90-180	0	0.0	0.0
0-180	7363	84.6	100.0

This photometric test was performed using a specific ballast / lamp combination. Extrapolation of these data for other ballast / lamp combinations may produce erroneous results. The ballast factor must be applied to the lumen output rating assigned to the lamp(s) or to the candlepower values shown. Luminaire efficacy rating (LER) per NEMA LE5-1995.

LER = FL-77 TESTED BY: [Signature] APPROVED BY: [Signature]

TEST RUN IN ACCORDANCE TO CURRENT I.E.S. PUBLISHED PROCEDURES

JT824-332G-FSA12-3EB8-PAF

Report No: 13120 Efficiency: 84.6 S/PH: Parl 1.26 Norm 1.35

Coefficients of Utilization

RC	80				70				50				0
	70	50	30	10	70	50	30	10	50	30	10	0	
1	93	90	86	84	91	88	85	82	84	82	80	74	
2	86	80	75	70	84	78	74	70	75	71	68	64	
3	79	71	65	60	77	70	64	60	68	63	59	55	
4	73	64	57	52	71	63	56	52	61	55	51	48	
5	67	57	50	44	65	56	49	44	54	48	44	41	
6	62	51	44	39	60	50	44	39	49	43	38	36	
7	57	46	39	34	56	45	39	34	44	38	34	31	
8	52	41	34	29	51	41	34	29	40	33	29	27	
9	48	37	30	25	47	37	30	25	36	29	25	23	
10	45	34	27	22	44	33	27	22	32	26	22	21	

Zonal Summary

Zone	Lumens	Lamp	Fixt.
0-30	2230	25.6	30.3
0-40	3674	42.2	49.9
0-60	6210	71.4	84.3
0-90	7363	84.6	100.0
90-180	0	0.0	0.0
0-180	7363	84.6	100.0

Energy Data

LER: FL-77 Energy Cost: \$3.12*
Input Watts: 84 BF: .88

The above energy calculations were conducted using a specific lamp/ ballast combination. Actual results may vary depending upon the lamp and ballast used. Lamp and ballast specifications are subject to change without notice.

*Comparative annual lighting energy cost per 1000 lumens based on 3000 hours and \$0.08 per KWH.

Ordering Information

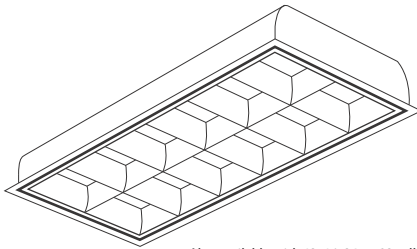
Example: JT824-332G-FSA12-3EU-F0735-C388-GLR

JT8	24	-	3	32	G	-	FS	A12.125	-	E	U	-	-
Series										Voltage			Options
										120 - 120V 277 - 277V 347 - 347V U - 120V-277V			SLL - Spring Loaded Latches GMF - Slow Blow Fuse GLR - Fast Blow Fuse C388 - 3/8" Flex with 3 No. 18 Wires C384 - 3/8" Flex with 3 No. 14 Wires C488 - 3/8" Flex with 4 No. 18 Wires C424 - 1/2" Flex with 4 No. 14 Wires F0730 - T8, 70CRI, 3000K Lamps, Furn/Inst. F0735 - T8, 70CRI, 3500K Lamps, Furn/Inst. F0741 - T8, 70CRI, 4100K Lamps, Furn/Inst. CSA - UL listed or CSA certified for Canada EL - Emergency Battery Pack MS9 - Master/Satellite Pair with 9' Harness DL - Damp Label FK24 - 2'x4' Flange Kit PAF - Paint After Fabrication For a complete set of options, see options and accessories section.
Fixture Size	24 - 2' x 4'												
No. of Lamps	3 - Three												
Lamp Type	32 - 32 Watt, T8								Ballast				
Ceiling Type	G - Inverted T-bar								E - Electronic T8, Instant Start 3E - 3-Lamp Electronic T8, Instant Start 24E - (1) 2-Lamp & (1) 4-Lamp Electronic T8, Instant Start (For use with MS9) For a specific ballast vendor, show as option.				
Door Style	FS - White Flush Steel (Standard) PS - Premium Steel FA - White Flush Aluminum For additional door styles contact your local Columbia Lighting representative.								Shielding				
									A12 - Pattern 12 Acrylic .100" Nominal (Standard) A12.125 - Pattern 12 Acrylic .125" Nominal A12.125M - Pattern 12 Acrylic .125" Minimum A19 - Pattern 19 Acrylic .156" Male Prism IMA - .150 Injection Molded Acrylic .156" Male Prism PC1 - Silver Parabolic Louver 1/2" x 1/2" x 1/2" For more shielding see options and accessories section.				

Columbia LIGHTING

P4D24

2' x 4' DuraLouver® Parabolic / 2, 3, or 4-Lamp T5, T5HO, T8



Also available with 12, 16, 24, or 32 cells

FEATURES

- Nominal 3" deep louver
- Black reveal with full air handling capabilities
- Matte anodized low iridescent, semi-specular (MA) louver finish virtually eliminates visibility of fingerprints and construction dust
- Shallow housing height
- Lightweight

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Luminaire housing and end caps are die formed code gauge cold rolled steel. Louver is formed from DuraLouver® anodized aluminum and secured in open or closed position by die formed steel hinges. Louver hinges from either side. Mechanical light trap prevents light leaks. Latches are finger-tip actuated, positive feed type, fabricated of spring steel, and completely concealed in the black reveal.

INSTALLATION

An access plate is furnished with each luminaire for fast wiring access from the plenum. No need to open fixture. Product ships standard with mylar dust cover to eliminate job site contamination.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

CEILING COMPATIBILITY

Luminaire is available to fit exposed grid ceilings. For hard ceilings order accessory flange kit. Some options may increase fixture depth. For information on compatibility with specific ceilings, or where plenum depth is a problem, contact your Columbia representative. Four integral T-bar clips are standard. Two or four non-integral T-bar clips are available as an option.

FINISH

Parts are treated with a five stage phosphate bonding process and finished with a high temperature baked white enamel. For post painted housing, suffix catalog number with PAF. Regressed slots are flat black. Anodized aluminum DuraLouver standard finish is matte anodized low iridescent (MA). Also available in low-iridescent semi-specular natural anodized aluminum (LD) or low-iridescent specular aluminum (LS).

AIR HANDLING

All supply/return and air extract functions are available as a specified option. Directional control vanes and/or extract damper features available. Air extract slots are located out of sight in end caps. See air removal data on reverse.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. **Damp location labeling is standard.** Emergency-equipped fixtures labeled UL 924.

FIXTURE TO BE MA - MATTE ANODIZED

CATALOG#REFERENCE MA SEMI SPECULAR DESCRIPTION CALLS FOR LOW IRRIDESCENT PLEASE CLARIFY BEFORE RELEASE

ORDERING INFORMATION

EXAMPLE P4D24-232G-MA26-S-EU

MODEL	NO. OF LAMPS	CEILING TYPE	NO. CELLS CROSSWISE	NO. CELLS LENGTHWISE	BALLAST	OPTIONS
P4D DuraLouver Parabolic	24 2 Two 3 Three 4 Four	G Inverted T-bar <small>For hard ceilings use flange kit; see accessories.</small>	3 2 Two 3 Three 4 Four	8 6 Six 8 Eight	E Electronic T8, Instant Start 4E 4-Lamp Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start <small>For a specific ballast vendor show as option.</small>	GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack F0735 35K 75 CRI T8 Lamps Installed F0835 35K 80 CRI T8 Lamps Installed F5835 35K 80 CRI T5 Lamps Installed C388 3-Wire Flex C488 4-Wire Flex TB Two Bulk T-bar Clips TB4 Four Bulk T-bar Clips MS9 Master/Satellite w/9' Harness PAF Paint After Fabrication
SIZE	LAMP TYPE	LOUVER FINISH	AIR FUNCTIONS	VOLTAGE		ACCESSORIES
24 2' x 4'	28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt	MA Matte Anodized Low Iridescent Semi-Specular Aluminum (std.) LS Low Iridescent Specular Aluminum	S Static A Air Handling ¹ AV Air Handling w/Supply Vanes ¹ C Combination Supply/Extract ² CV Combination Supply Vanes/Extract ² CD Combination Supply Extract Dampers ² CVD Combination Supply Vanes Extract Dampers ² H Heat Extract ² HD Heat Extract w/Dampers ²	U 120V-277V 347 347V	FK24 2' x 4' Single Flange Kit FKCR Flange Kit Row Adapter Brackets	

PW=LESS CARTONS, STRETCHED-WRAPPED TO WIDE PALLET

¹ Fixtures supplied with integral T-bar clips.

² Fixtures supplied with two non-integral, screw-type T-bar clips.

Columbia LIGHTING

P4D24

2' x 4' DuraLouver® Parabolic / 2, 3, or 4-Lamp T5, T5HO, T8

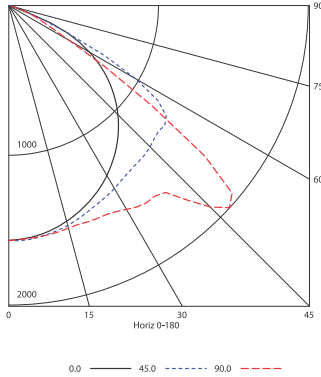
PHOTOMETRIC DATA

Test 12449 Test Date 4/29/03

LUMINAIRE DATA

Luminaire	P4D24-232-LD26-E-PAF P4D Parabolic 2' x 4' 2-Lamp with 2 x 6 Cell Semi-Specular Louver
Ballast	B2321120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	57
Shielding Angle	N/A
Spacing Criterion	Along = 1.26 Across = 1.58

INDOOR CANDELA PLOT



ENERGY DATA

Total Luminaire Efficiency	80.1%
Luminaire Efficacy Rating (LER)	72
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.33 based on 3000 hrs. and \$0.08 per KWH

AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	2587	2587	2587	2587	2587
30	2495	2535	2688	2882	2993
40	2444	2530	2916	3297	3508
45	2405	2552	3112	3861	4435
50	2341	2577	3352	4560	4997
55	2240	2611	3690	3894	3368
60	2049	2580	3240	1943	1551
65	1694	2186	1710	964	941
70	641	1013	704	603	579
75	198	249	274	261	223
80	124	143	133	114	105
85	76	95	114	76	76

ZONAL LUMEN SUMMARY

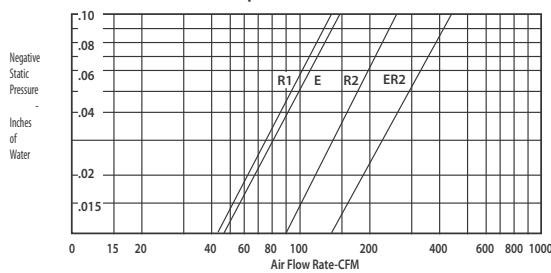
Zone	Lumens	Lamp	Fixt.
0-30	1251	21.6	26.9
0-40	2126	36.6	45.7
0-60	4177	72.0	89.9
0-90	4647	80.1	100.0
0-180	4647	80.1	100.0

COEFFICIENTS OF UTILIZATION (%)

RCR	80			70			50			0	
	RW	70	50	30	10	70	50	30	10	0	
1	88	85	82	80	86	83	81	78	80	76	70
2	81	75	70	66	79	74	69	65	71	67	64
3	74	66	60	55	72	65	60	55	63	58	54
4	68	59	52	47	66	58	52	47	56	50	46
5	62	52	45	40	61	52	45	40	50	44	40
6	57	47	40	35	56	46	40	35	45	39	35
7	53	42	36	31	52	42	35	31	41	35	30
8	49	39	32	27	48	38	32	27	37	31	27
9	46	35	29	24	45	35	28	24	34	28	24
10	43	32	26	22	42	32	26	22	31	26	22

EXTRACT AIR DATA

Report AL-534-1.1



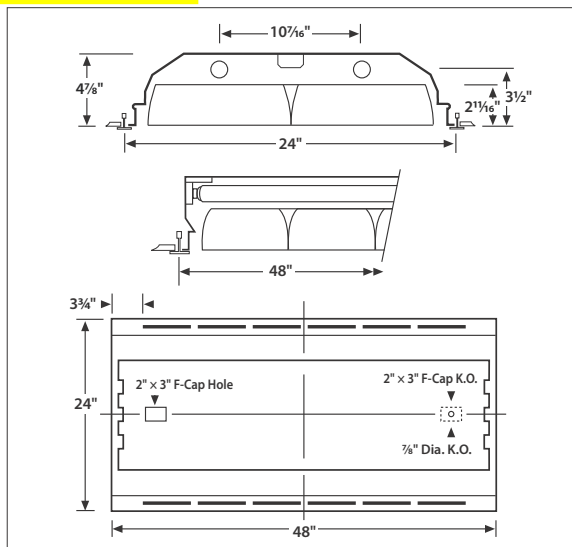
R1 - Air Return thru One Side Passage
R2 - Air Return thru Two Side Passages

E - Heat Extract thru Lamp Compartment
ER2 - Thru Both Sides and Lamp Compartment

RCR = Room Cavity Ratio

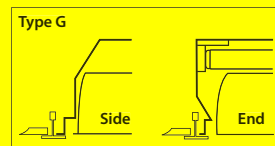
RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

DIMENSIONAL DATA



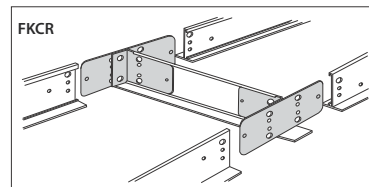
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

CEILING COMPATIBILITY



For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

For hard ceiling applications order FK24 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.



For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK24 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK24 & (1) FKCR)

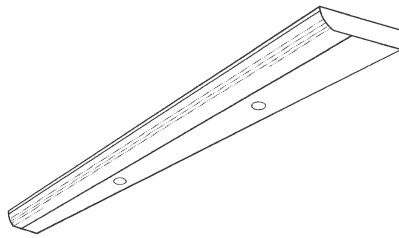
Row cut out dimensions using FK24s & FKCR adapters:
Width 24 3/8", Length [48" x (# in row)] + 3/8". Example: (48" x 2) + 3/8" = 96 3/8"

Flange kit rough in dimensions for single unit only: 24 3/8" x 48 3/8"

Columbia
LIGHTING

UC

Undercabinet / 1T8 or T12 Lamp



FEATURES

- Baked white enamel finish, painted after fabrication
- Standard T8 fluorescent design
- Diffuser easily removable for lamp access and cleaning
- Heavy gauge steel housing
- Optional grounded convenience outlet

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

FINISH

Painted parts are treated with a five stage phosphate bonding process and finished with a high reflectance baked white enamel.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

ORDERING INFORMATION

EXAMPLE UC18-115-LU-GCO

UC	24	-	1	-	17	-	EP	-	120	-	WSW
MODEL	SIZE	NO. OF LAMPS	LAMP TYPE	BALLAST	VOLTAGE	OPTIONS					
UC UC	18 18" long 24 24" long 36 36" long 48 48" long	1 One	15 18", T12: 15 Watt 17 24", T8: 17 Watt 20 24", T12: 20 Watt 25 36", T8: 25 Watt 30 36", T12: 30 Watt 32 48", T8: 32 Watt	Blank HPF, Non-energy Saving L Low Power Factor E Electronic T8, Instant Start	U 120V/277V	F0735 35K, 75CRI, T8 Lamps Installed WSW On-Off Rocker Switch (120V only) GCO Grounded Convenience Outlet (120V only) GLR Fast Blow Fuse	EP= ELECTRONIC T8 PROGRAMMED START				

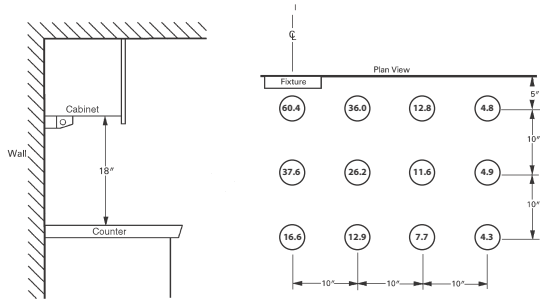
Fixtures without switches or grounded convenience outlets have knockouts for both for field installation.

Columbia
LIGHTING

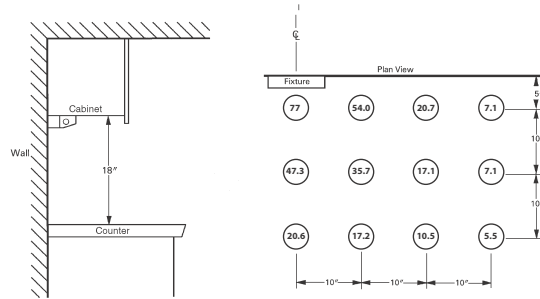
UC
Undercabinet / 1T8 or T12 Lamp

PHOTOMETRIC DATA

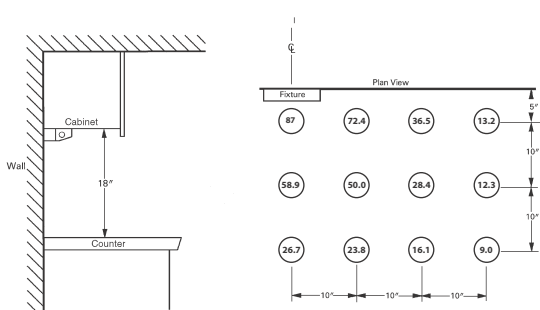
18" 15 Watt T-12 Lamp



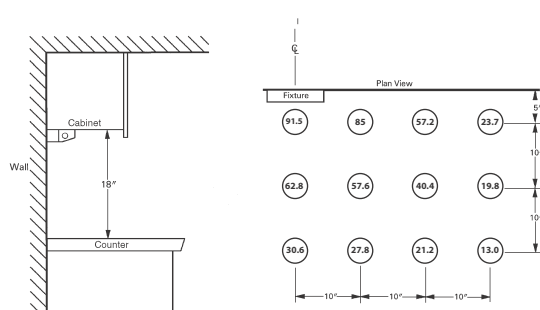
24" 17 Watt T8 Lamp



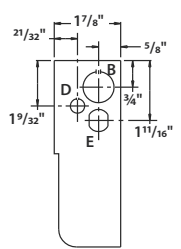
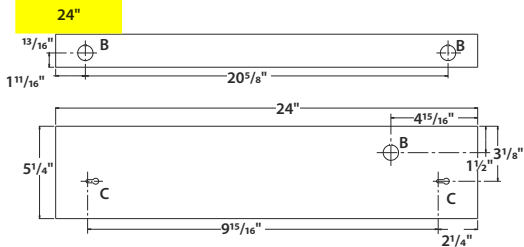
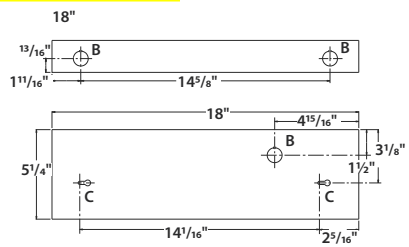
36" 25 Watt T8 Lamp



48" 32 Watt T8 Lamp

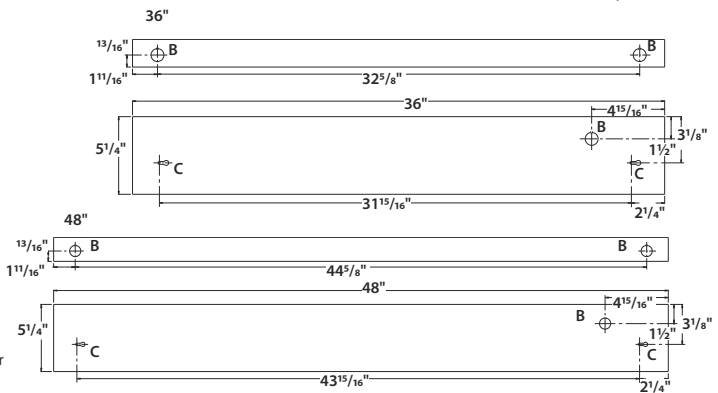


DIMENSIONAL DATA



- B: 7/8" Diameter knockout
- C: Keyhole for #8 screw
- D: 1 3/32" Diameter knockout
- E: 1/2" Double D knockout

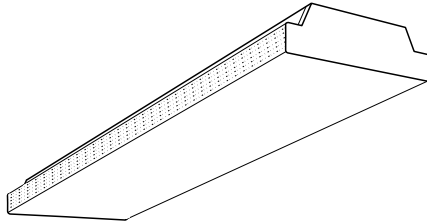
NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.



Columbia
LIGHTING

AWW

14 5/8" Wide Low Profile Wraparound / 2, 3, or 4-Lamp T5, T5HO, T8



FEATURES

- Wide body two lamp design produces lower surface brightness and improved VCP
- Clear acrylic prismatic diffuser, flat bottom with vertical sides
- Two, three, or four-lamp cross sections
- Hinges from either side
- White steel end plates with flush knockouts for continuous row mounting
- Heavy gauge steel housing die embossed for maximum rigidity
- Heat sink embossments and levelling projections allow direct mounting of HPF fixtures on combustible low density cellulose fiberboard ceilings
- All metal parts are treated with a five stage phosphate bonding process and finished with a baked white enamel

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

FINISH

All parts pre-painted with high gloss baked white enamel, minimum reflectance 86%, applied over iron phosphate pre-treatment for maximum adhesion and rust resistance.

SHIELDING

100% clear prismatic acrylic.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE AWW4-332-3EU

AWW	4	-	3	32	-	E	U	
MODEL	LENGTH		NO. OF LAMPS IN CROSS SECTION	LAMP TYPE		BALLAST	VOLTAGE	OPTIONS
AWW 14 5/8" Wide Low Profile Wraparound	4 4' 8 8'		2 Two 3 Three 4 Four	28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt		E Electronic T8, Instant Start 3E 3-Lamp Electronic T8, Instant Start 4E 4-Lamp Electronic T8, Instant Start 24E (1) 2-Lamp & (1) 4-Lamp Electronic T8, Instant Start EP Electronic T5 or T8, Programmed Start 3EP 3-Lamp Electronic T5HO or T8, Programmed Start 4EP 4-Lamp Electronic T5HO or T8, Programmed Start 24EP (1) 2-Lamp & (1) 4-Lamp Electronic T8, Programmed Start	U 120V-277V 347 347V	GLR Fast Blow Fuse EL Emergency Battery Pack PAF Paint After Fabrication NYC NYC Compliant NYCU NYC Compliant, Union Labeled
								ACCESSORIES (ORDER SEPARATELY) S18 18" Stem, Canopy SS18 18" Swivel Stem - 45° Swivel

For a specific ballast vendor, show as option.



Columbia LIGHTING

AWW

14 1/2" Wide Low Profile Wraparound / 2, 3, or 4-Lamp T5, T5HO, T8

PHOTOMETRIC DATA

AVG. LUMINANCE (Candela/Sq. M.)

Test 3463 Test Date 10/4/10

LUMINAIRE DATA

Luminaire	AWW4-232-EU AWW Wraps 15" x 48" 2-Lamp with wrap-around prismatic acrylic lens
Ballast	B2321UNV-HP-B
Ballast Factor	0.88
Lamp	F28T8
Lumens per Lamp	2725
Watts	57
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.25 90° = 1.36
Luminous Opening in Feet	Length: 4.00 Width: 1.19 Height: 0.13

	0.0	22.5	45.0	67.5	90.0
Average Luminance Angle	0	3460	3460	3460	3460
	30	3317	3327	3391	3451
	40	3118	3166	3278	3356
	45	2772	2912	3043	3148
	50	2242	2460	2684	2740
	55	1921	2063	2297	2331
	60	1666	1802	1877	2079
	65	1356	1627	1572	1967
	70	1050	1452	1498	1941
	75	904	1330	1513	2063
	80	913	1249	1602	2394
	85	814	1211	1983	3085

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1225	22.5	26.3
0-40	2031	37.3	43.5
0-60	3391	62.2	72.7
0-90	4229	77.6	90.6
90-120	342	6.3	7.3
90-130	385	7.1	8.2
90-150	426	7.8	9.1
90-180	437	8.0	9.4
0-180	4666	85.6	100.0

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50			
	RW	70	50	30	10	70	50	30	10	50	30	10
1	91	87	83	80	88	84	81	78	79	76	74	64
2	83	76	70	65	80	74	68	64	69	65	61	54
3	76	67	60	55	73	65	59	54	61	56	52	46
4	70	60	52	47	67	58	51	46	55	49	45	40
5	64	54	46	41	62	52	45	40	49	43	39	35
6	59	48	41	36	57	47	40	35	45	39	34	30
7	55	44	37	31	53	43	36	31	41	35	30	27
8	51	40	33	28	50	39	32	28	37	31	27	24
9	48	37	30	25	46	36	29	25	34	29	24	22
10	45	34	27	23	43	33	27	23	32	26	22	20

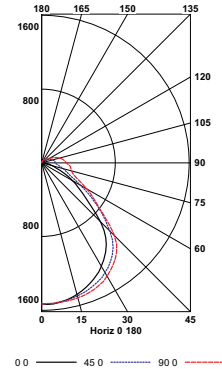
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	85.6%
Luminaire Efficacy Rating (LER)	72
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.33 based on 3000 hrs. and \$0.08 per KWH

INDOOR CANDELA PLOT



LUMINAIRE DATA

Luminaire	AWW4-332-3E-PAF AWN/AWW Wraparound 15" x 48" 3-Lamp with Wraparound Plastic Acrylic Prisms Lens
Ballast	B332120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	82
Shielding Angle	N/A

AVG. LUMINANCE (Candela/Sq. M.)

Test 12165 Test Date 1/8/03

	0.0	22.5	45.0	67.5	90.0
Average Luminance Angle	0	5391	5391	5391	5391
	30	5190	5172	5228	5254
	40	5007	4990	5003	4959
	45	4755	4697	4563	4398
	50	4124	4067	3855	3384
	55	2888	3434	3159	2691
	60	2327	2714	2429	2406
	65	2202	2093	2059	2184
	70	1914	1787	1910	2199
	75	1754	1628	1952	2563
	80	1679	1728	2179	3106
	85	1538	1869	2828	4018

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1915	22.0	28.3
0-40	3162	36.3	46.7
0-60	5154	59.2	76.2
0-90	6246	71.8	92.3
90-120	382	4.4	5.6
90-130	432	5.0	6.4
90-150	496	5.7	7.3
90-180	519	6.0	7.7
0-180	6765	77.8	100.0

COEFFICIENTS OF UTILIZATION (%)

RC	80				70				50			
	RW	70	50	30	10	70	50	30	10	50	30	10
1	83	79	76	73	80	77	74	71	73	70	68	60
2	76	70	65	61	74	68	63	59	64	60	57	51
3	70	62	56	51	67	60	55	50	57	53	49	44
4	64	55	49	44	62	54	48	43	51	46	42	38
5	59	50	43	38	57	49	42	38	46	41	37	33
6	55	45	38	34	53	44	38	33	42	37	32	29
7	51	41	34	30	49	40	34	30	38	33	29	26
8	48	37	31	27	46	37	31	26	35	30	26	23
9	44	34	28	24	43	34	28	24	32	27	23	21
10	42	32	26	22	40	31	25	22	30	25	21	19

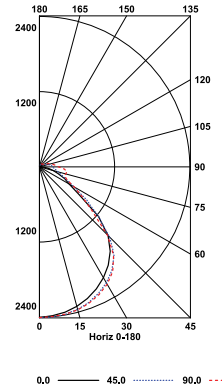
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

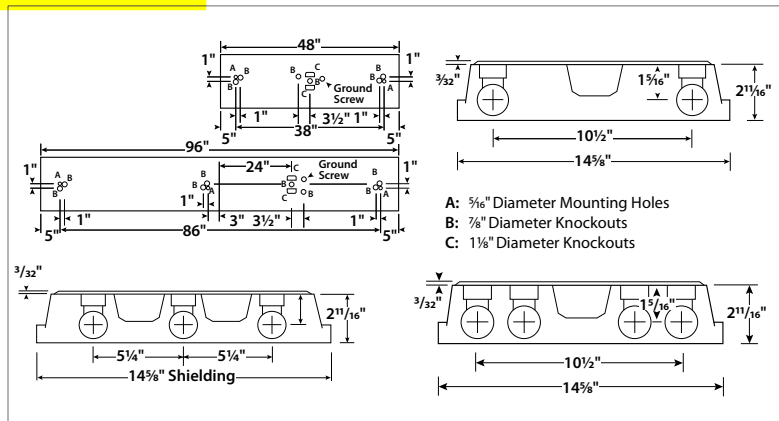
ENERGY DATA

Total Luminaire Efficiency	77.8%
Luminaire Efficacy Rating (LER)	73
ANSI/IESNA RP-1-1993 Compliance	Noncompliant
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.29 based on 3000 hrs. and \$0.08 per KWH

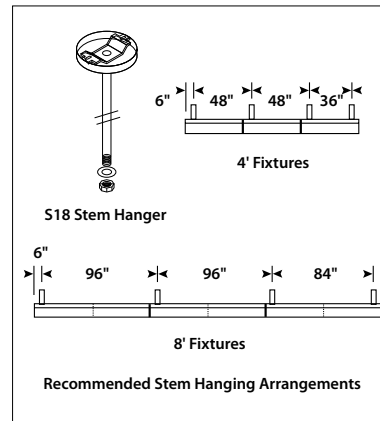
INDOOR CANDELA PLOT



DIMENSIONAL DATA



STEM MOUNTING

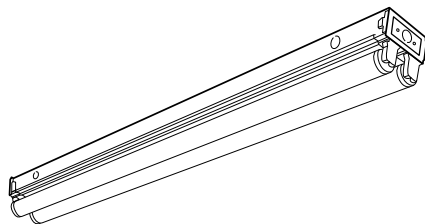


NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

Columbia
LIGHTING

CS BI-PIN 2L

2', 3', 4', 6', 8' Straight-Sided Utility Channel / 1 or 2-Lamp T8 or T5



FEATURES

- Available 2', 3', 4' or 8'
- Heavy die formed steel channel
- Rotary lock lampholders for positive lamp contact
- Channel ends double as joiners
- Individual or row mounting. Surface or suspended
- Ballast covers on 4' and 8' units are secured with ¼-turn fasteners

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Steel housing die formed with heat sink embossments for cooler running ballasts. Socket saddles are factory installed.

FINISH

White painted parts are treated with a five stage phosphate bonding process and finished with a high reflectance baked enamel.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, unless otherwise specified. CEE NEMA Premium compliant.

ELECTRICAL

Standard class "P," thermally protected, auto-resetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and CUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924.

ORDERING INFORMATION

EXAMPLE CS4-232-EU-GLR

MODEL	SIZE	NO. OF LAMPS IN CROSS SECTION	LAMP TYPE	BALLAST	VOLTAGE	OPTIONS
CS Straight-Sided Utility Channel	2 2' 3 3' 4 4' 6 6' (Tandem length) 8 8' (Tandem length)	1 One 2 Two	14 2', T5: 14 Watt 17 2', T8: 17 Watt 21 3', T5: 21 Watt 24 2', T5: 24 Watt 25 3', T8: 25 Watt 28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt 39 3', TSHO: 39 Watt 54 4', T5: 54 Watt	E Electronic T8, Instant Start 4E 4-Lamp Electronic T8, Instant Start EP Electronic T5, Programmed Start (std. T5/TSHO, optional T8) <small>For a specific ballast vendor, show as option.</small>	U 120V-277V 347 347V	GLR Fast Blow Fuse GMF Slow Blow Fuse EL Emergency Battery Pack (Not in 2') BC Branch Circuit Plug-on Wiring System. See options section for details. PAF Paint After Fabrication NYC NYC Compliant NYCU NYC Compliant, Union Label

ACCESSORIES (ORDER SEPARATELY)

- ITB4 Hanger for Close Mounting on a T-Bar Ceiling
- CSZT Zip Tee Hanger - 1½" Spacer on T-Bar Ceiling
- CSTH Slide Tong Hanger with ⅞" Hole
- CSWG4 4' Wire Guard, 2 Required for 8' Fixture
- CSWG3 3' Wire Guard, 2 Required for 6' Fixture
- CSRA4 4' Asymmetric Reflector
- CSR4 4' Symmetric Reflector

For complete list of options and accessories, see options and accessories section.

Columbia LIGHTING

CS BI-PIN 2L

2', 3', 4', 6', 8' Straight-Sided Utility Channel / 1 or 2-Lamp T8 or T5

PHOTOMETRIC DATA

Test LSI11147 Test Date 1/6/06

LUMINAIRE DATA

Luminaire	CS4-232-EB8-PAF CS Striplight 4' Striplight with white painted reflector
Ballast	B232I120RH
Ballast Factor	0.88
Lamp	F32T8
Lumens per Lamp	2900
Watts	62
Mounting	Surface
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.25 90° = 1.61
Luminous Opening in Feet	Length: 3.92 Width: 0.35 Height: 0.08

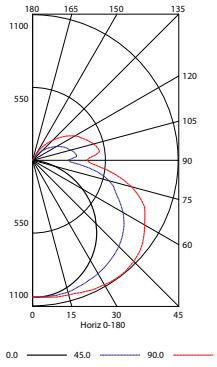
ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	853	14.7	15.3
0-40	1456	25.1	26.2
0-60	2878	49.6	51.7
0-90	4493	77.5	80.8
0-180	5561	95.9	100.0

ENERGY DATA

Total Luminaire Efficiency	95.9%
Luminaire Efficacy Rating (LER)	79
IESNA RP-1-1993 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.04 based on 3000 hrs. and \$0.08 per KWH

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	8104	8104	8104	8104	8104
30	7817	7827	8125	8485	8691
40	7562	7701	8450	9084	9393
45	7361	7692	8689	9430	9762
50	7197	7691	8938	9795	10168
55	6938	7731	9214	10180	10549
60	6593	7871	9487	10534	10993
65	6189	8042	9743	11103	11660
70	5647	8113	10219	11816	12301
75	4732	8073	10939	12193	12645
80	3725	8568	11168	12212	12651
85	1752	8614	10549	11795	12309

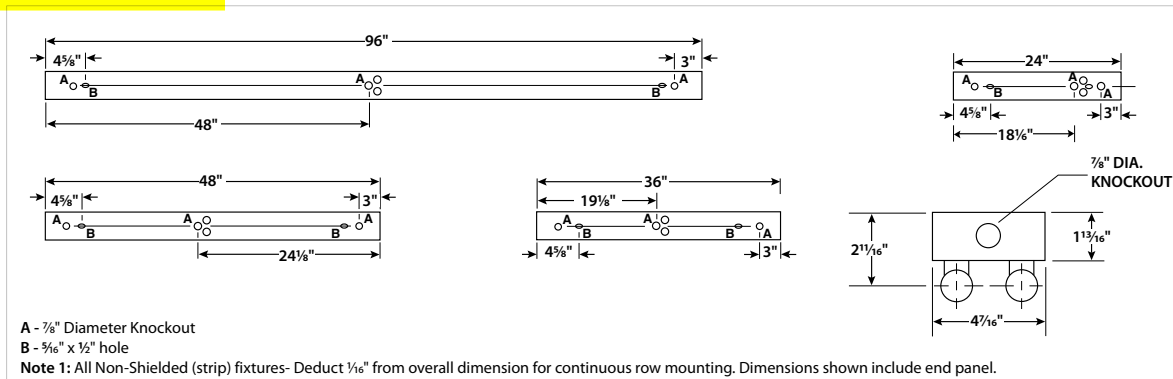
COEFFICIENTS OF UTILIZATION (%)

RCR	RC 80		RC 70		RC 50		RC 0	
	RW 70	50	30	10	70	50	30	10
1	97	92	86	82	93	88	83	79
2	87	78	70	64	83	74	68	62
3	79	67	59	52	74	64	56	50
4	71	59	50	43	68	56	48	41
5	65	52	43	36	62	50	41	35
6	60	46	37	31	57	45	36	30
7	55	42	33	27	53	40	32	26
8	51	38	29	24	49	36	28	23
9	48	35	26	21	45	33	26	20
10	45	32	24	19	43	31	23	18

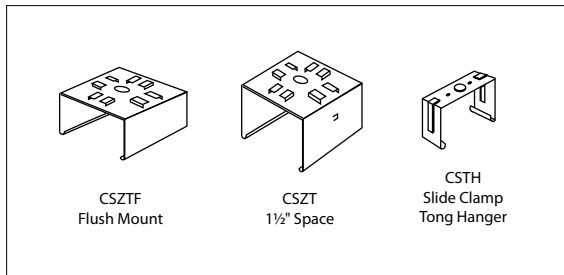
RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

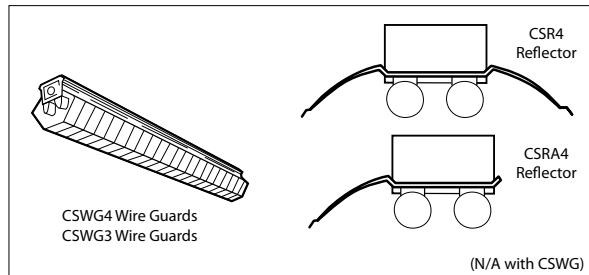
DIMENSIONAL DATA



MOUNTING DATA



ACCESSORIES



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

TYPE _____ MODEL NO. _____
DATE _____ PROJECT NAME _____



Features and Benefits

- Converts any make or model of existing architectural downlight to LED
- Tool-less installation in minutes from below the ceiling
- Excellent color rendering with >80 CRI
- Specification grade construction and optical system provides exceptional light distribution for smooth, even luminance
- Provides up to 90% in energy savings
- 50,000 hour life at L70 significantly reduces maintenance costs
- Thermal management engineered for maximum component life
- EnergyStar® listed
- CSA certified for damp locations
- Made in the USA of US and Imported Parts. ARRA and Buy American compliant
- Patent pending

Specifications

MECHANICAL

Housing: All components are made with galvanized steel. For ease of installation, LRD comes pre-wired with 30" 1/8" BX flexible armored cable with push in connector compatible with 1/2" knockout on existing junction box.

Reflector: Parabolic, polished and anodized 16 gauge aluminum reflectors are precisely engineered for the LED light engine to provide a non-glare, evenly distributed and highly efficient optical system. Reflector seats into housing and is retained by torsion springs to facilitate uniform seating assuring a secure fit. Possible finishes include low iridescent specular, semi-specular and diffused. For available reflector finishes, reflector colors and flange colors see ordering information.

Lens: Optional frosted or transparent.

Accessories: Goof rings (for oversized holes), remodel rings (for ceilings without a rough-in kit), 2x2 and 2x4 ceiling lay-ins. For rough-in kits, consult factory. See separate spec sheets for specifications.

ELECTRICAL

LED Light Engine: The LRD utilizes a high efficacy LED light engine with CRI of >80 and 50,000 hours at L70. For available color temperatures see ordering information.

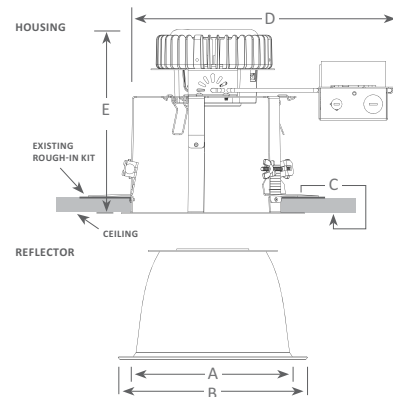
LED Driver: For dimming options and protocols see ordering key on next page. Consult factory for additional specifications.

WARRANTY
5 year limited warranty on luminaire. Pass through warranties on components when used in accordance with manufacturing guidelines.
See www.lumenoptix.com for details.



DIMENSIONS & FIXTURE CONFIGURATIONS

	6"	8"	10"
A Cut-Out Dimension	6.375" - 7.125"	7.88" - 8.50"	9.75" - 10.50"
B Reflector Diameter	7.4"	8.80"	10.80"
C Maximum Ceiling & Rough-In Kit Thickness	1.625"	3.00"	4.25"
D Width of LRD with Swing Arm Extended	10.34"	12.51"-15.50" (3000, 4000 lumens) Consult factory	13.55"-16.55" (3000, 4000 lumens) Consult factory
E Height from bottom	6.58"	8.50"	9.51"



LRD1

SPECIFICATION

LED Retrofit Downlight

6", 8", 10" Diameter



TECHNICAL DATA

LUMEN PACKAGE	1000	2000	3000
NOMINAL WATTAGE	15	28	43
POWER FACTOR	>0.9	>0.9	>0.9
THD	<10%	<10%	<10%
CRI	>80	>80	>80
INPUT FREQUENCY	% Hz	% Hz	% Hz

Product specifications subject to change without notice.
For the most current spec sheet visit our website www.lumenoptix.com

MODEL NUMBER / ORDERING KEY

Product specifications subject to change without notice.
For the most current spec sheet visit our website www.lumenoptix.com

**LED Retrofit
Downlight**

6", 8", 10" Diameter

LRD1
SPECIFICATION

SERIES	SIZE	NOMINAL LUMENS	CRI & COLOR TEMP.	BEAM SPREAD	REFLECTOR FINISH	REFLECTOR COLOR	FLANGE	DIMMING
LRD1 LED Retrofit Downlight	06 6"	10 1000 lumens	8030 3000k	N Narrow (LRD8 & 10 only)	RM Semi-specular (Anodized)	ANODIZED (Blank or CL) Clear	(Blank or FM) Match reflector color	(Blank or DUX) Non dimming (120V-277V)
	08 8"	20 2000 lumens	8035 3500k	M Medium	RD Diffused (Anodized)	CZ Bronze	FB Black	DU1 0-10V dimming (120V-277V)
	10 10"	30 3000 lumens	8040 4000k	W Wide	RS Specular (Anodized)	CB Black	FW White	DUS Lutron® 3-wire dimming (120V-277V)
					RP Painted	CK Gold	<i>For custom colors, consult factory.</i>	DU6 Lutron® EcoSystem dimming (120V-277V)
						CG Graphite		D13 2 wire leading edge dimming (120V)
						CH Warm Haze		<i>*Available in select configurations, consult factory.</i>
						CP Pewter		<i>For other voltages and dimming options, consult factory.</i>
						CT Wheat		
						CS Straw		
						PAINTED CW Painted White		

Contact factory for other anodized and painted colors.

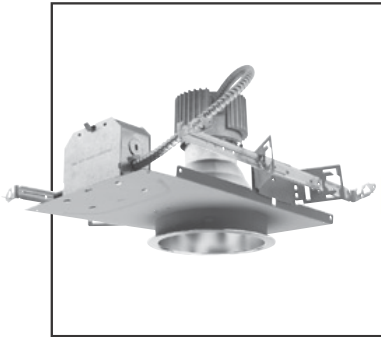
OPTIONS (Pre-installed)		
EMERGENCY LIGHTING	LENS	OTHER
(Blank or EBXX) No emergency battery back-up installed	(Blank or LXX) No lens installed	(Blank or SXX) No option included
EB01 Emergency battery back-up	L01 Frosted lens	S02 Surge protector
	L02 Transparent lens	

ACCESSORIES (Not pre-installed) Order as separate line items			
GOOF RING	LAY-IN KITS	REMODEL RING	STEP DOWN TRANSFORMER
(Blank) No Goof Ring included	(Blank) No Lay-in Kit included	(Blank) No Remodel Ring included	(Blank) No step down transformer included
GR Goof Ring	K1 2x2 Lay-in Kit*	RR Remodel Ring	V2 Step-down transformer (for 347-480V)*
GC Goof Ring, custom color or size*	K2 2x4 Lay-in Kit*		

* Consult Factory

RK= ROUGH IN KIT

Product specifications subject to change without notice.
For detailed information on options and accessories see separate spec sheets for these items.
For the most current spec sheet visit our website www.lumenoptix.com



6" Incandescent Open Downlight **LF6INC**

One 150W A-21*, A-23*,
PAR-38 or 90W A-19 Lamp
120W BR40
85W BR30
75W PAR30L

DATE: _____ TYPE: _____

FIRM NAME: _____

PROJECT: _____

LifeFrame

Ceiling Cutout: 6 1/4"
Maximum Ceiling Thickness: 1 1/4"
For conversion to millimeters,
multiply inches by 25.4
Not to Scale

APPLICATIONS:

The LF6INC provides a 6" incandescent open downlight fixture. This luminaire is ideal for a wide variety of applications including commercial, retail, hospitality, and design build.

HOUSING:

One piece 22-gauge galvanized steel platform. Prewired J-Box with snap-on cover for easy below ceiling access.

REFLECTOR:

High purity aluminum Alzak® iridescence suppressed semi-diffuse reflector. Self-trim standard. Painted, white self trim (WT) available as option. Baffled units standard with painted white self trim.

LAMP:

One (1) 150W A-21*, A-23*, or PAR38; 90W A-19 lamp; 120W BR40; 85W BR30; or 75W PAR30L lamp. Lamp furnished by others.

SOCKET:

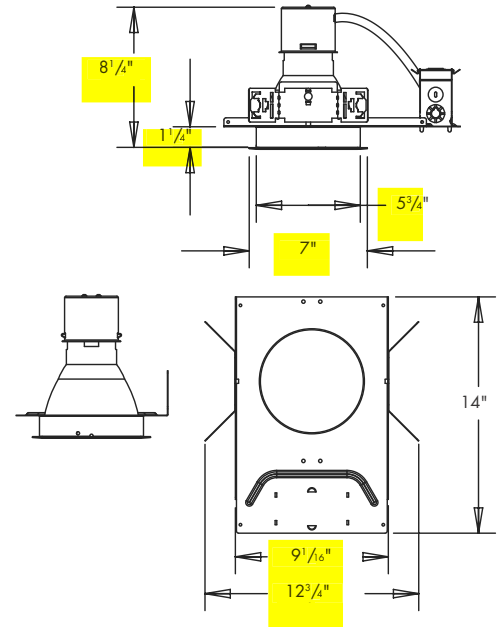
One (1) medium base porcelain socket with nickel plated screw shell. Socket adjusts to two positions to maintain proper lamp position when using A-21 or PAR lamps.

INSTALLATION:

Universal adjustable mounting brackets accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6). Light commercial bar hangers included.

LABELS:

UL, CSA listed for damp locations
Approved for through wiring (4 in, 4 out).
Thermally protected. Non-IC rated.



*100W A21, A23 maximum on BB and WB trims

Order housing, reflector and accessories separately.

CATALOG NUMBER:

EXAMPLE: LF6INC-6V

HOUSING	HOUSING OPTIONS	REFLECTORS	REFLECTOR COLOR	OPTIONS	ACCESSORIES
<input type="checkbox"/> LF6INC	<input type="checkbox"/> CP Chicago Plenum. <input type="checkbox"/> MW60A19 Max Wattage label, 60W <input type="checkbox"/> MW75A19 Max Wattage label, 75W <input type="checkbox"/> MW75A21 Max Wattage label, 75W <input type="checkbox"/> MW100A21 Max Wattage label, 100W <input type="checkbox"/> MW60PAR38 Max Wattage label, 60W <input type="checkbox"/> MW90PAR38 Max Wattage label, 90W <input type="checkbox"/> MW120PAR38 Max Wattage label, 120W	<input type="checkbox"/> 6V	<input type="checkbox"/> Blank Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> PW Pewter Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> BB Black baffle with clear Alzak upper reflector <input type="checkbox"/> WB White baffle with clear Alzak upper reflector	<input type="checkbox"/> TRG Trim ring gasket (factory installed) <input type="checkbox"/> WT White flange	<input type="checkbox"/> B24 Set of two (2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> B6 Set of two (2) bar hangers for ceiling joists up to 24" centers <input type="checkbox"/> FSDF1 Fuse kit for field installation <input type="checkbox"/> SCA6D Sloped ceiling adapter (see note on back page)

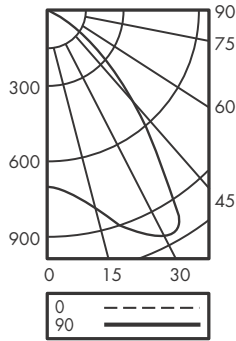
PHOTOMETRIC DATA

LiteFrame® - 6" Recessed Incandescent Open Downlight - LF6INC

LF6INC/6V Specular Clear Alzak® Reflector

Lamp: 1-A21/150W-GE
Spacing Criteria: 1.4
Efficiency: 65.7%

CANDLEPOWER DISTRIBUTION



CANDLEPOWER SUMMARY

Angle	0°
0	711
5	718
10	742
15	791
20	866
25	952
30	1022
35	1012
40	802
45	522
50	289
55	111
60	18
65	4
70	2
75	1
80	1
85	0
90	0

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%			70%			50%			30%			10%				
	20% Effective Floor Cavity Reflectance																
	% Wall Reflectance																
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	.74	.72	.70	.68	.72	.70	.68	.67	.66	.65	.65	.64	.63	.63	.62	.61	
2	.69	.65	.62	.59	.67	.64	.61	.58	.62	.59	.57	.60	.58	.56	.58	.56	.55
3	.64	.59	.55	.52	.63	.58	.54	.51	.56	.53	.51	.55	.52	.50	.53	.51	.49
4	.60	.54	.49	.46	.59	.53	.49	.46	.51	.48	.45	.50	.47	.44	.49	.46	.44
5	.56	.49	.44	.41	.55	.48	.44	.40	.47	.43	.40	.46	.42	.40	.45	.42	.39
6	.52	.45	.40	.36	.51	.44	.40	.36	.43	.39	.36	.42	.38	.36	.41	.38	.35
7	.48	.41	.36	.33	.47	.40	.36	.32	.39	.35	.32	.39	.35	.32	.38	.34	.32
8	.45	.38	.33	.29	.44	.37	.32	.29	.36	.32	.29	.36	.32	.29	.35	.31	.29
9	.42	.35	.30	.27	.41	.34	.30	.26	.33	.29	.26	.33	.29	.26	.32	.29	.26
10	.40	.32	.27	.24	.39	.32	.27	.24	.30	.27	.24	.30	.27	.24	.30	.26	.24

LF6INC/6V

Test No. 533

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	0°
45°	44049
55°	11547
65°	565
75°	231
85°	0

AVERAGE INITIAL FOOTCANDLES

Multiple Units (Square Array)
Ceiling 80% Wall 50% Floor 20%

Assumptions:

- Multiple Units (Square Array)
- Ceiling 80% Wall 50% Floor 20%
- 4 Fixtures evenly spaced in the center of the room.
- The room is square and has a width and length equal to twice the lamp spacing.
- The lumen depreciation factor is 0.8.
- The dirt depreciation factor is 0.98.

150W A-21

SPACING	RCR1	RCR3	RCR7
7.0	33	27	19
8.0	25	20	14
9.0	20	16	11
10.0	16	13	9
11.0	13	11	8
12.0	11	9	6
13.0	9	8	5
14.0	8	7	5
15.0	7	6	4

NOTES

When ordering a sloped ceiling adapter, specify the degree of slope in 5° increments, max. of 35°. For a more precise degree or wet ceiling applications, please contact factory. The SCA must be installed at the time of housing installation.

Refer to www.prescolite.com for additional photometric tests (IES Files).

LAREDO SERIES

LNC

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

The compact Laredo LED LNC is designed for entry/perimeter illumination for safety, security and identity. Typical mounting height is up to 12 feet with 40ft fixture spacing (without acrylic diffuser) and 30ft spacing with acrylic diffuser installed. Photocontrol option is available to provide dusk-to-dawn control for additional energy savings.

Construction:

Decorative die-cast aluminum housing and door. Rugged design protects internal components and provides excellent thermal management for long life – 60,000 hours minimum LED life at L96 rating per IESNA TM-21-11. Powder paint finishes provide lasting appearance in outdoor environments.

Optics/Electrical LED:

Drivers are 120-277V, 50/60Hz 5000K/70 CRI Type III and Type IV lenses provide wide lateral spread. 0-10V dimming 120-277V only.

- LNC5L – 5 LEDs, 12.6w, .11 amp max, 967 lumens, Type III only
- LNC7L – 7 LEDs, 16.4w, .14 amp max, 1389 lumens, Type III or IV
- LNC9L – 9 LEDs, 20.6w, .18 amp max, 1745 lumens, Type III or IV
- Minimum operating temperature is -35°C/-22°F

Lenses:

Full cut-off distribution; Ambient diffuser included, use for applications near entrances or locations where reduced brightness is desired.

Installation:

Quick mount adapter provides quick installation, designed for both recessed box or surface conduit wiring. Fits 4" square junction box.

Listings:

Listed and labeled to UL 1598 for wet locations, 25°C ambient environments.

- IES Progress Award Winner - 2012

Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

PRODUCT IMAGE(S)



LNC-5L



LNC-7L

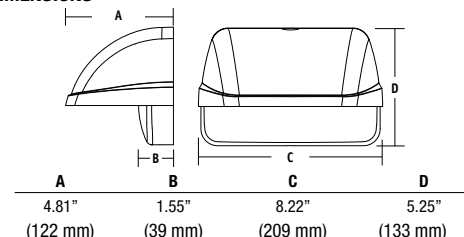


LNC-9L



With diffuser

DIMENSIONS



SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
LNC-5LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2
LNC-7LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2
LNC-9LU	9.6 (4.36)	14.5 (37)	9.6 (24.5)	6.8 (17.5)	2

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION LNC-5L and LNC-7L/9L (Order tree below)

CATALOG NUMBER	WATTAGE	NUMBER OF LEDS	VOLTAGE	LUMENS ¹	LIFE ²	CCT	WEIGHT LBS. (KG)
LNC-5LU-5K	12.6w	5	120-277V	967	60,000hrs	5000k	4.0 (1.8)
LNC-5LU-5K-PC	12.6w	5	120V	967	60,000hrs	5000k	4.0 (1.8)

¹ Acrylic diffuser accessory lumen output is 650 with increased uniformity in the Type III distribution
² Projected per IESNA TM-21-11

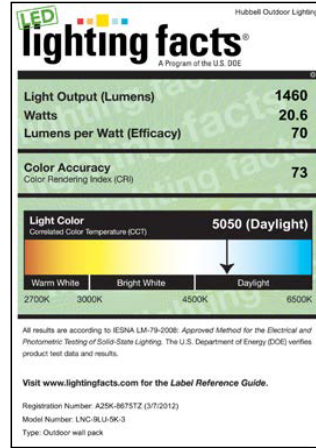
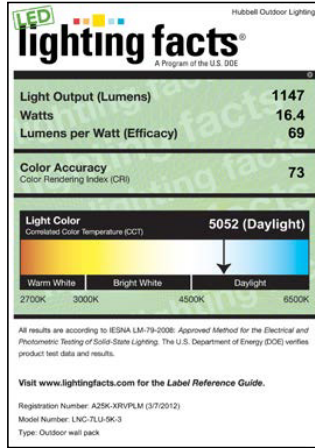
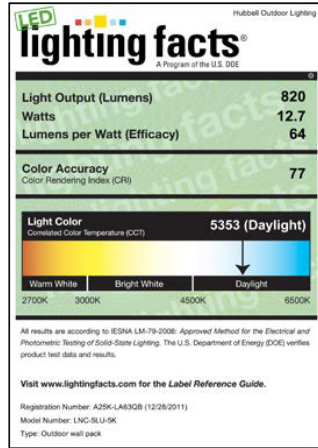
ORDERING EXAMPLE: LNC-9LU-5K-3-1-PC1

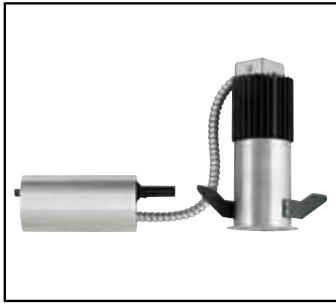
SERIES	NUMBER OF LEDS/SOURCE/VOLTAGE	CCT	IES DISTRIBUTION	FINISH	OPTIONS
LNC Laredo Cut-off	7LU 7 LEDs, Universal voltage 120-277V	3K 3000K nominal, 70 CRI	3 Type III	1 Bronze	PC(X) ¹ Button photocontrol, replace X with voltage, specify 1-120V, 2-208V, 3-240V, 4-277V
	9LU 9 LEDs, Universal voltage 120-277V	4K 4200K nominal, 70 CRI	4 Type IV	2 Black	
		5K 5000K nominal		3 Gray	
				4 White	
				5 Platinum	

¹ When PC is ordered, input must match PC voltage
² Amber LEDs only available on 7LU and 9LU configurations, 350 mA only

AM² Amber (590 nm available for "Turtle Friendly"/observatory applications, 350 mA (consult factory)

LIGHTING FACTS





**2" LED Downlight
Open & Wall Wash
D2LED**
120V or 277V
High Output

APPLICATIONS:
Architektür D2LED Series is a 2" specification grade LED downlight that combines superior brightness control with energy savings and low maintenance costs. Suitable for a variety of commercial, retail, and institutional applications with ambient temperatures up to 35°C (94) or 25° (12L) during operation with free airflow around the fixture.

J-TUBE ASSEMBLY:
Utilizing Prescolite's revolutionary J-Tube design and optimal thermal management, the D2LED eliminates the need for a traditional downlight housing. The J-Tube assembly combines the traditional J-Box and driver electronics into a compact form that can be accessed from below the ceiling plane. These features allow the D2LED to ship as a single unit which can be completely wired and installed from below the ceiling plane. It can also be easily removed from below the ceiling if servicing or an upgrade to new technology is ever required.

REFLECTOR:
High purity spun aluminum self-flanged reflector with iridescence suppressed Alzak anodized finish. Also available with Prescolite's American Matte finish (MFC).

Factory configurable optics provide 25°, 35°, or 45° optical distribution options for

a variety of applications. A novel Wall Wash optical system is also available to provide an unequalled wall wash optical distribution from the same small aperture.

LED LIGHT ENGINE:
High output Xicato XSM LED Module (IP66 rated). Color consistency held to less than 2 SCDMs for fixture to fixture and over-time color consistency. Secured to an extruded aluminum heat sink for excellent thermal management providing optimal life and lumen maintenance (minimum 50,000 hours at 70% lumen maintenance).

LED DRIVER:
Energy efficient electronic constant current driver with 50,000 hour minimum anticipate life. Meets UL Class 2, FCC 47CFR Part 15, Class B compliant, inherent short-circuit protection, self limited, overload protected.

DIMMING:
Comes standard with 0-10v dimming capability. Flicker-free dimming to 10%. For sizing control systems, the 0-10V control circuit will draw up to 1 mA.

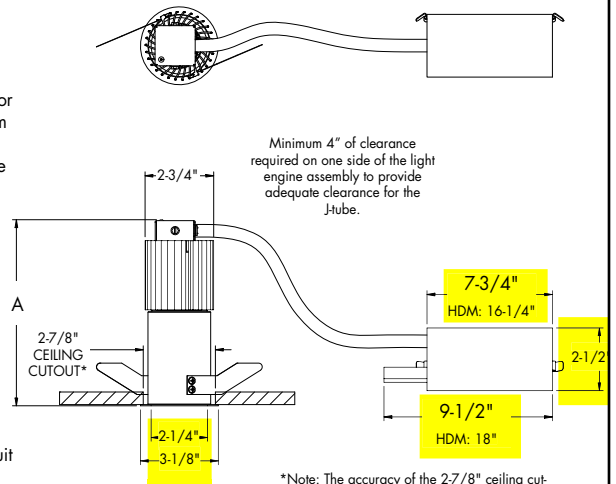
CERTIFICATIONS:
CSA C/US certified to UL1598. Suitable for wet locations. Non-IC rated and 2IN/2OUT through branch wiring. For connection to flexible conduit only.

WARRANTY:
5 Year Warranty. Go to www.prescolite.com for full details.

DATE: _____ TYPE: _____
FIRM NAME: _____
PROJECT: _____

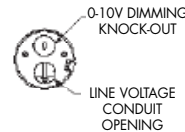
Architektür

Ceiling Cutout: 2 7/8"
Ceiling Thickness 1/2"-1 1/4"
For conversion to millimeters, multiply inches by 25.4
Not to Scale



Minimum 4" of clearance required on one side of the light engine assembly to provide adequate clearance for the J-tube.

*Note: The accuracy of the 2-7/8" ceiling cut-out is critical to the proper fit of the D2LED. For installation hints see page 4 or download the instruction sheet from www.prescolite.com



REFLECTOR	A
WFL45	5-7/8"
FL35	6-3/4"
MD25	7-1/2"
WW	7"

CATALOG NUMBER:

EXAMPLE: D2LED277VHDM-2D9LED9L30K8WFL45

J-TUBE ASSEMBLY	VOLTAGE	OPTIONS	LIGHT ENGINE	OUTPUT	LED COLOR	CRI	BEAM ANGLE	REFLECTOR FINISH	REFLECTOR COLOR	REFLECTOR OPT.	ACCESSORIES
<input type="checkbox"/> D2LED 2" J-tube assembly with 0-10 Dimming Standard	<input type="checkbox"/> Blank 120V <input type="checkbox"/> 277V 277V	<input type="checkbox"/> Blank Standard <input type="checkbox"/> Blank 0-10V dimming <input type="checkbox"/> HDM⁵ Lutron Hi-Lume A-Series 1% dimming	<input type="checkbox"/> 2D9LED 2" Open Reflector/Light Engine Assembly with Xicato module	<input type="checkbox"/> 9L² 900 Delivered Lumens <input type="checkbox"/> 12L^{2.5} 1200 Delivered Lumens	<input type="checkbox"/> 27K 2700 Kelvin <input type="checkbox"/> 30K 3000 Kelvin <input type="checkbox"/> 35K 3500 Kelvin <input type="checkbox"/> 40K 4000 Kelvin	<input type="checkbox"/> 8 Nominal 80+ CRI <input type="checkbox"/> 9⁵ Nominal 95 CRI	<input type="checkbox"/> WFL45 Spun Aluminum reflector with a 45° wide flood distribution <input type="checkbox"/> FL35 Spun Aluminum reflector with 35° flood distribution <input type="checkbox"/> MD25 Spun Aluminum reflector with 25° medium distribution <input type="checkbox"/> WW Wall Wash	<input type="checkbox"/> Blank Specular <input type="checkbox"/> SS Semi-Specular <input type="checkbox"/> MFC⁶ American Matte™	<input type="checkbox"/> Blank Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter Alzak <input type="checkbox"/> WH¹ White Paint	<input type="checkbox"/> WT White Trim	<input type="checkbox"/> LG1S³ Dual-Lite 100VA Surface Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG1R³ Dual-Lite 100VA Recessed Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG1T³ Dual-Lite 100VA Recessed Ceiling T-Grid LiteGear Emergency Lighting Inverter <input type="checkbox"/> LG2S³ Dual-Lite 250VA Surface Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> D2FRM⁴ Optional Mounting frame for the D2LED fixture. See pg 5 for line art. <input type="checkbox"/> D2ICAT^{4,5} Optional IC Rated, Air Tight housing for the D2LED. See page 5 for the line art. <input type="checkbox"/> D2GR White ring for D2LED fixture

1 Requires WT option
2 See page 2 for specific lumens per module and raw lumens
3 See spec sheet or www.prescolite.com for LiteGear Compatibility Matrix
4 See page 5 for line art
5 ICAT not available with 95 CRI, HDM, or 12L
6 Not available with white paint



In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: www.prescolite.com • Tech Support: (888) 777-4832

PHOTOMETRIC DATA

Architektür - 2" D2LED Downlight

ELECTRICAL DATA	D2LED9L8	D2LED9L9	D2LED12L8	D2LED12L9
Input Voltage	120/277V	120/277V	120/277V	120/277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.14/0.062	0.170/.076	0.20/0.087	0.18/0.08
Input Power	17 Watts	21 Watts	24 Watts	22 Watts
Constant Current Output	760mA	760mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90	≥0.90
EMI Filtering	FCC 47CFR Part 15, Class B	FCC 47CFR Part 15, Class B	FCC 47CFR Part 15, Class B	FCC 47CFR Part 15, Class B
Fixture Operating Temperature	-30°C to 45°C	-30°C to 45°C	-30°C to 45°C	-30°C to 45°C
Dimming	0-10V to 10%	0-10V to 10%	0-10V to 10%	0-10V to 10%

Over-voltage, over-current,
(short-circuit protected, and over-temperature protection with auto recovery)

Lumen Multipliers For Various Alzak Colors

Clear Specular	1.00
Pewter	0.94
Champagne Gold	0.96
Wheat	0.86
Light Wheat	0.84
Black Alzak	0.62

Lumen Multiplier For CRI Options		
	80+ CRI	95 CRI
12L	1.0	.66
9L	0.71	0.57

*For exact lumen outputs, please visit www.prescolite.com to find IES reports

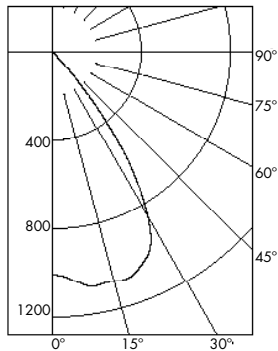
Note: These values are based upon the WFL45 Reflectors.

Xicato Module Chart

	80+ CRI	95 CRI	Drive Current	
12L	2000 ----- 1420	1300 ----- 930	700 mA	Xicato XSM Module ----- Module Delivered Lumens
9L	1300 ----- 1000	1000 ----- 800	760 mA	Xicato XSM Module ----- Module Delivered Lumens

D2LED-2D9LED12L30K8WFL45

LED Light Engine: 3000K, 80 CRI
System Wattage: 22
Fixture delivered lumens: 1235
Fixture Efficacy: 56
Spacing Criteria: 1.0



Test No. 6846

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	862	69.8
0-40	1199	97.1
0-60	1235	100.0
0-90	1235	100.0
0-180	1235	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	8482.
55°	1101.
65°	0.
75°	0.
85°	0.

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance													
	80%		70%		50%		30%		10%					
	20% Effective Floor Cavity Reflectance													
% Wall Reflectance														
	70	50	30	10	70	50	30	10	50	30	10	50	30	10
1	114	111	108	106	111	109	106	104	105	103	101	101	99	98
2	108	103	99	96	106	101	98	95	98	95	92	95	93	91
3	102	96	91	87	100	95	90	86	92	88	85	90	86	84
4	97	90	84	80	95	88	83	79	86	82	78	84	80	77
5	92	84	78	73	90	83	77	73	81	76	72	79	75	72
6	87	78	72	68	86	78	72	68	76	71	67	75	70	67
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62
8	79	69	63	59	77	68	63	59	67	62	58	66	61	58
9	75	65	59	55	74	64	59	55	63	58	54	62	57	54
10	71	61	55	51	70	61	55	51	60	55	51	59	54	51

D2LED2D9LED12L30K8WFL45

Test No. 6846

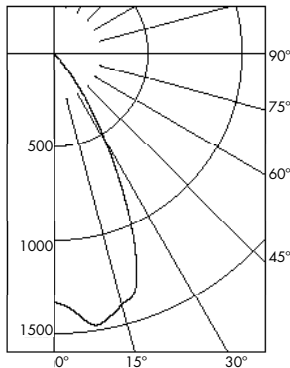


PHOTOMETRIC DATA

Architektür - 2" D2LED Downlight

D2LED-2D9LED12L30K8FL35

LED Light Engine: 3000K, 80 CRI
 System Wattage: 22
 Fixture delivered lumens: 1118
 Fixture Efficacy: 50.8
 Spacing Criteria: 0.8



CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	1333	136
5	1399	136
15	1393	392
25	931	418
35	253	161
45	7	8
55	1	1
65	0	0
75	0	0
85	0	0
90	0	0

Test No. 6845

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	947	84.7
0-40	1108	99.1
0-60	1118	100.0
0-90	1118	100.0
0-180	1118	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	3125.
55°	550.
65°	0.
75°	0.
85°	0.

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

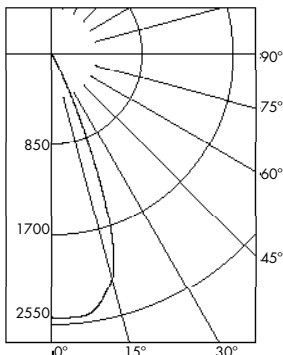
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance					20% Effective Floor Cavity Reflectance											
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
1	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91
3	104	98	94	90	102	97	93	90	94	91	88	92	89	87	90	88	86
4	100	93	88	84	98	92	87	83	90	86	83	88	84	82	86	83	81
5	95	88	82	78	94	87	82	78	85	81	77	83	80	77	82	79	76
6	91	83	78	74	90	82	77	73	81	76	73	79	75	72	78	75	72
7	87	79	73	69	86	78	73	69	77	72	69	76	71	68	75	71	68
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	65
9	80	71	66	62	79	70	65	62	70	65	62	69	64	61	68	64	61
10	76	68	62	59	75	67	62	59	66	62	58	66	61	58	65	61	58

D2LED2D9LED12L30K8FL35

Test No. 6845

D2LED-2D9LED12L30K8MD25

LED Light Engine: 3000K, 80 CRI
 System Wattage: 22
 Fixture delivered lumens: 1062
 Fixture Efficacy: 48.3
 Spacing Criteria: 0.6



CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	2484	236
5	2492	236
15	2186	580
25	352	221
35	22	17
45	6	4
55	2	2
65	1	1
75	0	0
85	0	0
90	0	0

Test No. 6844

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1038	97.7
0-40	1054	99.3
0-60	1061	99.9
0-90	1062	100.0
0-180	1062	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	2678.
55°	1101.
65°	747.
75°	0.
85°	0.

COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance					20% Effective Floor Cavity Reflectance											
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
1	115	113	111	109	112	110	109	107	106	105	104	103	102	101	99	99	98
2	111	107	104	101	109	105	102	100	102	100	98	99	97	96	97	95	94
3	107	102	98	95	105	101	97	94	98	95	93	96	94	92	94	92	90
4	103	98	93	90	102	97	93	90	95	91	89	93	90	88	91	89	87
5	100	94	89	86	98	93	89	86	91	88	85	90	87	84	88	86	84
6	97	90	86	82	95	89	85	82	88	84	82	87	83	81	85	83	81
7	94	87	82	79	92	86	82	79	85	81	78	84	81	78	83	80	78
8	91	84	79	76	90	83	79	76	82	78	76	81	78	75	80	77	75
9	88	81	76	73	87	80	76	73	79	76	73	79	75	73	78	75	73
10	85	78	74	71	84	78	73	71	77	73	70	76	73	70	76	72	70

D2LED2D9LED12L30K8MD25

Test No. 6844

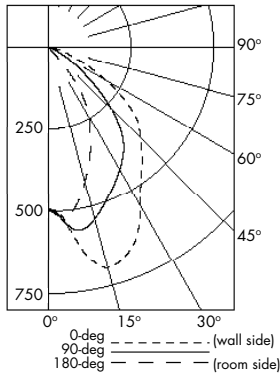
NOTES

Refer to www.prescolite.com for additional photometric tests (IES Files).



PHOTOMETRIC DATA

D2LED-2D9LED12L30K8WW
 LED Light Engine: 3000K, 80 CRI
 System Wattage: 22W
 Fixture Delivered Lumens: 1006
 Fixture Efficacy: 45.5



CANDELA DISTRIBUTION				
DEG	0	90	180	
0	495	495	495	
5	543	536	513	
15	710	532	421	
25	639	463	291	
35	493	402	177	
45	397	294	3	
55	291	118	0	
65	129	25	0	
75	41	0	0	
85	0	0	0	
90	0	0	0	

LUMINANCE DATA IN CANDELA/SQ. METER			
Angle in Vertical	0 DEG	90 DEG	180 DEG
45°	177219	131240	1339
55°	160143	64938	0
65°	96349	18672	0
75°	50003	0	0
85°	0	0	0

3' DISTANCE FIXTURE MOUNTED OUT FROM WALLS												
FOOTCANDLE DISTRIBUTION ON WALL SURFACE												
MULTIPLE UNITS												
UNITS ON 3' CENTER												
UNITS ON 4' CENTER												
5	1	1	0	0	0	1	1	1	1	0	1	1
4	6	4	2	1	0	7	6	7	6	3	6	6
3	17	13	7	3	1	23	21	23	19	14	19	19
2	16	14	10	5	2	27	28	27	21	20	21	21
1	11	10	8	6	3	25	24	25	18	18	18	18
0	8	7	6	5	3	20	20	20	15	14	15	15
	6	6	5	4	3	16	16	16	12	12	12	12
	4	4	4	3	2	13	13	13	10	10	10	10
	3	3	3	2	2	11	11	11	8	8	8	8
	2	2	2	2	1	9	9	9	7	7	7	7

Test No. 6847
 Tested at 25°C Ambient in accordance to IESNA LM-79-2008

Central Inverters

For fixture full light output in back-up mode, Prescolite and Dual-lite have jointly tested the D2LED with the 100 (LG1) and 250 (LG2) VA LiteGear inverters. For more information on LiteGear go to www.dual-lite.com/resources/litegear_luminaire_loading_chart/

INSTALLATION HINTS

Daisy Chain:

Often times through branch wiring (Daisy Chaining) will be desired for installation of the D2LED in an application. There is one knock out available in the J-tube for the line voltage, and one for the low voltage control wires. To accomplish 2in/2out through branch wiring. Prescolite suggests the use of an Arlington Duplex Connector (PN 4040AST).

Ceiling Cut-out:

Due to the discrete trim flange on the D2LED, the accuracy of the 2-7/8" ceiling cut-out is critical to achieving the best results. Prescolite recommends making this cut-out with a 2-7/8" hole saw, such as one manufactured by the Morse Company (TAC46 and TACPD4).

Ceiling Clearance:

When using the standard driver and J-Tube, 8" of plenum clearance is recommended when no top access is available to the J-Tube



PHOTOMETRIC DATA

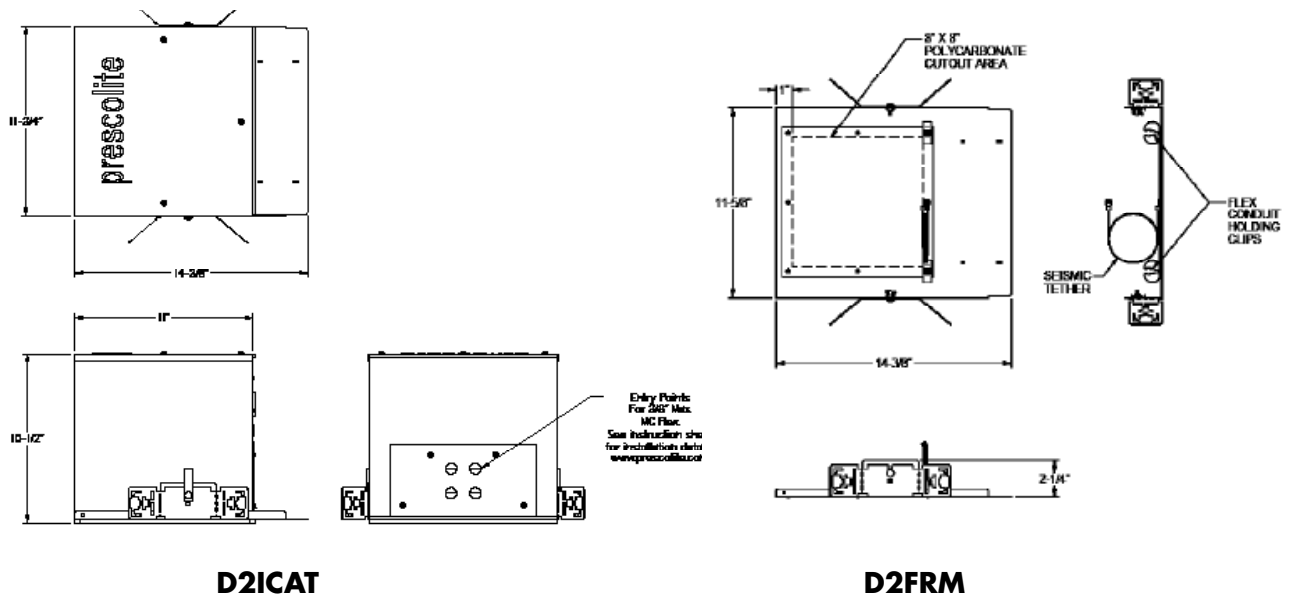
DIMMING COMPATIBILITY TABLE- STANDARD DRIVER (0-10V)

Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting Controls	WPC 5721	
Entertainment Technology	Tap Glide T6600F4M120 (120V) Tap Glide Heatseek TGH15006am120 (120V) Gasis DA2000FAMU (120/277V)	
Honeywell, Inc.	EL731A1019 and EL7315A1009	EL7305A1010
HRNT Dimming	Preset Slide: PS-010-IV-120V and PS-010-WH-120V Preset Slide: PS-010-3W-IV-120V and PS-010-3W-WH-120V Preset Slide: PS-010-IV-277V and PS-010-WH-277V Preset Slide: PS-010-3W-IV-277V and PS-010-3W-WH-277V Preset Slide, controls: FD-010-PS-IFC-010-IV- and PS-IFC-010-3W-120/277V Preset Slide, controls: FD-010-PS-IFC-010-3W-IV- and PS-IFC-010-3W-WH-120/277V Remoted mounted unit: FD-010120V and FD-010-277V	
Lehigh Electric Products Co.	Solitaire	FEB
Leviton Lighting Controls Div.	Leviton Centura Fluorescent Control System HumaTech™ IP7 Series	ON100 PE300
Lutron Electronics Co., Inc.	Visit www.lutron.com/advance for the latest control information and selection	
PDM Electrical products	WPC-5721	
Startfield Controls	TR61 with DALI Interface port	R103 DALInet Router
The Watt Stopper, Inc.	LS-4 used with LCD-101 and LCD-103	

DIMMING COMPATIBILITY- 'HDM' DRIVER OPTION

http://www.lutron.com/technicaldocumentlibrary/ecosystem_3-wire_report_card.pdf


Frame Accessories



*Note: Ceiling thickness maximum when using D2ICAT is 5/8". Ceiling thickness maximum when using D2FRM is 1". Bar hangers not included, order B6 for ceiling joists up to 24" centers or B24 for T-bar ceilings.

*Note: The standard product is designed and listed to be installed into most ceiling types without the use of an accessory frame. These frames are provided as an optional accessory to be used when desired by the end user to provide extra support or required by local code.



LARAMIE® LFS SERIES COMPACT DECORATIVE FLOOD	Cat.#	
	Job	
Approvals		

Intended Use

- Signs, facades, small area illumination, flag poles and landscape accent. LED fixtures are designed for accent illumination – columns, trees or small flags or signage

Construction

- Decorative die cast aluminum construction with “Southwest” styling
- Gasketing is silicone for positive seal. Laramie is ruggedly built for wet location applications
- Five standard polyester powder protective finishes plus custom color capability are offered

Electrical

- Many source/wattage systems available for energy savings with lumen output choices
- Options include factory installed photocontrol and lamp, packaged with luminaire
- LED units offer long life with little maintenance and low energy consumption; Units are offered in NEMA 1, 4 and 5 distributions
- LED units 120-277V, 50/60Hz driver, .5 amp max

Optics

- Wide beam (7x7) with uniform distribution – great for close setbacks

Listings

- Listed to UL1598 for use in wet locations
- U.S. Patent No. 6,461,026.

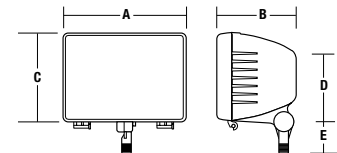
CERTIFICATIONS/LISTINGS



PRODUCT IMAGE(S)



DIMENSIONS



A	B	C	D	E
10 1/4"	6 1/2"	8"	4"	2 1/2"
260 mm	165 mm	203 mm	102 mm	63.5 mm

0.8 sq ft EPA

ORDERING INFORMATION

ORDERING EXAMPLE: LFS-50P8-BZ-LP

SERIES	WATTAGE/SOURCE	VOLTAGE	FINISH	OPTIONS
LFS Laramie Flood Small	12LU-5K-M PULSE START METAL HALIDE 50P 50w 70P 70w 100P 100w 150P 150w HIGH PRESSURE SODIUM 50S 50w 70S 70w 100S 100w 150S 150w COMPACT FLUORESCENT ¹ 26F 26w 32F 32w 42F 42w LED ² 12LU-5K-W 12w, 6x6 12LU-5K-M 12w, 4x4 12LU-5K-N 12w, 1x1	1 120V (H.I.D. reactor) 6 Tri-Tap (H.I.D. only) (120, 277, 347V) 8 ¹ Quad - Tap [®] (120, 208, 240, 277V) (standard on CFL) Leave cell blank for LED	BZ BZ Bronze BL Black GR Gray WH White PS Platinum	LP Lamp included (H.I.D. or CFL) P(1) 120V button photocontrol ³ P(2) 208V button photocontrol ³ P(3) 240V button photocontrol ³ P(4) 277V button photocontrol ³ P(6) 347V button photocontrol

ACCESSORIES - Order Separately, Field Installed

Catalog Number	Description
PBT-1	Button photocontrol 120V
PBT-234	Button photocontrol 208, 240, 277V
NM-BC	Non-metallic box and cover burial box with cable connectors
S-302-M51	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, bronze
S-302-M52	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, white
S-302	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, platinum/gray
S329B	Wet location surface box with cover, (4) side and (1) cover 1/2" hub, nat. alum.
1031-3	Portable spike with 1/2" top hub and 6ft cord set, platinum/gray finish
LFP-JB-BZ	Round pole-side junction box with hardware, 1/2" cover and bottom hub, bronze
LFS-SPC	Polycarbonate shield
LFS-GS	Glare shield, black
MIC-TB	Half yoke wiring box, bronze

REPLACEMENT PARTS

Catalog Number	Description
93004823	Replacement lens
207-5011-0264	Bronze knuckle

Typical weight: 12 lbs.
EPA: 0.7 sq.ft.

PHOTOMETRIC REPORTS

LED WIDE	LFS12LU5KW.IES
LED MEDIUM	LFS12LU5KM.IES
LED NARROW	LFS12LU5KN.IES
150P	HP10971.IES
150S	HP10973.IES
42F	HP10974.IES



LED ALF
FLOOD
FAMILY

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

ALF is excellent for small floodlighting applications such as signs, façade, landscape accent or small area illumination. The compact, low profile size allows the flood to be easily hidden or blend into the landscape environment.

Construction:

- Low copper extruded aluminum construction provides long life in outdoor ground mounted applications. Ribbed design adds styling while dissipating LED and driver heat, providing longer component life.

- Tempered and impact resistant glass lens with decorative silk screen seals to housing with silicone gasket

- Dark Bronze powder paint finish provides durable and lasting appearance

Optics/Electrical

LED:

- Six or twelve 1.5w LEDs produce 848 or 1655 lumens at 5100K

- Wide 110 degree lateral spread covers three times the set back distance with uniform light

- Universal voltage driver is 120-277V*, 50/60hz, with 10.7 input watts (ALF-6LU) 22.7 input watts (ALF-12LU)

*In Canada, ALF should be used for voltages 120-240 only

Installation:

- Knuckle mount: Universal ½" swivel knuckle has serrated teeth for sure aiming. Knuckle threads are brass insuring quality installation and corrosion resistance

- Wall mount: Cast aluminum cover/quick mount plate and universal adapter allows easy installation to 3-½" or 4" standard junction boxes

Listings:

Listed to UL 1598 for use in wet locations
ALF-6: IP65 – ALF-12: IP64

Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

PRODUCT IMAGE(S)



ALF 6 LED KNUCKLE MOUNT

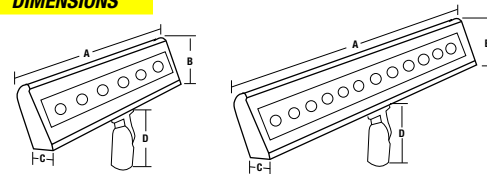


ALFW 6 LED WALL MOUNT

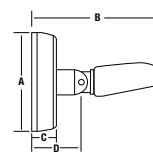


ALF 12 LED KNUCKLE MOUNT

DIMENSIONS



A	B	C	D
12/24"	3 1/2"	1 1/2"	3 1/2"
305/609.6 mm	89 mm	38 mm	89 mm



A	B	C	D
5 1/2"	6 1/2"	1 1/8"	2 1/8"
139 mm	165 mm	28 mm	54 mm

**CERTIFICATIONS/
LISTINGS**



SHIPPING INFORMATION

Catalog Number	G.W.(kg)/ CTN	Carton Dimensions			Carton Qty. per Master Pack
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)	
ALF-6LU	9.7 (4.4)	18.5 (47)	14.3 (36.5)	5.7 (14.5)	2
ALFW-6LU	11.4 (5.2)	18.5 (47)	14.3 (36.5)	5.7 (14.5)	2
ALF-12LU	6.5 (2.97)	24.8 (63)	8.8 (22.5)	3.14 (8)	1

ORDERING INFORMATION

ORDERING EXAMPLE: ALF-6LU-5K-BZ

Catalog Number	Wattage	Number of LEDs	Voltage ¹	Lumens	Life	CCT	Weight lbs. (kg)
1/2" KNUCKLE MOUNT							
ALF-6LU-5K-BZ	10.7	6	120-277V	848	50,000 hrs	5100K	4.0 (1.8)
ALF-12LU-5K-BZ	22	12	120-277V	1655	50,000 hrs	5100K	8.0 (3.6)
WALLMOUNT							
ALFW-6LU-5K-BZ	10.7	6	120-277V	848	50,000 hrs	5100K	4.5 (2.0)
ALFW-6LU-5K-BZ-PC	10.7	6	120V	848	50,000 hrs	5100K	4.5 (2.0)

¹ Unit should not be used above 240V in Canada



Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

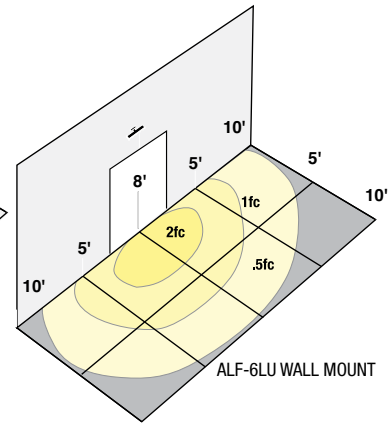
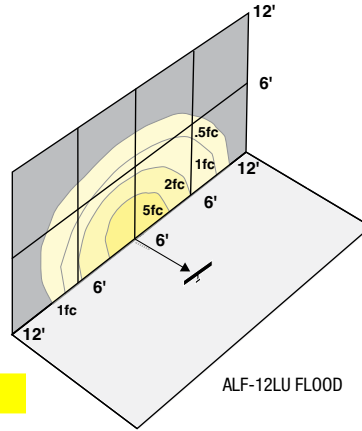
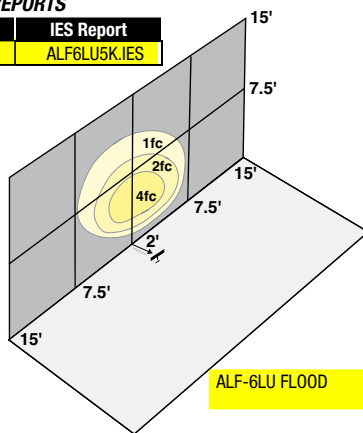
Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2013 HUBBELL OUTDOOR LIGHTING. All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

ALF-SPEC 10/13

PHOTOMETRIC REPORTS

Catalog Number	IES Report
ALF-6LU-5K-BZ	ALF6LU5K.IES



PERFORMANCE DATA

# OF LEDES	DRIVE CURRENT	CCT	LUMENS	BEAM (H X V)	LPW ¹
6	STD. (470mA)	5K	848	119° X 93°	85
12	STD. (470mA)	5K	1655	119° X 93°	82

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.

ELECTRICAL DATA

# OF LEDES	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)	IN RUSH CURRENT	POWER FACTOR
6	STD. (470mA)	120	10.7	.10		.97
		277	12.6	.06		.77
12	STD. (470mA)	120	22.7	.20		.98
		277	26.9	.12		.97



LARAMIE® LFS SERIES COMPACT DECORATIVE FLOOD	Cat.#		
	Job		
Approvals			

Intended Use

- Signs, facades, small area illumination, flag poles and landscape accent. LED fixtures are designed for accent illumination – columns, trees or small flags or signage

Construction

- Decorative die cast aluminum construction with “Southwest” styling
- Gasketing is silicone for positive seal. Laramie is ruggedly built for wet location applications
- Five standard polyester powder protective finishes plus custom color capability are offered

Electrical

- Many source/wattage systems available for energy savings with lumen output choices
- Options include factory installed photocontrol and lamp, packaged with luminaire
- LED units offer long life with little maintenance and low energy consumption; Units are offered in NEMA 1, 4 and 5 distributions
- LED units 120-277V, 50/60Hz driver, .5 amp max

Optics

- Wide beam (7x7) with uniform distribution – great for close setbacks

Listings

- Listed to UL1598 for use in wet locations
- U.S. Patent No. 6,461,026.

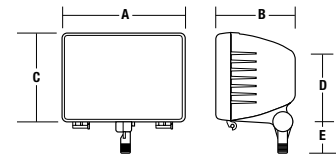
CERTIFICATIONS/LISTINGS



PRODUCT IMAGE(S)



DIMENSIONS



A	B	C	D	E
10 1/4"	6 1/2"	8"	4"	2 1/2"
260 mm	165 mm	203 mm	102 mm	63.5 mm

0.8 sq ft EPA

ORDERING INFORMATION

ORDERING EXAMPLE: LFS-50P8-BZ-LP

SERIES	WATTAGE/SOURCE	VOLTAGE	FINISH	OPTIONS
LFS LFS Laramie Flood Small	12LU-5K N PULSE START METAL HALIDE 50P 50w 70P 70w 100P 100w 150P 150w HIGH PRESSURE SODIUM 50S 50w 70S 70w 100S 100w 150S 150w COMPACT FLUORESCENT ¹ 26F 26w 32F 32w 42F 42w LED ² 12LU-5K-W 12w, 6x6 12LU-5K-M 12w, 4x4 12LU-5K-N 12w, 1x1	1 120V (H.I.D. reactor) 6 Tri-Tap (H.I.D. only) (120, 277, 347V) 8 ¹ Quad - Tap [®] (120, 208, 240, 277V) (standard on CFL) Leave cell blank for LED	BZ BZ Bronze BL Black GR Gray WH White PS Platinum	LP Lamp included (H.I.D. or CFL) P(1) 120V button photocontrol ³ P(2) 208V button photocontrol ³ P(3) 240V button photocontrol ³ P(4) 277V button photocontrol ³ P(6) 347V button photocontrol

ACCESSORIES - Order Separately, Field Installed

Catalog Number	Description
PBT-1	Button photocontrol 120V
PBT-234	Button photocontrol 208, 240, 277V
NM-BC	Non-metallic box and cover burial box with cable connectors
S-302-M51	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, bronze
S-302-M52	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, white
S-302	2" pipe (2 3/8" O.D.) slip-fitter with 1/2" top hub for LFS/LFP, platinum/gray
S329B	Wet location surface box with cover, (4) side and (1) cover 1/2" hub, nat. alum.
1031-3	Portable spike with 1/2" top hub and 6ft cord set, platinum/gray finish
LFP-JB-BZ	Round pole-side junction box with hardware, 1/2" cover and bottom hub, bronze
LFS-SPC	Polycarbonate shield
LFS-GS	Glare shield, black
MIC-TB	Half yoke wiring box, bronze

REPLACEMENT PARTS

Catalog Number	Description
93004823	Replacement lens
207-5011-0264	Bronze knuckle

Typical weight: 12 lbs.
EPA: 0.7 sq.ft.

PHOTOMETRIC REPORTS

LED WIDE	LFS12LU5KW.IES
LED MEDIUM	LFS12LU5KM.IES
LED NARROW	LFS12LU5KN.IES
150P	HP10971.IES
150S	HP10973.IES
42F	HP10974.IES

1 CFL available in 8 (Quad-Tap[®]) voltage only
 2 LED is 120-277V, 50/60hz, 5000K, 12.8 input watts
 3 Change "12LU" to 12L1 for 120V, 12L2 for 208V, 12L3 for 240V or 12L4 for 277V





FIXTURE TO BE 42"
HEIGHT AS
SCHEDULED

GEM1 Performance Bollard
Aluminum Shaft

revision 12/5/12 • kl_gem1_spec.pdf

Type:
Job:
Catalog number:

Approvals:

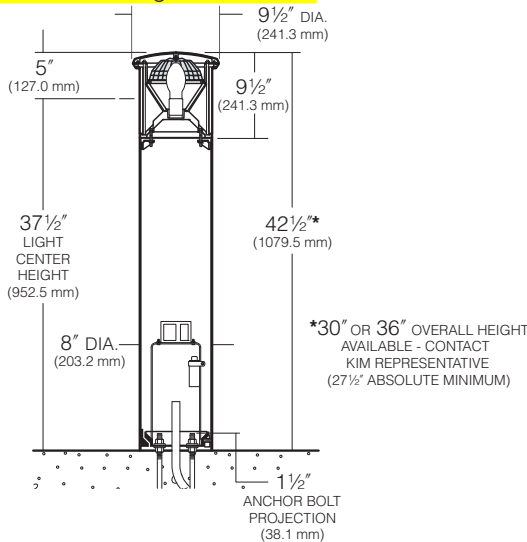
GEM1	/	/	/
Fixture	Electrical Module	Top Cap Finish (Includes top cap and shaft)	Optional Houseside Shield
See page 2			

Date:
Page: 1 of 3

Specifications

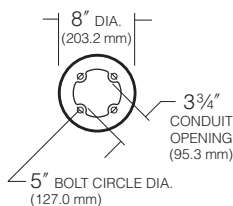
GEM™ Models
70 to 100 watt HID
Medium Base Lamps
32 watt Compact Fluorescent
18, 27 or 36 LED

GEM1
Maximum weight: 28 lb



HID drawing shown above

**BASE PLAN
GEM
ALUMINUM SHAFT**



U.S. PATENT D443,094

Top Cap: Die-cast, low copper (< 0.6% Cu) aluminum secured to rib body by captive stainless steel allen cap screws. For lamp access, allen screws shall not require complete removal.

Supports: Die-cast, low copper (< 0.6% Cu) aluminum supports secured in place as a complete cage assembly. The top section provides a cutoff lamp compartment. The supports are secured to the shaft by four stainless steel tie rods.

Refractor: Thermally tempered soda lime glass sealed with silicone gaskets top and bottom.

Socket: Porcelain medium base socket rated 4KV for HID Plastic socket for Fluorescent.

Shaft: One-piece aluminum extrusion, .125" minimum wall thickness with a heavy cast aluminum anchor base concealed within the shaft. Hex socket stainless steel set screws shall lock the shaft onto the cast frangible anchor base.

Ballast: Factory mounted to rigid harness attached to the anchor base. Wiring shall be supplied from the socket for field connection to the prewired ballast components. **HID:** High power factor with starting temperatures of -20°F. for PMH and -40°F. for HPS lamp modes. **26W, 32W Fluorescent:** High power factor with starting temperature of 0°F.

LED Optical System: A total of 9 LED emitters configured in a rectangular array comprised together as a module. Two (2) modules for 18 LED version; three (3) modules for 27 LED version; and four (4) modules for 36 LED version. Available in 4000K and 5000K.

LED Driver: Rated for 18, 27 or 36 LED. Universal voltage from 120 to 277V with a ±10% tolerance. -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

Anchor Bolts: Four 3/8" x 10" + 2" zinc plated J-bolts, each with two nuts, washers and a rigid pressed board template.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available.

CAUTION: Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings

ETL ¹ to UL Standards 1598 & 8750	IP 46 Rated	CE	25C Ambient
CO = Cut Off ²			

¹Suitable for wet locations.

²Dark Sky Legislation Compliant

KIM LIGHTING RESERVES THE RIGHT TO CHANGE SPECIFICATIONS WITHOUT NOTICE.



GEM1 Performance Bollard

Aluminum Shaft

revision 12/5/12 • kl_gem1_spec.pdf

Type:

Job:

Page: 2 of 3



Standard and Optional Features

Fixture

Cat. No. **GEM1** Fixture with Aluminum Shaft

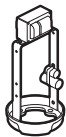
Electrical Module

- PMH** = Pulse Start Metal Halide
- HPS** = High Pressure Sodium
- PL** = Compact Fluorescent
- LED** = Light Emitting Diode

Lamp Watts Lamp Type Line Volts

70 PMH 277

For PMH, HPS and PL. See footnote 2 below for LED



NOTE: For lamp/ballast information outside of the U.S.A. and Canada, please consult your local Kim representative.

Cat. Nos. for Electrical Modules available:

	Pulse Start Metal Halide		High Pressure Sodium	
	<input type="checkbox"/> 70PMH120	<input type="checkbox"/> 100PMH120	<input type="checkbox"/> 70HPS120	<input type="checkbox"/> 100HPS120
	<input type="checkbox"/> 70PMH208	<input type="checkbox"/> 100PMH208	<input type="checkbox"/> 70HPS208	<input type="checkbox"/> 100HPS208
	<input type="checkbox"/> 70PMH240	<input type="checkbox"/> 100PMH240	<input type="checkbox"/> 70HPS240	<input type="checkbox"/> 100HPS240
	<input type="checkbox"/> 70PMH277	<input type="checkbox"/> 100PMH277	<input type="checkbox"/> 70HPS277	<input type="checkbox"/> 100HPS277
	<input type="checkbox"/> 70PMH347	<input type="checkbox"/> 100PMH347	<input type="checkbox"/> 70HPS347	<input type="checkbox"/> 100HPS347
Lamp	E-17, Clear	E-17, Clear	ED-17, Clear	ED-17, Clear
Socket	Medium Base	Medium Base	Medium Base	Medium Base
ANSI Ballast Type	M-98	M-90	S-62	S-54
	Compact Fluorescent LED			
	<input type="checkbox"/> 32PL ¹	<input type="checkbox"/> 18L4KUV ² <input type="checkbox"/> 18L5KUV ² 	<input type="checkbox"/> 27L4KUV ² <input type="checkbox"/> 27L5KUV ² 	<input type="checkbox"/> 36L4KUV ² <input type="checkbox"/> 36L5KUV ²
Lamp	Compact Fluor.	LED	LED	LED
Socket	GX24q-3	N/A	N/A	N/A

¹ **32PL** operates one 26, or 32 watt lamp at 120 thru 277 volts (50-60 Hz).

NOTE: Clear lamps are recommended.

² For LED, 18L = 18 LED Emitters; 27L = 27 LED Emitters; 36L = 36 LED Emitters; 4K = 4000K color temperature; 5K = 5000K color temperature; UV = Universal Voltage from 120 to 277V with a ± 10% tolerance.

Finish

Super TGIC thermoset polyester powder coat paint over a titanated zirconium conversion coating on fixture and shaft.

Top Cap

Color: Black **Dark Bronze** Light Gray Platinum Silver White Custom Color³
Cat. No.: **BL** **DB** **LG** **PS** **WH** **CC**

³Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

Aluminum Riser (Shaft)

Aluminum Riser shaft is finished to match fixture with super TGIC thermoset polyester powder coat paint over a titanated zirconium conversion coating.

Houseside Shield

Cat. No. **HS**
 No Option

90° houseside shield.
.032" thick aluminum, painted to match fixture.



**KIM LIGHTING****GEM1 Performance Bollard**

Aluminum Shaft

revision 12/5/12 • kl_gem1_spec.pdf

Type:

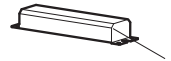
Job:

Page: 3 of 3

**Standard and Optional Features****Emergency Battery Back-up¹**

Cat. No. EM
 No Option
 compact fluorescent only.

Internal battery pack provides 90 minutes of supplemental light at 23% of initial lamp lumens for 26, or 32 watt compact fluorescent lamps.



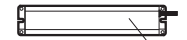
Battery Back-up

¹Only available for 120 or 277V.

Cold-Pack Emergency Battery Pack²

Cat. No. EM-CP
 No Option

The EM-CP option is a temperature controlled ballast designed to maintain operation without interruption within a range of hi/low ambient temperatures, -20°C to +55°C.



cold-pack battery back-up

Internal Cold-Pack emergency battery pack provides up to 90 minutes of supplemental light. See following table for max. lumens output by lamps.

Lamp (4-Pin)	1 lamp lumens
32W	575
26W	450

²Only available for 120 or 277V.

CIMARRON LED	Cat.#	Approvals	SPAULDING LIGHTING
	Job	Type	

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Features exclusive wiHUBB technology
 - Wireless system for On/Off and 0-10VDC full range dimming control
 - Programmable autonomous operation

Optics:

- Choice of 32 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- CCT: 5100K standard, 3000K, 4200K and turtle friendly Amber LED options

CRI: 70

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -30° C to 40° C
- Automatic thermal self-protection

- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection of 10KA 8/20 µSec wave; clamping voltage of 320V & surge rating of 273J

Lumen maintenance:

- L90 at 60,000 hours (Projected per IESNA TM-21-11)

Installation:

- Two die-cast aluminum arm designs are available providing maximum design flexibility
- The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:

- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- DesignLights Consortium qualified
- IDA approved • IP65

PRODUCT IMAGE(S)



90 LED 3/4 VIEW



30 LED

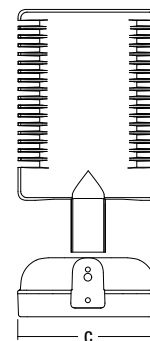
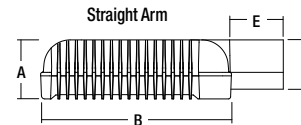
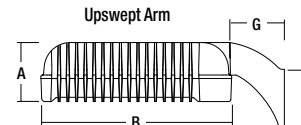


60 LED



90 LED

DIMENSIONS



A	B	C	D	E	F	G
6 3/4"	21 3/4"	16"	6 5/8"	6 5/16"	5 5/8"	6 1/8"
171mm	552mm	406mm	168mm	160mm	143mm	155mm

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION SEE NEXT PAGE



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2014 SPAULDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA



Notes:

ORDERING INFORMATION ORDERING EXAMPLE: CL1-A-90LU-5K-3-DB-RPA3



SERIES	NO. OF LEDES	VOLTAGE	CCT	DRIVE CURRENT	OPTIONS
CL1 Cimarron LED	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 30 High brightness LEDs	U³ Universal 120V-277V, 50/60 Hz 1⁷ 120V 2⁷ 208V 3⁷ 240V 4⁷ 277V 5 480V, 60 Hz F 347V, 60 Hz E⁴ 220V, 50 Hz	3K 3000K 4K 4200K 5K 5100K AM Amber (590 µm available for "Turtle Friendly" applications (consult factory))	Leave blank for 700mA (standard) 035 350mA Amber (590 µm available for "Turtle Friendly"/observatory applications (consult factory)) 105 1050 mA (use with 90L only for higher lumen output)	BC⁶ Backlight control BL^{1,2,5} Bi-level control CD² Continuous dimming WB Wall bracket RPA3 3" Round pole adapter RPA4 4" Round pole adapter RPA5 5" Round pole adapter RPA6 6" Round pole adapter F(X)^{3,4} Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V, 5-480V, 6-347V) SSB Stainless steel LED bezel VG Vandal guard
MOUNTING					
A Arm mount construction (6" straight rigid arm included & acceptable for 90° configurations)					
AD Decorative arm mount const. (6" decorative upswept arm incl. & acceptable for 90° configurations)					
MAF Mast arm fitter for mounting to standard 2 3/8" mast arm bracket, includes 6" straight rigid arm					
DISTRIBUTION					
2 Type II					
3 Type III					
4 Type IV					
5M Type V Medium					
5S Type V Short					
5W Type V Wide					
COLOR					
DB Dark Bronze					
BL Black					
WH White					
GR Gray					
PS Platinum Silver					
RD Red (premium color)					
FG Forest Green (premium color)					
CC Custom Color					
CONTROL OPTIONS					
SCO Motion sensor On/Off control, No light output when no motion detected					
SCP Programmable motion control, factory default is 50%					
PR(X)⁵ NEMA Photo cell receptacle (replace X with voltage: U=120-277, 5=480, 6=347)					
WIH⁷ In-fixture wireless control module (120, 277, 347 & 480V)					

- Notes: 1- For BL option 90L and 60L; N/A 347V & 480V
 2- BL & CD cannot be combined
 3- Fuse option not available with universal voltage
 4- Select F3 fusing option for 220V
 5- Photocell receptacle not available with BL option
 6- Recommended for Type III and IV distributions only
 7- Select only when using voltage specific option (F or WIH)

ENERGY SAVING DATA

ENERGY DATA	
Power Factor	>.9
Total Harmonic Distortion	<10%

LIGHT ENGINE	INPUT WATTS		LUMENS DELIVERED					
	120V-277V	347V-480V	TYPE 2	TYPE 3	TYPE 4	TYPE 5M	TYPE 5S	TYPE 5W
30L-5K	70	87	6384	6164	6641	7108	6999	6619
60L-5K	140	157	13300	12842	13125	13185	13675	12954
90L-5K	210	227	19684	19006	19202	20592	19610	18973
90L-5K-105	336	363	26974	25351	26548	25793	27445	25195
30L-4K	70	87	6089	6109	6104	6417	6439	6046
60L-4K	140	157	11583	11468	12036	12038	12581	11807
90L-4K	210	227	17143	16973	17648	18521	20220	17394
90L-4K-105	336	363	23896	23912	24199	24583	25357	23128
30L-3K	70	87	4606	4668	4686	4858	4902	4601
60L-3K	140	157	9013	9175	9216	9409	9461	8844
90L-3K	210	227	13360	13601	13575	13923	14004	13902
90L-3K-105	336	363	17645	17612	17469	17950	18271	17330

ACCESSORIES SEE NEXT PAGE



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000
 Due to our continued efforts to improve our products, product specifications are subject to change without notice.
 © 2014 SPAULDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA

**SSS SERIES
POLES**
SQUARE STRAIGHT STEEL

Cat. #		Approvals
Job	Type	

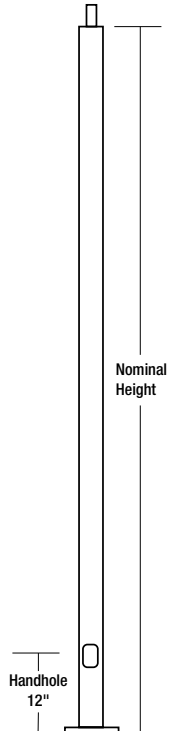
**SPAULDING
LIGHTING**

APPLICATIONS

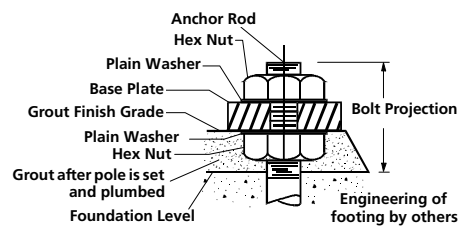
- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

FEATURES

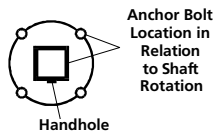
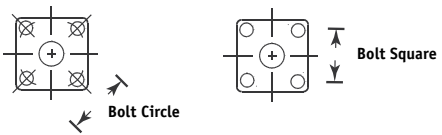
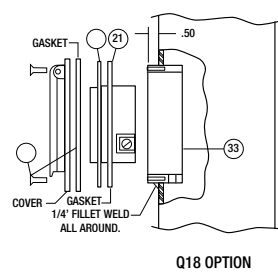
- SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.36" radius on all corners. Minimum yield of 46,000 psi (ASTM-A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ATM-A36).
- BASE COVER:** Two-piece square aluminum base cover included standard.
- POLE CAP:** Pole shaft covered with removable non-metallic cover when applicable. Tenon and post-top configurations also available.
- HAND HOLE:** Rectangular steel-reinforced hand hole (2.5" x 4.5"). Pole grounding lug located behind gasketed cover.
- ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (modified ASTM-A36). Galvanized hardware with two washers/nuts per bolt for leveling meet or exceed bolt strength.
- FINISH:** Durable Lektrocote® TGIC thermoset polyester powder coat paint finish with nominal 3.0 mil thickness. Zinc-rich powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method. Decorative finish coat available in seven standard colors. Custom colors available. RAL number preferable. Internal protective coating available.



BASE DETAIL



**15 AMP GFCI
RECEPTACLE & COVER**





Notes:

ORDERING INFORMATION

S - S - S - 25 - 40 - 1 - TA - DB
 | | | | | | | |
 Cross Section Style Material Nominal Length Nominal Shaft Dia. Shaft Thickness Mounting Type Finish

Catalog Number	Pole Ht.		Nominal Shaft Dim.	Wind Load Rating ¹					Wall Thick.	Bolt Circle (Sug.)	Bolt Circle	Bolt Sq.	Base Plate (sq.)	Anchor Bolt Size	Bolt Proj.	Pole Wt (lbs)
	ft	m		70 MPH	80 MPH	90 MPH	100 MPH	120 MPH								
SSS-10-40-1-XX-XX	10	3.0	4"	25	25	22	17	11.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	91
SSS-10-50-1-XX-XX	10	3.0	5"	25	25	25	23	15	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	106
SSS-12-40-1-XX-XX	12	3.7	4"	25	21	16	13.0	8.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	104
SSS-12-50-1-XX-XX	12	3.7	5"	25	25	23	18	11.8	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	122
SSS-14-40-1-XX-XX	14	4.3	4"	24	18	14.2	11.0	6.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	116
SSS-14-40-7-XX-XX	14	4.3	4"	25	25	23	18	12.2	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	158
SSS-14-50-1-XX-XX	14	4.3	5"	25	24	19	14.4	9.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	138
SSS-16-40-1-XX-XX	16	4.9	4"	16	12.2	9.0	6.8	3.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	128
SSS-16-40-7-XX-XX	16	4.9	4"	25	20	15	12.2	7.6	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	176
SSS-16-50-1-XX-XX	16	4.9	5"	22	16	12.2	9.2	5.2	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	153
SSS-16-50-7-XX-XX	16	4.9	5"	25	25	24	19	12.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	214
SSS-18-40-1-XX-XX	18	5.5	4"	13.8	10.0	7.2	5.2	2.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	147
SSS-18-40-7-XX-XX	18	5.5	4"	23	17	13.0	10.0	6.0	.179"	11"	10 - 13.5"	7.1 - 9.5"	11 x 1"	3/4 x 30 x 3"	4"	201
SSS-18-50-1-XX-XX	18	5.5	5"	18	13.2	9.6	7.0	3.4	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	175
SSS-18-50-7-XX-XX	18	5.5	5"	25	25	20	16	9.8	.179"	11"	8 1/2 - 12"	6 - 8.4"	12 x 1"	3/4 x 30 x 3"	4"	243
SSS-20-40-1-XX-XX	20	6.1	4"	11.4	8.0	5.6	3.8	1.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	160
SSS-20-40-7-XX-XX	20	6.1	4"	19	14.6	10.8	8.0	4.4	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	225
SSS-20-50-1-XX-XX	20	6.1	5"	15	10.8	7.6	5.2	2.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	191
SSS-20-50-7-XX-XX	20	6.1	5"	25	23	17	13.2	7.6	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	266
SSS-20-60-7-XX-XX	20	6.1	6"	25	25	24	18	11.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	312
SSS-25-40-1-XX-XX	25	7.6	4"	7.0	4.2	2.2	NR	NR	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	190
SSS-25-40-7-XX-XX	25	7.6	4"	13.4	9.4	6.4	4.2	1.4	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	266
SSS-25-50-1-XX-XX	25	7.6	5"	9.6	6.0	3.4	1.4	NR	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	231
SSS-25-50-7-XX-XX	25	7.6	5"	22	15	11.2	7.8	3.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	324
SSS-25-50-3-XX-XX	25	7.6	5"	25	22	16	12.4	6.6	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	437
SSS-25-60-7-XX-XX	25	7.6	6"	25	22	16	11.6	5.6	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	404
SSS-27-40-7-XX-XX	27	8.2	4"	11.4	7.8	5.0	3.0	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	290
SSS-30-40-7-XX-XX	30	9.1	4"	8.2	5.0	2.8	1.2	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	313
SSS-30-50-7-XX-XX	30	9.1	5"	14.2	9.4	6.0	3.4	NR	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	398
SSS-30-50-3-XX-XX	30	9.1	5"	20	14.6	10.2	6.8	2.4	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	537
SSS-30-60-7-XX-XX	30	9.1	6"	20	13.8	9.2	5.8	1.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	467
SSS-30-60-3-XX-XX	30	9.1	6"	25	24	17	12.8	6.2	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	630
SSS-35-60-7-XX-XX	35	10.7	6"	14.2	8.4	4.6	1.6	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	538
SSS-35-60-3-XX-XX	35	10.7	6"	25	17	11.6	7.4	1.8	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	726
SSS-40-60-7-XX-XX	40	12.2	6"	9.0	4.0	NR	NR	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	614
SSS-40-60-3-XX-XX	40	12.2	6"	18	11.8	6.8	3.2	NR	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	802

1 Allowable EPA with 1.3 gust factor. To determine max. pole loading weight, multiply allowable EPA by 30 lbs.

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

COMPLETE PART NUMBER REQUIRES SHAFT ABOVE PLUS MOUNTING TYPE, FINISH & APPROPRIATE OPTIONS BELOW

OPTION ORIENTATION

MOUNTING TYPE

- AX'** Side - Single
- BX'** Side - Double at 90°
- CX'** Side - Double at 180°
- DX'** Side - Triple at 90°
- FX'** Side - Quad at 90°
- P1** Pad Mount - Spider Type
- P2** Pad Mount - Yoke Type
- P3** Pad Mount - Yoke Type (Proformer XL only)
- TA** Tenon (2.375" OD)
- TB** Tenon (2.875" OD)
- TR²** Removable Tenon (2.375 x 4.25)
- CD** Concord Luminaire
- OT** No drilling (includes pole cap)

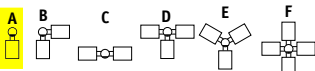
FINISH

- DB** Dark Bronze
- BL** Black
- WH** White
- GR** Gray
- PS** Platinum Silver
- RD** Red (Premium Color)
- FG** Forest Green (Premium Color)
- CC** Custom Color (Consult Factory)
- PR** Primer Only

OPTIONS

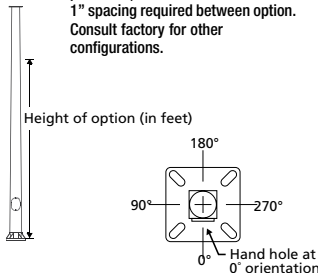
- Q55** Internal Coating (Hubbell Seal)
- Q18³** 15 Amp GFCI Receptacle and Cover
- Q22²** Extra Handhole
- Q26³** .5" Coupling
- Q27³** .75" Coupling
- Q30³** 2" Coupling
- Q32²** Mid-pole Luminaire Bracket
- Q40** Vibration Damper
- LAB** Less Anchor Bolts
- CSA** CSA Certified (consult factory)

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option Q26 should be ordered as: **SSS-20-40-1-TA-DB-Q26-0-15** (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



- 1 DRILL PATTERNS: Replace X with 1 = Spaulding luminaires with a straight pole (4-bolt), 2 = Cimarron CR1, MSV and Raven Series luminaires, 4 = MSS & DS luminaires, 5 = Spaulding Detroit III luminaires, 6 = DM luminaires
- 2 Removable tenon used in conjunction with side arm mounting. First specify desired arm configuration followed by the "TR" notation. Example: **SSS-25-40-7-C6-TR-DB**
- 3 Specify option location using logic found on cover.

Denotes handhole location



Due to our continued efforts to improve our products, product specifications are subject to change without notice.



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • PHONE: 864-678-1000

For more information visit our web site: www.spauldinglighting.com

CIMARRON LED	Cat.#	Approvals	SPAULDING LIGHTING
	Job	Type	

SPECIFICATIONS

Construction:

- Stylish vertically finned die-cast solid top housing for maximum heat dissipation; Stops collection of unsightly debris from gathering on top of the housing
- Rugged lower die-cast aluminum heat sink accelerates thermal management and optimizes PCB and optical performance
- Separate optical and electrical compartment for optimum component operation
- One piece die cut silicone gasket ensures weather proof seal around each individual LED for IP65 rating
- Backlight Control (BC) option available for 85% spill light reduction, doesn't change fixture appearance or EPA, recommended for Type III and Type IV distributions
- Stamped bezel provides mechanical compression to seal the optical assembly
- Complements the Hubbell Southwest series of outdoor fixtures
- Weight - 45.0 pounds, EPA - 1.3 ft²
- Features exclusive wiHUBB technology
 - Wireless system for On/Off and 0-10VDC full range dimming control
 - Programmable autonomous operation

Optics:

- Choice of 32 high brightness LED configurations with individual acrylic lenses specially designed for IES Type II, III, IV and V distributions
- CCT: 5100K standard, 3000K, 4200K and turtle friendly Amber LED options

CRI: 70

Electrical:

- Universal input voltage 120-277 VAC, 50/60 Hz
- Integral step-down transformer for 347V & 480V
- Ambient operating temperature -30° C to 40° C
- Automatic thermal self-protection

- Drivers have greater than 90% power factor and less than 10% THD
- Optional continuous dimming to 10% or dual circuitry available
- LED drivers have output power over-voltage, over-current protection and short circuit protection with auto recovery
- 1050 mA driver available with 90L configuration for increased lumen output
- LED electrical assembly, including PR devices, consumes no power in the 'off' state
- Surge protection of 10KA 8/20 µSec wave; clamping voltage of 320V & surge rating of 273J

Lumen maintenance:

- L90 at 60,000 hours (Projected per IESNA TM-21-11)

Installation:

- Two die-cast aluminum arm designs are available providing maximum design flexibility
- The decorative arm offers a sleek upswept look while the straight arm follows the housing's contoured lines for continuity of style
- Fixture ships with arm installed for ease of installation and mounts to #2 drill pattern
- Wall bracket, mast arm fitter and pole accessories are also available allowing easy mounting for virtually any application

Finish:

- TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

Warranty:

Five year limited warranty (for more information visit: <http://www.hubbelloutdoor.com/resources/warranty/>)

Listings:

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- DesignLights Consortium qualified
- IDA approved • IP65

PRODUCT IMAGE(S)



90 LED 3/4 VIEW



30 LED

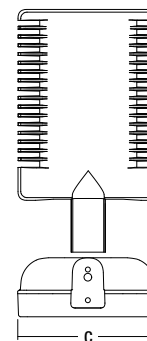
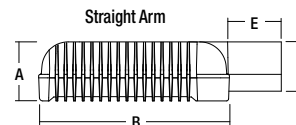
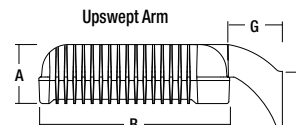


60 LED



90 LED

DIMENSIONS



A	B	C	D	E	F	G
6 3/4"	21 3/4"	16"	6 5/8"	6 5/16"	5 5/8"	6 1/8"
171mm	552mm	406mm	168mm	160mm	143mm	155mm

CERTIFICATIONS/LISTINGS



ORDERING INFORMATION SEE NEXT PAGE



Spaulding Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

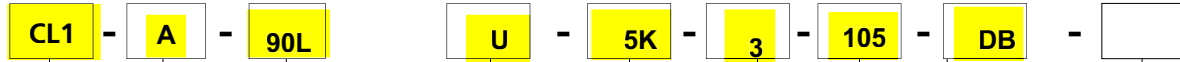
Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2014 SPAULDING LIGHTING, All Rights Reserved • For more information visit our website: www.spauldinglighting.com • Printed in USA

Notes:

LPS14-23953

ORDERING INFORMATION ORDERING EXAMPLE: CL1-A-90LU-5K-3-105-DB



SERIES	NO. OF LEDES	VOLTAGE	CCT	DRIVE CURRENT	OPTIONS
CL1 Cimarron LED	90L 90 High brightness LEDs 60L 60 High brightness LEDs 30L 30 High brightness LEDs	U³ Universal 120V-277V, 50/60 Hz 1⁷ 120V 2⁷ 208V 3⁷ 240V 4⁷ 277V 5 480V, 60 Hz F 347V, 60 Hz E⁴ 220V, 50 Hz	3K 3000K 4K 4200K 5K 5100K AM Amber (590 µm available for "Turtle Friendly" applications (consult factory))	Leave blank for 700mA (standard) 035 350mA Amber (590 µm available for "Turtle Friendly"/observatory applications (consult factory)) 105 1050 mA (use with 90L only for higher lumen output)	BC⁶ Backlight control BL^{1,2,5} Bi-level control CD² Continuous dimming WB Wall bracket RPA3 3" Round pole adapter RPA4 4" Round pole adapter RPA5 5" Round pole adapter RPA6 6" Round pole adapter F(X)^{3,4} Fusing (replace X with voltage: 1-120V, 2-208V, 3-240V, 4-277V, 5-480V, 6-347V) SSB Stainless steel LED bezel VG Vandal guard CONTROL OPTIONS SCO Motion sensor On/Off control, No light output when no motion detected SCP Programmable motion control, factory default is 50% PR(X)⁵ NEMA Photo cell receptacle (replace X with voltage: U=120-277, 5=480, 6=347) WIH⁷ In-fixture wireless control module (120, 277, 347 & 480V)
MOUNTING					
A Arm mount construction (6" straight rigid arm included & acceptable for 90° configurations)					
AD Decorative arm mount const. (6" decorative upswept arm incl. & acceptable for 90° configurations)					
MAF Mast arm fitter for mounting to standard 2 3/8" mast arm bracket, includes 6" straight rigid arm					
DISTRIBUTION					
2 Type II					
3 Type III					
4 Type IV					
5M Type V Medium					
5S Type V Short					
5W Type V Wide					
COLOR					
DB Dark Bronze					
BL Black					
WH White					
GR Gray					
PS Platinum Silver					
RD Red (premium color)					
FG Forest Green (premium color)					
CC Custom Color					

- Notes: 1- For BL option 90L and 60L; N/A 347V & 480V
- 2- BL & CD cannot be combined
- 3- Fuse option not available with universal voltage
- 4- Select F3 fusing option for 220V
- 5- Photocell receptacle not available with BL option
- 6- Recommended for Type III and IV distributions only
- 7- Select only when using voltage specific option (F or WIH)

ENERGY SAVING DATA

ENERGY DATA	
Power Factor	>.9
Total Harmonic Distortion	<10%

LIGHT ENGINE	INPUT WATTS		LUMENS DELIVERED					
	120V-277V	347V-480V	TYPE 2	TYPE 3	TYPE 4	TYPE 5M	TYPE 5S	TYPE 5W
30L-5K	70	87	6384	6164	6641	7108	6999	6619
60L-5K	140	157	13300	12842	13125	13185	13675	12954
90L-5K	210	227	19684	19006	19202	20592	19610	18973
90L-5K-105	336	363	26974	25351	26548	25793	27445	25195
30L-4K	70	87	6089	6109	6104	6417	6439	6046
60L-4K	140	157	11583	11468	12036	12038	12581	11807
90L-4K	210	227	17143	16973	17648	18521	20220	17394
90L-4K-105	336	363	23896	23912	24199	24583	25357	23128
30L-3K	70	87	4606	4668	4686	4858	4902	4601
60L-3K	140	157	9013	9175	9216	9409	9461	8844
90L-3K	210	227	13360	13601	13575	13923	14004	13902
90L-3K-105	336	363	17645	17612	17469	17950	18271	17330

ACCESSORIES SEE NEXT PAGE

ACCESSORIES

Catalog Number	Description
CR-RPA3-XX ¹	Round pole adapter for straight arm (3¼ - 3¾")
CR-RPA4-XX ¹	Round pole adapter for straight arm (3¾ - 4½")
CR-RPA5-XX ¹	Round pole adapter for straight arm (5")
CR-RPA6-XX ¹	Round pole adapter for straight arm (6")
CRD-RPA2-XX ¹	Round pole adapter for upswept arm (2¾ - 3½")
CRD-RPA3-XX ¹	Round pole adapter for upswept arm (3¼ - 3¾")
CRD-RPA4-XX ¹	Round pole adapter for upswept arm (3¾ - 4½")
CRD-RPA5-XX ¹	Round pole adapter for upswept arm (5")
CRD-RPA6-XX ¹	Round pole adapter for upswept arm (6")
WB-CR-XX ¹	Wall bracket
TPLB-XX ¹	Twin parallel luminaire bracket
MAF-CL-XX ²	Horizontal mast arm fitter for 2 3/8" OD arm. Mounts to standard 6" arm (ordered with fixture)

- 1 Replace XX with color choice, eg.: DB for Dark Bronze
- 2 When ordering poles, specify Pole Drill Pattern #2
- 3 Fixture must include standard 6" arm

MOUNTING ACCESSORIES

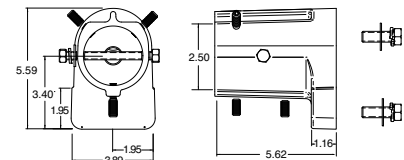
Catalog Number	Description
ARM-CL-K-TA-XX ¹	Adjustable mounting arm for single fixture (2-3/8 tenon) – 5 lbs. 2.3 kgs.
ARM-CL-TK-TA-XX ¹	Adjustable mounting arm for two fixtures at 180° (2-3/8 tenon) – 7 lbs. 3.2 kgs.
ARM-CL-K-S-XX ¹	10" adjustable arm – .5 lbs. .05 kgs. – 5.75 lbs. 2.6 kgs.

- 1 Replace XX with color choice, eg.: DB for Dark Bronze
- 2 Fixture must include standard 6" straight arm

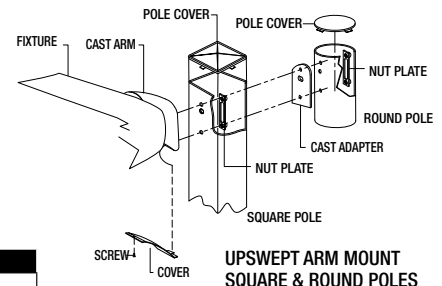
ARM-CL-K-TA-XX
ARM-CL-TK-TA-XX



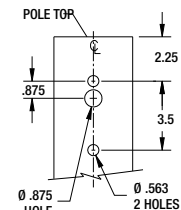
ARM-CL-K-S-XX



MAF – HORIZONTAL MAST ARM FITTER



UPSWEPT ARM MOUNT SQUARE & ROUND POLES



#2 DRILL PATTERN FOR POLES

TENON TOP POLE BRACKET ACCESSORIES

(2 3/8" OD tenon) (RSS version requires 4" round pole adapter)

Catalog Number	Description
SETA-XX ¹	Square pole tenon adapter (4 at 90 degrees)
RETA-XX ¹	Round pole tenon adapter (4 at 90 degrees)
TETA-XX ¹	Hexagonal pole tenon adapter (3 at 120 degrees)

- 1 Replace XX with color choice, eg.: DB for Dark Bronze

PHOTOCONTROL EQUIPMENT

Catalog Number	Description
PTL-1	Photocontrol - twist-lock cell (120V)
PTL-8	Photocontrol - twist-lock cell (120-277V)
PTL-5	Photocontrol - twist-lock cell (480V)
PTL-6	Photocontrol - twist-lock cell (347V)
PSC	Shorting cap - twist-lock

LIGHTING FACTS

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens) 6270
Watts 68.4
Lumens per Watt (Efficacy) 91

Color Accuracy (Color Rendering Index (CRI)) 74

Light Color (Correlated Color Temperature (CCT)) 4021 (Bright White)

Warranty** Yes

Registration Number: A29K-222780 (11/21/2013)
Model Number: CL1-A-303L-4K-3
Type: Outdoor area/landscape luminaire

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens) 6892
Watts 69.7
Lumens per Watt (Efficacy) 98

Color Accuracy (Color Rendering Index (CRI)) 68

Light Color (Correlated Color Temperature (CCT)) 5008 (Daylight)

Warranty** Yes

Registration Number: A29K-119745 (11/21/2013)
Model Number: CL1-A-303L-5K-3
Type: Outdoor area/landscape luminaire

lighting facts
A Program of the U.S. DOE

Light Output (Lumens) 15056
Watts 208.8
Lumens per Watt (Efficacy) 72

Color Accuracy (Color Rendering Index (CRI)) 76

Light Color (Correlated Color Temperature (CCT)) 5433 (Daylight)

Warranty** Yes

Registration Number: A29K-184954 (11/21/2013)
Model Number: CL1-AD-90L-1-5K-3
Type: Outdoor area/landscape luminaire

All results are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

LED lighting facts
A Program of the U.S. DOE

Light Output (Lumens) 22898
Watts 339.5
Lumens per Watt (Efficacy) 67

Color Accuracy (Color Rendering Index (CRI)) 75

Light Color (Correlated Color Temperature (CCT)) 4102 (Bright White)

Warranty** Yes

Registration Number: A29K-RFEAAX (11/22/2013)
Model Number: CL1-A-90LJ-4K-2-105
Type: Outdoor area/landscape luminaire

**SSS SERIES
POLES**
SQUARE STRAIGHT STEEL

Cat. #		Approvals
Job	Type	

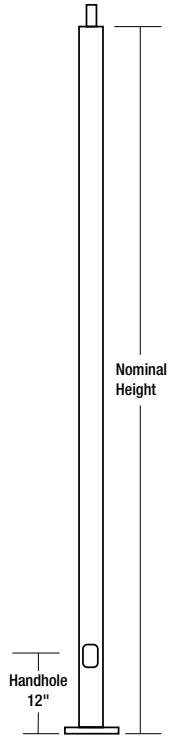
**SPAULDING
LIGHTING**

APPLICATIONS

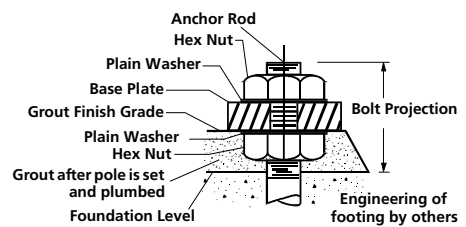
- Lighting installations for side and top mounting of luminaires with effective projected area (EPA) not exceeding maximum allowable loading of the specified pole in its installed geographic location.

FEATURES

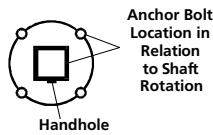
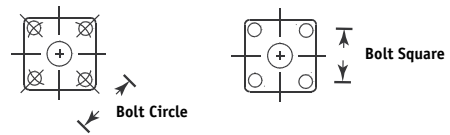
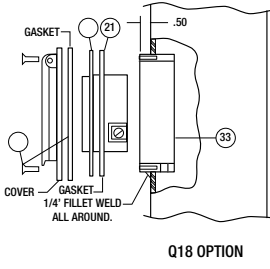
- **SHAFT:** One-piece straight steel with square cross section, flat sides and minimum 0.36" radius on all corners. Minimum yield of 46,000 psi (ASTM-A500, Grade B). Longitudinal weld seam to appear flush with shaft side wall. Steel base plate with axial bolt circle slots welded flush to pole shaft having minimum yield of 36,000 psi (ATM-A36).
- **BASE COVER:** Two-piece square aluminum base cover included standard.
- **POLE CAP:** Pole shaft covered with removable non-metallic cover when applicable. Tenon and post-top configurations also available.
- **HAND HOLE:** Rectangular steel-reinforced hand hole (2.5" x 4.5"). Pole grounding lug located behind gasketed cover.
- **ANCHOR BOLTS:** Four galvanized anchor bolts provided per pole with minimum yield of 55,000 psi (modified ASTM-A36). Galvanized hardware with two washers/nuts per bolt for leveling meet or exceed bolt strength.
- **FINISH:** Durable Lektrocote® TGIC thermoset polyester powder coat paint finish with nominal 3.0 mil thickness. Zinc-rich powder paint prime applied over "white metal" steel substrate cleaned via mechanical shot blast method. Decorative finish coat available in seven standard colors. Custom colors available. RAL number preferable. Internal protective coating available.



BASE DETAIL



**15 AMP GFCI
RECEPTACLE & COVER**



ORDERING INFORMATION

S - S - S - 25 - 40 - 1 - TA - DB
 | | | | | | | |
 Cross Section Style Material Nominal Length Nominal Shaft Dia. Shaft Thickness Mounting Type Finish

Catalog Number	Pole Ht.		Nominal Shaft Dim.	Wind Load Rating ¹						Wall Thick.	Bolt Circle (Sug.)	Bolt Circle	Bolt Sq.	Base Plate (sq.)	Anchor Bolt Size	Bolt Proj.	Pole Wt (lbs)
	ft	m		70 MPH	80 MPH	90 MPH	100 MPH	120 MPH									
SSS-10-40-1-XX-XX	10	3.0	4"	25	25	22	17	11.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	91	
SSS-10-50-1-XX-XX	10	3.0	5"	25	25	25	23	15	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	106	
SSS-12-40-1-XX-XX	12	3.7	4"	25	21	16	13.0	8.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	104	
SSS-12-50-1-XX-XX	12	3.7	5"	25	25	23	18	11.8	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	122	
SSS-14-40-1-XX-XX	14	4.3	4"	24	18	14.2	11.0	6.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	116	
SSS-14-40-7-XX-XX	14	4.3	4"	25	25	23	18	12.2	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	158	
SSS-14-50-1-XX-XX	14	4.3	5"	25	24	19	14.4	9.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	138	
SSS-16-40-1-XX-XX	16	4.9	4"	16	12.2	9.0	6.8	3.8	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	128	
SSS-16-40-7-XX-XX	16	4.9	4"	25	20	15	12.2	7.6	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	176	
SSS-16-50-1-XX-XX	16	4.9	5"	22	16	12.2	9.2	5.2	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	153	
SSS-16-50-7-XX-XX	16	4.9	5"	25	25	24	19	12.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	214	
SSS-18-40-1-XX-XX	18	5.5	4"	13.8	10.0	7.2	5.2	2.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	147	
SSS-18-40-7-XX-XX	18	5.5	4"	23	17	13.0	10.0	6.0	.179"	11"	10 - 13.5"	7.1 - 9.5"	11 x 1"	3/4 x 30 x 3"	4"	201	
SSS-18-50-1-XX-XX	18	5.5	5"	18	13.2	9.6	7.0	3.4	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	175	
SSS-18-50-7-XX-XX	18	5.5	5"	25	25	20	16	9.8	.179"	11"	8 1/2 - 12"	6 - 8.4"	12 x 1"	3/4 x 30 x 3"	4"	243	
SSS-20-40-1-XX-XX	20	6.1	4"	11.4	8.0	5.6	3.8	1.4	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	160	
SSS-20-40-7-XX-XX	20	6.1	4"	19	14.6	10.8	8.0	4.4	.179"	11"	8 1/2 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	225	
SSS-20-50-1-XX-XX	20	6.1	5"	15	10.8	7.6	5.2	2.0	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	191	
SSS-20-50-7-XX-XX	20	6.1	5"	25	23	17	13.2	7.6	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	3/4 x 30 x 3"	4"	266	
SSS-20-60-7-XX-XX	20	6.1	6"	25	25	24	18	11.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	312	
SSS-25-40-1-XX-XX	25	7.6	4"	7.0	4.2	2.2	NR	NR	.119"	11"	8 - 11"	5.6 - 7.8"	10.25 x 0.75"	3/4 x 30 x 3"	4"	190	
SSS-25-40-7-XX-XX	25	7.6	4"	13.4	9.4	6.4	4.2	1.4	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	3/4 x 30 x 3"	4"	266	
SSS-25-50-1-XX-XX	25	7.6	5"	9.6	6.0	3.4	1.4	NR	.119"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	231	
SSS-25-50-7-XX-XX	25	7.6	5"	22	15	11.2	7.8	3.4	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	324	
SSS-25-50-3-XX-XX	25	7.6	5"	25	22	16	12.4	6.6	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	437	
SSS-25-60-7-XX-XX	25	7.6	6"	25	22	16	11.6	5.6	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	404	
SSS-27-40-7-XX-XX	27	8.2	4"	11.4	7.8	5.0	3.0	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	290	
SSS-30-40-7-XX-XX	30	9.1	4"	8.2	5.0	2.8	1.2	NR	.179"	11"	8.5 - 12"	6 - 8.4"	11 x 1"	1 x 36 x 4"	4"	313	
SSS-30-50-7-XX-XX	30	9.1	5"	14.2	9.4	6.0	3.4	NR	.179"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	398	
SSS-30-50-3-XX-XX	30	9.1	5"	20	14.6	10.2	6.8	2.4	.250"	11"	10 - 13.5"	7.1 - 9.5"	12 x 1"	1 x 36 x 4"	4"	537	
SSS-30-60-7-XX-XX	30	9.1	6"	20	13.8	9.2	5.8	1.2	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	467	
SSS-30-60-3-XX-XX	30	9.1	6"	25	24	17	12.8	6.2	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	630	
SSS-35-60-7-XX-XX	35	10.7	6"	14.2	8.4	4.6	1.6	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	538	
SSS-35-60-3-XX-XX	35	10.7	6"	25	17	11.6	7.4	1.8	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	726	
SSS-40-60-7-XX-XX	40	12.2	6"	9.0	4.0	NR	NR	NR	.179"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1 x 36 x 4"	4"	614	
SSS-40-60-3-XX-XX	40	12.2	6"	18	11.8	6.8	3.2	NR	.250"	12"	11 - 13.5"	7.8 - 9.5"	12 x 1"	1.25 x 42 x 6"	4"	802	

1 Allowable EPA with 1.3 gust factor. To determine max. pole loading weight, multiply allowable EPA by 30 lbs.

NOTE Factory supplied template must be used when setting anchor bolts. Hubbell Lighting will deny any claim for incorrect anchorage placement resulting from failure to use factory supplied template and anchor bolts.

COMPLETE PART NUMBER REQUIRES SHAFT ABOVE PLUS MOUNTING TYPE, FINISH & APPROPRIATE OPTIONS BELOW

OPTION ORIENTATION

MOUNTING TYPE

- AX' Side - Single
- BX' Side - Double at 90°
- CX' Side - Double at 180°
- DX' Side - Triple at 90°
- FX' Side - Quad at 90°
- P1 Pad Mount - Spider Type
- P2 Pad Mount - Yoke Type
- P3 Pad Mount - Yoke Type (Proformer XL only)
- TA Tenon (2.375" OD)
- TB Tenon (2.875" OD)
- TR² Removable Tenon (2.375 x 4.25)
- CD Concord Luminaire
- OT No drilling (includes pole cap)

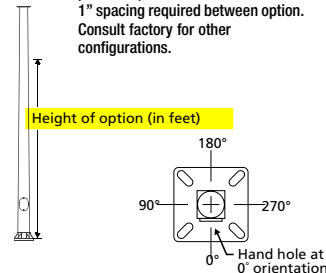
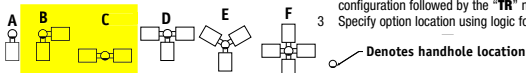
FINISH

- DB Dark Bronze
- BL Black
- WH White
- GR Gray
- PS Platinum Silver
- RD Red (Premium Color)
- FG Forest Green (Premium Color)
- CC Custom Color (Consult Factory)
- PR Primer Only

OPTIONS

- Q55 Internal Coating (Hubbell Seal)
- Q18³ 15 Amp GFCI Receptacle and Cover
- Q22³ Extra Handhole
- Q26³ .5" Coupling
- Q27³ .75" Coupling
- Q30³ 2" Coupling
- Q32³ Mid-pole Luminaire Bracket
- Q40 Vibration Damper
- LAB Less Anchor Bolts
- CSA CSA Certified (consult factory)

Follow the logic below when ordering location specific options. For each option, include its orientation (in degrees) and its height (in feet). Example: Option Q26 should be ordered as: SSS-20-40-1-TA-DB-Q26-0-15 (.5" coupling on the handhole/arm side of pole, 15 feet up from the pole base) 1" spacing required between option. Consult factory for other configurations.



Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Farm Credit Tontitown

Catalog Number:
LXURWE

Notes:

Type:
X

LPS14-23953



LX Series
Designer LED Exit Sign

FEATURES

Application

The LX Series offers bright and even LED EXIT panel illumination with Green or Red letters and attractive UV stable thermo-plastic housing. Features include AC or Emergency operation with optional Spectron® self-test/self diagnostic circuitry. Housing designed for quick and easy installation with low energy consumption. Damp location listed. Accepts 120 or 277 VAC input.

Construction

The precision-molded thermoplastic housing is impact resistant and scratch resistant, corrosion proof and UL stabilized to resist discoloration. Available in white or black finish. Innovative snap-together design. Includes additional face-plate for single or double face applications. Snap-in directional chevrons. Exit stencil with 6" letters and 3/4" stroke. Includes push-in wire connectors for easy installation.

Installation

Universal mounting (ceiling, end, wall) to standard 3 1/2" or 4" octagon or square electrical box by use of easily removed, template configured knockouts. Canopy and universal mounting plate included. All mounting hardware is fully concealed.

Illumination

Exit face illumination is provided by energy saving, long-life red or green LED's. Exceeds UL 924 requirements for brightness and uniformity. UL listed LED run-time of 120 minutes. 10 year LED life.

Compliances

UL 924 Listed (Meets 1998 brightness and uniformity requirements)
UL Damp Location Listed
NFPA-70
NFPA-101
US Patent No. D402,316, and D406,863.

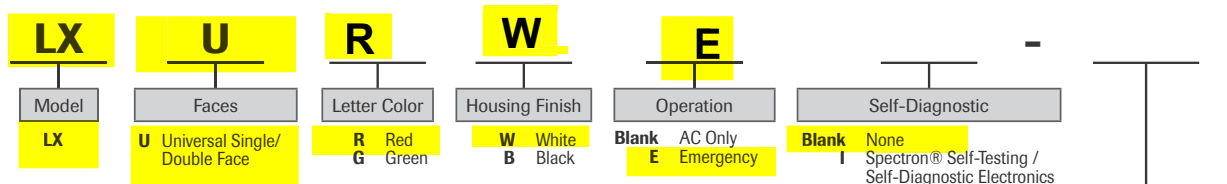
Warranty

Unit and electronics: 5 years full

Catalog Number	
Comments	Type



ORDERING GUIDE



- Options**
- 2C 2-Circuit Operation 2, 5
 - FAP Fire Alarm Panel Interface 1, 3, 5, 6
 - FM Flasher Module 1, 6
 - AF Audible/Flasher Module 1, 6
 - DC Remote DC Operation 2, 4, 5
 - 24K 220-240 VAC, 60Hz Operation

ACCESSORIES (order separately)

- VRS-3 Vandal Resistant Shield
- FCM-R Kit Converts AC red letter models to emergency operation
- FCM-G Kit Converts AC green letter models to emergency operation
- PMLXW 12 1/2" Pendant Mounting Kit (white)
- PMLXB 12 1/2" Pendant Mounting Kit (black)
- WGLX Wire Guard (wall mount)
- WGLXC Wire Guard (ceiling mount)
- WGLXE Wire Guard (end mount)

FEATURES

- (1) For use with Spectron® self-diagnostic models only.
- (2) For use with AC models only.
- (3) Operates with 24-volt AC or DC fire alarm panels.
- (4) For emergency illumination of sign from remote 6-24 VDC power sources.
- (5) -DC option may not be specified with -2C or -FAP options.
- (6) -AF, -FM and -FAP options may not be specified together.



Hubbell Lighting, Inc.



LX Series

Designer LED Exit Sign

SPECIFICATIONS

Electronics

Available with AC, emergency and Spectron® self-diagnostic/self-testing electronics option. Emergency and self-diagnostic models equipped with isolation transformer and fully automatic constant current solid-state charger with sealed maintenance-free nickel-cadmium battery. All components mounted inside housing. Includes test switch and AC-on indicator. Transient/surge protection, low-voltage disconnect and AC lock-out features included. Battery re-charge within UL time standards. Includes pre-stripped AC input pigtail leads. UL listed LED run-time of 120 minutes.

Power Consumption

	120VAC	277VAC
Red AC Only Models:	2.64 watts	2.70 watts
Green AC Only Models:	2.24 watts	2.24 watts
Red Emergency Models:	3.81 watts	3.80 watts
Green Emergency Models:	3.50 watts	3.50 watts

* Wattage figures include LED lamps, transformer and electronics power requirements. LED lamp assemblies (red or green) consume less than 1 watt.

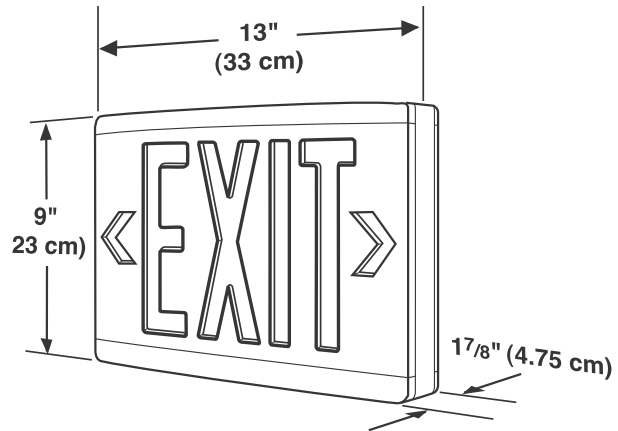
Power Factor, Average: .8 (lagging)

Battery Type: Maintenance-free sealed nickel cadmium battery

AC Input: 120/277VAC, 60 Hz. (all models)

Operating Temperature Range: 0°C to 40°C (32°F to 104°F)

DIMENSIONS





LZ Series
Designer Emergency Lighting Unit

FEATURES

Application

The LZ Series is an indoor emergency lighting unit with 10 - 65W capacity utilizing a sealed lead-calcium or nickel-cadmium battery in 6 or 12 VDC. Supplied standard with two halogen MR16 lamps. High-output LED based MR16 option provides increased spacing, additional run-time and/or increased remote capacity. Matching remote heads are also offered. The integrated lamp design offers greater protection from vandalism.

Construction

Available in two housing sizes, one for standard capacity models (LZ2, LZ15) and increased depth for higher capacity models (LZ15 through LZ65). Made from UV stabilized thermoplastic with a snap-together design in white or black finish. Includes test switch and AC-ON indicator.

Installation

Unit mounts to 3½", 4" octagon or 4" square boxes. Back-plate provides a universal knockout pattern for mounting to outlet box. Keyholes provided for securing housing to wall surface. LZ2 and LZ15 can be ceiling mounted. All AC connections made inside unit housing.

Illumination

The LZ Series provides illumination with two halogen MR16 lamps positioned inside an adjustable "eyeball" style housing. Optional lamps for greater light output include 10W MR16 and maximum coverage high-output LED based MR16.

Compliances

UL 924 Listed (optional damp location listed)
NFPA 70
NFPA 101
ADA compliant (LZ standard models only)
U.S. Patent Nos. D400,991, D419,708, D400,995, 6,280,042 and 6,019,477.

Catalog Number	
Comments	Type



Standard Size



High Capacity



Optional black finish



ZR remote heads (sold separately)

ORDERING GUIDE

Model	Capacity	Battery Type	Rating	Output Volts	Self-Diagnostics	Options
LZ	2 10 Watts ² 15 15 Watts 20 20 Watts ⁵ 25 25 Watts ⁵ 30 30 Watts ² 35 35 Watts ^{2,6} 55 55 Watts ² 65 65 Watts ^{2,6}	Blank Lead-Calcium N Nickel-Cadmium ^{3,4}	Blank Standard Model D Damp Location Listing ⁹	Blank 6 Volts -12V 12 Volts ¹⁰	Blank None I Spectron® Self-test/ Self-diagnostic Electronics ⁷	Blank 5W Halogen lamps 10W 10W Halogen lamps ¹ 03L 3W LED Lamps ⁸ B Black finish V Voltmeter 0 Unit supplied without lampheads ¹¹ 24K 220-240VAC, 60 Hz operation ² A21 Aux. 2-conductor, line cord, 120VAC only ¹² A31 Auxiliary 3-conductor line cord, 120VAC only ¹³

¹ Available on units with capacities of 20 watts or more
² Not available with Nickel-Cadmium battery models
³ Available only on 15, 20 or 25 Watt models
⁴ Must order with damp location on LZ15 in 6 VDC only
⁵ Not available with Lead-Calcium battery models
⁶ Not available with damp location models
⁷ Must order with damp location listing on LZ2 model
⁸ Not available with LZ21 and LZ151 Spectron® equipped unit
⁹ Not available with -03L (LED) option
¹⁰ Limited to LZ20ND-12V, LZ25N-12V, LZ30D-12V, LZ35-12V, LZ55D-12V and LZ65-12V
¹¹ Not available on LZ2 and LZ15 models
¹² Available on LZ2 only
¹³ Available on all models except LZ2



LZ Series

Designer Emergency Lighting Unit

	Voltage	Battery	Lamp	Capacity	Runtime	Extended Runtime	Remote Watts	Number of Remotes: 5W HAL	Number of Remotes: 10W HAL	Number of Remotes: 3W LED
STANDARD	LZ2	6VDC	Lead Calcium	5W HAL	10 watts	90 min.	No	0	0	0
	LZ15	6VDC	Lead Calcium	5W HAL	15 watts	90 min.	Yes	5	1	0
	LZ30	6VDC	Lead Calcium	5W HAL	30 watts	90 min.	Yes	20	4	2
	LZ35-12V	12VDC	Lead Calcium	5W HAL	35 watts	90 min.	Yes	25	5	2
	LZ65	6VDC	Lead Calcium	5W HAL	65 watts	90 min.	Yes	55	11	5
DAMP	LZ65-12V	12VDC	Lead Calcium	5W HAL	65 watts	90 min.	Yes	55	11	5
	LZ20N	6VDC	Nickel Cadmium	5W HAL	20 watts	90 min.	Yes	10	2	1
	LZ25N-12V	12VDC	Nickel Cadmium	5W HAL	25 watts	90 min.	Yes	15	3	1
	LZ2D	6VDC	Lead Calcium	5W HAL	10 watts	90 min.	No	0	0	0
	LZ25D	6VDC	Lead Calcium	5W HAL	25 watts	90 min.	Yes	15	3	1
LED	LZ30D-12V	12VDC	Lead Calcium	5W HAL	30 watts	90 min.	Yes	20	4	2
	LZ55D	6VDC	Lead Calcium	5W HAL	55 watts	90 min.	Yes	45	9	4
	LZ55D-12V	12VDC	Lead Calcium	5W HAL	55 watts	90 min.	Yes	45	9	4
	LZ15ND	6VDC	Nickel Cadmium	5W HAL	15 watts	90 min.	Yes	5	1	0
	LZ20ND-12V	12VDC	Nickel Cadmium	5W HAL	20 watts	90 min.	Yes	10	2	1
	LZ2-03L	6VDC	Lead Calcium	3W LED	10 watts	90 min.	No	0	0	0
	LZ15-03L	6VDC	Lead Calcium	3W LED	15 watts	90 min.	Yes	9	1	0
	LZ30-03L	6VDC	Lead Calcium	3W LED	30 watts	90 min.	Yes	24	4	2
	LZ35-12V-03L	12VDC	Lead Calcium	3W LED	35 watts	90 min.	Yes	29	5	2
	LZ65-03L	6VDC	Lead Calcium	3W LED	65 watts	90 min.	Yes	59	11	5
LZ65-12V-03L	12VDC	Lead Calcium	3W LED	65 watts	90 min.	Yes	59	11	5	
LZ20N-03L	6VDC	Nickel Cadmium	3W LED	20 watts	90 min.	Yes	14	2	1	
LZ25N-12V-03L	12VDC	Nickel Cadmium	3W LED	25 watts	90 min.	Yes	19	3	1	

SPECIFICATIONS

Standard Features:

- External push-to-test switch and AC-ON indicator
- Low voltage disconnect
- Transformer isolation
- Temperature compensated charger circuitry
- MR16 Halogen lamp with rated 200 hour life
- Standard 120/277VAC, 60Hz.
- Optional 220/240VAC, 50/60Hz
- Weight is 4-12 lbs. depending on capacity

Optional Features:

- Spectron® self-test/self-diagnostic circuitry monitors lamp status, lamp load transfer circuitry and battery capacity; displays any fault detected via a flashing code. Automatically runs periodic diagnostic routines to ensure unit readiness. Multicolor LED indicates fault condition and charging status.
- LED MR16 lamps rated at 50,000 hour life expectancy
- Available without integral lamp heads for added run time or remote capacity operation.

Operating Temperature Range:

Standard models: 20°C to 30°C (68°F to 86°F)
 Damp location models: 10°C to 40°C (50°F to 104°F)

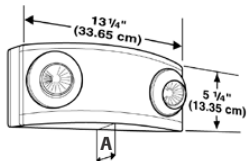
Power consumption for LZ2 and LZ15

Maximum: 4.0W, 120VAC or 277VAC **Normal:** 1.3W, 120VAC or 277VAC

Power consumption for LZ15N and larger

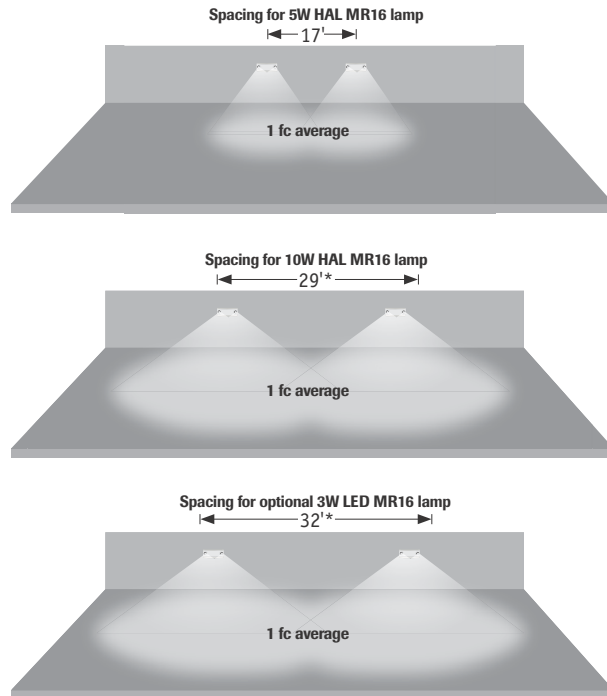
	Lead-Acid Battery		Nickel-Cadmium Battery	
	6 Volt	12 Volt	6 Volt	12 Volt
Maximum	14W	14.0W	11.1W	11.1W
Normal	1.8W	2.0W	8.4W	8.1W

DIMENSIONS



A
 Standard size (LZ2, LZ15) depth is 3.625" (9.2cm).
 High capacity model depth is 5.125" (13cm).

APPLICATION DATA



Meets Life Safety Code minimum illuminance of 0.1 fc and average illuminance of 1.0 fc. Assumes open space with no obstructions, mounting height of 7'5", ceiling height of 9' and reflectances of 80/50/20 on a 3' path. Photometry files available on the Dual-Lite web site (www.dual-lite.com).
 * Due to limitations in aiming



LT Series
Designer Combination Emergency Lighting Unit/LED Exit Sign

FEATURES

Application

The LT Series provides bright, even LED exit illumination and emergency lighting, offering a flexible solution for emergency path of egress illumination. Four long life LEDs illuminate the exit sign, and two, semi-recessed "eyeball" shaped lamp-heads with halogen or LED based MR16 lamps provide emergency unit illumination. Remote capacity and damp location options are available.

Construction

The precision-molded thermoplastic housing is impact and scratch resistant, corrosion proof and UV stabilized to resist discoloration. Available in white or black. Innovative snap-together design. Includes additional face-plate for single or double-face applications. Snap-in directional chevrons. Designed for ceiling or wall mounting; can be end-mounted with end-mount accessory kit. Red or green polystyrene .030" diffuser is frequency matched to the LEDs providing optimum exit sign illumination.

Installation

Product mounts to 3½", 4" octagon or 4" square outlet boxes. Housing back-plate includes universal knock-out pattern for outlet box mounting. Keyholes provided for securing housing to wall surface. Pre-stripped pigtail leads provided.

Illumination

Four long-life LEDs provide exit illumination. Exceeds the 2009 UL 924 requirements for brightness and uniformity. Unit illumination by halogen or optional high-performance LED based MR16 lamps.

Compliances

UL 924 Listed (optional damp location listed)

NFPA 70

NFPA 101

U.S. Patent No. D406,279

Catalog Number	
Comments	Type

USE COMPASS CCR



Matching indoor remote heads for use with LTUX3 models (sold separately)



LZRSW0605 (5W HAL)
LZRSW0603L (3W LED)



LZRSB0605 (5W HAL)
LZRSB0603L (3W LED)

ORDERING GUIDE

LT	U	R	W			
Model	Faces	Letter Color	Housing Finish	Application	Self-Diagnostics	Options
LT	U Universal Single/Double Face	R Red G Green	W White B Black	Blank 3 Standard Model Remote Capacity Model ⁸ D Damp Location Model ^{5,8}	Blank I Spectron® Self-test/ Self-diagnostic Electronics ¹	Blank 5W Halogen lamps -03L 3W LED Lamp ⁶ -0 Unit supplied without lampheads ² -FAP Fire alarm panel interface ^{3,4,7} -FM Flasher module ^{4,7} -AF Alarm/Flasher module ^{4,7} -24K 220-240VAC, 60 Hz operation -SA "SALIDA" stencil face

¹ Available only with remote capacity and damp location models
² Available with remote capacity (LTUX3) models without Spectron only
³ Operates with 24-volt AC or DC fire alarm panels
⁴ -FAP, -FM or -AF options may not be specified together
⁵ Not available with -03L(LED) option
⁶ Not available with Spectron Self-Diagnostics
⁷ Only available with Spectron Self-Diagnostics
⁸ Remote and Damp cannot be specified together

ACCESSORIES (order separately)

- WGTW Wireguard (wall mount)
- WGTC Wireguard (ceiling or end mount)
- FTSMKW Side mount field kit (white)
- FTSMKB Side mount field kit (black)
- PMLZTW 12½" Pendant mounting kit (white)
- PMLZTB 12½" Pendant mounting kit (black)





LT Series

Designer Combination Emergency Lighting Unit/LED Exit Sign

Output Voltage	Battery	Lamp	Unit Capacity	Runtime	Extended Runtime	Remote Watts	Number of Remotes: 5W HAL	Number of Remotes: 3W LED
----------------	---------	------	---------------	---------	------------------	--------------	---------------------------	---------------------------

Standard Models

LTURW	6VDC	Lead-Calcium	5W HAL	10 watts	90 min.	No	--	--
LTUGW	6VDC	Lead-Calcium	5W HAL	10 watts	90 min.	No	--	--

Damp Location Models

LTURWD	6VDC	Lead-Calcium	5W HAL	10 watts	90 min.	No	--	--
LTUGWD	6VDC	Lead-Calcium	5W HAL	10 watts	90 min.	No	--	--

Remote Capacity Models

LTURW3	6VDC	Lead-Calcium	5W HAL	15 watts	90 min.	Yes	5	1
LTUGW3	6VDC	Lead-Calcium	5W HAL	15 watts	90 min.	Yes	5	1

Spectron® Models

LTURW3I	6VDC	Lead-Calcium	5W HAL	15 watts	90 min.	Yes	5	1
LTUGW3I	6VDC	Lead-Calcium	5W HAL	15 watts	90 min.	Yes	5	1

LED Models

LTURW-03L	6VDC	Lead-Calcium	3W LED	10 watts	90 min.	Yes	--	--
-----------	------	--------------	--------	----------	---------	-----	----	----

SPECIFICATIONS

Standard Features:

- External push-to-test switch and AC-ON indicator
- Exit Sign Letters: 6" height, 3/4" stroke
- Snap-in directional chevrons in Exit Sign
- Low voltage disconnect
- Transformer isolation
- AC lockout
- Temperature compensated charger circuitry
- MR16 Halogen lamp with rated 200 hour life
- Battery recharge time within UL specifications

Optional Features:

- Spectron® self-test/self-diagnostic circuitry monitors lamp status, lamp load transfer circuitry and battery capacity; displays any fault detected via a flashing code. Automatically runs periodic diagnostic routines to ensure unit readiness. Multicolor LED indicates fault condition and charging status.
- LED MR16 lamps rated at 50,000 hour life expectancy.
- Available without integral lamp heads for added run time or remote capacity operation.

Operating Temperature Range:

Standard models: 20°C to 30°C (68°F to 86°F)

Damp location models: 10°C to 40°C (50°F to 104°F)

AC Input Voltage

120VAC or 277VAC: 60 Hz. operation standard **Optional 220-240VAC:** 50/60 Hz.

Power Consumption

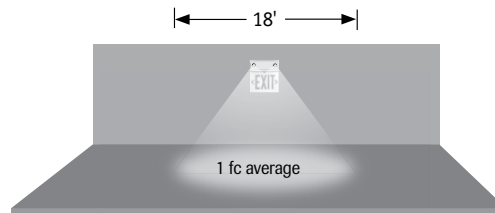
Maximum: 5.0W at 120VAC or 277VAC (all models)

Normal: 4.2W at 120VAC or 277VAC (all models)

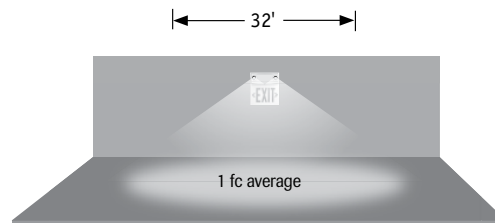
Power Factor, Average: .9 (lagging)

APPLICATION DATA

Coverage for 5W HAL MR16 lamp

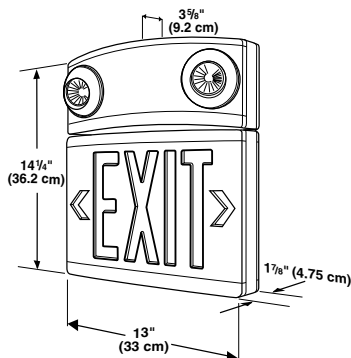


Coverage for optional 3W LED MR16 lamp



Meets Life Safety Code minimum illuminance of 0.1 fc and average illuminance of 1.0 fc. Assumes open space with no obstructions, mounting height of 7.5', ceiling height of 9' and reflectances of 80/50/20. Photometry files available on the Dual-Lite web site (www.dual-lite.com).

DIMENSIONS





PG
Indoor/Outdoor Emergency Lighting Unit

FEATURES

Application

The PG is an indoor/outdoor, die-cast architectural emergency unit. It is a wet location listed, emergency luminaire with high-output LED technology that provides path of egress illumination for mounting over entrance/exit ways and perimeter walkways. Spectron® self-testing/self-diagnostic electronics are included standard. A battery heater for cold temperature operation is available as an option.

Construction

Housing and mounting plate are constructed of 0.125" die-cast aluminum and 0.125" closed-cell, medium density, neoprene gasket. The acrylic lens allows 92% light transmission. The reflector is electro-polished aluminum with 95% reflectance. Housing finish is powder coated electro-deposition paint available in four colors: dark bronze, white, platinum silver and black.

Installation

Universal housing knockouts for mounting to standard 3 1/2" and 4" octagon and 4" square electrical boxes. A 1/2" - 1/4 NPT threaded conduit opening is provided at the top of the housing and sealed with a closure plug. The back plate mounts to the wall surface using installer supplied hardware. The housing "snaps" to the back plate by a "pin and socket" arrangement, and is secured with two Fillister head screws. AC Lockout feature prevents battery discharge prior to initial unit power-up saving installation time.

Lamps

Four high-output, long life LED lamps arranged in redundant pairs.

Compliances

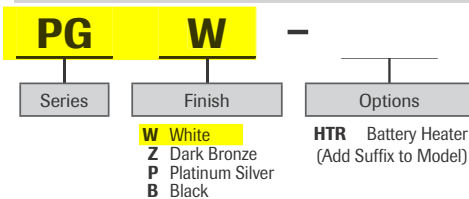
UL 924 Listed (emergency models only)

- UL Wet Location Listed
- NFPA 101 Life Safety Code
- NFPA 70 National Electrical Code
- OSHA
- U.S. Patent No. D627,916.

Warranty

Three-years full for unit, electronics and battery.

ORDERING GUIDE



Catalog Number	
Comments	Type



White



Dark Bronze



Platinum Silver



Black

Reference "Remote Heads and Fixtures" specification sheet for information on matching PG remote



PGR Remote LED





PG

Indoor/Outdoor Emergency Lighting Unit

SPECIFICATIONS

Electronics

Upon failure of the normal utility power, a solid-state transfer switch automatically activates the emergency lamp. Upon resumption of the normal utility power, the battery is disconnected from the load and recharged through a solid-state charging unit. A low voltage battery disconnect feature protects the battery from severe damage during prolonged power failures. Spectron® self-testing/self-diagnostic circuitry provides automatic system testing on a monthly and semi-annual basis. Manual testing is available at any time using the push-to-test button: push once for a 60-second system test; push twice for a 90-minute system test.

Number of Lamps: Four high output LEDs

Lamp Configuration: Two sets of 2 LEDs provide illumination. In the unlikely event that any single LED should fail the remaining LEDs will continue to function.

Lamp Type: Solid state high output LEDs

Lamp Color: Cool White, 6350K

Total Lamp Output: 405 Lumens

Input: 120/277VAC, 60 Hz

Battery Charger: Temperature compensating, constant current Transfer: Solid state

Functional Circuitry: AC lockout, transformer isolation, transient surge protection, low voltage battery disconnect, brownout detection, time delay retransfer

Battery Recharge Cycle: per UL time standards

Test Means: Integral test switch

Battery: Sealed, maintenance-free Nickel-Cadmium

Operating Temperature Range for Models without Heater: 0°C to 50°C (32°F to 122°F)

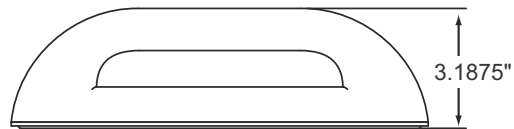
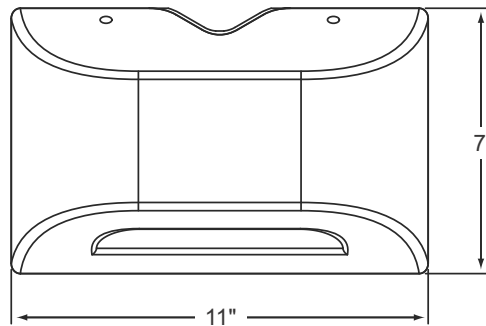
Operating Temperature Range for Models with Heater: -30°C to 50°C (-22°F to 122°F)

Power Consumption

Models Without Heater		Models With Heater	
120VAC	2.78 watts	120VAC	15.2 watts
277VAC	2.88 watts	277VAC	15.7 watts

Power factor, average: 0.8 (lagging)

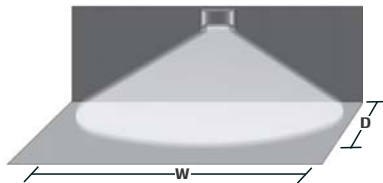
DIMENSIONS



ILLUMINATION PATTERN

SINGLE UNIT COVERAGE

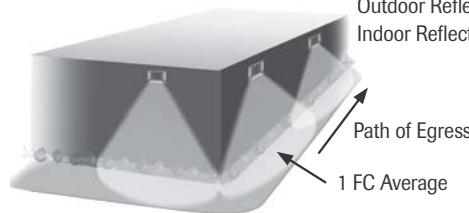
Mounting Height: 9'
Outdoor Reflectance: 0/30/10
Indoor Reflectance: 80/50/20



	Indoor	Outdoor
1 FC Average (W x D)	33' X 10'	27' X 10'
1 FC Minimum (W x D)	10' X 10'	9' X 10'

MULTIPLE UNIT SPACING

Mounting Height: 9'
Illuminated Path Depth: 6'
Outdoor Reflectance: 30/10
Indoor Reflectance: 80/50/20



	Indoor	Outdoor
1 FC Average	44'	33'
1 FC Minimum	16'	15'

