

FEATURES

- Architecturally enhanced triple lens design
- Up to 95 lumens per watt
- Long-life, 50,000 hour LEDs at L80 (80% lumen maintenance) reduce life cycle maintenance costs
- Four LED Color Choices
- Four Lumen Packages
- Superior color consistency within a 3-step MacAdam ellipse and greater than 80 CRI
- Rigorous testing and QR code record
- Lens design and materials provide uniform appearance without pixilation
- Hinged optical system allows easy access to lamps and electrical from below the ceiling
- Lenses interlock for structural integrity
- Two optional lens aesthetics
- Most configurations produce low W/f2 to meet the most restrictive lighting power density codes
- Optional architecturally styled integration of daylight, occupancy, or daylight and occupancy sensor(s)
- Available with exclusive wiHUBB technology preinstalled

HUBBELL SUSTAINABLE DESIGN SOLUTION FEATURES*

- Made with 90% recycled steel
- Made of 80% recyclable materials by weight
- Job pack available for minimizing amount of packaging material at job site
- Individual cartons made of 100% recycled corrugated
- *Please go to www.hubbell.com/recovery/hsi.htm for Hubbell Sustainable Design Solutions Feature Criteria.

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

CONSTRUCTION

Housing is constructed of heavy gauge steel, die formed for extra rigidity. Four T-bar clips integral to housing. Optical system hinges and latches from either side for easy access to LED module and electrical components. Mechanical light trap prevents light leaks. Latches are spring loaded. Optional integrated sensor(s) are placed within luminous opening and do not interfere with hinging and latching mechanisms.

FINISH

All visible parts are custom formulated soft, non-glare high reflectance white powder coat finish, painted after fabrication.

SHIELDING

Lenses are high transmission extruded acrylic with an interlocking design for structural integrity and ease of maintenance. Optional integrated sensors are placed in an architecturally styled lens opening at one or both ends of the luminaire.

INSTALLATION

An access plate or mounting collar is furnished with luminaire for fast wiring connections without the necessity to open the fixture or wireway.

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.

CERTIFICATION

All luminaires are built to UL1598 and 2108 standards, and bear appropriate CSA labels. Damp location labeling is standard. Emergency equipped fixtures labeled UL924. Adheres to LM79, LM80 and TM21 standards. IC rating is standard on all models (Does not apply to thru-wiring). Designlights Consortium(R) (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.

WARRANTY

Five year warranty (Terms and Conditions apply).

ORDERING INFORMATION

EXAMPLE LSER22-35HLG-C-EU

LSER		22	-		U		-	
MODEL		COLOR TEMP	CEILING TYPE	SHIELDING	DRIVER	VOLTAGE	OPTIONS	
LSER Serrano® LED Architectural Luminaire		30 3000K 35 3500K 40 4000K 50 5000K	G Grid ¹ SM Surface Mount CM Cable Mount ²	C Contour R Rail	E Fixed Output ESD Step Dimming ED 0-10V Dimming ED1 0-10V Dimming to 1% LUTS Lutron 5 Series -EcoSystem	U 120V-277V	C388 3-Wire Flex C488 4-Wire Flex C588 5-Wire Flex ELL14 Emergency Battery Pack Installed, 1400 Lumens ³ GLR Fast Blow Fuse NYC NYC Compliant GTD Generator Transfer Device WIH wiHUBB Enabled ^{4,5} EOR End of Row (SM & CM only) ⁶ INT Intermediate (SM & CM only) ⁶ ODP Occupancy and Daylight Sensors, Philips ⁷ DP Daylight Sensor, Philips ⁷ DPO Daylight Sensor with Dim-to-Off, Philips ⁷ ODW Occupancy and Daylight Sensors, WattStopper ⁷ DW Daylight Sensor, WattStopper ⁷ OW Occupancy Sensor, WattStopper ⁷ CP Chicago Plenum	
SIZE		LUMEN OUTPUT						
22 2' x 2'		LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen						
ACCESSORIES (ORDER SEPARATELY)								
FK22		2' x 2' Flange Kit, Single Mounting (for rows add FKCR)						
FKCR		Flange Kit Row Adaptor						
CM 48Y2SC3F-KIT		48" Cable Mount Kit for 2' wide Cable Mount Fixtures, 3-Wire						
WSR		WattStopper Sensor Commissioning Remote ⁷						
WSOR		WattStopper Sensor Occupant Remote ⁷						

¹ For drywall order Flange Kit accessories separately.

² Order hanger accessories separately.

³ For compatibility with Dual-Lite LiteGear® inverters in lieu of installed Battery Pack, contact Hubbell Lighting Representative.

⁴ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

⁵ Not available with Surface Mount ceiling types.

⁶ Provides ends with wiring access for continuous row mounting.

PRODUCT AVAILABILITY			
SIZE	OUTPUT	NOMINAL LUMENS	NOMINAL WATTS
2' x 2'	LW	2,800	31
	ML	3,225	36
	HL	3,600	41
	VL	4,375	52

Actual lumens will vary according to color temperature and shielding. For exact lumens and watts see specific photometric test(s).

¹ For drywall order Flange Kit accessories separately.

² Order hanger accessories separately.

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⁴ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

⁵ Not available with Surface Mount ceiling types.

⁶ Provides ends with wiring access for continuous row mounting.

⁷ For details, see sensor table, page 3.

Damp Label - standard



PHOTOMETRIC DATA

Test ITL78354 Test Date 8/15/13

LUMINAIRE DATA

Luminaire	LSER22-35MLG-C-ESD LSER Serrano LED, Recessed Architectural 2 x 2 LED with Contour center lens and frosted linear prisms side lenses
Ballast	D255CQ42UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	3237
Watts	35.40
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.24 90° = 1.57
Luminous Opening in Feet	Length: 1.80 Width: 1.82 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	944	29.2	29.2
0-40	1585	48.9	48.9
0-60	2698	83.3	83.3
0-90	3237	100.0	100.0
0-180	3237	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	91
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.61 based on 3000 hrs. and \$0.08 per KWH

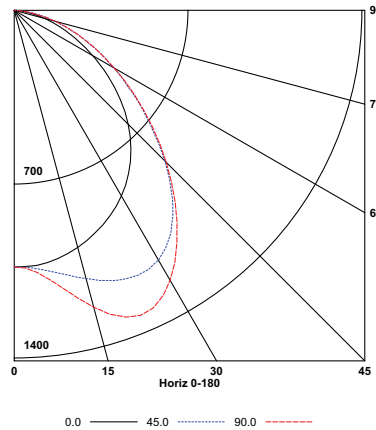
COEFFICIENTS OF UTILIZATION (%)

RCR	RW	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	0
1	110	105	101	97	107	103	99	96	99	96	93	85		
2	100	92	86	80	97	90	84	79	87	82	78	72		
3	92	81	74	67	89	80	73	67	77	71	66	61		
4	84	72	64	57	82	71	63	57	69	62	56	53		
5	77	65	56	50	75	64	55	49	62	54	49	46		
6	71	58	50	43	70	57	49	43	56	48	43	40		
7	66	53	44	38	65	52	44	38	51	43	38	35		
8	62	48	40	34	60	48	40	34	46	39	34	32		
9	58	44	36	31	56	44	36	31	43	35	31	28		
10	54	41	33	28	53	40	33	28	39	32	28	26		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	3394	3394	3394	3394	3394
30	3274	3646	4405	4716	4761
40	3135	3547	4251	4298	4323
45	3016	3397	3982	4001	4024
50	2847	3179	3660	3691	3701
55	2635	2927	3340	3386	3374
60	2392	2668	3036	3082	3069
65	2146	2395	2760	2791	2776
70	1893	2113	2469	2507	2469
75	1600	1828	2184	2196	2196
80	1268	1495	1854	1816	1684
85	829	1018	1169	1056	867

LUMINAIRE DATA

Luminaire	LSER22-35VLG-C-ESD LSER Serrano LED, Recessed Architectural 2 x 2 LED with Contour centre lens and frosted linear prisms side lenses
Ballast	D310CQUNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	4382
Watts	52.00
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.24 90° = 1.57
Luminous Opening in Feet	Length: 1.80 Width: 1.82 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1275	29.1	29.1
0-40	2142	48.9	48.9
0-60	3650	83.3	83.3
0-90	4382	100.0	100.0
0-180	4382	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	84
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.86 based on 3000 hrs. and \$0.08 per KWH

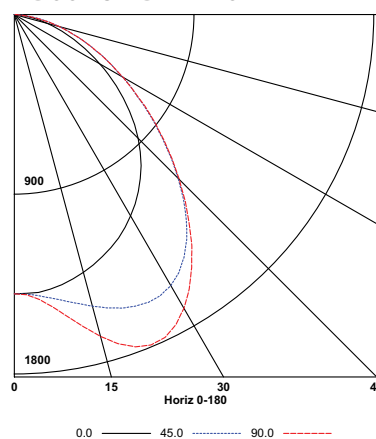
COEFFICIENTS OF UTILIZATION (%)

RCR	RW	80				70				50				0
		70	50	30	10	70	50	30	10	50	30	10	0	0
1	110	105	101	97	107	103	99	96	99	96	93	85		
2	100	92	86	80	97	90	84	79	87	82	77	72		
3	91	81	74	67	89	80	73	67	77	71	66	61		
4	84	72	64	57	82	71	63	57	69	62	56	53		
5	77	65	56	50	75	64	55	49	62	54	49	46		
6	71	58	50	43	70	57	49	43	56	48	43	40		
7	66	53	44	38	65	52	44	38	51	43	38	35		
8	62	48	40	34	60	48	40	34	46	39	34	32		
9	58	44	36	31	56	44	36	31	43	35	30	28		
10	54	41	33	28	53	40	33	28	39	32	28	26		

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

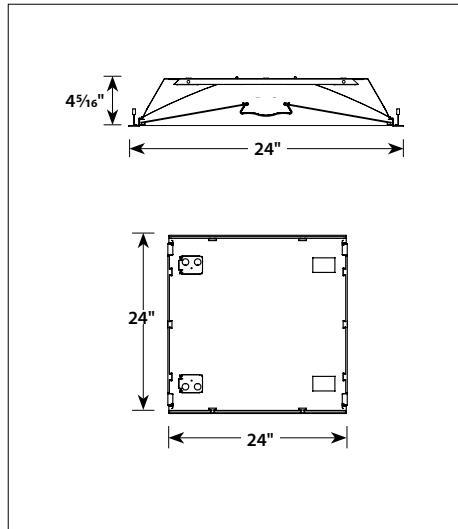
INDOOR CANDELA PLOT



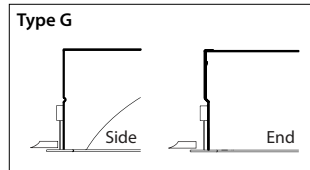
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	4593	4593	4593	4593	4593
30	4412	4932	5945	6374	6442
40	4233	4812	5739	5838	5838
45	4070	4609	5385	5418	5427
50	3849	4324	4963	5004	4994
55	3569	3993	4525	4588	4566
60	3246	3621	4120	4173	4127
65	2908	3250	3732	3771	3732
70	2536	2882	3343	3391	3353
75	2171	2501	2958	2971	2958
80	1741	2062	2554	2479	2327
85	1131	1433	1621	1395	1206

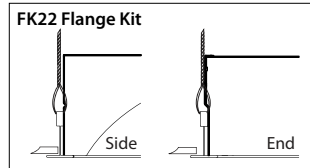
DIMENSIONAL DATA - GRID



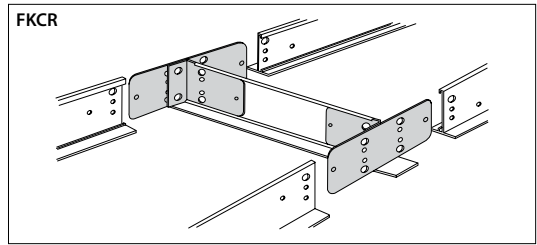
CEILING COMPATIBILITY



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 FK22 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.

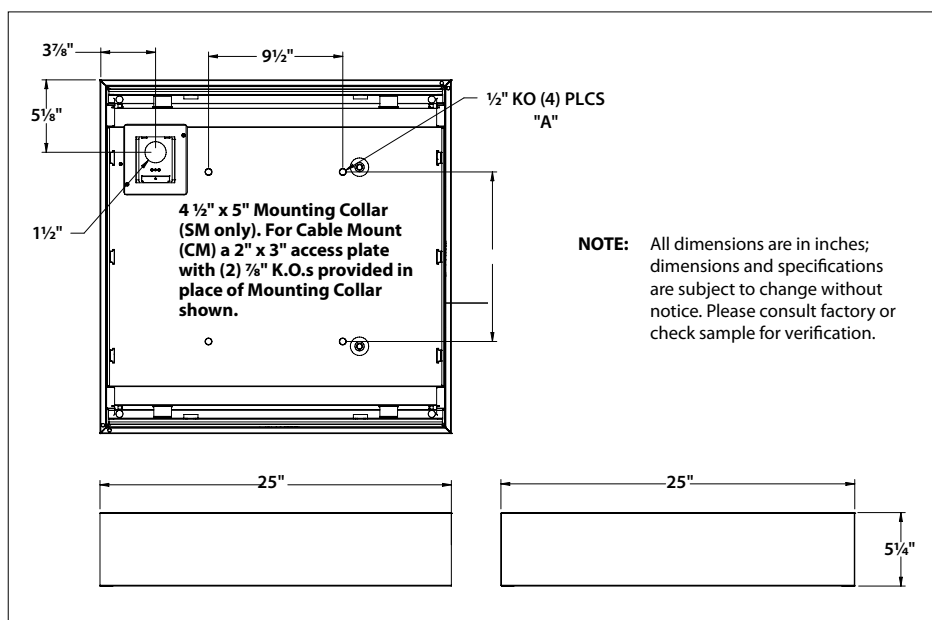


For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK22 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK22 & (1) FKCR)

Row cut out dimensions using FK22s & FKCR adapters:
Width 24 3/8", Length [24" x (# in row)] + 3/8".
Example: (24" x 2) + 3/8" = 48 3/8"

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

DIMENSIONAL DATA - SURFACE MOUNT



SURFACE MOUNT

Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting knock outs, 1/4" to 1/2" provided as shown, marked "A".

CABLE MOUNT

Order CM ceiling type. Access plate supplied for cable mounting or suspension. Use CM48Y2C3F-KIT 48" cable mount kit. Includes 3-wire feed cord. For other wiring needs, contact Hubbell representative. Mounting knock-outs, 1/4" to 1/2", provided as shown, marked "A".

OPTIONAL INTEGRAL SENSORS

CAT # SUFFIX	SENSOR MANUFACTURER	SENSOR FUNCTION	DIM-TO-OFF DAYLIGHTING	POWERPACK INCLUDED IN LUMINAIRE HOUSING
ODP	Philips	Occupancy and Daylight Sensors	No	Yes
DP	Philips	Daylight Sensor	No	No
DPO	Philips	Daylight Sensor with Dim-to-Off	Yes	Yes
ODW	WattStopper	Occupancy and Daylight Sensors	No	Yes
DW	WattStopper	Daylight Sensor	No	Yes
OW	WattStopper	Occupancy Sensor	No	Yes

OPTIONAL SENSOR HANDHELD REMOTES

ACCESSORY	SENSOR MANUFACTURER	FUNCTION	OPTIONAL?	# PER PROJECT
WSR	WattStopper	Commissioning	Yes	1
WSOR	WattStopper	Dimming Remote	Yes	Determined by others.

Note: WSR, if selected, requires a minimum of one per project. WSOR, if selected, allows individual control; therefore the quantity needed is determined by others.