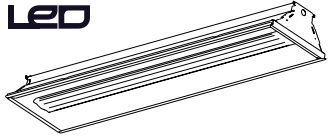


LED



FEATURES

createchange

- Architecturally enhanced triple lens design
- Up to 95 lumens per watt
- Up to 101 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
- Full distribution provides controlled high angle light for visual comfort and more inviting spaces
- 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/ft² to meet the most restrictive lighting power density codes
- 2' x 4' and 2' x 2' companion fixtures available

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/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. 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 LSER14-35LWG-C-EDU

MODEL	COLOR TEMP	LUMEN OUTPUT	CEILING TYPE	SHIELDING	DRIVER	VOLTAGE	OPTIONS
LSER Serrano® LED Recessed Architectural Luminaire	30 3000K 35 3500K 40 4000K 50 5000K	LW Low Watt ML Medium Lumen HL High Lumen VL Very High Lumen	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 EOR End of Row (SM and CM only) ⁴ INT Intermediate (SM and CM only) ⁵ 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
14 1' x 4'

ACCESSORIES (ORDER SEPARATELY)

FK14	1' x 4' Flange Kit, Single Mounting (for rows add FKCR)
FKCR	Flange Kit Row Adaptor
CM 48Y15C3F-KIT	48" Cable Mount Kit for 1" wide Cable Mount Fixtures, 3-Wire
WSR	WattStopper Sensor Commissioning Remote ⁷
WSOR	WattStopper Sensor Occupant Remote ⁷

PRODUCT AVAILABILITY

SIZE	OUTPUT	NOMINAL LUMENS	NOMINAL WATTS
1' x 4'	LW	2,950	31
	ML	3,850	41
	HL	4,700	52
	VL	5,875	61

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

¹ For drywall, order G with Flange Kit Accessory.
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 SM ceiling types
⁶ Provides ends with wiring access for continuous row mounting.
⁷ For details, see Sensors table on page 3.
 Damp Label - standard



PHOTOMETRIC DATA

Test ITL78329 Test Date 8/13/13

LUMINAIRE DATA

Luminaire	LSER14-35LWG-R-ESD LSER Serrano LED, Recessed Architectural 1 x 4 LED with Rail center lens and frosted linear prisms side lenses
Ballast	D185CQ30UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	3007
Watts	30.40
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.30 90° = 1.33
Luminous Opening in Feet	Length: 3.80 Width: 0.82 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	914	30.4	30.4
0-40	1489	49.5	49.5
0-60	2502	83.2	83.2
0-90	3007	100.0	100.0
0-180	3007	100.0	100.0

ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	99
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.40 based on 3000 hrs. and \$0.08 per KWH

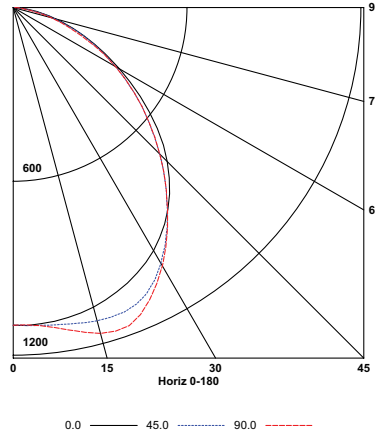
COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0				
		RW	70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0
1	110	105	101	97	107	103	99	96	99	96	93	85	85	85	85	85	85	85
2	100	92	86	80	98	90	85	80	87	82	78	72	72	72	72	72	72	72
3	92	82	74	68	89	80	73	67	77	71	66	61	61	61	61	61	61	61
4	84	73	64	58	82	71	63	57	69	62	57	53	53	53	53	53	53	53
5	78	65	56	50	76	64	56	50	62	55	49	46	46	46	46	46	46	46
6	72	59	50	44	70	58	50	44	56	49	43	41	41	41	41	41	41	41
7	67	53	45	39	65	53	45	39	51	44	38	36	36	36	36	36	36	36
8	62	49	41	35	61	48	40	35	47	40	34	32	32	32	32	32	32	32
9	58	45	37	31	57	44	37	31	43	36	31	29	29	29	29	29	29	29
10	54	41	34	28	53	41	33	28	40	33	28	26	26	26	26	26	26	26

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	3786	3786	3786	3786	3786
30	3861	3913	4065	4100	4104
40	3783	3675	3702	3720	3707
45	3669	3478	3493	3513	3493
50	3488	3257	3273	3305	3278
55	3222	3029	3059	3084	3059
60	2929	2784	2826	2853	2819
65	2632	2542	2583	2567	2509
70	2343	2303	2323	2202	2131
75	2055	2055	1949	1882	1815
80	1731	1810	1631	1412	1313
85	1387	1387	1031	991	1031

LUMINAIRE DATA

Test ITL78338 Test Date 8/15/13

Luminaire	LSER14-35HLG-R-ESD LSER Serrano LED, Recessed Architectural 1 x 4 LED with Contour center lens and frosted linear prisms side lenses
Ballast	D310CQ50UNVA-A
Ballast Factor	1.00
Lamp	LED
Fixture Lumens	4708
Watts	51.80
Mounting	Recessed
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.29 90° = 1.30
Luminous Opening in Feet	Length: 3.80 Width: 0.82 Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1448	30.8	30.8
0-40	2344	49.8	49.8
0-60	3917	83.2	83.2
0-90	4708	100.0	100.0
0-180	4708	100.0	100.0

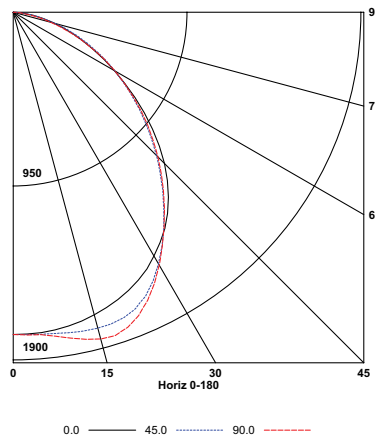
ENERGY DATA

Total Luminaire Efficiency	100%
Total Lumens Per Watt	91
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.64 based on 3000 hrs. and \$0.08 per KWH

COEFFICIENTS OF UTILIZATION (%)

RCR	RC	80				70				50				0				
		RW	70	50	30	10	70	50	30	10	50	30	10	0	50	30	10	0
1	110	105	101	98	107	103	99	96	99	96	93	85	85	85	85	85	85	85
2	100	92	86	81	98	91	85	80	87	82	78	72	72	72	72	72	72	72
3	92	82	74	68	89	80	73	67	77	71	66	62	62	62	62	62	62	62
4	84	73	64	58	82	71	64	57	69	62	57	53	53	53	53	53	53	53
5	78	65	57	50	76	64	56	50	62	55	49	46	46	46	46	46	46	46
6	72	59	50	44	70	58	50	44	56	49	43	41	41	41	41	41	41	41
7	67	54	45	39	65	53	45	39	51	44	39	36	36	36	36	36	36	36
8	62	49	41	35	61	48	40	35	47	40	35	32	32	32	32	32	32	32
9	58	45	37	32	57	44	37	31	43	36	31	29	29	29	29	29	29	29
10	55	42	34	29	53	41	34	29	40	33	29	27	27	27	27	27	27	27

INDOOR CANDELA PLOT



AVG. LUMINANCE (Candela/Sq. M.)

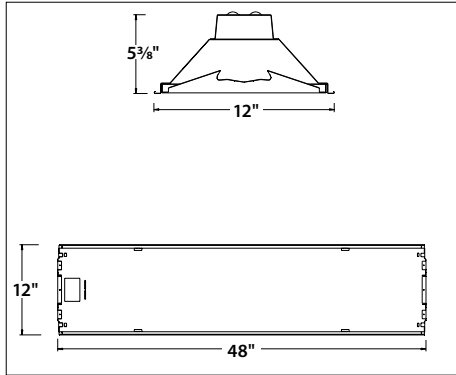
Average Luminance Angle	0.0	22.5	45.0	67.5	90.0
0	6080	6080	6080	6080	6080
30	6135	6183	6330	6366	6362
40	5948	5713	5731	5763	5759
45	5706	5374	5403	5472	5462
50	5342	5009	5084	5175	5148
55	4890	4631	4758	4866	4812
60	4408	4256	4422	4498	4442
65	3956	3899	4079	4079	3989
70	3525	3535	3707	3565	3444
75	3083	3163	3217	2990	2843
80	2586	2785	2606	2308	2129
85	1982	2061	1585	1467	1467

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

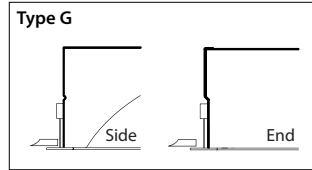


DIMENSIONAL DATA

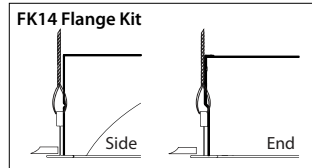


NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

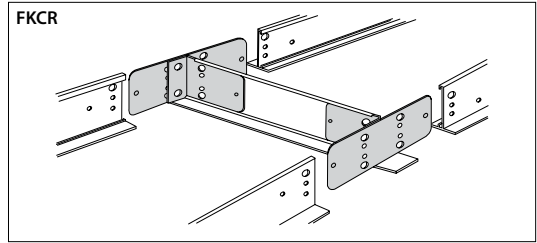
CEILING COMPATIBILITY



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 FK14 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.

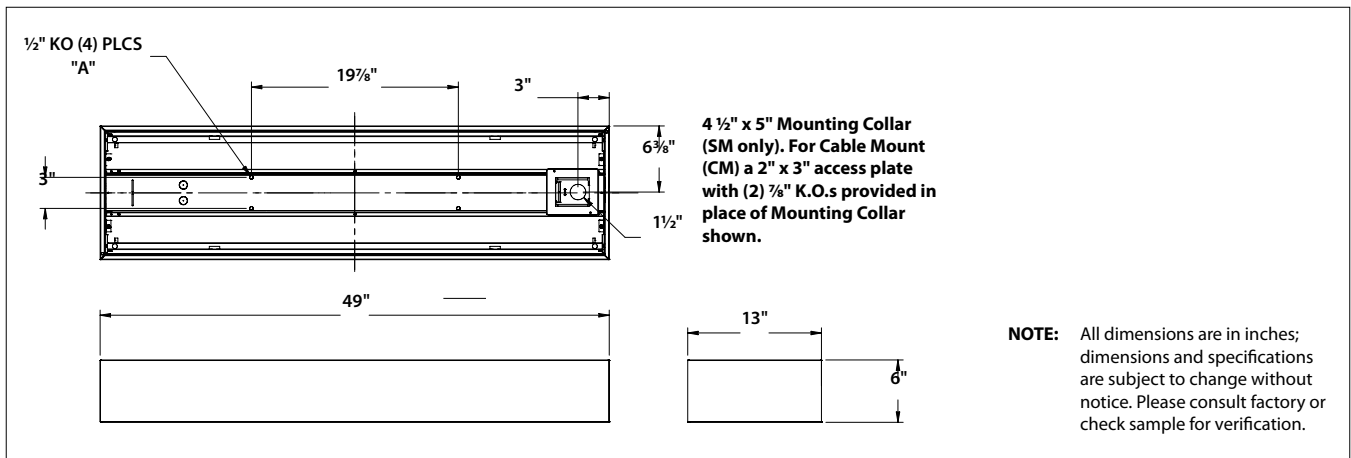


For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the FK14 kit. Order one less FKCR than the total number of fixtures in row. (Example: Row of two, order (2) FK14 & (1) FKCR)

Row cut out dimensions using FK14s & FKCR adapters:
Width 12 $\frac{3}{8}$ ", Length [48" x (# in row)] + $\frac{3}{8}$ ".
Example: (48" x 2) + $\frac{3}{8}$ " = 96 $\frac{3}{8}$ "

Flange kit cut out dimension for single unit only: 12 $\frac{3}{8}$ " x 48 $\frac{3}{8}$ "

DIMENSIONAL DATA - SURFACE MOUNT



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

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 CM48Y1C3F-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.

