Columbia LIGHTING

LSER22
2' × 2', Serrano® LED Architectural Luminaire

createchange

FEATURES

- Architecturally enhanced triple lens design
- Up to 119 lumens per watt
- Long-life, 60,000 hour LEDs at L80 (80% lumen maintenance) reduce life cycle maintenance costs
- Four LED Color Choices
- Six 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 pixelation
- 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/ft^2 to meet the most restrictive lighting power density codes
- Five year warranty (Terms and Conditions apply)

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.

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.

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 representative.

CERTIFICATION
All luminaires are built to UL 1598 and 2108 standards, and bear appropriate CSA labels. UL Sanitation Certified per NSF Standards. Damp location labeling is standard. CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options. Adheres to LM79, LM80 and TM21 standards. IC rating is standard on all models (does not apply to thru-wiring). The DTS, Dimming Bypass Module, is for emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. See page 4 for wiring diagram.

WARRANTY
Five year warranty (Terms and Conditions apply).

ORDERING INFORMATION
EXAMPLE LSER22-35HLG-C-EU

LSER 22 – _ – _ – _ – _

MODEL		COLOR TEMP		CEILING TYPE		SHIELDING		DRIVER		VOLTAGE		OPTIONS	
LSER	Serrano® LED Architectural Luminaire	30	3000K	G	Grid[1]	C	Contour	E	Fixed Output	U	120V-277V	ELL14	Emergency Battery Pack Installed, 1400 Lumens[5]
		35	3500K	SM	Surface Mount	R	Rail	ED	0-10V Dimming	347	347V	C388	3-Wire Flex
		40	4000K	CM	Cable Mount[2]			ED1	0-10V Dimming to 1%			C488	4-Wire Flex
		50	5000K					EDD	0-10V Dimming, Dim to Off[3]			C588	5-Wire Flex
								ESD	Step Dimming[3]			GLR	Fast Blow Fuse
								LUTH	Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology[3,4]			GTD	Generator Transfer Device[6]
												DTS	Dimming Bypass Module[7]
												EOR	End of Row (SM & CM only)[8]
												INT	Intermediate (SM & CM only)[8]
												CP	Chicago Plenum

SIZE		LUMEN OUTPUT	
22	2' × 2'	VW	Very Low Watt
		MW	Medium Low Watt
		LW	Low Watt
		ML	Medium Lumen
		HL	High Lumen
		VL	Very High Lumen

[1] For drywall, order G with Flange Kit Accessory

[2] Order hanger accessories separately

[3] Not available in 347V

[4] Not available on VL

[5] For compatibility with Dual-Lite LiteGear® inverters in lieu of installed Battery Pack, contact your representative

[6] GTD available for E (fixed output) driver option only

[7] For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0-10V drivers. Universal voltage only. See page 4 for wiring diagram

[8] Provides ends with wiring access for continuous row mounting

Damp Label - standard

ACCESSORIES (ORDER SEPARATELY)

FK22	2' × 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

Current

Product Availability			
Lumen Package	**Lumens**	**Watts**	**Efficacy**
LSER22-30VWG-C-EU	1362	13.1	104
LSER22-35VWG-C-EU	1403	13.1	107
LSER22-40VWG-C-EU	1424	13.1	109
LSER22-50VWG-C-EU	1551	13.1	118
LSER22-30MWG-C-EU	1846	17.8	104
LSER22-35MWG-C-EU	1901	17.8	107
LSER22-40MWG-C-EU	1931	17.8	109
LSER22-50MWG-C-EU	2102	17.8	118
LSER22-30LWG-C-EU	2394	24.3	99
LSER22-35LWG-C-EU	2466	24.3	102
LSER22-40LWG-C-EU	2505	24.3	103
LSER22-50LWG-C-EU	2727	24.3	112
LSER22-30MLG-C-EU	3344	31.4	107
LSER22-35MLG-C-EU	3445	31.4	110
LSER22-40MLG-C-EU	3498	31.4	111
LSER22-50MLG-C-EU	3809	31.4	121
LSER22-30HLG-C-EU	3641	34.8	105
LSER22-35HLG-C-EU	3750	34.8	108
LSER22-40HLG-C-EU	3809	34.8	109
LSER22-50HLG-C-EU	4147	34.8	119
LSER22-30VLG-C-EU	4168	41.7	100
LSER22-35VLG-C-EU	4293	41.7	103
LSER22-40VLG-C-EU	4360	41.7	105
LSER22-50VLG-C-EU	4748	41.7	114

COL_LSER22_spec

PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	LSER22-35LWG-C-EU
	LSER Serrano LED, Recessed Architectural
	2' X 2' LED Troffer w/ Contour Acrylic Refractor
Ballast	**XI040C110V054BST1**
Ballast Factor	**1.00**
Lamp	**LED**
Fixture Lumens	**2466**
Watts	**24.30**
Mounting	**Recessed**
Shielding Angle	**0º = 90 90º = 90**
Spacing Criterion	**0º = 1.15 90º = 1.37**
Luminous Opening in Feet	**Length: 1.75**
	Width: 1.83
	Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	725	29.4	29.4
0-40	1184	48.0	48.0
0-60	2018	81.8	81.8
0-90	2466	100.0	100.0
0-180	2466	100.0	100.0

AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle		0.0	22.5	45.0	67.5	90.0
	0	3032	3032	3032	3032	3032
	30	2701	2818	3163	3338	3377
	40	2453	2633	3045	3142	3159
	45	2320	2524	2923	3009	3042
	50	2170	2395	2792	2871	2902
	55	2039	2268	2631	2731	2754
	60	1902	2124	2467	2548	2588
	65	1742	1949	2290	2370	2386
	70	1602	1779	2093	2162	2201
	75	1429	1597	1883	1948	1987
	80	1200	1336	1684	1568	1529
	85	848	926	1003	771	694

INDOOR CANDELA PLOT

Horiz 0-180

0.0 ——   45.0 ——   90.0 ——
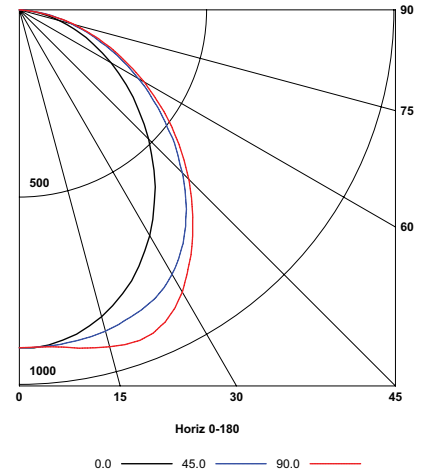
LUMINAIRE DATA

Luminaire	LSER22-35HLG-C-EU
	LSER Serrano LED, Recessed Architectural
	2 x 2 LED with Contour center lens and linear prismed side lenses
Ballast	**XI040C110V054BST1**
Ballast Factor	**1.00**
Lamp	**LED**
Fixture Lumens	**3750**
Watts	**34.80**
Mounting	**Recessed**
Shielding Angle	**0º = 90 90º = 90**
Spacing Criterion	**0º = 1.15 90º = 1.37**
Luminous Opening in Feet	**Length: 1.75**
	Width: 1.83
	Height: 0.00

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	1102	29.4	29.4
0-40	1800	48.0	48.0
0-60	3069	81.8	81.8
0-90	3750	100.0	100.0
0-180	3750	100.0	100.0

AVG. LUMINANCE (Candela/Sq. M.)

Average Luminance Angle		0.0	22.5	45.0	67.5	90.0
	0	4628	4628	4628	4628	4628
	30	4118	4289	4801	5073	5115
	40	3747	4015	4616	4778	4800
	45	3536	3841	4435	4577	4606
	50	3336	3660	4230	4371	4413
	55	3123	3457	3985	4143	4166
	60	2904	3233	3738	3872	3899
	65	2696	2998	3475	3603	3627
	70	2447	2722	3174	3292	3312
	75	2182	2415	2857	2948	2974
	80	1839	2032	2497	2420	2400
	85	1273	1388	1543	1196	1080

INDOOR CANDELA PLOT

Horiz 0-180

0.0 ——   45.0 ——   90.0 ⋯⋯

COL_LSER22_spec

DIMENSIONAL DATA - GRID

4⁵⁄₁₆"
24"
24"
24"

CEILING COMPATIBILITY

Type G
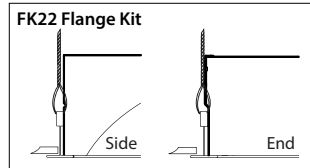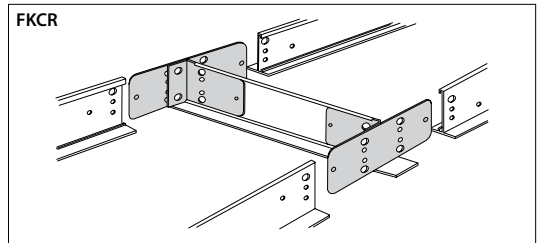

Side   End
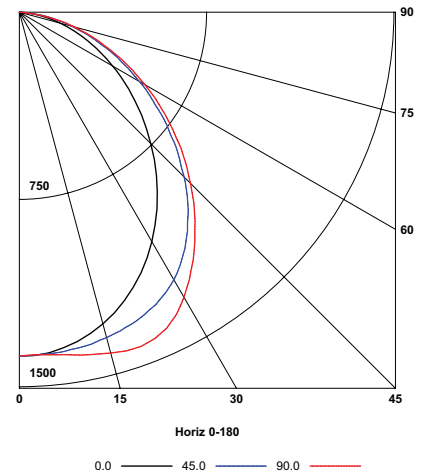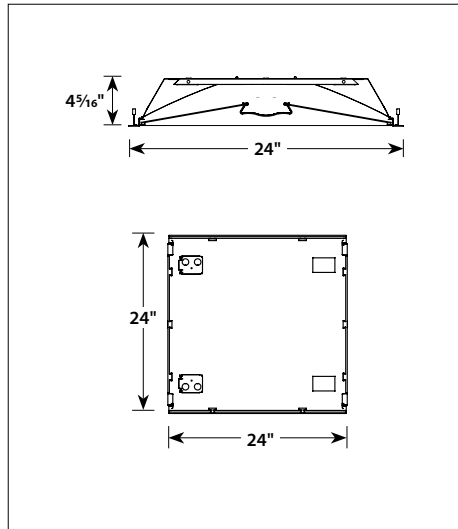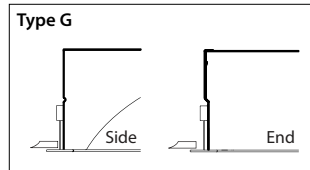
For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee heights of 2" allowed.

FK22 Flange Kit

Side   End

For hard ceiling applications, order FK22 flange kit. Flange kit wires directly into concealed ceiling opening for a clean, finished appearance.
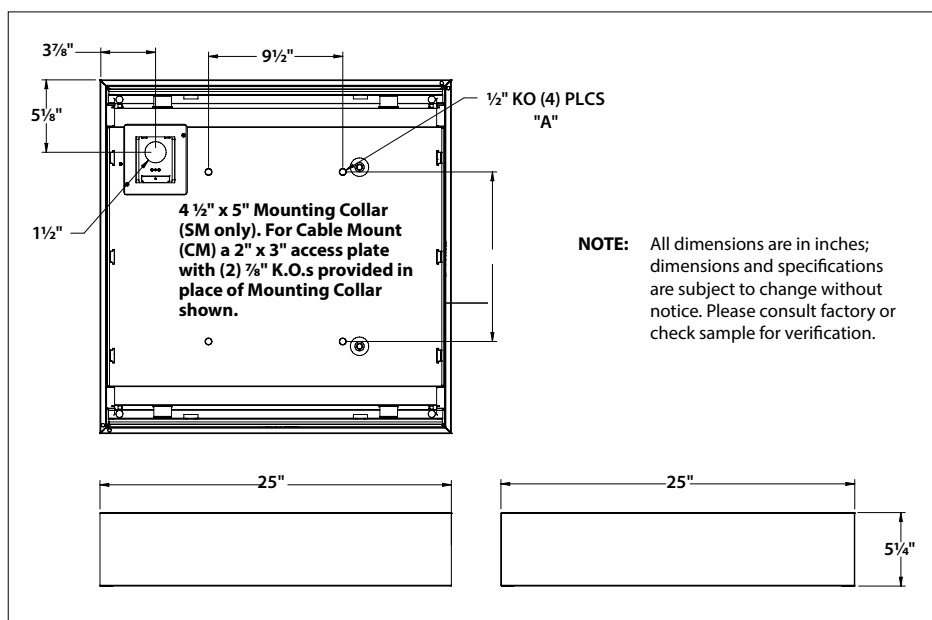
FKCR

For flanged fixtures in row configurations, the FKCR adapter bracket kit is required in addition to the 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 24⅜", Length [24" × (# in row)] + ⅜".
Example: (24" × 2) + ⅜" = 48⅜"

Flange kit cut out dimension for single unit only: 24⅜" × 24⅜"

DIMENSIONAL DATA - SURFACE MOUNT

3⁷⁄₈"
9½"
5⅛"
1½"
25"

½" KO (4) PLCS "A"

4 ½" x 5" Mounting Collar (SM only). For Cable Mount (CM) a 2" x 3" access plate with (2) ⅞" K.O.s provided in place of Mounting Collar shown.

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

25"   5¼"

SURFACE MOUNT

Order SM ceiling type. Mounting collar required for surface mounting. (4) Mounting knock outs, ¼" to ½" 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 your representative. Mounting knock-outs, ¼" to ½", provided as shown, marked "A".

DTS WIRING DIAGRAM (0–10V DIMMING DRIVER SHOWN)

WHITE / BLUE
BLUE
BLACK
WHITE
RED
VIOLET
PINK

UTILITY POWER   TEST   EMERGENCY POWER

YELLOW (#5)
ORANGE
SMALL YELLOW (CAP)

WHITE
BLACK

DRIVER

PINK
VIOLET

WHITE/BLUE	Emergency Neutral
BLUE	Emergency Line
BLACK	Utility Line (Unswitched Hot)
WHITE	Utility Neutral
RED	Switched Hot
VIOLET	Dimming
PINK	Dimming