

LRX Series

LR6X™ LED Downlight – 6"

Rev. Date: V1 11/01/2019

Product Description

The LR6X™ downlight is an unparalleled combination of light quality and efficacy – bringing outstanding performance and value to the retrofit downlight space. Delivering up to 3000 lumens of exceptional 90+ CRI light while achieving up to 89 lumens per watt, this breakthrough performance is achieved by combining the high efficacy with an integrated driver and thermal management design. The LR6X™ downlight is available in warm or neutral color temperatures, three lumen packages, and offers a variety of trim options.

Applications: Commercial new construction and retrofit

Performance Summary

Utilizes Cree TrueWhite® Technology
Initial Delivered Lumens: 650L - 3,000L
Input Power: 7.5 - 34 watts
CRI: 90+
R9: >54
CCT: 2700K, 3000K, 3500K, 4000K
Limited Warranty*: 10 years
L₇₀ Lifetime: > 100,000 hours at 35°C
Dimming: Dimmable to 5%

* See <http://creelighting.com/warranty> for warranty terms

Housing & Trims

Reference Housing & Trim documents for more details

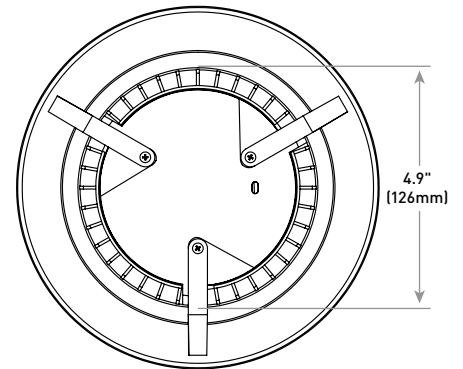
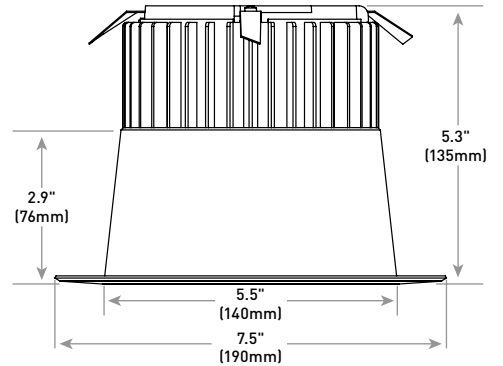
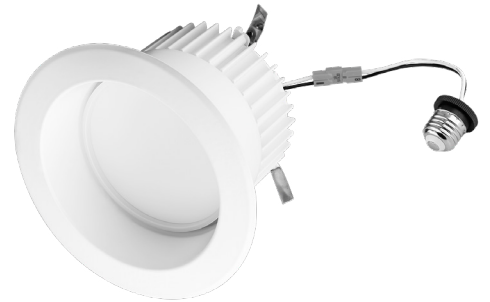
Housings		
120V GU24 Base Recessed Housings H6-GU24 - Architectural new construction RC6-GU24 - New construction RR6-GU24 - Retrofit 120V GU24 Base Recessed "Pan" Conversion Kit C6-GU24 C6-120V-LSA - Less socket adapter 120V GU24 Base Surface Mount Housings SC6-GU24 - Textured white finish SC6-BL-GU24 - Textured black finish	120V GU24 Base Cord Mount Housings SC6-CM-GU24 - Textured white finish SC6-CM-BL-GU24 - Textured black finish 120V GU24 Base Wall Mount Housings SC6-WM-GU24 - Textured white finish SC6-WM-BL-GU24 - Textured black finish 277V Recessed Housings H6-277V - Architectural new construction RC6-277V - New construction RR6-277V - Retrofit	277V Recessed "Pan" Conversion Kit C6-277V-LSA - Less socket adapter 277V Surface Mount Housings SC6-277V - Textured white finish SC6-BL-277V - Textured black finish 277V Cord Mount Housings SC6-CM-277V - Textured white finish SC6-CM-BL-277V - Textured black finish 277V Wall Mount Housings SC6-WM-277V - Textured white finish

Trims	
LXT6AB Diffused Anodized trim with White Flange LXT6BB Flat black reflector/flange	8" Adapter GR8 - Optional goof ring accommodations existing housings with apertures from 6.25" [159mm] to 8.5" [216mm] in diameter

Ordering Information

Example: LR6X-7L-27K

LR6X	Series	Initial Delivered Lumens	CCT	Voltage	Base Type
LR6X	7L	7.5W, 650 lumens – 87 LPW	27K	Blank	Blank
	10L	12W, 1,050 lumens – 88 LPW	2700K	120-277 Volts	E26, GU24, 277 Connector
	18L	20.5W, 1,800 lumens – 88 LPW	30K		
	24L	27W, 2,400 lumens – 89 LPW	3000K		
	30L		35K		
	34W	3,000 lumens – 88 LPW	3500K		
			40K		
			4000K		



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

Product Specifications

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Durable aluminum housing protects the light source. Adjustable flip clips provide robust retention for flush ceiling fit
- Thermal management system uses integral heat sink to conduct heat away from LEDs for optimal performance. LED junction temperatures stay below specified maximum even when installed in with worst case installations
- Suitable for insulated and non-insulated ceilings
- One-piece aluminum lower reflector redirects light while also conducting heat away from LEDs. It creates a comfortable visual transition from the lens to the ceiling plane and easily accommodates LXT6 snap-in trims


OPTICAL SYSTEM

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation, hot spots and minimizing glare
- Components work together to optimize distribution, balancing the delivery of high illuminance levels on horizontal surfaces with an ideal amount of light on walls and vertical surfaces. This increases the perception of spaciousness
- Deep set polycarbonate diffusing lens shields direct view of LEDs and provides greater visual cut-off

ELECTRICAL SYSTEM

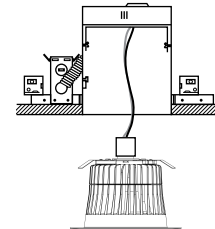
- Integral, high-efficiency driver and power supply
- **Power Factor:** > 0.9 (120V)
- **Total Harmonic Distortion:** < 20% (120V)
- **Input Voltage:** 120V - 277V Universal, 50/60Hz
- 120V is dimmable to 5% with most incandescent dimmers
- 277V is dimmable to 5% with most trailing edge dimmers
- Reference <https://www.creelighting.com> for recommended dimmers
- **Operating Temperature Range:** -25°C - +35°C (-13°F - +95°F); For 24L and 30L : -25°C - +30°C (-13°F - +86°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Classified
- Suitable for wet locations for covered ceilings only
- ENERGY STAR® certified. Please refer to <https://www.energystar.gov/productfinder/product/certified-lightfixtures/> results
- Meets CA Title 24 JA8 Requirements, and CA Title 20 Appliance Regulations. Refer to <https://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx> for additional information
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions
- RoHS Compliant. Consult factory for additional details
-  **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

INSTALLATION

- Designed to easily install in standard 6" (152mm) downlight housings with minimum housing height of 6.5" (165mm) and diameter of 5.75" - 6.25" (146mm - 159mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to LR6X. Move light to ready position and slide into housing



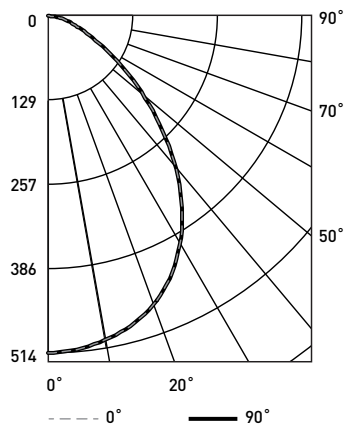
NOTE: Reference www.creelighting.com/lighting for detailed installation instructions
* Reference www.creelighting.com/lighting for a list of compatible housings

LR6™ LED Downlight – 6”

Photometry

LR6-10L-35K-GU24 BASED ON CESTL REPORT TEST #: PL06010-001

Fixture photometry has been conducted in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a fixture efficiency of 100%.



Coefficients of Utilization- Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	107	103	100
2	103	96	90	85
3	95	86	79	74
4	88	78	70	65
5	82	71	63	57
6	77	65	57	51
7	72	60	52	46
8	67	55	47	42
9	63	51	44	39
10	60	48	40	36

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)				
Horizontal Angle				
Vertical Angle	0°	45°	90°	
	45°	13,215	13,215	13,215
	55°	8,204	8,204	8,204
	65°	5,541	5,541	5,541
	75°	3,834	3,834	3,834
	85°	1,165	1,165	1,165

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	403	N/A	41.9%
0-40	605	N/A	62.9%
0-60	854	N/A	88.7%
0-90	962	N/A	100%
0-180	962	N/A	100%

Reference <https://www.creelighting.com/products/indoor/retrofit-downlights/lrx-series> for detailed photometric data

Application Reference

Open Space						
Spacing	Lumen Package	Lumens	Wattage	LPW	w/ft ²	Average fc
4x4	7L	650	7.5	87	0.45	38
	10L	1,050	12	88	0.72	62
	18L	1,800	20.5	88	1.23	106
	24L	2,400	27	89	1.62	142
	30L	3,000	34	88	2.04	177
6x6	7L	650	7.5	87	0.21	18
	10L	1,050	12	88	0.34	29
	18L	1,800	20.5	88	0.57	50
	24L	2,400	27	89	0.76	66
	30L	3,000	34	88	0.95	83
8x8	7L	650	7.5	87	0.11	10
	10L	1,050	12	88	0.18	16
	18L	1,800	20.5	88	0.31	27
	24L	2,400	27	89	0.41	36
	30L	3,000	34	88	0.51	45
10x10	7L	650	7.5	87	0.08	6
	10L	1,050	12	88	0.12	10
	18L	1,800	20.5	88	0.21	17
	24L	2,400	27	89	0.27	23
	30L	3,000	34	88	0.34	29

Open Space: 50' Wide x 40' Long x 10' Ceiling, 80/50/20 Reflectances, 2.5 workplane, LLF: 1.0 Initial.

Corridor Space						
Spacing	Initial Delivered Lumens	Lumens	Wattage	LPW	w/ft ²	Average fc
4' OC	7L	650	7.5	87	0.31	14
	10L	1,050	12	88	0.50	22
	18L	1,800	20.5	88	0.85	38
	24L	2,400	27	89	1.13	50
	30L	3,000	34	88	1.42	63
6' OC	7L	650	7.5	87	0.21	9
	10L	1,050	12	88	0.34	15
	18L	1,800	20.5	88	0.58	26
	24L	2,400	27	89	0.77	34
	30L	3,000	34	88	0.96	43
8' OC	7L	650	7.5	87	0.15	6
	10L	1,050	12	88	0.24	10
	18L	1,800	20.5	88	0.41	17
	24L	2,400	27	89	0.54	23
	30L	3,000	34	88	0.68	29
10' OC	7L	650	7.5	87	0.13	6
	10L	1,050	12	88	0.20	9
	18L	1,800	20.5	88	0.34	15
	24L	2,400	27	89	0.45	21
	30L	3,000	34	88	0.57	26

Corridor: 6' Wide x 100' Long x 10' Ceiling, 80/50/20 Reflectances, Light levels on the ground, LLF: 1.0 Initial.

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