

# LRX Series

LR6X™ LED Downlight – 6"

Rev. Date: V13E 05/19/2026

## 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 92 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

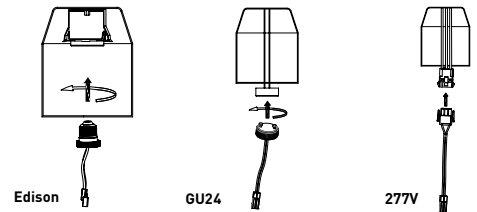
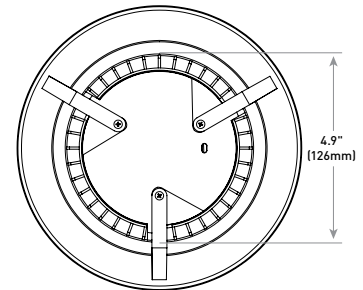
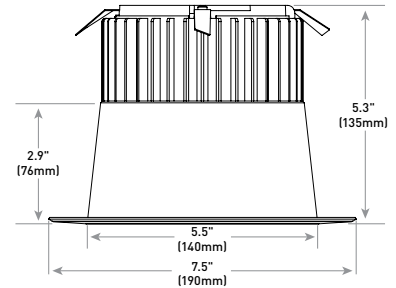
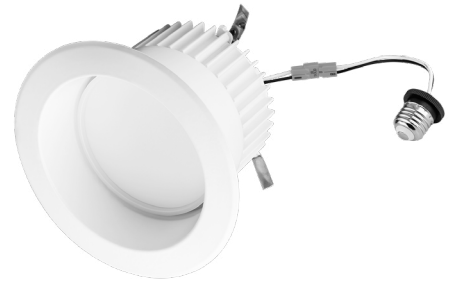
## Performance Summary

Utilizes Cree TrueWhite® Technology
<b>Initial Delivered Lumens:</b> 650 - 3,000
<b>Input Power:</b> 8 - 32.5 watts
<b>CRI:</b> 90+
<b>R9:</b> >54
<b>CCT:</b> 2700K, 3000K, 3500K, 4000K
<b>Limited Warranty<sup>1</sup>:</b> 1 year for luminaire, 1 year for accessories and housings
<b>L<sub>70</sub> Lifetime:</b> > 100,000 hours at 35 °C
<b>Dimming:</b> Dimmable to 5%

<sup>1</sup> As of 5/19/26, this is a clearance product and has a 1-year limited warranty. See <https://www.creelighting.com/resources/warranties/> for warranty terms.

## Accessories

Trims
<b>LXT6AB</b> Diffuse Anodized Reflector w/White Flange
<b>LXT6BB</b> Flat Black Reflector w/Black Flange



## Ordering Information

Example: LR6X-7L-30K

LR6X	Series	Initial Delivered Lumens	CCT	Voltage	Base Type
LR6X	<b>7L</b>	8W, 650 lumens – 81 LPW	<b>30K</b> 3000K	<b>Blank</b> 120-277 Volts	<b>Blank</b> Includes provisions for mounting to E26 and GU24 sockets (120V), 120-277V rated LED orange connectors (120-277V), and traditional Cree Lighting 277V connectors (277V)
	<b>10L</b>	12.5W, 1,050 lumens – 84 LPW	<b>40K</b> 4000K		
	<b>18L</b>	20.5W, 1,800 lumens – 88 LPW	<b>27K</b> 2700K <b>40K</b> 4000K <b>30K</b> 3000K		
	<b>24L</b>	26W, 2,400 lumens – 92 LPW	<b>27K</b> 2700K <b>35K</b> 4000K <b>30K</b> 3000K		
	<b>30L</b>	32.5W, 3,000 lumens – 92 LPW	<b>30K</b> 3000K		



Cree TrueWhite®  
Technology

**CREE** ⇄ **LIGHTING**®

Website: [creelighting.com](https://www.creelighting.com)

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## 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
- Beam Angle (included angle between points of 50% of max. intensity): ~ 90°
- Field Angle (included angle between points of 10% of max. intensity): ~ 140°

### 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/products/indoor/retrofit-down-lights/lrx-series> 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
- Meets CA Title 24 JA8 Requirements
- Meets CA Title 20 Appliance Regulations with the exception of 30L lumen package
- Meets FCC Part 15, Subpart B, Class B limits for conducted and radiated emissions
- RoHS Compliant. Consult factory for additional details
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Electrical Data*					
Lumen Package	System Watts 120-277V	Total Current (A)			
		120V	208V	240V	277V
7L	8	0.08	0.05	0.04	0.04
10L	12.5	0.12	0.07	0.06	0.05
18L	20.5	0.19	0.11	0.09	0.08
24L	26	0.23	0.13	0.11	0.10
30L	32.5	0.26	0.16	0.14	0.12

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V +/- 10%

LRX (LR6X) Series Ambient Adjusted Lumen Maintenance <sup>1</sup>						
Ambient	Lumen Package	Initial LMF	25K hr Reported <sup>2</sup> LMF	50K hr Reported <sup>2</sup> LMF	75K hr Estimated <sup>3</sup> LMF	100K hr Estimated <sup>3</sup> LMF
0°C (32°F)	All	1.03	1.00	0.97	0.95	0.93
5°C (41°F)	All	1.03	1.00	0.97	0.95	0.93
10°C (50°F)	All	1.02	0.99	0.96	0.94	0.92
15°C (59°F)	All	1.01	0.98	0.95	0.93	0.91
20°C (68°F)	7L-24L	1.01	0.98	0.95	0.93	0.91
	30L	1.01	0.96	0.92	0.89	0.85
25°C (77°F)	7L-24L	1.00	0.97	0.95	0.92	0.90
	30L	1.00	0.95	0.91	0.88	0.84
30°C (86°F)	7L-18L	0.99	0.96	0.94	0.91	0.89
	24L-30L	0.99	0.93	0.88	0.83	0.79
35°C (95°F)	7L-18L	0.99	0.96	0.94	0.91	0.89

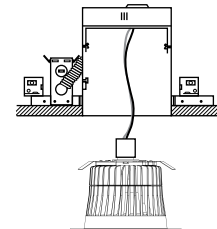
<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors.

<sup>2</sup> In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

<sup>3</sup> Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

### 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



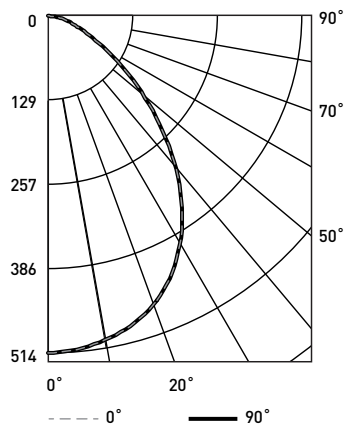
**NOTE:** Reference <https://www.creelighting.com/products/indoor/retrofit-downlights/lrx-series> for detailed installation instructions

LR6X™ LED Downlight – 6”

**Photometry**

**LR6X-10L-27K BASED ON CESTL REPORT TEST #: PL14936-001A**

Fixture photometry has been conducted in accordance with IES LM-79. IES LM-79 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	102	95	89	84	
3	94	85	78	72	
4	87	77	69	63	
5	81	69	61	55	
6	75	63	55	49	
7	70	58	50	44	
8	65	53	45	40	
9	61	49	41	36	
10	58	45	38	33	

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m <sup>2</sup> )				
Vertical Angle		Horizontal Angle		
		0°	45°	90°
45°	22,978	22,978	22,978	
	16,483	16,483	16,483	
65°	10,881	10,881	10,881	
	8,574	8,574	8,574	
85°	6,866	6,866	6,866	

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	389	N/A	37%
0-40	612	N/A	58.2%
0-60	935	N/A	88.8%
0-90	1052	N/A	100%
0-180	1052	N/A	100%

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

**Application Reference**

Open Space						
Spacing	Lumen Package	Initial Delivered Lumens	Wattage	LPW	w/ft <sup>2</sup>	Average fc
4x4	7L	650	8	81	0.48	38
	10L	1,050	12.5	84	0.75	62
	18L	1,800	20.5	88	1.23	106
	24L	2,400	26	92	1.56	142
	30L	3,000	32.5	92	1.95	177
6x6	7L	650	8	81	0.22	18
	10L	1,050	12.5	84	0.35	29
	18L	1,800	20.5	88	0.57	50
	24L	2,400	26	92	0.73	66
	30L	3,000	32.5	92	0.91	83
8x8	7L	650	8	81	0.12	10
	10L	1,050	12.5	84	0.19	16
	18L	1,800	20.5	88	0.31	26
	24L	2,400	26	92	0.39	33
	30L	3,000	32.5	92	0.49	42
10x10	7L	650	8	81	0.08	6
	10L	1,050	12.5	84	0.13	10
	18L	1,800	20.5	88	0.21	17
	24L	2,400	26	92	0.26	23
	30L	3,000	32.5	92	0.33	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	Lumen Package	Initial Delivered Lumens	Wattage	LPW	w/ft <sup>2</sup>	Average fc
4' OC	7L	650	8	81	0.33	14
	10L	1,050	12.5	84	0.52	22
	18L	1,800	20.5	88	0.85	38
	24L	2,400	26	92	1.08	50
	30L	3,000	32.5	92	1.35	63
6' OC	7L	650	8	81	0.23	9
	10L	1,050	12.5	84	0.35	15
	18L	1,800	20.5	88	0.58	26
	24L	2,400	26	92	0.74	34
	30L	3,000	32.5	92	0.92	43
8' OC	7L	650	8	81	0.16	6
	10L	1,050	12.5	84	0.25	10
	18L	1,800	20.5	88	0.41	17
	24L	2,400	26	92	0.52	23
	30L	3,000	32.5	92	0.65	29
10' OC	7L	650	8	81	0.13	6
	10L	1,050	12.5	84	0.21	9
	18L	1,800	20.5	88	0.34	15
	24L	2,400	26	92	0.43	21
	30L	3,000	32.5	92	0.54	26

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