

LRX Series

LR4X™ LED Downlight – 4"

Rev. Date: V1 11/01/2019

Product Description

The LR4X™ downlight is an unparalleled combination of light quality and efficacy – bringing outstanding performance and value to the retrofit downlight space. Delivering up to 1800 lumens of exceptional 90+ CRI light while achieving up to 88 lumens per watt, this breakthrough performance is achieved by combining the high efficacy with an integrated driver and thermal management design. The LR4X™ 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

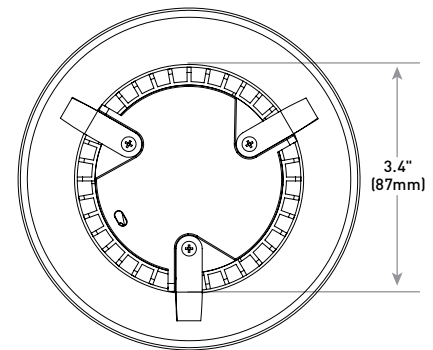
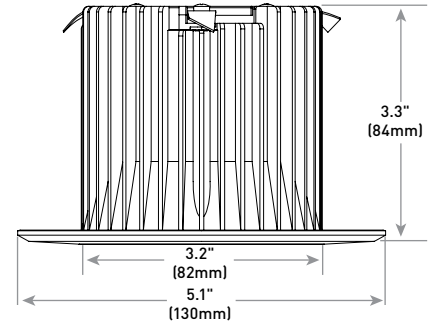
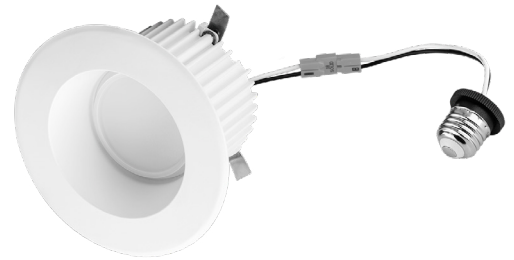
Utilizes Cree TrueWhite® Technology
Initial Delivered Lumens: 650L - 1,800L
Input Power: 7.5 - 20.5 watts
CRI: 90+
R9: >54
CCT: 2700K, 3000K, 3500K, 4000K
Limited Warranty*: 10 years
L₇₀ Lifetime: > 100,000 hours at 35°C
Dimming: Dimmable to 5%

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

Housing & Trims

Reference Housing & Trim documents for more details

Housings - Reference Housing spec sheets for additional details	
Edison (E26) Base Housings Recessed Housings, 120V RC4 - New Construction RR4 - Retrofit	GU24 Base Housings Recessed Housings, 120V RC4-GU24 - New Construction RR4-GU24 - Retrofit
Trims	
LXT4AB Diffused Anodized trim w/ White Flange LXT4BB Flat black reflector/flange	



Ordering Information

Example: LR4X-7L-27K

LR4X	Series	Initial Delivered Lumens	CCT	Voltage	Base Type
LR4X	7L	7.5W, 650 lumens – 87 LPW	27K	Blank	Blank
	10L	12W, 1,050 lumens – 88 LPW	30K	120-277 Volts	E26, GU24, 277 Connector
	18L	20.5W, 1,800 lumens – 88 LPW	35K		
			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 LXT4 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 18L: -25°C - +30°C (-13°F - +86°F)

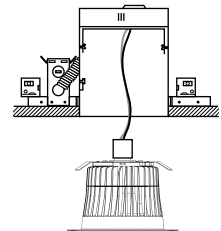
REGULATORY & VOLUNTARY QUALIFICATIONS

- 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 4" (102mm) downlight housings with minimum housing height of 5" (127mm) and diameter of 4" to 4.1" (102mm - 104mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to LR4X. 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

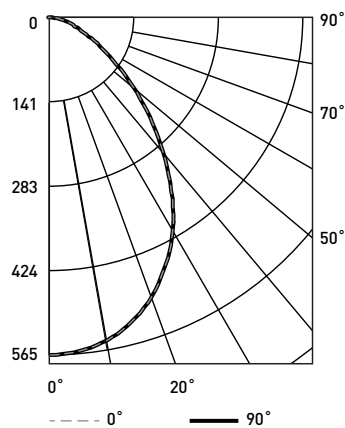


LR4X™ LED Downlight – 4"

Photometry

LR4X-10L-27K BASED ON CESTL REPORT TEST #: PL14942-001A

Fixture photometry has been conducted in accordance with IES LM-79-08. IES 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	102	96	90	85
3	95	86	79	73
4	88	77	70	64
5	82	70	62	57
6	76	64	56	50
7	71	59	51	45
8	66	54	46	41
9	62	50	43	38
10	59	47	39	34

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)				
Horizontal Angle				
Vertical Angle	0°	45°	90°	
	45°	62,263	62,263	62,263
	55°	44,079	44,079	44,079
	65°	29,448	29,448	29,448
	75°	22,734	22,734	22,734
	85°	17,156	17,156	17,156

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	412	N/A	39.3%
0-40	632	N/A	60.4%
0-60	936	N/A	89.5%
0-90	1046	N/A	100%
0-180	1046	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
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
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
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

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
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
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
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

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



US: creelighting.com (800) 236-6800
Canada: creelighting-canada.com (800) 473-1234

CREE  LIGHTING