LR Series

LR6™ LED Downlight - 6"

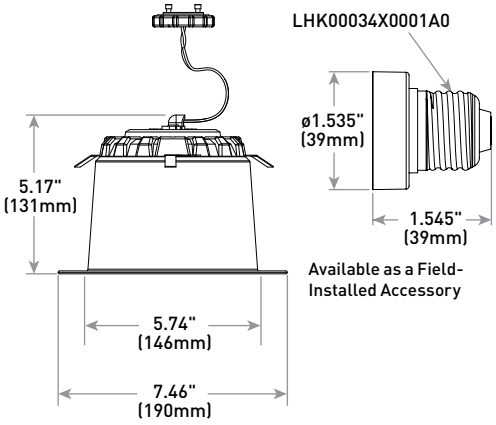
Rev. Date: V8 02/05/2026

Product Description

The LR6™ downlight is an unparalleled combination of light quality and efficacy – bringing outstanding performance and value to the retrofit downlight space. Delivering 1,050 lumens of exceptional 90+ CRI light while achieving up to 100 lumens per watt, this breakthrough performance is achieved by combining the high efficacy and high-quality light of Cree TrueWhite® Technology, with an integrated driver and thermal management design.

Applications: Commercial new construction and retrofit

120V GU24



Performance Summary

Utilizes Cree TrueWhite® Technology
Initial Delivered Lumens: 1,050 lumens
Input Power: 10.5 watts
CRI: 90
CCT: 3500K
Limited Warranty†: 1 year
L_{70} Lifetime: > 100,000 hours at 35˚C
Dimming: Dimmable to 5%

† See https://www.creelighting.com/resources/warranties/ for warranty terms

Accessories

Field-Installed	
	**LHK00034X0001A0 GU24-E26 Adapter** - Adapter to convert the standard GU24 base on LR6-10L downlights to an Edison base so they can be used when existing housings have Edison sockets

Trims
LT6A-DR Diffuse anodized reflector w/white flange

Ordering Information

Example: LR6-10L-35K-GU24

LR6	10L	35K		GU24
Series	**Initial Delivered Lumens**	**CCT**	**Voltage**	**Base Type**
LR6	**10L** 10.5W, 1,050 lumens – 100 LPW	**35K** 3500K	**Blank** 120 Volts	**GU24** - GU24 base; when Edison base is required for installation, order field-installed LHK00034X0001A0 Adapter accessory (see table above)

Cree TrueWhite® Technology

Website: creelighting.com

US: (800) 236-6800 **Canada:** (800) 473-1234

CREE LIGHTING®

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 LT6 snap-in trims 5.5" (140mm) pigtail

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 power supply
- **Power Factor:** minimum 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 50/60Hz
- 120V is dimmable to 5% with most incandescent dimmers
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference https://cree.widen.net/s/cjl77zxnk7/lr6-downlight-dimming-compatibility-spec-sheet---new for recommended dimmers
- **Operating Temperature Range:** -20˚C - +35˚C (-4˚F - +95˚F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Classified
- Suitable for wet locations for covered ceilings only
- 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

Electrical Data*		
Initial Delivered Lumens	System Watts 120V	Total Current (A)
		120V
10L	10.5	0.10

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

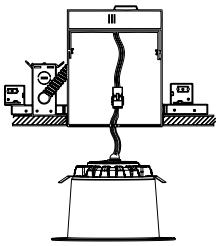
LR6™ Ambient Adjusted Lumen Maintenance[1]					
Ambient	Initial LMF	25K hr Projected[2] LMF	50K hr Projected[2] LMF	75K hr Calculated[3] LMF	100K hr Calculated[3] LMF
0˚C (32˚F)	1.05	0.99	0.95	0.90	0.86
5˚C (41˚F)	1.04	0.98	0.94	0.89	0.85
10˚C (50˚F)	1.03	0.97	0.93	0.89	0.84
15˚C (59˚F)	1.02	0.96	0.92	0.88	0.84
20˚C (68˚F)	1.01	0.95	0.91	0.87	0.83
25˚C (77˚F)	1.00	0.94	0.90	0.86	0.82
30˚C (86˚F)	0.99	0.94	0.89	0.85	0.81
35˚C (95˚F)	0.98	0.93	0.88	0.84	0.80

[1] Lumen maintenance values at 25˚C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT] i.e. the packaged LED chip)
[3] In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ([DUT] i.e. the packaged LED chip)

Installation

- Designed to easily install in standard 6" (152mm) downlight housings with minimum depth 6.5" (165mm) and diameter of 5.75" - 6.25" (146mm - 159mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to LR6 down-light. Move light to ready position and slide into housing

NOTE: Reference https://cree.widen.net/s/b7btrv5hnx/lr6-120v-install-guide_lpn00285x0001a0_b for detailed installation instructions



Application Reference

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4 x 4	1,050	10.5	100	0.63	62
6 x 6				0.29	29
8 x 8				0.16	16
10 x 10				0.11	11

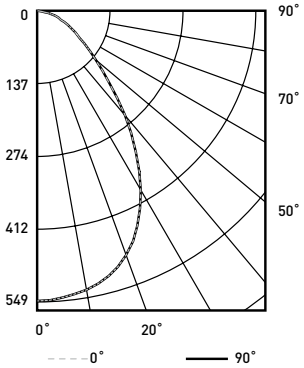
10' Ceiling, 80/50/20 Reflectances, 2.5 workplane. LLF: 1.0 Initial. Open Space: 50' x 40' x 10

Corridor					
Spacing	Lumens	Wattage	LPW	w/ft²	Average FC
4' on Center	1,050	10.5	100	0.44	27
6' on Center				0.28	17
8' on Center				0.21	13
10' on Center				0.18	11

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

Photometry

LR6-10L-35K-GU24 BASED ON CESTL REPORT TEST #: PL06010-001
Fixture photometry has been conducted by a NVLAP accredited testing laboratory 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/m²)				
Vertical Angle	Horizontal 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%

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