

# DR Series

DR6™ LED Downlight – 6"

## Product Description

At Cree®, we believe in better lighting. Better light is beautiful light. But it's more than just beautiful. It is light that makes you feel more productive, more relaxed and safer. Better light changes everything. That's why the new and improved Cree LED bulbs feature high color rendering that enhances your space and makes the colors of your décor appear vibrant, richer and more natural – true colors the way they are meant to be experienced.

DR6™ LED downlight, engineered with Cree TrueWhite® Technology, delivers up to 1,100 lumens with unmatched 90+ CRI light while achieving up to 76 lumens per watt. The DR6 is available in a soft white 2700K color temperature or cool 5000K color temperature (650L), uses up to 87% less energy and is designed to last 35 times longer than a traditional incandescent. It easily installs into most standard six-inch recessed IC or non-IC housings.

**Applications:** New construction or upgrade for residential and commercial lighting

## Performance Summary

Utilizes Cree TrueWhite® Technology

**Initial Delivered Lumens:** 650-1,100 lumens

**Input Power:** 8.5-10 watts (65W equivalent); 16 watts (100W equivalent)

**CRI:** 90+

**CCT:** 2700K, 5000K

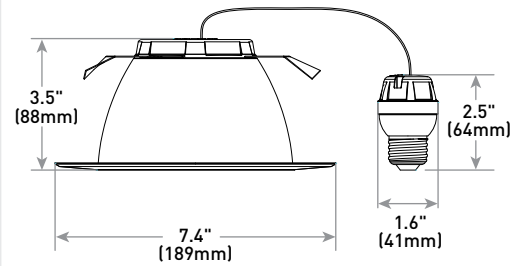
**Limited Warranty\*:** 5 years Commercial use

**Lifetime:** Designed to last 35,000 hours

**Dimming:** Dimmable to 5% with select dimmers

ENERGY STAR® Certified

Must order in multiples of master carton (MC) quantities; MC = 4



## Ordering Information

Example: DR6-650L-27K-B1

DR	6					B1
Series	Size	Initial Delivered Lumens	CCT	Voltage	Base	Packaging Options
DR	6	<b>650L</b> 27K: 10W, 650 Lumens - 65 LPW 50K: 8.5W, 650 Lumens - 76 LPW <b>1100L</b> - Available in 2700K only 27K: 16W, 1,100 Lumens - 69 LPW	<b>27K</b> 2700K <b>50K</b> 5000K	<b>Blank</b> 120 Volt	<b>Blank</b> E26 (screw base)	<b>B1</b> (1) Single Pack (MC = 4)

Ordering Number	Product Number	Unit UPC	Master Carton ITF-14	Lamps per Master Carton	Watts	Pallet Qty	CRI	CCT	Lumens	Rated Life (Hrs)
DR6-650L-27K-B1	SRDL6-0652700FH-12DE26-1-11004S0	849665012047	10849665012044	4	10.4W	200	90+	2700K	650	35,000
DR6-650L-50K-B1	SRDL6-0655000FH-12DE26-1-11004S0	849665012061	10849665012068	4	8.5W	200	90+	5000K	650	35,000
DR6-1100L-27K-B1	SRDL6-1102700FH-12DE26-1-11004S0	849665012085	10849665012082	4	16.0W	200	90+	2700K	1,100	35,000



Rev. Date: V9 09/23/2016



**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 housing protects LEDs and power supply. Adjustable flip clips resist heat while providing retention for flush ceiling fit
- Thermal management system uses lower reflector to conduct heat away from LEDs and transfer it to the plenum space for optimal performance. LED junction temperatures stay below specified maximum
- 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

**OPTICAL SYSTEM**

- Unique combination of reflective and refractive optical components achieves a uniform, comfortable appearance while eliminating pixelation and color fringing. This ensures smooth light patterns are projected with no hot spots and minimal striations
- 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
- Diffusing polycarbonate lens shields direct view of LEDs while lower reflector balances brightness of lens with the ceiling to create a low-glare high angle appearance

**ELECTRICAL SYSTEM**

- Integral, high-efficiency power supply
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- **Input Voltage:** 120V, 50/60Hz
- **Dimming:** Dimmable to 5% with most incandescent dimmers. Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/dr-series> for recommended dimmers
- **Operating Temperature Range:** -25°C - +35°C (-13°F - +95°F)

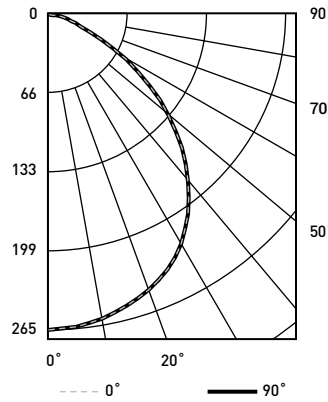
**REGULATORY & VOLUNTARY QUALIFICATIONS**

- cULus Classified
- Suitable for wet locations for covered ceilings only
- ENERGY STAR® certified: Please refer to [www.energystar.gov/productfinder/product/certified-light-bulbs/results](http://www.energystar.gov/productfinder/product/certified-light-bulbs/results) for most current information  
DR6-650L-27K-B1: SRDL6-0652700FH-12DE26-1  
DR6-650L-50K-B1: SRDL6-0655000FH-12DE26-1  
DR6-1100L-27K-B1: SRDL6-1102700FH-12DE26-1
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions
- RoHS Compliant. Consult factory for additional details

**Photometry**

**DRDL6-06227009-12DE26-1C100 BASED ON CESTL REPORT TEST #: PL03441-001\***

Luminaire 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 luminaire efficiency of 100%.



Average Luminance Table (cd/m <sup>2</sup> )				
		Horizontal Angle		
		0°	45°	90°
Vertical Angle	45°	16,073	16,073	16,073
	55°	12,950	12,950	12,950
	65°	8,238	8,238	8,238
	75°	5,571	5,571	5,571
	85°	4,833	4,833	4,833

Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/dr-series> for detailed photometric data

\* Updated photometry coming soon

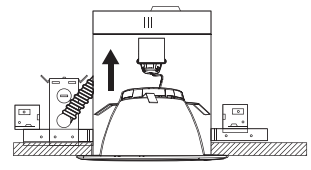
Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	110	106	102	99
2	101	94	88	83
3	93	84	76	70
4	86	75	67	61
5	79	67	59	53
6	73	61	53	47
7	68	56	47	41
8	64	51	43	37
9	60	47	39	34
10	56	43	36	31

Effective Floor Cavity Reflectance: 20%

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	206	N/A	32.9%
0-40	333	N/A	53.3%
0-60	548	N/A	87.6%
0-90	625	N/A	100.0%

**Installation**

- Designed to easily install in standard 6" (152mm), and most 5" (127mm) downlight housings with minimum depth 5.5" (140mm) and diameter of 5.25" - 6.5" (133mm - 165mm)
- Quick install system utilizes a unique retention feature. Simply attach socket to DR6. Move light to ready position and slide into housing



**NOTE:**  
Reference <http://lighting.cree.com/products/indoor/retrofit-downlights/dr-series> for detailed installation instructions

**Application Reference**

Open Space					
Spacing	Lumens	Wattage	LPW	w/ft <sup>2</sup>	Average FC
4 x 4	650	10	65	0.60	38
6 x 6				0.28	18
8 x 8				0.15	9
10 x 10				0.10	6

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/ft <sup>2</sup>	Average FC
4' on Center	650	10	65	0.40	12
6' on Center				0.26	8
8' on Center				0.20	6
10' on Center				0.17	5

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

