

Cadant® Dynamic Skylight

Cadant® Experience 2' x 2' Architectural LED Dynamic Skylight

Rev. Date: V2 09/10/2024

Product Description

Cree Lighting's Cadant® dynamic skylight brings the outdoors in, recreating the sensation of being under a natural sky for an interior lighting experience that's as smart as it is visually stunning. For architects, lighting designers and specifiers seeking the visual impact and human benefits of a real skylight — but without the associated high costs or construction limitations — the Cadant® experience is an exciting, dynamic lighting solution that delivers the sensation and human benefits of bringing the outdoors in to any interior space

Applications: Commercial office, healthcare, education, retail

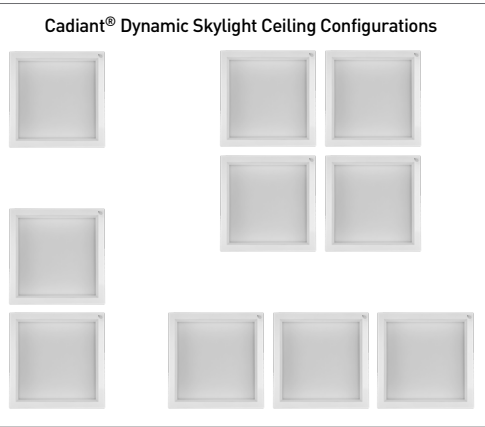
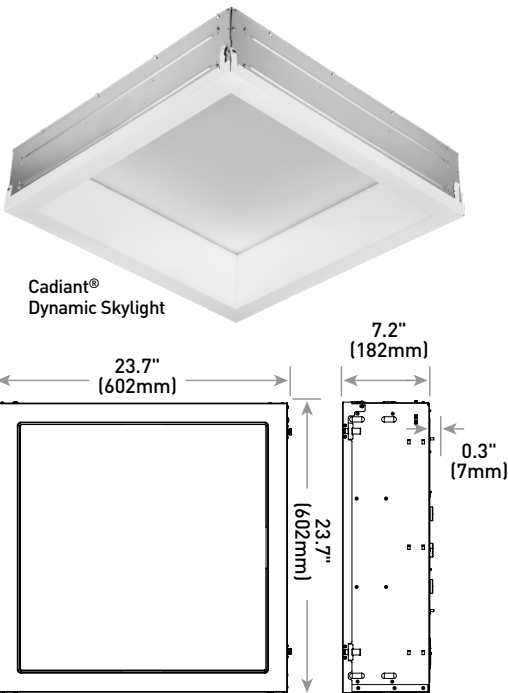
Performance Summary

Utilizes Cree TrueWhite® Technology
Adjustable Lumen Levels: 150-6,980
Input Power: 5-96 watts
Efficacy: Up to 83 LPW
CRI: 90+ CRI
R9: > 65
CCT: Adjustable from 3000K to 6500K
Input Voltage: 120-277 VAC
L₇₀ Lifetime: > 100,000 hours at 35°C
Limited Warranty†: 5 years for luminaire and Lutron Athena controls; 1 year for luminaire accessories
Mounting: Designed for use in most ceiling grids including standard 1 1/2", 9/16", 15/16" and hard ceiling
Weight: 34 lbs. (15.4kg)
Controls: Lutron Athena dimming to 5% with East to West Sun Feature
Assembled in the USA by Cree Lighting from US and imported parts

* See <https://www.creelighting.com/resources/warranties/> for warranty terms.

Cadant® Accessories

Field-Installed
Drywall Grid Adapter DGA22-WHT



Ordering Information

Example: CDNT-AL-ACK-AWNR

CDNT	AL	ACK		AWNR
Product	Lumen Package	CCT	Voltage	Control
CDNT	AL Adjustable Lumens 150 - 6,980 Lumens	ACK Adjustable Color 3000K - 6500K	Blank 120 - 277 Volt	AWNR Lutron Athena Integral Fixture Control (RF only) - Utilizes three Athena nodes and a DALI2 drivers - Dimming to 5% with East to West Sun Feature



Cree TrueWhite®
Technology



CREE ⇄ **LIGHTING®**

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

US: (800) 236-6800 Canada: (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 22 ga. galvanized steel housing provides strength and uniformity
- 5" (127mm) regress gives the impression of a true sky while fitting into most recessed applications
- Luminaire is post-painted for enhanced matte finish
- Includes four t-bar clips and tabs for mounting support wires (by others)
- Luminaire sides and ends are hemmed in for safe, easy handling
- Not for installation within 3" (76mm) of insulation
- **Weight:** 34.0 lbs. (15.4kg)
- Includes QR code on luminaire next to electrical labels which provides access to: Online installation instructions, Luminaire information (Part number, Serial number, Build date, and Warranty end date), and Warranty claim submission form
- Duplicate 1" and 2" QR code labels are included. 1" labels can be affixed next to fixtures, on site plans, or in maintenance records. 2" labels can be scanned from the ground when placed at an appropriate height

OPTICAL SYSTEM

- Unique luminaire design creates perfect balance of both horizontal and vertical illumination
- Optimized smooth acrylic lens eliminates pixelation and delivers a low-glare, diffused light distribution
- Dynamic lighting via Athena programming provides variation in lumen output and CCT throughout the day
- Soft blue-sky w/east to west sun panels which simulates the natural dawn to dusk arc of the sun

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 50/60Hz
- **Input Power:** Stays constant over life
- **Power Factor:** > 90% at full load
- **Total Harmonic Distortion:** < 20% at full load
- **Operating Temperature Range:** 0°C - + 35°C (32°F - + 95°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for damp locations
- Designed for indoor use only
- Requires minimum 90°C supply conductors
- Not intended for use in environments containing airborne corrosive agents such as chemical solvents, cleaners, or cutting fluids
- RoHS compliant. Consult factory for additional details
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets the requirements of BAA and/or BABA. Consult factory when needed for a project: www.creelighting.com/BAA-BABA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Dynamic Lighting Profile Delivered Lumens & Electrical Data*						
Luminaire	Initial Delivered Lumens	System Watts 120-277V	Total Current (A)			
Dawn Preset	1,500	21	0.18	0.12	0.12	0.12
Maximum Power Setting	6,825	96	0.8	0.46	0.4	0.35

* Data provided at 25°C (77°F). Actual wattage and lumen output may differ by +/- 10% when operating between 120-277V +/- 10%.

Cadant® Dynamic Skylight (Sun) Ambient Adjusted Lumen Maintenance¹					
Ambient	Initial LMF	25K hr Reported² LMF	50K hr Estimated³ LMF	75K hr Estimated³ LMF	100K hr Estimated³ LMF
25°C (77°F)	1.00	0.99	0.99	0.99	0.99

¹ 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.

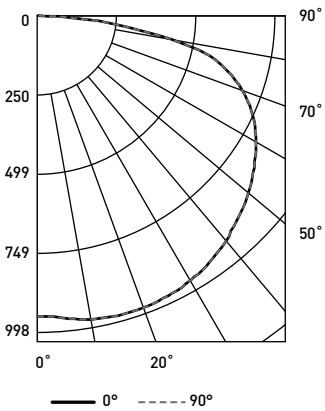
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

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

Photometry

CDNT-AL-ACK-AWNR BASED ON RESTL REPORT TEST #: PL17585-001A

Luminaire photometry has been conducted in accordance with IES LM-79. IES LM-79 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%.



CDNT-AL-ACK-AWNR
Shown at Middy Preset (6500K)
Initial Delivered Lumens: 4,472
Reference <https://www.creelighting.com/products/indoor/dynamic-skylight/cadant/> for detailed photometric data

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	106	100	94	90
2	94	84	76	69
3	85	72	63	55
4	77	63	53	45
5	70	56	45	38
6	64	50	40	32
7	59	45	35	28
8	55	40	31	25
9	51	37	28	22
10	48	34	25	20

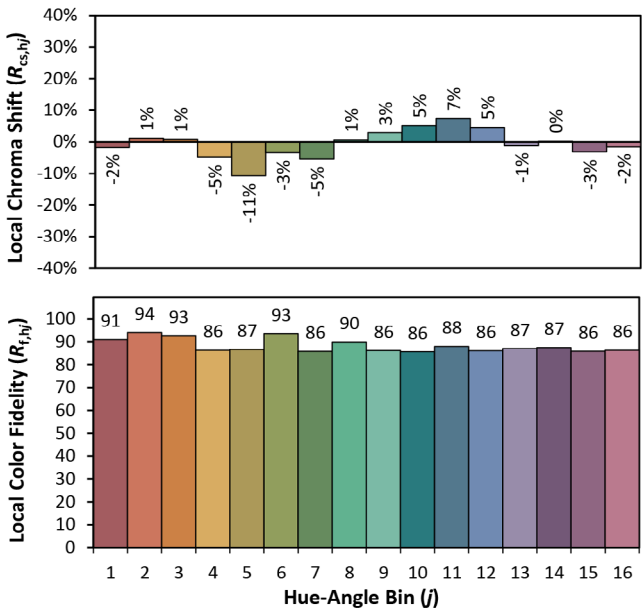
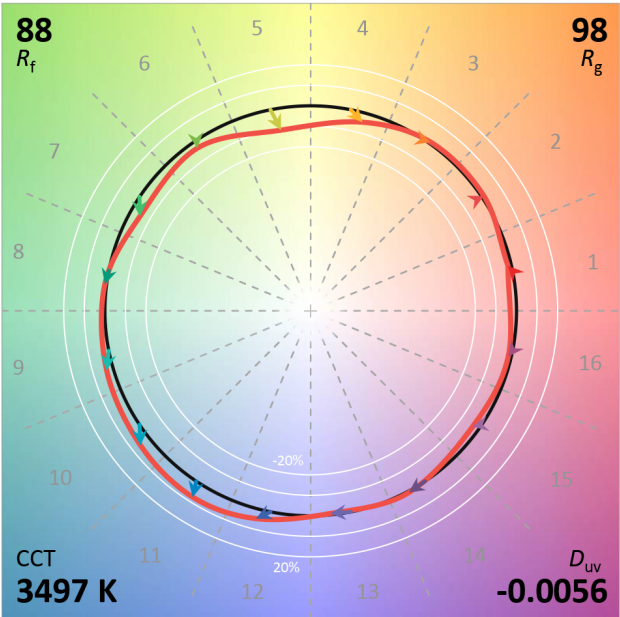
Effective Floor Cavity Reflectance: 0.20

Average Luminance Table (cd/sq.m)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	4,646	4,878	4,674
55°	5,324	5,539	5,376
65°	6,498	6,599	6,578
75°	8,497	8,166	8,678
85°	8,105	7,830	8,106

Zonal Lumen Summary			
Zone	Lumens	% Lamp	% Fict
0-30	825	N/A	18.5
0-40	1,431	N/A	32.0
0-60	2,906	N/A	65.0
0-90	4,472	N/A	100.0
0-180	4,472	N/A	100.0

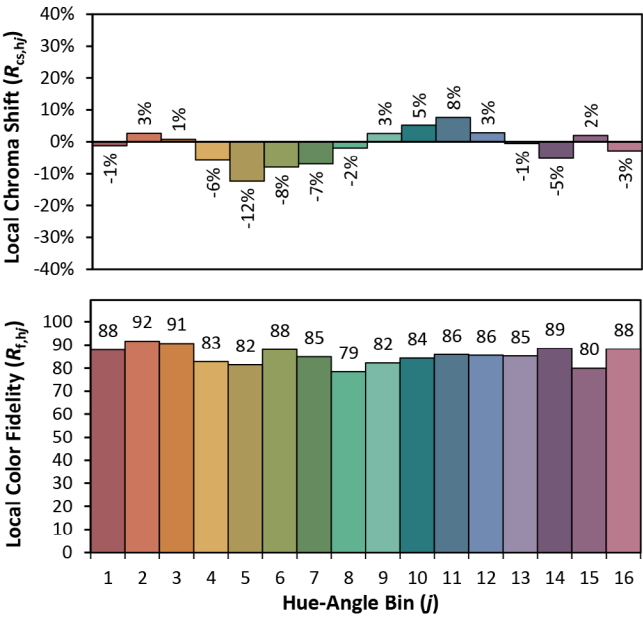
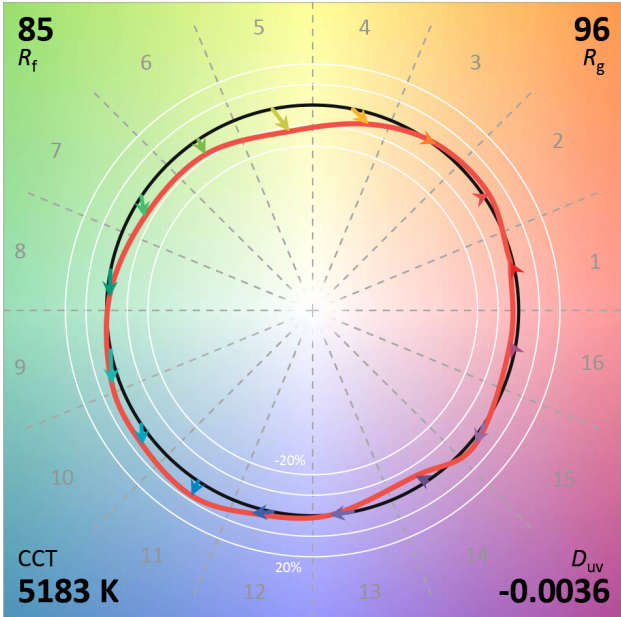
ANSI/IES TM-30-18

Cadant Dawn/Dusk Presets
Based on RESTL TEST #: PL17606-001



ANSI/IES TM-30-18

Cadant Morning/Afternoon Presets
Based on RESTL TEST #: PL17606-002



Cadant Midday Preset
Based on RESTL TEST #: PL17606-003

