

Cree Edge™ Series

LED High Output High-Bay Luminaire Featuring Cree TrueWhite® Technology

Product Description

The Cree Edge™ High Output High-Bay luminaire is designed to deliver high lumen packages with precise optical control. Luminaire mounts directly to solid surface with galvanized steel mounting brackets and includes 6' (1.8m) cord for mounting to customer supplied junction box. Luminaire can also be mounted with pendant or hook & cord accessories listed below. Also available with Cree TrueWhite® Technology, the Cree Edge™ High Output High-Bay helps to beautifully render true colors and deliver value beyond savings in energy use.

Applications: Retail and industrial high bay, airport hangars, and gymnasiums

Performance Summary

Utilizes Cree TrueWhite® Technology on 5000K Luminaires

Patented NanoOptic® Product Technology

Made in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI (4000K & 5700K); 90 CRI (5000K)

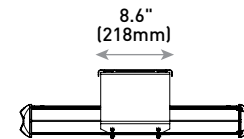
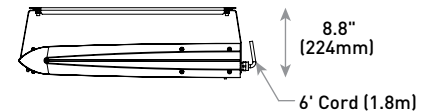
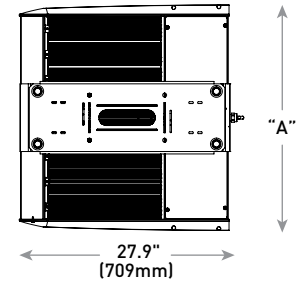
CCT: 4000K (+/- 300K), 5000K (+/- 300K), 5700K (+/- 500K) Standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

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

Accessories

Field-Installed		
EHO-HC - Hook & Cord Mount Kit	EHO-PD1 - Pendant 1-1/4" NPSM Mount Kit	EHO-PD2 - Pendant 1-1/2" NPSM Mount Kit



LED Count (x10)	DIM "A"	Weight
12	16.4" (418mm)	45 lbs. (20kg)
24	30.0" (762mm)	80 lbs. (36kg)

Ordering Information

Example: HBY-EHO-N6-DM-12-E-UL-SV-700

Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
HBY-EHO	N6 NEMA® 6 HH Hangar High-Bay 40 40° Flood 70 70° Flood	DM Direct Surface	12 24	E	UL Universal 120-277V UH Universal 347-480V	BK Black BZ Bronze SV Silver WH White	700 700mA 1000 1000mA	40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire 50K 5000K Color Temperature - Minimum 90 CRI - Utilizes Cree TrueWhite® Technology - Color temperature per luminaire DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed specified drive current F Fuse - Refer to ML spec sheet for availability with ML options - When code dictates fusing, use time delay fuse ML Multi-Level - Refer to ML spec sheet for details



Rev. Date: V6 01/09/2018



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

- Slim, low profile design
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartments and high performance heat sinks
- Direct mount includes heavy gauge galvanized steel mounting brackets (non-painted) designed for direct mount to solid surfaces and includes a 6' (1.8m) cord for mounting to customer supplied junction box
- Pendant mount kit includes pendant hub and is intended to be mounted by 1-1/4 or 1-1/2 NPSM pendant (by others)
- Hook & cord mount kit includes two spring lock hooks
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable power topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See weight and dimension charts on pages 1 and 2

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
 - **Power Factor:** > 0.9 at full load
 - **Total Harmonic Distortion:** < 20% at full load
 - To address inrush current, slow blow fuse or type C/D breaker should be used
 - **Operating Temperature Range:** -40°C - +45°C for 700mA luminaires; -40°C - +30°C for 1000mA luminaires
- WARNING:** Exceeding maximum operating temperature may result in thermal foldback

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for details

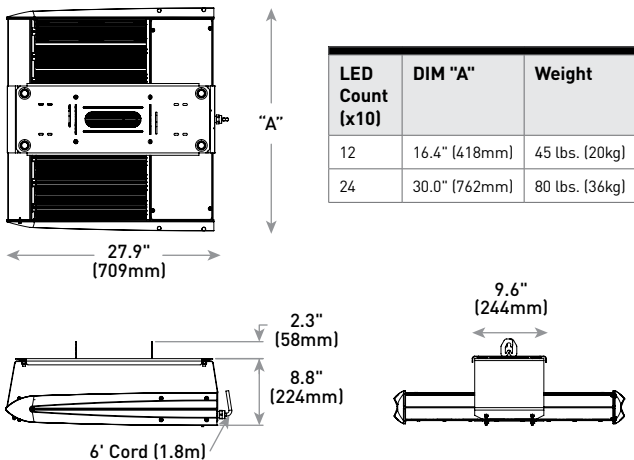
Electrical Data*							
LED Count (x10)	System Watts 120-480V	Total Current					
		120V	208V	240V	277V	347V	480V
700mA							
12	267	2.24	1.29	1.12	0.99	0.80	0.58
24	533	4.49	2.57	2.24	1.97	1.62	1.16
1000mA							
12	421	3.61	2.06	1.80	1.61	1.25	0.90
24	831	7.16	4.04	3.54	3.14	2.50	1.81

*Electrical data at 25°C (77°F)

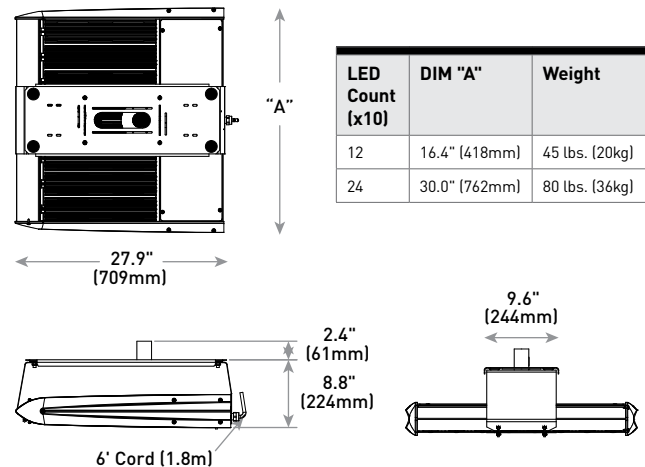
Recommended Cree Edge™ Series Lumen Maintenance Factors (LMF) ¹					
Ambient	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Projected ² LMF	100K hr Calculated ³ LMF
5°C (41°F)	1.04	0.99	0.97	0.95	0.93
10°C (50°F)	1.03	0.98	0.96	0.94	0.92
15°C (59°F)	1.02	0.97	0.95	0.93	0.91
20°C (68°F)	1.01	0.96	0.94	0.92	0.90
25°C (77°F)	1.00	0.95	0.93	0.91	0.89
30°C (86°F)	0.99	0.94	0.92	0.90	0.88
35°C (95°F)	0.98	0.93	0.91	0.89	0.87
40°C (104°F)	0.97	0.92	0.90	0.88	0.86
45°C (113°F)	0.96	0.91	0.89	0.87	0.85

¹ Lumen maintenance values at 25°C are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
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 (IDUT) i.e. the packaged LED chip. For 50K-100K hours above 35°C, refer to footnote 3
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 (IDUT) i.e. the packaged LED chip

Shown with Hook & Cord Mount Kit Accessory



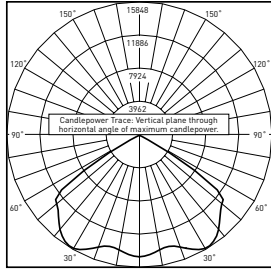
Shown with Pendant Mount Kit Accessory



Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: www.cree.com/Lighting/Tools-and-Support/Exterior-IES-Configuration-Tool

N6



ITL Test Report #: 78562
 FLD-EHO-N6-**-12-E-UL-1000-40K
 Initial Delivered Lumens: 38,110

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	111	108	105	102
2	103	97	91	87
3	95	87	80	74
4	88	78	70	64
5	81	70	62	56
6	75	63	55	49
7	70	57	49	44
8	65	52	44	39
9	60	48	40	35
10	57	44	36	31

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	135,800	186,189	138,408
55°	106,985	190,800	105,030
65°	6,163	7,468	5,826
75°	3,453	3,049	3,306
85°	873	436	764

NEMA® 6 Distribution			
LED Count (x10)	4000K	5000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
700mA			
12	27,276	21,611	28,326
24	54,588	43,250	56,687
1000mA			
12	36,628	29,021	38,037
24	73,303	58,079	76,123

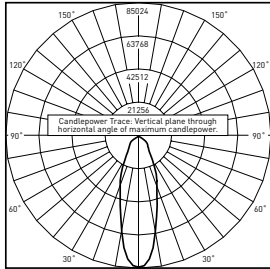
* Initial delivered lumens at 25°C (77°F)

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	12,274	N/A	32.2%
0-40	21,368	N/A	56.1%
0-60	37,401	N/A	98.1%
0-90	38,092	N/A	100%
0-180	38,110	N/A	100%

Photometry

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HH



ITL Test Report #: 79365
 FLD-EHO-HH-**-24-E-UL-700-40K
 Initial Delivered Lumens: 56,246

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	113	110	107	104
2	106	101	96	92
3	100	93	87	83
4	94	86	79	75
5	89	79	73	68
6	84	74	67	63
7	79	69	63	58
8	75	65	58	54
9	72	61	55	50
10	68	58	52	47

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m²)				
	Vertical Angle	Horizontal Angle		
		0°	45°	90°
	45°	51,833	68,668	52,870
	55°	42,939	68,714	41,853
	65°	4,643	6,658	4,217
	75°	2,561	2,442	2,035
	85°	705	453	403

Hangar High-Bay Distribution			
LED Count (x10)	4000K	5000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
700mA			
12	27,276	21,611	28,326
24	54,588	43,250	56,687
1000mA			
12	36,628	29,021	38,037
24	73,303	58,079	76,123

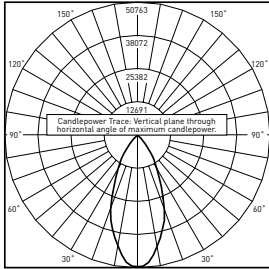
* Initial delivered lumens at 25°C (77°F)

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	33,161	N/A	59.0%
0-40	42,058	N/A	74.8%
0-60	55,232	N/A	98.2%
0-90	56,247	N/A	100%
0-180	56,247	N/A	100%

Photometry

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ITL Test Report #: 78521
 FLD-EHO-40-**-12-E-UL-1000-40K
 Initial Delivered Lumens: 36,476

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	113	111	108	106
2	108	103	99	95
3	102	95	90	86
4	97	89	83	79
5	92	83	77	73
6	87	78	72	68
7	83	74	67	64
8	79	69	63	59
9	75	66	60	56
10	72	62	56	52

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)				
Vertical Angle	Horizontal Angle			
		0°	45°	90°
	45°	45,576	58,496	47,633
	55°	19,143	19,740	18,795
	65°	6,703	6,906	5,983
75°	2,314	2,461	2,461	
85°	1,527	1,200	1,309	

40° Flood Distribution			
LED Count (x10)	4000K	5000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
700mA			
12	26,684	21,142	27,710
24	53,401	42,310	55,455
1000mA			
12	35,832	28,390	37,210
24	71,710	56,816	74,468

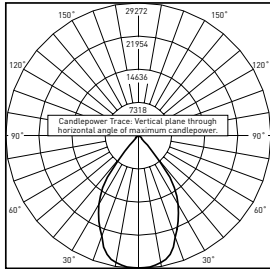
* Initial delivered lumens at 25°C (77°F)

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	24,982	N/A	68.5%
0-40	31,801	N/A	87.2%
0-60	36,071	N/A	98.9%
0-90	36,476	N/A	100%
0-180	36,476	N/A	100%

Photometry

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70



ITL Test Report #: 78522
 FLD-EHO-70-**-12-E-UL-1000-40K
 Initial Delivered Lumens: 33,030

Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	113	109	107	104
2	106	101	96	92
3	100	93	87	83
4	95	86	80	75
5	89	80	74	69
6	84	75	68	63
7	80	70	63	58
8	75	65	59	54
9	72	61	55	50
10	68	57	51	47

Effective Floor Cavity Reflectance: 20%

Average Luminance Table (cd/m ²)				
Vertical Angle	Horizontal Angle			
	0°	45°	90°	
45°	37,536	44,433	30,263	
55°	14,270	14,784	14,917	
65°	14,846	15,521	15,431	
75°	15,978	16,088	16,308	
85°	15,489	13,962	14,507	

70° Flood Distribution			
LED Count (x10)	4000K	5000K	5700K
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
700mA			
12	24,312	19,262	25,247
24	48,654	38,549	50,525
1000mA			
12	32,647	25,867	33,903
24	65,336	51,766	67,849

* Initial delivered lumens at 25°C (77°F)

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	20,031	N/A	60.6%
0-40	28,308	N/A	85.7%
0-60	31,767	N/A	96.2%
0-90	33,030	N/A	100%
0-180	33,030	N/A	100%