

ESA-C10-WD-42-D

Essentia® LED Downlight – Cylinder

Product Description

Ten-inch cylinder downlight luminaire designed for 42 high output LEDs. Two-piece optical assembly provides a broad, even light distribution, combining low brightness, with maximum visual cutoff and efficiency. Four light distributions available – narrow spot, narrow, medium, and wide. Ten year limited warranty on fixture.

Performance Summary

Utilizes BetaLED® Technology

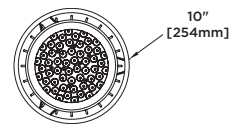
Patented NanoOptic® Product Technology

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

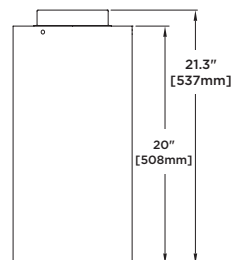
CRI: Refer to chart on page 2

CCT: 2700K , 3500K (standard), 4000K

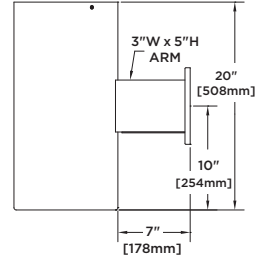
Limited Warranty†: 10 years on luminaire



SURFACE MOUNT



WALL BRACKET



MOUNTING



Surface (S)



Pendant (P)



Wall Bracket (SW)



Aircraft Cable (AC)



Hangstraight Pendant (HP)
(Field Cutable)

Ordering Information

Example: ESA-C10-WD-S-42-D-U-BK-SSGC-C-OPTIONS

ESA	C10	WD		42	D	U			C	
Family Name	Type	Optic	Mounting	LED Count	Series	Voltage	Color	Reflector/ Cone Finish¹	Drive Current	Options <small>Please type additional options in manually on the lines provided below</small>
ESA	C10 10" Cylinder	WD Wide	S Surface P Pendant¹ SW Wall Bracket HP Hangstraight Pendant² AC1 5' Aircraft Cable AC2 10' Aircraft Cable AC3 15' Aircraft Cable	42	D	U Universal 120-277V	BK Black BZ Bronze CS Camaro Silver WH White	SSGC Clear SSGGR Graphite SSGBR Bronze SSGCG Champagne Gold SSGPE Pewter SSGWH Wheat SSGB Black W White	C 525mA	FS Fusing LM Shielding Media 27K 2700K⁴ - 90+ Nominal CRI 30K 3000K⁴ - 90+ CRI 40K 4000K⁴ - 80+ CRI

† See www.cree.com/lighting/products/warranty for warranty terms.

1. 24" standard, consult factory for other lengths

2. 24" standard; 45° max slope, field cutable (consult factory for other lengths)

3. SSG = Soft Satin Glow Anti-Irrescent

4. Color temperature per fixture; 3500K Standard



Rev. Date: 05/30/13



Product Specifications

CONSTRUCTION & MATERIALS

- Luminaire uses 42 high output LEDs, tolerance to be within a 2-step MacAdam Ellipse.
- Tilted Axial and/or Axial TIR NanoOptic® on each individual LED to maximize light delivered through aperture.
- Provides 45° visual cutoff to source.
- Low brightness parabolic spun Alzak aluminum cone, 0.06" (2mm) thick with polished radius and continuous self-flange.
- Soft Satin Glow Clear finish, standard.
- Precision nickel plated cone retainers assure that the lower cone is held in position.
- Custom extruded aluminum heatsink.
- Flow-Thru design to maximize cooling of LEDs.
- Heavy wall aluminum housing.
- Surface, pendant, wall, or cable mounting.
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze, black, white and camaro silver* powder topcoats are available. The finish is covered by our 10 year limited warranty. *One year warranty

ELECTRICAL SYSTEM

- High efficiency constant current drivers 525mA drive current.
- Input Voltage:** 120 or 277V
- 0-10V dimming, standard. 100%-10% full-range continuous dimming.
- Power Factor:** > 0.9 at full load.
- Total Harmonic Distortion:** < 20% at full load.

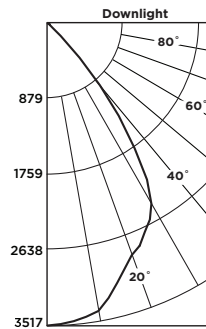
REGULATORY & VOLUNTARY QUALIFICATIONS

- UL/cUL listed damp location.
- RoHS compliant.
- Meets Buy American requirements within ARRA.

Color Tolerance			
Color	Target CCT	Tolerance	CRI
4000K	3899	+/- 75K	80
3500K	3388	+/- 63K	80
3000K	2993	+/- 50K	90
2700K	2755	+/- 42K	90

Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards.



Configured ITL Test Report #: 71241
 ESA-C10-WD-S-42-D-U-WH-D-SSG-C-35K
 Initial Delivered Lumens: 3829
 Efficacy: 51 Lm/W
 S/M: 1.08

Cone of Light

Distance from Workplane	Footcandles	Beam Diameter
6'	98	6.5
8'	55	8.5
10'	35	10.8
12'	24	13.0
14'	18	14.8

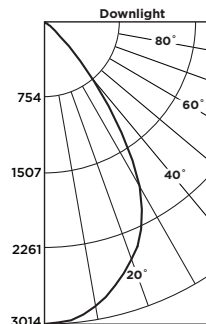
Candlepower Summary

Angle	Mean CP
0°	3517
5°	3479
15°	3129
25°	2681
35°	1775
45°	214
55°	38
65°	18
75°	5
85°	0
90°	0

Lumen Summary

VerticleAngle	Average
45°	6974
55°	1527
65°	981
75°	445
85°	0

Lensed



Configured ITL Test Report #: 71242
 ESA-C10-WD-S-42-D-U-WH-D-SSG-C-35KLM
 Initial Delivered Lumens: 3290
 Efficacy: 44 Lm/W
 S/M: 1.04

Cone of Light

Distance from Workplane	Footcandles	Beam Diameter
6'	84	6.2
8'	47	8.3
10'	30	10.3
12'	21	12.3
14'	15	14.5

Candlepower Summary

Angle	Mean CP
0°	3014
5°	2987
15°	2726
25°	2284
35°	1344
45°	339
55°	64
65°	20
75°	4
85°	0
90°	0

Lumen Summary

VerticleAngle	Average
45°	11048
55°	2571
65°	1091
75°	356
85°	0

IES Files

To obtain an IES file specific to your project consult:
<http://www.cree.com/lighting/tools-and-support/interior-ies-configuration-tool>

Lumen Output, Electrical, and Lumen Maintenance Data

Wide Distribution													
LED Count	3500K/4000K		3000K		2700K		Sytem Watts 120-277	Total Current				L70 Hours* @ 25° C (77° F)	50K Hours Lumen Maintenance Factor* @ 25° C (77° F)
	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media	Initial Delivered Lumens without Lens Media	Initial Delivered Lumens with Lens Media		@ 120V	@ 208V	@ 240V	@ 277V		
	525mA @ 25° C (77° F)												
42	3,829	3,290	2,872	2,468	2,642	2,270	75	0.63	0.36	0.31	0.28	143,000	90%

* Projected L₇₀ (10K) Hours: > 60,000. For recommended lumen maintenance factor data see TD-14