

ThermaLED Round Flat Top Bollards

ThermaLED Technology



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TAMPA, FL 33626
PHONE: 844-636-2036
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L70
(25°C) **147,000 Hours**



NEW Soft Shine Low Glare White Cone Reflector
Daytime View Nighttime View
(Dome Top Shown for Visual Concept)



Glass ECBOFGQ



Louvers ECBOFLQ



LED Cone Reflector Shown with Glare Shield ECBOFRLQ



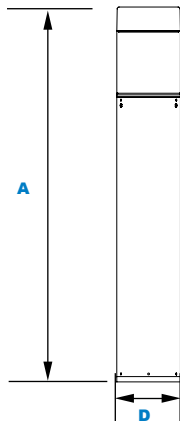
SoftLED LumaLens Opal Array Lens



Shown with "S3" Sensor



Shown with GFCI



Dimensions

Diameter (D) 7" (178mm)

Height (A) 41 1/2" (1,057mm)

The Eco-Revolution ThermaLED Bollards with choice of optics and lenses are designed to replace HID lighting systems up to 70w MH or HPS. These fixtures are ideal for retail centers, industrial parks, schools and universities, public transit and airports, office buildings and medical facilities.

Specifications and Features:

Housing:	Extruded Aluminum Housing with Flush Mounting Base & Vandal-Resistant Screws, Flat Top, Internal Ballast Tray for Easy Maintenance. Bollards Can Be Cut to Custom Lengths Upon Request.
Listing & Ratings:	CSA: Listed for Wet Locations, ANSI/UL 1598, 8750 IP65 Sealed LED Compartment.
Finish:	Textured Architectural Bronze or Black Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.
Style:	Clear Prismatic Borosilicate Glass Refractor, Specially Designed Cone Reflector or Internal Louvers
Lens:	Clear UV-Stabilized Polycarbonate Vandal-Resistant Lens or SoftLED LumaLens UV-Stabilized Polycarbonate Opal Vandal-Resistant Lens
Mounting Options:	Mounting Kit with 8" Zinc-Plated Anchor Bolts, Included.
ThermaLED LED:	Aluminum Boards
Wattage:	Array: 10w, System: 11.3w Array: 14.5w, System: 17w Array: 22w, System: 23.8w
Driver:	Electronic Driver, 120-277V, 50/60Hz or 347V, 50/60Hz (15w Only); Less Than 20% THD and PF>0.90. Standard Internal Surge Protection 2kV. 0-10V Dimming Standard for a Dimming Range of 100% to 10%; Dimming Source Current is 150 Microamps.
Controls:	Fixtures Ordered with Factory-Installed Motion Sensor Controls are Internally Wired for Switching and/or 1-10V Dimming Within the Housing. Remote Direct Wired Interface of 1-10V Dimming is Not Implied and May Not Be Available, Please Consult Factory. Fixtures are Tested with Eco-Revolution Controls and May Not Function Properly With Controls Supplied By Others. Fixtures are NOT Designed for Use with Line Voltage Dimmers.
Warranty:	5-Year Warranty for -40°C to +40°C Environment.

See Page 4 for Projected Lumen Maintenance Table.

Certification & Listings:



Project Information:

Project Name: _____

Complete Catalog #: _____

Comments: _____

Fixture Type: _____

Date: _____



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Order Information Example:		ECBOFRLQF1X22U5KZ36SF						
Model	Optics	Wattage	Driver	CCT	Lens	Color	Height	Options
<p>ECBOFRWQ=Round Flat Bollard with Soft Shine Low Glare White Cone Reflector</p> <p>ECBOFRLQ=Round Flat Bollard with LED Cone Reflector</p> <p>ECBOFGQ=Round Flat Bollard with Glass</p> <p>ECBOFLQ=Round Flat Bollard with Louvers</p>	<p>C=Type III*</p> <p>F=Wide Beam Spread</p> <p>* ECBOFRWQ, ECBOFRLQ & ECBOFGQ only</p>	<p>1X10=10w</p> <p>1X15=15w</p> <p>1X22=22w</p>	<p>U=120-277V</p> <p>C=347V*</p> <p>*15w Model Only</p>	<p>3K=3000K</p> <p>4K=4000K</p> <p>5K=5000K</p>	<p>(Leave Blank)=Clear Lens</p> <p>L=SoftLED LumaLens Opal UV-Stabilized Polycarbonate Array Lens*</p> <p>*Type V White Cone Reflector Only</p>	<p>Z=Bronze</p> <p>B=Black</p> <p>C=Custom (Consult Factory)</p>	<p>(Leave Blank)=42" Standard Height</p> <p>36=36" Height</p> <p>30=30" Height</p>	<p>SF=Single Fuse*</p> <p>DF=Double Fuse*</p> <p>SP=Surge Protection</p> <p>GF1=GFCI Outlet, 15A, 120V</p> <p>GSB=180° Glare Shield, Black</p> <p>GSZ=180° Glare Shield, Bronze</p> <p>GSC=180° Glare Shield, Custom Color (Consult Factory)</p> <p>S3=Microwave Sensor with Dimming & Remote Programming, 120-277V Only. See ECP17121 Spec. Page for Details.</p> <p>BU=Battery Backup, 90 Minutes*</p> <p>BUC=Cold Start Battery Backup, -20°C, 90 Minutes*</p> <p>*120-277V Models Only.</p>

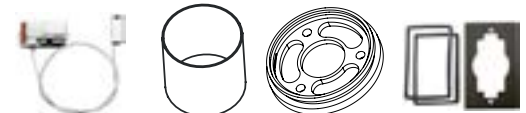
Accessories & Replacement Parts:

Mounting Accessories (Order Separately, Field Installed)	Accessories (Order Separately, Field Installed)	Replacement Parts (Order Separately, Field Installed)
<p>ECBOLAN4 Mounting Kit, Includes Bracket & Three (3) 4" Zinc-Plated Anchor Bolts</p> <p>ECBOLAN8 Mounting Kit, Includes Bracket & Three (3) 8" Zinc-Plated Anchor Bolts</p> <p>ECBOLAN12 Mounting Kit, Includes Bracket & Three (3) 12" Zinc-Plated Anchor Bolts</p> <p>ECBOLAN15 Mounting Kit, Includes Bracket & Three (3) 15" Zinc-Plated Anchor Bolts</p> <p>ECBREBASE* Bollard Retrofit Base Kit Adapts New Bollards to Most Existing Bolt Patterns. Fits all Eco-Revolution Bollards. Die Cast with Powdercoat Finish, Hardware Included. 11½" Dia. x 1½" H</p>	<p>ECP17122 Remote Programming Tool for ECP17121</p>  <p>ECP17122</p>	<p>ECP17121 Internal Microwave Sensor with Dimming & Remote Programming, 120-277V Only. See ECP17121 Spec. Page for Details.</p> <p>ECBOLPC Replacement Round UV-Stabilized Polycarbonate Vandal-Resistant Lens</p> <p>ECBOLPCLL Replacement SoftLED LumaLens Opal UV-Stabilized Polycarbonate Array Lens</p> <p>ECBORBASE* Die Cast Base Plate with Powdercoat Finish Over a Chromate Conversion Coating.</p> <p>ECBOADP1 Adapter Plate with Gaskets for Outlet Boxes. Fits Eco-Revolution Round Bollards. Die Cast with Bronze Powdercoat Finish.</p>
*Specify Color: Z=Bronze, B=Black, C=Custom (Consult Factory)		
*Specify Color: Z=Bronze, B=Black, C=Custom (Consult Factory)		
For Replacement Battery Backup, see the Eco-Revolution LED Battery Backup Specification Sheet.		



ECBOLAN ECBREBASE*

*Shown Mounted



ECP17121 ECBOLPC, ECBOLPCLL ECBORBASE ECBOADP1

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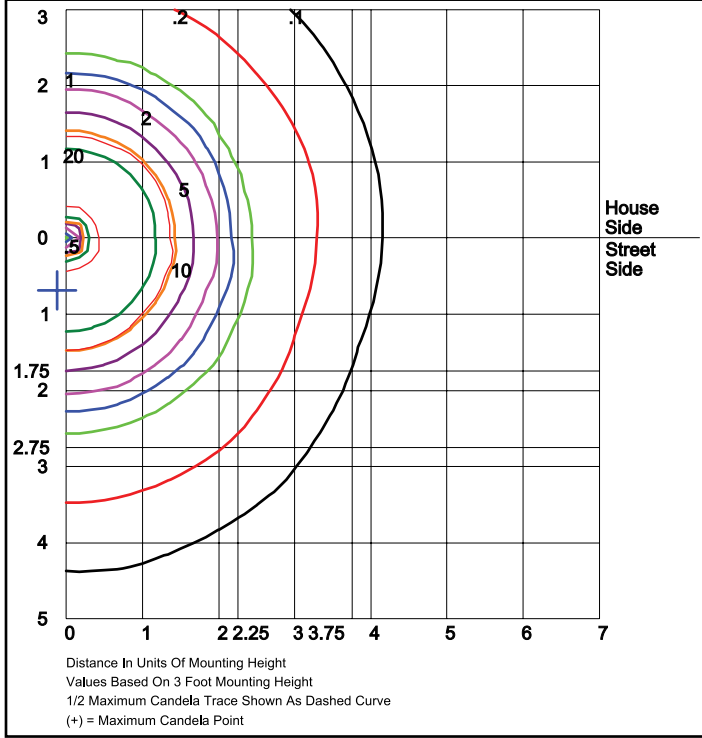
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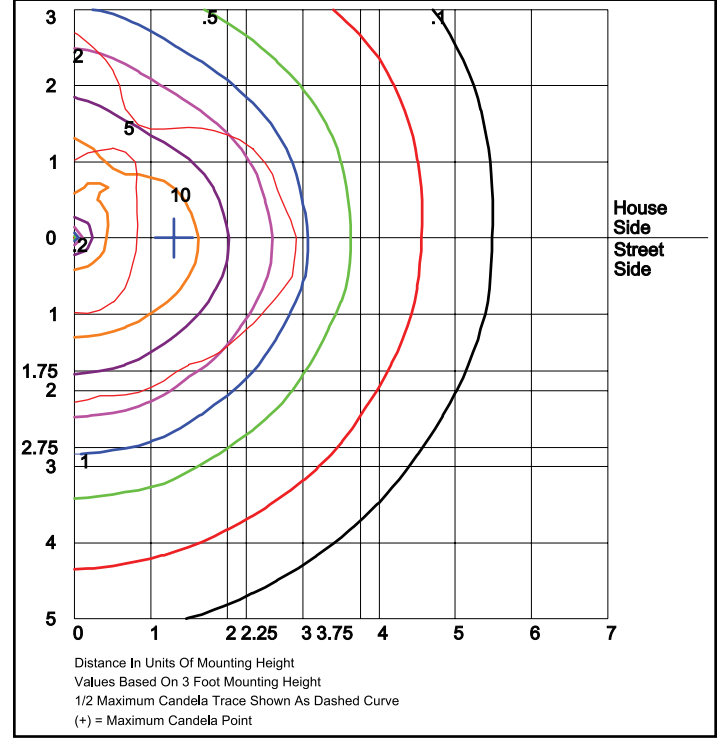
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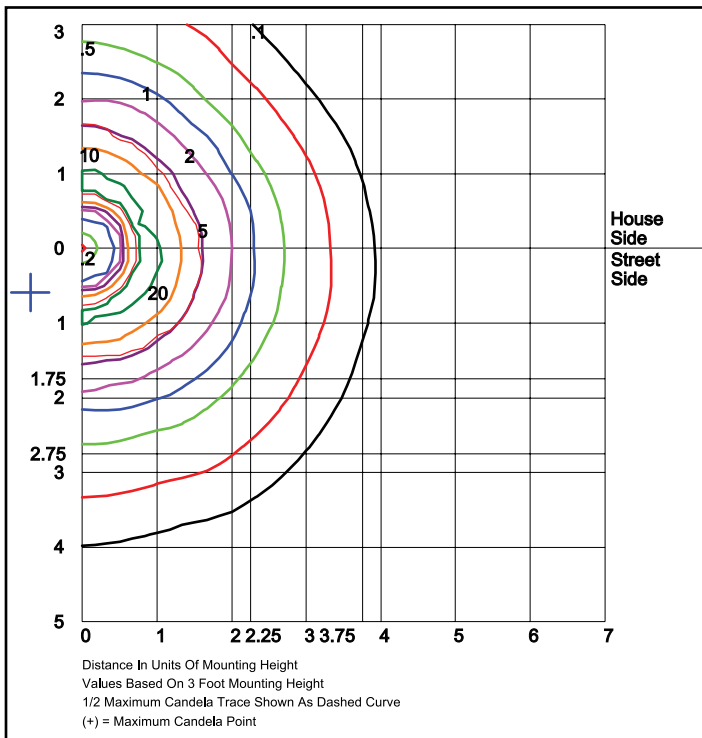
Photometric Data



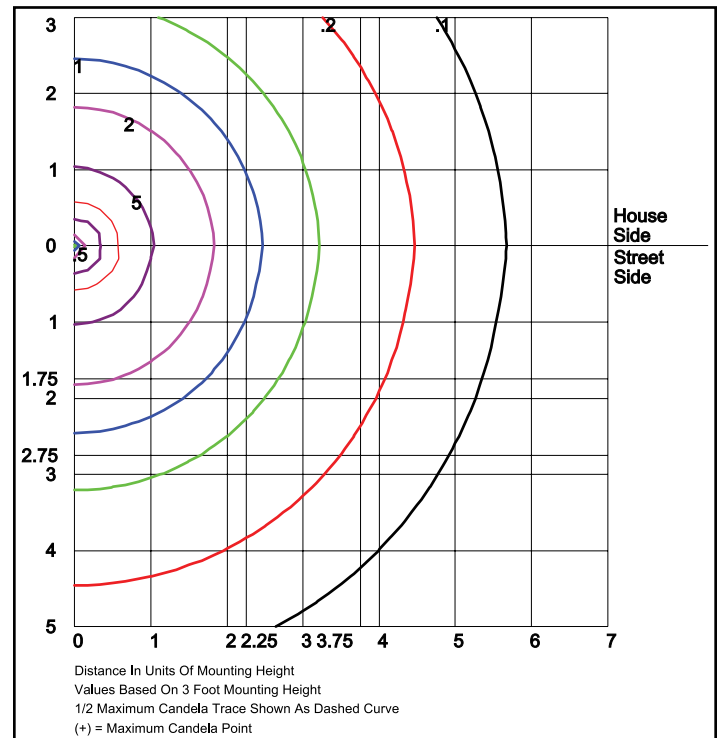
ECBOFRWQF1X22U5K & ECBOFRLQF1X22U5K
Type V
Grid in feet, Mounting Height = 3 ft.



ECBOFGQC1X22U5K
Type III
Grid in feet, Mounting Height = 3 ft.



ECBOFLQF1X22U5K
Type V
Grid in feet, Mounting Height = 3 ft.



ECBOFRWQF1X22U5KL, LumaLens
Type V
Grid in feet, Mounting Height = 3 ft.

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Photometric Performance

Optic	CCT	Delivered Lumens		
		10W (1X22)	15W (1X15)	20W (1X22)
Wattage (Catalog Logic)		11.3W	15.9W	23.8W
Input Watts		11.3W	15.9W	23.8W
ECBOFRWQ & ECBOFRLQ Cone Reflector C=Type III Optic	3000K	738	1,033	1,549
	4000K	800	1,120	1,680
	5000K	834	1,167	1,750
	BUG Rating	B0-U2-G1	B1-U3-G1	B1-U3-G1
ECBOFRWQ & ECBOFRLQ Cone Reflector F=Type V Optic	3000K	1,037	1,452	2,178
	4000K	1,125	1,575	2,362
	5000K	1,172	1,641	2,461
	BUG Rating	B1-U3-G1	B1-U3-G1	B1-U3-G1
ECBOFGQ Glass C=Type III Optic	3000K	787	1,101	1,652
	4000K	853	1,195	1,792
	5000K	889	1,245	1,867
	BUG Rating	B1-U3-G1	B1-U3-G1	B1-U3-G1
ECBOFGQ Glass F=Type V Optic	3000K	768	1,076	1,613
	4000K	833	1,167	1,750
	5000K	868	1,215	1,823
	BUG Rating	B1-U3-G1	B1-U3-G1	B1-U3-G1
ECBOFLQ Louvers F=Type V Optic Only	3000K	531	744	1,116
	4000K	576	807	1,211
	5000K	600	841	1,261
	BUG Rating	B0-U2-G0	B1-U2-G1	B1-U3-G1

Projected Lumen Maintenance

Data shown for 5000 CCT	Input Watts	Compare to MH				Calculated LED Life
		Initial	25,000 Hrs	50,000 Hrs	100,000 Hrs	
TM-21-11						
L70 Lumen Maintenance @ 25°C / 77°F	All wattages up to and including 24w	1.00	0.95	0.90	0.80	147,000
L70 Lumen Maintenance @ 50°C / 122°F		1.00	0.89	0.78	0.55	67,000
L80 Lumen Maintenance @ 40°C / 104°F		1.00	0.92	0.85	0.70	66,000

NOTES:

1. Projected per IESNA TM-21-11. Data references the extrapolated performance projections for the 116mA base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.
2. Compare to MH box indicates suggested Light Loss Factor (LLF) to be used when comparing to Metal Halide (MH) systems.