

RETRO-Passive® 150

150W Incandescent Replacement LED Engine
120V • CSA

Energy efficient LED Light Engine

Designed to retrofit directly into existing fixtures.

The RETRO-Passive is a CSA listed, Energy Star 2.0 retrofit kit that rapidly transforms existing inefficient incandescent fixtures into energy efficient LED fixtures. Our patented technology allows the fixture to smoothly dim from 0-100% utilizing existing dimming technology. Retrofit kits are available with a variety of options for both recessed and pendant style fixtures. Installation is as easy as changing a light bulb. Our LED technology creates even fields and delivers consistent color. The RETRO-Passive 150 delivers more light than most 150 watt incandescent bulbs it replaces with only a 17 watt load.

**10 Year
LED Array
Warranty**



What the RETRO IS

- More cost effective than fixture replacement
- Large lumen output for this section of the market
- Listed for screw in replacement
- Energy Star certified 2.0
- Dims on existing dimming systems with no additional installation of control system
- 0-100% dimming without flicker, pulse, or stepping
- 80+ High CRI

Electrical Data

- 17 Watts (17.5)
- Lumens 2103 @ 2700K
- Power Factor (PF) .9886
- Lumens per Watt: 120.17
- LM 70: >50,000 Hours
- CRI@2700K: 81.83,R9+3
- 1 lbs 8.3-9.4 oz w/Reflector

Applications

- 9 feet to 20 feet high ceilings
- Where dimming is a key concern
- Where there is no desire or budget to replace existing fixtures
- Where access is limited
- Where Energy Star is required
- Where a custom solution is required
- Where the ceiling cannot be disturbed

Typical Installations

- Auditoriums
- Houses of worship
- Arenas
- Lobbies
- Museums
- Educational facilities
- Convention centers
- Concert halls

Base Types

E26- Edison
E11- Mini Candelabra (Unavailable for the 700 Series)
Par Ring/Bare Wire
Bi Pin
Custom Options

CCT Lumen Output

2700K: 2103 Lumens
3000K: 2217 Lumens
3500K: 2261 Lumens
4000K: 2314 Lumens
5000K: 2354 Lumens

Fixture Lenses

Tall 11 Degrees
Tall 20 Degrees
Tall 47 Degrees
Short 15 Degree
Short 28 Degree
Short 56 Degrees
Short 74 Degrees
None 120 Degrees

Color Temp

2700K -
3000K - Standard
3500K -
4000K -
5000K -

Order Guide

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Base Type	Length of Stem Lift Plate (1/2")	Color Temp	CRI*	Optics	Accessories/Par Ring	Warranty
EB- Edison (E26)		2700K	80 is standard	Tall 11	PAR46 Ring	10 Year LED Array
MC- Mini Candelabra (E11)		3000K	80, 90, 97	Tall 20	PAR56 Ring	3 Year Standard
Par Ring /Bare Wire	E11 1 3/4"	3500K	80, 90	Tall 47	PAR64 Ring	+1
Custom	E26 1"	4000K	80, 90, 97	Short 15	Diffuser	+2
	2 3/4"	5000K	80, 90, 97	Short 28	(E39) Mogul Adaptor for E26	+3
	4"		80, 90	Short 56	BA15D	
	2 1/2"			Short 74	E26 Extender	
Custom Bare Wire Include Length				NONE- 120 Degrees	Adjustable Par Ring (56)(64)	
					Custom - Include .dwg or .pdf	

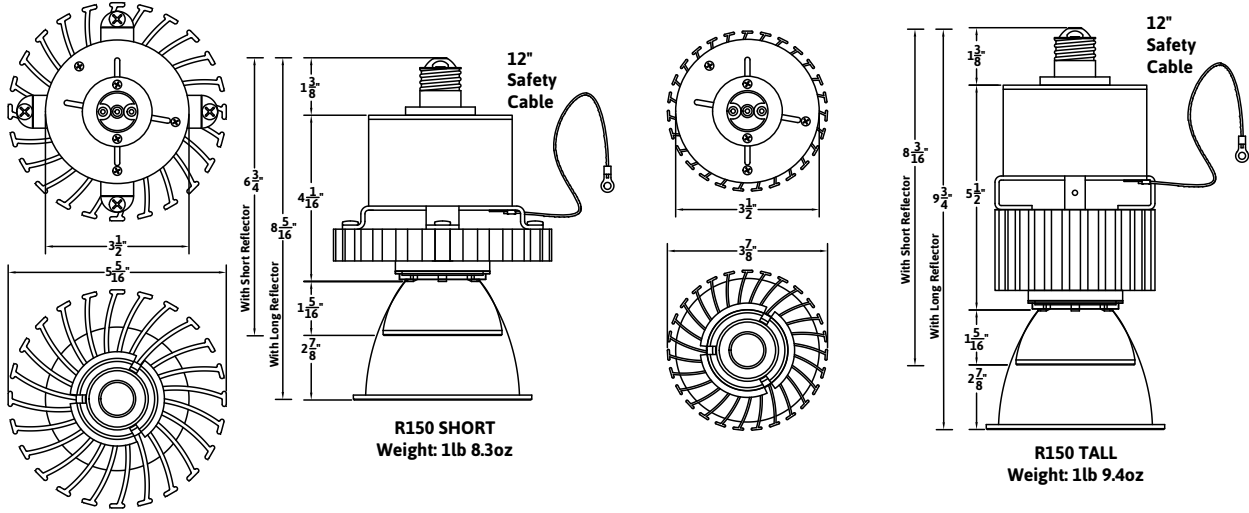
* Chips with a CRI greater than 80 are an additional 6 weeks beyond standard delivery



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Fixture Drawing



Photometrics (R150) 3,000K

Multiplication Factor for Color Temperature

- to convert to 2,700 Kelvin - fc X .9488
- to convert to 3,500 Kelvin - fc X 1.0196
- to convert to 4,000 Kelvin - fc X 1.0439
- to convert to 5,000 Kelvin - fc X 1.0617

To Solve Footcandles
Over A Distance

To Solve Area Over A
Distance

Peak Output
(Distance X Distance)

Distance X Mult.Factor

Mult. Factor 0.4617	15° Diameter	Peak Output 12,338fc	Mult. Factor 0.7279	28° Diameter	Peak Output 4,610fc	Mult. Factor 1.1315	56° Diameter	Peak Output 2,134fc	Mult. Factor 1.4004	74° Diameter	Peak Output 1,134fc
Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles
8'	2'	214	8'	4'	79	8'	9'	36	8'	11'	23
10'	3'	129	10'	5'	50	10'	11'	22	10'	14'	15
20'	5'	30	20'	10'	11	20'	21'	5	20'	28'	3
30'	8'	13	30'	15'	5	30'	32'	2	30'	42'	1
40'	11'	7	40'	20'	2	40'	42'	1	40'	56'	.1
Mult. Factor .1926	11° Diameter	Peak Output 23,360fc	Mult. Factor 0.4069	20° Diameter	Peak Output 11,313fc	Mult. Factor .8489	47° Diameter	Peak Output 2,864fc	Mult. Factor 3.4641	120° Diameter	Peak Output 1,134fc
Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles
8'	1.5'	365	8'	3'	206	8'	7'	52	8'	28'	14
10'	2'	233	10'	4'	127	10'	9'	34	9'	31'	11
20'	4'	58	20'	7'	26	20'	17'	7	10'	35'	9
30'	6'	26	30'	11'	12	30'	25'	3	12'	42'	6
40'	8'	14	40'	14'	6	40'	34'	1	15'	52'	4
									20'	69'	2

Contact your local representative or dealer for IES files.

