

# RETRO-Passive® 700

700W Incandescent Replacement LED Engine  
120V • 230V • 277V • 240VAC • CSA

**CANTOUSA**  
INNOVATIVE LIGHTING PRODUCTS

## 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 700 delivers more light than most 700 watt incandescent bulbs it replaces with only a 72 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

- 72 Watts (72.3)
- Power Factor (PF) .9955
- Lumens: 8107 @ 2700K
- Lumens per watt: 112.3
- LM 70: >50,000 Hours
- CRI@2700K: 81.11, R9+1.8
- 5 lbs 6.4 oz w/Reflector

### Applications

- 10 feet to 60 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        |
| Par Ring/Bare Wire |
| Bi Pin             |
| Custom Options     |

### CCT Lumen Output

|                    |
|--------------------|
| 2700K: 8107 Lumens |
| 3000K: 8489 Lumens |
| 3500K: 8669 Lumens |
| 4000K: 8769 Lumens |
| 5000K: 8902 Lumens |

### Fixture Lenses

|                  |
|------------------|
| Tall 15 Degrees  |
| Tall 23 Degrees  |
| Tall 46 Degrees  |
| Short 26 Degree  |
| Short 40 Degree  |
| Short 59 Degrees |
| Short 70 Degrees |
| None 120 Degrees |

### Color Temp

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

### Order Guide

|  |   |  |   |  |   |  |   |  |   |  |   |  |
|--|---|--|---|--|---|--|---|--|---|--|---|--|
|  | - |  | - |  | - |  | - |  | - |  | - |  |
|--|---|--|---|--|---|--|---|--|---|--|---|--|

| Fixture Type | Base Type                                                                                | Color Temp                                | CRI*                                                       | Optics                                                                                             | Accessories                                                                                                           | Warranty                                                                       |
|--------------|------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| R700 - P     | <b>E11</b><br>1 3/4"<br>2 3/4"                                                           | 2700K<br>3000K<br>3500K<br>4000K<br>5000K | 80, 90, 97<br>80, 90, 97<br>80, 90<br>80, 90, 97<br>80, 90 | Tall 15<br>Tall 23<br>Tall 46<br>Short 26<br>Short 40<br>Short 59<br>Short 70<br>NONE- 120 Degrees | Diffuser<br>E26 Extender 1"<br>E26 Extender 2"<br>Lift Plate (1/2")<br>PAR Ring (56)<br>PAR Ring (64)<br>Custom Plate | 10 Year LED Array<br>3 Year Standard<br>+1<br>+2<br>+3<br>+4<br>+5<br>+6<br>+7 |
|              | <b>E26</b><br>1"<br>1 1/2"<br>2 1/2"                                                     |                                           |                                                            |                                                                                                    |                                                                                                                       |                                                                                |
|              | E39 - Mogul *<br>BD15A *<br>Specific Height<br>BW - Bare Wire<br>PP - PAR Plug<br>JBox** |                                           | *If blank 80 is issued                                     |                                                                                                    |                                                                                                                       |                                                                                |

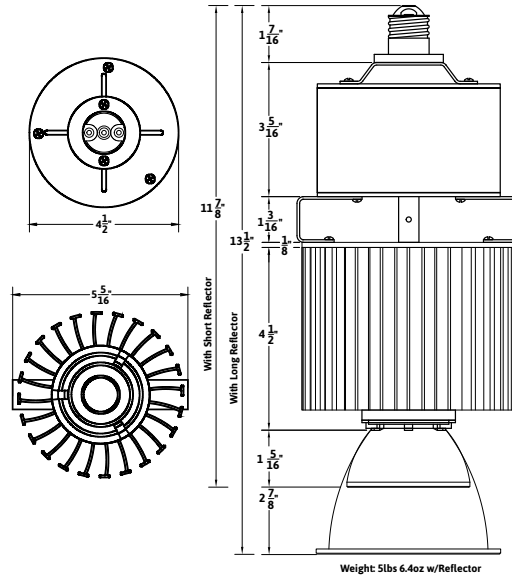
\*E39 and BD15A require an E26 base with adaptors used to make this unit compatible with these base types. \*\*JBox includes Bare Wire.

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

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## Fixture Drawing



## Photometrics (R700) 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

$$\text{Peak Output} \div (\text{Distance} \times \text{Distance})$$

To Solve Area Over A  
Distance

$$\text{Distance} \times \text{Mult. Factor}$$

| Mult. Factor<br>0.4617<br>Distance | 26°<br>Diameter | Peak Output<br>20,738fc<br>Foot Candles | Mult. Factor<br>0.7279<br>Distance | 40°<br>Diameter | Peak Output<br>12,936fc<br>Foot Candles | Mult. Factor<br>1.1315<br>Distance | 59°<br>Diameter | Peak Output<br>8,341c<br>Foot Candles  | Mult. Factor<br>1.4004<br>Distance | 70°<br>Diameter  | Peak Output<br>4,489c<br>Foot Candles  |
|------------------------------------|-----------------|-----------------------------------------|------------------------------------|-----------------|-----------------------------------------|------------------------------------|-----------------|----------------------------------------|------------------------------------|------------------|----------------------------------------|
| 8'                                 | 4'              | 331                                     | 8'                                 | 6'              | 204                                     | 8'                                 | 9'              | 130                                    | 8'                                 | 11'              | 73                                     |
| 10'                                | 5'              | 216                                     | 10'                                | 7'              | 134                                     | 10'                                | 11'             | 85                                     | 10'                                | 14'              | 48                                     |
| 20'                                | 9'              | 51                                      | 20'                                | 15'             | 32                                      | 20'                                | 23'             | 21                                     | 20'                                | 28'              | 11                                     |
| 30'                                | 14'             | 22                                      | 30'                                | 22'             | 14                                      | 30'                                | 34'             | 9                                      | 30'                                | 42'              | 5                                      |
| 40'                                | 18'             | 12                                      | 40'                                | 29'             | 7                                       | 40'                                | 45'             | 5                                      | 40'                                | 56'              | 2                                      |
| Mult. Factor<br>0.2633<br>Distance | 15°<br>Diameter | Peak Output<br>37,197fc<br>Foot Candles | Mult. Factor<br>0.4069<br>Distance | 23°<br>Diameter | Peak Output<br>24,838fc<br>Foot Candles | Mult. Factor<br>.8489<br>Distance  | 46°<br>Diameter | Peak Output<br>8,872fc<br>Foot Candles | Mult. Factor<br>3.4641<br>Distance | 120°<br>Diameter | Peak Output<br>2,962fc<br>Foot Candles |
| 8'                                 | 2'              | 600                                     | 8'                                 | 3'              | 400                                     | 8'                                 | 7'              | 142                                    | 8'                                 | 28'              | 46                                     |
| 10'                                | 3'              | 310                                     | 10'                                | 4'              | 262                                     | 10'                                | 8'              | 100                                    | 9'                                 | 31'              | 38                                     |
| 20'                                | 5'              | 90                                      | 20'                                | 8'              | 61                                      | 20'                                | 17'             | 21                                     | 10'                                | 35'              | 30                                     |
| 30'                                | 8'              | 39                                      | 30'                                | 12'             | 26                                      | 30'                                | 25'             | 10                                     | 12'                                | 42'              | 21                                     |
| 40'                                | 11'             | 22                                      | 40'                                | 16'             | 14                                      | 40'                                | 34'             | 5                                      | 15'                                | 52'              | 13                                     |
|                                    |                 |                                         |                                    |                 |                                         |                                    |                 |                                        | 20'                                | 69'              | 7                                      |

Contact your local representative or dealer for IES files.