

# RETRO-Passive® 2.0 500

500W Incandescent Replacement LED Engine  
120V • 230V • 240VAC

**CANTOUSA**  
INNOVATIVE LIGHTING PRODUCTS

## Energy efficient LED Light Engine

Designed to retrofit directly into existing fixtures.

The RETRO-Passive 2.0 is a CSA listed 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 2.0 500 delivers more light than most 500 watt incandescent bulbs it replaces with only a 49 watt load.

**10 Year  
LED Array  
Warranty**



Fairfax High School, Fairfax, Virginia  
105 RETRO 500s at 3000K  
Installed by Artistic Concepts Group

## What the Fusion 2.0 IS

- More cost effective than fixture replacement
- Large lumen output for this market
- Listed for screw in replacement
- Field swappable tops
- Serviceable safety cable
- Dims on existing dimming systems with no additional installation of control system
- 0-100% dimming without flicker, pulse, or stepping
- 80+ High CRI
- Standard 5 Year Limited Warranty. An extended warranty of up to 5 additional years can be added at the time of purchase

## Electrical Data

- 49 Watts (49.07)
- Power Factor (PF) .9955
- Lumens: 5676 @ 2700K
- Lumens per watt: 115.67
- LM 70: >50,000 Hours
- CRI@2700K: 82,R9+4.9
- 3 lbs 1.2oz w/Reflector (1.4 kg)

## Applications

- 9 feet to 50 feet high ceilings (2.75 - 15.25 meter high ceilings)
- Where dimming is a key concern
- Where there is no desire or budget to replace existing fixtures
- Where access is limited
- Where a custom solution is required
- Where the ceiling cannot be disturbed

## Typical Installations

- Auditoriums
- Churches and houses of worship
- Arenas
- Lobbies
- Museums
- Educational facilities
- Convention centers

## Top Types

E26 - Edison  
E11 - Mini Candelabra  
E39 - Mogul \*  
BA15D \*  
Par Ring/Bare Wire  
Bi-Pin  
Custom Options

## CCT Lumen Output

2700K: 5676 Lumens  
3000K: 6024 Lumens  
3500K: 6239 Lumens  
4000K: 6309 Lumens  
5000K: 6372 Lumens

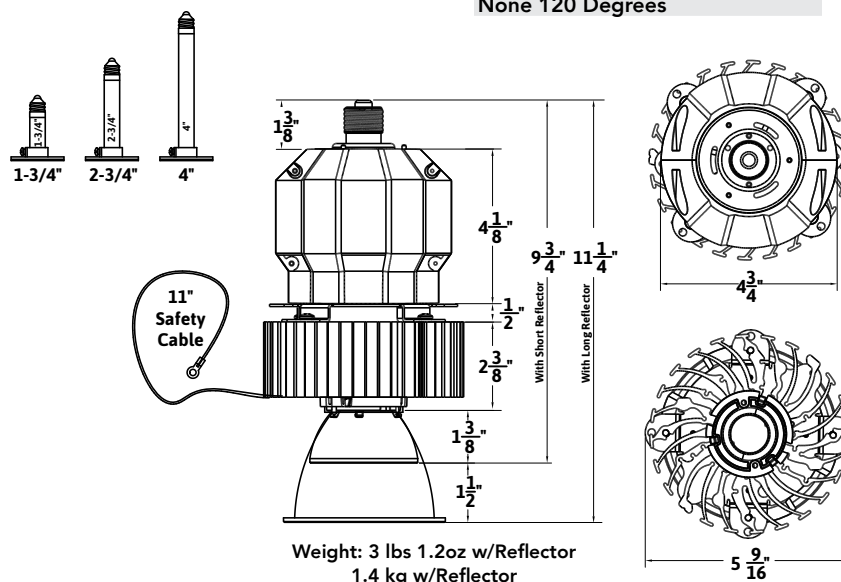
## Fixture Reflectors

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 -

## Fixture Drawing



**ATTENTION:** If your space has been designed with multiple RETRO models, please contact the factory to discuss fade and dimming options for your space.



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## Order Guide

### 1. RETRO

|       |            |              |              |                                      |                  |  |
|-------|------------|--------------|--------------|--------------------------------------|------------------|--|
| 00    | P2         |              | 500          |                                      |                  |  |
| LIGHT | VOLTAGE    | FIXTURE TYPE | SINK SIZE    | COLOR TEMP                           | CRI              |  |
| P2    | 120<br>230 | 500          | X (Standard) | 2.7K<br>3.0K<br>3.5K<br>4.0K<br>5.0K | 80<br>*90<br>*97 |  |

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

### 2. TOPS

|     |                                                     |        |  |
|-----|-----------------------------------------------------|--------|--|
| 00  | TOP                                                 |        |  |
| TOP | TYPE                                                | LENGTH |  |
| TOP | E26 → 1.35" or *CCC                                 |        |  |
|     | E11 → 1.75", 2.75", 4.00" or *CCC                   |        |  |
|     | BW (Bare Wire) → 12" min, increase in 6" increments |        |  |

\*Custom height in inches to the nearest 1/4" from the top to the plate to the tip.

### 3. REFLECTOR

|             |        |      |  |
|-------------|--------|------|--|
| 00          |        |      |  |
| REFLECTOR   | DEGREE | SIZE |  |
| REF         | 15 → T |      |  |
|             | 23 → T |      |  |
|             | 46 → T |      |  |
|             | 26 → S |      |  |
|             | 40 → S |      |  |
|             | 59 → S |      |  |
|             | 70 → S |      |  |
| ZOR (ZORYA) | 25     |      |  |

### 4. ADAPTER & EXTENDER OPTIONS

|                           |      |  |
|---------------------------|------|--|
| 00                        |      |  |
| TYPE                      | TYPE |  |
| ADP → *BAYONET (BA15D)    |      |  |
| ADP → *MOGUL (E39 TO E26) |      |  |
| EXT → 1.25" or 2.5"       |      |  |

\*E39 and BA15D require an E26 top with adapters used to make this unit compatible with these top types.

### 5. DIFFUSERS

|          |                            |  |
|----------|----------------------------|--|
| 00       | DIF                        |  |
| DIFFUSER | TYPE                       |  |
| DIF      | SMALL (For Shorts)         |  |
|          | LARGE (For Talls)          |  |
|          | KIT (For Shorts and Talls) |  |

## Photometrics (R500) 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

Peak Output ÷ (Distance X Distance)

To Solve Area Over A  
Distance

Distance X Mult.Factor

| Mult. Factor<br>0.4617<br>Distance | 26°<br>Diameter | Peak Output<br>10,817fc<br>Foot Candles | Mult. Factor<br>0.7279<br>Distance | 40°<br>Diameter | Peak Output<br>7,086fc<br>Foot Candles | Mult. Factor<br>1.1315<br>Distance | 59°<br>Diameter | Peak Output<br>4,386c<br>Foot Candles | Mult. Factor<br>1.4004<br>Distance | 70°<br>Diameter | Peak Output<br>2,568c<br>Foot Candles |
|------------------------------------|-----------------|-----------------------------------------|------------------------------------|-----------------|----------------------------------------|------------------------------------|-----------------|---------------------------------------|------------------------------------|-----------------|---------------------------------------|
| 8'                                 | 4'              | 172                                     | 8'                                 | 6'              | 109                                    | 8'                                 | 9'              | 69                                    | 8'                                 | 11'             | 43                                    |
| 10'                                | 5'              | 109                                     | 10'                                | 7'              | 70                                     | 10'                                | 11'             | 44                                    | 10'                                | 14'             | 25                                    |
| 20'                                | 9'              | 26                                      | 20'                                | 15'             | 17                                     | 20'                                | 23'             | 10                                    | 20'                                | 28'             | 7                                     |
| 30'                                | 14'             | 12                                      | 30'                                | 22'             | 8                                      | 30'                                | 34'             | 5                                     | 30'                                | 42'             | 3                                     |
| 40'                                | 18'             | 7                                       | 40'                                | 29'             | 5                                      | 40'                                | 45'             | 3                                     | 40'                                | 56'             | 1                                     |

| Mult. Factor<br>0.2633<br>Distance | 15°<br>Diameter | Peak Output<br>20,965fc<br>Foot Candles | Mult. Factor<br>0.4069<br>Distance | 23°<br>Diameter | Peak Output<br>11,313fc<br>Foot Candles | Mult. Factor<br>.8489<br>Distance | 46°<br>Diameter | Peak Output<br>5,115fc<br>Foot Candles | Mult. Factor<br>3.4641<br>Distance | 120°<br>Diameter | Peak Output<br>1,637fc<br>Foot Candles |
|------------------------------------|-----------------|-----------------------------------------|------------------------------------|-----------------|-----------------------------------------|-----------------------------------|-----------------|----------------------------------------|------------------------------------|------------------|----------------------------------------|
| 8'                                 | 2'              | 328                                     | 8'                                 | 3'              | 262                                     | 8'                                | 7'              | 80                                     | 8'                                 | 28'              | 26                                     |
| 10'                                | 3'              | 210                                     | 10'                                | 4'              | 168                                     | 10'                               | 8'              | 51                                     | 9'                                 | 31'              | 20                                     |
| 20'                                | 5'              | 52                                      | 20'                                | 8'              | 42                                      | 20'                               | 17'             | 13                                     | 10'                                | 35'              | 16                                     |
| 30'                                | 8'              | 23                                      | 30'                                | 12'             | 19                                      | 30'                               | 25'             | 6                                      | 12'                                | 42'              | 11                                     |
| 40'                                | 11'             | 13                                      | 40'                                | 16'             | 10                                      | 40'                               | 34'             | 3                                      | 15'                                | 52'              | 7                                      |
|                                    |                 |                                         |                                    |                 |                                         |                                   |                 |                                        | 20'                                | 69'              | 4                                      |

Contact your local representative or dealer for IES files.

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