

RETRO-Fusion™ 2.0 150

150W Incandescent Replacement LED Engine
120V • 230V • 240VAC

Energy efficient LED Light Engine

Designed to retrofit directly into existing fixtures.

The RETRO-Fusion 2.0 is a TUV 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-Fusion 2.0 150 delivers more light than most 150 watt incandescent bulbs it replaces with only a 17 watt load.



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 section of the market
- Listed for screw in replacement
- Field swappable bases
- Removable safety cable
- 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 lb 5.2 oz - 6 oz w/Reflector (.602 - .624 kg)

Applications

- 9 feet to 20 feet high ceilings (2.75 to 6 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 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

Base Types

| |
|-----------------------|
| E26 - Edison |
| E11 - Mini Candelabra |
| E39 - Mogul * |
| BA15D * |
| 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 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 - |

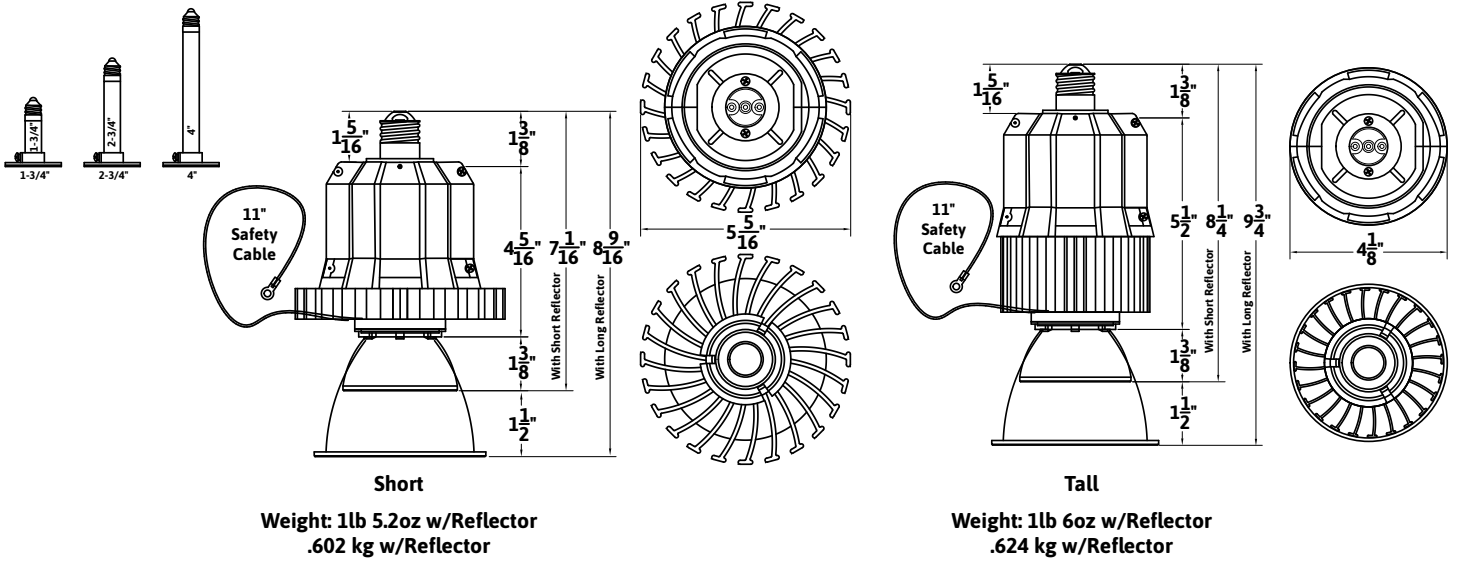
*E39 and BA15D require an E26 base with adaptors used to make this unit compatible with these base types.

* 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

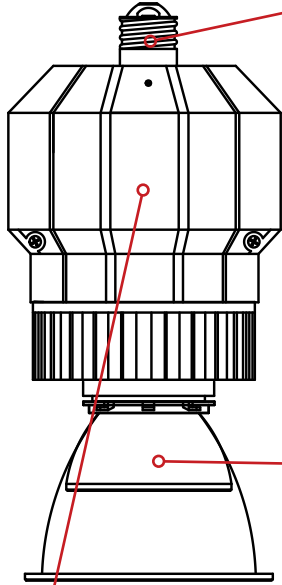
| Mult. Factor Distance | 15° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 28° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 56° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 74° Diameter | Peak Output Foot Candles |
|--------------------------|-----------------|-----------------------------|--------------------------|-----------------|-----------------------------|--------------------------|-----------------|-----------------------------|--------------------------|------------------|-----------------------------|
| 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 Distance | 11° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 20° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 47° Diameter | Peak Output Foot Candles | Mult. Factor Distance | 120° Diameter | Peak Output 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.



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TOPS

| TOP | | TYPE | | LENGTH |
|-----|---|----------------|---|-----------------------------------------------|
| TOP | _ | E26 | _ | 1.35" min, 1.5" + increase in 1/4" increments |
| TOP | _ | E11 | _ | 1.75", 2.75" or 4" |
| TOP | _ | BW (Bare Wire) | _ | 12" min, increase in 6" increments |
| TOP | _ | PP (Par Plug) | _ | 10" standard unless specified |
| TOP | _ | JB (JBox) | _ | 0.00" (Flush mount) |

____ + _ + _____ + _ + _____
TOP TYPE LENGTH

PART NUMBER EXAMPLE: **TOP_E26_4.25** OR **TOP_PP_10**

REFLECTORS

| REFLECTOR | | DEGREE | | REFLECTOR HEIGHT S = SHORT OR T = TALL |
|-----------|---|--------|---|-------------------------------------------|
| REF | _ | 15 | _ | T |
| REF | _ | 23 | _ | T |
| REF | _ | 26 | _ | S |
| REF | _ | 40 | _ | S |
| REF | _ | 46 | _ | T |
| REF | _ | 59 | _ | S |
| REF | _ | 70 | _ | S |
| REF | _ | WW | _ | S |

____ + _ + _____ + _ + _____
REFLECTOR DEGREE REFLECTOR HEIGHT

PART NUMBER EXAMPLE: **REF_15_T** OR **REF_59_S**

RETRO

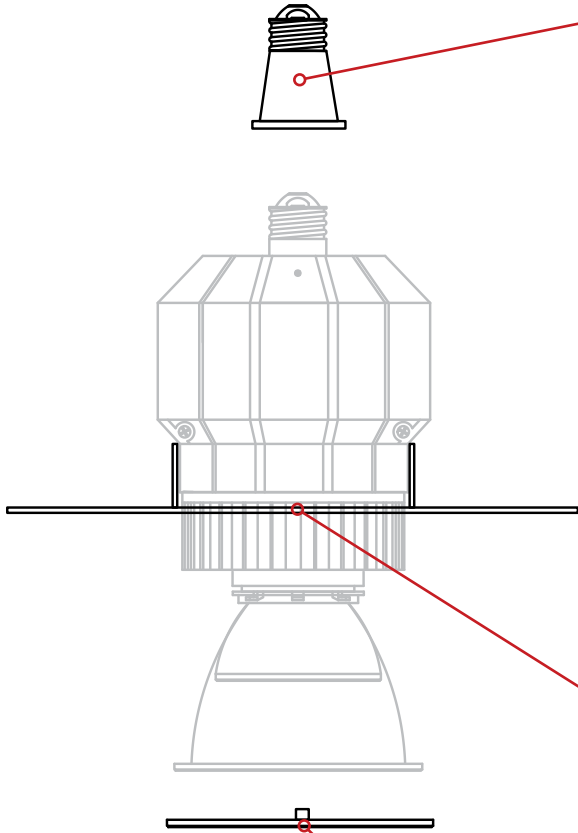
| LIGHT | | VOLTAGE | | DRIVER WATTAGE | | SINK SIZE | | COLOR TEMP | | CRI |
|-------|---|---------|---|----------------|---|-----------|---|------------|---|-----|
| F2 | _ | 120 | _ | 150 | _ | S (Short) | _ | 2.7K | _ | 80 |
| | _ | 230 | _ | | _ | T (Tall) | _ | 3.0K | _ | 90 |
| | _ | | _ | | _ | | _ | 3.5K | _ | 97 |
| | _ | | _ | | _ | | _ | 4.0K | _ | |
| | _ | | _ | | _ | | _ | 5.0K | _ | |

____ + _ + _____ + _ + _____ + _ + _____ + _ + _____ + _ + _____
LIGHT VOLTAGE DRIVER WATTAGE SINK SIZE COLOR TEMP CRI

PART NUMBER EXAMPLE: **F2_110_1000X_2.7K_80** OR **F2_230_1000X_4.0K_90**

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ADAPTER & EXTENDER OPTIONS

| ADAPTER OR EXTENSION | TYPE | DESCRIPTION |
|----------------------|---------|-------------------------------|
| ADP | BAYONET | Adapter BA15D Double Bayonet |
| ADP | MOGUL | Adapter E39 To E26 Mogul |
| EXT | 1.25 | Extender 1.25 Inch E26 To E26 |
| EXT | 2.5 | Extender 2.50 Inch E26 To E26 |

_____ + _____ + _____
ADP or EXT TYPE

PART NUMBER EXAMPLE: **ADP_BAYONET** OR **EXT_1.25**

PAR RING OPTIONS

| RING SIZE | F2 TYPE | FIXED OR ADJUSTABLE | KIT |
|-----------|---------|---------------------|-----|
| PAR46 | 3571 | FIXED | KIT |
| PAR56 | 3571 | ADJUST | KIT |
| PAR64 | 3571 | ADJUST | KIT |
| PAR46 | 150T | FIXED | KIT |
| PAR56 | 150T | ADJUST | KIT |
| PAR64 | 150T | ADJUST | KIT |

_____ + _____ + _____ + _____ + _____ + _____ + _____ + _____ + _____ + _____
RING SIZE F2 TYPE FIXED OR ADJUSTABLE KIT

PART NUMBER EXAMPLE: **PAR56_3571_ADJUST_KIT** OR **PAR46_150T_FIXED_KIT**

DIFFUSERS

| DIFFUSER | SIZE/TYPE | KIT (IF APPLICABLE) |
|----------|-----------|---------------------|
| DIF | SMALL | |
| DIF | LARGE | |
| DIF | ZORYA | |
| DIF | SMALL | KIT |
| DIF | LARGE | KIT |

_____ + _____ + _____ + _____ + _____ + _____ + _____ + _____ + _____ + _____
DIFFUSER SIZE/TYPE KIT (IF APPLICABLE)

PART NUMBER EXAMPLE: **DIF_ZORYA** OR **DIF_LARGE_KIT**

