

RETRO-HPL Series

Incandescent Replacement LED Engine

Energy efficient LED Light Engine

Designed to retrofit directly into existing Source 4® PAR fixtures.

The RETRO-HPL Series is a CSA listed, Energy Star 2.0 retrofit kit that rapidly transforms existing incandescent fixtures into energy efficient LED fixtures. It is a direct replacement for existing Source 4 PARs in the marketplace, especially those used for house lights. This direct, non-destructive, and easy to install kit provides unparalleled dimming with its standard ease of use. Our patented technology allows the fixture to smoothly dim from 0-100% utilizing existing dimming technology. Its LED technology creates even fields and delivers consistent color. The RETRO series delivers more light with more output than any other option on the market.

**10 Year
LED Array
Warranty**



What the RETRO IS

- More cost effective than fixture replacement
- Direct replacement of HPL 575/115X
- Listed to utilize the Bi-Pin HPL lamp base
- Energy Star certified 2.0
- Dims on existing dimming systems with no additional installation of control system
- Completely flicker free, 0-100% dimming without flicker, pulse, or stepping
- 80+ Higher CRI
- Quantity of fixtures is only limited by the amperage on the dimmer

Applications

- 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 the ceiling cannot be disturbed

Typical Installations

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



Electrical Data

- 90 Watts
- Power Factor (PF) .9955
- Lumens: 10133 @ 2700K
- Lumens per watt: 112.3
- LM 70: >50,000 Hours
- CRI@2700K: 81.11,R9+1.8
- 1 lb 15.1 oz w/Reflector

Reflectors

XWFL
WFL
MFL

Color Temp

3000 K - Standard

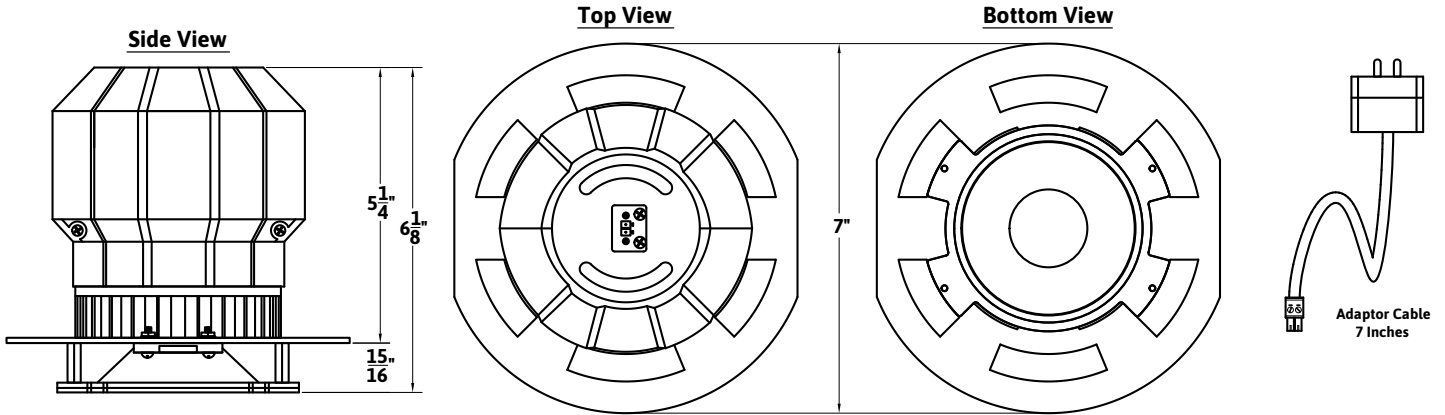


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Fixture Drawing



Photometrics (RETRO-HPL) 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 2.8563	OPEN Diameter	Peak Output 2608 fc	Mult. Factor 1.4799	XWFL Diameter	Peak Output 9150 fc	Mult. Factor 1.4004	WFL Diameter	Peak Output 22,904 fc	Mult. Factor 1.1781	MFL Diameter	Peak Output 24,030 fc
Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles	Distance		Foot Candles
5'	14' 6"	25 fc	10'	7' 4"	92 fc	10'	7'	229 fc	10'	5' 11"	241 fc
10'	29'	12 fc	15'	14' 9"	41 fc	15'	14'	102 fc	15'	11' 9"	107 fc
15'	43' 6"	7 fc	20'	22' 1"	23 fc	20'	21'	57 fc	20'	17' 7"	60 fc
			25'	29' 6"	15 fc	25'	28'	37 fc	25'	23' 6"	38 fc
			30'	36' 10"	10 fc	30'	35'	26 fc	30'	29' 4"	27 fc
			35'	44' 3"	0 fc	35'	42'	19 fc	35'	35' 3"	20 fc
Mult. Factor 2.8563	OPEN Diameter	Peak Output 28,074 LUX	Mult. Factor 1.4799	XWFL Diameter	Peak Output 98,490 LUX	Mult. Factor 1.4004	WFL Diameter	Peak Output 246,534 LUX	Mult. Factor 1.1781	MFL Diameter	Peak Output 258,652 LUX
Distance		LUX	Distance		LUX	Distance		LUX	Distance		LUX
3.05M	4.3M	271 LUX	3.05M	2.1M	989 LUX	3.05M	2.1M	2465 LUX	3.05M	1.8M	2594 LUX
4.572M	8.8M	126 LUX	4.572M	4.5M	437 LUX	4.572M	4.2M	1098 LUX	4.572M	3.6M	1152 LUX
6.1M	13.2M	72 LUX	6.1M	6.7M	245 LUX	6.1M	6.4M	618 LUX	6.1M	5.5M	645 LUX
			7.62M	9M	157 LUX	7.62M	8.5M	396 LUX	7.62M	7M	412 LUX
			9.1M	11M	110 LUX	9.1M	10.5M	274 LUX	9.1M	9M	285 LUX
			10.67M	13.5	0 LUX	10.67M	12.8M	199 LUX	10.67M	10.5M	213 LUX

Contact your local representative or dealer for IES files.