



TAT120025AC8XX
TJT120025AC8XX

120VAC Round LED Engine and LED Engine Retrofit Kit

- High density, high brightness chip array.
- 120V AC dedicated Input.
- LED Engine with Integrated AC Direct Driver. No DC Driver.
- Available in standard CCT's
- 80 CRI standard and 90 CRI available
- UL Recognized AC Engine Component
- UL Classified AC Retrofit Kit
- Energy Star Listed Luminaire 2.0

General Ratings

Input Voltage	120VAC (108~132VAC); 50/60 Hz
Input Current	~.21A
Input Power	25WAC Nominal
Input PF	> 0.97
THD	< 20%
Max Lumen Output @ Full Power	2250 lumens @ 4000K / 80 CRI*
Beam Angle	120°
CRI	80 (standard), 90
Operating Ambient Temperature Range (Ta)	Engine: -35 to +50°C
Maximum Engine Case Temperature (Tc) Plate	75°C / 167°F Note: Exceeding max will void warranty and reduce product life
Estimated Lumen Maintenance (L70)	50,000 hours at max Tc Plate
Color Consistency	Binning per ANSI C78.377-2008; 4 SDCM
Overall Size	9.5" diameter x 0.56" H
Weight	0.88 lbs
Maximum Screw Installation Torque	35 inch - ounces
Safety/Compliance	Engines: E477266 cURus Kits: E365124 cULus RoHS Compliant Dry & Damp Location IC Over Temperature Control
Protective Lens	Clear Polycarbonate
PCB Material	MCPCB
Warranty	5 years

* At Tc Engine = 25°C



CAUTION: THIS LUMINAIRE HAS BEEN MODIFIED TO OPERATE LED LAMPS. DO NOT ATTEMPT TO INSTALL OR OPERATE FLUORESCENT LAMPS IN THIS LUMINAIRE.

AC Engine Retrofit Kit
only: Hardware and Labels





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Part Number Matrix

T **A** **T** **120** **025** **AC** **8** **XX**



Compliance
A = AC Engine

Engine Input Voltage
120* = 120VAC

Engine Input Power
025* = 25W

Configuration
8 = 80 CRI

Color Temperature

27 = 2700K
30* = 3000K
35 = 3500K
40* = 4000K
50 = 5000K



**J = AC Engine
Retrofit Kit Classified



* Indicates standard engine options. All others are built to order.

** AC Engine Kits (TJ) is only intended for closed type luminaires; the diffuser must be made of glass.

Electrical and Optical Specifications

Color Temperature	LED Engine Part Number	Input Power	Nominal Luminous Flux @ 90 CRI	Nominal Luminous Flux @ 80 CRI	Engine Efficacy @ 80 CRI
3000K	TAT120025AC830 TJT120025AC830	25W	1870	2125	85 lm/W
4000K	TAT120025AC840 TJT120025AC840	25W	1995	2250	90 lm/W

- 1) Electrical and optical specifications are based on Tc Plate = 25°C / 77°F.
- 2) Standard lumen output and efficacy is calculated for standard options. Reference CCT vs Lumen Output chart for lumen ratio calculation.
- 3) Specifications are subject to change without notice.

Thermal Specifications

	AC LED Engine	AC LED Engine Retrofit Kit****
Storage Temperature Range	-35 to 100°C	-35 to 100°C
Operating Ambient Temperature Range	-35 to 45°C	-35 to 40°C
Maximum Case Temperature (Tc) Plate	Engine : 75°C / 167°F	



Tc Plate

Tc Plate located on engine

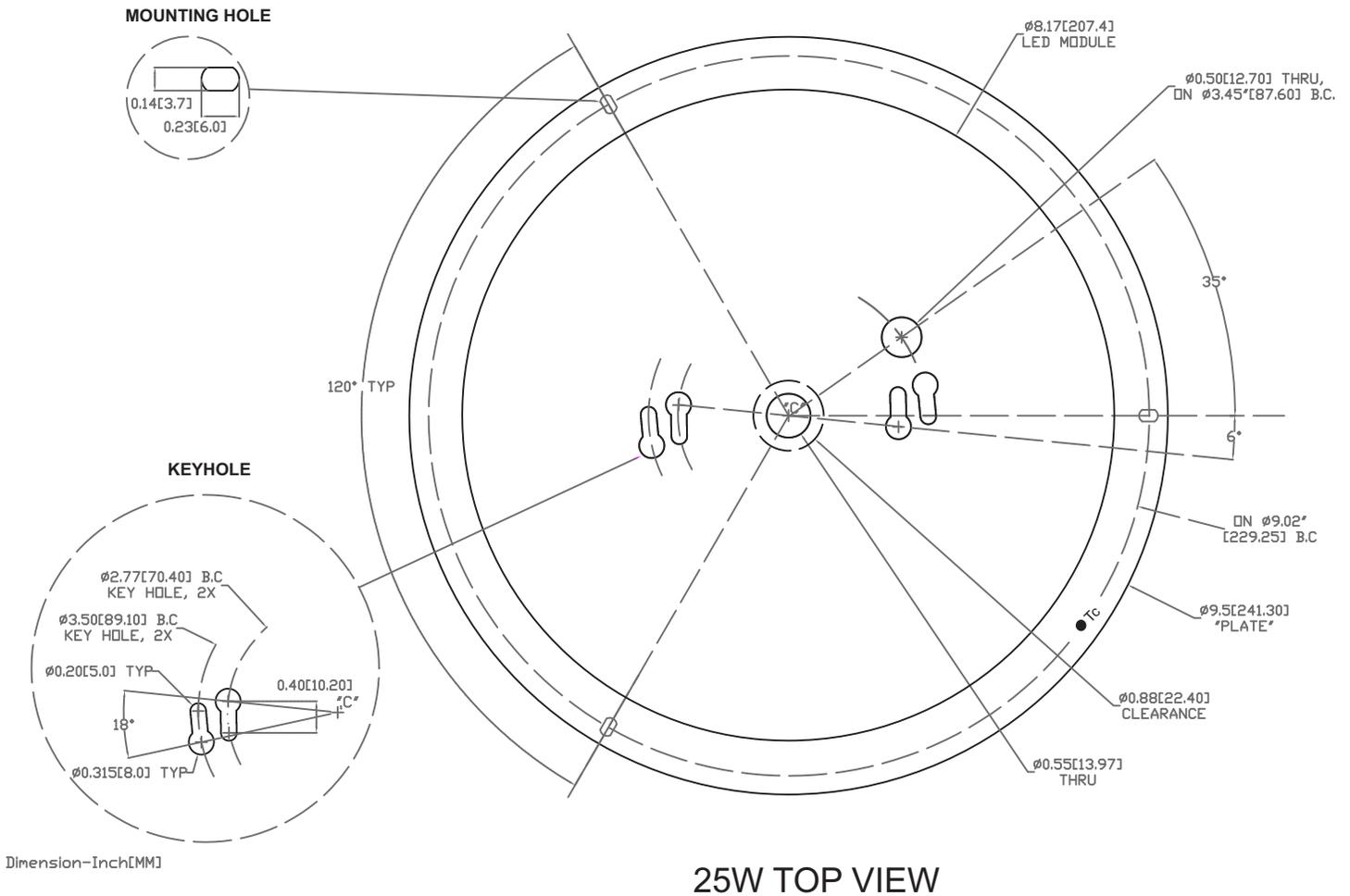
****Suitable for ceiling luminaire with minimum dimensions: 10.5" diameter with a height of 1.3".

Refer to LED Engine Retrofit Kit Installation Instructions for further detail.



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Mechanical Drawings





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Termination Notes

- If connectors are used, use stranded wire size 24 – 18 AWG, rated at a minimum 200V, minimum 105°C, and stripped to length between 6-7 mm (0.24-0.28 inches).

Fastening Notes

- When installing by “mounting holes” (recommended), use any screw with diameter less than 0.14in. [3.6mm]. Mount on a flat surface and use all 3 mounting holes to ensure good contact between back side of Engine and mounting surface. Refer to max specified torque for installation. Suggested screw sizes: #6 or M3.5 Pan Head screw.

Electrostatic Sensitive Product (ESD)

- Fulham LED products should be handled with proper measures to protect against any potential ESD damage.
- When servicing, personnel should be grounded and direct contact with LED should be avoided.

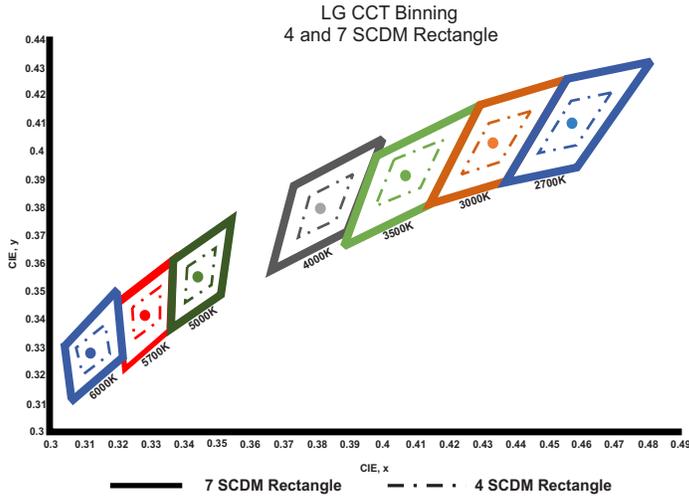
Thermal Management

- Proper thermal management must be employed to ensure life and reliability of product.
- Use of thermal grease, paste, pad, or other thermally conductive interface is highly recommended.



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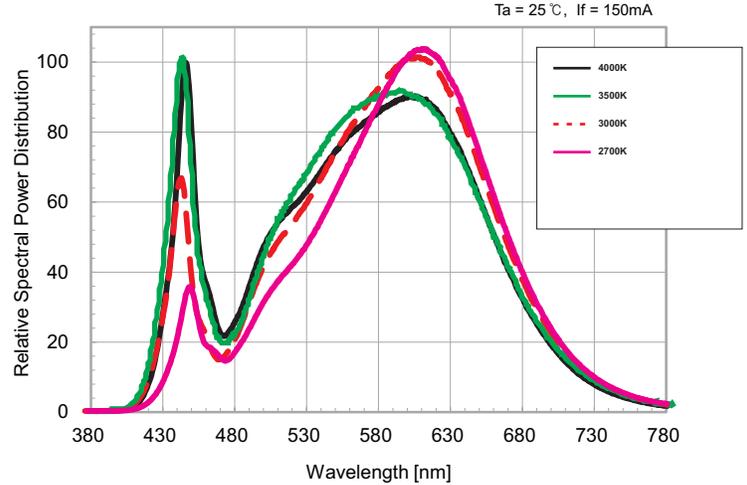
Color and Binning



Ref. LG Chromaticity Diagram
For reference only. For more detailed info, contact factory.

Optical Spectrum***

▪ Spectrum



*** Value varies depending on product type and color rank
Ref. LG 3030N
LED Catalogue 2015
For reference only. For more detailed info, contact factory.

Thermal De-Rating

Ambient Temperature (Ta)	Thermal De-rating Multiplier
25°C	1
30°C	0.991
35°C	0.989
40°C	0.980
45°C	0.975
50°C	0.970
55°C	0.960
60°C	0.950

Ref. LG 3030N
LED 3030N Spec Sheet
For reference only. For more detailed info, contact factory.

CCT vs Luminous Flux

CCT	Luminous Flux Ratio
2700K	0.87
3000K	0.93
3500K	0.96
4000K	1.00
5000K	1.07

Ref. LG
LED 3030N Spec Sheet
For reference only. For more detailed info, contact factory.