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Photometric Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014, UL 1598-2008
CIE 13.3-1995, CIE 15-2004, ANSI C78.377-2017
IES TM-30-2018

Prepared For
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Catalog Number
YK-D-LED-A2790-WHP-H-SD-010-MT-PROTOTYPE(2700K 90CRI)

Order Number

13280109

Test Number

13280109.04

Test Date

2020-03-19 - 2020-03-31

Prepared By

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Approved By

Eric Gaudreau, Engineering Leader

The results contained in this report pertain only to the tested sample.
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Laboratory results may not be representative of field performance
Ballast factors have not been applied

Testing was performed in a 2-meter integrating sphere using the 4π geometry method.
Absorption correction was employed for Sphere measurement



Luminaire Description: Black plastic rectangular housing and white metal faceplate with clear glass lens
Lamp: 24 White LEDs with diffuse plastic film
Mounting: Recessed
Ballast/Driver: ESS015W-0350-42

Luminaire



Summary of Results

Integrating Sphere

Luminous Flux: 263.4 Lumens
Efficacy: 27.63 lm/w
CCT: 2661 K
CRI (Ra): 91.1

Electrical Data at 120 VAC

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.08100 A
Power: 9.535 W
Power Factor: 0.981
Frequency: 60 Hz
Current THD: 10.2 %

In-Situ

LED Temperature: 67.6 °C
Driver Temperature: 56.2 °C
Measured LED Current: 0.1170 A

Temperature is offset to an ambient temperature of 25°C as described in UL1598-2008.



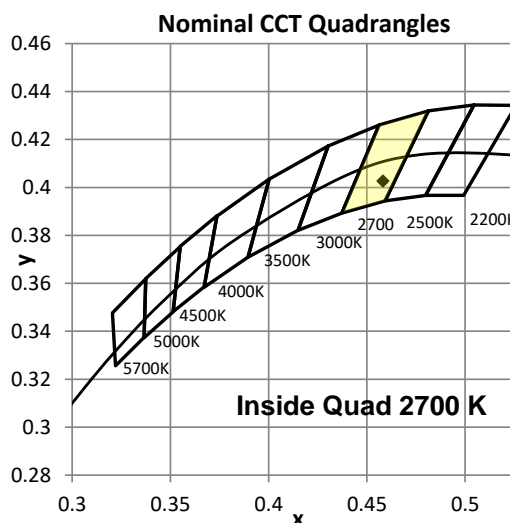
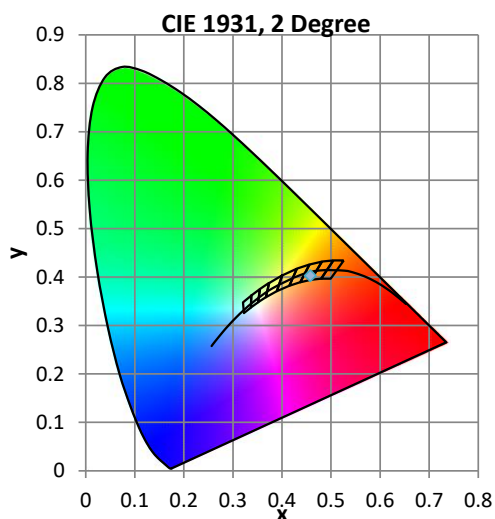
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.08100 A	9.535 W	0.981	60 Hz	10.2 %

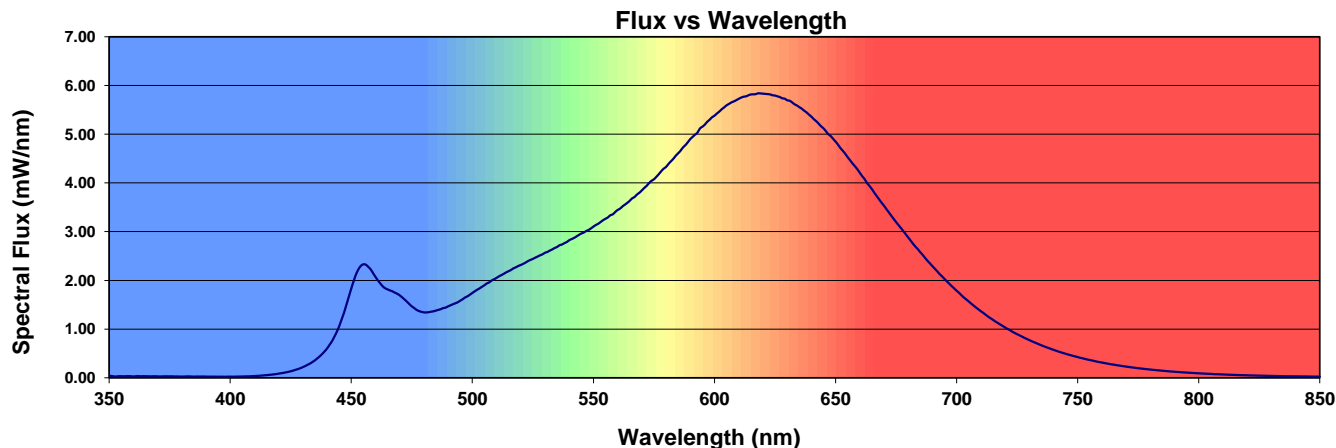
Summary of Results

Total Output:	263 Lumens	Chromaticity (x):	0.4581
Efficacy:	27.6 lm/w	Chromaticity (y):	0.4027
CCT:	2661 K	Chromaticity (u'):	0.2649
CRI (Ra):	91.1	Chromaticity (v'):	0.5240
CRI (R9):	52.4	TM-30 Rf:	90.3
Peak Wavelength:	619 nm	TM-30 Rg:	97.9
Dominant Wavelength:	585 nm	Duv:	-0.0028
S/P Ratio:	1.31		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91.1	92.8	98.9	94.8	90.3	93.3	95.8	87.0	76.0	52.4	97.3	91.8	85.7	94.9	98.2	88.0





In-Situ Test

In-Situ Test Conditions

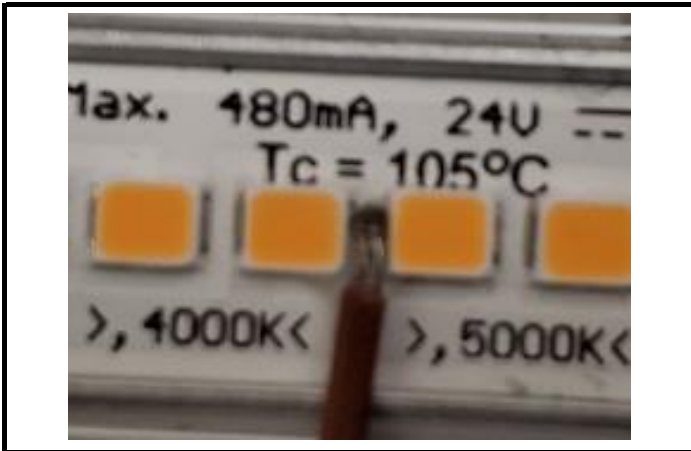
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
22.0 °C	120.0 VAC	0.08180 A	9.627 W	0.980	60 Hz	10.0 %

Summary of Results

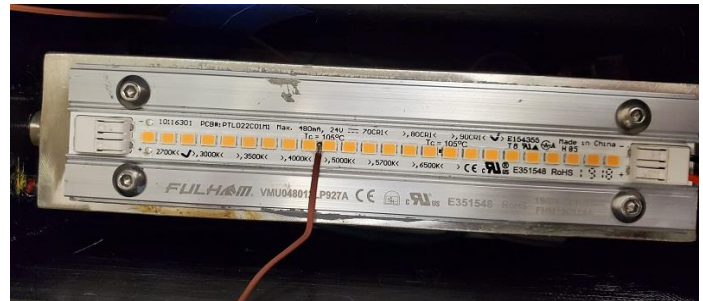
LED Temperature: 67.6 °C
Driver Temperature: 56.2 °C
Measured LED Current: 0.1170 A

Temperatures are offset to an ambient temperature of 25°C as described in UL1598-2008

LED Temperature Location



Thermocouple Reference



Driver Temperature Location

