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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
B-K Lighting INC

Daniel Carrejo
40429 Brickyard Dr.
Madera, CA 93636
United States

Catalog Number
SQ-LT-12-LED-E85-WHP-PROTOTYPE(2700K)

Order Number
13290547
Test Number
13290547.01

Test Date

2020-06-15 - 2020-06-25

Prepared By

Austin Duff, Technician

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

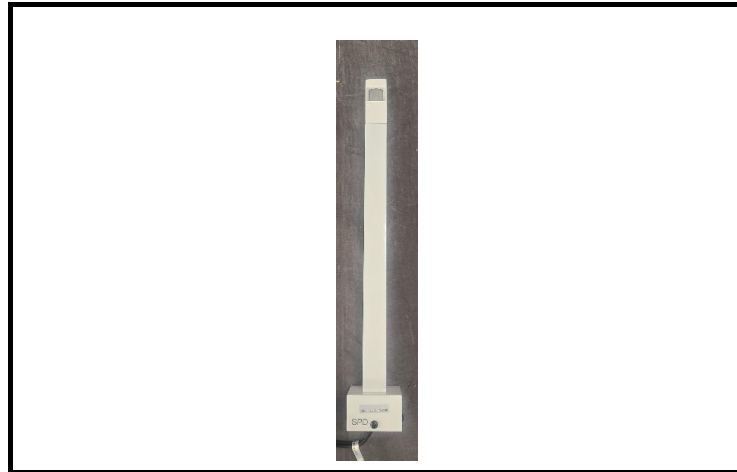
Testing was performed in a 2-meter integrating sphere using the 4π geometry method.

Absorption correction was employed for Sphere measurement



Luminaire Description: White rectangular metal housing and diffuse plastic lens
Lamp: One (1) White LED
Mounting: VBD
Ballast/Driver: One (1) PowerSelect PS20U15K

Luminaire



Summary of Results

Integrating Sphere

Luminous Flux: 103.1 Lumens
Efficacy: 26.44 lm/w
CCT: 2767 K
CRI (Ra): 90.6

Electrical Data at 120 VAC

Test Temperature: 24.2 °C
Voltage: 120.1 VAC
Current: 0.05833 A
Power: 3.899 W
Power Factor: 0.557
Frequency: 60 Hz
Current THD: 149 %

In-Situ

LED Temperature: 37.3 °C
Driver Temperature: 33.3 °C
Measured LED Current: 0.1730 A

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



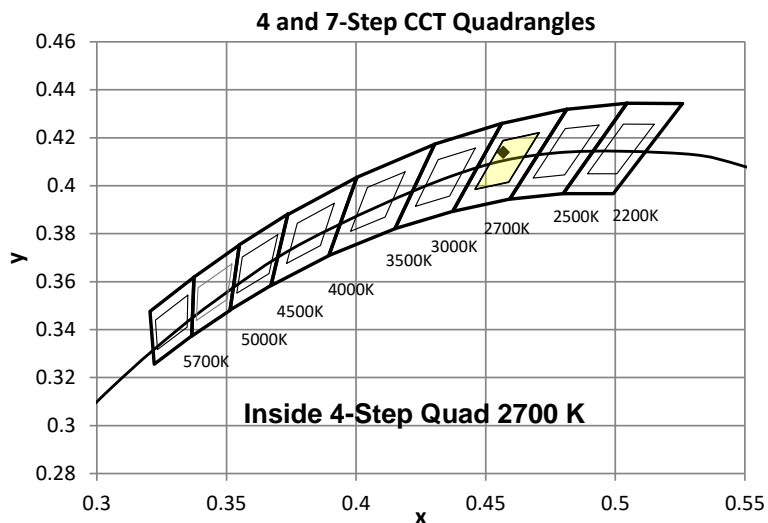
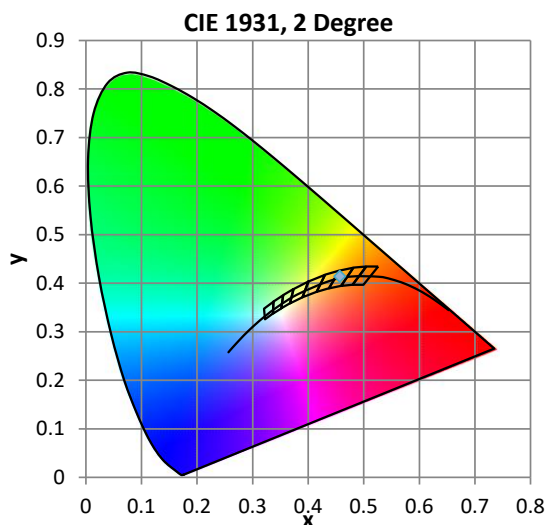
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.2 °C	120.1 VAC	0.05833 A	3.899 W	0.557	60 Hz	149 %

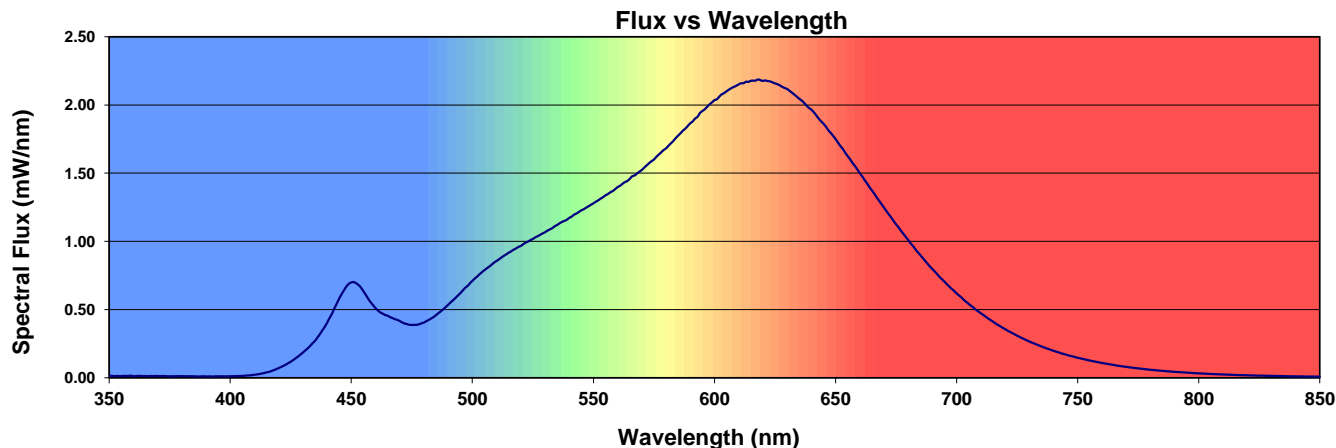
Summary of Results

Total Output:	103 Lumens	Chromaticity (x):	0.4568
Efficacy:	26.4 lm/w	Chromaticity (y):	0.4139
CCT:	2767 K	Chromaticity (u'):	0.2591
CRI (Ra):	90.6	Chromaticity (v'):	0.5281
CRI (R9):	46.1	TM-30 Rf:	92
Peak Wavelength:	618 nm	TM-30 Rg:	98
Dominant Wavelength:	583 nm	TM-30 Rcs,h1:	-6%
S/P Ratio:	1.29	Duv:	0.0015



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
90.6	90.0	94.8	98.8	90.7	89.9	94.7	90.1	75.8	46.1	87.6	91.7	83.9	91.1	98.8	84.5





In-Situ Test

In-Situ Test Conditions

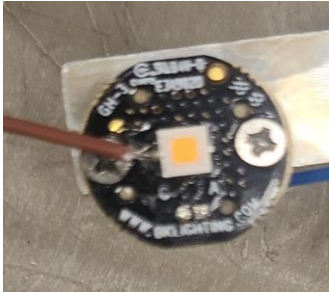
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
21.0 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

Summary of Results

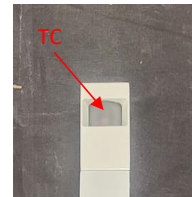
LED Temperature: 37.3 °C
Driver Temperature: 33.3 °C
Measured LED Current: 0.1730 A

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

LED Temperature Location



Thermocouple Reference



Driver Temperature Location



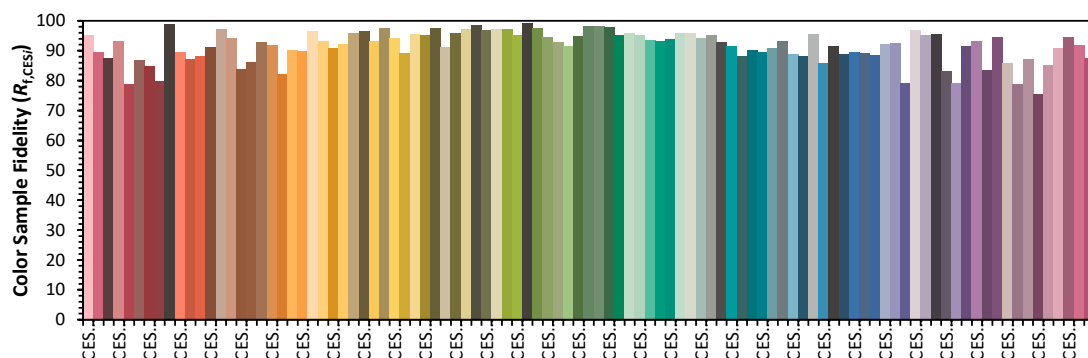
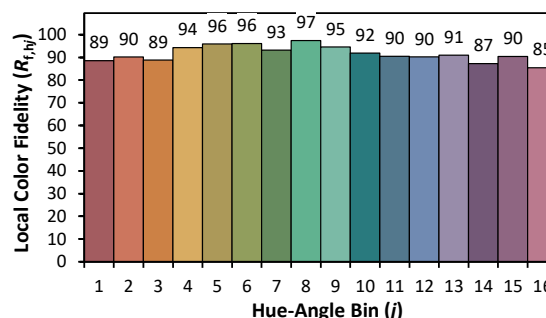
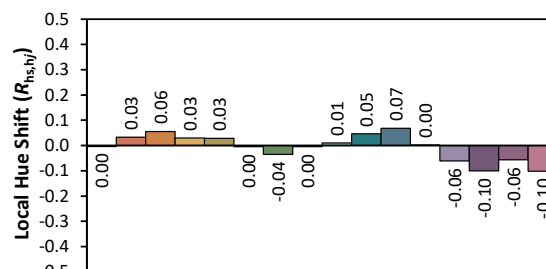
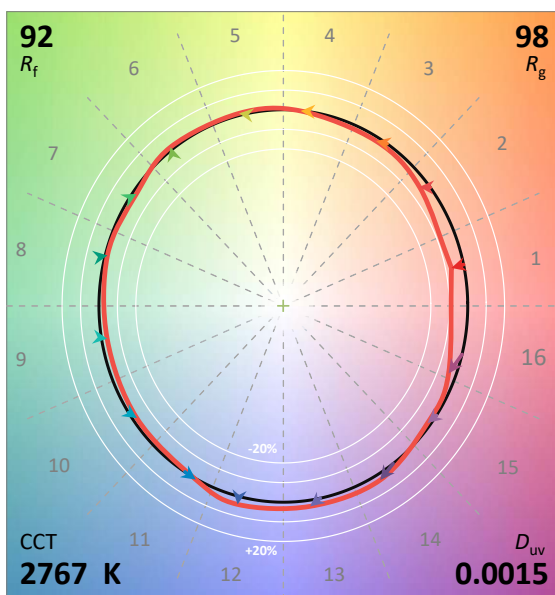
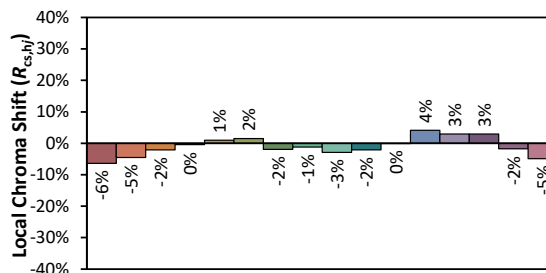
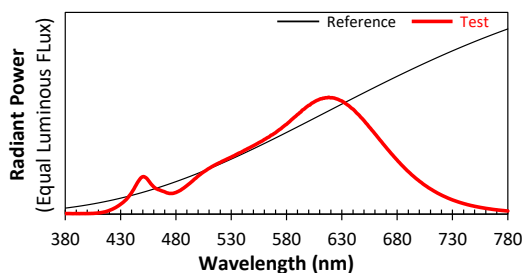
ANSI/IES TM-30-18 Color Rendition Report

Source: Test Number: 13290547.01

Manufacturer: B-K Lighting INC

Date: 2020-06-15

Model: SQ-LT-12-LED-E85-WHP-PROTOTYPE



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4568

y 0.4139

u' 0.2591

v' 0.5281

CIE 13.3-1995
(CRI)

R_a 91

R_g 46

Colors are for visual orientation purposes only. Created with the IES TM-30-18 Calculator Version 2.00.