



UL LLC  
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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**  
**HU-LED-TR-X117-FL-WHP-9-C-1-INC-120-PROTOTYPE(90CRI 2700K)**

Order Number  
13244408  
Test Number  
13244408.15

**Test Date**

2020-03-03 - 2020-03-10

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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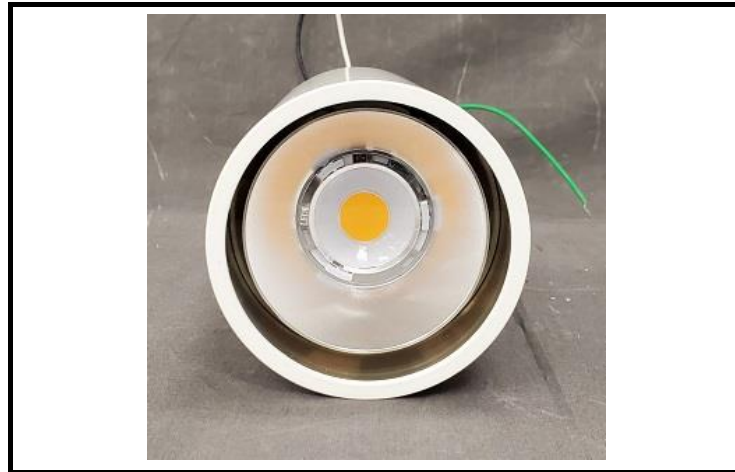
Laboratory results may not be representative of field performance  
Ballast factors have not been applied

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



**Luminaire Description:** White metal cylindrical housing and clear glass lens  
**Lamp:** One (1) White LED with optic below  
**Mounting:** Pendant  
**Ballast/Driver:** One (1) ERP ESS040W-0900-42

**Luminaire**



## Summary of Results

### Integrating Sphere

Luminous Flux: 3099 Lumens  
Efficacy: 89.73 lm/w  
CCT: 2742 K  
CRI (Ra): 91.8

### Electrical Data at 120 VAC

Test Temperature: 24.4 °C  
Voltage: 120.0 VAC  
Current: 0.2932 A  
Power: 34.54 W  
Power Factor: 0.981  
Frequency: 60 Hz  
Current THD: 13.3 %

### In-Situ

LED Temperature: 50.2 °C  
Driver Temperature: 49.1 °C  
Measured LED Current: 0.9020 A

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



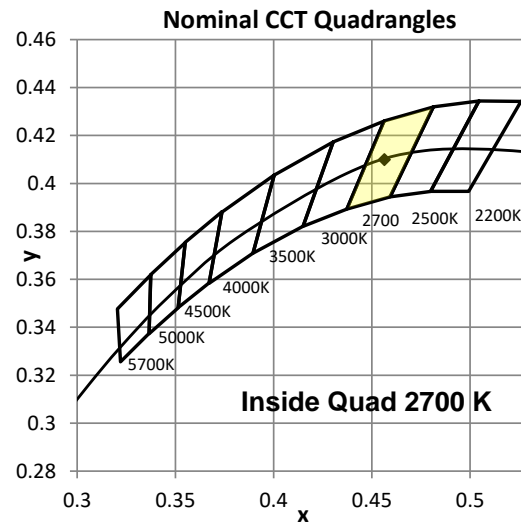
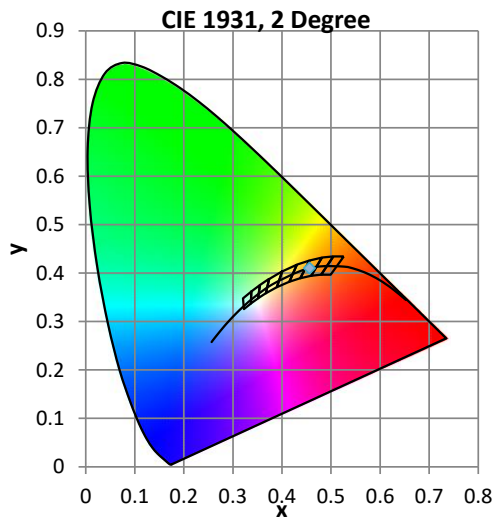
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.2932 A	34.54 W	0.981	60 Hz	13.3 %

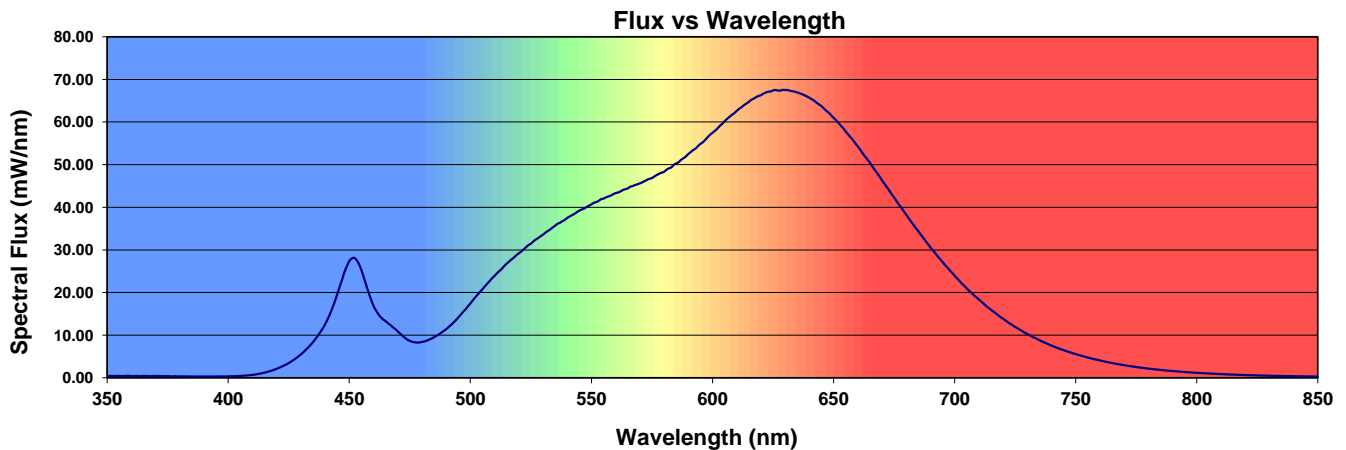
### Summary of Results

<b>Total Output:</b>	3099 Lumens	<b>Chromaticity (x):</b>	0.4564
<b>Efficacy:</b>	89.7 lm/w	<b>Chromaticity (y):</b>	0.4099
<b>CCT:</b>	2742 K	<b>Chromaticity (u'):</b>	0.2606
<b>CRI (Ra):</b>	91.8	<b>Chromaticity (v'):</b>	0.5266
<b>CRI (R9):</b>	66.7	<b>TM-30 Rf:</b>	90.2
<b>Peak Wavelength:</b>	631 nm	<b>TM-30 Rg:</b>	102.2
<b>Dominant Wavelength:</b>	584 nm	<b>Duv:</b>	0.0002
<b>S/P Ratio:</b>	1.25		



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
91.8	93.0	93.9	92.2	92.8	91.4	91.4	94.0	86.0	66.7	83.6	92.6	76.8	93.0	94.5	90.5





## In-Situ Test

### In-Situ Test Conditions

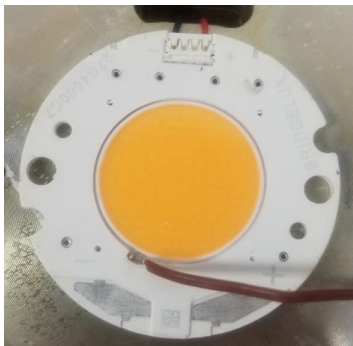
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
21.0 °C	120.0 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

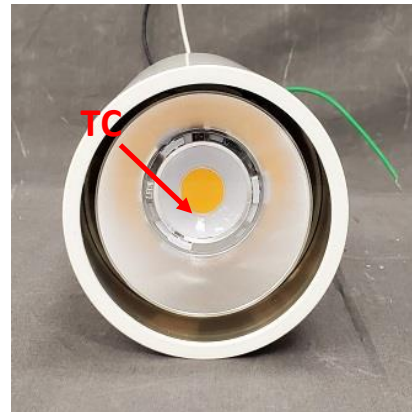
LED Temperature: 50.2 °C  
Driver Temperature: 49.1 °C  
Measured LED Current: 0.9020 A

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

### LED Temperature Location



### Thermocouple Reference



### Driver Temperature Location

