



UL LLC  
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## Integrating Sphere Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-10-2014, 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-X114-FL-WHP-9-C-1-INC-120-PROTOTYPE(3000K)**

Order Number

13244408

Test Number

13244408.19

Test Date

2020-03-25

Prepared By

Austin Duff, Technician

Approved By

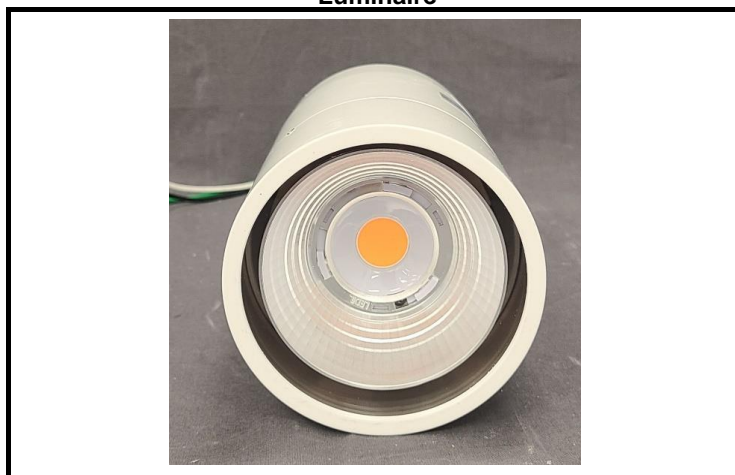
Eric Gaudreau, Engineering Leader

The results contained in this report pertain only to the tested sample.  
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**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**

Radiant Flux:	11360 mW
Luminous Flux:	3768 lm
Luminaire Efficacy:	111.4 lm/W
CCT:	3111 K
CRI (Ra):	81.8
Chromaticity (x):	0.4302
Chromaticity (y):	0.4036
Chromaticity (u):	0.2464
Chromaticity (v):	0.3468
Duv:	0.0003

**Test Conditions**

Test Temperature:	24.7 °C
Voltage:	120.1 VAC
Current:	0.2869 A
Power:	33.81 W
Power Factor:	0.981
Frequency:	60 Hz
Current THD:	13.3 %

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



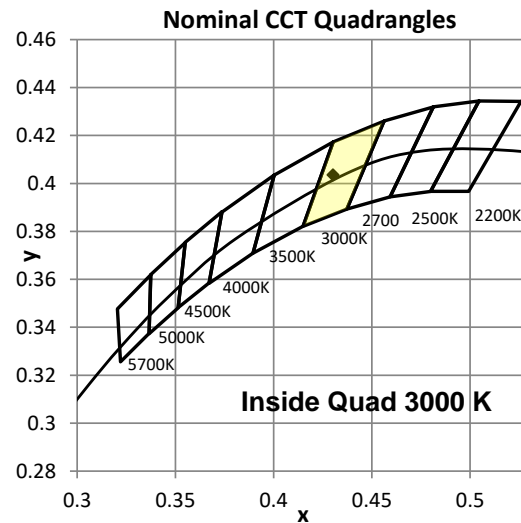
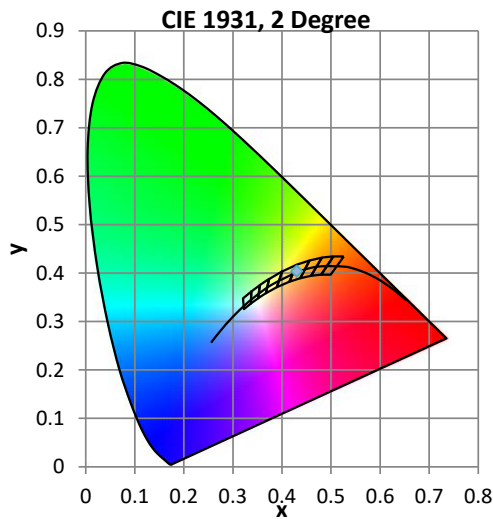
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.7 °C	120.1 VAC	0.2869 A	33.81 W	0.981	60 Hz	13.3 %

### Summary of Results

Total Output:	3768 Lumens	Chromaticity (x):	0.4302
Efficacy:	111.4 lm/w	Chromaticity (y):	0.4036
CCT:	3111 K	Chromaticity (u'):	0.2464
CRI (Ra):	81.8	Chromaticity (v'):	0.5202
CRI (R9):	4.9	TM-30 Rf:	84
Peak Wavelength:	603 nm	TM-30 Rg:	96.4
Dominant Wavelength:	582 nm	Duv:	0.0003
S/P Ratio:	1.36		



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81.8	79.9	89.1	96.3	80.2	79.6	85.9	83.8	59.5	4.9	74.5	78.9	65.7	81.9	98.0	72.7

