



UL LLC  
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## Integrating Sphere Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-2002, CIE 13.3-1995  
CIE 15-2004, ANSI C78.377-2015, IES TM-30-2015

Prepared For  
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Catalog Number  
**CTB-LED-X52**  
Order Number  
11943054  
Test Number  
11943054.08

Test Date

2017-09-07

Prepared By

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Approved By

Eric Gaudreau, Senior Engineering Associate

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Decorative white metal housing, reflector, diffuse lens, and standing pole

**Lamp:** One (1) White LED

**Mounting:** Post

**Ballast/Driver:** One (1) Thomas research products LED12W120-036-CO350-LT

**Luminaire**



#### **Summary of Results**

Radiant Flux:	1472 mW
Luminous Flux:	469.7 lm
Luminaire Efficacy:	46.3 lm/W
CCT:	2797 K
CRI (Ra):	83.8
Chromaticity (x):	0.4513
Chromaticity (y):	0.4074
Chromaticity (u):	0.2584
Chromaticity (v):	0.3499
Duv:	-0.0005

#### **Test Conditions**

Test Temperature:	25.3 °C
Voltage:	120.0 VAC
Current:	0.08573 A
Power:	10.15 W
Power Factor:	0.987
Frequency:	60 Hz
Current THD:	15.2 %

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



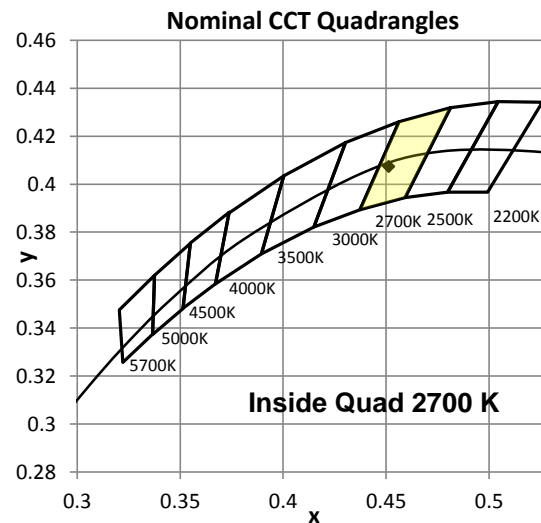
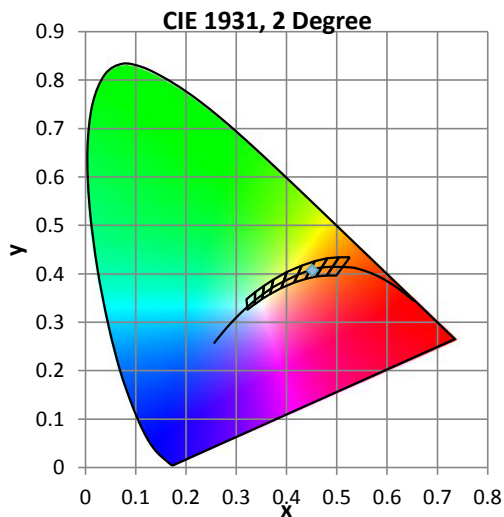
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.0 VAC	0.08573 A	10.15 W	0.987	60 Hz	15.2 %

### Summary of Results

Total Output:	470 Lumens	Chromaticity (x):	0.4513
Efficacy:	46.3 lm/w	Chromaticity (y):	0.4074
CCT:	2797 K	Chromaticity (u'):	0.2584
CRI (Ra):	83.8	Chromaticity (v'):	0.5248
CRI (R9):	14.8	TM-30 Rf:	84.3
Peak Wavelength:	606.8 nm	TM-30 Rg:	94.9
Dominant Wavelength:	583.9 nm	Duv:	-0.0005
S/P Ratio:	1.288		



### Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
83.8	82.9	93.4	94.7	81.0	83.2	92.7	82.2	60.3	14.8	85.0	80.5	77.4	85.5	97.8

