



UL, LLC  
1075 W Lambert Rd Suite B  
Brea, CA 92821

## 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**  
**DI-LED-TR-e151-7°-VNSP-WHP-C-INC-MT**

Order Number  
14327079  
Test Number  
14327079.15

Test Date

2022-12-15

Prepared By

Austin Duff, Technician

Approved By

Yilmaz Yucelidag, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Circular white metal housing with glass lens  
**Lamp:** One (1) LED  
**Mounting:** Pendant  
**Ballast/Driver:** Integrated

**Luminaire**



#### Summary of Results

|                     |           |
|---------------------|-----------|
| Radiant Flux:       | 1375 mW   |
| Luminous Flux:      | 446.7 lm  |
| Luminaire Efficacy: | 47.0 lm/W |
| CCT:                | 3176 K    |
| CRI (Ra):           | 81.9      |
| Chromaticity (x):   | 0.4235    |
| Chromaticity (y):   | 0.3967    |
| Chromaticity (u):   | 0.2450    |
| Chromaticity (v):   | 0.3443    |
| Duv:                | -0.0012   |

#### Test Conditions

|                   |           |
|-------------------|-----------|
| Test Temperature: | 25.1 °C   |
| Voltage:          | 120.0 VAC |
| Current:          | 0.08112 A |
| Power:            | 9.502 W   |
| Power Factor:     | 0.976     |
| Frequency:        | 60 Hz     |
| Current THD:      | 17.2 %    |

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

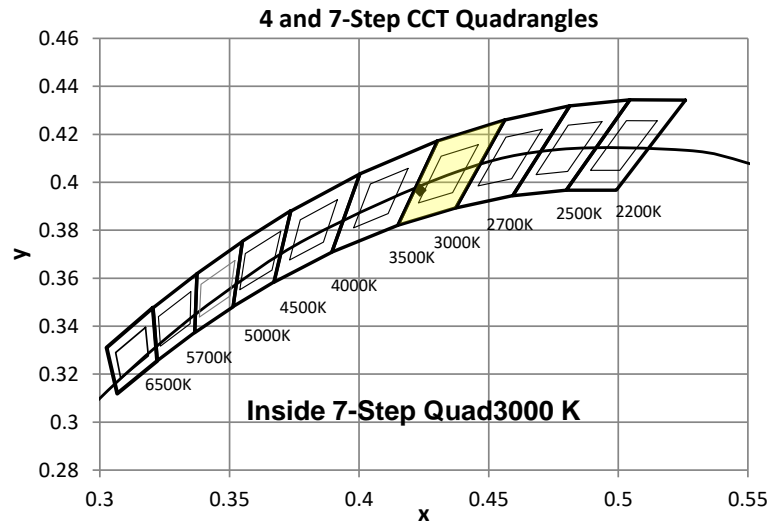
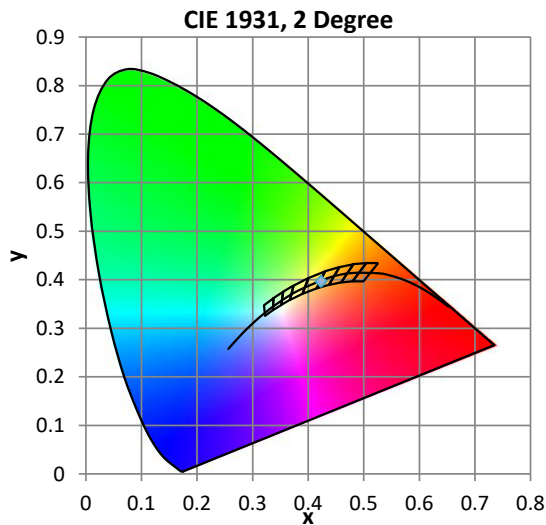
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

| Temperature | Voltage   | Current   | Power   | Power Factor | Frequency | Current THD |
|-------------|-----------|-----------|---------|--------------|-----------|-------------|
| 25.1 °C     | 120.0 VAC | 0.08112 A | 9.502 W | 0.976        | 60 Hz     | 17.2 %      |

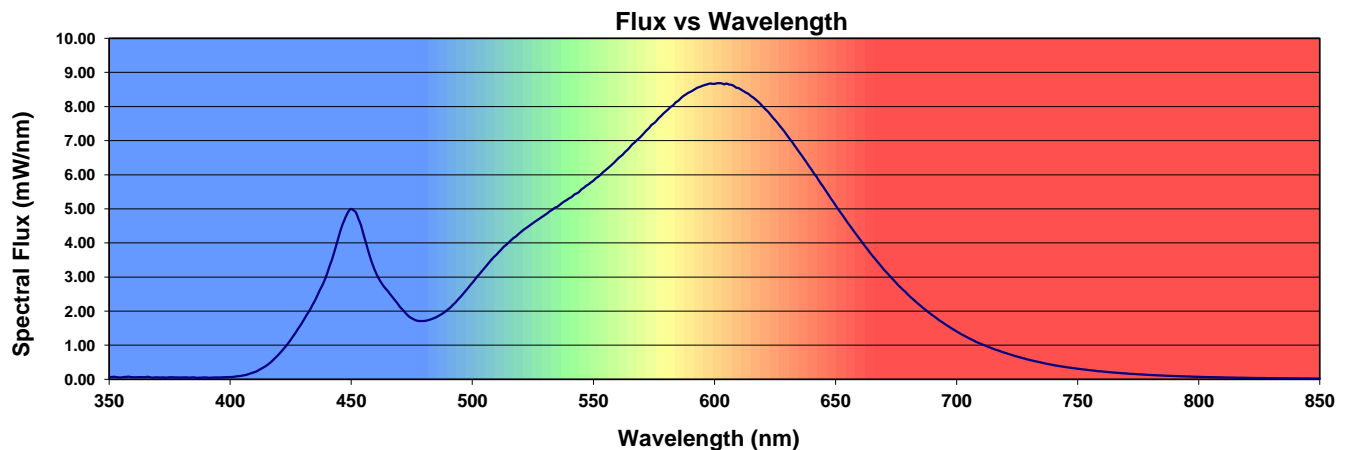
### Summary of Results

|                             |            |                           |         |
|-----------------------------|------------|---------------------------|---------|
| <b>Total Output:</b>        | 447 Lumens | <b>Chromaticity (x):</b>  | 0.4235  |
| <b>Efficacy:</b>            | 47.0 lm/w  | <b>Chromaticity (y):</b>  | 0.3967  |
| <b>CCT:</b>                 | 3176 K     | <b>Chromaticity (u'):</b> | 0.2450  |
| <b>CRI (Ra):</b>            | 81.9       | <b>Chromaticity (v'):</b> | 0.5165  |
| <b>CRI (R9):</b>            | 7.5        | <b>TM-30 Rf:</b>          | 84      |
| <b>Peak Wavelength:</b>     | 602 nm     | <b>TM-30 Rg:</b>          | 97      |
| <b>Dominant Wavelength:</b> | 583 nm     | <b>TM-30 Rcs,h1:</b>      | -11%    |
| <b>S/P Ratio:</b>           | 1.39       | <b>Duv:</b>               | -0.0009 |
| <b>M/P Ratio:</b>           | 0.53       | WELL Building Standard v2 |         |



### Color Rendering Index Detail

| Ra (CRI) | R1   | R2   | R3   | R4   | R5   | R6   | R7   | R8   | R9  | R10  | R11  | R12  | R13  | R14  | R15  |
|----------|------|------|------|------|------|------|------|------|-----|------|------|------|------|------|------|
| 81.9     | 80.1 | 89.0 | 95.8 | 80.2 | 80.0 | 85.7 | 83.8 | 60.7 | 7.5 | 74.3 | 78.7 | 69.6 | 82.0 | 97.7 | 73.8 |



# ANSI/IES TM-30-18 Color Rendition Report

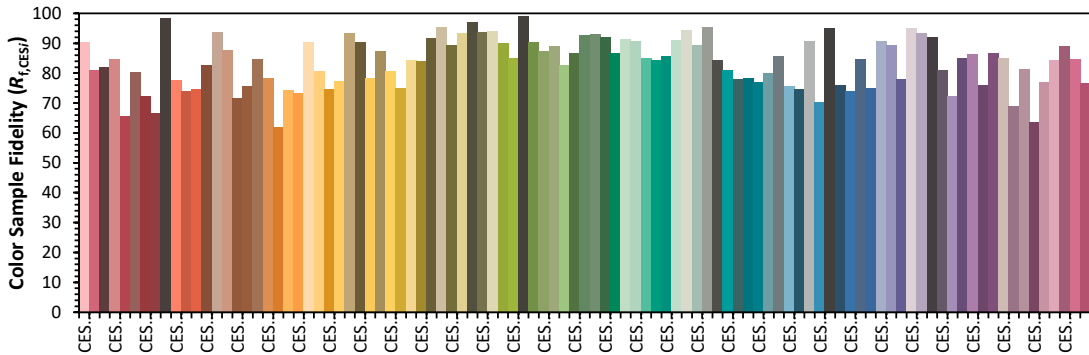
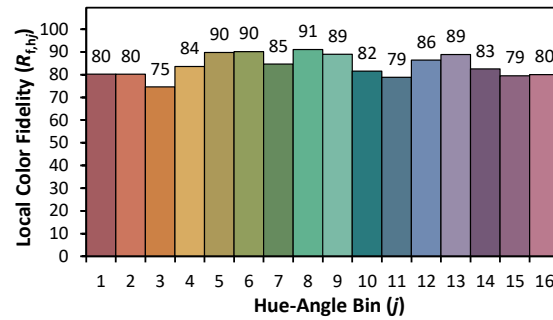
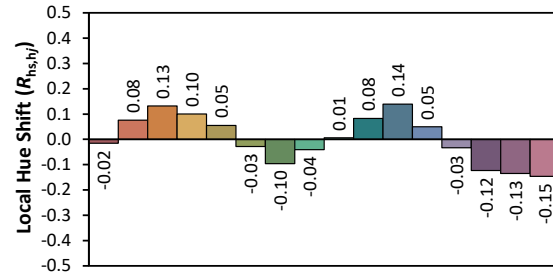
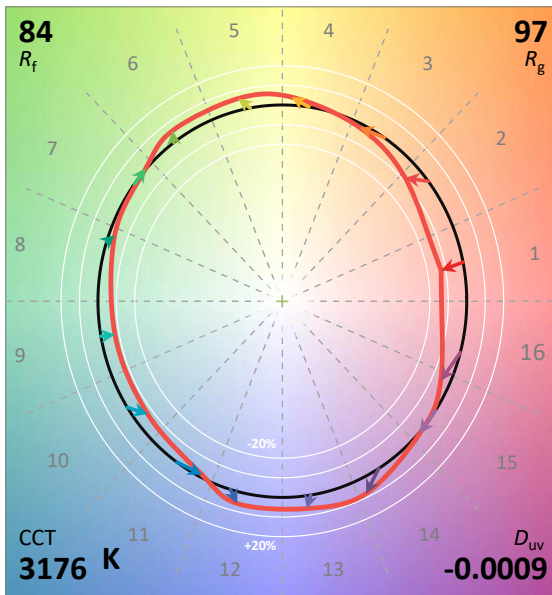
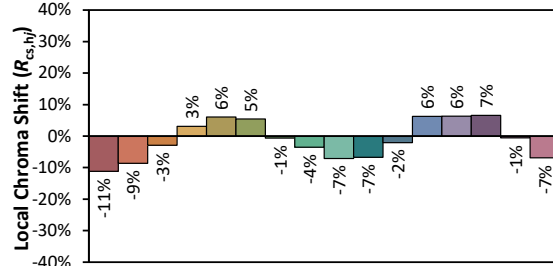
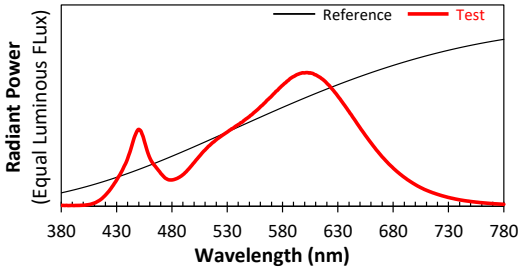
Date: 2022-12-15

Manufacturer:

B-K Lighting INC

Model:

DI-LED-TR-e151-7°-VNSP-WHP-C-INC-MT



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

$x$  0.4235  
 $y$  0.3967  
 $u'$  0.2450  
 $v'$  0.5165

CIE 13.3-1995  
(CRI)  
 $R_a$  82  
 $R_g$  8

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