



UL Solutions  
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## Photometric Test Report

Relevant Standards  
IES LM-79-2019, 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**  
**H E Williams Inc**

Dean Vandergriff  
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PO Box 837  
Carthage  
MO 64836-0837

**Catalog Number**

**FT-24-6-8-3500K-AF-DIM-UNC (FT-22-LS-8CS-AF-DIM-UNV)**

Order Number  
15184934  
Test Number  
15184934.09

**Test Date**

2024-02-28

Prepared By

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Approved By

Shivani Vyas, Engineering Project Handler

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 3-meter integrating sphere using the  $4\pi$  geometry method.

Absorption correction was employed for Sphere measurement



**Luminaire Description:** Recessed 2 x 4 Lumen/Wattage selectable, CCT selectable, LED Troffer w/center frosted acrylic lens.  
**Lamp:** 224 LEDs  
**Mounting:** Recessed  
**Ballast/Driver:** ISTAR ISC-045W-105DDSM-ADJ33

**Luminaire**



## Summary of Results

### Integrating Sphere

Luminous Flux:	6838 Lumens
Efficacy:	143.32 lm/w
CCT:	3486 K
CRI (Ra):	81.2

### Electrical Data at 120 VAC

Test Temperature:	25.4 °C
Voltage:	120.0 VAC
Current:	0.3992 A
Power:	47.71 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	5.32 %

### In-Situ

LED Temperature:	61.1 °C
Driver Temperature:	61.9 °C
Measured LED Current:	0.1313 A

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

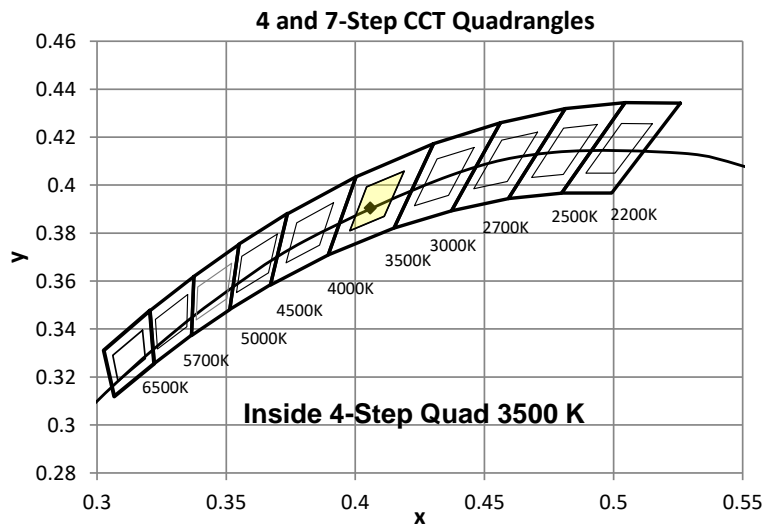
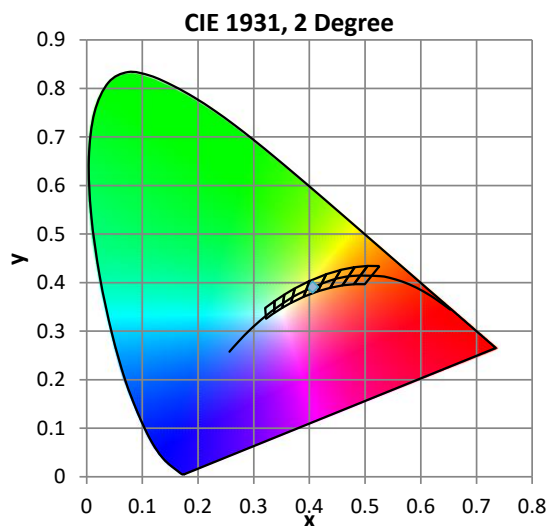
## Color Quality - Integrating Sphere

### Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.3992 A	47.71 W	0.996	60 Hz	5.32 %

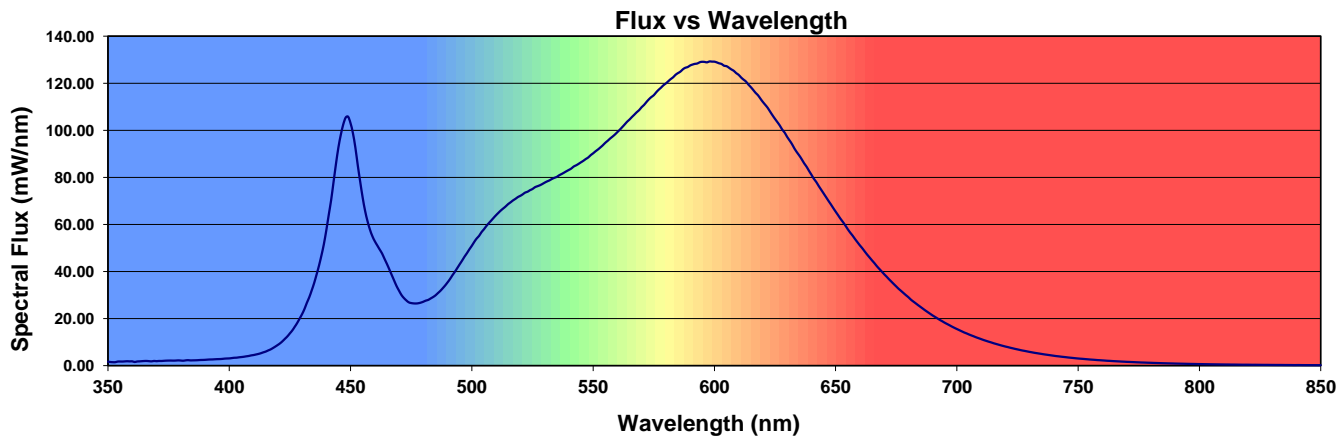
### Summary of Results

<b>Total Output:</b>	6838 Lumens	<b>Chromaticity (x):</b>	0.4058
<b>Efficacy:</b>	143.3 lm/w	<b>Chromaticity (y):</b>	0.3905
<b>CCT:</b>	3486 K	<b>Chromaticity (u'):</b>	0.2361
<b>CRI (Ra):</b>	81.2	<b>Chromaticity (v'):</b>	0.5112
<b>CRI (R9):</b>	-1.4	<b>TM-30 Rf:</b>	83
<b>Peak Wavelength:</b>	600 nm	<b>TM-30 Rg:</b>	96
<b>Dominant Wavelength:</b>	555 nm	<b>TM-30 Rcs,h1:</b>	-13%
<b>S/P Ratio:</b>	1.5	<b>Duv:</b>	-0.0002
<b>M/P Ratio:</b>	0.58	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
81.2	79.1	88.2	95.6	80.2	79.6	84.8	83.4	58.7	-1.4	73.1	79.6	66.7	81.1	97.8	71.5



## In-Situ Test

### In-Situ Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
23.3 °C	120.1 VAC	N/A	N/A	N/A	60 Hz	N/A

### Summary of Results

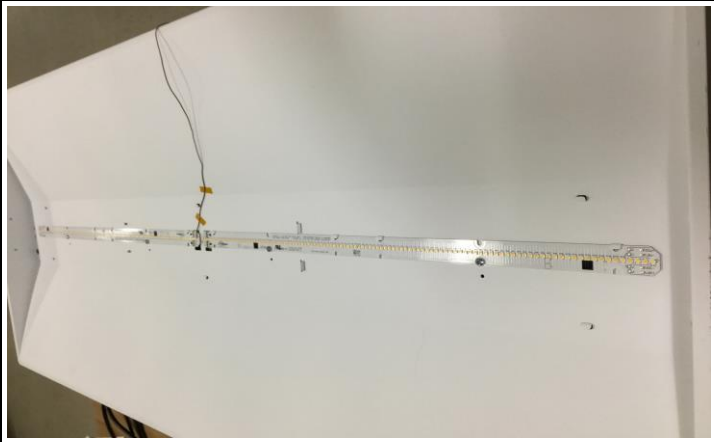
LED Temperature: 61.1 °C  
 Driver Temperature: 61.9 °C  
 Measured LED Current: 0.1313 A

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

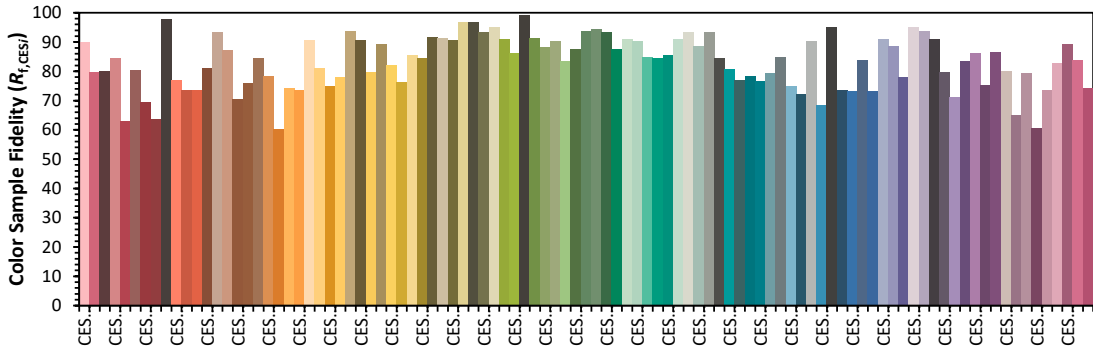
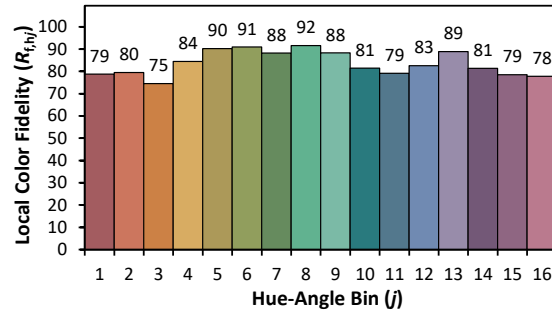
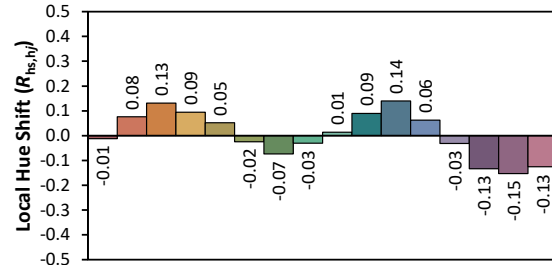
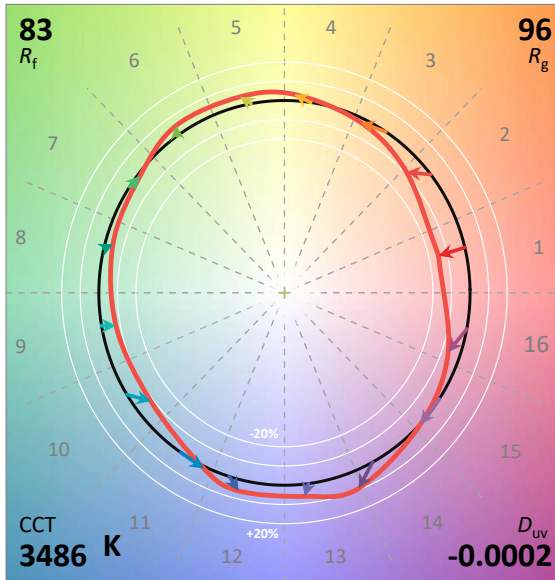
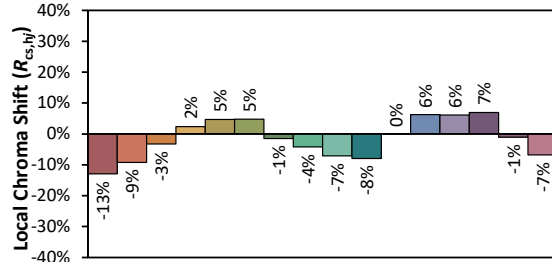
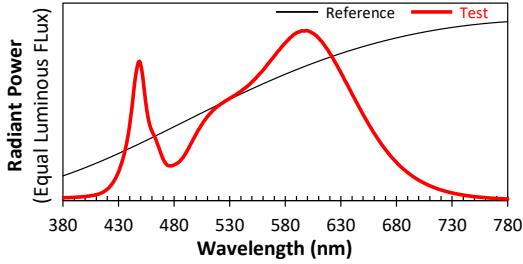
Date: 2024-02-28

Manufacturer:

H E Williams Inc

Model:

FT-24-6-8-3500K-AF-DIM-UNC (FT-22-LS-8CS-AF-DIM-UNV)



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

x 0.4058

y 0.3905

u' 0.2361

v' 0.5112

CIE 13.3-1995  
(CRI)

$R_a$  81

$R_g$  -1

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