



UL Solutions
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



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
831 W Fairview Ave
PO Box 837
Carthage
MO 64836-0837

Catalog Number
FT-22-4-8-3500K-AF-DIM-UNC (FT-22-LS-8CS-AF-DIM-UNV)

Order Number
15184934
Test Number
15184934.06

Test Date

2024-02-28

Prepared By

Jesse Litchfield, Project Handler

Approved By

Shivani Vyas, Engineering Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.
This report must not be used by the client to claim product certification, approval, or endorsement by
NVLAP, NIST, or any agency of the Federal Government.



Table of Contents

Summary of Results	Page 3
Integrating Sphere Results	Page 4
In-Situ Results	Page 5
Full TM-30 Report	Page 6

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 4π geometry method.

Absorption correction was employed for Sphere measurement



Luminaire Description: Recessed 2 x 2 Lumen/Wattage selectable, CCT selectable, LED Troffer w/center frosted acrylic lens.
Lamp: 112 LEDs
Mounting: Recessed
Ballast/Driver: ISTAR ISC-030W-070DDSM-ADJ33

Luminaire



Summary of Results

Integrating Sphere

Luminous Flux: 4380 Lumens
Efficacy: 133.95 lm/w
CCT: 3521 K
CRI (Ra): 80.8

Electrical Data at 120 VAC

Test Temperature: 24.8 °C
Voltage: 120.0 VAC
Current: 0.2743 A
Power: 32.70 W
Power Factor: 0.993
Frequency: 60 Hz
Current THD: 8.56 %

In-Situ

LED Temperature: 57.1 °C
Driver Temperature: 55.9 °C
Measured LED Current: 0.1764 A

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

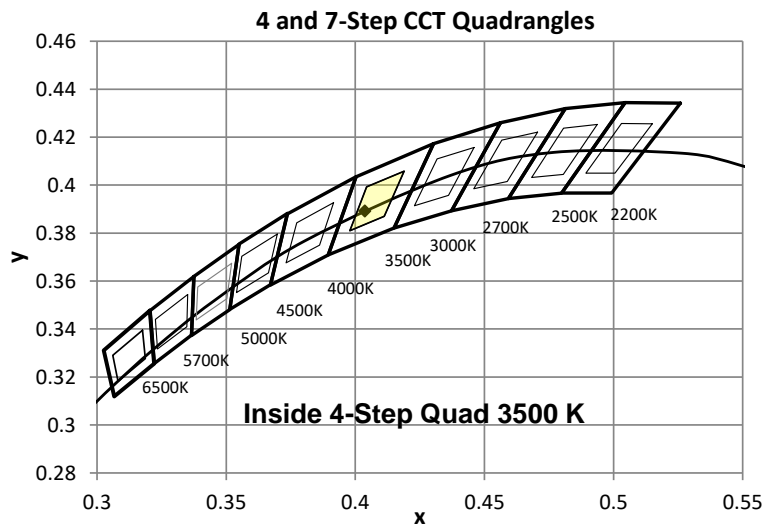
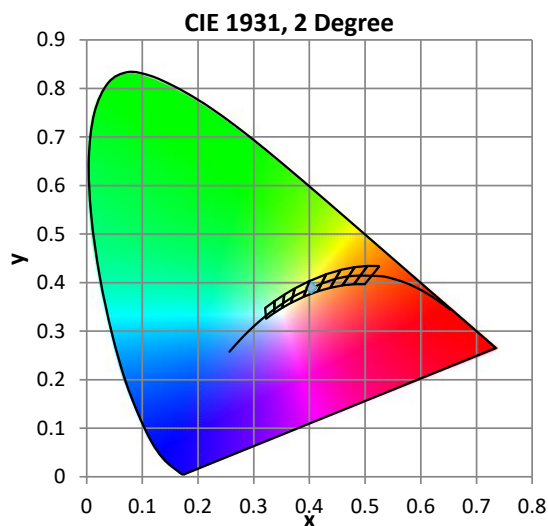
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.0 VAC	0.2743 A	32.70 W	0.993	60 Hz	8.56 %

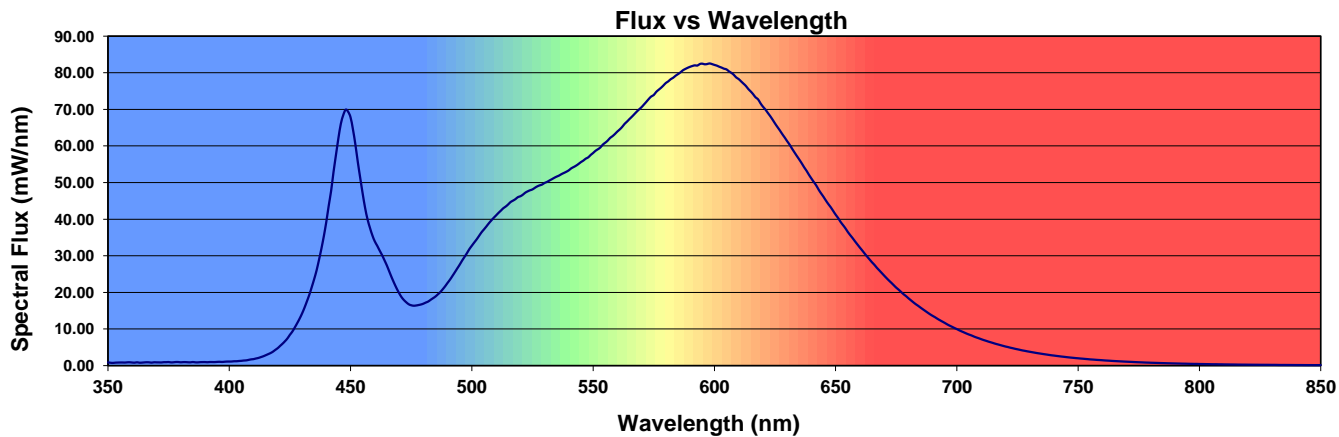
Summary of Results

Total Output:	4380 Lumens	Chromaticity (x):	0.4037
Efficacy:	134.0 lm/w	Chromaticity (y):	0.3893
CCT:	3521 K	Chromaticity (u'):	0.2353
CRI (Ra):	80.8	Chromaticity (v'):	0.5104
CRI (R9):	-2.9	TM-30 Rf:	83
Peak Wavelength:	598 nm	TM-30 Rg:	96
Dominant Wavelength:	555 nm	TM-30 Rcs,h1:	-13%
S/P Ratio:	1.51	Duv:	-0.0003
M/P Ratio:	0.59	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
80.8	78.5	87.8	95.3	79.8	79.1	84.1	83.2	58.3	-2.9	72.1	79.0	65.6	80.5	97.6	70.9



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

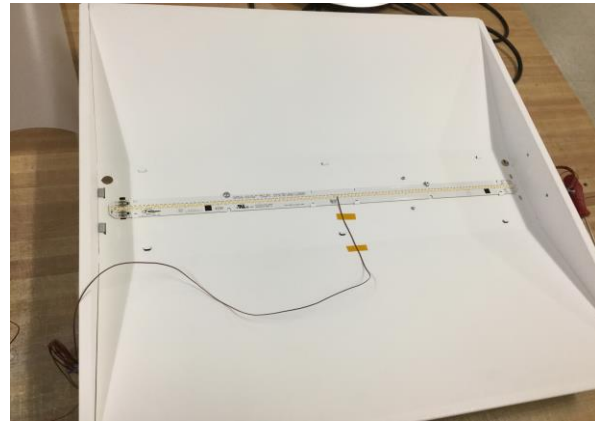
LED Temperature: 57.1 °C
 Driver Temperature: 55.9 °C
 Measured LED Current: 0.1764 A

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

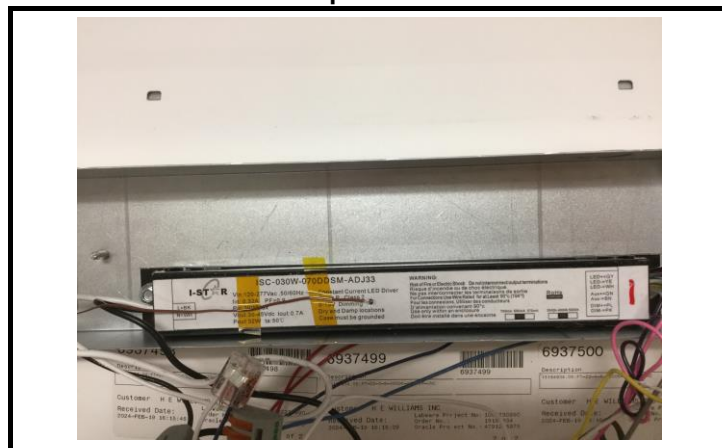
LED Temperature Location



Thermocouple Reference



Driver Temperature Location



ANSI/IES TM-30-18 Color Rendition Report

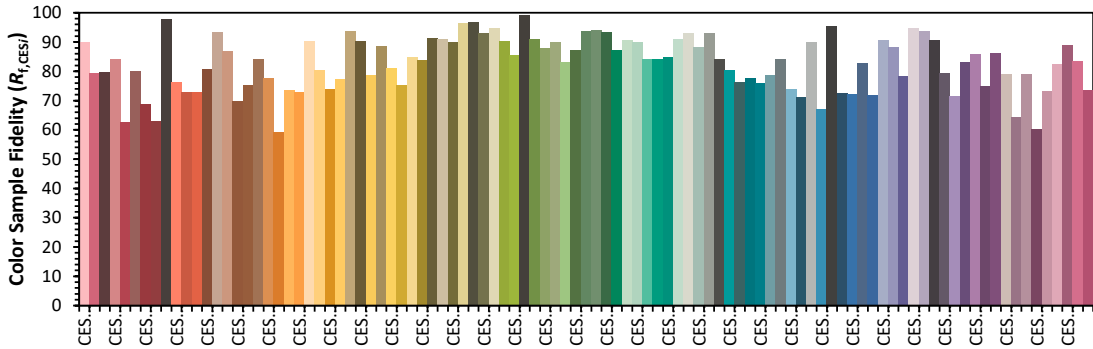
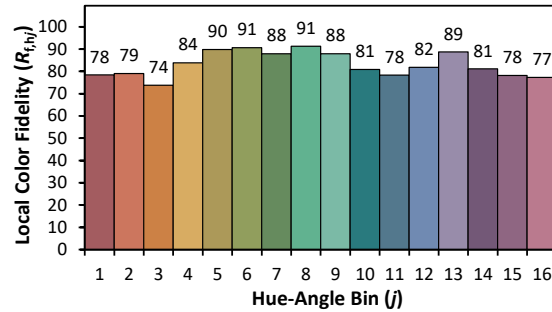
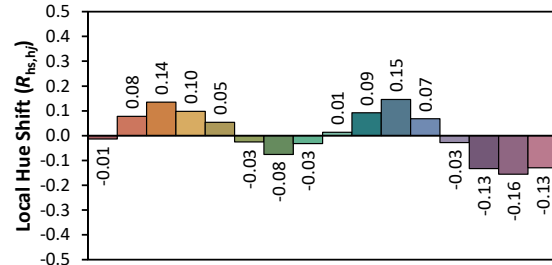
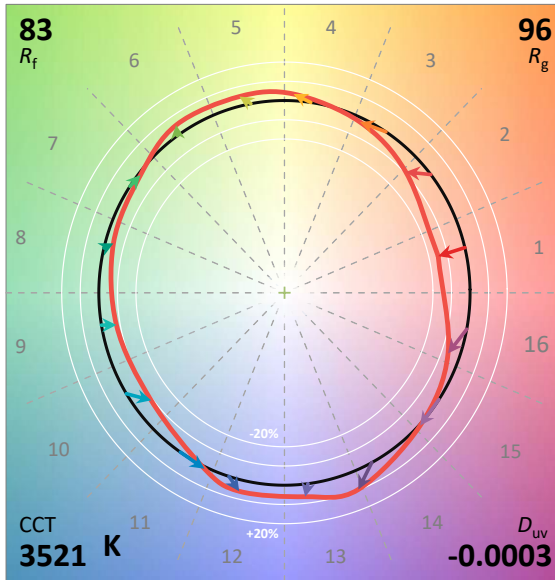
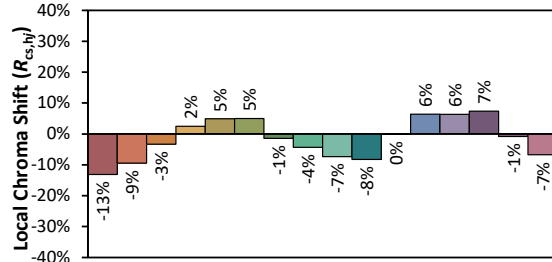
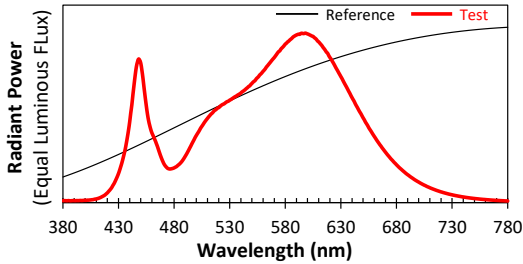
Date: 2024-02-28

Manufacturer:

H E Williams Inc

Model:

FT-22-4-8-3500K-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 0.4037
y 0.3893
u' 0.2353
v' 0.5104

CIE 13.3-1995
(CRI)

R_a 81
R_g -3

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