



UL Verification Services Inc.
7036 Snowdrift Road
Allentown, PA 18106
610-774-1300



Photometric 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

Cree, Inc

Vasavi Mandavilli
4600 Silicon Drive
Durham, NC 27519
United States

Catalog Number

RSWS-A-HT-2ME-3L-30K7-UL-xxxx

Order Number

11644102

Test Number

11644102.09

Test Date

2017-03-03 - 2017-03-06

Prepared By

Javier Caban, Technician

Approved By

Edward Bush, 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
Distribution Results	
Test Conditions / Summary of Results / ISOPlot	Page 5
Maximum Plane and Cone Plot / Zonal Lumen Summary	Page 6
IES BUG Rating	Page 7

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 4π geometry method.

Absorption correction was employed for Sphere measurement

Tested in 30 planes left side, 30 planes right side, left and right averaged

Vertical test increments are 2.5 degrees

Test distance exceeds five times the greatest luminous opening of luminaire



Luminaire Description: Formed BMC housing, clear acrylic lens, white inner reflector
Lamp: 24 white LEDs
Mounting: Pole/Arm
Ballast/Driver: LEA03060X0010

Luminaire



Luminaire Characteristics

Luminous Length: 9.00 in.
Luminous Width: 6.000 in.

Summary of Results

Integrating Sphere

Luminous Flux: 3241 Lumens
Efficacy: 116.2 lm/w
CCT: 2948 K
CRI (Ra): 72.0

Distribution

Roadway Classification: Type II, Very Short
Cutoff Classification: Semicutoff
BUG Rating: B1 U0 G1

Electrical Data at 277 VAC

Test Temperature: 24.9 °C
Voltage: 277.0 VAC
Current: 0.1182 A
Power: 28.54 W
Power Factor: 0.869
Frequency: 60 Hz
Current THD: 16.7 %



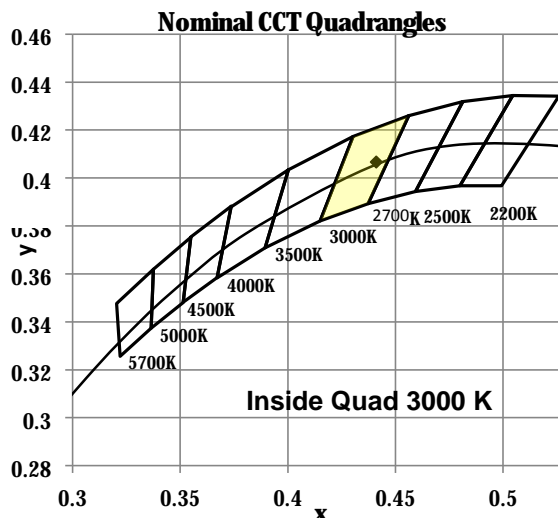
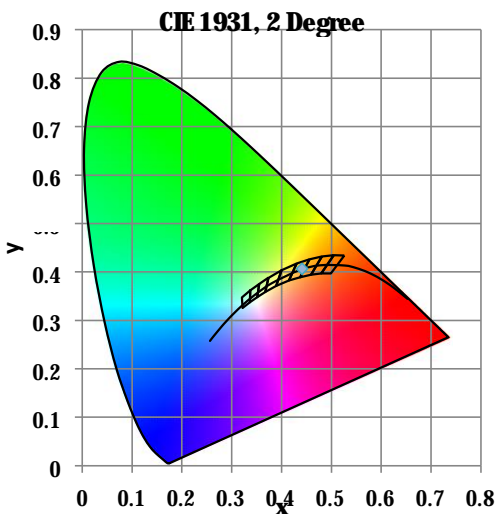
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power	Frequency	Current THD
24.8 °C	119.9 VAC	0.2370 A	27.89 W	0.981	60 Hz	4.07 %

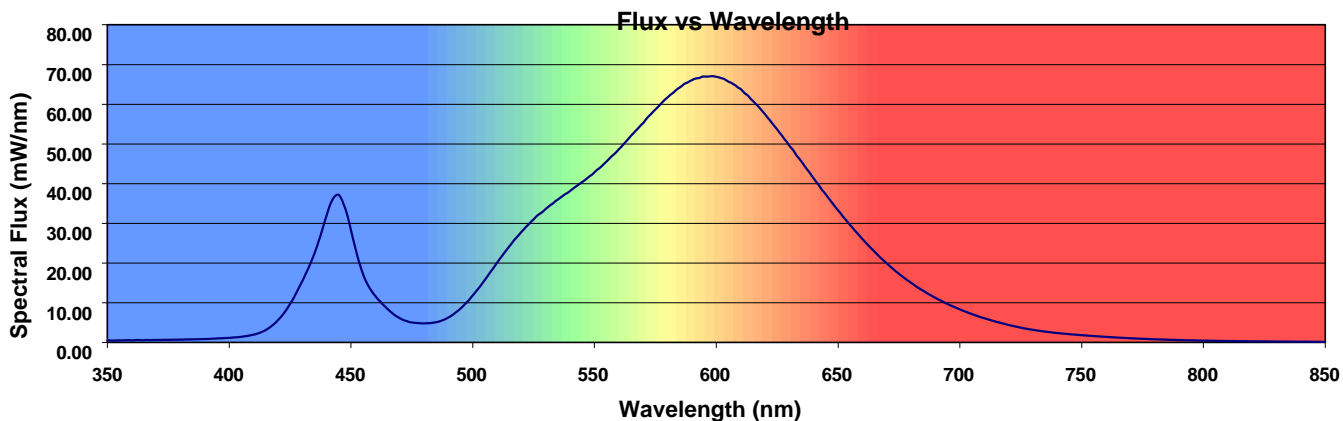
Summary of Results

Total Output:	3241 Lumens	Chromaticity (x):	0.4412
Efficacy:	116.2 lm/w	Chromaticity (y):	0.4066
CCT:	2948 K	Chromaticity (u'):	0.2522
CRI (Ra):	72.0	Chromaticity (v'):	0.5230
CRI (R9):	-27.5	TM-30 R _f :	69.7
Peak Wavelength:	598 nm	TM-30 R _g :	96.6
Dominant Wavelength:	582.9 nm	Duv:	0.0002
S/P Ratio:	1.159		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14
72.0	68.9	80.5	91.1	69.8	67.6	73.0	78.6	46.3	-27.5	55.1	65.3	48.3	70.6	94.6





Distribution - Goniophotometer

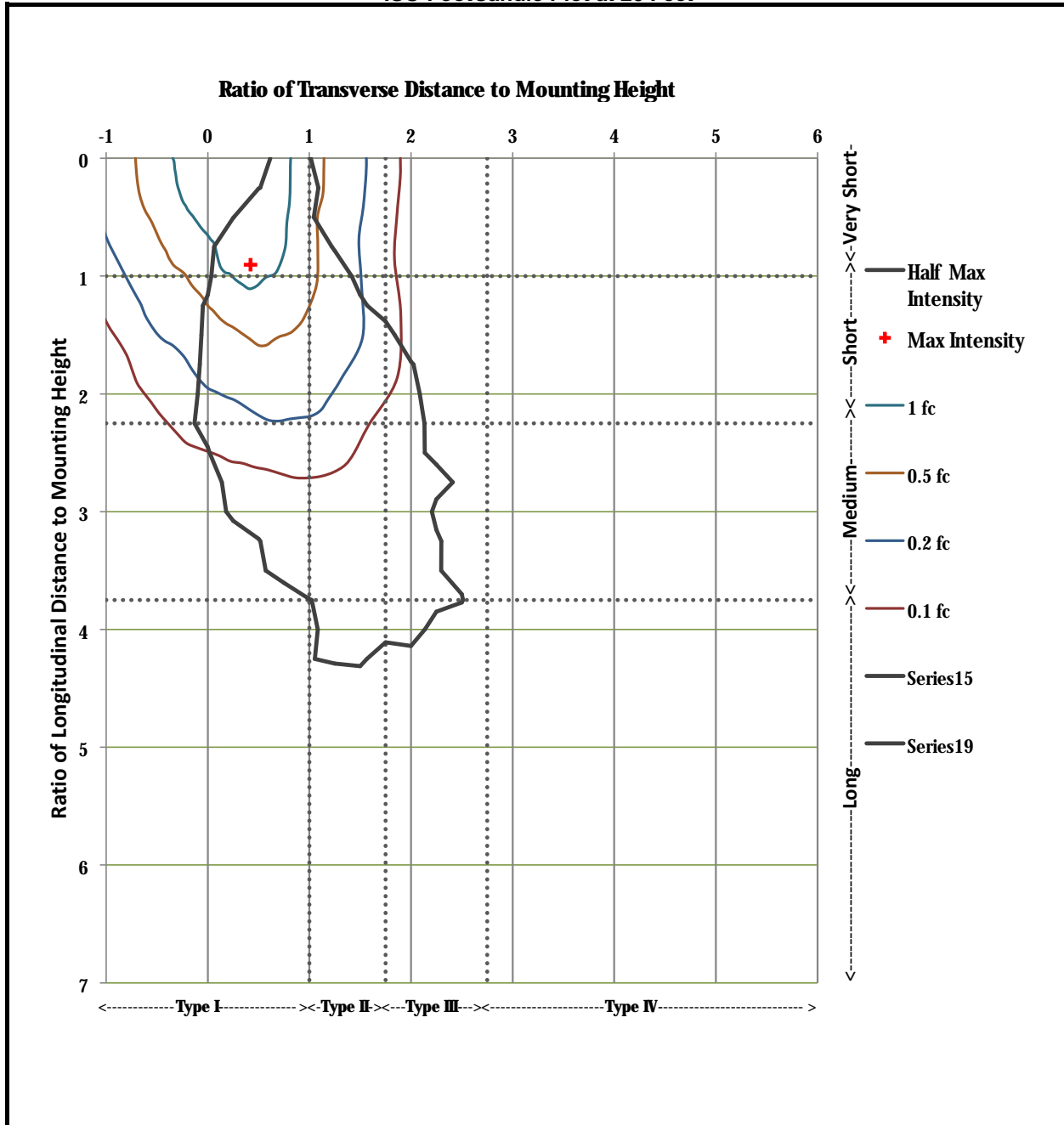
Distribution Test Conditions

Temperature	Voltage	Current	Power	Power	Frequency	Current THD
25.3 °C	120.0 VAC	0.2339 A	27.91 W	0.995	60 Hz	4.12 %

Summary of Results

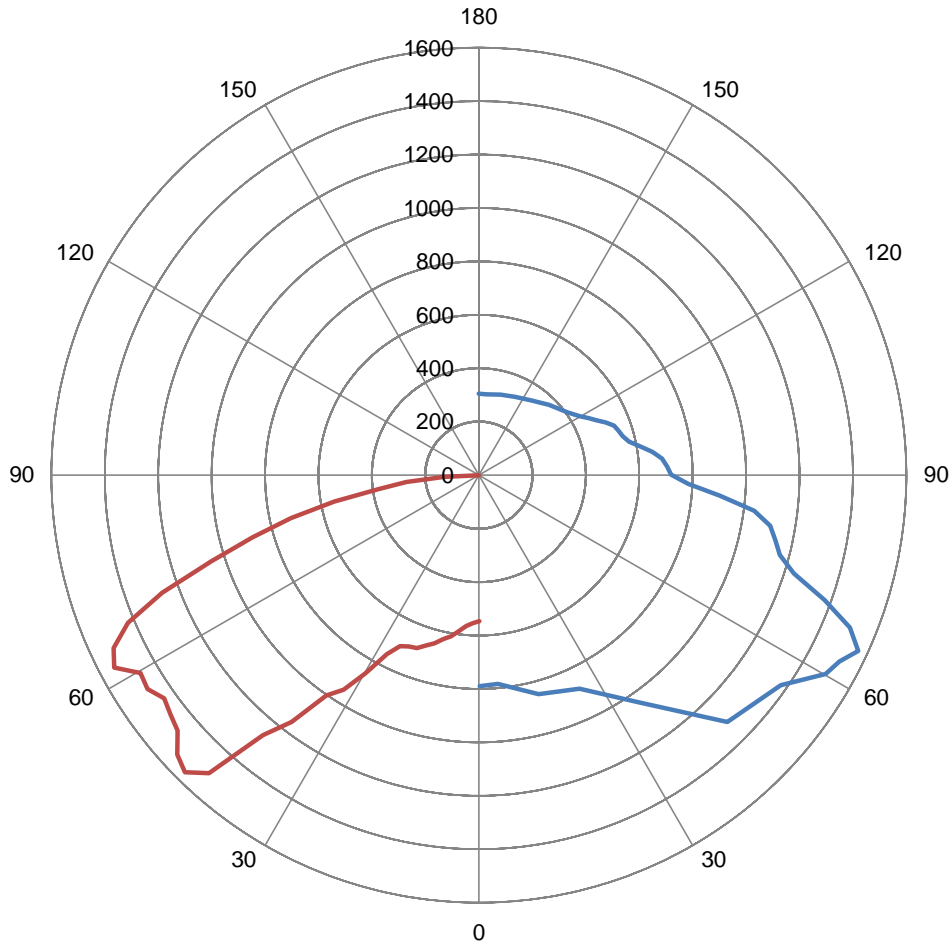
IES Roadway Classification:	Type II, Very Short	Total Lumen Output:	3251 Lumens
Cutoff Classification:	Semicutoff	Luminaire Efficacy:	116.5 lm/w
BUG Rating:	B1 U0 G1	Maximum Candela:	1565 Candela

ISO FootCandle Plot at 20 Feet





Maximum Plane and Cone Plots of Candela



Vertical Plane Through

65 ° Lateral

Lateral Cone Through

45 ° Vertical

Maximum Intensity (Candlepower):

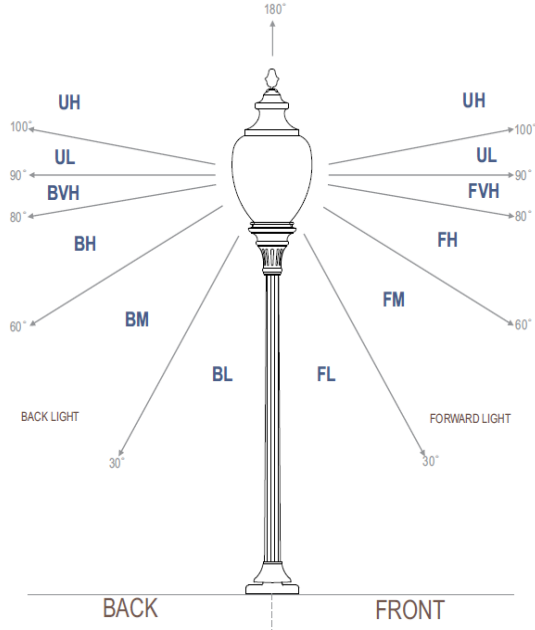
1565 Candela

Zonal Lumen Summary

Zone	Lumens	% of	Zone	Lumens	% of	Zone	Lumens	% of
0-5	13.9	0.4%	60-65	305.0	9.4%	120-125	0.0	0.0%
5-10	39.7	1.2%	65-70	279.9	8.6%	125-130	0.0	0.0%
10-15	67.4	2.1%	70-75	230.6	7.1%	130-135	0.0	0.0%
15-20	97.2	3.0%	75-80	167.4	5.1%	135-140	0.0	0.0%
20-25	126.7	3.9%	80-85	92.1	2.8%	140-145	0.0	0.0%
25-30	158.4	4.9%	85-90	24.1	0.7%	145-150	0.0	0.0%
30-35	198.2	6.1%	90-95	0.0	0.0%	150-155	0.0	0.0%
35-40	243.2	7.5%	95-100	0.0	0.0%	155-160	0.0	0.0%
40-45	281.3	8.7%	100-105	0.0	0.0%	160-165	0.0	0.0%
45-50	301.8	9.3%	105-110	0.0	0.0%	165-170	0.0	0.0%
50-55	311.3	9.6%	110-115	0.0	0.0%	170-175	0.0	0.0%
55-60	312.7	9.6%	115-120	0.0	0.0%	175-180	0.0	0.0%



IES "BUG" Rating
 (Back Light, Uplight, Glare)
 Per IES TM-15-11



Luminaire Classification System (LCS)

LCS	Zone	Lumens	Luminaire %
FL	(0-30)	287.4	8.8%
FM	(30-60)	1170.4	36.0%
FH	(60-80)	707.4	21.8%
FVH	(80-90)	80.0	2.5%
BL	(0-30)	215.7	6.6%
BM	(30-60)	478.2	14.7%
BH	(60-80)	275.5	8.5%
BVH	(80-90)	36.3	1.1%
UL	(90-100)	0.0	0.0%
UH	(100-180)	0.0	0.0%
Total		3250.8	100.0%
BUG Rating		B1 U0 G1	