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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

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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

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Approved By

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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 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 %



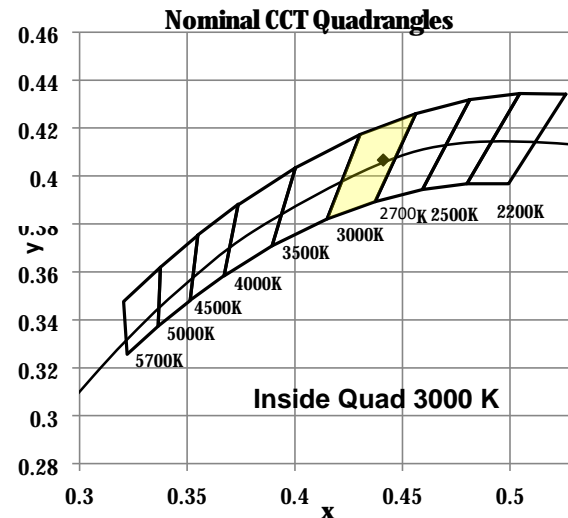
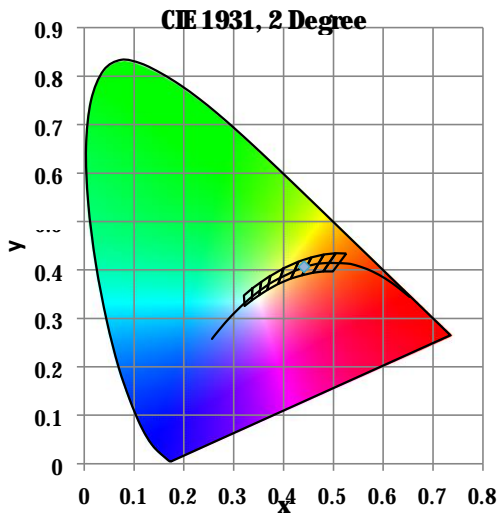
Color Quality - Integrating Sphere

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 % |

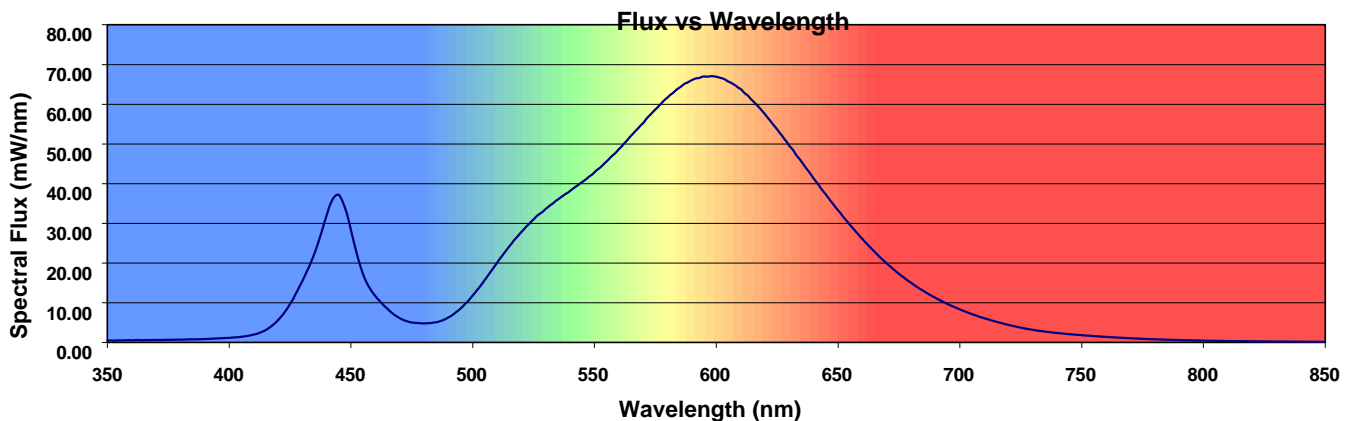
Summary of Results

| | | | |
|----------------------|-------------|------------------------|--------|
| 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

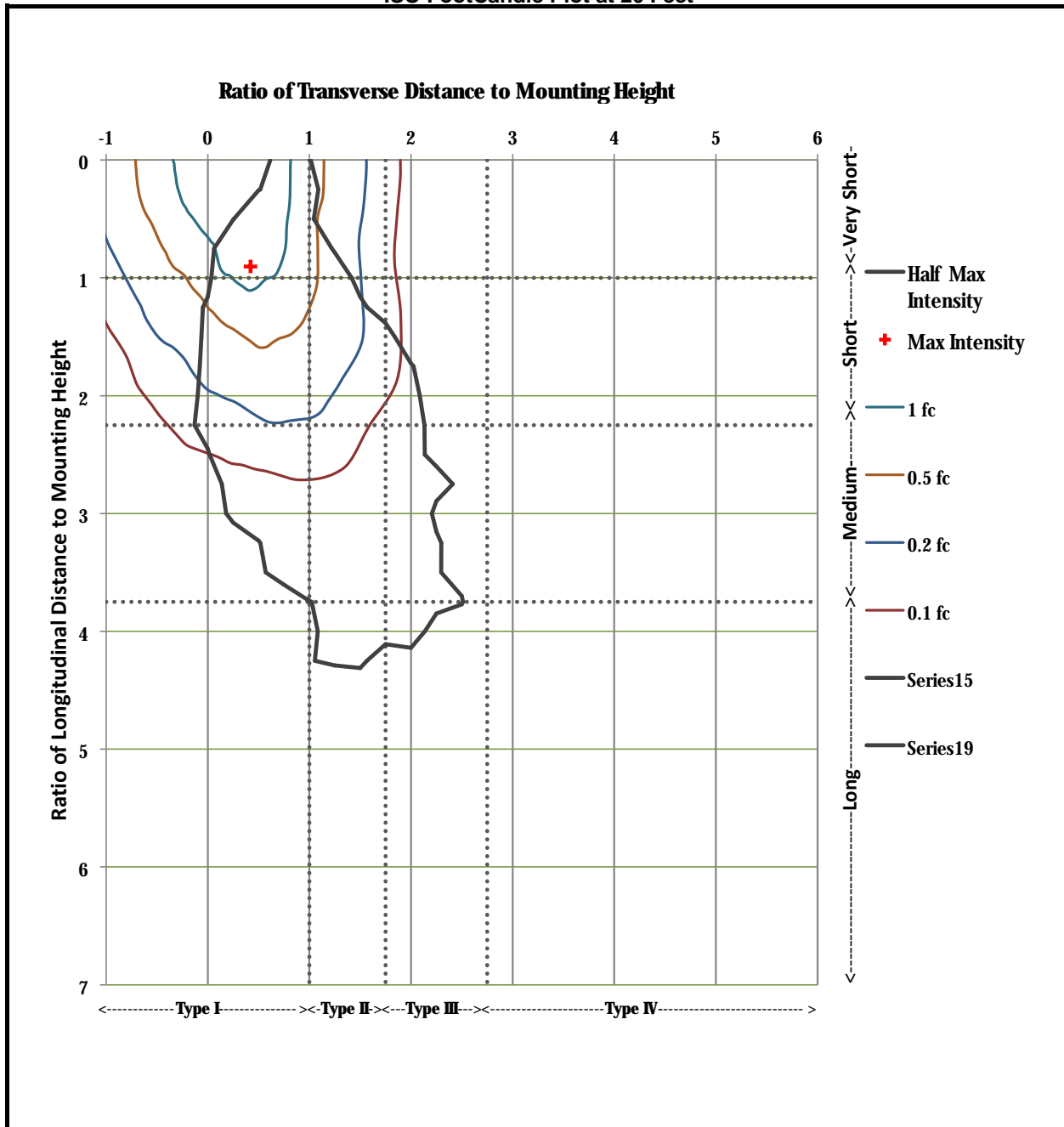
Distribution Test Conditions

| 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

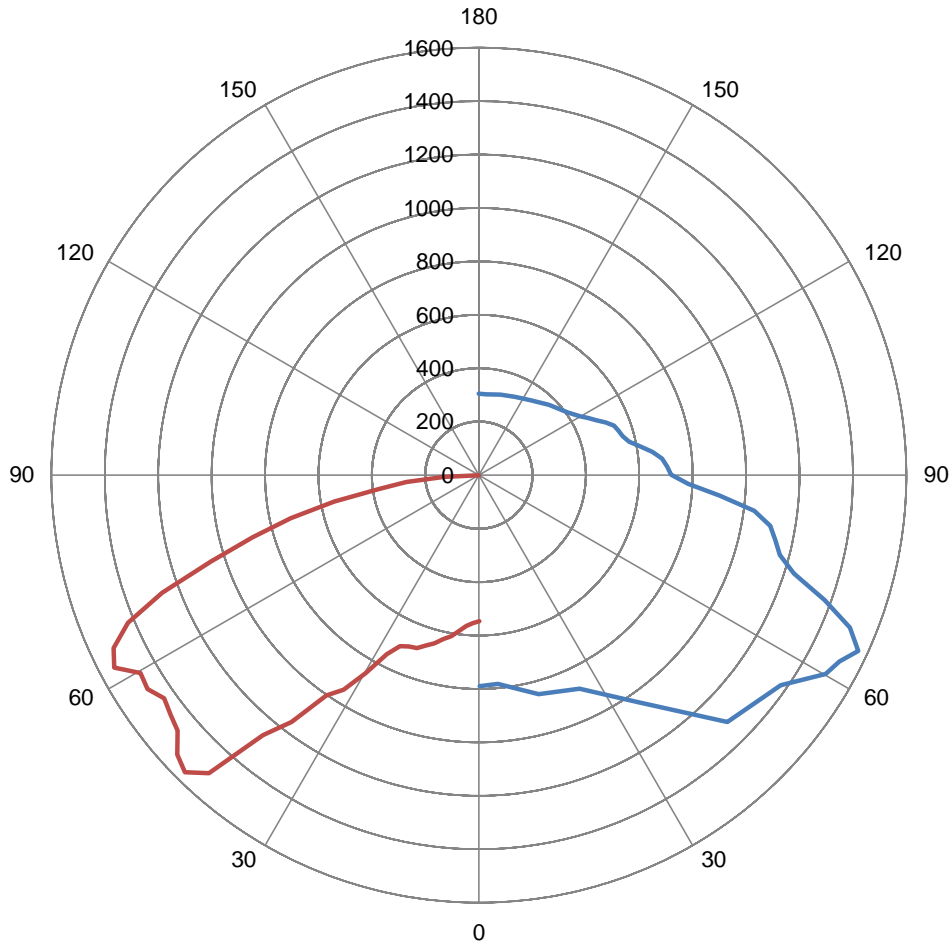
| | | | |
|-----------------------------|---------------------|---------------------|--------------|
| IES Roadway Classification: | Type II, Very Short | Total Lumen Output: | 3251 Lumens |
| Cutoff Classification: | Semicutoff | Luminaire Efficacy: | 116.5 lm/w |
| BUG Rating: | B1 U0 G1 | Maximum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

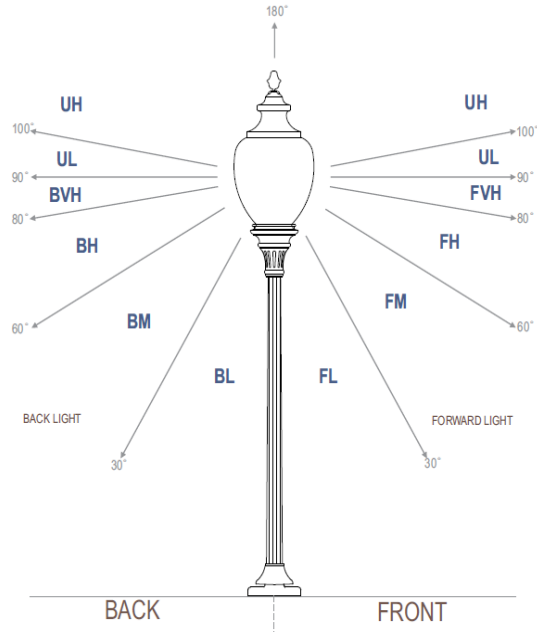
1565 Candela

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 | |