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Outdoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014

Prepared For

SPJ LIGHTING Inc.
ARCHITECTURAL LANDSCAPE & OUTDOOR LIGHTING

Catalog Number

UL-B

Order Number

13547756

Test Number

13547756.02

Test Date

2020-12-03

Prepared By

Austin Duff, Technician

Approved By

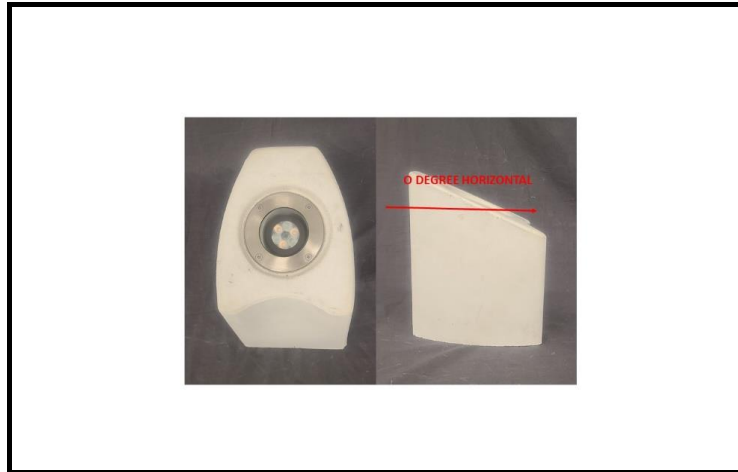
Eric Gaudreau, Engineering Leader

The results contained in this report pertain only to the tested sample.
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Luminaire Description: White decorative housing and clear glass lens
Lamp: Seven (7) LEDs with optics above each
Mounting: VBD

Luminaire



Luminaire Characteristics

Luminous Diameter: 2.50 in.
Luminous Height: 1.000 in.

Summary of Results

Roadway Classification: Type I, Very Long
Cutoff Classification: Noncutoff
BUG Rating: B0 U3 G0

Test Conditions

Test Temperature: 24.6 °C
Voltage: 12.05 VAC
Current: 0.2754 A
Power: 2.383 W
Power Factor: 0.718
Frequency: 60 Hz
Current THD: 89.5 %

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

Laboratory results may not be representative of field performance
Ballast factors have not been applied



Distribution - Goniophotometer

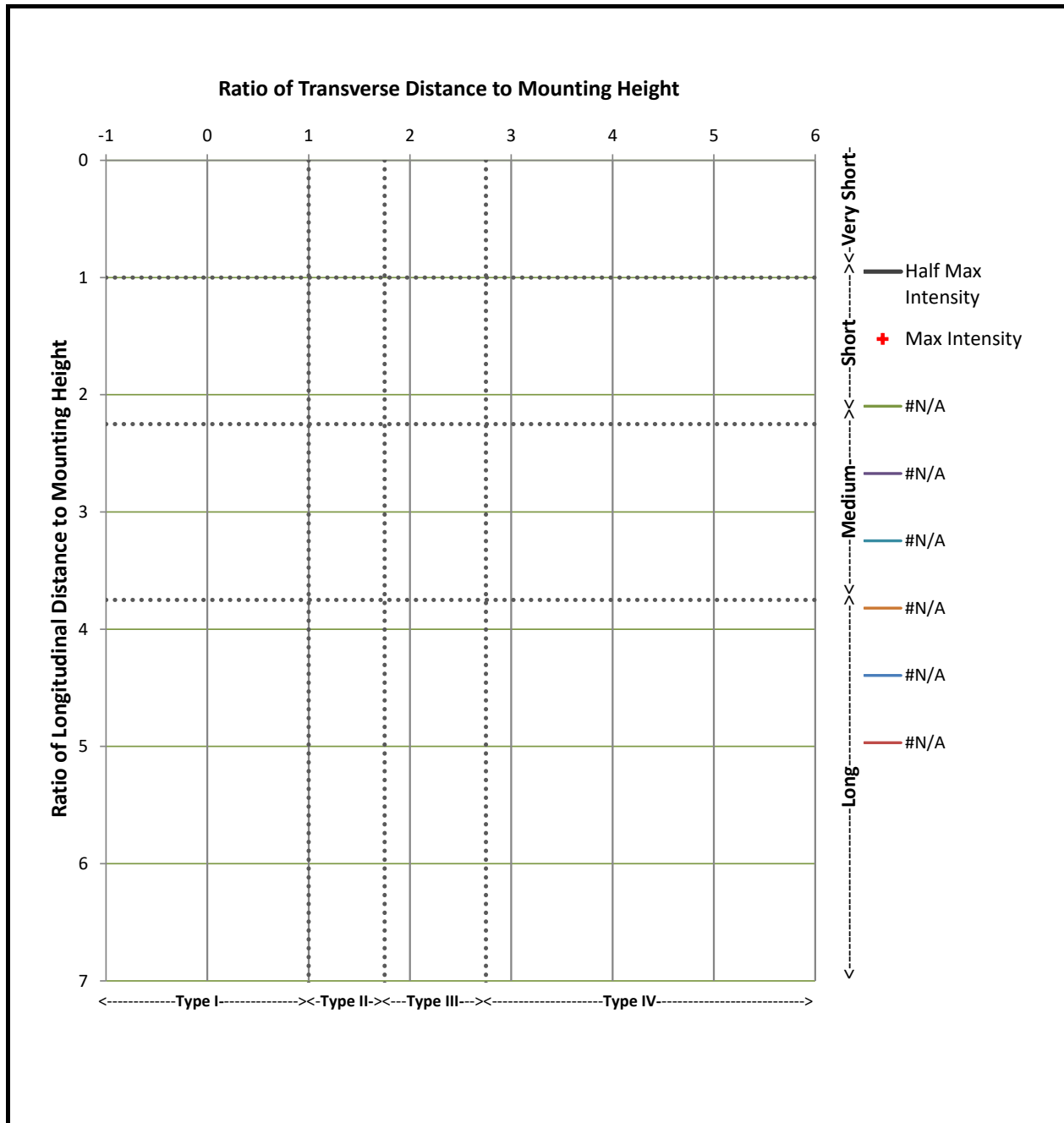
Distribution Test Conditions

| Temperature | Voltage | Current | Power | Power Factor | Frequency | Current THD |
|-------------|-----------|----------|---------|--------------|-----------|-------------|
| 24.6 °C | 12.05 VAC | 0.2754 A | 2.383 W | 0.718 | 60 Hz | 89.5 % |

Summary of Results

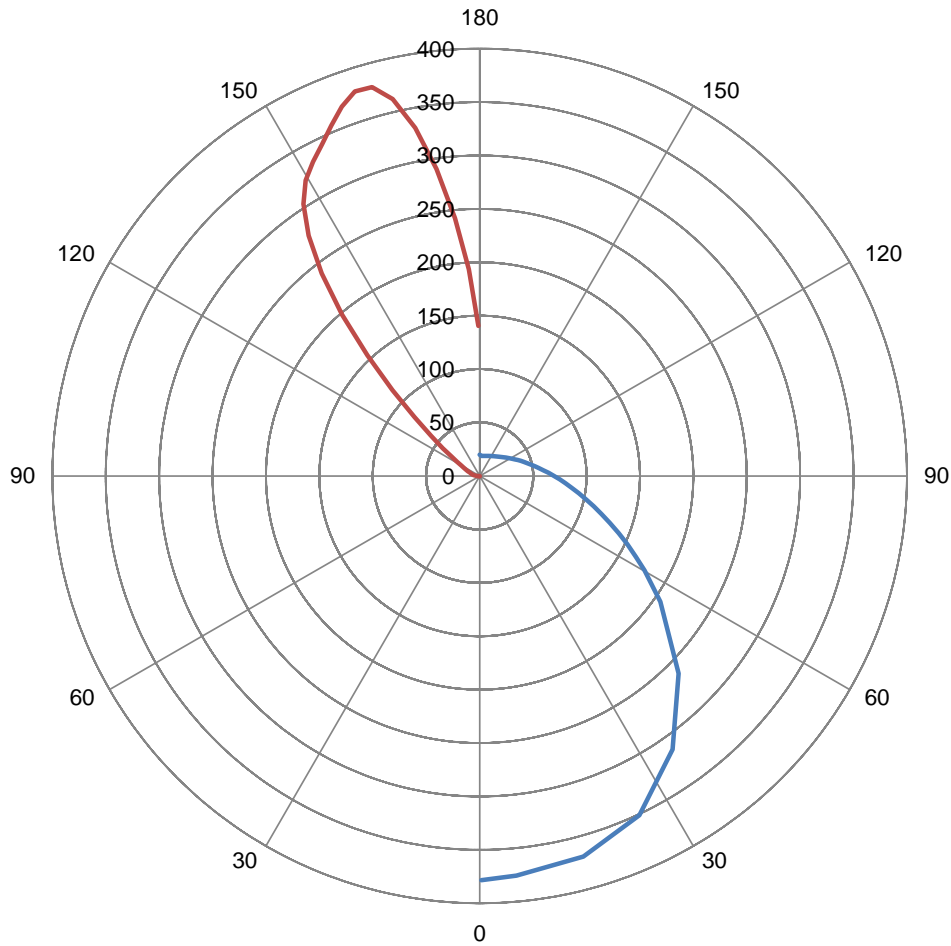
| | | | |
|------------------------------------|-------------------|----------------------------|-------------|
| IES Roadway Classification: | Type I, Very Long | Total Lumen Output: | 189 Lumens |
| Cutoff Classification | Noncutoff | Luminaire Efficacy: | 79.3 lm/w |
| BUG Rating: | B0 U3 G0 | Maximum Candela: | 378 Candela |

ISO FootCandle Plot at 20 Feet





Maximum Plane and Cone Plots of Candela



Vertical Plane Through

0 ° Lateral

Lateral Cone Through

162.5 ° Vertical

Maximum Intensity (Candlepower):

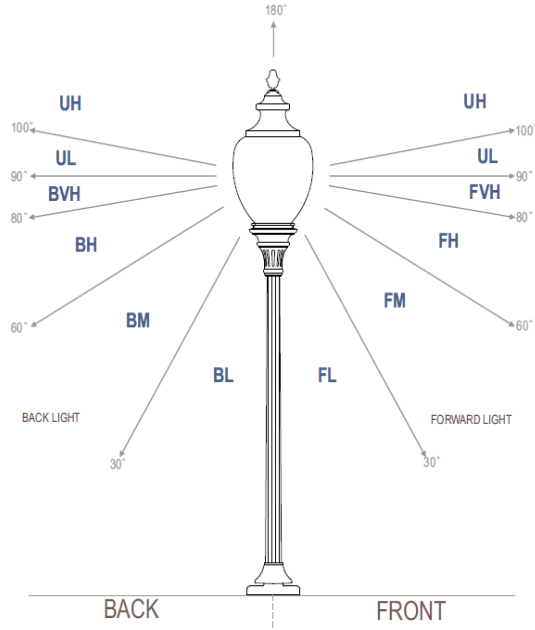
378 Candela

Zonal Lumen Summary

| Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire | Zone | Lumens | % of Luminaire |
|-------|--------|----------------|---------|--------|----------------|---------|--------|----------------|
| 0-5 | 0.0 | 0.0% | 60-65 | 0.0 | 0.0% | 120-125 | 3.6 | 1.9% |
| 5-10 | 0.0 | 0.0% | 65-70 | 0.0 | 0.0% | 125-130 | 5.4 | 2.9% |
| 10-15 | 0.0 | 0.0% | 70-75 | 0.0 | 0.0% | 130-135 | 8.6 | 4.5% |
| 15-20 | 0.0 | 0.0% | 75-80 | 0.0 | 0.0% | 135-140 | 13.6 | 7.2% |
| 20-25 | 0.0 | 0.0% | 80-85 | 0.1 | 0.0% | 140-145 | 19.4 | 10.3% |
| 25-30 | 0.0 | 0.0% | 85-90 | 0.2 | 0.1% | 145-150 | 23.8 | 12.6% |
| 30-35 | 0.0 | 0.0% | 90-95 | 0.4 | 0.2% | 150-155 | 25.8 | 13.7% |
| 35-40 | 0.0 | 0.0% | 95-100 | 0.8 | 0.4% | 155-160 | 25.5 | 13.5% |
| 40-45 | 0.0 | 0.0% | 100-105 | 1.1 | 0.6% | 160-165 | 22.7 | 12.0% |
| 45-50 | 0.0 | 0.0% | 105-110 | 1.5 | 0.8% | 165-170 | 17.4 | 9.2% |
| 50-55 | 0.0 | 0.0% | 110-115 | 1.9 | 1.0% | 170-175 | 10.5 | 5.5% |
| 55-60 | 0.0 | 0.0% | 115-120 | 2.6 | 1.4% | 175-180 | 3.6 | 1.9% |



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



Luminaire Classification System (LCS)

| LCS | Zone | Lumens | Luminaire % |
|-------------------|-----------------|--------|-------------|
| FL | (0-30) | 0.1 | 0.0% |
| FM | (30-60) | 0.0 | 0.0% |
| FH | (60-80) | 0.0 | 0.0% |
| FVH | (80-90) | 0.2 | 0.1% |
| BL | (0-30) | 0.2 | 0.1% |
| BM | (30-60) | 0.1 | 0.1% |
| BH | (60-80) | 0.0 | 0.0% |
| BVH | (80-90) | 0.0 | 0.0% |
| UL | (90-100) | 1.2 | 0.6% |
| UH | (100-180) | 187.0 | 99.0% |
| Total | | 188.8 | 100.0% |
| BUG Rating | B0 U3 G0 | | |