

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324139

Luminaire Tested: **GLEON-SA5D-730-U-SLL-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324139  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA5D-730-U-SLL-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR LEFT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26182 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B3 - U0 - G4

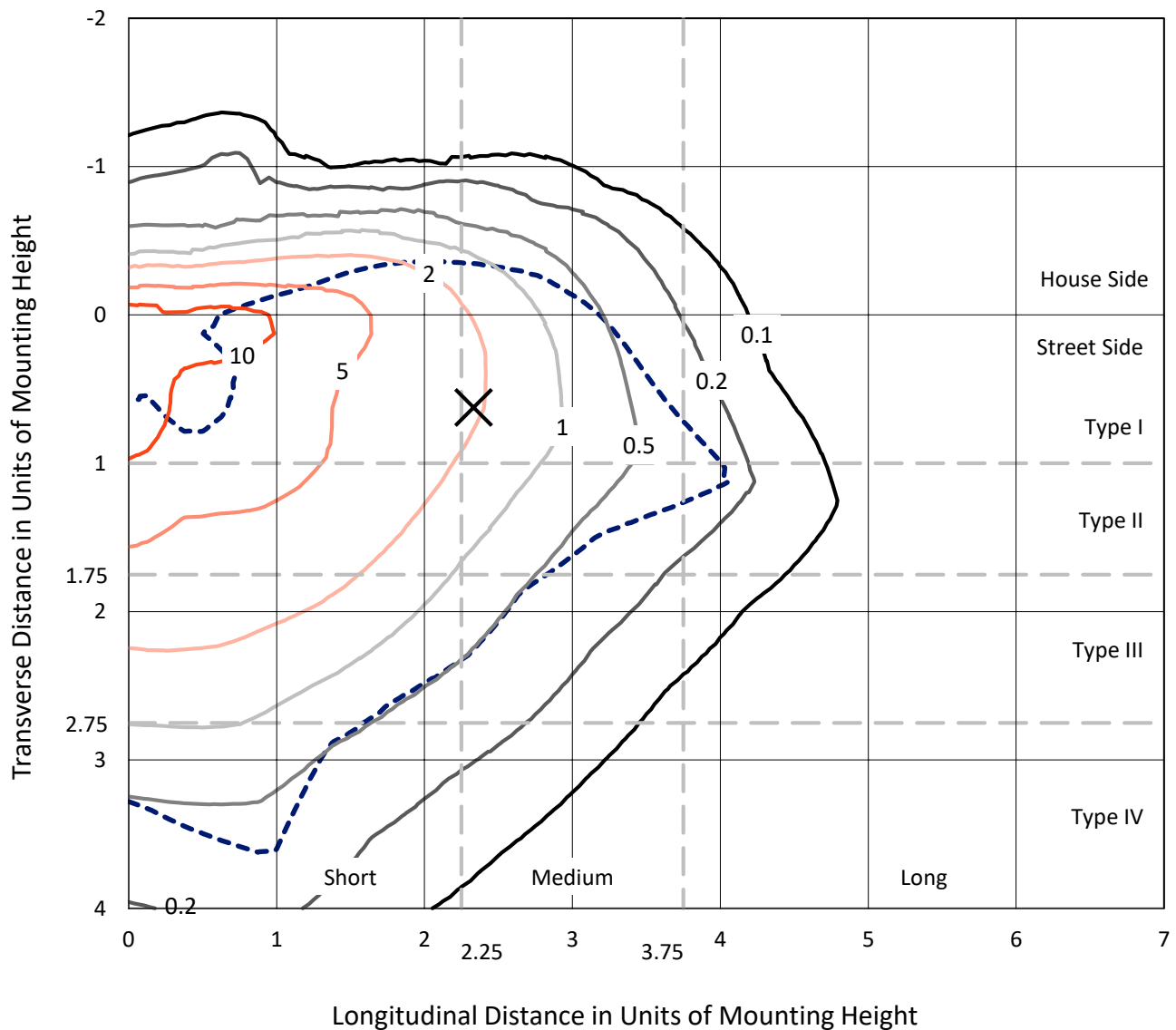
Input Watts (W): 320  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P324139  
 CATALOG NUMBER: GLEON-SA5D-730-U-SLL-HSS

## Iso-Footcandle Lines of Horizontal Illumination

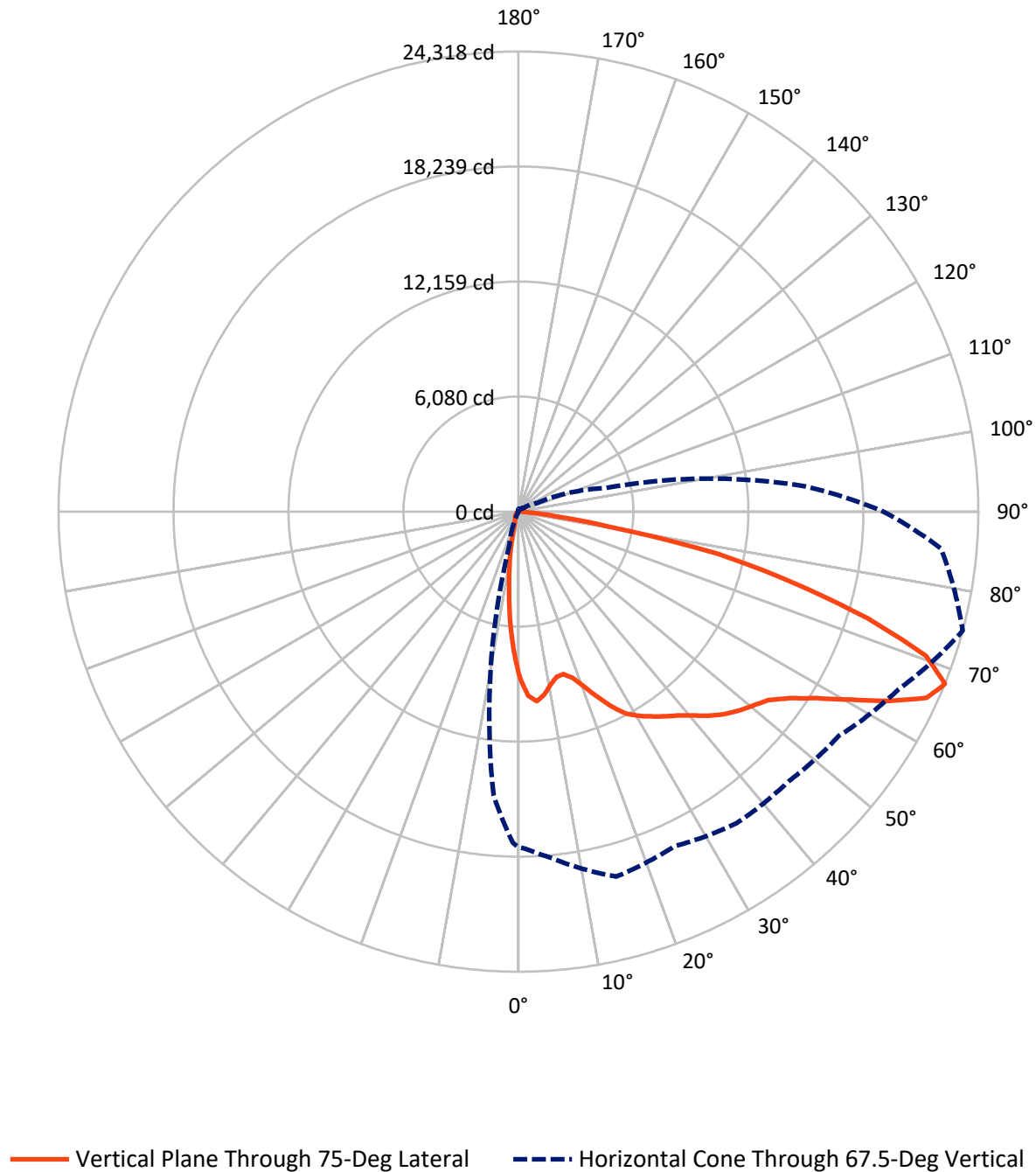
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 18.2 fc  
 Type III - Medium - N/A

REPORT NUMBER: P324139  
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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3928.9   | 0.0    | 3928.9  |
|                    | % Fixture | 15.0     | 0.0    | 15.0    |
| <b>Street Side</b> | Lumens    | 22253.1  | 0.0    | 22253.1 |
|                    | % Fixture | 85.0     | 0.0    | 85.0    |
| <b>Total</b>       | Lumens    | 26182.0  | 0.0    | 26182.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 666.3   | 2.5       |
| 10°-20°   | 1311.9  | 5.0       |
| 20°-30°   | 1856.0  | 7.1       |
| 30°-40°   | 2728.8  | 10.4      |
| 40°-50°   | 3922.2  | 15.0      |
| 50°-60°   | 5521.4  | 21.1      |
| 60°-70°   | 6448.5  | 24.6      |
| 70°-80°   | 3289.8  | 12.6      |
| 80°-90°   | 437.0   | 1.7       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-90°    | 26182.0 | 100.0     |
| 0°-180°   | 26182.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P324139

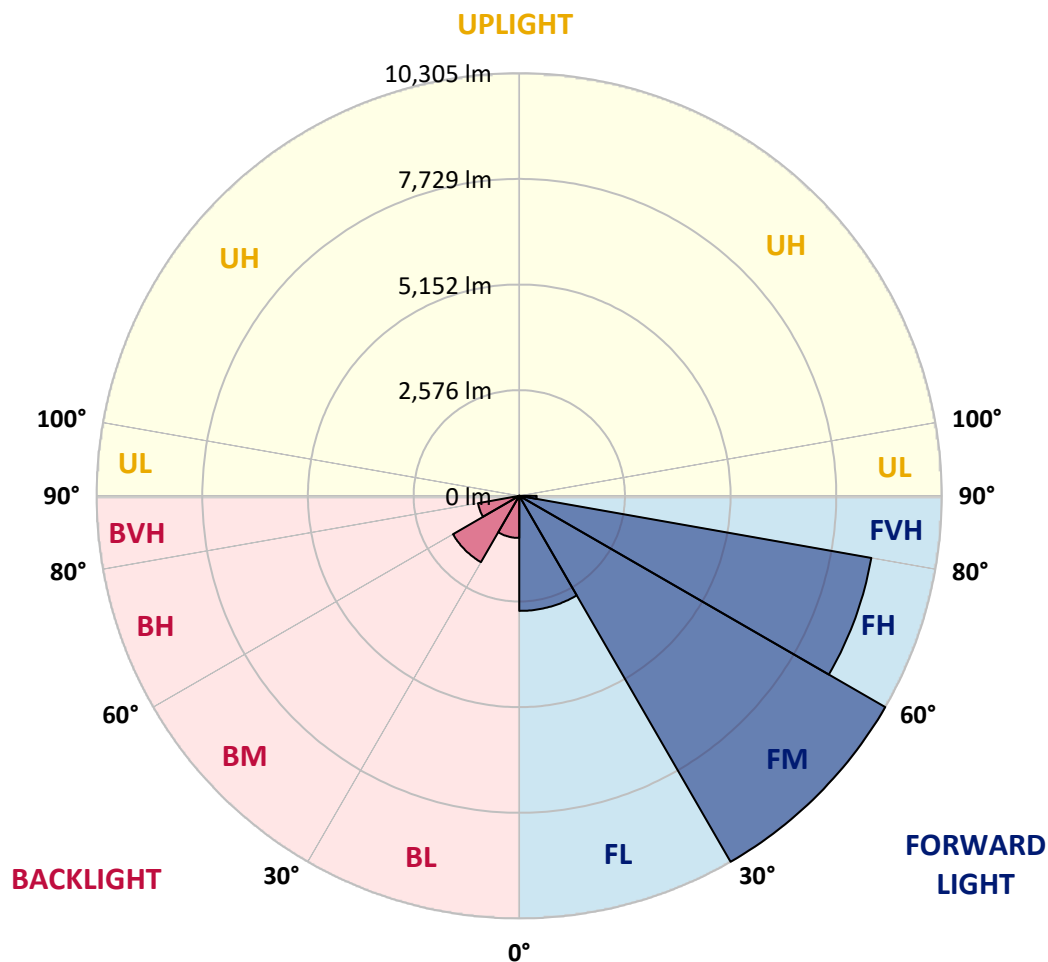
CATALOG NUMBER: GLEON-SA5D-730-U-SLL-HSS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2806.7  | 10.7      |                         |      |          |
| FM   | (30°-60°)   | 10304.8 | 39.4      |                         |      |          |
| FH   | (60°-80°)   | 8717.9  | 33.3      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 423.8   | 1.6       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1027.5  | 3.9       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 1867.7  | 7.1       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 1020.5  | 3.9       | B3/2500                 |      | G3/2500  |
| BVH  | (80°-90°)   | 13.3    | 0.1       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**

Type III Medium





REPORT NUMBER: P324139

CATALOG NUMBER: GLEON-SA5D-730-U-SLL-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  | 8783.6  |
| 2.5°  | 9521.6  | 9536.5  | 9613.4  | 9792.0  | 9986.7  | 10001.6 | 10133.0 | 9997.8  | 9952.0  | 9733.7  | 9507.9  |
| 5°    | 9593.5  | 9650.6  | 9914.7  | 10439.4 | 10894.6 | 11040.9 | 11145.1 | 10879.7 | 10600.6 | 10067.3 | 9498.0  |
| 7.5°  | 9014.3  | 9109.8  | 9525.3  | 10510.1 | 11323.7 | 11683.4 | 11751.6 | 11336.1 | 10652.7 | 9774.6  | 8918.8  |
| 10°   | 8272.6  | 8381.8  | 8882.8  | 10093.3 | 11210.8 | 11827.2 | 11921.5 | 11377.0 | 10394.7 | 9300.8  | 8292.5  |
| 12.5° | 7672.3  | 7800.1  | 8312.3  | 9624.5  | 10822.6 | 11504.8 | 11690.8 | 11239.4 | 10171.5 | 8964.7  | 7864.6  |
| 15°   | 7395.7  | 7542.1  | 8080.4  | 9321.9  | 10392.2 | 10929.3 | 11083.1 | 10888.4 | 10047.5 | 8911.4  | 7765.3  |
| 17.5° | 7554.5  | 7713.3  | 8268.9  | 9347.9  | 9987.9  | 10217.4 | 10341.4 | 10420.8 | 10047.5 | 9232.6  | 8055.6  |
| 20°   | 8205.6  | 8376.8  | 8964.7  | 9612.1  | 9653.0  | 9567.5  | 9700.2  | 9979.2  | 10164.0 | 9842.8  | 8752.6  |
| 22.5° | 9106.1  | 9307.0  | 9970.6  | 10064.8 | 9489.3  | 9165.6  | 9183.0  | 9620.8  | 10376.1 | 10616.7 | 9720.0  |
| 25°   | 10203.7 | 10449.3 | 11124.0 | 10739.5 | 9557.5  | 8926.2  | 8920.0  | 9325.6  | 10583.2 | 11391.9 | 10797.8 |
| 27.5° | 11293.9 | 11564.3 | 12157.2 | 11563.1 | 9839.1  | 8882.8  | 8870.4  | 9236.3  | 10785.4 | 12081.5 | 11974.8 |
| 30°   | 12208.0 | 12470.9 | 12981.9 | 12159.6 | 10143.0 | 8984.5  | 8925.0  | 9331.8  | 10905.7 | 12529.2 | 12833.1 |
| 32.5° | 12952.2 | 13163.0 | 13576.0 | 12570.2 | 10467.9 | 9181.7  | 9052.8  | 9587.3  | 11110.4 | 12907.5 | 13621.9 |
| 35°   | 13770.8 | 13992.8 | 14157.7 | 12960.9 | 10832.5 | 9465.8  | 9281.0  | 9992.9  | 11425.4 | 13292.0 | 14486.4 |
| 37.5° | 14704.7 | 14925.4 | 14905.6 | 13318.1 | 11295.2 | 9935.8  | 9818.0  | 10635.3 | 11915.3 | 13672.8 | 15451.3 |
| 40°   | 15618.8 | 15844.5 | 15683.3 | 13708.7 | 11838.4 | 10711.0 | 10624.2 | 11600.3 | 12571.4 | 14160.2 | 16582.4 |
| 42.5° | 16474.5 | 16718.9 | 16374.1 | 14078.3 | 12485.8 | 11688.3 | 11837.2 | 12843.0 | 13392.5 | 14760.5 | 17557.3 |
| 45°   | 17164.1 | 17413.4 | 16953.3 | 14438.0 | 13168.0 | 12874.0 | 13321.8 | 14219.7 | 14379.7 | 15267.8 | 18215.9 |
| 47.5° | 17665.2 | 17900.9 | 17355.1 | 14797.7 | 14041.1 | 14323.9 | 15104.0 | 15663.4 | 15271.5 | 15708.1 | 18683.5 |
| 50°   | 17985.2 | 18168.8 | 17473.0 | 15247.9 | 15187.1 | 16015.6 | 16960.7 | 17233.6 | 16111.1 | 16104.9 | 19251.5 |
| 52.5° | 18188.6 | 18271.7 | 17559.8 | 15718.0 | 16382.8 | 17857.5 | 18779.0 | 18864.6 | 16975.6 | 16541.5 | 20016.8 |
| 55°   | 18889.4 | 18956.3 | 18175.0 | 16287.3 | 17371.3 | 19471.0 | 20423.6 | 20344.2 | 17954.2 | 17396.1 | 20919.7 |
| 57.5° | 20085.0 | 20155.7 | 19446.2 | 17105.8 | 18171.2 | 20468.2 | 21615.5 | 21758.1 | 19101.4 | 18596.7 | 21887.1 |
| 60°   | 20685.3 | 20816.7 | 20563.7 | 18142.7 | 18946.4 | 21105.7 | 22427.9 | 22883.0 | 20535.2 | 20179.2 | 22824.7 |
| 62.5° | 20140.8 | 20331.8 | 20698.9 | 19292.4 | 19716.6 | 21456.7 | 22680.9 | 23286.1 | 22003.7 | 22023.5 | 23402.7 |
| 65°   | 19054.3 | 19206.9 | 19829.5 | 19922.5 | 20163.1 | 21413.3 | 22055.8 | 22723.0 | 22902.9 | 23717.7 | 23371.7 |
| 67.5° | 17742.1 | 17799.2 | 18327.5 | 19972.1 | 19515.7 | 20108.5 | 20178.0 | 20671.6 | 22192.2 | 24318.0 | 22432.8 |
| 70°   | 15853.2 | 15884.2 | 16345.6 | 18311.4 | 16771.0 | 16901.2 | 16798.3 | 16898.7 | 19079.1 | 22855.8 | 20062.7 |
| 72.5° | 12758.7 | 12836.8 | 13492.9 | 15207.0 | 12217.9 | 11842.1 | 12650.8 | 12606.1 | 14693.5 | 19309.8 | 14900.6 |
| 75°   | 9393.8  | 9529.0  | 10520.0 | 12248.9 | 8575.2  | 7756.7  | 8347.0  | 8504.6  | 10445.6 | 14936.6 | 9318.2  |
| 77.5° | 6577.2  | 6677.6  | 7637.6  | 9004.4  | 6206.3  | 5546.5  | 5333.2  | 5520.5  | 6894.7  | 10805.3 | 4694.4  |
| 80°   | 3789.0  | 3826.2  | 4438.9  | 5199.2  | 4182.2  | 4785.0  | 4334.8  | 4463.7  | 4131.3  | 4807.3  | 2019.2  |
| 82.5° | 2479.3  | 2485.5  | 2724.9  | 3094.5  | 2604.6  | 3026.3  | 2239.9  | 2863.8  | 2541.3  | 1931.1  | 657.3   |
| 85°   | 1339.5  | 1346.9  | 1580.1  | 2196.5  | 1474.7  | 833.5   | 489.9   | 1005.9  | 1571.4  | 442.8   | 179.8   |
| 87.5° | 147.6   | 135.2   | 476.3   | 798.7   | 409.3   | 75.7    | 26.0    | 112.9   | 251.8   | 28.5    | 0.0     |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |



REPORT NUMBER: P324139

CATALOG NUMBER: GLEON-SA5D-730-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 8783.6  | 8783.6  | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 |
| 2.5°  | 9392.6  | 9289.6  | 9032.9 | 8761.3 | 8543.0 | 8338.4 | 8132.5 | 7880.7 | 7686.0 | 7646.3 | 7581.8 |
| 5°    | 9191.7  | 8865.5  | 8327.2 | 7786.4 | 7351.1 | 6801.7 | 6453.1 | 6181.5 | 5916.1 | 5900.0 | 5846.6 |
| 7.5°  | 8489.7  | 8060.5  | 7302.7 | 6554.8 | 5942.1 | 5418.8 | 4890.4 | 4536.9 | 4259.1 | 4161.1 | 4102.8 |
| 10°   | 7815.0  | 7332.5  | 6386.2 | 5532.9 | 4985.9 | 4523.3 | 4151.2 | 3781.6 | 3446.7 | 3216.0 | 3111.8 |
| 12.5° | 7343.7  | 6810.3  | 5767.3 | 5031.8 | 4639.9 | 4200.8 | 3746.9 | 3285.5 | 2899.8 | 2621.9 | 2452.0 |
| 15°   | 7161.3  | 6592.1  | 5560.1 | 4833.3 | 4349.6 | 3794.0 | 3213.5 | 2686.4 | 2258.5 | 2006.8 | 1854.2 |
| 17.5° | 7378.4  | 6716.1  | 5544.0 | 4591.5 | 3915.5 | 3224.7 | 2583.5 | 1960.9 | 1557.8 | 1366.8 | 1268.8 |
| 20°   | 7929.1  | 7110.5  | 5537.8 | 4295.1 | 3399.6 | 2550.0 | 1750.0 | 1289.9 | 1045.6 | 938.9  | 893.0  |
| 22.5° | 8708.0  | 7614.0  | 5587.4 | 4002.4 | 2862.6 | 1822.0 | 1208.0 | 947.6  | 822.3  | 765.2  | 739.2  |
| 25°   | 9710.1  | 8321.0  | 5727.6 | 3736.9 | 2357.8 | 1359.3 | 941.4  | 793.8  | 705.7  | 661.1  | 642.5  |
| 27.5° | 10778.0 | 9134.6  | 5945.9 | 3506.3 | 1947.2 | 1084.0 | 806.2  | 679.7  | 616.4  | 585.4  | 568.0  |
| 30°   | 11658.6 | 10077.2 | 6166.6 | 3249.5 | 1649.6 | 945.1  | 738.0  | 620.1  | 547.0  | 527.1  | 511.0  |
| 32.5° | 12428.8 | 10790.4 | 6322.9 | 3017.6 | 1454.8 | 839.7  | 667.3  | 554.4  | 504.8  | 466.3  | 449.0  |
| 35°   | 13226.3 | 11384.5 | 6318.0 | 2855.1 | 1320.9 | 760.3  | 607.7  | 496.1  | 436.6  | 391.9  | 378.3  |
| 37.5° | 14089.5 | 12055.5 | 6210.0 | 2716.2 | 1262.6 | 697.0  | 574.2  | 465.1  | 405.6  | 360.9  | 343.6  |
| 40°   | 15100.3 | 12759.9 | 6099.7 | 2586.0 | 1246.5 | 646.2  | 550.7  | 440.3  | 377.0  | 333.6  | 316.3  |
| 42.5° | 16085.1 | 13394.9 | 6002.9 | 2489.2 | 1177.0 | 644.9  | 529.6  | 421.7  | 354.7  | 312.5  | 292.7  |
| 45°   | 16872.7 | 13986.6 | 5984.3 | 2430.9 | 1103.8 | 667.3  | 518.4  | 409.3  | 337.4  | 295.2  | 276.6  |
| 47.5° | 17527.5 | 14629.0 | 6103.4 | 2390.0 | 1034.4 | 609.0  | 545.7  | 400.6  | 321.2  | 280.3  | 259.2  |
| 50°   | 18306.4 | 15417.8 | 6383.7 | 2323.0 | 961.2  | 548.2  | 625.1  | 403.1  | 307.6  | 265.4  | 243.1  |
| 52.5° | 19392.9 | 16509.3 | 6795.5 | 2210.2 | 860.7  | 492.4  | 615.2  | 405.6  | 292.7  | 249.3  | 227.0  |
| 55°   | 20610.9 | 17872.3 | 7238.2 | 2022.9 | 720.6  | 419.2  | 527.1  | 388.2  | 264.2  | 231.9  | 210.8  |
| 57.5° | 21890.8 | 19108.9 | 7501.2 | 1799.6 | 573.0  | 362.2  | 421.7  | 353.5  | 233.2  | 208.4  | 194.7  |
| 60°   | 22091.7 | 19578.9 | 7380.9 | 1525.5 | 455.2  | 315.0  | 312.5  | 359.7  | 208.4  | 183.6  | 173.6  |
| 62.5° | 21591.9 | 18988.6 | 6799.2 | 1281.2 | 380.8  | 276.6  | 256.7  | 313.8  | 188.5  | 163.7  | 153.8  |
| 65°   | 20630.7 | 17392.3 | 5856.6 | 1154.7 | 353.5  | 236.9  | 213.3  | 220.8  | 165.0  | 142.6  | 133.9  |
| 67.5° | 19293.7 | 15261.6 | 4808.5 | 1082.8 | 349.8  | 203.4  | 182.3  | 167.4  | 142.6  | 124.0  | 116.6  |
| 70°   | 16560.1 | 12714.0 | 3836.2 | 1043.1 | 339.8  | 171.2  | 153.8  | 136.4  | 119.1  | 105.4  | 99.2   |
| 72.5° | 12188.2 | 9009.3  | 2984.1 | 999.7  | 342.3  | 136.4  | 133.9  | 112.9  | 95.5   | 81.9   | 79.4   |
| 75°   | 7042.3  | 5147.1  | 1957.2 | 809.9  | 326.2  | 105.4  | 111.6  | 79.4   | 67.0   | 57.1   | 57.1   |
| 77.5° | 3753.1  | 3139.1  | 745.4  | 337.4  | 119.1  | 67.0   | 63.3   | 47.1   | 42.2   | 34.7   | 33.5   |
| 80°   | 1635.9  | 1381.7  | 224.5  | 94.3   | 65.7   | 36.0   | 23.6   | 21.1   | 18.6   | 14.9   | 13.6   |
| 82.5° | 579.2   | 499.8   | 73.2   | 45.9   | 28.5   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 131.5   | 94.3    | 0.0    | 11.2   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P324139

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**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 |
| 2.5°  | 7450.3 | 7423.0 | 7261.8 | 7268.0 | 7296.5 | 7337.5 | 7240.7 | 7285.4 | 7405.7 | 7521.0 | 7564.4 |
| 5°    | 5761.1 | 5767.3 | 5669.3 | 5730.1 | 5784.6 | 5821.8 | 5665.6 | 5668.0 | 5763.5 | 5893.8 | 5962.0 |
| 7.5°  | 4059.4 | 4049.5 | 4054.5 | 4199.6 | 4302.5 | 4228.1 | 4286.4 | 4084.2 | 4096.6 | 4189.6 | 4120.2 |
| 10°   | 3017.6 | 2881.2 | 2804.3 | 2913.4 | 3026.3 | 2985.3 | 2884.9 | 2819.1 | 2865.0 | 2968.0 | 2960.5 |
| 12.5° | 2371.4 | 2175.4 | 2060.1 | 1982.0 | 2075.0 | 1998.1 | 1995.6 | 1938.5 | 1876.5 | 1887.7 | 2052.7 |
| 15°   | 1783.5 | 1640.9 | 1504.5 | 1379.2 | 1376.7 | 1350.7 | 1217.9 | 1069.1 | 1056.7 | 1064.2 | 1149.7 |
| 17.5° | 1226.6 | 1178.3 | 1122.4 | 1014.5 | 986.0  | 876.9  | 747.9  | 688.4  | 658.6  | 672.2  | 700.8  |
| 20°   | 862.0  | 843.4  | 849.6  | 791.3  | 750.4  | 646.2  | 570.5  | 547.0  | 542.0  | 555.6  | 569.3  |
| 22.5° | 714.4  | 680.9  | 677.2  | 651.1  | 610.2  | 534.6  | 493.6  | 480.0  | 473.8  | 486.2  | 496.1  |
| 25°   | 625.1  | 591.6  | 578.0  | 561.8  | 518.4  | 466.3  | 441.5  | 429.1  | 422.9  | 430.4  | 436.6  |
| 27.5° | 550.7  | 519.7  | 507.3  | 496.1  | 453.9  | 416.7  | 396.9  | 385.7  | 380.8  | 383.2  | 389.4  |
| 30°   | 494.9  | 467.6  | 451.5  | 437.8  | 401.8  | 375.8  | 358.4  | 347.3  | 342.3  | 342.3  | 348.5  |
| 32.5° | 436.6  | 421.7  | 406.8  | 389.4  | 356.0  | 338.6  | 321.2  | 308.8  | 303.9  | 305.1  | 310.1  |
| 35°   | 363.4  | 358.4  | 362.2  | 346.0  | 317.5  | 302.6  | 285.3  | 271.6  | 267.9  | 269.1  | 274.1  |
| 37.5° | 322.5  | 300.1  | 313.8  | 305.1  | 289.0  | 269.1  | 246.8  | 234.4  | 228.2  | 231.9  | 234.4  |
| 40°   | 296.4  | 269.1  | 259.2  | 267.9  | 265.4  | 233.2  | 213.3  | 200.9  | 196.0  | 197.2  | 199.7  |
| 42.5° | 274.1  | 241.9  | 219.5  | 218.3  | 233.2  | 203.4  | 182.3  | 171.2  | 165.0  | 165.0  | 167.4  |
| 45°   | 253.0  | 218.3  | 191.0  | 169.9  | 196.0  | 172.4  | 152.6  | 142.6  | 135.2  | 135.2  | 136.4  |
| 47.5° | 236.9  | 198.4  | 166.2  | 138.9  | 147.6  | 141.4  | 125.3  | 115.3  | 107.9  | 107.9  | 109.1  |
| 50°   | 222.0  | 178.6  | 143.9  | 116.6  | 110.4  | 116.6  | 101.7  | 90.5   | 85.6   | 84.3   | 86.8   |
| 52.5° | 205.9  | 158.8  | 122.8  | 99.2   | 86.8   | 88.1   | 79.4   | 71.9   | 65.7   | 65.7   | 68.2   |
| 55°   | 189.8  | 142.6  | 106.7  | 84.3   | 71.9   | 65.7   | 63.3   | 58.3   | 53.3   | 53.3   | 55.8   |
| 57.5° | 173.6  | 125.3  | 90.5   | 69.5   | 57.1   | 52.1   | 52.1   | 48.4   | 44.6   | 44.6   | 47.1   |
| 60°   | 158.8  | 107.9  | 74.4   | 57.1   | 44.6   | 43.4   | 44.6   | 40.9   | 38.4   | 38.4   | 40.9   |
| 62.5° | 141.4  | 91.8   | 60.8   | 47.1   | 36.0   | 34.7   | 38.4   | 36.0   | 33.5   | 33.5   | 36.0   |
| 65°   | 120.3  | 78.1   | 48.4   | 36.0   | 27.3   | 27.3   | 32.2   | 29.8   | 27.3   | 27.3   | 29.8   |
| 67.5° | 101.7  | 65.7   | 37.2   | 26.0   | 19.8   | 21.1   | 27.3   | 24.8   | 23.6   | 23.6   | 26.0   |
| 70°   | 84.3   | 50.9   | 26.0   | 16.1   | 11.2   | 16.1   | 21.1   | 21.1   | 21.1   | 21.1   | 23.6   |
| 72.5° | 63.3   | 34.7   | 14.9   | 6.2    | 5.0    | 11.2   | 17.4   | 19.8   | 18.6   | 18.6   | 22.3   |
| 75°   | 40.9   | 19.8   | 5.0    | 0.0    | 0.0    | 6.2    | 13.6   | 16.1   | 16.1   | 14.9   | 18.6   |
| 77.5° | 23.6   | 6.2    | 0.0    | 0.0    | 0.0    | 0.0    | 8.7    | 7.4    | 6.2    | 5.0    | 8.7    |
| 80°   | 6.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



REPORT NUMBER: P324139

CATALOG NUMBER: GLEON-SA5D-730-U-SLL-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°    | 359°    | 360°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 0°    | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6 | 8783.6  | 8783.6  | 8783.6  |
| 2.5°  | 7739.3 | 7885.7 | 8091.5 | 8309.8 | 8645.9 | 8912.6 | 9174.3 | 9398.8  | 9485.6  | 9521.6  |
| 5°    | 6125.7 | 6340.3 | 6641.7 | 7028.6 | 7635.1 | 8180.8 | 8734.0 | 9290.9  | 9532.7  | 9593.5  |
| 7.5°  | 4395.5 | 4669.6 | 5052.9 | 5537.8 | 6248.5 | 6955.5 | 7728.1 | 8545.5  | 8920.0  | 9014.3  |
| 10°   | 3253.2 | 3588.1 | 4027.2 | 4538.2 | 5216.6 | 5943.4 | 6785.5 | 7719.5  | 8147.4  | 8272.6  |
| 12.5° | 2308.1 | 2760.8 | 3348.7 | 3970.1 | 4558.0 | 5206.7 | 6058.7 | 7088.2  | 7537.1  | 7672.3  |
| 15°   | 1355.6 | 1793.4 | 2489.2 | 3321.5 | 4074.3 | 4731.6 | 5597.4 | 6764.4  | 7259.3  | 7395.7  |
| 17.5° | 777.7  | 995.9  | 1521.8 | 2449.5 | 3471.5 | 4381.9 | 5452.2 | 6845.1  | 7428.0  | 7554.5  |
| 20°   | 594.1  | 663.5  | 876.9  | 1577.6 | 2767.0 | 4038.3 | 5452.2 | 7301.5  | 8019.6  | 8205.6  |
| 22.5° | 519.7  | 570.5  | 657.3  | 941.4  | 2036.5 | 3670.0 | 5515.5 | 7961.3  | 8900.2  | 9106.1  |
| 25°   | 461.4  | 507.3  | 581.7  | 708.2  | 1389.1 | 3232.2 | 5665.6 | 8771.2  | 9937.1  | 10203.7 |
| 27.5° | 413.0  | 456.4  | 523.4  | 620.1  | 950.0  | 2703.8 | 5867.7 | 9721.3  | 11080.6 | 11293.9 |
| 30°   | 369.6  | 410.5  | 471.3  | 539.5  | 733.0  | 2104.7 | 6040.1 | 10616.7 | 11978.6 | 12208.0 |
| 32.5° | 328.7  | 365.9  | 420.5  | 471.3  | 600.3  | 1556.5 | 6058.7 | 11326.2 | 12724.0 | 12952.2 |
| 35°   | 290.2  | 323.7  | 373.3  | 413.0  | 497.3  | 1229.1 | 5769.7 | 11941.3 | 13469.4 | 13770.8 |
| 37.5° | 253.0  | 285.3  | 328.7  | 358.4  | 437.8  | 1002.1 | 5328.2 | 12627.2 | 14425.6 | 14704.7 |
| 40°   | 218.3  | 246.8  | 291.5  | 311.3  | 414.3  | 770.2  | 4848.2 | 13346.6 | 15363.3 | 15618.8 |
| 42.5° | 186.0  | 213.3  | 256.7  | 295.2  | 363.4  | 575.5  | 4329.8 | 14021.3 | 16206.6 | 16474.5 |
| 45°   | 155.0  | 183.6  | 227.0  | 312.5  | 301.4  | 430.4  | 3775.4 | 14469.0 | 16872.7 | 17164.1 |
| 47.5° | 125.3  | 157.5  | 217.0  | 297.7  | 240.6  | 316.3  | 3336.3 | 14893.2 | 17377.5 | 17665.2 |
| 50°   | 100.5  | 132.7  | 244.3  | 265.4  | 197.2  | 241.9  | 3152.8 | 15272.7 | 17708.6 | 17985.2 |
| 52.5° | 81.9   | 111.6  | 230.7  | 203.4  | 165.0  | 199.7  | 3252.0 | 15887.9 | 18015.0 | 18188.6 |
| 55°   | 68.2   | 88.1   | 138.9  | 141.4  | 140.2  | 169.9  | 3374.8 | 16771.0 | 18807.5 | 18889.4 |
| 57.5° | 59.5   | 70.7   | 96.7   | 109.1  | 117.8  | 151.3  | 3377.3 | 18038.5 | 20034.1 | 20085.0 |
| 60°   | 50.9   | 62.0   | 80.6   | 88.1   | 101.7  | 135.2  | 3254.5 | 18481.3 | 20516.6 | 20685.3 |
| 62.5° | 44.6   | 54.6   | 67.0   | 73.2   | 85.6   | 121.5  | 2966.7 | 17840.1 | 19854.3 | 20140.8 |
| 65°   | 39.7   | 49.6   | 55.8   | 62.0   | 75.7   | 109.1  | 2492.9 | 16557.6 | 18755.4 | 19054.3 |
| 67.5° | 34.7   | 43.4   | 49.6   | 55.8   | 68.2   | 96.7   | 1835.6 | 15068.1 | 17494.1 | 17742.1 |
| 70°   | 31.0   | 38.4   | 44.6   | 49.6   | 59.5   | 81.9   | 1113.8 | 12786.0 | 15750.2 | 15853.2 |
| 72.5° | 29.8   | 34.7   | 40.9   | 44.6   | 52.1   | 71.9   | 564.3  | 9396.3  | 12591.3 | 12758.7 |
| 75°   | 26.0   | 31.0   | 37.2   | 39.7   | 45.9   | 62.0   | 229.5  | 6171.6  | 9124.7  | 9393.8  |
| 77.5° | 21.1   | 28.5   | 33.5   | 36.0   | 39.7   | 50.9   | 116.6  | 3944.1  | 6403.5  | 6577.2  |
| 80°   | 7.4    | 21.1   | 28.5   | 29.8   | 33.5   | 37.2   | 76.9   | 2159.3  | 3714.6  | 3789.0  |
| 82.5° | 0.0    | 13.6   | 22.3   | 21.1   | 23.6   | 28.5   | 49.6   | 1026.9  | 2452.0  | 2479.3  |
| 85°   | 0.0    | 6.2    | 17.4   | 13.6   | 9.9    | 19.8   | 17.4   | 224.5   | 1286.2  | 1339.5  |
| 87.5° | 0.0    | 0.0    | 1.2    | 6.2    | 5.0    | 7.4    | 2.5    | 1.2     | 116.6   | 147.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 0.0     |

LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-2-R4

Test Date: 10/03/2019

Luminaire Tested: SA1C-730-U-5WQ

Data in this report applies to families of products SA1C-730-U-5WQ .

### Test Information

Test Method: LM-79-2008  
 Report Number: SP1-1908-441-2-R4  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry:  $4\pi$   
 Issue Date: 10/28/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: MCGRAW-EDISON  
 Catalog Number: **SA1C-730-U-5WQ**  
 Description: MCGRAW EDISON ROADWAY AND AREA LUMINAIRE

\*\*\*THIS IS A REVISION OF SP1-1908-441-2-R3. TO UPDATE THE CATALOG INFORMATION.\*\*\*TESTED IN SITU. (1) 70 CRI, 3000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 2993   | CRI (Ra): | 71.8 |      |       |
| CIE u':                   | 0.2508 | R1:       | 67.5 | R9:  | -38.3 |
| CIE v':                   | 0.5215 | R2:       | 82.9 | R10: | 62.5  |
| Duv:                      | 0.0000 | R3:       | 94.7 | R11: | 63.7  |
| CIE x:                    | 0.4374 | R4:       | 67.7 | R12: | 57.8  |
| CIE y:                    | 0.4043 | R5:       | 67.9 | R13: | 70.4  |
| CIE z:                    | 0.1583 | R6:       | 77.6 | R14: | 97.3  |
| Peak Wavelength (nm):     | 593    | R7:       | 76.0 |      |       |
| Dominant Wavelength (nm): | 582    | R8:       | 40.5 |      |       |
| Purity:                   | 53     |           |      |      |       |
| Rf:                       | 75.7   |           |      |      |       |
| Rg:                       | 93.9   |           |      |      |       |



### Test Conditions

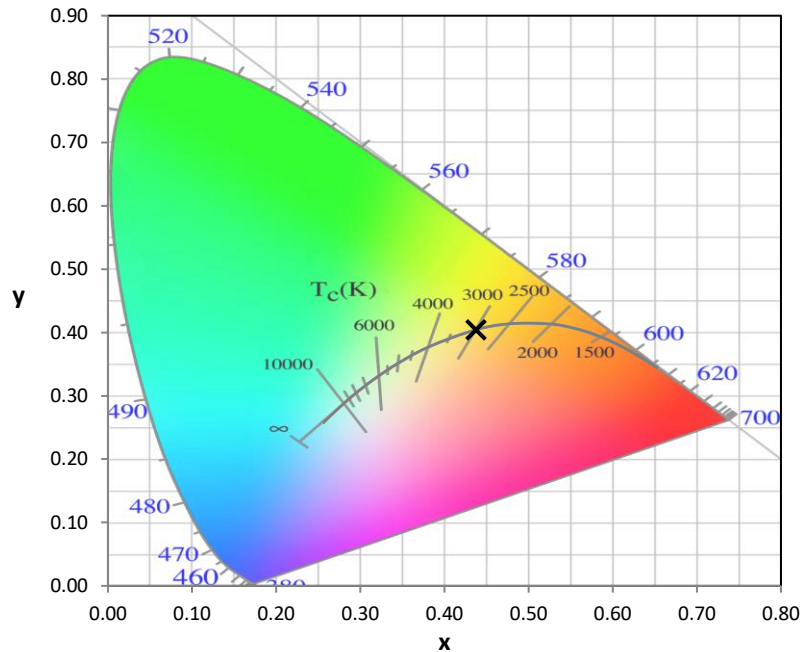
Stabilization Time: 53M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 25.0./44%  
 Sphere Temperature (°C): 25.7

REPORT NUMBER: SP1-1908-441-2-R4

| Measurement and Test Equipment |                       |                  |                      |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument                     | Identification Number | Calibration Date | Calibration Due Date |
| Photometer                     | IN0058                | 6/28/2019        | 12/28/2019           |
| Power Meter                    | IN0071                | 12/5/2018        | 12/5/2019            |
| AC Power Source                | IN0063                | 12/5/2018        | 12/5/2019            |
| DC Power Source                | IN0208                | 12/5/2018        | 12/5/2019            |
| Sphere Thermometer             | IN0085                | 12/5/2018        | 12/5/2019            |
| Room Thermometer               | IN0046                | 12/5/2018        | 12/5/2019            |

REPORT NUMBER: SP1-1908-441-2-R4

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-2-R4

**Photopic Flux vs. Wavelength**



#####

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2397             | NR               | 490       | 24908            | NR               | 620       | 118784           | NR               | 750       | 5037             | NR               | 880       | 2677             | NR               |
| 365       | 2084             | NR               | 495       | 30998            | NR               | 625       | 108951           | NR               | 755       | 4413             | NR               | 885       | 2940             | NR               |
| 370       | 2143             | NR               | 500       | 37103            | NR               | 630       | 99573            | NR               | 760       | 4189             | NR               | 890       | 3116             | NR               |
| 375       | 2413             | NR               | 505       | 42987            | NR               | 635       | 90444            | NR               | 765       | 3677             | NR               | 895       | 3345             | NR               |
| 380       | 2172             | NR               | 510       | 48702            | NR               | 640       | 80749            | NR               | 770       | 3366             | NR               | 900       | 2312             | NR               |
| 385       | 1997             | NR               | 515       | 53741            | NR               | 645       | 71664            | NR               | 775       | 3211             | NR               | 905       | 2829             | NR               |
| 390       | 1830             | NR               | 520       | 57283            | NR               | 650       | 63936            | NR               | 780       | 2682             | NR               | 910       | 2783             | NR               |
| 395       | 1861             | NR               | 525       | 61876            | NR               | 655       | 56611            | NR               | 785       | 2804             | NR               | 915       | 2662             | NR               |
| 400       | 1717             | NR               | 530       | 65398            | NR               | 660       | 49763            | NR               | 790       | 2581             | NR               | 920       | 3047             | NR               |
| 405       | 1761             | NR               | 535       | 69597            | NR               | 665       | 42891            | NR               | 795       | 2711             | NR               | 925       | 2256             | NR               |
| 410       | 2680             | NR               | 540       | 74214            | NR               | 670       | 36939            | NR               | 800       | 2609             | NR               | 930       | 2976             | NR               |
| 415       | 4374             | NR               | 545       | 79911            | NR               | 675       | 31946            | NR               | 805       | 2581             | NR               | 935       | 3503             | NR               |
| 420       | 8071             | NR               | 550       | 86153            | NR               | 680       | 27385            | NR               | 810       | 2404             | NR               | 940       | 4226             | NR               |
| 425       | 15169            | NR               | 555       | 93952            | NR               | 685       | 23504            | NR               | 815       | 2556             | NR               | 945       | 2930             | NR               |
| 430       | 26038            | NR               | 560       | 102904           | NR               | 690       | 20210            | NR               | 820       | 2742             | NR               | 950       | 2115             | NR               |
| 435       | 41316            | NR               | 565       | 112009           | NR               | 695       | 17459            | NR               | 825       | 2014             | NR               | 955       | 2634             | NR               |
| 440       | 59674            | NR               | 570       | 121662           | NR               | 700       | 15207            | NR               | 830       | 2488             | NR               | 960       | 4200             | NR               |
| 445       | 72751            | NR               | 575       | 130476           | NR               | 705       | 13322            | NR               | 835       | 2625             | NR               | 965       | 1982             | NR               |
| 450       | 65091            | NR               | 580       | 137926           | NR               | 710       | 11676            | NR               | 840       | 2754             | NR               | 970       | 3613             | NR               |
| 455       | 44894            | NR               | 585       | 143406           | NR               | 715       | 10626            | NR               | 845       | 2708             | NR               | 975       | 4034             | NR               |
| 460       | 32712            | NR               | 590       | 147039           | NR               | 720       | 9416             | NR               | 850       | 2608             | NR               | 980       | 3922             | NR               |
| 465       | 25296            | NR               | 595       | 147365           | NR               | 725       | 8333             | NR               | 855       | 2605             | NR               | 985       | 1909             | NR               |
| 470       | 19318            | NR               | 600       | 145800           | NR               | 730       | 7134             | NR               | 860       | 1765             | NR               | 990       | 3617             | NR               |
| 475       | 17265            | NR               | 605       | 141363           | NR               | 735       | 6437             | NR               | 865       | 2581             | NR               | 995       | 4767             | NR               |
| 480       | 18260            | NR               | 610       | 134199           | NR               | 740       | 5834             | NR               | 870       | 3016             | NR               | 1000      | 2528             | NR               |
| 485       | 20845            | NR               | 615       | 127683           | NR               | 745       | 5500             | NR               | 875       | 3952             | NR               |           |                  |                  |

REPORT NUMBER: SP1-1908-441-2-R4

**Scotopic Flux vs. Wavelength**



**Scotopic Lumens: 8494.8**

**S/P: 1.23**

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2397             | NR               | 490       | 24908            | NR               | 620       | 118784           | NR               | 750       | 5037             | NR               | 880       | 2677             | NR               |
| 365       | 2084             | NR               | 495       | 30998            | NR               | 625       | 108951           | NR               | 755       | 4413             | NR               | 885       | 2940             | NR               |
| 370       | 2143             | NR               | 500       | 37103            | NR               | 630       | 99573            | NR               | 760       | 4189             | NR               | 890       | 3116             | NR               |
| 375       | 2413             | NR               | 505       | 42987            | NR               | 635       | 90444            | NR               | 765       | 3677             | NR               | 895       | 3345             | NR               |
| 380       | 2172             | NR               | 510       | 48702            | NR               | 640       | 80749            | NR               | 770       | 3366             | NR               | 900       | 2312             | NR               |
| 385       | 1997             | NR               | 515       | 53741            | NR               | 645       | 71664            | NR               | 775       | 3211             | NR               | 905       | 2829             | NR               |
| 390       | 1830             | NR               | 520       | 57283            | NR               | 650       | 63936            | NR               | 780       | 2682             | NR               | 910       | 2783             | NR               |
| 395       | 1861             | NR               | 525       | 61876            | NR               | 655       | 56611            | NR               | 785       | 2804             | NR               | 915       | 2662             | NR               |
| 400       | 1717             | NR               | 530       | 65398            | NR               | 660       | 49763            | NR               | 790       | 2581             | NR               | 920       | 3047             | NR               |
| 405       | 1761             | NR               | 535       | 69597            | NR               | 665       | 42891            | NR               | 795       | 2711             | NR               | 925       | 2256             | NR               |
| 410       | 2680             | NR               | 540       | 74214            | NR               | 670       | 36939            | NR               | 800       | 2609             | NR               | 930       | 2976             | NR               |
| 415       | 4374             | NR               | 545       | 79911            | NR               | 675       | 31946            | NR               | 805       | 2581             | NR               | 935       | 3503             | NR               |
| 420       | 8071             | NR               | 550       | 86153            | NR               | 680       | 27385            | NR               | 810       | 2404             | NR               | 940       | 4226             | NR               |
| 425       | 15169            | NR               | 555       | 93952            | NR               | 685       | 23504            | NR               | 815       | 2556             | NR               | 945       | 2930             | NR               |
| 430       | 26038            | NR               | 560       | 102904           | NR               | 690       | 20210            | NR               | 820       | 2742             | NR               | 950       | 2115             | NR               |
| 435       | 41316            | NR               | 565       | 112009           | NR               | 695       | 17459            | NR               | 825       | 2014             | NR               | 955       | 2634             | NR               |
| 440       | 59674            | NR               | 570       | 121662           | NR               | 700       | 15207            | NR               | 830       | 2488             | NR               | 960       | 4200             | NR               |
| 445       | 72751            | NR               | 575       | 130476           | NR               | 705       | 13322            | NR               | 835       | 2625             | NR               | 965       | 1982             | NR               |
| 450       | 65091            | NR               | 580       | 137926           | NR               | 710       | 11676            | NR               | 840       | 2754             | NR               | 970       | 3613             | NR               |
| 455       | 44894            | NR               | 585       | 143406           | NR               | 715       | 10626            | NR               | 845       | 2708             | NR               | 975       | 4034             | NR               |
| 460       | 32712            | NR               | 590       | 147039           | NR               | 720       | 9416             | NR               | 850       | 2608             | NR               | 980       | 3922             | NR               |
| 465       | 25296            | NR               | 595       | 147365           | NR               | 725       | 8333             | NR               | 855       | 2605             | NR               | 985       | 1909             | NR               |
| 470       | 19318            | NR               | 600       | 145800           | NR               | 730       | 7134             | NR               | 860       | 1765             | NR               | 990       | 3617             | NR               |
| 475       | 17265            | NR               | 605       | 141363           | NR               | 735       | 6437             | NR               | 865       | 2581             | NR               | 995       | 4767             | NR               |
| 480       | 18260            | NR               | 610       | 134199           | NR               | 740       | 5834             | NR               | 870       | 3016             | NR               | 1000      | 2528             | NR               |
| 485       | 20845            | NR               | 615       | 127683           | NR               | 745       | 5500             | NR               | 875       | 3952             | NR               |           |                  |                  |

REPORT NUMBER: SP1-1908-441-2-R4

**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 3101.5**

**M/P: 0.45**

| λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) | λ<br>(nm) | Power<br>(μW/nm) | Lumens<br>(φ/nm) |
|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|-----------|------------------|------------------|
| 360       | 2397             | NR               | 490       | 24908            | NR               | 620       | 118784           | NR               | 750       | 5037             | NR               | 880       | 2677             | NR               |
| 365       | 2084             | NR               | 495       | 30998            | NR               | 625       | 108951           | NR               | 755       | 4413             | NR               | 885       | 2940             | NR               |
| 370       | 2143             | NR               | 500       | 37103            | NR               | 630       | 99573            | NR               | 760       | 4189             | NR               | 890       | 3116             | NR               |
| 375       | 2413             | NR               | 505       | 42987            | NR               | 635       | 90444            | NR               | 765       | 3677             | NR               | 895       | 3345             | NR               |
| 380       | 2172             | NR               | 510       | 48702            | NR               | 640       | 80749            | NR               | 770       | 3366             | NR               | 900       | 2312             | NR               |
| 385       | 1997             | NR               | 515       | 53741            | NR               | 645       | 71664            | NR               | 775       | 3211             | NR               | 905       | 2829             | NR               |
| 390       | 1830             | NR               | 520       | 57283            | NR               | 650       | 63936            | NR               | 780       | 2682             | NR               | 910       | 2783             | NR               |
| 395       | 1861             | NR               | 525       | 61876            | NR               | 655       | 56611            | NR               | 785       | 2804             | NR               | 915       | 2662             | NR               |
| 400       | 1717             | NR               | 530       | 65398            | NR               | 660       | 49763            | NR               | 790       | 2581             | NR               | 920       | 3047             | NR               |
| 405       | 1761             | NR               | 535       | 69597            | NR               | 665       | 42891            | NR               | 795       | 2711             | NR               | 925       | 2256             | NR               |
| 410       | 2680             | NR               | 540       | 74214            | NR               | 670       | 36939            | NR               | 800       | 2609             | NR               | 930       | 2976             | NR               |
| 415       | 4374             | NR               | 545       | 79911            | NR               | 675       | 31946            | NR               | 805       | 2581             | NR               | 935       | 3503             | NR               |
| 420       | 8071             | NR               | 550       | 86153            | NR               | 680       | 27385            | NR               | 810       | 2404             | NR               | 940       | 4226             | NR               |
| 425       | 15169            | NR               | 555       | 93952            | NR               | 685       | 23504            | NR               | 815       | 2556             | NR               | 945       | 2930             | NR               |
| 430       | 26038            | NR               | 560       | 102904           | NR               | 690       | 20210            | NR               | 820       | 2742             | NR               | 950       | 2115             | NR               |
| 435       | 41316            | NR               | 565       | 112009           | NR               | 695       | 17459            | NR               | 825       | 2014             | NR               | 955       | 2634             | NR               |
| 440       | 59674            | NR               | 570       | 121662           | NR               | 700       | 15207            | NR               | 830       | 2488             | NR               | 960       | 4200             | NR               |
| 445       | 72751            | NR               | 575       | 130476           | NR               | 705       | 13322            | NR               | 835       | 2625             | NR               | 965       | 1982             | NR               |
| 450       | 65091            | NR               | 580       | 137926           | NR               | 710       | 11676            | NR               | 840       | 2754             | NR               | 970       | 3613             | NR               |
| 455       | 44894            | NR               | 585       | 143406           | NR               | 715       | 10626            | NR               | 845       | 2708             | NR               | 975       | 4034             | NR               |
| 460       | 32712            | NR               | 590       | 147039           | NR               | 720       | 9416             | NR               | 850       | 2608             | NR               | 980       | 3922             | NR               |
| 465       | 25296            | NR               | 595       | 147365           | NR               | 725       | 8333             | NR               | 855       | 2605             | NR               | 985       | 1909             | NR               |
| 470       | 19318            | NR               | 600       | 145800           | NR               | 730       | 7134             | NR               | 860       | 1765             | NR               | 990       | 3617             | NR               |
| 475       | 17265            | NR               | 605       | 141363           | NR               | 735       | 6437             | NR               | 865       | 2581             | NR               | 995       | 4767             | NR               |
| 480       | 18260            | NR               | 610       | 134199           | NR               | 740       | 5834             | NR               | 870       | 3016             | NR               | 1000      | 2528             | NR               |
| 485       | 20845            | NR               | 615       | 127683           | NR               | 745       | 5500             | NR               | 875       | 3952             | NR               |           |                  |                  |

REPORT NUMBER: SP1-1908-441-2-R4

**TM-30-18**

**Summary**

$R_f = 75.7$   
 $R_g = 93.9$   
 CIE  $R_a = 71.8$   
 $R_g = -38.3$



**Color Vector Graphics**



REPORT NUMBER: SP1-1908-441-2-R4

**TM-30-18**

**Individual Sample Fidelity Index ( $R_{f,i}$ )**

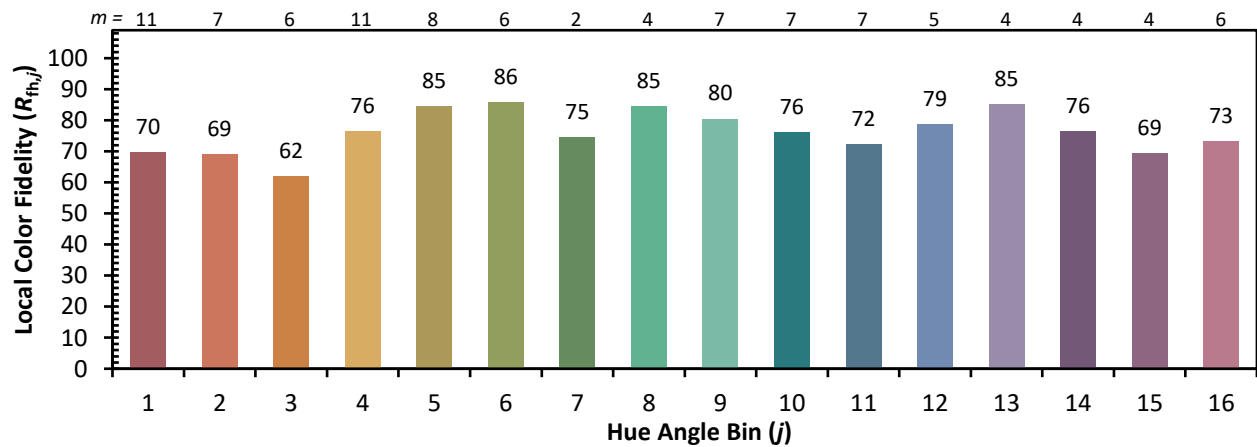
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 67 | CES51 = 87 | CES76 = 63 |
| CES02 = 63 | CES27 = 88 | CES52 = 86 | CES77 = 80 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 66 | CES54 = 84 | CES79 = 87 |
| CES05 = 49 | CES30 = 73 | CES55 = 84 | CES80 = 86 |
| CES06 = 51 | CES31 = 70 | CES56 = 75 | CES81 = 71 |
| CES07 = 41 | CES32 = 65 | CES57 = 74 | CES82 = 94 |
| CES08 = 40 | CES33 = 73 | CES58 = 76 | CES83 = 90 |
| CES09 = 29 | CES34 = 79 | CES59 = 85 | CES84 = 89 |
| CES10 = 76 | CES35 = 89 | CES60 = 93 | CES85 = 77 |
| CES11 = 59 | CES36 = 97 | CES61 = 84 | CES86 = 61 |
| CES12 = 65 | CES37 = 87 | CES62 = 91 | CES87 = 78 |
| CES13 = 43 | CES38 = 81 | CES63 = 77 | CES88 = 77 |
| CES14 = 74 | CES39 = 95 | CES64 = 72 | CES89 = 67 |
| CES15 = 71 | CES40 = 92 | CES65 = 68 | CES90 = 76 |
| CES16 = 47 | CES41 = 88 | CES66 = 69 | CES91 = 89 |
| CES17 = 50 | CES42 = 89 | CES67 = 67 | CES92 = 58 |
| CES18 = 56 | CES43 = 79 | CES68 = 72 | CES93 = 74 |
| CES19 = 73 | CES44 = 99 | CES69 = 81 | CES94 = 49 |
| CES20 = 66 | CES45 = 85 | CES70 = 66 | CES95 = 68 |
| CES21 = 87 | CES46 = 80 | CES71 = 67 | CES96 = 76 |
| CES22 = 79 | CES47 = 82 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 69 | CES73 = 59 | CES98 = 75 |
| CES24 = 91 | CES49 = 80 | CES74 = 95 | CES99 = 62 |
| CES25 = 73 | CES50 = 87 | CES75 = 69 |            |



REPORT NUMBER: SP1-1908-441-2-R4

**TM-30-18**

**Color Rendition by Hue-Angle Bin**



REPORT NUMBER: SP1-1908-441-2-R4

**TM-30-18**

**Measure Comparisons**



(END OF REPORT)