

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: P324436

Luminaire Tested: **GLEON-SA2B-730-U-SLR-HSS**

Issue Date: 3/3/2020

### Test Information

Test Method: LM-79-08  
Report Number: P324436  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: GLEON-SA2B-730-U-SLR-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT  
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 7894 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G2

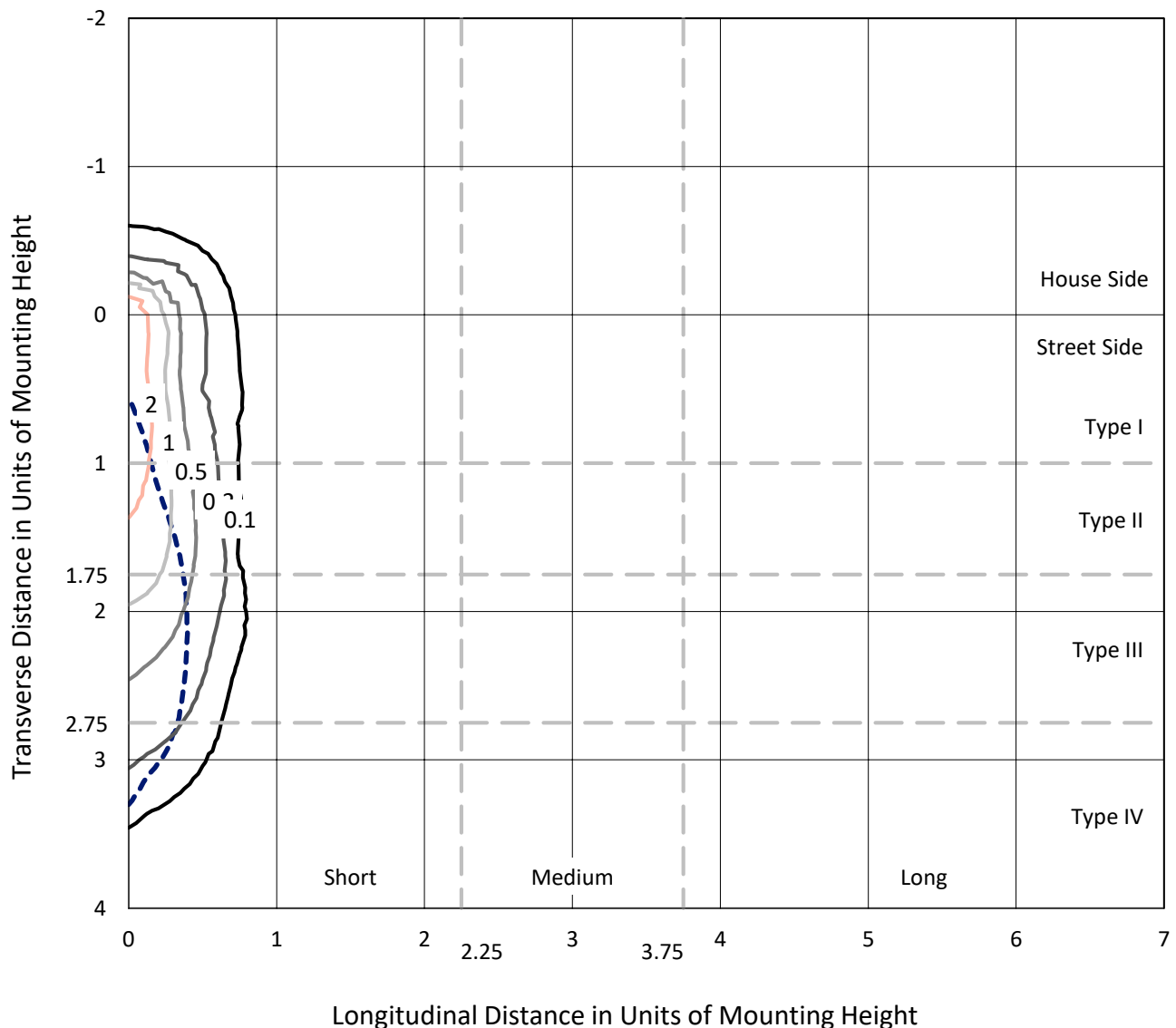
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

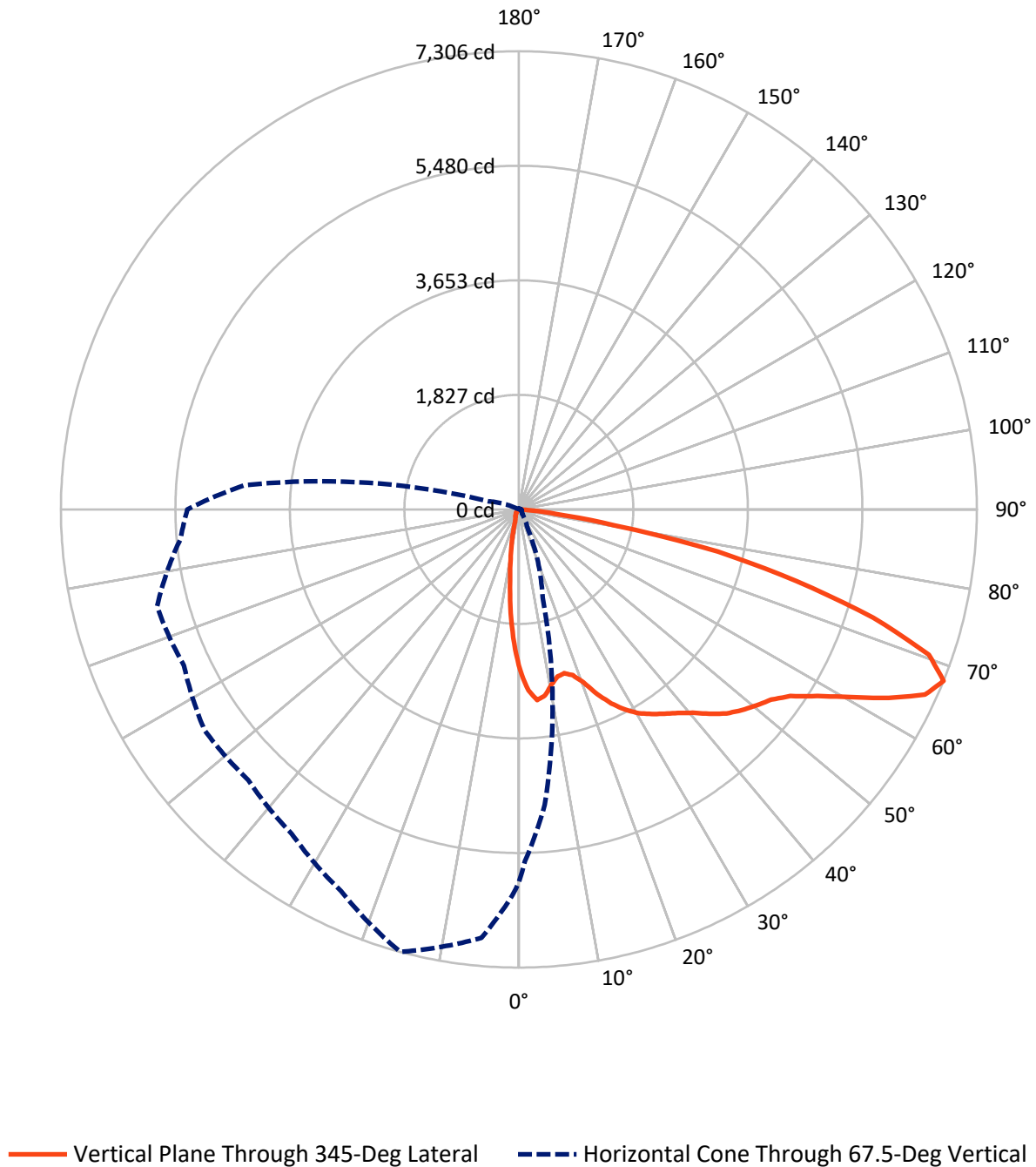
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type IV - Medium - N/A

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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 955.4    | 0.0    | 955.4  |
|                    | % Fixture | 12.1     | 0.0    | 12.1   |
| <b>Street Side</b> | Lumens    | 6938.6   | 0.0    | 6938.6 |
|                    | % Fixture | 87.9     | 0.0    | 87.9   |
| <b>Total</b>       | Lumens    | 7894.0   | 0.0    | 7894.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 197.4  | 2.5       |
| 10°-20°   | 392.8  | 5.0       |
| 20°-30°   | 557.8  | 7.1       |
| 30°-40°   | 823.9  | 10.4      |
| 40°-50°   | 1188.3 | 15.1      |
| 50°-60°   | 1668.1 | 21.1      |
| 60°-70°   | 1944.6 | 24.6      |
| 70°-80°   | 994.1  | 12.6      |
| 80°-90°   | 127.0  | 1.6       |
| 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°    | 7894.0 | 100.0     |
| 0°-180°   | 7894.0 | 100.0     |

**Coefficient of Utilization**



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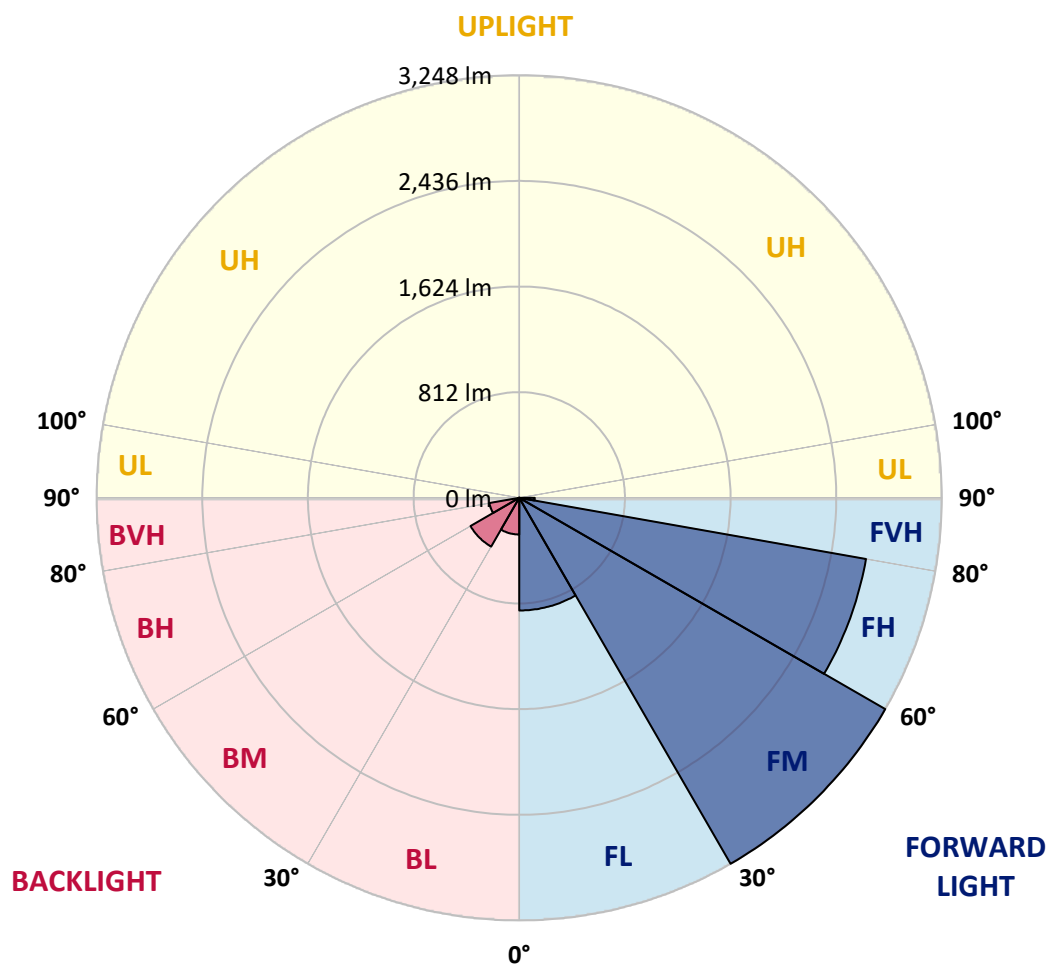
CATALOG NUMBER: GLEON-SA2B-730-U-SLR-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 865.8  | 11.0      |                         |      |         |
| FM   | (30°-60°)   | 3247.7 | 41.1      |                         |      |         |
| FH   | (60°-80°)   | 2705.8 | 34.3      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 119.2  | 1.5       |                         |      | G2/225  |
| BL   | (0°-30°)    | 282.2  | 3.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 432.7  | 5.5       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 232.9  | 2.9       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 7.7    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 1°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 |
| 2.5°  | 2815.7 | 2794.0 | 2770.0 | 2691.9 | 2619.3 | 2536.3 | 2468.6 | 2421.5 | 2362.4 | 2285.7 | 2266.3 |
| 5°    | 2795.5 | 2772.3 | 2697.1 | 2523.2 | 2371.0 | 2222.9 | 2080.1 | 1996.3 | 1892.3 | 1786.9 | 1760.7 |
| 7.5°  | 2592.4 | 2568.1 | 2459.6 | 2221.4 | 2016.5 | 1802.6 | 1617.1 | 1502.3 | 1384.8 | 1288.3 | 1237.1 |
| 10°   | 2381.1 | 2354.6 | 2232.6 | 1943.6 | 1691.1 | 1497.8 | 1361.6 | 1252.1 | 1141.0 | 1037.8 | 955.5  |
| 12.5° | 2235.6 | 2200.8 | 2068.5 | 1740.9 | 1521.0 | 1389.7 | 1262.5 | 1131.3 | 980.9  | 870.2  | 779.7  |
| 15°   | 2174.7 | 2135.0 | 1995.2 | 1662.7 | 1460.7 | 1306.7 | 1141.0 | 979.8  | 803.7  | 676.9  | 593.9  |
| 17.5° | 2221.8 | 2170.2 | 2020.2 | 1657.5 | 1385.2 | 1175.4 | 966.0  | 776.7  | 585.6  | 457.4  | 398.3  |
| 20°   | 2381.9 | 2314.2 | 2123.8 | 1656.0 | 1293.6 | 1019.5 | 753.9  | 540.0  | 385.9  | 310.4  | 279.4  |
| 22.5° | 2633.9 | 2544.5 | 2272.6 | 1667.9 | 1199.0 | 855.7  | 544.5  | 366.9  | 289.8  | 250.6  | 232.2  |
| 25°   | 2938.3 | 2834.7 | 2486.9 | 1710.2 | 1115.9 | 696.3  | 395.7  | 289.8  | 244.6  | 215.8  | 200.5  |
| 27.5° | 3227.8 | 3143.6 | 2757.7 | 1771.1 | 1051.6 | 567.7  | 321.2  | 245.7  | 209.1  | 190.0  | 177.6  |
| 30°   | 3516.9 | 3411.0 | 3035.6 | 1843.7 | 974.2  | 480.6  | 282.4  | 224.0  | 187.4  | 167.2  | 159.3  |
| 32.5° | 3727.0 | 3639.2 | 3253.2 | 1896.1 | 891.6  | 423.7  | 252.4  | 204.9  | 175.0  | 154.5  | 142.9  |
| 35°   | 3974.2 | 3874.8 | 3439.8 | 1907.6 | 838.5  | 387.8  | 227.0  | 184.4  | 151.8  | 133.5  | 121.2  |
| 37.5° | 4241.3 | 4117.5 | 3655.2 | 1882.2 | 796.9  | 370.2  | 207.9  | 175.0  | 141.7  | 123.0  | 109.9  |
| 40°   | 4536.7 | 4396.8 | 3862.0 | 1845.6 | 756.2  | 364.3  | 193.3  | 167.9  | 133.9  | 114.8  | 101.3  |
| 42.5° | 4847.8 | 4682.9 | 4041.2 | 1807.0 | 730.4  | 343.7  | 191.8  | 160.8  | 127.9  | 107.3  | 93.9   |
| 45°   | 5109.3 | 4942.1 | 4225.2 | 1794.3 | 712.0  | 321.2  | 198.2  | 155.9  | 123.8  | 101.3  | 88.3   |
| 47.5° | 5317.6 | 5159.4 | 4413.7 | 1822.8 | 701.6  | 300.7  | 180.6  | 162.3  | 121.5  | 96.1   | 83.4   |
| 50°   | 5566.3 | 5387.1 | 4679.2 | 1907.6 | 686.2  | 280.1  | 163.4  | 185.9  | 121.5  | 92.7   | 79.3   |
| 52.5° | 5878.1 | 5700.9 | 4975.4 | 2039.3 | 655.6  | 251.7  | 147.0  | 186.2  | 122.7  | 88.3   | 74.0   |
| 55°   | 6270.4 | 6141.8 | 5398.3 | 2183.6 | 606.6  | 209.8  | 127.2  | 160.1  | 118.2  | 80.0   | 69.2   |
| 57.5° | 6646.7 | 6541.6 | 5783.9 | 2282.4 | 541.1  | 163.8  | 110.7  | 129.0  | 108.1  | 70.3   | 61.7   |
| 59°   | 6749.5 | 6634.7 | 5925.3 | 2286.9 | 492.2  | 142.9  | 102.5  | 106.6  | 105.8  | 65.8   | 57.2   |
| 60°   | 6749.5 | 6627.6 | 5966.0 | 2262.9 | 456.6  | 131.3  | 97.2   | 95.0   | 110.3  | 62.8   | 54.6   |
| 62.5° | 6627.2 | 6455.9 | 5833.6 | 2101.0 | 372.5  | 111.8  | 84.9   | 78.5   | 99.1   | 56.5   | 48.2   |
| 65°   | 6372.9 | 6123.5 | 5382.6 | 1808.2 | 332.1  | 102.5  | 73.3   | 64.3   | 68.8   | 49.7   | 42.3   |
| 67.5° | 5948.8 | 5610.8 | 4732.3 | 1460.7 | 316.0  | 99.9   | 63.2   | 54.6   | 52.0   | 42.6   | 37.0   |
| 70°   | 5202.0 | 4826.9 | 3942.8 | 1148.5 | 302.2  | 98.7   | 53.1   | 46.0   | 41.9   | 35.9   | 31.4   |
| 72.5° | 3786.1 | 3395.0 | 2799.2 | 897.9  | 293.9  | 101.0  | 42.6   | 38.5   | 34.4   | 28.0   | 24.3   |
| 75°   | 2165.7 | 1909.5 | 1573.3 | 593.1  | 250.6  | 96.5   | 32.9   | 32.2   | 24.7   | 20.2   | 16.8   |
| 77.5° | 1118.9 | 1084.9 | 942.8  | 227.8  | 120.0  | 42.3   | 21.7   | 18.7   | 14.6   | 12.3   | 10.1   |
| 80°   | 482.8  | 477.6  | 413.2  | 65.8   | 31.8   | 23.6   | 12.3   | 7.9    | 6.7    | 5.2    | 4.1    |
| 82.5° | 166.8  | 166.8  | 147.0  | 22.1   | 14.2   | 11.6   | 1.5    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 33.7   | 37.8   | 26.6   | 0.0    | 4.9    | 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    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 |
| 2.5°  | 2242.7 | 2197.5 | 2194.5 | 2166.1 | 2130.5 | 2114.5 | 2105.1 | 2121.6 | 2141.8 | 2144.0 | 2174.3 |
| 5°    | 1740.9 | 1693.4 | 1713.2 | 1662.7 | 1672.8 | 1662.7 | 1646.2 | 1649.2 | 1658.2 | 1630.2 | 1664.9 |
| 7.5°  | 1222.5 | 1186.6 | 1209.4 | 1196.0 | 1213.9 | 1221.0 | 1210.9 | 1196.0 | 1151.8 | 1146.6 | 1176.9 |
| 10°   | 921.5  | 880.7  | 856.4  | 831.0  | 836.6  | 848.2  | 844.4  | 833.6  | 805.5  | 807.0  | 836.2  |
| 12.5° | 740.5  | 694.8  | 646.6  | 584.1  | 568.8  | 577.4  | 568.8  | 562.5  | 535.5  | 537.8  | 563.6  |
| 15°   | 561.7  | 524.3  | 473.8  | 423.7  | 396.4  | 399.0  | 375.1  | 358.3  | 341.4  | 321.2  | 337.0  |
| 17.5° | 379.2  | 356.4  | 341.4  | 326.5  | 293.9  | 286.5  | 256.2  | 223.6  | 210.9  | 201.6  | 208.3  |
| 20°   | 268.5  | 256.2  | 250.2  | 249.4  | 230.7  | 221.4  | 191.8  | 171.7  | 165.3  | 163.4  | 167.5  |
| 22.5° | 224.4  | 215.4  | 206.8  | 201.9  | 192.6  | 181.8  | 159.3  | 149.2  | 144.7  | 142.5  | 145.5  |
| 25°   | 195.2  | 188.5  | 179.5  | 171.3  | 167.5  | 155.9  | 139.9  | 132.4  | 129.4  | 127.2  | 128.6  |
| 27.5° | 173.5  | 167.5  | 157.1  | 151.8  | 148.8  | 138.7  | 124.9  | 118.9  | 116.3  | 115.6  | 115.2  |
| 30°   | 156.3  | 150.7  | 141.0  | 135.0  | 129.8  | 120.8  | 112.6  | 106.6  | 104.0  | 103.2  | 102.5  |
| 32.5° | 139.1  | 134.6  | 128.3  | 122.3  | 116.7  | 108.5  | 101.3  | 96.5   | 92.4   | 91.6   | 91.3   |
| 35°   | 117.4  | 112.9  | 109.6  | 109.2  | 104.0  | 96.1   | 90.9   | 84.5   | 81.2   | 80.0   | 80.4   |
| 37.5° | 104.3  | 98.4   | 90.9   | 93.5   | 92.0   | 86.4   | 79.3   | 72.9   | 69.6   | 68.8   | 68.8   |
| 40°   | 96.1   | 89.8   | 81.2   | 76.7   | 81.2   | 80.0   | 68.8   | 62.5   | 59.1   | 58.7   | 58.0   |
| 42.5° | 88.3   | 81.9   | 72.2   | 64.7   | 66.9   | 70.3   | 59.5   | 53.5   | 50.1   | 49.4   | 48.2   |
| 45°   | 82.6   | 75.9   | 65.1   | 56.5   | 52.0   | 59.1   | 50.9   | 43.4   | 41.5   | 40.0   | 39.3   |
| 47.5° | 77.4   | 71.1   | 58.7   | 49.0   | 41.5   | 42.6   | 40.8   | 35.5   | 33.3   | 31.8   | 31.4   |
| 50°   | 72.9   | 66.2   | 53.1   | 41.9   | 34.4   | 31.4   | 32.9   | 28.0   | 26.2   | 24.7   | 23.9   |
| 52.5° | 67.7   | 61.3   | 47.1   | 36.3   | 28.8   | 24.7   | 25.1   | 22.1   | 20.2   | 19.1   | 18.7   |
| 55°   | 63.6   | 57.2   | 42.3   | 31.8   | 25.4   | 20.2   | 18.0   | 17.2   | 16.1   | 15.3   | 15.0   |
| 57.5° | 58.0   | 52.0   | 37.4   | 26.9   | 21.7   | 16.5   | 13.8   | 13.8   | 13.5   | 12.7   | 12.3   |
| 59°   | 54.6   | 49.4   | 34.4   | 24.3   | 19.8   | 14.2   | 12.3   | 12.7   | 12.3   | 11.6   | 11.2   |
| 60°   | 52.0   | 47.1   | 32.2   | 22.4   | 18.7   | 13.1   | 11.2   | 12.0   | 11.6   | 10.8   | 10.5   |
| 62.5° | 46.0   | 42.6   | 27.7   | 18.7   | 16.5   | 10.5   | 9.3    | 10.1   | 10.1   | 9.7    | 9.3    |
| 65°   | 40.4   | 36.6   | 23.6   | 15.7   | 15.3   | 9.0    | 7.5    | 9.0    | 9.3    | 8.6    | 7.9    |
| 67.5° | 35.2   | 31.4   | 20.6   | 12.7   | 14.2   | 7.1    | 5.6    | 7.5    | 10.1   | 7.9    | 7.1    |
| 70°   | 29.9   | 26.2   | 16.1   | 10.1   | 15.0   | 4.9    | 4.5    | 6.7    | 12.0   | 8.6    | 6.7    |
| 72.5° | 23.2   | 20.2   | 11.2   | 7.5    | 16.1   | 3.4    | 3.4    | 5.6    | 13.5   | 9.3    | 6.4    |
| 75°   | 16.1   | 13.1   | 6.7    | 4.5    | 13.1   | 2.2    | 2.2    | 5.2    | 12.7   | 8.6    | 6.0    |
| 77.5° | 9.3    | 7.1    | 2.2    | 0.4    | 6.7    | 0.0    | 0.4    | 3.7    | 9.0    | 5.2    | 2.6    |
| 80°   | 3.4    | 1.5    | 0.0    | 0.0    | 4.1    | 0.0    | 0.0    | 0.0    | 0.7    | 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    |



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**CANDELA DISTRIBUTION (continued):**

|       | 185°   | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 |
| 2.5°  | 2182.1 | 2232.6 | 2277.9 | 2346.3 | 2427.5 | 2521.0 | 2601.4 | 2687.8 | 2768.9 | 2802.6 | 2825.8 |
| 5°    | 1672.0 | 1734.5 | 1807.4 | 1908.0 | 2041.9 | 2206.8 | 2361.3 | 2535.9 | 2723.7 | 2817.5 | 2905.8 |
| 7.5°  | 1182.1 | 1245.7 | 1336.2 | 1443.2 | 1605.1 | 1801.4 | 2003.4 | 2244.6 | 2498.9 | 2647.4 | 2793.6 |
| 10°   | 850.0  | 928.2  | 1012.7 | 1159.0 | 1323.5 | 1509.7 | 1717.7 | 1986.9 | 2270.4 | 2435.0 | 2611.1 |
| 12.5° | 578.5  | 667.5  | 795.4  | 959.2  | 1152.6 | 1335.1 | 1515.7 | 1772.6 | 2101.7 | 2264.8 | 2453.7 |
| 15°   | 347.0  | 396.4  | 531.8  | 721.4  | 958.5  | 1185.9 | 1383.7 | 1641.4 | 1992.2 | 2191.9 | 2388.2 |
| 17.5° | 213.9  | 236.7  | 310.4  | 466.0  | 715.0  | 1002.6 | 1273.8 | 1596.9 | 2007.9 | 2251.0 | 2461.1 |
| 20°   | 170.5  | 179.5  | 203.1  | 275.2  | 473.8  | 800.7  | 1150.0 | 1587.9 | 2136.1 | 2435.3 | 2660.8 |
| 22.5° | 148.1  | 156.7  | 172.4  | 200.1  | 298.1  | 599.5  | 1032.5 | 1596.1 | 2320.1 | 2711.7 | 2975.0 |
| 25°   | 130.5  | 138.0  | 153.0  | 175.8  | 218.4  | 422.2  | 906.9  | 1632.8 | 2559.9 | 3054.6 | 3334.4 |
| 27.5° | 116.7  | 123.0  | 136.9  | 157.8  | 187.4  | 294.7  | 764.4  | 1677.3 | 2844.1 | 3405.4 | 3681.4 |
| 30°   | 104.0  | 109.6  | 121.9  | 141.4  | 162.7  | 226.6  | 608.1  | 1707.6 | 3128.7 | 3681.4 | 3929.4 |
| 32.5° | 93.1   | 97.2   | 108.5  | 124.9  | 141.4  | 180.6  | 462.2  | 1702.7 | 3340.0 | 3911.0 | 4107.7 |
| 35°   | 81.9   | 86.0   | 95.7   | 109.9  | 123.0  | 149.2  | 363.5  | 1611.8 | 3524.0 | 4149.3 | 4311.9 |
| 37.5° | 69.6   | 74.8   | 84.1   | 96.9   | 105.8  | 131.3  | 293.9  | 1502.3 | 3710.6 | 4421.5 | 4539.7 |
| 40°   | 59.1   | 64.3   | 72.6   | 86.4   | 92.0   | 124.5  | 225.9  | 1368.8 | 3920.4 | 4725.9 | 4789.5 |
| 42.5° | 49.0   | 53.9   | 62.5   | 74.4   | 86.8   | 107.3  | 167.2  | 1216.2 | 4122.0 | 4986.2 | 5017.3 |
| 45°   | 39.6   | 44.5   | 53.5   | 65.4   | 92.7   | 89.0   | 129.4  | 1052.7 | 4284.6 | 5202.7 | 5212.8 |
| 47.5° | 31.4   | 35.9   | 45.3   | 61.7   | 86.4   | 71.1   | 92.4   | 924.5  | 4421.1 | 5371.8 | 5345.2 |
| 50°   | 24.3   | 28.0   | 37.8   | 70.7   | 75.5   | 58.7   | 69.9   | 881.8  | 4543.4 | 5476.5 | 5407.7 |
| 52.5° | 19.1   | 22.4   | 31.0   | 66.2   | 58.7   | 48.6   | 58.7   | 921.8  | 4711.0 | 5563.3 | 5442.8 |
| 55°   | 15.3   | 18.7   | 24.3   | 37.8   | 40.0   | 41.1   | 50.1   | 959.2  | 5000.1 | 5766.7 | 5650.4 |
| 57.5° | 12.7   | 16.1   | 19.8   | 26.6   | 30.3   | 34.8   | 44.5   | 963.4  | 5340.7 | 6104.8 | 5994.8 |
| 59°   | 11.6   | 14.6   | 18.0   | 23.6   | 26.6   | 31.8   | 41.9   | 940.9  | 5460.8 | 6227.8 | 6172.8 |
| 60°   | 10.8   | 13.8   | 16.8   | 21.7   | 24.7   | 29.9   | 40.4   | 919.6  | 5466.0 | 6223.3 | 6248.8 |
| 62.5° | 9.3    | 12.3   | 15.0   | 18.3   | 20.9   | 25.4   | 36.3   | 840.7  | 5244.6 | 6019.5 | 6203.1 |
| 65°   | 8.2    | 10.8   | 13.5   | 15.7   | 18.0   | 22.8   | 32.9   | 696.7  | 4866.5 | 5690.8 | 5890.9 |
| 67.5° | 7.5    | 9.3    | 12.3   | 13.8   | 16.1   | 20.2   | 29.2   | 496.6  | 4394.2 | 5288.8 | 5418.5 |
| 70°   | 6.7    | 9.0    | 11.2   | 12.7   | 14.6   | 17.6   | 25.1   | 285.3  | 3710.6 | 4700.1 | 4792.5 |
| 72.5° | 6.4    | 8.6    | 10.1   | 12.0   | 13.1   | 15.7   | 22.8   | 134.3  | 2716.9 | 3765.2 | 4006.4 |
| 75°   | 5.6    | 7.9    | 9.3    | 11.2   | 12.3   | 14.2   | 19.4   | 64.3   | 1807.0 | 2724.8 | 2998.9 |
| 77.5° | 3.4    | 6.4    | 8.6    | 10.1   | 10.8   | 12.3   | 16.1   | 37.0   | 1153.3 | 1886.0 | 2221.4 |
| 80°   | 0.0    | 2.2    | 6.4    | 8.6    | 9.3    | 10.5   | 12.3   | 29.2   | 617.1  | 1077.4 | 1293.2 |
| 82.5° | 0.0    | 0.0    | 4.5    | 6.7    | 6.4    | 7.1    | 9.3    | 18.3   | 278.2  | 704.2  | 793.6  |
| 85°   | 0.0    | 0.0    | 1.5    | 5.2    | 4.5    | 3.4    | 6.4    | 6.4    | 61.0   | 356.4  | 444.7  |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.4    | 2.2    | 1.5    | 2.6    | 0.7    | 0.4    | 26.6   | 107.7  |
| 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: P324436

CATALOG NUMBER: GLEON-SA2B-730-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°   | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 359°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 | 2571.5 |
| 2.5°  | 2906.9 | 2934.6 | 2981.3 | 3003.4 | 2992.6 | 2946.6 | 2891.6 | 2835.5 | 2802.6 | 2815.7 |
| 5°    | 3085.7 | 3228.2 | 3310.4 | 3337.7 | 3292.1 | 3188.9 | 3053.9 | 2875.9 | 2812.7 | 2795.5 |
| 7.5°  | 3085.7 | 3353.8 | 3523.6 | 3553.5 | 3451.8 | 3249.5 | 2996.3 | 2718.4 | 2626.1 | 2592.4 |
| 10°   | 2977.2 | 3342.2 | 3578.9 | 3626.4 | 3484.3 | 3181.8 | 2842.6 | 2525.5 | 2415.9 | 2381.1 |
| 12.5° | 2854.9 | 3248.0 | 3497.4 | 3562.9 | 3446.2 | 3114.5 | 2736.0 | 2394.9 | 2265.9 | 2235.6 |
| 15°   | 2779.8 | 3132.0 | 3338.5 | 3386.0 | 3336.6 | 3075.2 | 2710.6 | 2355.7 | 2203.8 | 2174.7 |
| 17.5° | 2806.7 | 3042.3 | 3116.7 | 3144.4 | 3177.7 | 3061.4 | 2779.8 | 2441.7 | 2249.5 | 2221.8 |
| 20°   | 2908.0 | 2947.7 | 2909.2 | 2943.9 | 3033.7 | 3074.8 | 2944.7 | 2649.6 | 2418.9 | 2381.9 |
| 22.5° | 3080.1 | 2898.7 | 2790.6 | 2804.4 | 2913.6 | 3119.3 | 3196.7 | 2946.6 | 2680.3 | 2633.9 |
| 25°   | 3280.5 | 2938.3 | 2724.8 | 2712.4 | 2824.6 | 3178.0 | 3427.1 | 3269.7 | 2989.6 | 2938.3 |
| 27.5° | 3532.6 | 3027.3 | 2711.3 | 2699.0 | 2793.6 | 3233.0 | 3618.6 | 3589.0 | 3315.3 | 3227.8 |
| 30°   | 3727.0 | 3114.8 | 2751.3 | 2722.9 | 2824.6 | 3271.2 | 3772.3 | 3860.2 | 3574.8 | 3516.9 |
| 32.5° | 3866.5 | 3218.1 | 2816.4 | 2775.3 | 2912.1 | 3337.0 | 3890.8 | 4108.5 | 3814.9 | 3727.0 |
| 35°   | 3972.7 | 3330.3 | 2921.5 | 2853.8 | 3032.6 | 3436.8 | 4001.9 | 4372.9 | 4070.3 | 3974.2 |
| 37.5° | 4072.2 | 3487.7 | 3085.7 | 3004.9 | 3221.4 | 3597.6 | 4119.3 | 4672.8 | 4356.1 | 4241.3 |
| 40°   | 4211.0 | 3666.1 | 3338.9 | 3267.1 | 3538.9 | 3816.8 | 4265.9 | 4985.5 | 4681.1 | 4536.7 |
| 42.5° | 4349.7 | 3857.6 | 3598.0 | 3617.5 | 3935.0 | 4083.1 | 4455.2 | 5316.1 | 5001.9 | 4847.8 |
| 45°   | 4476.5 | 4055.0 | 3967.1 | 4056.9 | 4302.6 | 4375.1 | 4643.3 | 5507.2 | 5258.1 | 5109.3 |
| 47.5° | 4589.4 | 4301.8 | 4334.0 | 4573.0 | 4720.7 | 4639.5 | 4783.9 | 5672.1 | 5448.8 | 5317.6 |
| 50°   | 4720.7 | 4621.2 | 4817.6 | 5155.6 | 5202.0 | 4878.9 | 4911.8 | 5867.3 | 5671.7 | 5566.3 |
| 52.5° | 4864.3 | 4957.8 | 5353.1 | 5651.1 | 5636.2 | 5138.8 | 5040.4 | 6086.1 | 5977.3 | 5878.1 |
| 55°   | 5027.4 | 5229.7 | 5824.7 | 6114.9 | 6102.2 | 5429.0 | 5253.6 | 6356.5 | 6360.2 | 6270.4 |
| 57.5° | 5269.3 | 5463.8 | 6144.8 | 6490.0 | 6511.3 | 5764.1 | 5614.9 | 6659.4 | 6706.5 | 6646.7 |
| 59°   | 5442.8 | 5615.6 | 6271.6 | 6646.7 | 6733.4 | 6023.3 | 5878.9 | 6835.2 | 6804.1 | 6749.5 |
| 60°   | 5571.5 | 5712.1 | 6334.4 | 6728.6 | 6862.5 | 6199.0 | 6073.7 | 6938.4 | 6815.7 | 6749.5 |
| 62.5° | 5889.7 | 5922.3 | 6447.7 | 6821.3 | 7010.9 | 6589.4 | 6622.0 | 7114.1 | 6735.3 | 6627.2 |
| 65°   | 6038.2 | 6055.0 | 6446.2 | 6655.3 | 6867.3 | 6893.5 | 7119.4 | 7119.4 | 6539.0 | 6372.9 |
| 67.5° | 5976.1 | 5895.0 | 6126.5 | 6104.8 | 6316.4 | 6712.9 | 7306.4 | 6858.3 | 6163.5 | 5948.8 |
| 70°   | 5471.3 | 5159.0 | 5056.1 | 5065.5 | 5227.4 | 5838.9 | 6936.1 | 6090.2 | 5452.9 | 5202.0 |
| 72.5° | 4552.4 | 3803.3 | 3549.4 | 3839.2 | 3881.5 | 4487.3 | 5911.1 | 4586.4 | 4021.4 | 3786.1 |
| 75°   | 3661.6 | 2681.0 | 2268.2 | 2574.1 | 2645.9 | 3283.9 | 4572.6 | 2856.4 | 2348.9 | 2165.7 |
| 77.5° | 2630.5 | 1924.5 | 1627.5 | 1606.2 | 1699.0 | 2082.7 | 3244.6 | 1437.6 | 1199.0 | 1118.9 |
| 80°   | 1494.4 | 1266.7 | 1363.9 | 1286.8 | 1333.6 | 1302.2 | 1541.5 | 630.5  | 516.5  | 482.8  |
| 82.5° | 902.0  | 748.7  | 810.8  | 675.0  | 854.2  | 743.8  | 593.9  | 201.9  | 175.4  | 166.8  |
| 85°   | 586.8  | 409.1  | 213.2  | 142.9  | 294.3  | 475.3  | 132.8  | 55.0   | 42.3   | 33.7   |
| 87.5° | 202.3  | 104.3  | 10.5   | 4.5    | 31.4   | 88.6   | 4.9    | 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    |

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 .

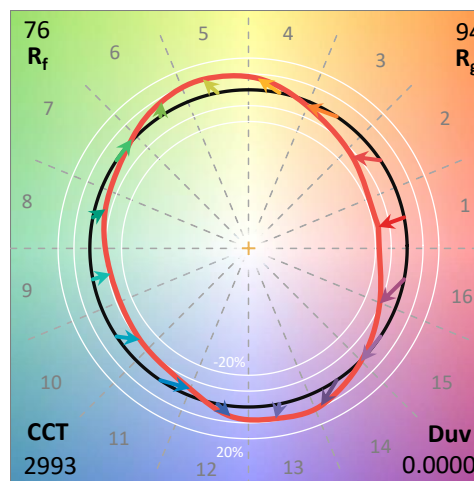
### Test Information

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

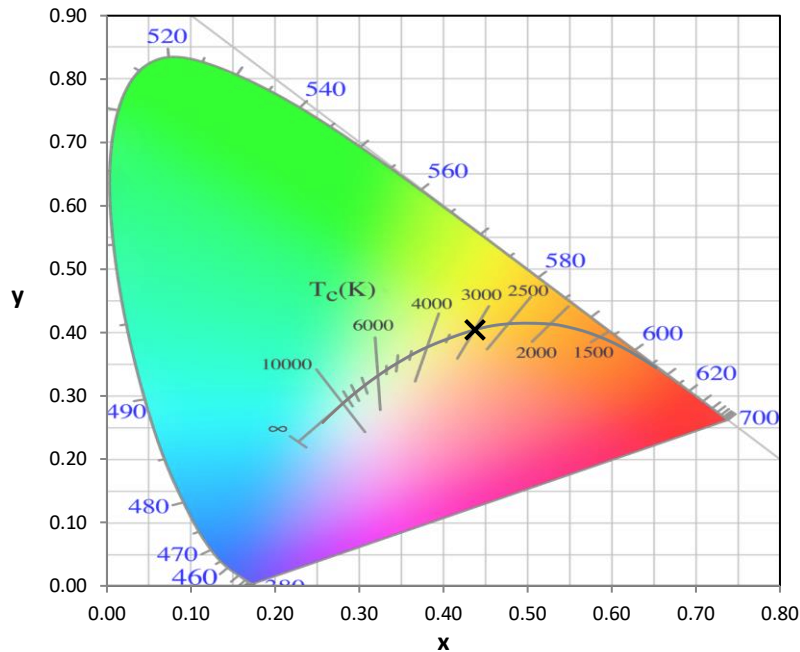
Stabilization Time: 53M  
Operation Time: 12H  
Room Temperature (°C) / RH%: 25.0./44%  
Sphere Temperature (°C): 25.7

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               |           |                  |                  |

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**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               |           |                  |                  |

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**Summary**

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



**Color Vector Graphics**



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**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 |            |



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**Color Rendition by Hue-Angle Bin**



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**Measure Comparisons**



(END OF REPORT)