

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: P324579

Luminaire Tested: **GLEON-SA5D-760-U-SLR-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P324579  
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-SA5D-760-U-SLR-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5700K, 1200mA 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: 28747 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

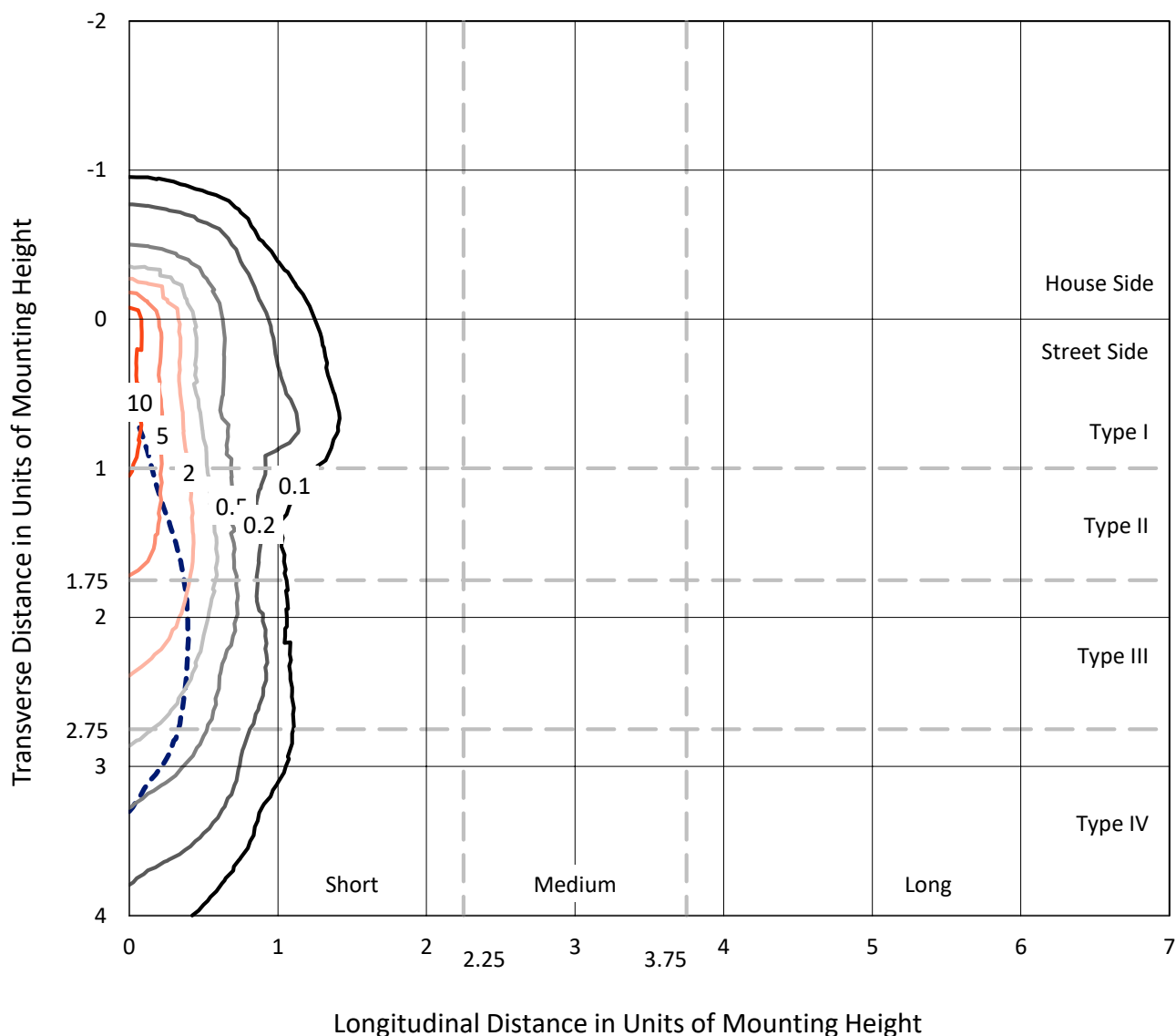
Input Watts (W): 320  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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 CATALOG NUMBER: GLEON-SA5D-760-U-SLR-HSS

## Iso-Footcandle Lines of Horizontal Illumination

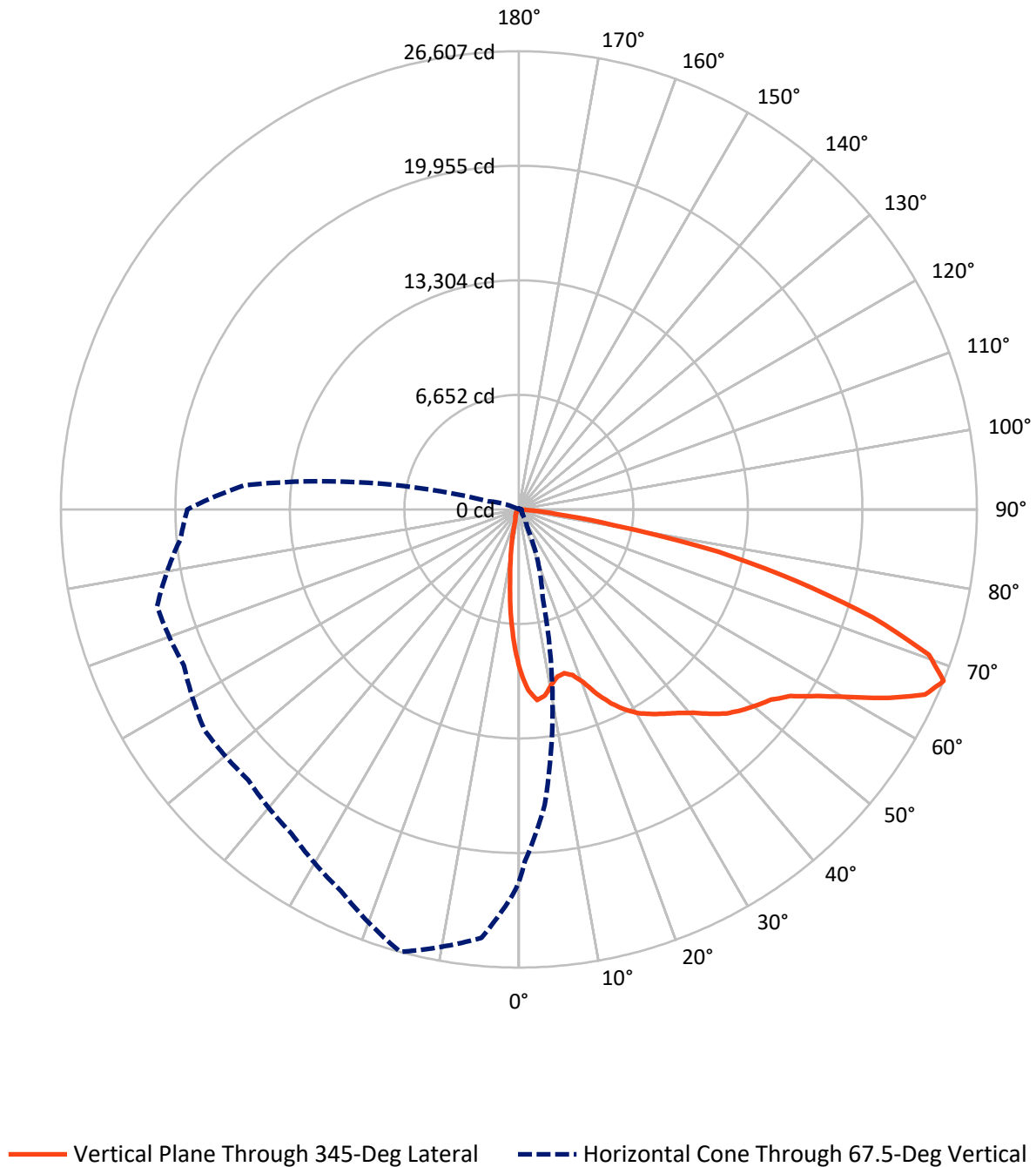
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15 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    | 3479.3   | 0.0    | 3479.3  |
|                    | % Fixture | 12.1     | 0.0    | 12.1    |
| <b>Street Side</b> | Lumens    | 25267.7  | 0.0    | 25267.7 |
|                    | % Fixture | 87.9     | 0.0    | 87.9    |
| <b>Total</b>       | Lumens    | 28747.0  | 0.0    | 28747.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 718.7   | 2.5       |
| 10°-20°   | 1430.6  | 5.0       |
| 20°-30°   | 2031.4  | 7.1       |
| 30°-40°   | 3000.5  | 10.4      |
| 40°-50°   | 4327.4  | 15.1      |
| 50°-60°   | 6074.7  | 21.1      |
| 60°-70°   | 7081.3  | 24.6      |
| 70°-80°   | 3620.1  | 12.6      |
| 80°-90°   | 462.3   | 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°    | 28747.0 | 100.0     |
| 0°-180°   | 28747.0 | 100.0     |

**Coefficient of Utilization**



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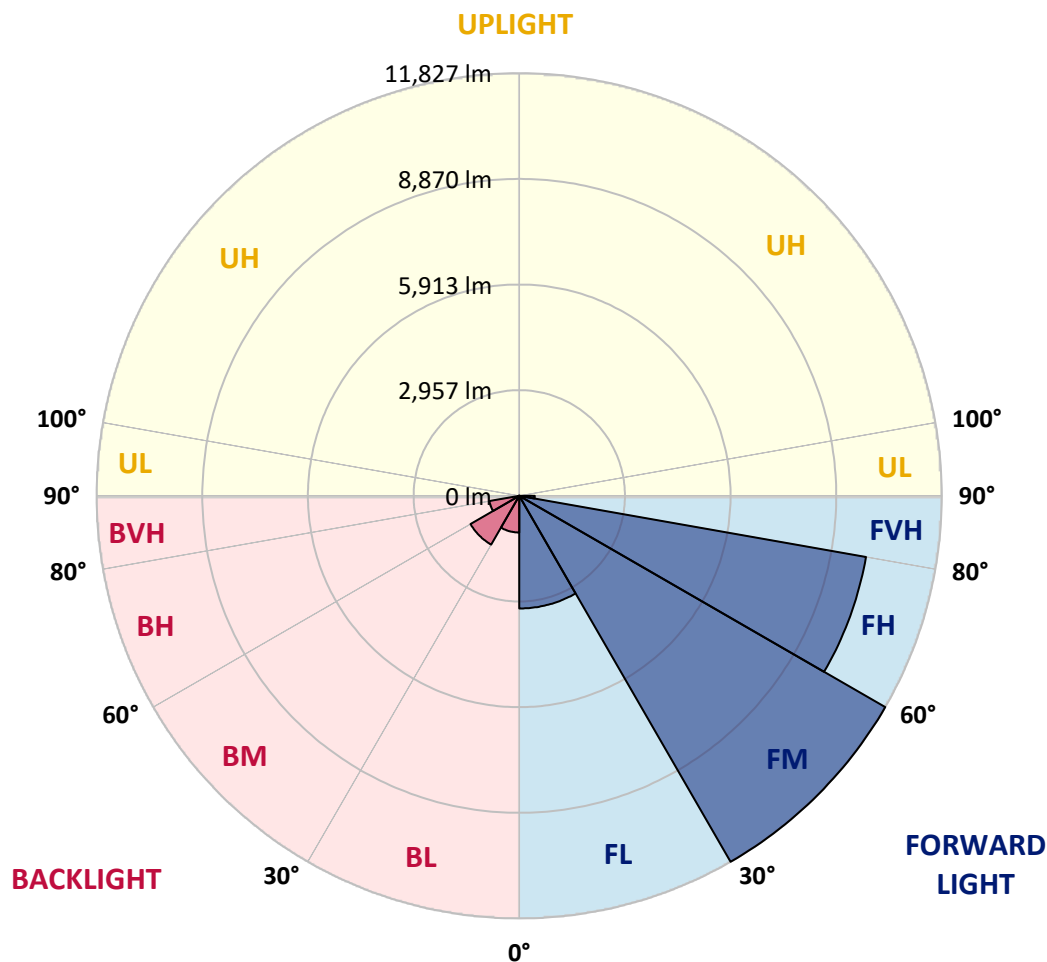
CATALOG NUMBER: GLEON-SA5D-760-U-SLR-HSS

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 3153.0  | 11.0      |                         |      |          |
| FM   | (30°-60°)   | 11827.0 | 41.1      |                         |      |          |
| FH   | (60°-80°)   | 9853.5  | 34.3      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 434.2   | 1.5       |                         |      | G3/500   |
| BL   | (0°-30°)    | 1027.7  | 3.6       | B3/2500                 |      |          |
| BM   | (30°-60°)   | 1575.6  | 5.5       | B2/2500                 |      |          |
| BH   | (60°-80°)   | 848.0   | 2.9       | B2/1000                 |      | G2/1000  |
| BVH  | (80°-90°)   | 28.1    | 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 IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 1°      | 5°      | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 9364.3  | 9364.3  | 9364.3  | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 |
| 2.5°  | 10253.6 | 10174.6 | 10087.4 | 9802.8 | 9538.6 | 9236.3 | 8989.8 | 8818.2 | 8603.0 | 8323.8 | 8253.0 |
| 5°    | 10180.0 | 10095.6 | 9821.9  | 9188.6 | 8634.3 | 8095.0 | 7574.8 | 7269.7 | 6891.1 | 6507.1 | 6411.7 |
| 7.5°  | 9440.5  | 9352.0  | 8957.1  | 8089.6 | 7343.3 | 6564.3 | 5888.8 | 5470.7 | 5043.0 | 4691.7 | 4505.1 |
| 10°   | 8671.1  | 8574.4  | 8130.4  | 7077.7 | 6158.4 | 5454.3 | 4958.6 | 4559.6 | 4155.1 | 3779.2 | 3479.6 |
| 12.5° | 8141.3  | 8014.7  | 7532.6  | 6339.5 | 5538.8 | 5060.7 | 4597.7 | 4119.7 | 3572.2 | 3169.1 | 2839.5 |
| 15°   | 7919.3  | 7775.0  | 7265.6  | 6054.9 | 5319.5 | 4758.4 | 4155.1 | 3568.1 | 2926.7 | 2465.0 | 2162.7 |
| 17.5° | 8090.9  | 7903.0  | 7356.9  | 6035.8 | 5044.4 | 4280.4 | 3517.7 | 2828.6 | 2132.7 | 1665.6 | 1450.4 |
| 20°   | 8673.8  | 8427.3  | 7734.1  | 6030.4 | 4710.7 | 3712.5 | 2745.5 | 1966.6 | 1405.5 | 1130.4 | 1017.3 |
| 22.5° | 9591.7  | 9266.2  | 8276.1  | 6074.0 | 4366.2 | 3116.0 | 1982.9 | 1336.0 | 1055.5 | 912.5  | 845.7  |
| 25°   | 10700.3 | 10323.0 | 9056.5  | 6227.9 | 4063.8 | 2535.8 | 1440.9 | 1055.5 | 890.7  | 785.8  | 730.0  |
| 27.5° | 11754.4 | 11448.0 | 10042.5 | 6449.9 | 3829.6 | 2067.3 | 1169.9 | 894.8  | 761.3  | 691.8  | 646.9  |
| 30°   | 12807.1 | 12421.7 | 11054.4 | 6714.1 | 3547.7 | 1750.0 | 1028.2 | 815.8  | 682.3  | 608.8  | 580.2  |
| 32.5° | 13572.5 | 13252.4 | 11847.0 | 6904.7 | 3246.7 | 1543.0 | 919.3  | 746.3  | 637.4  | 562.5  | 520.2  |
| 35°   | 14472.7 | 14110.4 | 12526.6 | 6946.9 | 3053.3 | 1412.3 | 826.7  | 671.4  | 552.9  | 486.2  | 441.2  |
| 37.5° | 15445.1 | 14994.3 | 13311.0 | 6854.3 | 2902.2 | 1348.3 | 757.2  | 637.4  | 516.2  | 448.1  | 400.4  |
| 40°   | 16521.0 | 16011.6 | 14064.1 | 6720.9 | 2753.7 | 1326.5 | 704.1  | 611.5  | 487.6  | 418.1  | 369.1  |
| 42.5° | 17654.0 | 17053.5 | 14716.5 | 6580.6 | 2659.8 | 1251.6 | 698.6  | 585.6  | 465.8  | 390.9  | 341.8  |
| 45°   | 18606.0 | 17997.2 | 15386.5 | 6534.3 | 2593.0 | 1169.9 | 721.8  | 567.9  | 450.8  | 369.1  | 321.4  |
| 47.5° | 19364.6 | 18788.5 | 16072.9 | 6637.8 | 2554.9 | 1095.0 | 657.8  | 591.1  | 442.6  | 350.0  | 303.7  |
| 50°   | 20270.2 | 19617.9 | 17039.8 | 6946.9 | 2499.0 | 1020.0 | 595.1  | 676.9  | 442.6  | 337.7  | 288.7  |
| 52.5° | 21406.0 | 20760.5 | 18118.4 | 7426.3 | 2387.4 | 916.5  | 535.2  | 678.2  | 446.7  | 321.4  | 269.7  |
| 55°   | 22834.6 | 22366.1 | 19658.7 | 7952.0 | 2209.0 | 764.0  | 463.0  | 582.9  | 430.4  | 291.4  | 251.9  |
| 57.5° | 24204.7 | 23822.0 | 21062.8 | 8311.5 | 1970.6 | 596.5  | 403.1  | 469.8  | 393.6  | 256.0  | 224.7  |
| 59°   | 24579.2 | 24161.1 | 21577.6 | 8327.9 | 1792.2 | 520.2  | 373.2  | 388.1  | 385.4  | 239.7  | 208.4  |
| 60°   | 24579.2 | 24135.2 | 21726.1 | 8240.7 | 1662.9 | 478.0  | 354.1  | 345.9  | 401.8  | 228.8  | 198.8  |
| 62.5° | 24133.9 | 23510.1 | 21244.0 | 7651.0 | 1356.4 | 407.2  | 309.1  | 286.0  | 360.9  | 205.6  | 175.7  |
| 65°   | 23207.8 | 22299.4 | 19601.5 | 6584.7 | 1209.3 | 373.2  | 266.9  | 234.2  | 250.6  | 181.1  | 153.9  |
| 67.5° | 21663.4 | 20432.3 | 17233.2 | 5319.5 | 1150.8 | 363.6  | 230.2  | 198.8  | 189.3  | 155.3  | 134.8  |
| 70°   | 18943.7 | 17577.8 | 14358.3 | 4182.3 | 1100.4 | 359.5  | 193.4  | 167.5  | 152.5  | 130.7  | 114.4  |
| 72.5° | 13787.7 | 12363.1 | 10193.7 | 3269.9 | 1070.4 | 367.7  | 155.3  | 140.3  | 125.3  | 102.1  | 88.5   |
| 75°   | 7886.6  | 6953.8  | 5729.4  | 2159.9 | 912.5  | 351.4  | 119.8  | 117.1  | 89.9   | 73.5   | 61.3   |
| 77.5° | 4074.7  | 3950.8  | 3433.3  | 829.4  | 437.2  | 153.9  | 79.0   | 68.1   | 53.1   | 44.9   | 36.8   |
| 80°   | 1758.2  | 1739.1  | 1504.9  | 239.7  | 115.8  | 85.8   | 44.9   | 28.6   | 24.5   | 19.1   | 15.0   |
| 82.5° | 607.4   | 607.4   | 535.2   | 80.4   | 51.8   | 42.2   | 5.4    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 122.6   | 137.5   | 96.7    | 0.0    | 17.7   | 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°    | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 |
| 2.5°  | 8167.2 | 8002.4 | 7991.5 | 7888.0 | 7758.6 | 7700.1 | 7666.0 | 7725.9 | 7799.5 | 7807.7 | 7918.0 |
| 5°    | 6339.5 | 6166.6 | 6238.8 | 6054.9 | 6091.7 | 6054.9 | 5995.0 | 6005.9 | 6038.6 | 5936.4 | 6063.1 |
| 7.5°  | 4452.0 | 4321.2 | 4404.3 | 4355.3 | 4420.7 | 4446.5 | 4409.8 | 4355.3 | 4194.6 | 4175.5 | 4285.8 |
| 10°   | 3355.7 | 3207.2 | 3118.7 | 3026.1 | 3046.5 | 3088.7 | 3075.1 | 3035.6 | 2933.5 | 2938.9 | 3045.2 |
| 12.5° | 2696.5 | 2530.4 | 2354.7 | 2127.3 | 2071.4 | 2102.7 | 2071.4 | 2048.3 | 1950.2 | 1958.4 | 2052.4 |
| 15°   | 2045.5 | 1909.4 | 1725.5 | 1543.0 | 1443.6 | 1453.1 | 1366.0 | 1304.7 | 1243.4 | 1169.9 | 1227.1 |
| 17.5° | 1380.9 | 1297.9 | 1243.4 | 1188.9 | 1070.4 | 1043.2 | 932.9  | 814.4  | 768.1  | 734.1  | 758.6  |
| 20°   | 977.8  | 932.9  | 911.1  | 908.4  | 840.3  | 806.2  | 698.6  | 625.1  | 602.0  | 595.1  | 610.1  |
| 22.5° | 817.1  | 784.4  | 753.1  | 735.4  | 701.4  | 661.9  | 580.2  | 543.4  | 527.0  | 518.9  | 529.8  |
| 25°   | 710.9  | 686.4  | 653.7  | 623.7  | 610.1  | 567.9  | 509.3  | 482.1  | 471.2  | 463.0  | 468.5  |
| 27.5° | 631.9  | 610.1  | 572.0  | 552.9  | 542.0  | 505.3  | 454.9  | 433.1  | 423.5  | 420.8  | 419.5  |
| 30°   | 569.3  | 548.8  | 513.4  | 491.6  | 472.6  | 439.9  | 409.9  | 388.1  | 378.6  | 375.9  | 373.2  |
| 32.5° | 506.6  | 490.3  | 467.1  | 445.3  | 424.9  | 394.9  | 369.1  | 351.4  | 336.4  | 333.7  | 332.3  |
| 35°   | 427.6  | 411.3  | 399.0  | 397.7  | 378.6  | 350.0  | 330.9  | 307.8  | 295.5  | 291.4  | 292.8  |
| 37.5° | 380.0  | 358.2  | 330.9  | 340.5  | 335.0  | 314.6  | 288.7  | 265.6  | 253.3  | 250.6  | 250.6  |
| 40°   | 350.0  | 326.9  | 295.5  | 279.2  | 295.5  | 291.4  | 250.6  | 227.4  | 215.2  | 213.8  | 211.1  |
| 42.5° | 321.4  | 298.3  | 262.8  | 235.6  | 243.8  | 256.0  | 216.5  | 194.7  | 182.5  | 179.8  | 175.7  |
| 45°   | 301.0  | 276.5  | 237.0  | 205.6  | 189.3  | 215.2  | 185.2  | 158.0  | 151.2  | 145.7  | 143.0  |
| 47.5° | 281.9  | 258.8  | 213.8  | 178.4  | 151.2  | 155.3  | 148.4  | 129.4  | 121.2  | 115.8  | 114.4  |
| 50°   | 265.6  | 241.1  | 193.4  | 152.5  | 125.3  | 114.4  | 119.8  | 102.1  | 95.3   | 89.9   | 87.2   |
| 52.5° | 246.5  | 223.3  | 171.6  | 132.1  | 104.9  | 89.9   | 91.2   | 80.4   | 73.5   | 69.5   | 68.1   |
| 55°   | 231.5  | 208.4  | 153.9  | 115.8  | 92.6   | 73.5   | 65.4   | 62.6   | 58.6   | 55.8   | 54.5   |
| 57.5° | 211.1  | 189.3  | 136.2  | 98.1   | 79.0   | 59.9   | 50.4   | 50.4   | 49.0   | 46.3   | 44.9   |
| 59°   | 198.8  | 179.8  | 125.3  | 88.5   | 72.2   | 51.8   | 44.9   | 46.3   | 44.9   | 42.2   | 40.9   |
| 60°   | 189.3  | 171.6  | 117.1  | 81.7   | 68.1   | 47.7   | 40.9   | 43.6   | 42.2   | 39.5   | 38.1   |
| 62.5° | 167.5  | 155.3  | 100.8  | 68.1   | 59.9   | 38.1   | 34.0   | 36.8   | 36.8   | 35.4   | 34.0   |
| 65°   | 147.1  | 133.5  | 85.8   | 57.2   | 55.8   | 32.7   | 27.2   | 32.7   | 34.0   | 31.3   | 28.6   |
| 67.5° | 128.0  | 114.4  | 74.9   | 46.3   | 51.8   | 25.9   | 20.4   | 27.2   | 36.8   | 28.6   | 25.9   |
| 70°   | 109.0  | 95.3   | 58.6   | 36.8   | 54.5   | 17.7   | 16.3   | 24.5   | 43.6   | 31.3   | 24.5   |
| 72.5° | 84.4   | 73.5   | 40.9   | 27.2   | 58.6   | 12.3   | 12.3   | 20.4   | 49.0   | 34.0   | 23.2   |
| 75°   | 58.6   | 47.7   | 24.5   | 16.3   | 47.7   | 8.2    | 8.2    | 19.1   | 46.3   | 31.3   | 21.8   |
| 77.5° | 34.0   | 25.9   | 8.2    | 1.4    | 24.5   | 0.0    | 1.4    | 13.6   | 32.7   | 19.1   | 9.5    |
| 80°   | 12.3   | 5.4    | 0.0    | 0.0    | 15.0   | 0.0    | 0.0    | 0.0    | 2.7    | 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°    | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3 | 9364.3  | 9364.3  | 9364.3  |
| 2.5°  | 7946.6 | 8130.4 | 8295.2 | 8544.4 | 8840.0 | 9180.4 | 9473.2 | 9787.8 | 10083.4 | 10205.9 | 10290.4 |
| 5°    | 6089.0 | 6316.4 | 6582.0 | 6948.3 | 7435.9 | 8036.4 | 8598.9 | 9234.9 | 9918.6  | 10260.4 | 10581.8 |
| 7.5°  | 4304.9 | 4536.4 | 4866.0 | 5255.5 | 5845.2 | 6560.2 | 7295.6 | 8174.0 | 9100.1  | 9640.7  | 10173.2 |
| 10°   | 3095.6 | 3380.2 | 3688.0 | 4220.5 | 4819.7 | 5497.9 | 6255.1 | 7235.7 | 8268.0  | 8867.2  | 9508.6  |
| 12.5° | 2106.8 | 2431.0 | 2896.7 | 3493.2 | 4197.3 | 4861.9 | 5519.7 | 6455.3 | 7653.8  | 8247.5  | 8935.3  |
| 15°   | 1263.8 | 1443.6 | 1936.6 | 2627.1 | 3490.5 | 4318.5 | 5039.0 | 5977.3 | 7254.7  | 7982.0  | 8697.0  |
| 17.5° | 779.0  | 862.1  | 1130.4 | 1696.9 | 2603.9 | 3651.2 | 4638.6 | 5815.2 | 7311.9  | 8197.2  | 8962.5  |
| 20°   | 621.0  | 653.7  | 739.5  | 1002.3 | 1725.5 | 2915.8 | 4187.8 | 5782.5 | 7779.1  | 8868.6  | 9689.8  |
| 22.5° | 539.3  | 570.6  | 627.8  | 728.6  | 1085.4 | 2183.1 | 3760.1 | 5812.5 | 8449.1  | 9875.0  | 10833.7 |
| 25°   | 475.3  | 502.5  | 557.0  | 640.1  | 795.3  | 1537.6 | 3302.6 | 5946.0 | 9322.1  | 11123.8 | 12142.5 |
| 27.5° | 424.9  | 448.1  | 498.4  | 574.7  | 682.3  | 1073.2 | 2783.7 | 6108.0 | 10357.1 | 12401.3 | 13406.3 |
| 30°   | 378.6  | 399.0  | 444.0  | 514.8  | 592.4  | 825.3  | 2214.4 | 6218.3 | 11393.5 | 13406.3 | 14309.3 |
| 32.5° | 339.1  | 354.1  | 394.9  | 454.9  | 514.8  | 657.8  | 1683.3 | 6200.6 | 12162.9 | 14242.5 | 14958.9 |
| 35°   | 298.3  | 313.2  | 348.6  | 400.4  | 448.1  | 543.4  | 1323.7 | 5869.7 | 12833.0 | 15110.1 | 15702.5 |
| 37.5° | 253.3  | 272.4  | 306.4  | 352.7  | 385.4  | 478.0  | 1070.4 | 5470.7 | 13512.6 | 16101.5 | 16531.9 |
| 40°   | 215.2  | 234.2  | 264.2  | 314.6  | 335.0  | 453.5  | 822.6  | 4984.5 | 14276.6 | 17210.1 | 17441.6 |
| 42.5° | 178.4  | 196.1  | 227.4  | 271.0  | 316.0  | 390.9  | 608.8  | 4428.8 | 15010.6 | 18157.9 | 18271.0 |
| 45°   | 144.4  | 162.1  | 194.7  | 238.3  | 337.7  | 324.1  | 471.2  | 3833.7 | 15603.1 | 18946.5 | 18983.2 |
| 47.5° | 114.4  | 130.7  | 164.8  | 224.7  | 314.6  | 258.8  | 336.4  | 3366.6 | 16100.1 | 19562.0 | 19465.3 |
| 50°   | 88.5   | 102.1  | 137.5  | 257.4  | 275.1  | 213.8  | 254.7  | 3211.3 | 16545.5 | 19943.4 | 19692.8 |
| 52.5° | 69.5   | 81.7   | 113.0  | 241.1  | 213.8  | 177.0  | 213.8  | 3357.0 | 17155.6 | 20259.3 | 19820.8 |
| 55°   | 55.8   | 68.1   | 88.5   | 137.5  | 145.7  | 149.8  | 182.5  | 3493.2 | 18208.3 | 21000.2 | 20576.6 |
| 57.5° | 46.3   | 58.6   | 72.2   | 96.7   | 110.3  | 126.7  | 162.1  | 3508.2 | 19449.0 | 22231.3 | 21830.9 |
| 59°   | 42.2   | 53.1   | 65.4   | 85.8   | 96.7   | 115.8  | 152.5  | 3426.5 | 19886.2 | 22679.4 | 22479.2 |
| 60°   | 39.5   | 50.4   | 61.3   | 79.0   | 89.9   | 109.0  | 147.1  | 3348.9 | 19905.2 | 22663.0 | 22755.6 |
| 62.5° | 34.0   | 44.9   | 54.5   | 66.7   | 76.3   | 92.6   | 132.1  | 3061.5 | 19099.0 | 21920.8 | 22589.5 |
| 65°   | 30.0   | 39.5   | 49.0   | 57.2   | 65.4   | 83.1   | 119.8  | 2537.2 | 17722.1 | 20723.7 | 21452.3 |
| 67.5° | 27.2   | 34.0   | 44.9   | 50.4   | 58.6   | 73.5   | 106.2  | 1808.6 | 16002.1 | 19259.7 | 19732.3 |
| 70°   | 24.5   | 32.7   | 40.9   | 46.3   | 53.1   | 64.0   | 91.2   | 1039.1 | 13512.6 | 17116.1 | 17452.5 |
| 72.5° | 23.2   | 31.3   | 36.8   | 43.6   | 47.7   | 57.2   | 83.1   | 488.9  | 9894.1  | 13711.4 | 14589.8 |
| 75°   | 20.4   | 28.6   | 34.0   | 40.9   | 44.9   | 51.8   | 70.8   | 234.2  | 6580.6  | 9922.7  | 10920.9 |
| 77.5° | 12.3   | 23.2   | 31.3   | 36.8   | 39.5   | 44.9   | 58.6   | 134.8  | 4200.0  | 6868.0  | 8089.6  |
| 80°   | 0.0    | 8.2    | 23.2   | 31.3   | 34.0   | 38.1   | 44.9   | 106.2  | 2247.1  | 3923.6  | 4709.4  |
| 82.5° | 0.0    | 0.0    | 16.3   | 24.5   | 23.2   | 25.9   | 34.0   | 66.7   | 1013.2  | 2564.4  | 2889.9  |
| 85°   | 0.0    | 0.0    | 5.4    | 19.1   | 16.3   | 12.3   | 23.2   | 23.2   | 222.0   | 1297.9  | 1619.3  |
| 87.5° | 0.0    | 0.0    | 0.0    | 1.4    | 8.2    | 5.4    | 9.5    | 2.7    | 1.4     | 96.7    | 392.2   |
| 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: P324579

CATALOG NUMBER: GLEON-SA5D-760-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 285°    | 295°    | 305°    | 315°    | 325°    | 335°    | 345°    | 355°    | 359°    | 360°    |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  | 9364.3  |
| 2.5°  | 10585.9 | 10686.7 | 10856.9 | 10937.3 | 10897.8 | 10730.2 | 10530.1 | 10325.8 | 10205.9 | 10253.6 |
| 5°    | 11236.9 | 11755.7 | 12055.4 | 12154.8 | 11988.6 | 11612.7 | 11121.1 | 10472.9 | 10242.7 | 10180.0 |
| 7.5°  | 11236.9 | 12213.3 | 12831.6 | 12940.6 | 12570.1 | 11833.4 | 10911.4 | 9899.5  | 9563.1  | 9440.5  |
| 10°   | 10841.9 | 12171.1 | 13033.2 | 13206.1 | 12688.6 | 11586.9 | 10351.6 | 9196.8  | 8797.7  | 8671.1  |
| 12.5° | 10396.6 | 11827.9 | 12736.3 | 12974.6 | 12549.7 | 11341.7 | 9963.5  | 8721.5  | 8251.6  | 8141.3  |
| 15°   | 10122.8 | 11405.7 | 12157.5 | 12330.5 | 12150.7 | 11198.7 | 9870.9  | 8578.5  | 8025.6  | 7919.3  |
| 17.5° | 10220.9 | 11078.9 | 11349.9 | 11450.7 | 11571.9 | 11148.3 | 10122.8 | 8891.7  | 8191.7  | 8090.9  |
| 20°   | 10590.0 | 10734.3 | 10594.1 | 10720.7 | 11047.6 | 11197.4 | 10723.4 | 9648.9  | 8808.6  | 8673.8  |
| 22.5° | 11216.4 | 10555.9 | 10162.3 | 10212.7 | 10610.4 | 11359.4 | 11641.3 | 10730.2 | 9760.6  | 9591.7  |
| 25°   | 11946.4 | 10700.3 | 9922.7  | 9877.7  | 10286.3 | 11573.3 | 12480.3 | 11906.9 | 10886.9 | 10700.3 |
| 27.5° | 12864.3 | 11024.4 | 9873.6  | 9828.7  | 10173.2 | 11773.4 | 13177.5 | 13070.0 | 12073.1 | 11754.4 |
| 30°   | 13572.5 | 11343.1 | 10019.3 | 9915.8  | 10286.3 | 11912.4 | 13737.3 | 14057.3 | 13018.2 | 12807.1 |
| 32.5° | 14080.5 | 11719.0 | 10256.3 | 10106.5 | 10605.0 | 12152.0 | 14169.0 | 14961.6 | 13892.5 | 13572.5 |
| 35°   | 14467.2 | 12127.5 | 10639.0 | 10392.5 | 11043.5 | 12515.7 | 14573.5 | 15924.5 | 14822.7 | 14472.7 |
| 37.5° | 14829.5 | 12700.9 | 11236.9 | 10942.7 | 11731.2 | 13101.3 | 15001.1 | 17016.7 | 15863.2 | 15445.1 |
| 40°   | 15334.8 | 13350.5 | 12158.9 | 11897.4 | 12887.5 | 13899.3 | 15535.0 | 18155.2 | 17046.6 | 16521.0 |
| 42.5° | 15840.0 | 14047.8 | 13102.6 | 13173.5 | 14329.7 | 14869.0 | 16224.1 | 19359.1 | 18215.1 | 17654.0 |
| 45°   | 16301.7 | 14766.9 | 14446.8 | 14773.7 | 15668.4 | 15932.6 | 16909.1 | 20055.0 | 19148.0 | 18606.0 |
| 47.5° | 16713.0 | 15665.7 | 15782.8 | 16653.1 | 17191.0 | 16895.5 | 17421.2 | 20655.6 | 19842.6 | 19364.6 |
| 50°   | 17191.0 | 16828.7 | 17543.7 | 18774.9 | 18943.7 | 17767.1 | 17886.9 | 21366.5 | 20654.3 | 20270.2 |
| 52.5° | 17714.0 | 18054.4 | 19493.9 | 20579.4 | 20524.9 | 18713.6 | 18355.4 | 22163.2 | 21766.9 | 21406.0 |
| 55°   | 18307.7 | 19044.5 | 21211.3 | 22268.1 | 22221.8 | 19770.4 | 19131.7 | 23147.9 | 23161.5 | 22834.6 |
| 57.5° | 19188.9 | 19897.1 | 22377.0 | 23634.1 | 23711.7 | 20990.6 | 20447.3 | 24251.0 | 24422.6 | 24204.7 |
| 59°   | 19820.8 | 20450.0 | 22838.7 | 24204.7 | 24520.6 | 21934.4 | 21408.7 | 24891.1 | 24778.0 | 24579.2 |
| 60°   | 20289.3 | 20801.3 | 23067.5 | 24502.9 | 24990.5 | 22574.5 | 22118.3 | 25266.9 | 24820.2 | 24579.2 |
| 62.5° | 21448.2 | 21566.7 | 23480.2 | 24840.7 | 25531.2 | 23996.3 | 24114.8 | 25907.0 | 24527.4 | 24133.9 |
| 65°   | 21988.9 | 22050.2 | 23474.7 | 24236.0 | 25008.2 | 25103.5 | 25926.1 | 25926.1 | 23812.5 | 23207.8 |
| 67.5° | 21762.8 | 21467.3 | 22310.3 | 22231.3 | 23002.1 | 24445.7 | 26607.0 | 24975.5 | 22445.1 | 21663.4 |
| 70°   | 19924.3 | 18787.1 | 18412.6 | 18446.7 | 19036.3 | 21263.0 | 25258.8 | 22178.2 | 19857.6 | 18943.7 |
| 72.5° | 16578.2 | 13850.3 | 12925.6 | 13981.1 | 14134.9 | 16341.2 | 21525.9 | 16702.1 | 14644.3 | 13787.7 |
| 75°   | 13334.2 | 9763.3  | 8259.8  | 9373.8  | 9635.3  | 11958.7 | 16651.7 | 10402.0 | 8554.0  | 7886.6  |
| 77.5° | 9579.5  | 7008.2  | 5926.9  | 5849.3  | 6187.0  | 7584.3  | 11815.7 | 5235.1  | 4366.2  | 4074.7  |
| 80°   | 5442.1  | 4612.7  | 4966.8  | 4686.2  | 4856.5  | 4742.1  | 5613.7  | 2296.1  | 1880.8  | 1758.2  |
| 82.5° | 3284.9  | 2726.5  | 2952.6  | 2458.2  | 3110.5  | 2708.8  | 2162.7  | 735.4   | 638.7   | 607.4   |
| 85°   | 2136.8  | 1489.9  | 776.3   | 520.2   | 1071.8  | 1730.9  | 483.5   | 200.2   | 153.9   | 122.6   |
| 87.5° | 736.8   | 380.0   | 38.1    | 16.3    | 114.4   | 322.8   | 17.7    | 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: SP1-1908-441-9-R4

Test Date: 10/23/2019

Luminaire Tested: SA1C-760-U-5WQ

Data in this report applies to families of products SA1C-760-U-5WQ .

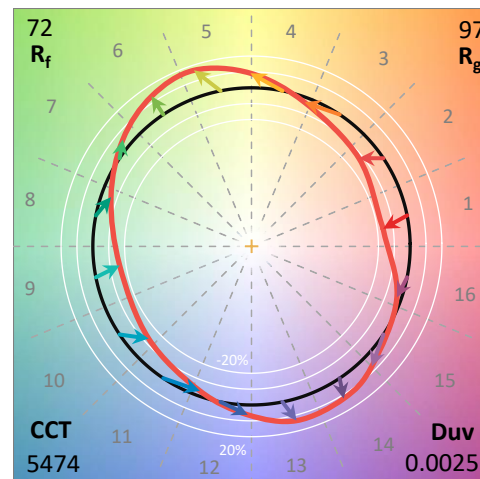
### Test Information

Test Method: LM-79-2008  
 Report Number: SP1-1908-441-9-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-760-U-5WQ**  
 Description: MCGRAW EDISON ROADWAY AND AREA LUMINAIRE

\*\*\*THIS IS A REVISION OF SP1-1908-441-4-R3. TO UPDATE THE CATALOG INFORMATION.\*\*\*TESTED IN SITU. ROADWAY AND AREA LUMINAIRE. (1) 70 CRI, 5000K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

### Spectral Parameters

|                           |        |           |      |      |       |
|---------------------------|--------|-----------|------|------|-------|
| CCT (K):                  | 5474   | CRI (Ra): | 71.7 |      |       |
| CIE u':                   | 0.2052 | R1:       | 70.6 | R9:  | -27.1 |
| CIE v':                   | 0.4804 | R2:       | 74.6 | R10: | 40.8  |
| Duv:                      | 0.0025 | R3:       | 78.3 | R11: | 74.6  |
| CIE x:                    | 0.3330 | R4:       | 73.8 | R12: | 50.4  |
| CIE y:                    | 0.3466 | R5:       | 72.4 | R13: | 70.0  |
| CIE z:                    | 0.3204 | R6:       | 67.5 | R14: | 87.8  |
| Peak Wavelength (nm):     | 442    | R7:       | 77.5 |      |       |
| Dominant Wavelength (nm): | 554    | R8:       | 58.9 |      |       |
| Purity:                   | 4.1    |           |      |      |       |
| Rf:                       | 72.1   |           |      |      |       |
| Rg:                       | 97.2   |           |      |      |       |



### Test Conditions

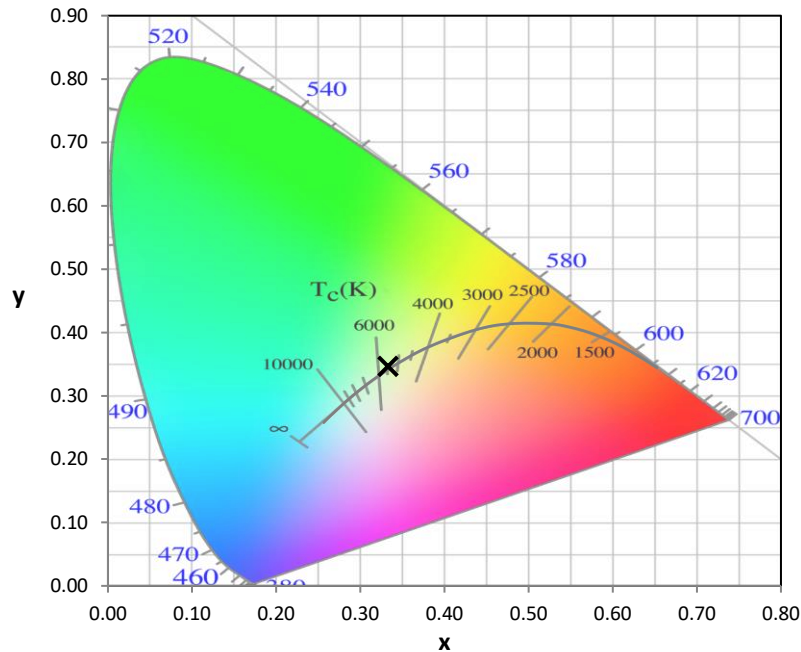
Stabilization Time: 240M  
 Operation Time: 12H  
 Room Temperature (°C) / RH%: 24.6/31%  
 Sphere Temperature (°C): 25.9

REPORT NUMBER: SP1-1908-441-9-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: SP1-1908-441-9-R4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 5700K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-9-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       | 3540             | NR               | 490       | 33363            | NR               | 620       | 80193            | NR               | 750       | 4663             | NR               | 880       | 4678             | NR               |
| 365       | 2862             | NR               | 495       | 44177            | NR               | 625       | 73091            | NR               | 755       | 4147             | NR               | 885       | 4128             | NR               |
| 370       | 2865             | NR               | 500       | 57019            | NR               | 630       | 66269            | NR               | 760       | 4040             | NR               | 890       | 4504             | NR               |
| 375       | 3254             | NR               | 505       | 70030            | NR               | 635       | 60012            | NR               | 765       | 3474             | NR               | 895       | 4371             | NR               |
| 380       | 3076             | NR               | 510       | 81972            | NR               | 640       | 53914            | NR               | 770       | 3469             | NR               | 900       | 4082             | NR               |
| 385       | 2904             | NR               | 515       | 92590            | NR               | 645       | 48385            | NR               | 775       | 3181             | NR               | 905       | 2982             | NR               |
| 390       | 2689             | NR               | 520       | 100305           | NR               | 650       | 43219            | NR               | 780       | 2969             | NR               | 910       | 4351             | NR               |
| 395       | 2619             | NR               | 525       | 107452           | NR               | 655       | 38562            | NR               | 785       | 3132             | NR               | 915       | 3365             | NR               |
| 400       | 2679             | NR               | 530       | 111373           | NR               | 660       | 34110            | NR               | 790       | 2507             | NR               | 920       | 3430             | NR               |
| 405       | 3515             | NR               | 535       | 114505           | NR               | 665       | 30085            | NR               | 795       | 2968             | NR               | 925       | 4264             | NR               |
| 410       | 6934             | NR               | 540       | 116408           | NR               | 670       | 26205            | NR               | 800       | 2758             | NR               | 930       | 4095             | NR               |
| 415       | 14943            | NR               | 545       | 118700           | NR               | 675       | 22906            | NR               | 805       | 2872             | NR               | 935       | 5048             | NR               |
| 420       | 31939            | NR               | 550       | 119209           | NR               | 680       | 20058            | NR               | 810       | 3094             | NR               | 940       | 4074             | NR               |
| 425       | 64701            | NR               | 555       | 120742           | NR               | 685       | 17413            | NR               | 815       | 3222             | NR               | 945       | 4949             | NR               |
| 430       | 110939           | NR               | 560       | 121594           | NR               | 690       | 15447            | NR               | 820       | 3238             | NR               | 950       | 4387             | NR               |
| 435       | 164597           | NR               | 565       | 121913           | NR               | 695       | 13398            | NR               | 825       | 3524             | NR               | 955       | 4978             | NR               |
| 440       | 207696           | NR               | 570       | 122147           | NR               | 700       | 11777            | NR               | 830       | 2921             | NR               | 960       | 4706             | NR               |
| 445       | 201830           | NR               | 575       | 121605           | NR               | 705       | 10412            | NR               | 835       | 3595             | NR               | 965       | 5083             | NR               |
| 450       | 145410           | NR               | 580       | 120248           | NR               | 710       | 9544             | NR               | 840       | 3016             | NR               | 970       | 4522             | NR               |
| 455       | 89594            | NR               | 585       | 117717           | NR               | 715       | 8940             | NR               | 845       | 4032             | NR               | 975       | 4740             | NR               |
| 460       | 58321            | NR               | 590       | 114359           | NR               | 720       | 7897             | NR               | 850       | 3579             | NR               | 980       | 6122             | NR               |
| 465       | 39318            | NR               | 595       | 109974           | NR               | 725       | 7045             | NR               | 855       | 4571             | NR               | 985       | 6450             | NR               |
| 470       | 27693            | NR               | 600       | 105269           | NR               | 730       | 6483             | NR               | 860       | 4485             | NR               | 990       | 4875             | NR               |
| 475       | 23081            | NR               | 605       | 99453            | NR               | 735       | 5838             | NR               | 865       | 3978             | NR               | 995       | 4764             | NR               |
| 480       | 23002            | NR               | 610       | 92921            | NR               | 740       | 5261             | NR               | 870       | 4298             | NR               | 1000      | 3640             | NR               |
| 485       | 26201            | NR               | 615       | 86989            | NR               | 745       | 4760             | NR               | 875       | 4356             | NR               |           |                  |                  |

REPORT NUMBER: SP1-1908-441-9-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 13759.3

S/P: 1.85

| 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       | 3540             | NR               | 490       | 33363            | NR               | 620       | 80193            | NR               | 750       | 4663             | NR               | 880       | 4678             | NR               |
| 365       | 2862             | NR               | 495       | 44177            | NR               | 625       | 73091            | NR               | 755       | 4147             | NR               | 885       | 4128             | NR               |
| 370       | 2865             | NR               | 500       | 57019            | NR               | 630       | 66269            | NR               | 760       | 4040             | NR               | 890       | 4504             | NR               |
| 375       | 3254             | NR               | 505       | 70030            | NR               | 635       | 60012            | NR               | 765       | 3474             | NR               | 895       | 4371             | NR               |
| 380       | 3076             | NR               | 510       | 81972            | NR               | 640       | 53914            | NR               | 770       | 3469             | NR               | 900       | 4082             | NR               |
| 385       | 2904             | NR               | 515       | 92590            | NR               | 645       | 48385            | NR               | 775       | 3181             | NR               | 905       | 2982             | NR               |
| 390       | 2689             | NR               | 520       | 100305           | NR               | 650       | 43219            | NR               | 780       | 2969             | NR               | 910       | 4351             | NR               |
| 395       | 2619             | NR               | 525       | 107452           | NR               | 655       | 38562            | NR               | 785       | 3132             | NR               | 915       | 3365             | NR               |
| 400       | 2679             | NR               | 530       | 111373           | NR               | 660       | 34110            | NR               | 790       | 2507             | NR               | 920       | 3430             | NR               |
| 405       | 3515             | NR               | 535       | 114505           | NR               | 665       | 30085            | NR               | 795       | 2968             | NR               | 925       | 4264             | NR               |
| 410       | 6934             | NR               | 540       | 116408           | NR               | 670       | 26205            | NR               | 800       | 2758             | NR               | 930       | 4095             | NR               |
| 415       | 14943            | NR               | 545       | 118700           | NR               | 675       | 22906            | NR               | 805       | 2872             | NR               | 935       | 5048             | NR               |
| 420       | 31939            | NR               | 550       | 119209           | NR               | 680       | 20058            | NR               | 810       | 3094             | NR               | 940       | 4074             | NR               |
| 425       | 64701            | NR               | 555       | 120742           | NR               | 685       | 17413            | NR               | 815       | 3222             | NR               | 945       | 4949             | NR               |
| 430       | 110939           | NR               | 560       | 121594           | NR               | 690       | 15447            | NR               | 820       | 3238             | NR               | 950       | 4387             | NR               |
| 435       | 164597           | NR               | 565       | 121913           | NR               | 695       | 13398            | NR               | 825       | 3524             | NR               | 955       | 4978             | NR               |
| 440       | 207696           | NR               | 570       | 122147           | NR               | 700       | 11777            | NR               | 830       | 2921             | NR               | 960       | 4706             | NR               |
| 445       | 201830           | NR               | 575       | 121605           | NR               | 705       | 10412            | NR               | 835       | 3595             | NR               | 965       | 5083             | NR               |
| 450       | 145410           | NR               | 580       | 120248           | NR               | 710       | 9544             | NR               | 840       | 3016             | NR               | 970       | 4522             | NR               |
| 455       | 89594            | NR               | 585       | 117717           | NR               | 715       | 8940             | NR               | 845       | 4032             | NR               | 975       | 4740             | NR               |
| 460       | 58321            | NR               | 590       | 114359           | NR               | 720       | 7897             | NR               | 850       | 3579             | NR               | 980       | 6122             | NR               |
| 465       | 39318            | NR               | 595       | 109974           | NR               | 725       | 7045             | NR               | 855       | 4571             | NR               | 985       | 6450             | NR               |
| 470       | 27693            | NR               | 600       | 105269           | NR               | 730       | 6483             | NR               | 860       | 4485             | NR               | 990       | 4875             | NR               |
| 475       | 23081            | NR               | 605       | 99453            | NR               | 735       | 5838             | NR               | 865       | 3978             | NR               | 995       | 4764             | NR               |
| 480       | 23002            | NR               | 610       | 92921            | NR               | 740       | 5261             | NR               | 870       | 4298             | NR               | 1000      | 3640             | NR               |
| 485       | 26201            | NR               | 615       | 86989            | NR               | 745       | 4760             | NR               | 875       | 4356             | NR               |           |                  |                  |

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**Melanopic Flux vs. Wavelength**



**Melanopic Lumens: 5527.6 M/P: 0.74**

| 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       | 3540             | NR               | 490       | 33363            | NR               | 620       | 80193            | NR               | 750       | 4663             | NR               | 880       | 4678             | NR               |
| 365       | 2862             | NR               | 495       | 44177            | NR               | 625       | 73091            | NR               | 755       | 4147             | NR               | 885       | 4128             | NR               |
| 370       | 2865             | NR               | 500       | 57019            | NR               | 630       | 66269            | NR               | 760       | 4040             | NR               | 890       | 4504             | NR               |
| 375       | 3254             | NR               | 505       | 70030            | NR               | 635       | 60012            | NR               | 765       | 3474             | NR               | 895       | 4371             | NR               |
| 380       | 3076             | NR               | 510       | 81972            | NR               | 640       | 53914            | NR               | 770       | 3469             | NR               | 900       | 4082             | NR               |
| 385       | 2904             | NR               | 515       | 92590            | NR               | 645       | 48385            | NR               | 775       | 3181             | NR               | 905       | 2982             | NR               |
| 390       | 2689             | NR               | 520       | 100305           | NR               | 650       | 43219            | NR               | 780       | 2969             | NR               | 910       | 4351             | NR               |
| 395       | 2619             | NR               | 525       | 107452           | NR               | 655       | 38562            | NR               | 785       | 3132             | NR               | 915       | 3365             | NR               |
| 400       | 2679             | NR               | 530       | 111373           | NR               | 660       | 34110            | NR               | 790       | 2507             | NR               | 920       | 3430             | NR               |
| 405       | 3515             | NR               | 535       | 114505           | NR               | 665       | 30085            | NR               | 795       | 2968             | NR               | 925       | 4264             | NR               |
| 410       | 6934             | NR               | 540       | 116408           | NR               | 670       | 26205            | NR               | 800       | 2758             | NR               | 930       | 4095             | NR               |
| 415       | 14943            | NR               | 545       | 118700           | NR               | 675       | 22906            | NR               | 805       | 2872             | NR               | 935       | 5048             | NR               |
| 420       | 31939            | NR               | 550       | 119209           | NR               | 680       | 20058            | NR               | 810       | 3094             | NR               | 940       | 4074             | NR               |
| 425       | 64701            | NR               | 555       | 120742           | NR               | 685       | 17413            | NR               | 815       | 3222             | NR               | 945       | 4949             | NR               |
| 430       | 110939           | NR               | 560       | 121594           | NR               | 690       | 15447            | NR               | 820       | 3238             | NR               | 950       | 4387             | NR               |
| 435       | 164597           | NR               | 565       | 121913           | NR               | 695       | 13398            | NR               | 825       | 3524             | NR               | 955       | 4978             | NR               |
| 440       | 207696           | NR               | 570       | 122147           | NR               | 700       | 11777            | NR               | 830       | 2921             | NR               | 960       | 4706             | NR               |
| 445       | 201830           | NR               | 575       | 121605           | NR               | 705       | 10412            | NR               | 835       | 3595             | NR               | 965       | 5083             | NR               |
| 450       | 145410           | NR               | 580       | 120248           | NR               | 710       | 9544             | NR               | 840       | 3016             | NR               | 970       | 4522             | NR               |
| 455       | 89594            | NR               | 585       | 117717           | NR               | 715       | 8940             | NR               | 845       | 4032             | NR               | 975       | 4740             | NR               |
| 460       | 58321            | NR               | 590       | 114359           | NR               | 720       | 7897             | NR               | 850       | 3579             | NR               | 980       | 6122             | NR               |
| 465       | 39318            | NR               | 595       | 109974           | NR               | 725       | 7045             | NR               | 855       | 4571             | NR               | 985       | 6450             | NR               |
| 470       | 27693            | NR               | 600       | 105269           | NR               | 730       | 6483             | NR               | 860       | 4485             | NR               | 990       | 4875             | NR               |
| 475       | 23081            | NR               | 605       | 99453            | NR               | 735       | 5838             | NR               | 865       | 3978             | NR               | 995       | 4764             | NR               |
| 480       | 23002            | NR               | 610       | 92921            | NR               | 740       | 5261             | NR               | 870       | 4298             | NR               | 1000      | 3640             | NR               |
| 485       | 26201            | NR               | 615       | 86989            | NR               | 745       | 4760             | NR               | 875       | 4356             | NR               |           |                  |                  |

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**Summary**

$R_f = 72.1$   
 $R_g = 97.2$   
 CIE  $R_a = 71.7$   
 $R_g = -27.1$



**Color Vector Graphics**



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

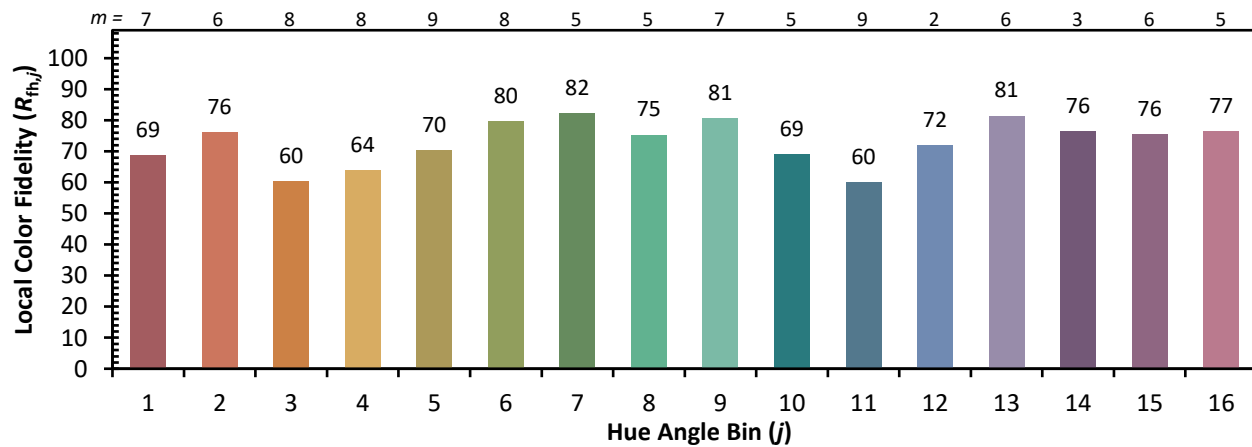
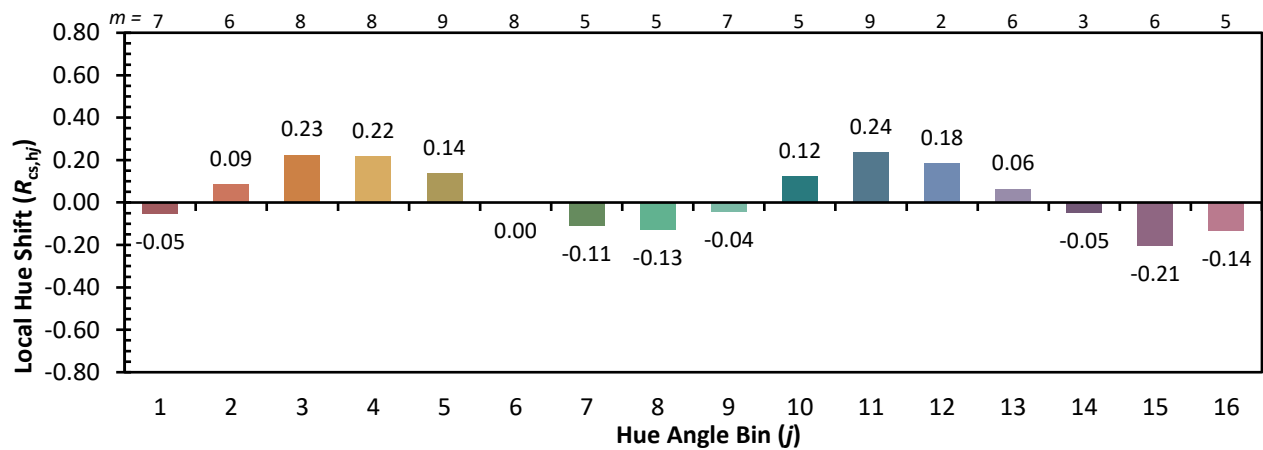
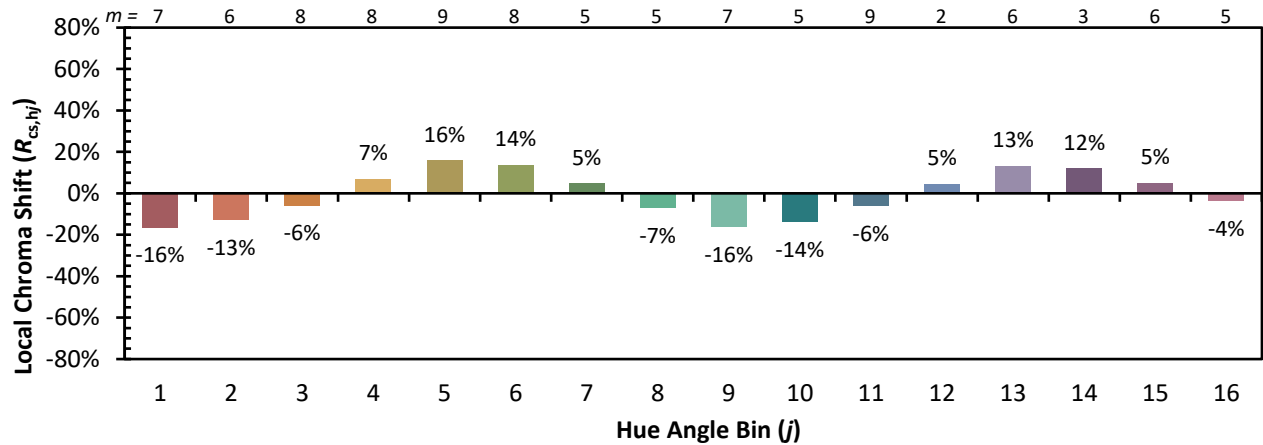
|            |            |            |            |
|------------|------------|------------|------------|
| CES01 = 85 | CES26 = 54 | CES51 = 88 | CES76 = 43 |
| CES02 = 59 | CES27 = 79 | CES52 = 90 | CES77 = 64 |
| CES03 = 30 | CES28 = 77 | CES53 = 77 | CES78 = 46 |
| CES04 = 69 | CES29 = 50 | CES54 = 81 | CES79 = 74 |
| CES05 = 46 | CES30 = 59 | CES55 = 80 | CES80 = 70 |
| CES06 = 50 | CES31 = 55 | CES56 = 70 | CES81 = 71 |
| CES07 = 38 | CES32 = 52 | CES57 = 68 | CES82 = 88 |
| CES08 = 38 | CES33 = 63 | CES58 = 70 | CES83 = 82 |
| CES09 = 29 | CES34 = 63 | CES59 = 88 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 92 | CES85 = 84 |
| CES11 = 55 | CES36 = 90 | CES61 = 88 | CES86 = 76 |
| CES12 = 61 | CES37 = 72 | CES62 = 81 | CES87 = 75 |
| CES13 = 41 | CES38 = 68 | CES63 = 75 | CES88 = 77 |
| CES14 = 74 | CES39 = 91 | CES64 = 72 | CES89 = 76 |
| CES15 = 70 | CES40 = 83 | CES65 = 65 | CES90 = 76 |
| CES16 = 46 | CES41 = 84 | CES66 = 66 | CES91 = 92 |
| CES17 = 48 | CES42 = 70 | CES67 = 64 | CES92 = 70 |
| CES18 = 55 | CES43 = 69 | CES68 = 71 | CES93 = 83 |
| CES19 = 70 | CES44 = 98 | CES69 = 80 | CES94 = 60 |
| CES20 = 64 | CES45 = 79 | CES70 = 58 | CES95 = 73 |
| CES21 = 85 | CES46 = 78 | CES71 = 55 | CES96 = 79 |
| CES22 = 77 | CES47 = 76 | CES72 = 84 | CES97 = 84 |
| CES23 = 91 | CES48 = 68 | CES73 = 47 | CES98 = 73 |
| CES24 = 90 | CES49 = 78 | CES74 = 94 | CES99 = 62 |
| CES25 = 71 | CES50 = 87 | CES75 = 51 |            |



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Color Rendition by Hue-Angle Bin



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**Measure Comparisons**



(END OF REPORT)