Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P386280

Luminaire Tested: **GPC-SA1D-830-U-SLR-HSS**

Issue Date: 3/3/2020

Report Generated By 670245982

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Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P386280 |
| | 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: | GPC-SA1D-830-U-SLR-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 80 CRI, 3000K, 1200mA LIGHTSQUARE WITH 16 LEDS AND SPILL LIGHT ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 4882 lumens |
| Efficiency: | N/A |
| Efficacy: | 74.0 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type IV - Medium |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 66 |
| 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: | 28.75 FT |

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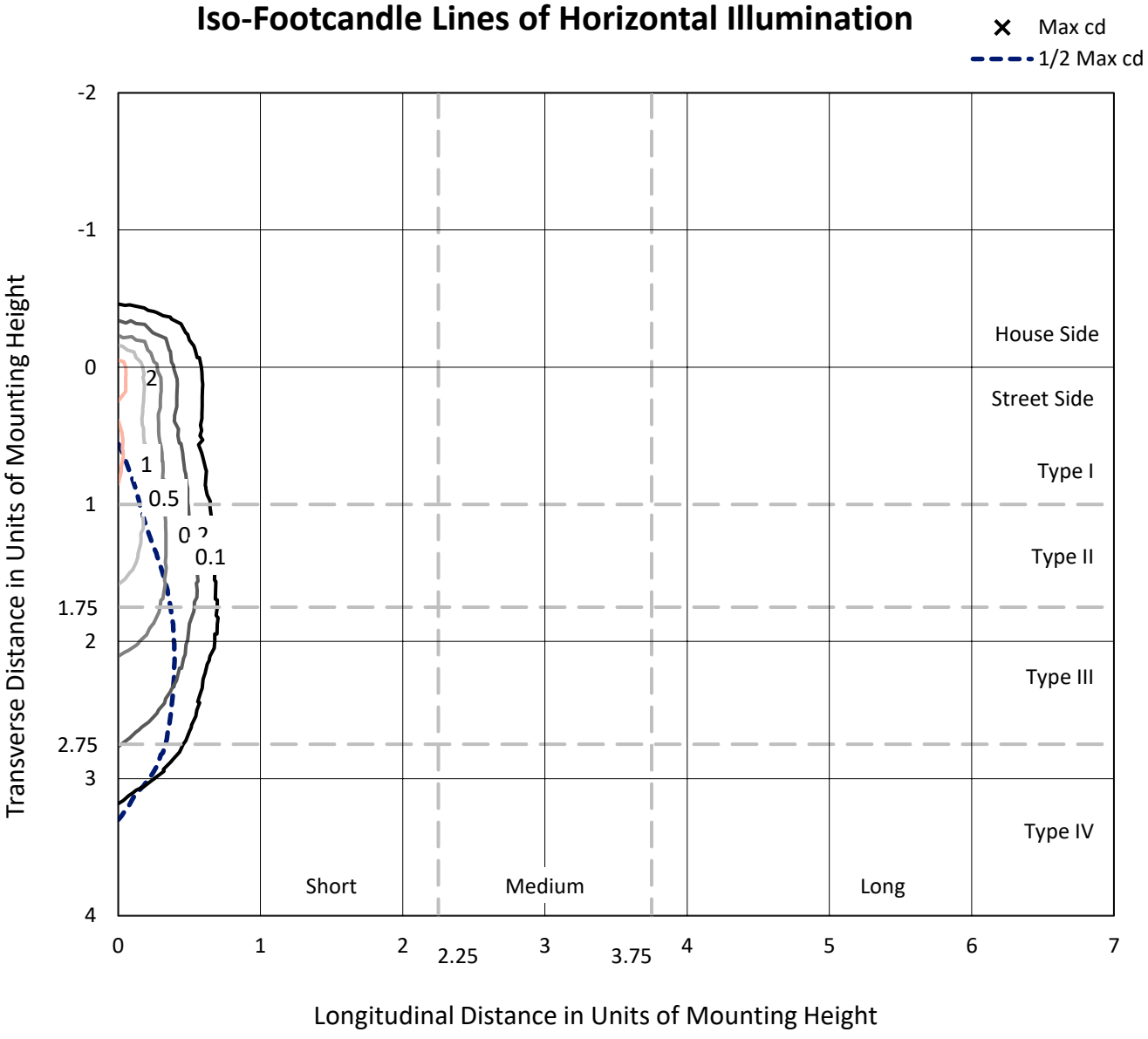
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 2.5 fc
Type IV - Medium - N/A

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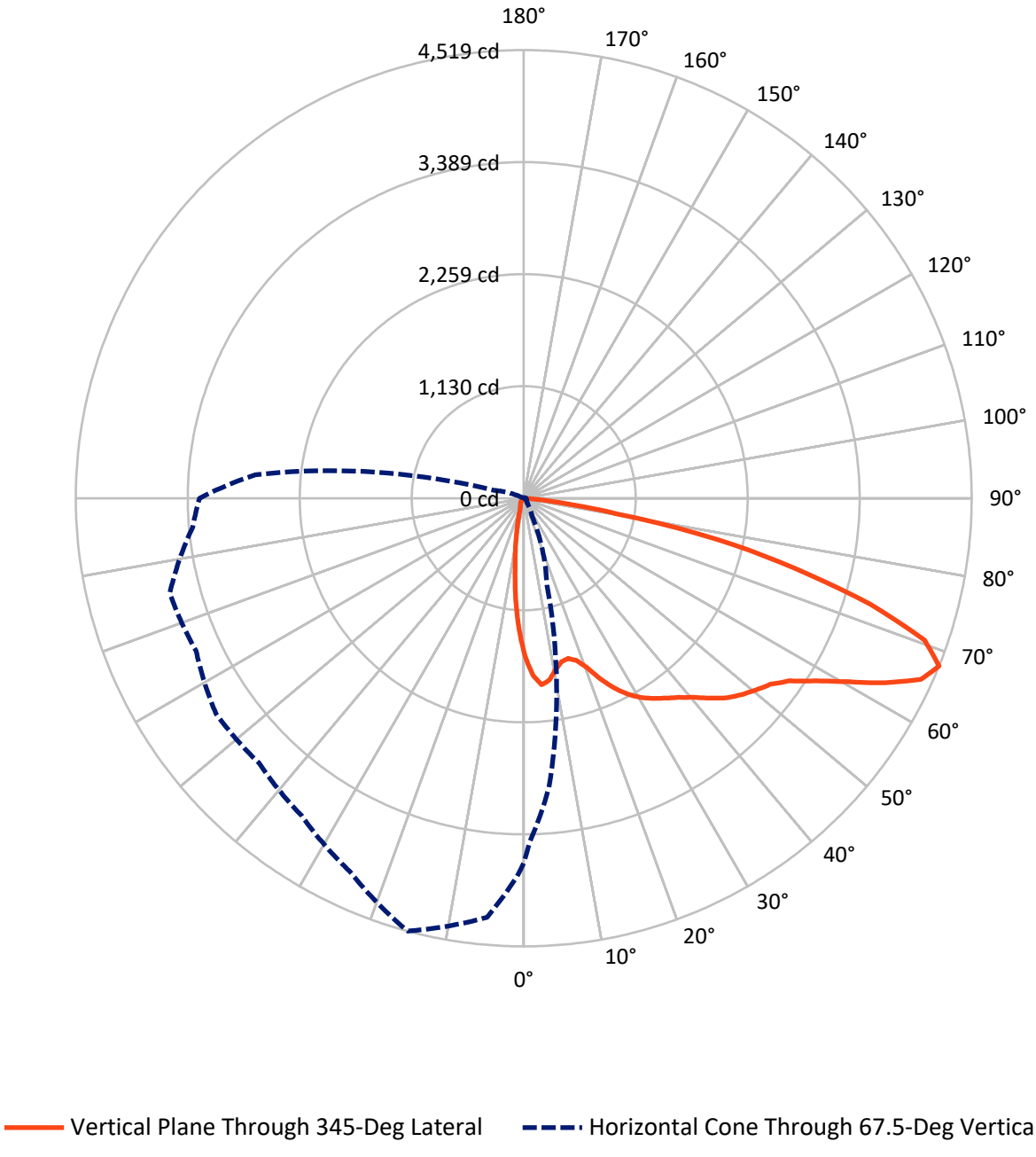
## Luminous Intensity Polar Plot



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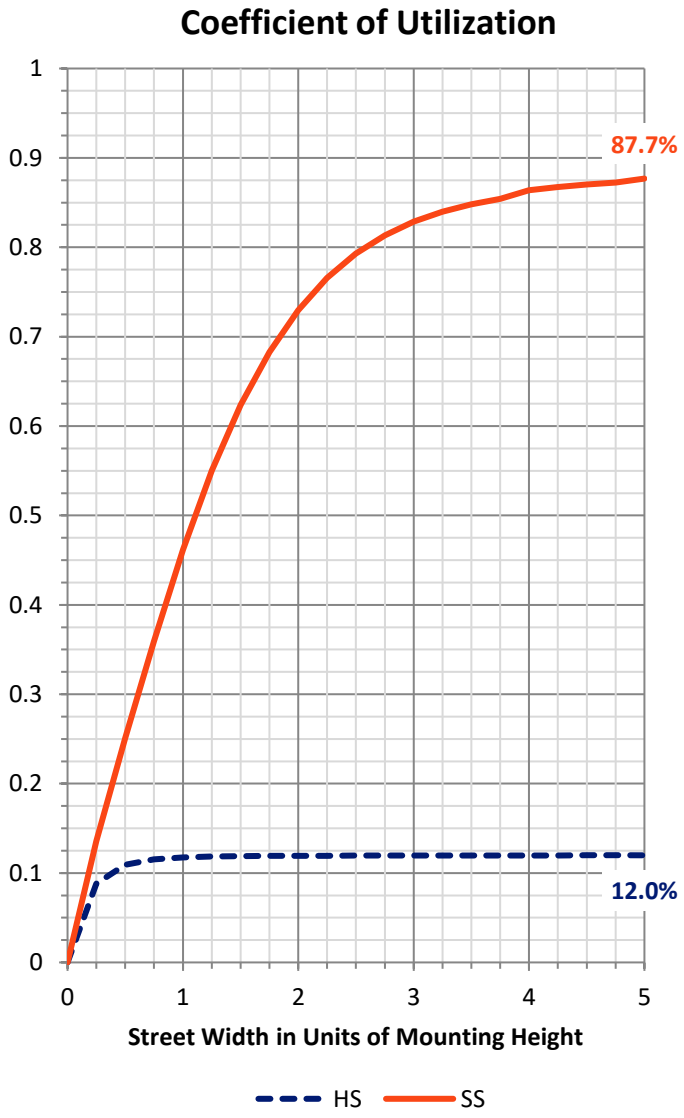
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 590.9 | 0.0 | 590.9 |
| | % Fixture | 12.1 | 0.0 | 12.1 |
| **Street Side** | Lumens | 4291.1 | 0.0 | 4291.1 |
| | % Fixture | 87.9 | 0.0 | 87.9 |
| **Total** | Lumens | 4882.0 | 0.0 | 4882.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 122.1 | 2.5 |
| 10°-20° | 242.9 | 5.0 |
| 20°-30° | 345.0 | 7.1 |
| 30°-40° | 509.6 | 10.4 |
| 40°-50° | 734.9 | 15.1 |
| 50°-60° | 1031.6 | 21.1 |
| 60°-70° | 1202.6 | 24.6 |
| 70°-80° | 614.8 | 12.6 |
| 80°-90° | 78.5 | 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° | 4882.0 | 100.0 |
| 0°-180° | 4882.0 | 100.0 |



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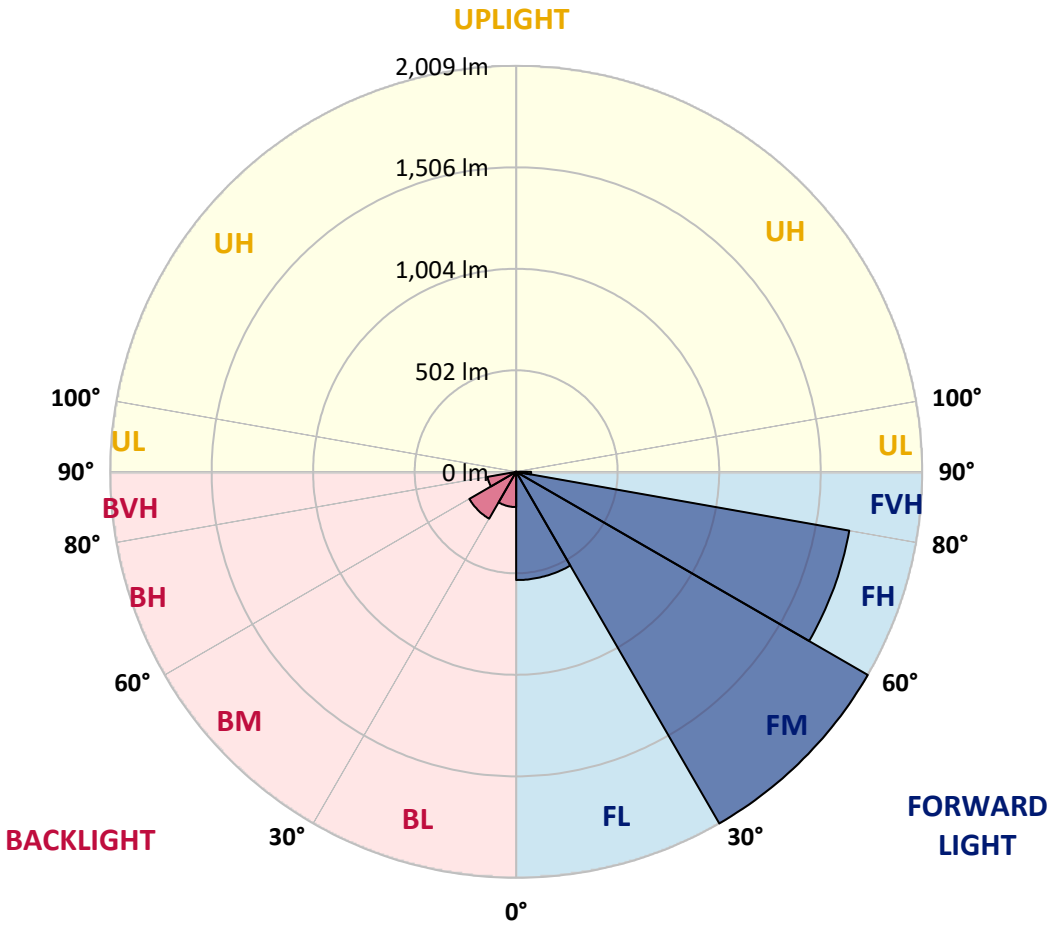
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 535.5 | 11.0 | | | |
| FM | (30°-60°) | 2008.5 | 41.1 | | | |
| FH | (60°-80°) | 1673.4 | 34.3 | | | G1/1800 |
| FVH | (80°-90°) | 73.7 | 1.5 | | | G1/100 |
| BL | (0°-30°) | 174.5 | 3.6 | B1/500 | | |
| BM | (30°-60°) | 267.6 | 5.5 | B1/1000 | | |
| BH | (60°-80°) | 144.0 | 2.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.8 | 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-G1**
Type IV Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 |
| 2.5° | 1741.3 | 1727.9 | 1713.1 | 1664.8 | 1619.9 | 1568.6 | 1526.7 | 1497.6 | 1461.0 | 1413.6 | 1401.6 |
| 5° | 1728.8 | 1714.5 | 1668.0 | 1560.5 | 1466.3 | 1374.7 | 1286.4 | 1234.6 | 1170.3 | 1105.1 | 1088.9 |
| 7.5° | 1603.3 | 1588.2 | 1521.1 | 1373.8 | 1247.1 | 1114.8 | 1000.1 | 929.1 | 856.4 | 796.8 | 765.1 |
| 10° | 1472.6 | 1456.2 | 1380.8 | 1202.0 | 1045.9 | 926.3 | 842.1 | 774.3 | 705.6 | 641.8 | 590.9 |
| 12.5° | 1382.6 | 1361.1 | 1279.2 | 1076.6 | 940.6 | 859.4 | 780.8 | 699.6 | 606.7 | 538.2 | 482.2 |
| 15° | 1344.9 | 1320.4 | 1233.9 | 1028.3 | 903.4 | 808.1 | 705.6 | 606.0 | 497.0 | 418.6 | 367.3 |
| 17.5° | 1374.1 | 1342.1 | 1249.4 | 1025.0 | 856.7 | 726.9 | 597.4 | 480.4 | 362.2 | 282.9 | 246.3 |
| 20° | 1473.0 | 1431.2 | 1313.5 | 1024.1 | 800.0 | 630.5 | 466.3 | 334.0 | 238.7 | 192.0 | 172.8 |
| 22.5° | 1628.9 | 1573.7 | 1405.5 | 1031.5 | 741.5 | 529.2 | 336.7 | 226.9 | 179.2 | 155.0 | 143.6 |
| 25° | 1817.2 | 1753.1 | 1538.0 | 1057.7 | 690.1 | 430.6 | 244.7 | 179.2 | 151.3 | 133.5 | 124.0 |
| 27.5° | 1996.2 | 1944.2 | 1705.5 | 1095.4 | 650.4 | 351.1 | 198.7 | 152.0 | 129.3 | 117.5 | 109.9 |
| 30° | 2175.0 | 2109.5 | 1877.3 | 1140.2 | 602.5 | 297.2 | 174.6 | 138.5 | 115.9 | 103.4 | 98.5 |
| 32.5° | 2305.0 | 2250.6 | 2011.9 | 1172.6 | 551.4 | 262.0 | 156.1 | 126.7 | 108.2 | 95.5 | 88.4 |
| 35° | 2457.8 | 2396.3 | 2127.3 | 1179.8 | 518.5 | 239.8 | 140.4 | 114.0 | 93.9 | 82.6 | 74.9 |
| 37.5° | 2623.0 | 2546.4 | 2260.6 | 1164.0 | 492.9 | 229.0 | 128.6 | 108.2 | 87.7 | 76.1 | 68.0 |
| 40° | 2805.7 | 2719.2 | 2388.5 | 1141.4 | 467.7 | 225.3 | 119.6 | 103.8 | 82.8 | 71.0 | 62.7 |
| 42.5° | 2998.1 | 2896.1 | 2499.2 | 1117.6 | 451.7 | 212.5 | 118.6 | 99.5 | 79.1 | 66.4 | 58.1 |
| 45° | 3159.8 | 3056.4 | 2613.0 | 1109.7 | 440.4 | 198.7 | 122.6 | 96.4 | 76.6 | 62.7 | 54.6 |
| 47.5° | 3288.6 | 3190.8 | 2729.6 | 1127.3 | 433.9 | 186.0 | 111.7 | 100.4 | 75.2 | 59.4 | 51.6 |
| 50° | 3442.4 | 3331.6 | 2893.8 | 1179.8 | 424.4 | 173.2 | 101.1 | 114.9 | 75.2 | 57.4 | 49.0 |
| 52.5° | 3635.3 | 3525.7 | 3077.0 | 1261.2 | 405.4 | 155.7 | 90.9 | 115.2 | 75.9 | 54.6 | 45.8 |
| 55° | 3877.9 | 3798.4 | 3338.6 | 1350.5 | 375.1 | 129.7 | 78.6 | 99.0 | 73.1 | 49.5 | 42.8 |
| 57.5° | 4110.6 | 4045.6 | 3577.0 | 1411.5 | 334.7 | 101.3 | 68.5 | 79.8 | 66.8 | 43.5 | 38.2 |
| 59° | 4174.2 | 4103.2 | 3664.4 | 1414.3 | 304.4 | 88.4 | 63.4 | 65.9 | 65.5 | 40.7 | 35.4 |
| 60° | 4174.2 | 4098.8 | 3689.7 | 1399.5 | 282.4 | 81.2 | 60.1 | 58.7 | 68.2 | 38.9 | 33.8 |
| 62.5° | 4098.6 | 3992.6 | 3607.8 | 1299.3 | 230.4 | 69.2 | 52.5 | 48.6 | 61.3 | 34.9 | 29.8 |
| 65° | 3941.3 | 3787.0 | 3328.9 | 1118.3 | 205.4 | 63.4 | 45.3 | 39.8 | 42.6 | 30.8 | 26.1 |
| 67.5° | *3679.0* | *3469.9* | *2926.7* | *903.4* | *195.4* | *61.8* | *39.1* | *33.8* | *32.1* | *26.4* | *22.9* |
| 70° | 3217.1 | 2985.2 | 2438.4 | 710.3 | 186.9 | 61.1 | 32.8 | 28.4 | 25.9 | 22.2 | 19.4 |
| 72.5° | 2341.5 | 2099.6 | 1731.2 | 555.3 | 181.8 | 62.4 | 26.4 | 23.8 | 21.3 | 17.3 | 15.0 |
| 75° | 1339.4 | 1180.9 | 973.0 | 366.8 | 155.0 | 59.7 | 20.4 | 19.9 | 15.3 | 12.5 | 10.4 |
| 77.5° | 692.0 | 671.0 | 583.1 | 140.9 | 74.2 | 26.1 | 13.4 | 11.6 | 9.0 | 7.6 | 6.2 |
| 80° | 298.6 | 295.3 | 255.6 | 40.7 | 19.7 | 14.6 | 7.6 | 4.9 | 4.2 | 3.2 | 2.5 |
| 82.5° | 103.2 | 103.2 | 90.9 | 13.6 | 8.8 | 7.2 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 20.8 | 23.4 | 16.4 | 0.0 | 3.0 | 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):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 |
| 2.5° | 1387.0 | 1359.0 | 1357.2 | 1339.6 | 1317.6 | 1307.7 | 1301.9 | 1312.1 | 1324.6 | 1325.9 | 1344.7 |
| 5° | 1076.6 | 1047.2 | 1059.5 | 1028.3 | 1034.5 | 1028.3 | 1018.1 | 1020.0 | 1025.5 | 1008.2 | 1029.7 |
| 7.5° | 756.1 | 733.9 | 748.0 | 739.6 | 750.7 | 755.1 | 748.9 | 739.6 | 712.4 | 709.1 | 727.8 |
| 10° | 569.9 | 544.7 | 529.6 | 513.9 | 517.4 | 524.6 | 522.2 | 515.5 | 498.2 | 499.1 | 517.1 |
| 12.5° | 457.9 | 429.7 | 399.9 | 361.3 | 351.8 | 357.1 | 351.8 | 347.8 | 331.2 | 332.6 | 348.5 |
| 15° | 347.4 | 324.3 | 293.0 | 262.0 | 245.2 | 246.8 | 232.0 | 221.6 | 211.2 | 198.7 | 208.4 |
| 17.5° | 234.5 | 220.4 | 211.2 | 201.9 | 181.8 | 177.2 | 158.4 | 138.3 | 130.4 | 124.7 | 128.8 |
| 20° | 166.1 | 158.4 | 154.7 | 154.3 | 142.7 | 136.9 | 118.6 | 106.2 | 102.2 | 101.1 | 103.6 |
| 22.5° | 138.8 | 133.2 | 127.9 | 124.9 | 119.1 | 112.4 | 98.5 | 92.3 | 89.5 | 88.1 | 90.0 |
| 25° | 120.7 | 116.6 | 111.0 | 105.9 | 103.6 | 96.4 | 86.5 | 81.9 | 80.0 | 78.6 | 79.6 |
| 27.5° | 107.3 | 103.6 | 97.1 | 93.9 | 92.1 | 85.8 | 77.2 | 73.5 | 71.9 | 71.5 | 71.2 |
| 30° | 96.7 | 93.2 | 87.2 | 83.5 | 80.3 | 74.7 | 69.6 | 65.9 | 64.3 | 63.8 | 63.4 |
| 32.5° | 86.0 | 83.3 | 79.3 | 75.6 | 72.2 | 67.1 | 62.7 | 59.7 | 57.1 | 56.7 | 56.4 |
| 35° | 72.6 | 69.8 | 67.8 | 67.5 | 64.3 | 59.4 | 56.2 | 52.3 | 50.2 | 49.5 | 49.7 |
| 37.5° | 64.5 | 60.8 | 56.2 | 57.8 | 56.9 | 53.4 | 49.0 | 45.1 | 43.0 | 42.6 | 42.6 |
| 40° | 59.4 | 55.5 | 50.2 | 47.4 | 50.2 | 49.5 | 42.6 | 38.6 | 36.5 | 36.3 | 35.8 |
| 42.5° | 54.6 | 50.7 | 44.6 | 40.0 | 41.4 | 43.5 | 36.8 | 33.1 | 31.0 | 30.5 | 29.8 |
| 45° | 51.1 | 47.0 | 40.2 | 34.9 | 32.1 | 36.5 | 31.5 | 26.8 | 25.7 | 24.7 | 24.3 |
| 47.5° | 47.9 | 43.9 | 36.3 | 30.3 | 25.7 | 26.4 | 25.2 | 22.0 | 20.6 | 19.7 | 19.4 |
| 50° | 45.1 | 40.9 | 32.8 | 25.9 | 21.3 | 19.4 | 20.4 | 17.3 | 16.2 | 15.3 | 14.8 |
| 52.5° | 41.9 | 37.9 | 29.1 | 22.4 | 17.8 | 15.3 | 15.5 | 13.6 | 12.5 | 11.8 | 11.6 |
| 55° | 39.3 | 35.4 | 26.1 | 19.7 | 15.7 | 12.5 | 11.1 | 10.6 | 9.9 | 9.5 | 9.3 |
| 57.5° | 35.8 | 32.1 | 23.1 | 16.7 | 13.4 | 10.2 | 8.6 | 8.6 | 8.3 | 7.9 | 7.6 |
| 59° | 33.8 | 30.5 | 21.3 | 15.0 | 12.3 | 8.8 | 7.6 | 7.9 | 7.6 | 7.2 | 6.9 |
| 60° | 32.1 | 29.1 | 19.9 | 13.9 | 11.6 | 8.1 | 6.9 | 7.4 | 7.2 | 6.7 | 6.5 |
| 62.5° | 28.4 | 26.4 | 17.1 | 11.6 | 10.2 | 6.5 | 5.8 | 6.2 | 6.2 | 6.0 | 5.8 |
| 65° | 25.0 | 22.7 | 14.6 | 9.7 | 9.5 | 5.6 | 4.6 | 5.6 | 5.8 | 5.3 | 4.9 |
| 67.5° | *21.7* | *19.4* | *12.7* | *7.9* | *8.8* | *4.4* | *3.5* | *4.6* | *6.2* | *4.9* | *4.4* |
| 70° | 18.5 | 16.2 | 9.9 | 6.2 | 9.3 | 3.0 | 2.8 | 4.2 | 7.4 | 5.3 | 4.2 |
| 72.5° | 14.3 | 12.5 | 6.9 | 4.6 | 9.9 | 2.1 | 2.1 | 3.5 | 8.3 | 5.8 | 3.9 |
| 75° | 9.9 | 8.1 | 4.2 | 2.8 | 8.1 | 1.4 | 1.4 | 3.2 | 7.9 | 5.3 | 3.7 |
| 77.5° | 5.8 | 4.4 | 1.4 | 0.2 | 4.2 | 0.0 | 0.2 | 2.3 | 5.6 | 3.2 | 1.6 |
| 80° | 2.1 | 0.9 | 0.0 | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.5 | 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° | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 |
| 2.5° | 1349.5 | 1380.8 | 1408.7 | 1451.1 | 1501.3 | 1559.1 | 1608.8 | 1662.2 | 1712.4 | 1733.2 | 1747.6 |
| 5° | 1034.1 | 1072.7 | 1117.8 | 1180.0 | 1262.8 | 1364.8 | 1460.3 | 1568.3 | 1684.4 | 1742.5 | 1797.1 |
| 7.5° | 731.1 | 770.4 | 826.4 | 892.5 | 992.7 | 1114.1 | 1239.0 | 1388.2 | 1545.4 | 1637.3 | 1727.7 |
| 10° | 525.7 | 574.0 | 626.3 | 716.7 | 818.5 | 933.7 | 1062.3 | 1228.8 | 1404.1 | 1505.9 | 1614.8 |
| 12.5° | 357.8 | 412.8 | 491.9 | 593.2 | 712.8 | 825.7 | 937.4 | 1096.3 | 1299.8 | 1400.7 | 1517.4 |
| 15° | 214.6 | 245.2 | 328.9 | 446.1 | 592.8 | 733.4 | 855.7 | 1015.1 | 1232.0 | 1355.6 | 1477.0 |
| 17.5° | 132.3 | 146.4 | 192.0 | 288.2 | 442.2 | 620.1 | 787.8 | 987.6 | 1241.8 | 1392.1 | 1522.1 |
| 20° | 105.5 | 111.0 | 125.6 | 170.2 | 293.0 | 495.2 | 711.2 | 982.0 | 1321.1 | 1506.1 | 1645.6 |
| 22.5° | 91.6 | 96.9 | 106.6 | 123.7 | 184.3 | 370.7 | 638.6 | 987.1 | 1434.9 | 1677.0 | 1839.9 |
| 25° | 80.7 | 85.3 | 94.6 | 108.7 | 135.1 | 261.1 | 560.9 | 1009.8 | 1583.1 | 1889.1 | 2062.1 |
| 27.5° | 72.2 | 76.1 | 84.6 | 97.6 | 115.9 | 182.3 | 472.7 | 1037.3 | 1758.9 | 2106.1 | 2276.8 |
| 30° | 64.3 | 67.8 | 75.4 | 87.4 | 100.6 | 140.2 | 376.1 | 1056.0 | 1934.9 | 2276.8 | 2430.1 |
| 32.5° | 57.6 | 60.1 | 67.1 | 77.2 | 87.4 | 111.7 | 285.9 | 1053.0 | 2065.6 | 2418.8 | 2540.4 |
| 35° | 50.7 | 53.2 | 59.2 | 68.0 | 76.1 | 92.3 | 224.8 | 996.8 | 2179.4 | 2566.1 | 2666.7 |
| 37.5° | 43.0 | 46.3 | 52.0 | 59.9 | 65.5 | 81.2 | 181.8 | 929.1 | 2294.8 | 2734.5 | 2807.5 |
| 40° | 36.5 | 39.8 | 44.9 | 53.4 | 56.9 | 77.0 | 139.7 | 846.5 | 2424.5 | 2922.7 | 2962.0 |
| 42.5° | 30.3 | 33.3 | 38.6 | 46.0 | 53.7 | 66.4 | 103.4 | 752.1 | 2549.2 | 3083.7 | 3102.9 |
| 45° | 24.5 | 27.5 | 33.1 | 40.5 | 57.4 | 55.0 | 80.0 | 651.1 | 2649.8 | 3217.6 | 3223.9 |
| 47.5° | 19.4 | 22.2 | 28.0 | 38.2 | 53.4 | 43.9 | 57.1 | 571.7 | 2734.2 | 3322.2 | 3305.7 |
| 50° | 15.0 | 17.3 | 23.4 | 43.7 | 46.7 | 36.3 | 43.2 | 545.4 | 2809.9 | 3386.9 | 3344.4 |
| 52.5° | 11.8 | 13.9 | 19.2 | 40.9 | 36.3 | 30.1 | 36.3 | 570.1 | 2913.5 | 3440.6 | 3366.1 |
| 55° | 9.5 | 11.6 | 15.0 | 23.4 | 24.7 | 25.4 | 31.0 | 593.2 | 3092.3 | 3566.4 | 3494.5 |
| 57.5° | 7.9 | 9.9 | 12.3 | 16.4 | 18.7 | 21.5 | 27.5 | 595.8 | 3303.0 | 3775.5 | 3707.5 |
| 59° | 7.2 | 9.0 | 11.1 | 14.6 | 16.4 | 19.7 | 25.9 | 581.9 | 3377.2 | 3851.6 | 3817.6 |
| 60° | 6.7 | 8.6 | 10.4 | 13.4 | 15.3 | 18.5 | 25.0 | 568.7 | 3380.4 | 3848.8 | 3864.5 |
| 62.5° | 5.8 | 7.6 | 9.3 | 11.3 | 13.0 | 15.7 | 22.4 | 519.9 | 3243.5 | 3722.7 | 3836.3 |
| 65° | 5.1 | 6.7 | 8.3 | 9.7 | 11.1 | 14.1 | 20.4 | 430.9 | 3009.7 | 3519.4 | 3643.2 |
| 67.5° | *4.6* | *5.8* | *7.6* | *8.6* | *9.9* | *12.5* | *18.0* | *307.1* | *2717.6* | *3270.8* | *3351.1* |
| 70° | 4.2 | 5.6 | 6.9 | 7.9 | 9.0 | 10.9 | 15.5 | 176.5 | 2294.8 | 2906.8 | 2963.9 |
| 72.5° | 3.9 | 5.3 | 6.2 | 7.4 | 8.1 | 9.7 | 14.1 | 83.0 | 1680.3 | 2328.6 | 2477.7 |
| 75° | 3.5 | 4.9 | 5.8 | 6.9 | 7.6 | 8.8 | 12.0 | 39.8 | 1117.6 | 1685.1 | 1854.7 |
| 77.5° | 2.1 | 3.9 | 5.3 | 6.2 | 6.7 | 7.6 | 9.9 | 22.9 | 713.3 | 1166.4 | 1373.8 |
| 80° | 0.0 | 1.4 | 3.9 | 5.3 | 5.8 | 6.5 | 7.6 | 18.0 | 381.6 | 666.3 | 799.8 |
| 82.5° | 0.0 | 0.0 | 2.8 | 4.2 | 3.9 | 4.4 | 5.8 | 11.3 | 172.1 | 435.5 | 490.8 |
| 85° | 0.0 | 0.0 | 0.9 | 3.2 | 2.8 | 2.1 | 3.9 | 3.9 | 37.7 | 220.4 | 275.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.2 | 1.4 | 0.9 | 1.6 | 0.5 | 0.2 | 16.4 | 66.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P386280
CATALOG NUMBER: GPC-SA1D-830-U-SLR-HSS

**CANDELA DISTRIBUTION (continued):**

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | 1590.3 | *1590.3* | 1590.3 | 1590.3 | 1590.3 |
| 2.5° | 1797.8 | 1814.9 | 1843.8 | 1857.4 | 1850.7 | 1822.3 | *1788.3* | 1753.6 | 1733.2 | 1741.3 |
| 5° | 1908.3 | 1996.4 | 2047.3 | 2064.2 | 2036.0 | 1972.2 | *1888.7* | 1778.6 | 1739.5 | 1728.8 |
| 7.5° | 1908.3 | 2074.1 | 2179.1 | 2197.7 | 2134.7 | 2009.6 | *1853.0* | 1681.2 | 1624.1 | 1603.3 |
| 10° | 1841.2 | 2067.0 | 2213.4 | 2242.8 | 2154.9 | 1967.8 | *1758.0* | 1561.9 | 1494.1 | 1472.6 |
| 12.5° | 1765.6 | 2008.7 | 2163.0 | 2203.4 | 2131.3 | 1926.1 | *1692.1* | 1481.1 | 1401.3 | 1382.6 |
| 15° | 1719.1 | 1937.0 | 2064.7 | 2094.0 | 2063.5 | 1901.8 | *1676.3* | 1456.9 | 1363.0 | 1344.9 |
| 17.5° | 1735.8 | 1881.5 | 1927.5 | 1944.6 | 1965.2 | 1893.3 | *1719.1* | 1510.0 | 1391.2 | 1374.1 |
| 20° | 1798.5 | 1823.0 | 1799.2 | 1820.7 | 1876.2 | 1901.6 | *1821.1* | 1638.6 | 1495.9 | 1473.0 |
| 22.5° | 1904.8 | 1792.7 | 1725.8 | 1734.4 | 1801.9 | 1929.1 | *1977.0* | 1822.3 | 1657.6 | 1628.9 |
| 25° | 2028.8 | 1817.2 | 1685.1 | 1677.5 | 1746.9 | 1965.4 | *2119.5* | 2022.1 | 1848.9 | 1817.2 |
| 27.5° | 2184.7 | 1872.2 | 1676.8 | 1669.2 | 1727.7 | 1999.4 | *2237.9* | 2219.6 | 2050.3 | 1996.2 |
| 30° | 2305.0 | 1926.4 | 1701.5 | 1684.0 | 1746.9 | 2023.0 | *2333.0* | 2387.3 | 2210.8 | 2175.0 |
| 32.5° | 2391.2 | 1990.2 | 1741.8 | 1716.4 | 1801.0 | 2063.7 | *2406.3* | 2540.9 | 2359.3 | 2305.0 |
| 35° | 2456.9 | 2059.6 | 1806.8 | 1764.9 | 1875.5 | 2125.5 | *2475.0* | 2704.4 | 2517.3 | 2457.8 |
| 37.5° | 2518.4 | 2156.9 | 1908.3 | 1858.4 | 1992.3 | 2224.9 | *2547.6* | 2889.9 | 2694.0 | 2623.0 |
| 40° | 2604.2 | 2267.3 | 2064.9 | 2020.5 | 2188.6 | 2360.5 | *2638.2* | 3083.2 | 2895.0 | 2805.7 |
| 42.5° | 2690.1 | 2385.7 | 2225.2 | 2237.2 | 2433.6 | 2525.1 | *2755.3* | 3287.7 | 3093.4 | 2998.1 |
| 45° | 2768.5 | 2507.8 | 2453.5 | 2509.0 | 2660.9 | 2705.8 | *2871.6* | 3405.9 | 3251.8 | 3159.8 |
| 47.5° | 2838.3 | 2660.4 | 2680.3 | 2828.1 | 2919.5 | 2869.3 | *2958.6* | 3507.9 | 3369.8 | 3288.6 |
| 50° | 2919.5 | 2858.0 | 2979.4 | 3188.5 | 3217.1 | 3017.3 | *3037.7* | 3628.6 | 3507.6 | 3442.4 |
| 52.5° | 3008.3 | 3066.1 | 3310.6 | 3494.9 | 3485.7 | 3178.1 | *3117.2* | 3763.9 | 3696.6 | 3635.3 |
| 55° | 3109.1 | 3234.3 | 3602.2 | 3781.7 | 3773.8 | 3357.5 | *3249.1* | 3931.1 | 3933.4 | 3877.9 |
| 57.5° | 3258.8 | 3379.0 | 3800.2 | 4013.7 | 4026.9 | 3564.8 | *3472.5* | 4118.5 | 4147.6 | 4110.6 |
| 59° | 3366.1 | 3472.9 | 3878.6 | 4110.6 | 4164.3 | 3725.0 | *3635.8* | 4227.2 | 4208.0 | 4174.2 |
| 60° | 3445.7 | 3532.6 | 3917.5 | 4161.2 | 4244.0 | 3833.7 | *3756.3* | 4291.0 | 4215.1 | 4174.2 |
| 62.5° | 3642.5 | 3662.6 | 3987.6 | 4218.6 | 4335.9 | 4075.2 | *4095.3* | 4399.7 | 4165.4 | 4098.6 |
| 65° | 3734.3 | 3744.7 | 3986.6 | 4115.9 | 4247.1 | 4263.2 | *4402.9* | 4402.9 | 4044.0 | 3941.3 |
| 67.5° | *3695.9* | *3645.7* | *3788.9* | *3775.5* | *3906.4* | *4151.5* | *4518.6* | *4241.5* | *3811.8* | *3679.0* |
| 70° | 3383.7 | 3190.6 | 3126.9 | 3132.7 | 3232.9 | 3611.0 | *4289.6* | 3766.4 | 3372.3 | 3217.1 |
| 72.5° | 2815.4 | 2352.1 | 2195.1 | 2374.4 | 2400.5 | 2775.2 | *3655.7* | 2836.5 | 2487.0 | 2341.5 |
| 75° | 2264.5 | 1658.1 | 1402.7 | 1591.9 | 1636.3 | 2030.9 | *2827.9* | 1766.5 | 1452.7 | 1339.4 |
| 77.5° | 1626.8 | 1190.2 | 1006.5 | 993.4 | 1050.7 | 1288.0 | *2006.6* | 889.1 | 741.5 | 692.0 |
| 80° | 924.2 | 783.4 | 843.5 | 795.8 | 824.8 | 805.3 | *953.3* | 389.9 | 319.4 | 298.6 |
| 82.5° | 557.9 | 463.0 | 501.4 | 417.5 | 528.3 | 460.0 | *367.3* | 124.9 | 108.5 | 103.2 |
| 85° | 362.9 | 253.0 | 131.8 | 88.4 | 182.0 | 294.0 | *82.1* | 34.0 | 26.1 | 20.8 |
| 87.5° | 125.1 | 64.5 | 6.5 | 2.8 | 19.4 | 54.8 | *3.0* | 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 |

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

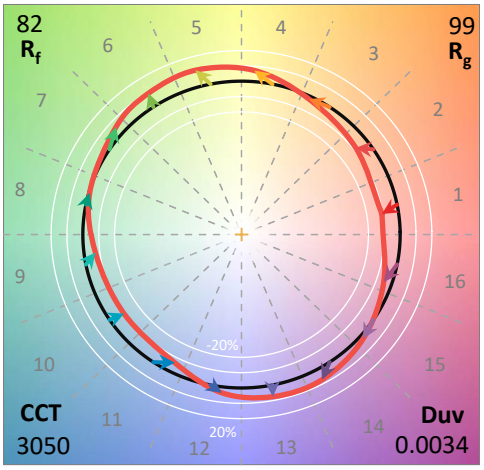
Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2408-195-9 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 08/07/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | MCGRAW EDISON |
| Catalog Number: | **GALN-SB1A-830-U-5WQ** |
| Description: | GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS |

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 3050 | CRI (Ra): | 81.0 | | |
| CIE u': | 0.2476 | R1: | 79.6 | R9: | 7.1 |
| CIE v': | 0.5251 | R2: | 85.6 | R10: | 67.0 |
| Duv: | 0.0034 | R3: | 92.0 | R11: | 82.7 |
| CIE x: | 0.4383 | R4: | 82.6 | R12: | 63.2 |
| CIE y: | 0.4131 | R5: | 78.9 | R13: | 80.3 |
| CIE z: | 0.1487 | R6: | 81.7 | R14: | 95.0 |
| Peak Wavelength (nm): | 603 | R7: | 85.2 | R15: | 71.7 |
| Dominant Wavelength (nm): | 581 | R8: | 62.0 | | |
| Purity: | 55.55201 | | | | |
| Rf: | 81.5 | | | | |
| Rg: | 99.2 | | | | |




## Test Conditions

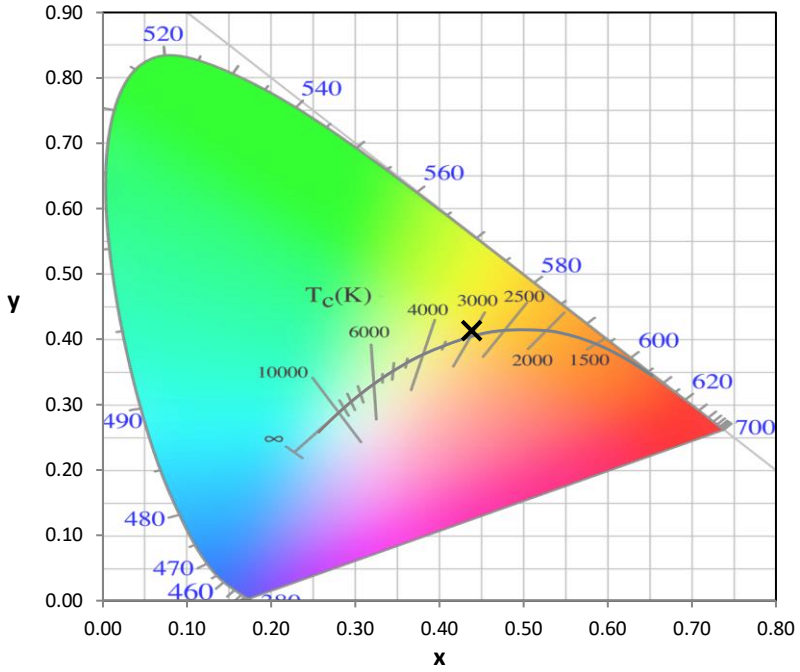
| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 24.2 |

REPORT NUMBER: SP1-2408-195-9

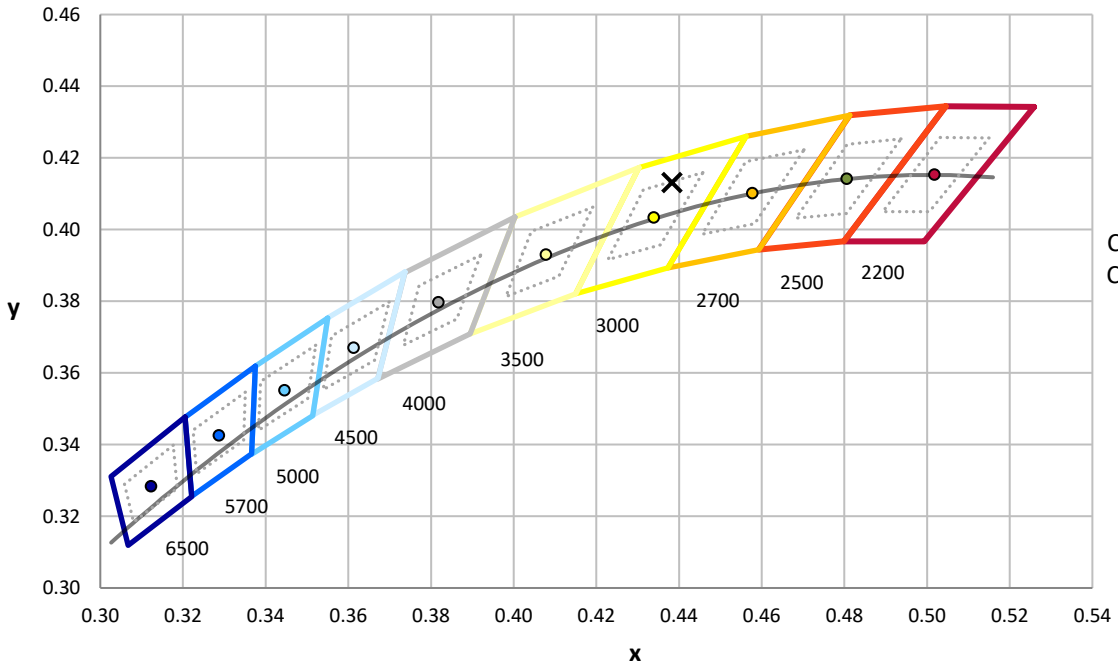
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

REPORT NUMBER: SP1-2408-195-9

## CIE 1931 Chromaticity Diagram




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

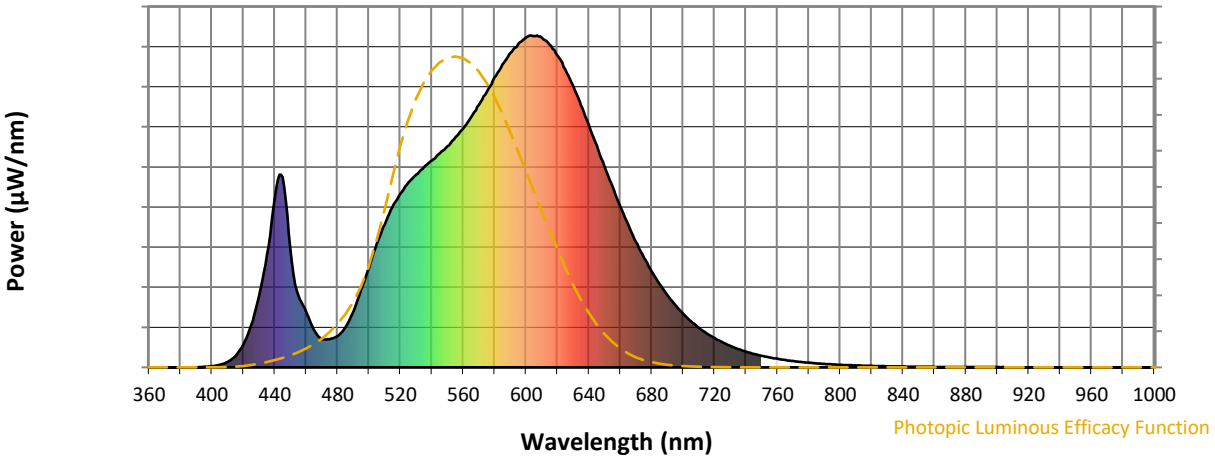



CCT = 3050K
CIE x = 0.4383
CIE y = 0.4131
Duv = 0.0034

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2408-195-9

## Photopic Flux vs. Wavelength

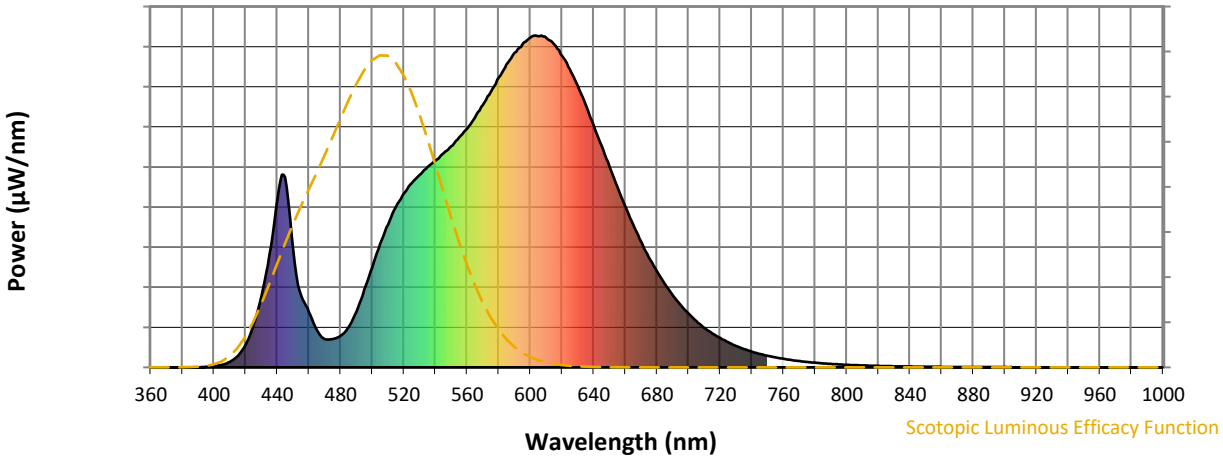



## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2408-195-9

## Scotopic Flux vs. Wavelength

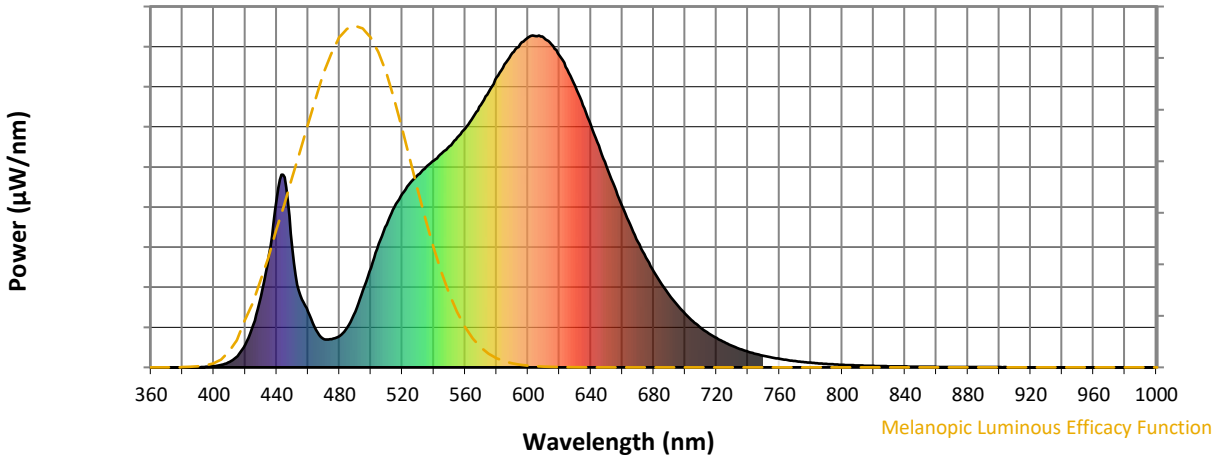



**Scotopic Lumens: NR** **S/P: 1.27**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2408-195-9

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.32**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 168 | NR | 620 | 940 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 233 | NR | 625 | 897 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 300 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 372 | NR | 635 | 790 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 430 | NR | 640 | 730 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 483 | NR | 645 | 668 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 524 | NR | 650 | 605 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 555 | NR | 655 | 545 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 581 | NR | 660 | 485 | NR | 790 | 10 | NR | 920 | 0 | NR |
| 405 | 7 | NR | 535 | 604 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 17 | NR | 540 | 623 | NR | 670 | 378 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 34 | NR | 545 | 645 | NR | 675 | 331 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 68 | NR | 550 | 667 | NR | 680 | 290 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 128 | NR | 555 | 693 | NR | 685 | 251 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 214 | NR | 560 | 719 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 339 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 507 | NR | 570 | 791 | NR | 700 | 162 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 573 | NR | 575 | 830 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 356 | NR | 580 | 873 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 217 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 168 | NR | 590 | 948 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 113 | NR | 595 | 974 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 85 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 85 | NR | 605 | 998 | NR | 735 | 55 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 94 | NR | 610 | 994 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 120 | NR | 615 | 973 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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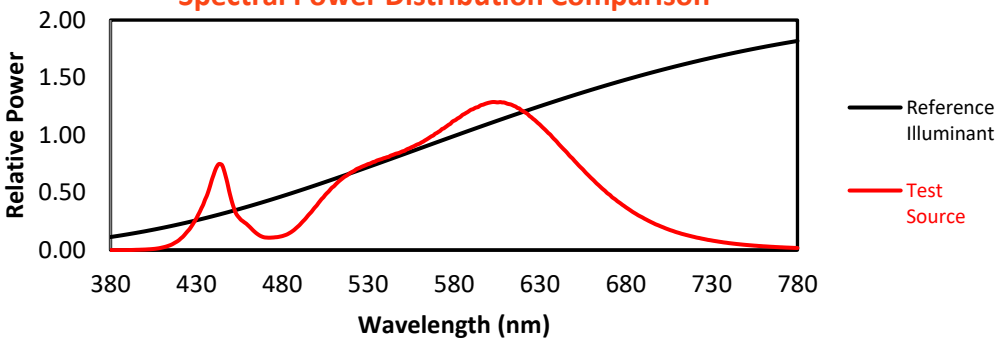
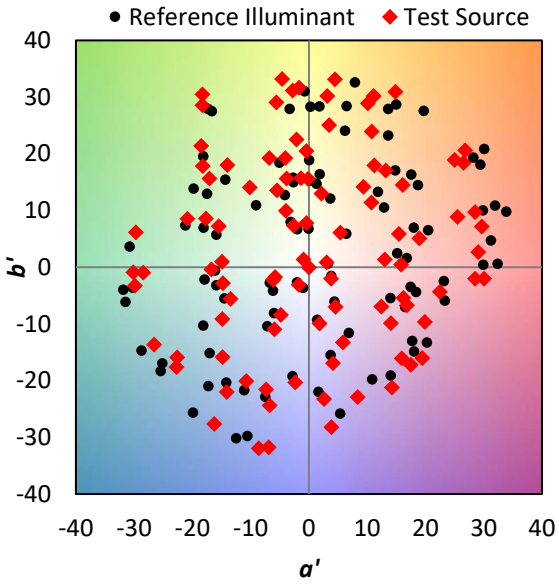
## Summary

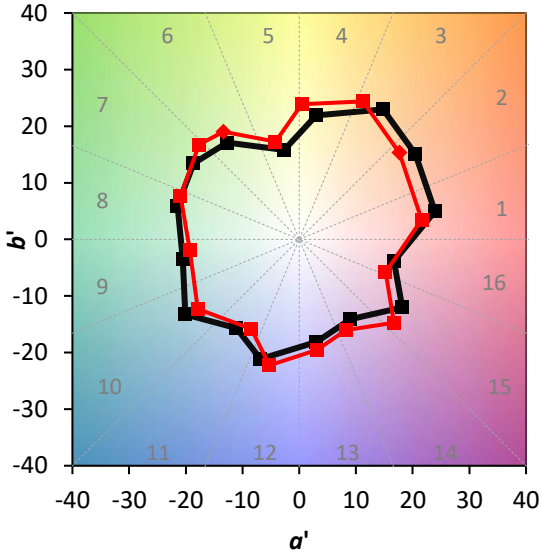
$R_f$ = 81.5
$R_g$ = 99.2
CIE $R_a$ = 81.0
$R_9$ = 7.1

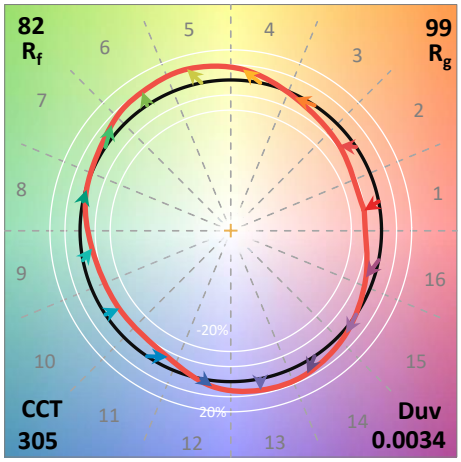
## Spectral Power Distribution Comparison

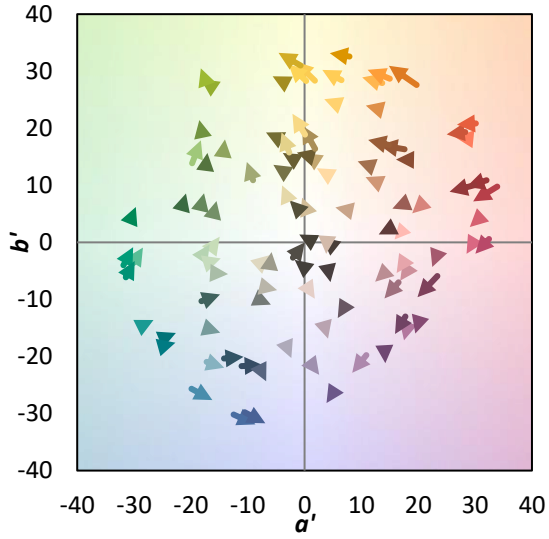



## Color Vector Graphics



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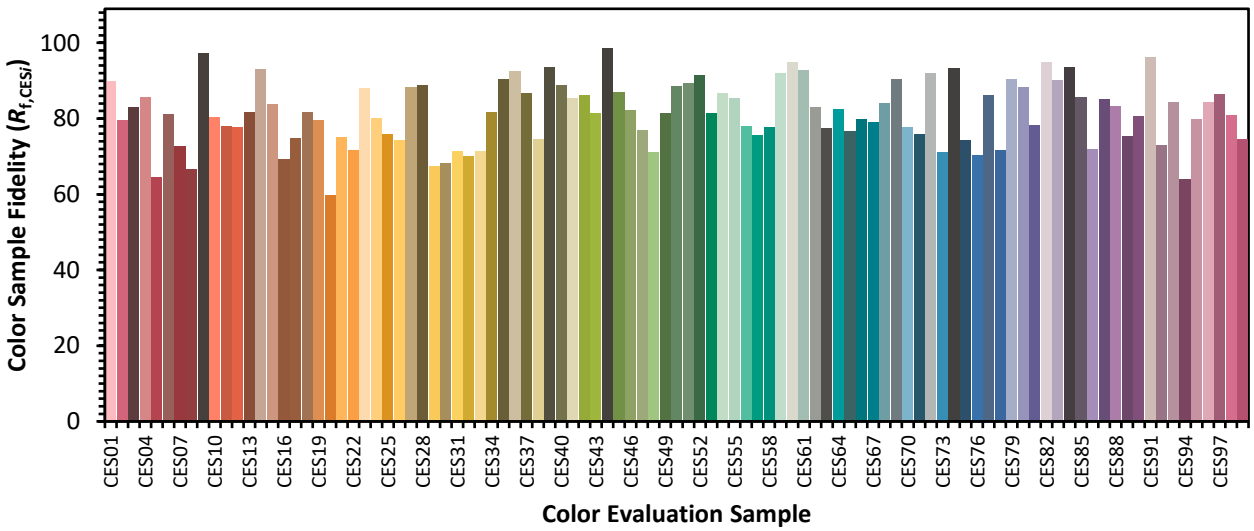
**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 92 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 94 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 91 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 78 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 | |



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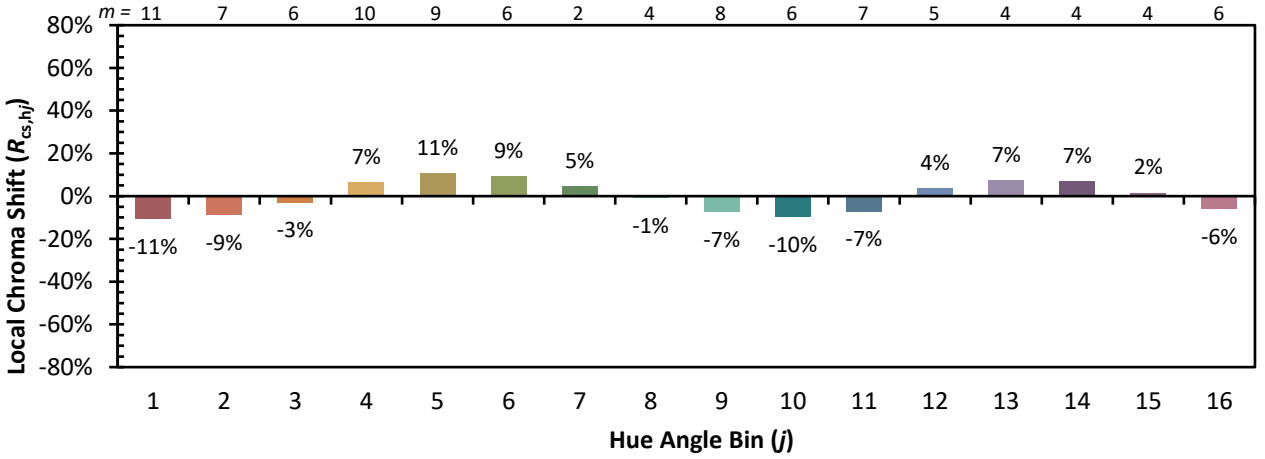
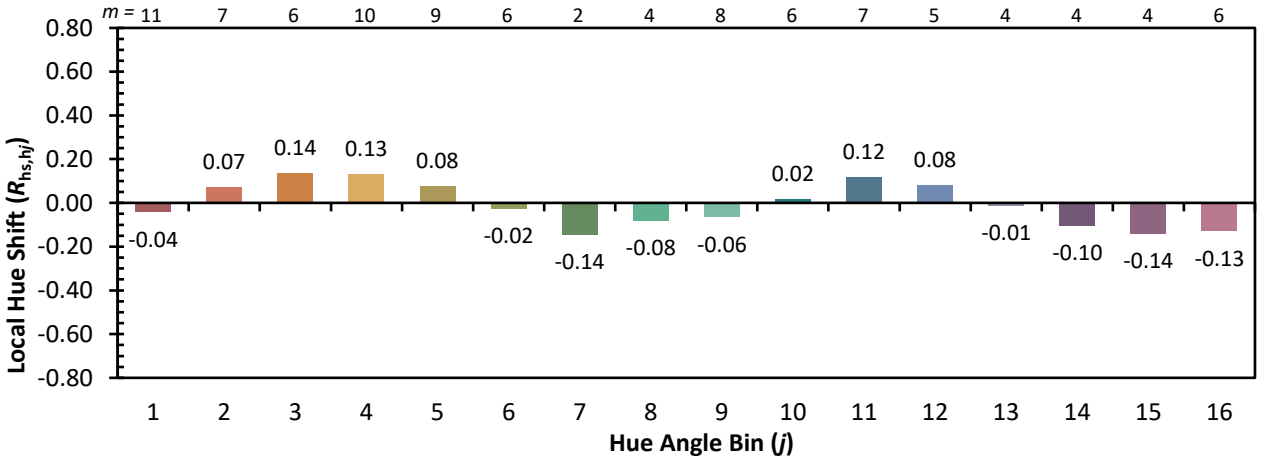
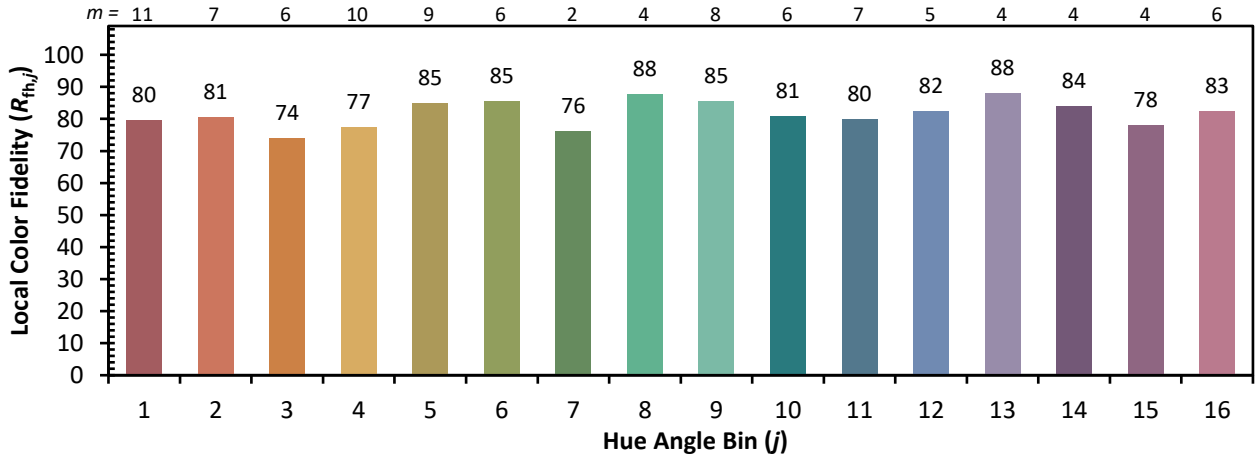
## Color Rendition by Hue-Angle Bin



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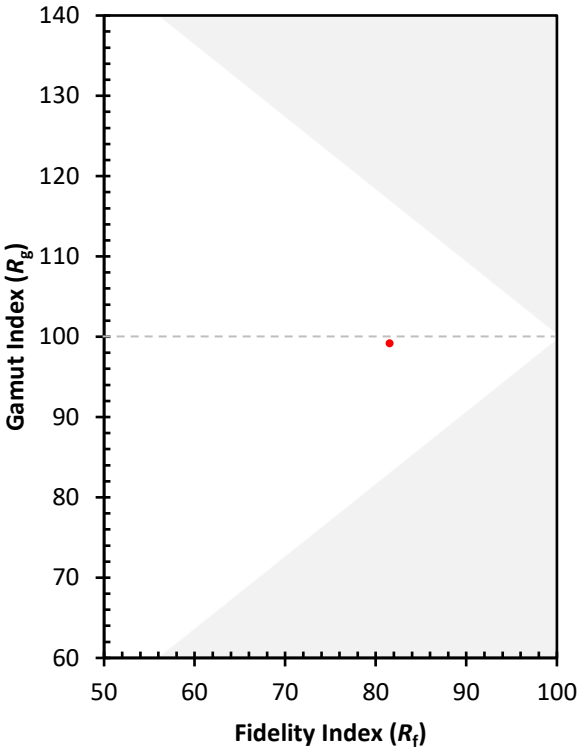
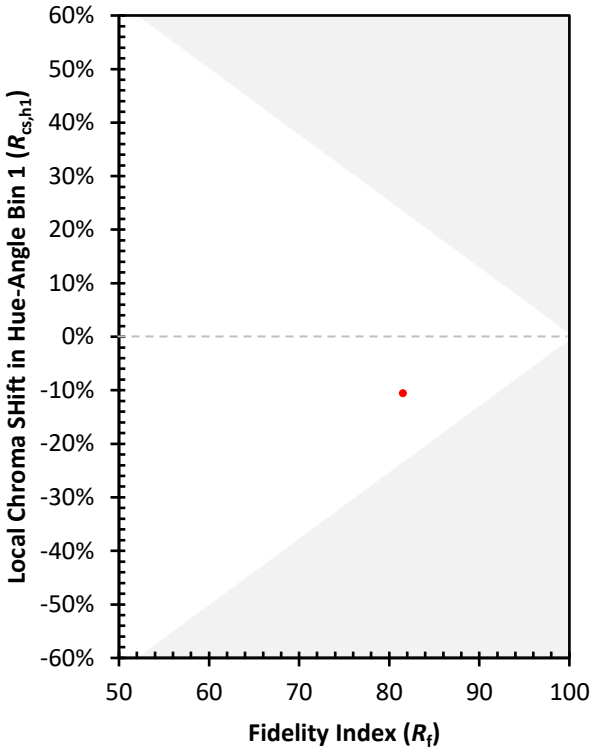
## Measure Comparisons




(END OF REPORT)