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

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Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P1199806

Luminaire Tested: GPC-SB2B-760-U-SL3-HSS

Issue Date: 10/30/2025

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

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1199806 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2B-760-U-SL3-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9592 lumens |
| Efficiency: | N/A |
| Efficacy: | 129.8 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Medium |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 73.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.627 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.988 |
| Total Harmonic Distortion (THDi): | 13.593 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

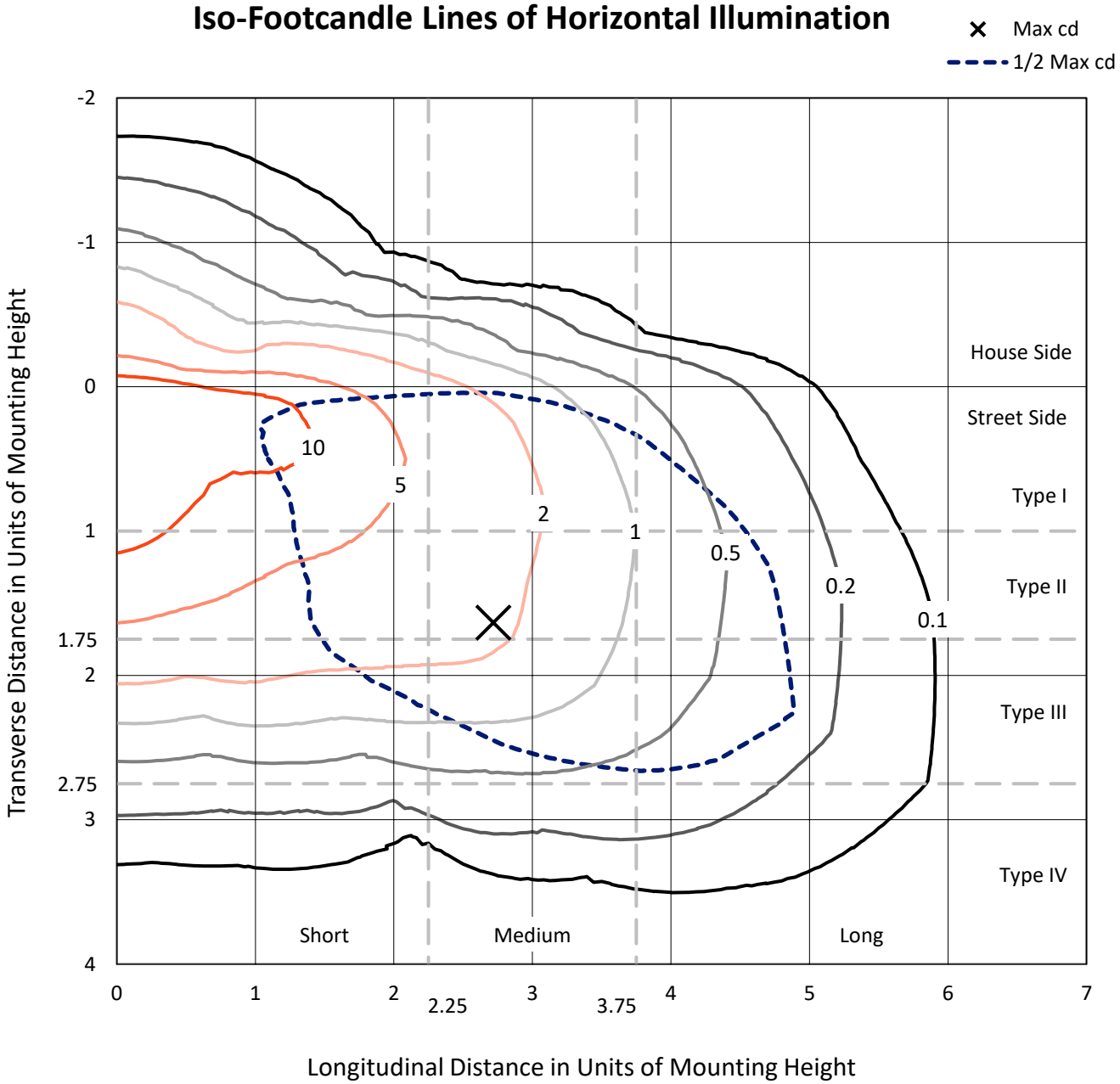


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REPORT NUMBER: P1199806
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## Iso-Footcandle Lines of Horizontal Illumination



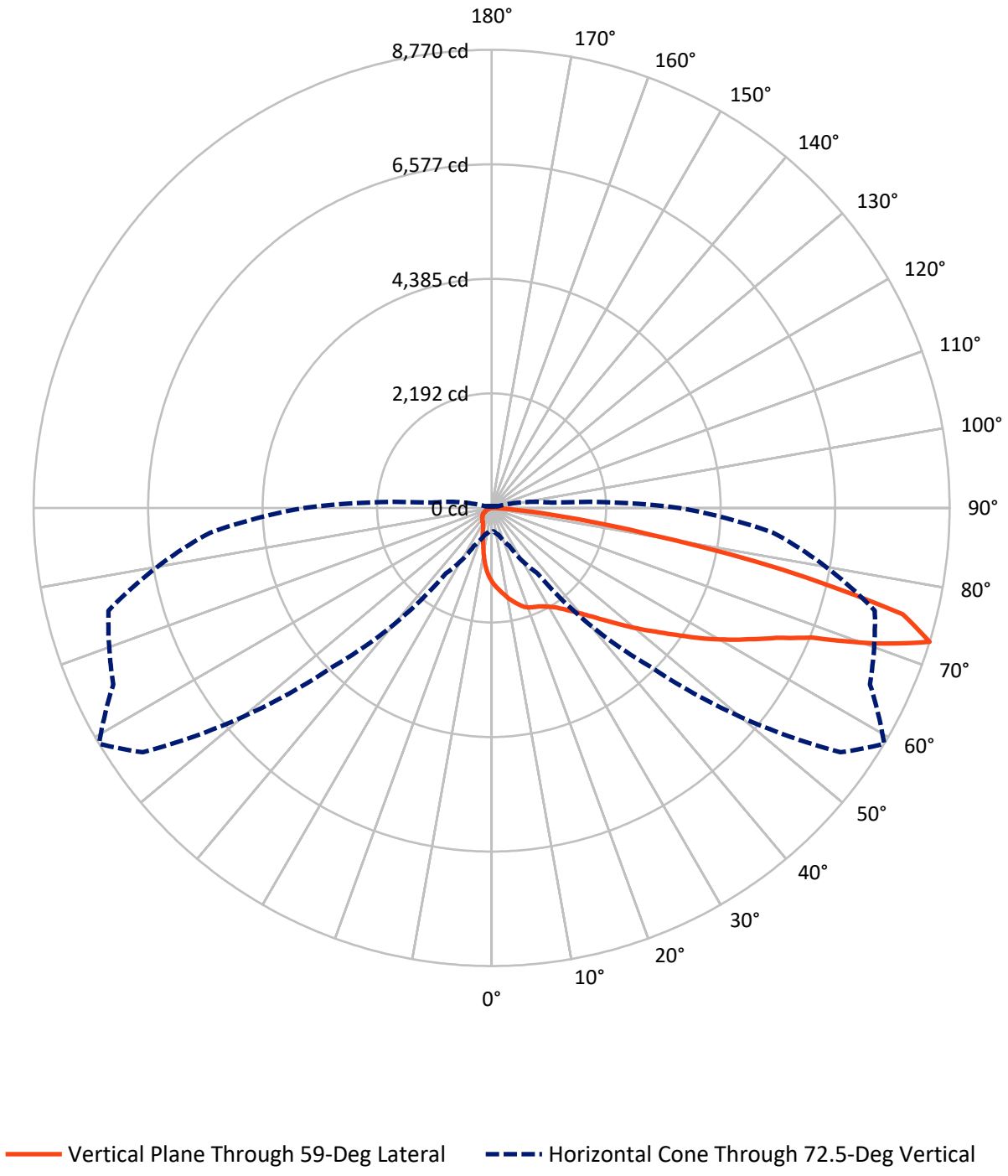

Based on 10 foot mounting height. Maximum calculated value = 17.5 fc
Type III - Medium - N/A

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## Luminous Intensity Polar Plot



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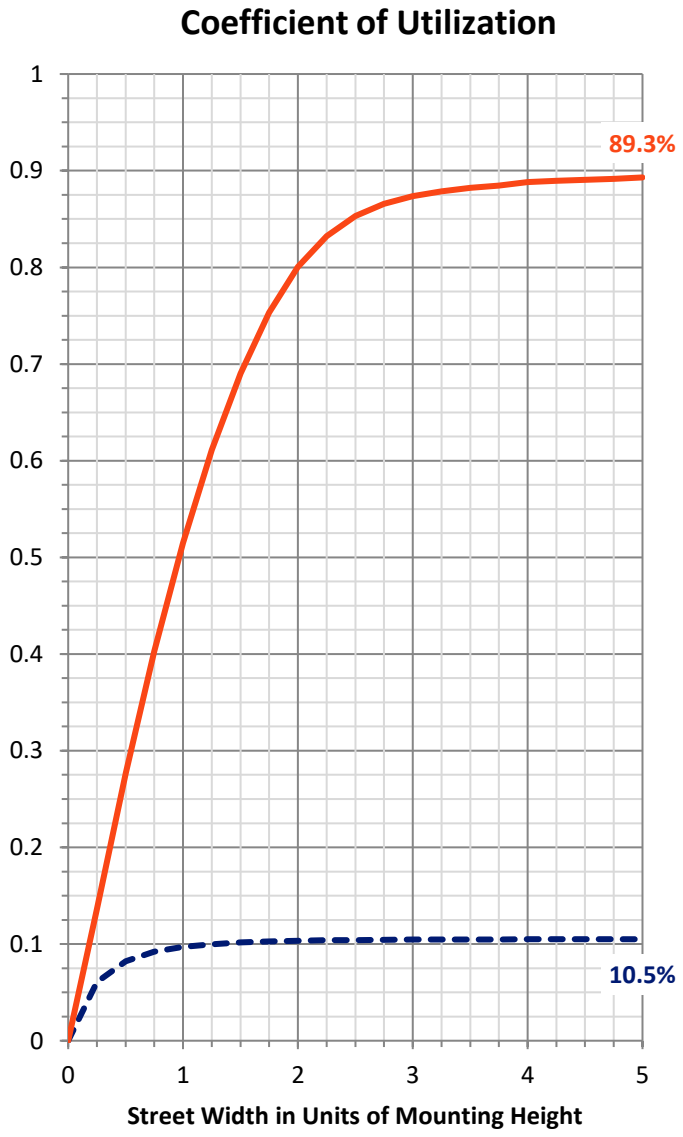
REPORT NUMBER: P1199806
CATALOG NUMBER: GPC-SB2B-760-U-SL3-HSS

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1013.1 | 0.0 | 1013.1 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| **Street Side** | Lumens | 8578.9 | 0.0 | 8578.9 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| **Total** | Lumens | 9592.0 | 0.0 | 9592.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 128.3 | 1.3 |
| 10°-20° | 340.9 | 3.6 |
| 20°-30° | 540.2 | 5.6 |
| 30°-40° | 867.0 | 9.0 |
| 40°-50° | 1384.7 | 14.4 |
| 50°-60° | 2004.8 | 20.9 |
| 60°-70° | 2379.3 | 24.8 |
| 70°-80° | 1766.3 | 18.4 |
| 80°-90° | 180.6 | 1.9 |
| 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° | 9592.0 | 100.0 |
| 0°-180° | 9592.0 | 100.0 |



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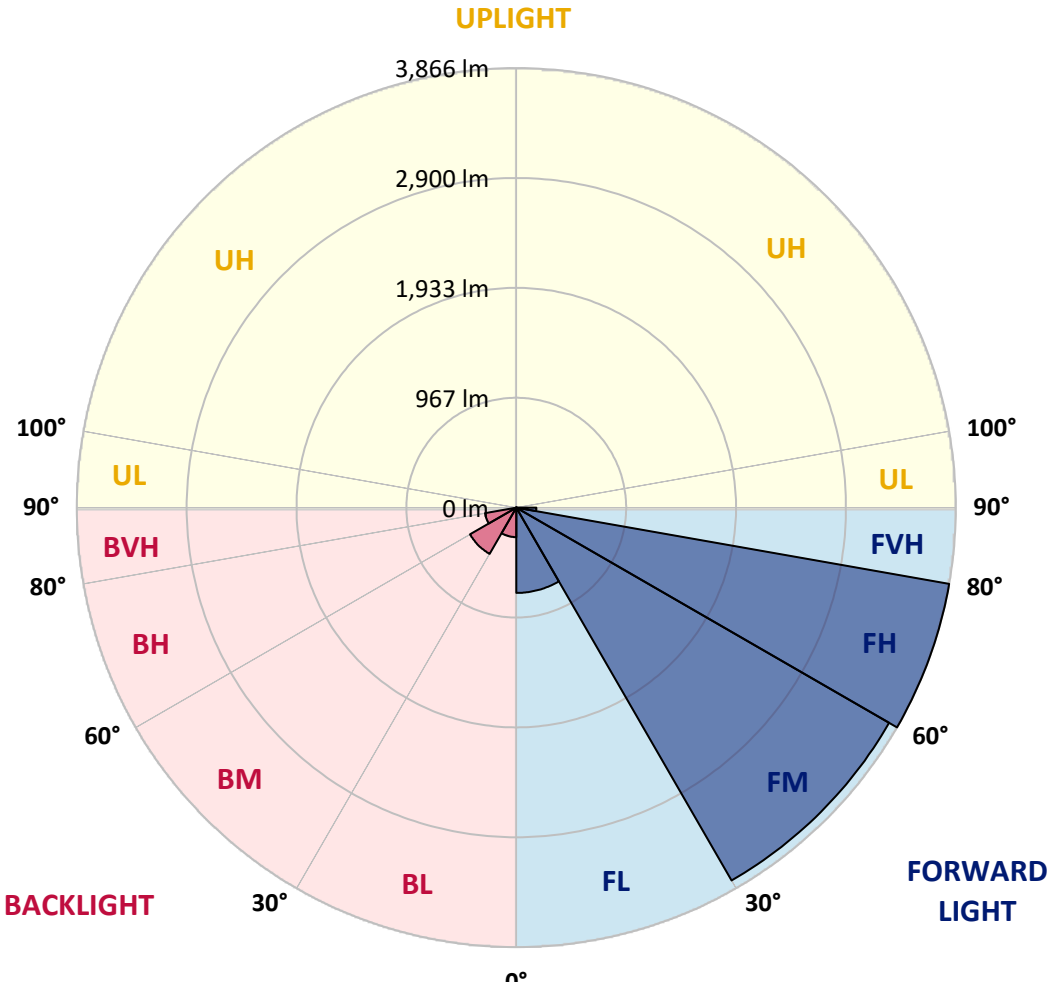
Scaled Data Report

REPORT NUMBER: P1199806
CATALOG NUMBER: GPC-SB2B-760-U-SL3-HSS

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 749.9 | 7.8 | | | |
| FM | (30°-60°) | 3786.8 | 39.5 | | | |
| FH | (60°-80°) | 3866.1 | 40.3 | | | G2/5000 |
| FVH | (80°-90°) | 176.1 | 1.8 | | | G2/225 |
| BL | (0°-30°) | 259.5 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 469.7 | 4.9 | B1/1000 | | |
| BH | (60°-80°) | 279.4 | 2.9 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.5 | 0.0 | | | 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 III Medium



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REPORT NUMBER: P1199806
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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | *1418.4* | 1418.4 | 1418.4 | 1418.4 |
| 2.5° | 1573.7 | 1565.0 | 1566.2 | 1551.2 | 1540.5 | 1529.3 | 1507.4 | *1504.2* | 1488.6 | 1461.0 | 1432.8 |
| 5° | 1710.9 | 1705.2 | 1700.2 | 1683.3 | 1661.4 | 1633.9 | 1596.9 | *1583.8* | 1554.9 | 1507.4 | 1452.2 |
| 7.5° | 1811.1 | 1804.2 | 1806.7 | 1789.8 | 1772.3 | 1741.6 | 1690.8 | *1666.4* | 1628.2 | 1555.6 | 1472.3 |
| 10° | 1830.5 | 1826.7 | 1843.0 | 1849.3 | 1849.3 | 1829.9 | 1780.4 | *1756.0* | 1700.2 | 1607.6 | 1493.0 |
| 12.5° | 1721.5 | 1722.2 | 1762.9 | 1811.7 | 1875.6 | 1893.7 | 1860.6 | *1834.3* | 1779.1 | 1662.7 | 1519.3 |
| 15° | 1594.4 | 1595.0 | 1634.5 | 1697.1 | 1801.7 | 1906.3 | 1932.6 | *1915.7* | 1858.7 | 1722.2 | 1549.9 |
| 17.5° | 1518.0 | 1514.9 | 1541.2 | 1592.5 | 1702.1 | 1849.3 | 1976.4 | *1987.7* | 1941.3 | 1787.9 | 1583.8 |
| 20° | 1507.4 | 1501.7 | 1515.5 | 1541.2 | 1619.5 | 1777.9 | 1981.4 | *2034.6* | 2026.5 | 1862.4 | 1622.6 |
| 22.5° | 1572.5 | 1563.7 | 1556.2 | 1557.5 | 1590.6 | 1718.4 | 1968.9 | *2060.9* | 2114.2 | 1952.0 | 1675.8 |
| 25° | 1701.5 | 1687.7 | 1663.3 | 1632.0 | 1625.1 | 1705.9 | 1960.1 | *2089.8* | 2195.6 | 2066.6 | 1746.0 |
| 27.5° | 1859.3 | 1839.9 | 1792.9 | 1746.0 | 1705.9 | 1740.9 | 1978.3 | *2135.5* | 2287.6 | 2200.0 | 1827.4 |
| 30° | 2032.8 | 2009.0 | 1962.0 | 1873.1 | 1809.2 | 1819.2 | 2021.5 | *2195.6* | 2405.4 | 2350.9 | 1929.4 |
| 32.5° | 2287.6 | 2232.5 | 2150.5 | 2014.6 | 1930.1 | 1903.8 | 2086.6 | *2272.0* | 2551.3 | 2551.9 | 2077.2 |
| 35° | 2506.2 | 2475.5 | 2392.9 | 2223.8 | 2050.3 | 2015.9 | 2172.4 | *2379.7* | 2753.6 | 2818.1 | 2283.9 |
| 37.5° | 2649.6 | 2607.7 | 2535.0 | 2407.9 | 2236.9 | 2131.1 | 2287.0 | *2511.8* | 2967.7 | 3121.2 | 2538.8 |
| 40° | 2809.9 | 2768.6 | 2672.2 | 2552.5 | 2453.6 | 2329.0 | 2431.7 | *2664.0* | 3202.6 | 3432.4 | 2830.0 |
| 42.5° | 3003.4 | 2949.6 | 2835.6 | 2706.6 | 2603.3 | 2589.5 | 2620.8 | *2853.8* | 3443.7 | 3770.6 | 3133.1 |
| 45° | 3230.8 | 3180.0 | 3049.2 | 2886.3 | 2795.5 | 2771.1 | 2858.8 | *3074.8* | 3712.3 | 4141.3 | 3439.3 |
| 47.5° | 3443.7 | 3384.8 | 3243.9 | 3095.5 | 2994.7 | 2917.6 | 3111.8 | *3336.0* | 4016.7 | 4529.0 | 3728.6 |
| 50° | 3624.7 | 3564.5 | 3435.5 | 3277.1 | 3208.8 | 3108.0 | 3360.4 | *3627.2* | 4318.5 | 4922.9 | 3992.9 |
| 52.5° | 3748.7 | 3695.4 | 3543.9 | 3436.2 | 3389.8 | 3339.1 | 3651.6 | *3935.9* | 4619.1 | 5283.6 | 4254.0 |
| 55° | 3720.5 | 3672.9 | 3539.5 | 3532.0 | 3528.8 | 3582.1 | 3999.8 | *4286.0* | 4925.4 | 5624.9 | 4513.9 |
| 57.5° | 3630.9 | 3577.1 | 3410.5 | 3525.1 | 3635.9 | 3798.8 | 4376.8 | *4699.9* | 5261.0 | 5946.8 | 4764.4 |
| 60° | 3367.3 | 3348.5 | 3247.0 | 3511.9 | 3681.0 | 4011.1 | 4807.6 | *5115.7* | 5624.2 | 6229.8 | 4986.7 |
| 62.5° | 2809.3 | 2825.6 | 2825.0 | 3539.5 | 3762.4 | 4252.8 | 5199.0 | *5536.6* | 5979.3 | 6502.2 | 5184.6 |
| 65° | 2103.5 | 2159.9 | 2231.9 | 3291.5 | 3871.4 | 4684.3 | 5666.8 | *5993.1* | 6340.0 | 6819.1 | 5385.6 |
| 67.5° | 1413.4 | 1458.5 | 1507.4 | 2700.3 | 3547.0 | 5137.7 | 6444.0 | *6618.7* | 6772.1 | 7170.4 | 5611.7 |
| 70° | 809.1 | 823.5 | 891.8 | 1686.5 | 2734.2 | 5012.4 | 7709.6 | *7772.9* | 7416.5 | 7603.2 | 5776.4 |
| 72.5° | *453.4* | *448.4* | *538.6* | *800.3* | *1528.0* | *4292.2* | *8153.0* | *8769.8* | *7993.3* | *7596.3* | *5408.8* |
| 75° | 303.1 | 303.7 | 370.7 | 504.7 | 595.6 | 3004.7 | 7025.8 | *8131.7* | 7647.6 | 6735.8 | 4419.4 |
| 77.5° | 206.7 | 213.5 | 272.4 | 390.1 | 275.5 | 1466.0 | 4647.9 | *5696.3* | 6191.6 | 5201.5 | 3051.0 |
| 80° | 89.6 | 90.2 | 179.7 | 279.9 | 186.0 | 466.5 | 2409.8 | *3051.7* | 3883.3 | 2920.8 | 1208.6 |
| 82.5° | 46.3 | 52.6 | 114.6 | 181.0 | 117.1 | 163.4 | 1138.5 | *1333.3* | 1629.5 | 857.3 | 248.0 |
| 85° | 16.3 | 19.4 | 70.8 | 88.9 | 58.9 | 58.2 | 396.4 | *403.9* | 345.1 | 129.0 | 68.3 |
| 87.5° | 0.0 | 3.1 | 27.6 | 21.9 | 7.5 | 6.9 | 47.0 | *39.5* | 31.3 | 18.2 | 22.5 |
| 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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REPORT NUMBER: P1199806
CATALOG NUMBER: GPC-SB2B-760-U-SL3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 | 1418.4 |
| 2.5° | 1419.7 | 1402.8 | 1375.2 | 1341.4 | 1301.9 | 1280.7 | 1250.0 | 1231.2 | 1214.3 | 1214.9 | 1228.7 |
| 5° | 1421.6 | 1393.4 | 1323.2 | 1248.7 | 1166.1 | 1105.3 | 1037.7 | 990.1 | 953.8 | 945.0 | 958.1 |
| 7.5° | 1427.2 | 1379.6 | 1265.0 | 1141.0 | 1003.2 | 901.2 | 807.8 | 749.0 | 715.8 | 707.0 | 715.8 |
| 10° | 1434.7 | 1364.6 | 1199.2 | 1009.5 | 838.5 | 715.8 | 638.1 | 600.6 | 585.5 | 574.3 | 581.1 |
| 12.5° | 1441.0 | 1348.9 | 1116.6 | 873.6 | 692.0 | 596.2 | 537.3 | 506.0 | 492.8 | 484.7 | 489.1 |
| 15° | 1451.6 | 1328.3 | 1027.0 | 747.1 | 593.0 | 514.8 | 459.0 | 435.9 | 432.1 | 433.4 | 435.2 |
| 17.5° | 1462.3 | 1308.2 | 926.8 | 648.2 | 520.4 | 443.4 | 409.6 | 405.8 | 410.8 | 415.8 | 417.7 |
| 20° | 1474.2 | 1279.4 | 825.4 | 573.6 | 453.4 | 393.9 | 385.1 | 387.6 | 390.1 | 398.9 | 401.4 |
| 22.5° | 1491.7 | 1243.1 | 736.5 | 510.4 | 397.7 | 370.1 | 365.7 | 367.6 | 369.5 | 378.2 | 380.8 |
| 25° | 1516.7 | 1204.3 | 664.4 | 452.1 | 362.6 | 350.7 | 346.3 | 346.3 | 348.8 | 357.0 | 360.1 |
| 27.5° | 1543.0 | 1149.1 | 606.2 | 398.3 | 341.9 | 329.4 | 321.9 | 321.9 | 325.0 | 334.4 | 338.2 |
| 30° | 1572.5 | 1099.0 | 560.5 | 358.2 | 324.4 | 308.1 | 298.1 | 295.6 | 299.3 | 311.2 | 314.4 |
| 32.5° | 1625.7 | 1066.5 | 527.9 | 339.4 | 308.7 | 288.7 | 274.9 | 268.0 | 271.8 | 285.6 | 289.3 |
| 35° | 1706.5 | 1059.0 | 505.4 | 330.0 | 293.7 | 271.2 | 251.7 | 241.1 | 244.2 | 258.6 | 263.0 |
| 37.5° | 1801.1 | 1074.6 | 483.5 | 317.5 | 279.3 | 254.3 | 228.6 | 214.8 | 219.8 | 233.0 | 236.7 |
| 40° | 1937.0 | 1139.8 | 466.5 | 308.1 | 264.9 | 234.2 | 205.4 | 191.6 | 199.8 | 211.0 | 212.9 |
| 42.5° | 2101.0 | 1255.6 | 462.2 | 299.3 | 247.4 | 212.9 | 184.1 | 174.1 | 180.4 | 191.0 | 192.9 |
| 45° | 2304.6 | 1403.4 | 482.2 | 288.1 | 228.0 | 192.3 | 167.2 | 161.6 | 163.4 | 174.1 | 179.1 |
| 47.5° | 2523.1 | 1554.9 | 537.3 | 278.0 | 211.0 | 175.3 | 154.1 | 149.0 | 147.8 | 157.8 | 164.1 |
| 50° | 2744.2 | 1689.6 | 602.4 | 270.5 | 199.1 | 161.6 | 144.0 | 137.8 | 134.6 | 140.9 | 143.4 |
| 52.5° | 2962.7 | 1796.7 | 645.0 | 258.0 | 187.2 | 147.8 | 135.3 | 125.9 | 120.2 | 123.4 | 125.9 |
| 55° | 3184.4 | 1890.6 | 647.5 | 239.2 | 176.0 | 139.0 | 126.5 | 115.9 | 109.0 | 109.0 | 110.2 |
| 57.5° | 3391.7 | 1973.3 | 610.6 | 214.2 | 160.3 | 130.9 | 114.6 | 105.8 | 98.3 | 95.8 | 96.4 |
| 60° | 3575.2 | 2034.6 | 549.2 | 186.0 | 146.5 | 120.2 | 102.7 | 95.8 | 86.4 | 81.4 | 80.2 |
| 62.5° | 3738.6 | 2064.7 | 465.3 | 157.2 | 129.6 | 107.7 | 91.4 | 83.9 | 71.4 | 65.1 | 64.5 |
| 65° | 3877.0 | 2034.0 | 377.6 | 130.3 | 115.2 | 93.9 | 78.3 | 70.8 | 57.0 | 49.5 | 49.5 |
| 67.5° | 4014.2 | 1893.7 | 285.6 | 109.6 | 100.2 | 78.9 | 64.5 | 57.6 | 47.6 | 41.3 | 41.3 |
| 70° | 4031.7 | 1598.8 | 199.8 | 92.1 | 83.3 | 60.7 | 52.0 | 47.6 | 38.8 | 33.2 | 32.6 |
| 72.5° | *3589.0* | *1150.4* | *121.5* | *75.1* | *65.1* | *43.2* | *41.3* | *37.6* | *28.8* | *25.0* | *24.4* |
| 75° | 2868.8 | 705.1 | 71.4 | 56.4 | 43.2 | 30.7 | 30.7 | 26.9 | 19.4 | 16.3 | 16.3 |
| 77.5° | 1982.7 | 368.9 | 42.0 | 36.3 | 25.7 | 18.2 | 20.0 | 16.3 | 9.4 | 7.5 | 7.5 |
| 80° | 794.1 | 140.3 | 22.5 | 16.9 | 11.9 | 8.1 | 6.9 | 3.8 | 1.9 | 1.3 | 1.9 |
| 82.5° | 158.4 | 36.9 | 7.5 | 4.4 | 4.4 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 40.7 | 8.1 | 1.9 | 1.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.5 | 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 |


HS
SS

0

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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

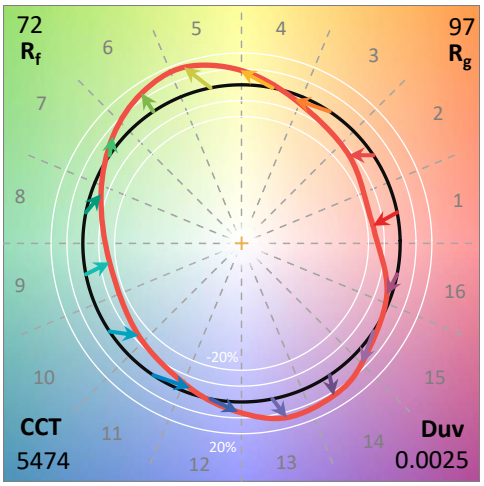
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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 |

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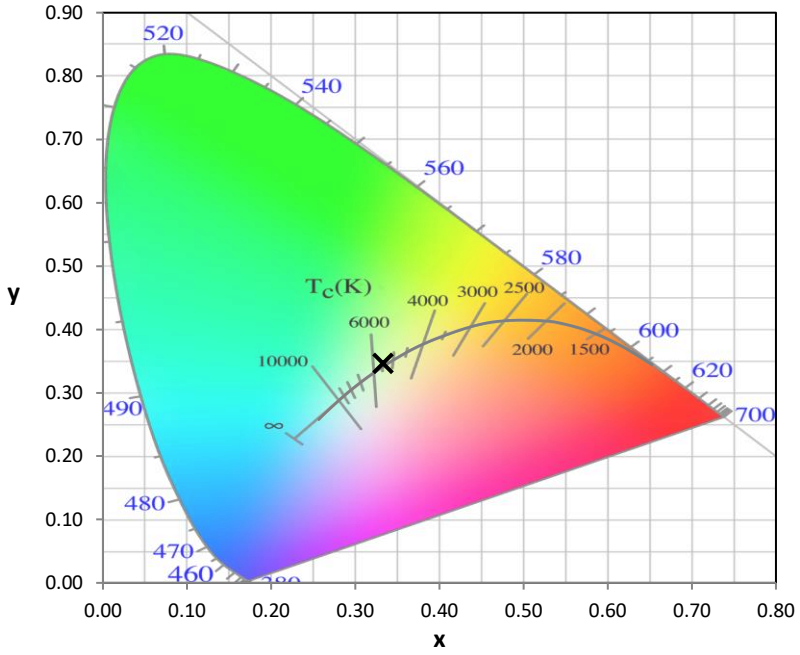
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

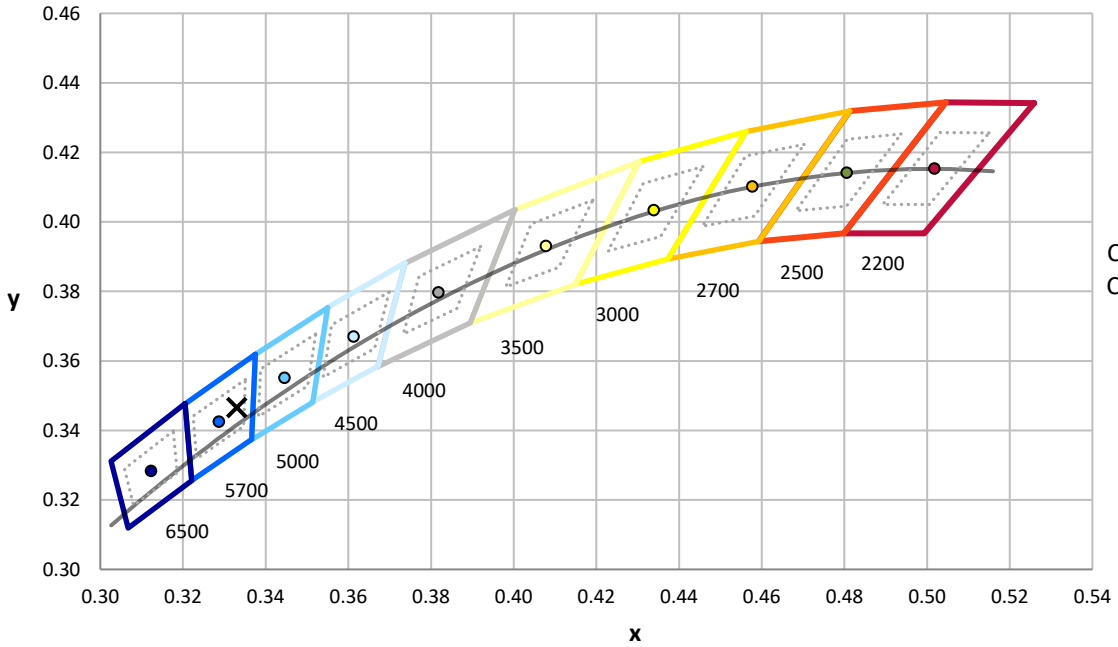
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



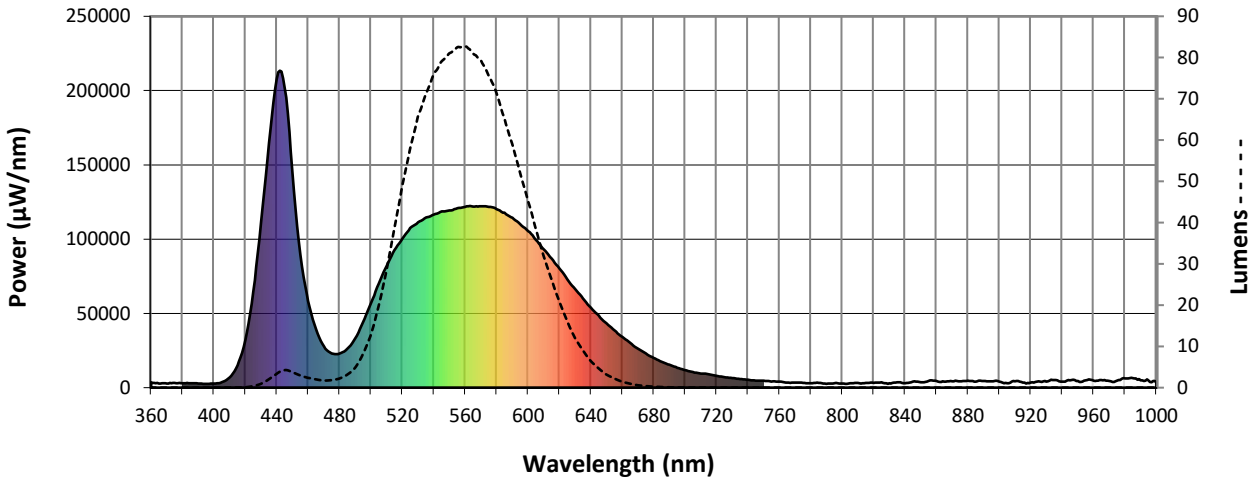

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



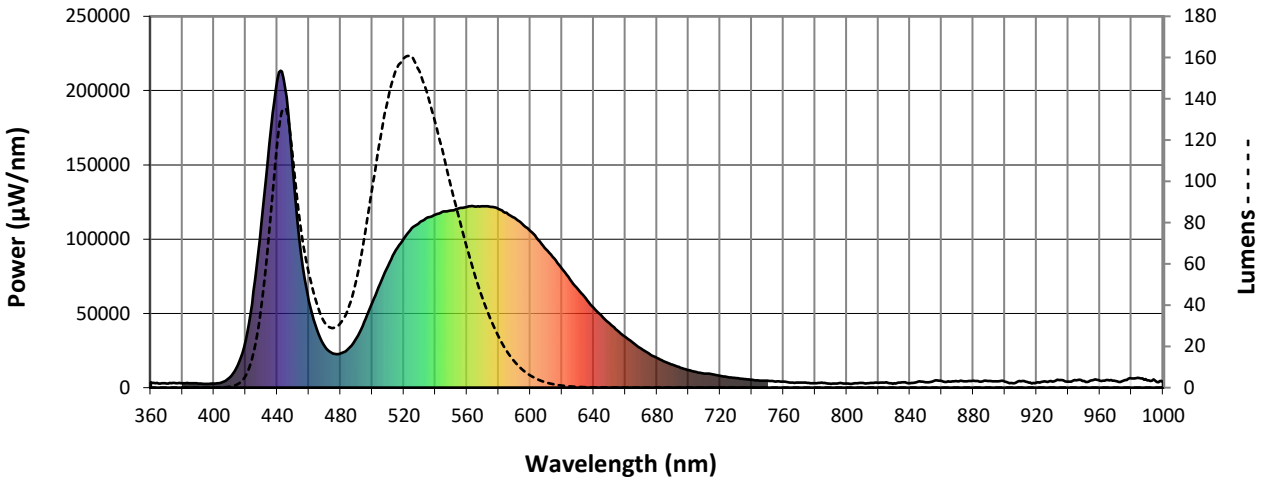

**Photopic Lumens: 7459.9**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 4.7 | 620 | 80193 | 20.9 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 8.0 | 625 | 73091 | 16.1 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 12.6 | 630 | 66269 | 12.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 19.6 | 635 | 60012 | 9.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 28.2 | 640 | 53914 | 6.4 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 38.4 | 645 | 48385 | 4.7 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 48.6 | 650 | 43219 | 3.2 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 57.7 | 655 | 38562 | 2.2 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 65.6 | 660 | 34110 | 1.4 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.0 | 535 | 114505 | 71.0 | 665 | 30085 | 1.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.0 | 540 | 116408 | 75.8 | 670 | 26205 | 0.6 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 0.0 | 545 | 118700 | 79.0 | 675 | 22906 | 0.4 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 0.1 | 550 | 119209 | 81.0 | 680 | 20058 | 0.2 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 0.3 | 555 | 120742 | 82.5 | 685 | 17413 | 0.1 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 0.9 | 560 | 121594 | 82.6 | 690 | 15447 | 0.1 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 1.9 | 565 | 121913 | 81.1 | 695 | 13398 | 0.1 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 3.3 | 570 | 122147 | 79.4 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 4.2 | 575 | 121605 | 75.7 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 3.8 | 580 | 120248 | 71.5 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 3.0 | 585 | 117717 | 65.4 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 2.4 | 590 | 114359 | 59.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 2.0 | 595 | 109974 | 52.1 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 1.7 | 600 | 105269 | 45.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 1.8 | 605 | 99453 | 38.5 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 2.2 | 610 | 92921 | 31.9 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 3.1 | 615 | 86989 | 26.3 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Scotopic Flux vs. Wavelength



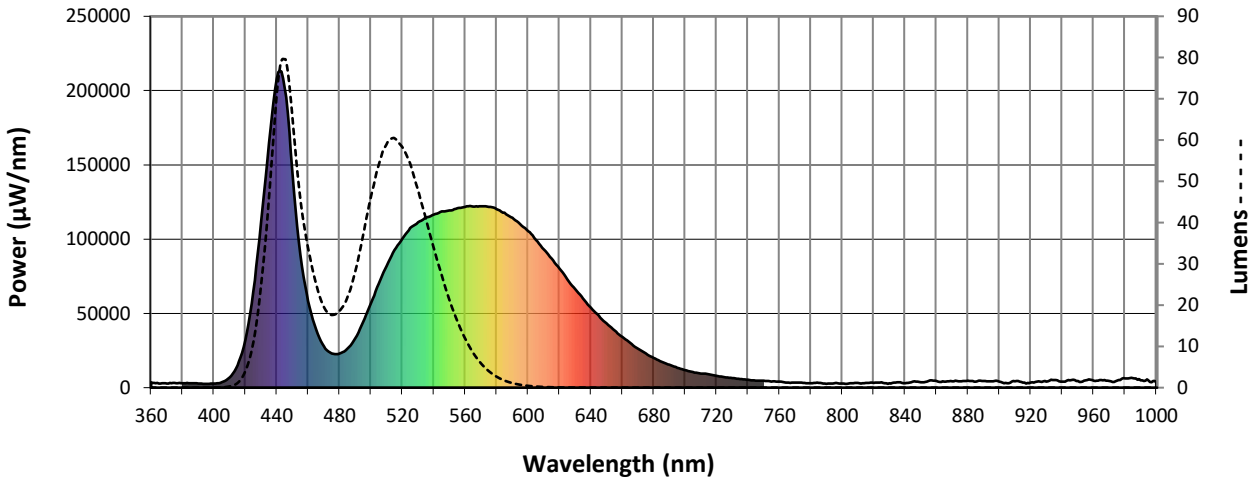

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 27.8 | 620 | 80193 | 0.1 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 36.5 | 625 | 73091 | 0.0 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 45.8 | 630 | 66269 | 0.0 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 53.7 | 635 | 60012 | 0.0 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 58.9 | 640 | 53914 | 0.0 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 60.5 | 645 | 48385 | 0.0 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 58.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 54.5 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 48.1 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 41.2 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.3 | 540 | 116408 | 34.1 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.0 | 545 | 118700 | 27.6 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 3.6 | 550 | 119209 | 21.4 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 10.1 | 555 | 120742 | 16.3 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 23.4 | 560 | 121594 | 12.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 43.9 | 565 | 121913 | 8.6 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 69.4 | 570 | 122147 | 6.0 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 79.6 | 575 | 121605 | 4.0 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 67.0 | 580 | 120248 | 2.7 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 46.9 | 585 | 117717 | 1.7 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 34.4 | 590 | 114359 | 1.1 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 25.7 | 595 | 109974 | 0.7 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 19.8 | 600 | 105269 | 0.4 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 17.6 | 605 | 99453 | 0.3 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 18.5 | 610 | 92921 | 0.2 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 21.6 | 615 | 86989 | 0.1 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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## Melanopic Flux vs. Wavelength




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

| λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) | λ (nm) | Power (µW/nm) | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 3540 | 0.0 | 490 | 33363 | 51.4 | 620 | 80193 | 1.0 | 750 | 4663 | 0.0 | 880 | 4678 | 0.0 |
| 365 | 2862 | 0.0 | 495 | 44177 | 71.4 | 625 | 73091 | 0.6 | 755 | 4147 | 0.0 | 885 | 4128 | 0.0 |
| 370 | 2865 | 0.0 | 500 | 57019 | 95.4 | 630 | 66269 | 0.4 | 760 | 4040 | 0.0 | 890 | 4504 | 0.0 |
| 375 | 3254 | 0.0 | 505 | 70030 | 119.1 | 635 | 60012 | 0.2 | 765 | 3474 | 0.0 | 895 | 4371 | 0.0 |
| 380 | 3076 | 0.0 | 510 | 81972 | 138.9 | 640 | 53914 | 0.1 | 770 | 3469 | 0.0 | 900 | 4082 | 0.0 |
| 385 | 2904 | 0.0 | 515 | 92590 | 153.5 | 645 | 48385 | 0.1 | 775 | 3181 | 0.0 | 905 | 2982 | 0.0 |
| 390 | 2689 | 0.0 | 520 | 100305 | 159.4 | 650 | 43219 | 0.0 | 780 | 2969 | 0.0 | 910 | 4351 | 0.0 |
| 395 | 2619 | 0.0 | 525 | 107452 | 160.7 | 655 | 38562 | 0.0 | 785 | 3132 | 0.0 | 915 | 3365 | 0.0 |
| 400 | 2679 | 0.0 | 530 | 111373 | 153.5 | 660 | 34110 | 0.0 | 790 | 2507 | 0.0 | 920 | 3430 | 0.0 |
| 405 | 3515 | 0.1 | 535 | 114505 | 142.7 | 665 | 30085 | 0.0 | 795 | 2968 | 0.0 | 925 | 4264 | 0.0 |
| 410 | 6934 | 0.4 | 540 | 116408 | 128.6 | 670 | 26205 | 0.0 | 800 | 2758 | 0.0 | 930 | 4095 | 0.0 |
| 415 | 14943 | 1.5 | 545 | 118700 | 113.8 | 675 | 22906 | 0.0 | 805 | 2872 | 0.0 | 935 | 5048 | 0.0 |
| 420 | 31939 | 5.3 | 550 | 119209 | 97.5 | 680 | 20058 | 0.0 | 810 | 3094 | 0.0 | 940 | 4074 | 0.0 |
| 425 | 64701 | 15.8 | 555 | 120742 | 82.5 | 685 | 17413 | 0.0 | 815 | 3222 | 0.0 | 945 | 4949 | 0.0 |
| 430 | 110939 | 37.8 | 560 | 121594 | 68.0 | 690 | 15447 | 0.0 | 820 | 3238 | 0.0 | 950 | 4387 | 0.0 |
| 435 | 164597 | 73.6 | 565 | 121913 | 54.7 | 695 | 13398 | 0.0 | 825 | 3524 | 0.0 | 955 | 4978 | 0.0 |
| 440 | 207696 | 116.1 | 570 | 122147 | 43.1 | 700 | 11777 | 0.0 | 830 | 2921 | 0.0 | 960 | 4706 | 0.0 |
| 445 | 201830 | 135.1 | 575 | 121605 | 33.1 | 705 | 10412 | 0.0 | 835 | 3595 | 0.0 | 965 | 5083 | 0.0 |
| 450 | 145410 | 112.7 | 580 | 120248 | 24.8 | 710 | 9544 | 0.0 | 840 | 3016 | 0.0 | 970 | 4522 | 0.0 |
| 455 | 89594 | 78.3 | 585 | 117717 | 18.0 | 715 | 8940 | 0.0 | 845 | 4032 | 0.0 | 975 | 4740 | 0.0 |
| 460 | 58321 | 56.3 | 590 | 114359 | 12.7 | 720 | 7897 | 0.0 | 850 | 3579 | 0.0 | 980 | 6122 | 0.0 |
| 465 | 39318 | 41.5 | 595 | 109974 | 8.8 | 725 | 7045 | 0.0 | 855 | 4571 | 0.0 | 985 | 6450 | 0.0 |
| 470 | 27693 | 31.9 | 600 | 105269 | 5.9 | 730 | 6483 | 0.0 | 860 | 4485 | 0.0 | 990 | 4875 | 0.0 |
| 475 | 23081 | 28.9 | 605 | 99453 | 3.9 | 735 | 5838 | 0.0 | 865 | 3978 | 0.0 | 995 | 4764 | 0.0 |
| 480 | 23002 | 31.1 | 610 | 92921 | 2.5 | 740 | 5261 | 0.0 | 870 | 4298 | 0.0 | 1000 | 3640 | 0.0 |
| 485 | 26201 | 38.0 | 615 | 86989 | 1.6 | 745 | 4760 | 0.0 | 875 | 4356 | 0.0 | | | |

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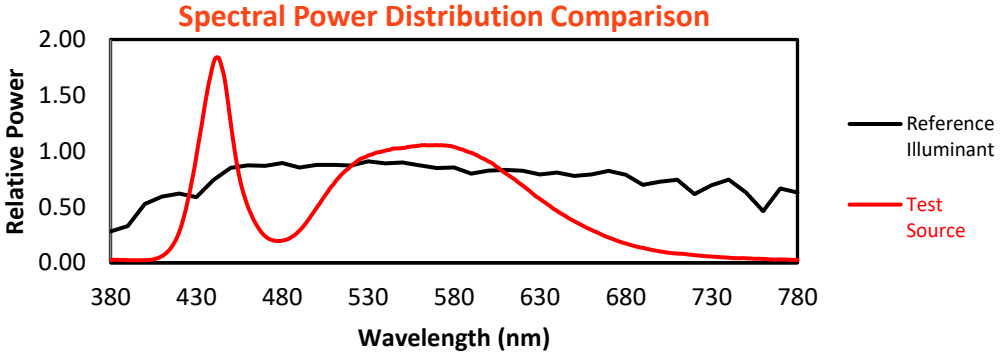
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# TM-30-18

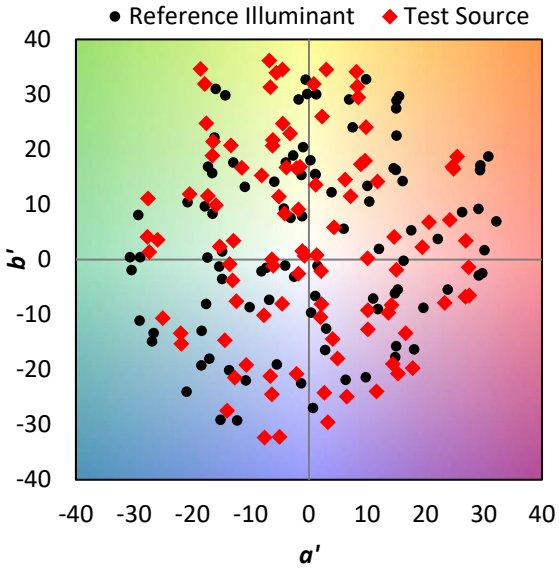
## Summary

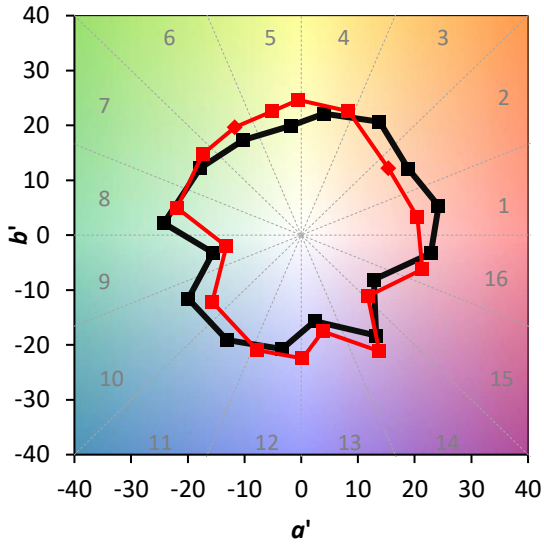
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

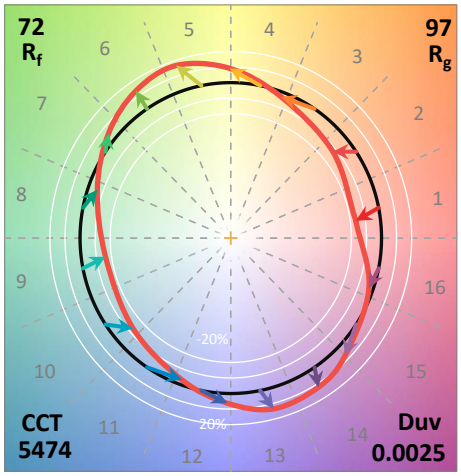
## Spectral Power Distribution Comparison

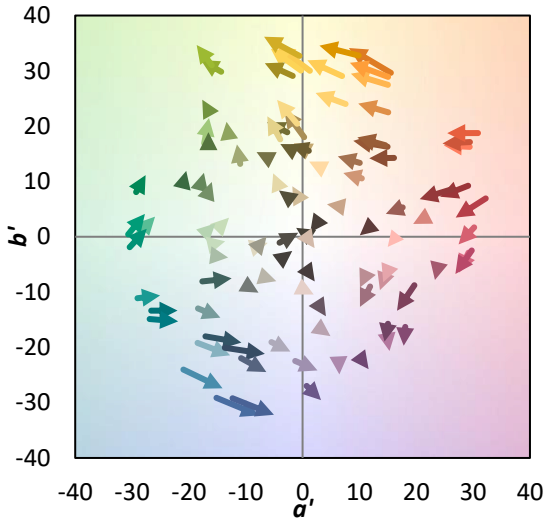



## Color Vector Graphics



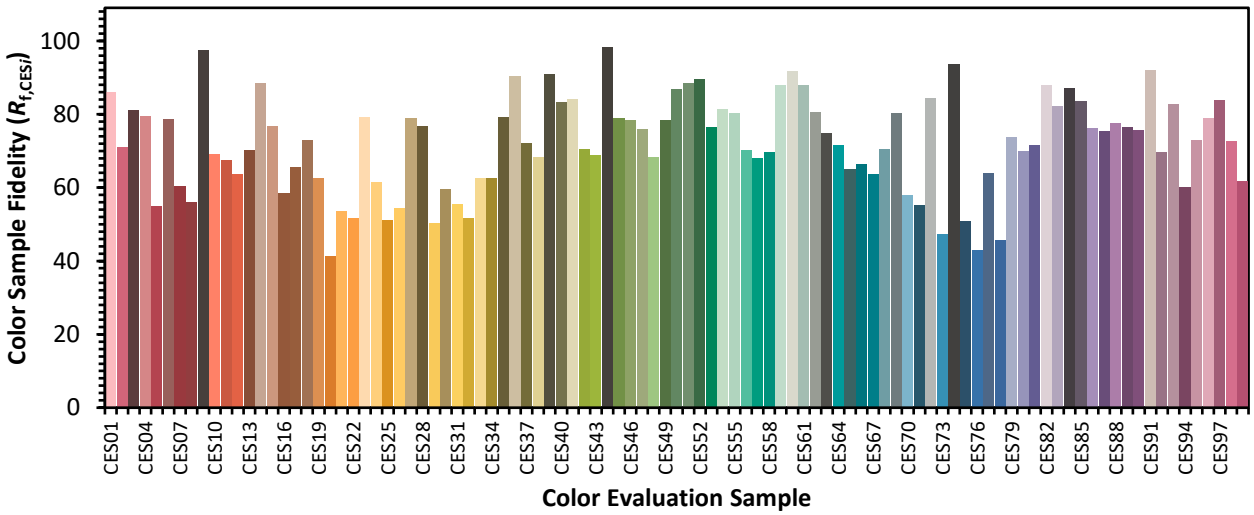
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Peachtree City, GA 30269

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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 | |

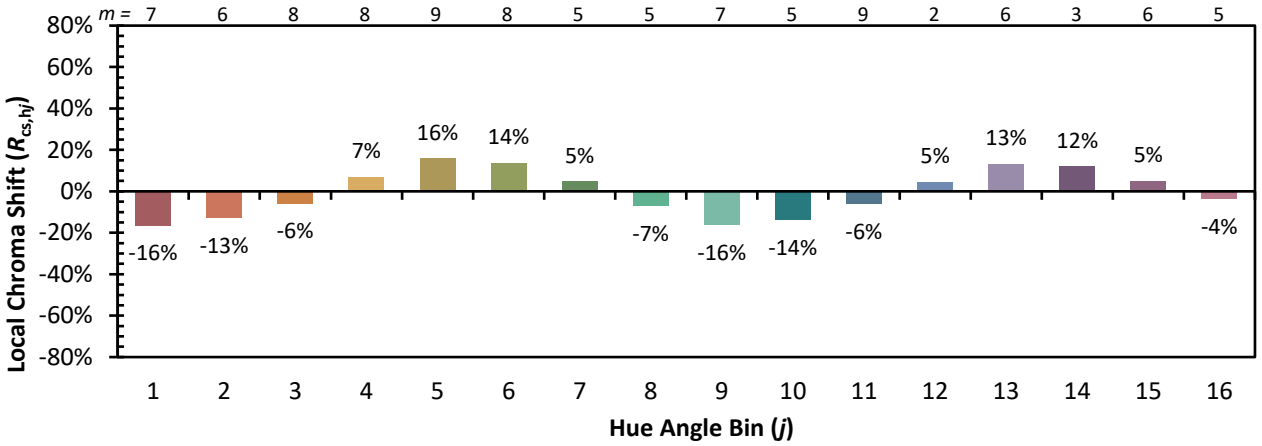


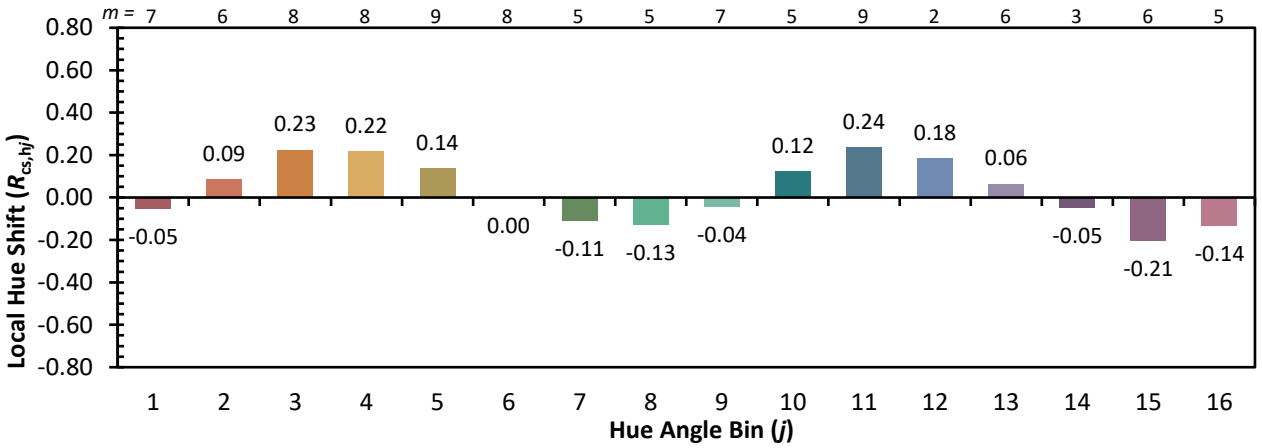
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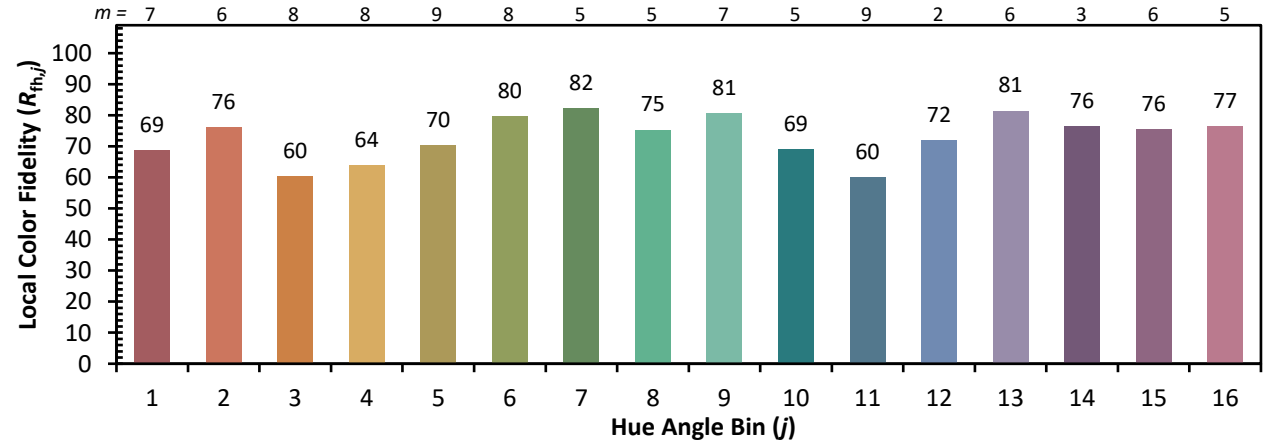
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



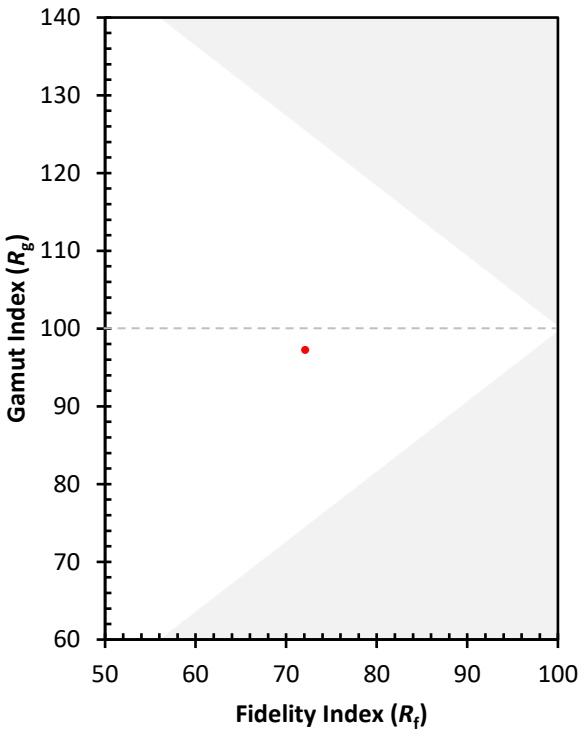



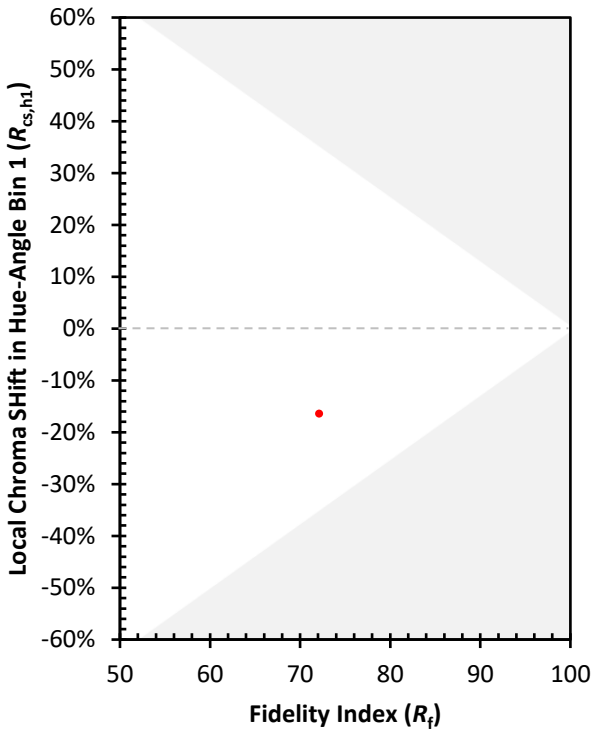
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### Measure Comparisons




(END OF REPORT)