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

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Peachtree City, GA 30269

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: P1197441

Luminaire Tested: GPC-SB1A-760-U-T3

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: | P1197441 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB1A-760-U-T3 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 4775 lumens |
| Efficiency: | N/A |
| Efficacy: | 154.5 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G1 |

| | |
|---|---|
| Input Watts (W): | 30.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.263 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.995 |
| Total Harmonic Distortion (THDi): | 6.356 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

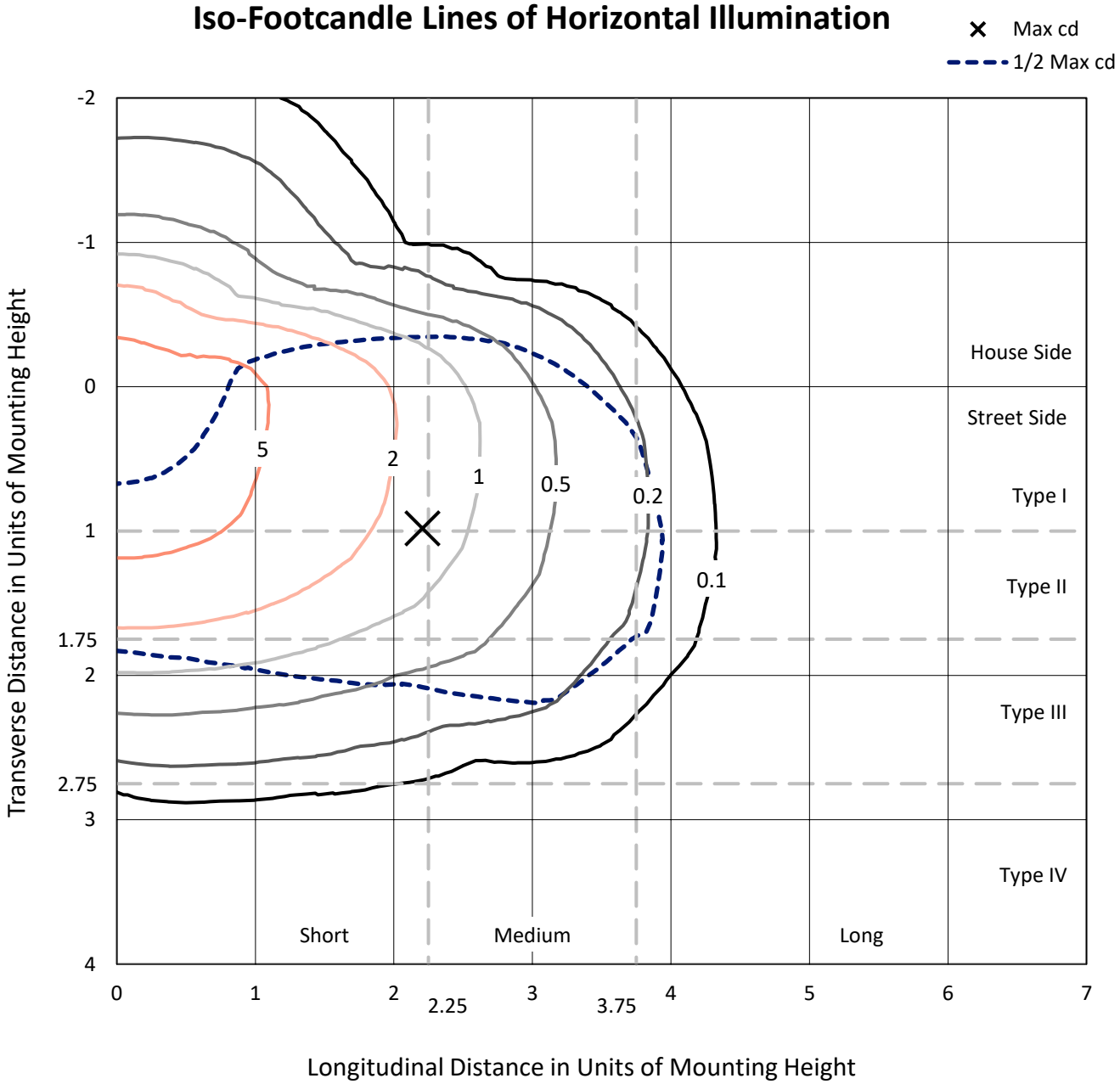


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Scaled Data Report

REPORT NUMBER: P1197441
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## Iso-Footcandle Lines of Horizontal Illumination



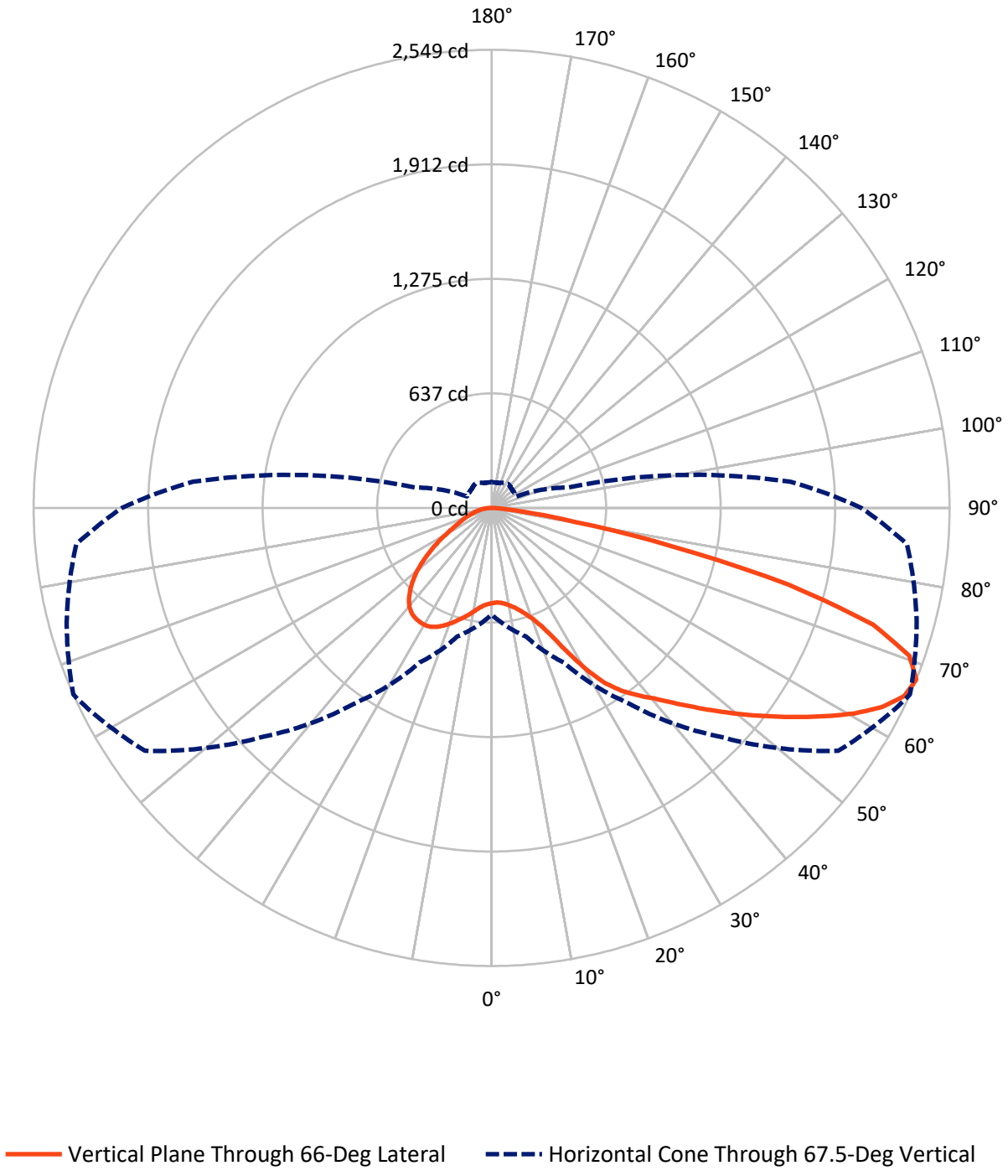

Based on 10 foot mounting height. Maximum calculated value = 7.5 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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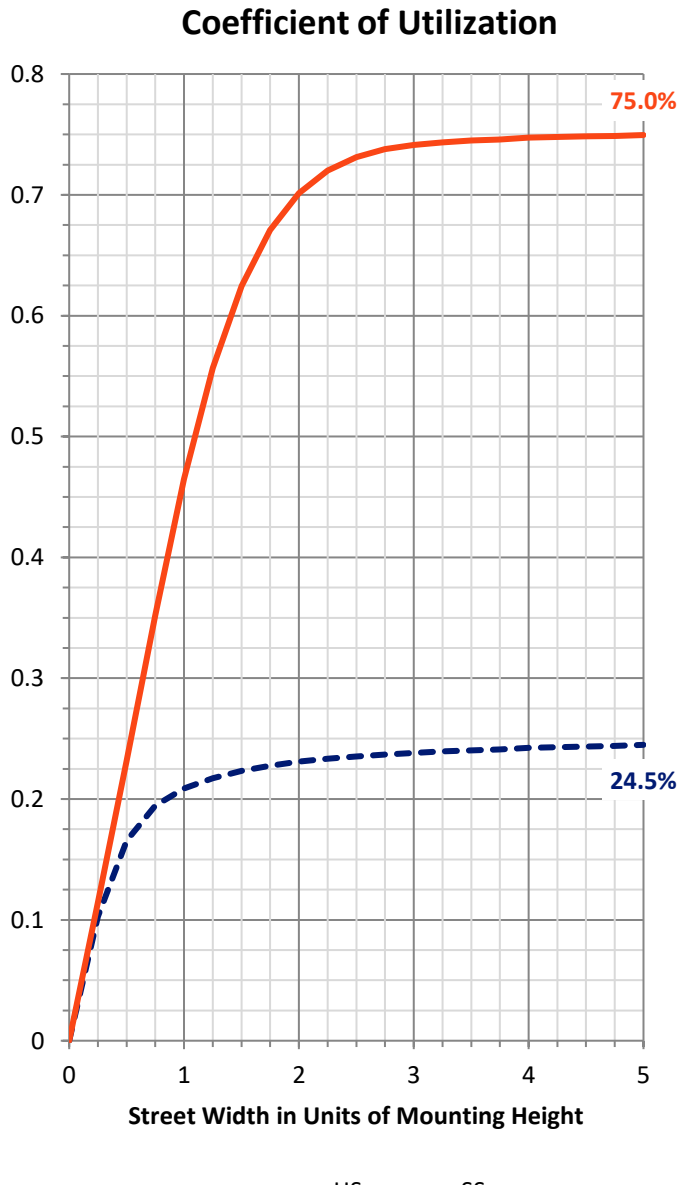
REPORT NUMBER: P1197441
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 1187.3 | 0.0 | 1187.3 |
| | % Fixture | 24.9 | 0.0 | 24.9 |
| **Street Side** | Lumens | 3587.7 | 0.0 | 3587.7 |
| | % Fixture | 75.1 | 0.0 | 75.1 |
| **Total** | Lumens | 4775.0 | 0.0 | 4775.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 52.5 | 1.1 |
| 10°-20° | 173.5 | 3.6 |
| 20°-30° | 334.4 | 7.0 |
| 30°-40° | 586.3 | 12.3 |
| 40°-50° | 871.6 | 18.3 |
| 50°-60° | 1104.9 | 23.1 |
| 60°-70° | 1081.1 | 22.6 |
| 70°-80° | 515.7 | 10.8 |
| 80°-90° | 55.1 | 1.2 |
| 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° | 4775.0 | 100.0 |
| 0°-180° | 4775.0 | 100.0 |



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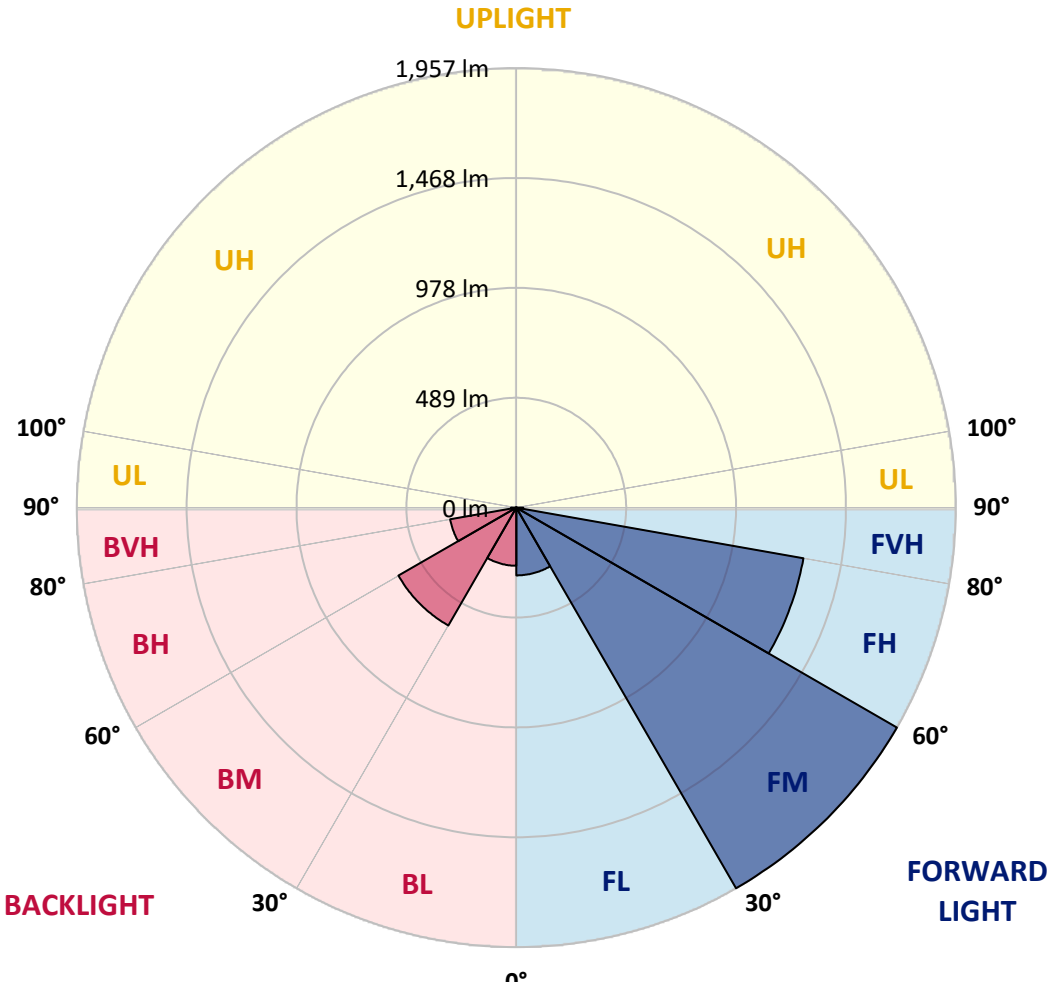
Scaled Data Report

REPORT NUMBER: P1197441
CATALOG NUMBER: GPC-SB1A-760-U-T3

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 301.7 | 6.3 | | | |
| FM | (30°-60°) | 1956.7 | 41.0 | | | |
| FH | (60°-80°) | 1298.0 | 27.2 | | | G1/1800 |
| FVH | (80°-90°) | 31.2 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 258.6 | 5.4 | B1/500 | | |
| BM | (30°-60°) | 606.0 | 12.7 | B1/1000 | | |
| BH | (60°-80°) | 298.8 | 6.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 23.9 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B1-U0-G1**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | *529.6* | 529.6 | 529.6 |
| 2.5° | 524.1 | 527.1 | 526.3 | 525.1 | 524.8 | 525.3 | 526.1 | 526.9 | *526.6* | 527.9 | 529.9 |
| 5° | 522.6 | 525.6 | 525.3 | 525.3 | 526.3 | 528.4 | 529.6 | 530.9 | *529.6* | 531.1 | 533.9 |
| 7.5° | 523.6 | 525.8 | 526.9 | 527.9 | 530.4 | 534.1 | 537.1 | 539.9 | *538.4* | 540.1 | 543.7 |
| 10° | 536.4 | 538.1 | 539.1 | 539.1 | 540.9 | 545.2 | 548.2 | 553.2 | *551.9* | 554.7 | 559.2 |
| 12.5° | 559.7 | 561.5 | 561.5 | 560.5 | 561.7 | 564.5 | 565.5 | 571.0 | *568.7* | 573.3 | 577.8 |
| 15° | 588.3 | 591.8 | 589.1 | 587.3 | 587.8 | 590.6 | 590.3 | 594.6 | *592.3* | 596.1 | 600.1 |
| 17.5° | 619.9 | 624.4 | 619.9 | 619.7 | 618.7 | 621.7 | 621.9 | 625.7 | *621.7* | 624.4 | 627.2 |
| 20° | 657.3 | 663.6 | 659.8 | 661.1 | 658.8 | 660.1 | 661.3 | 666.8 | *660.6* | 662.6 | 661.8 |
| 22.5° | 710.0 | 717.5 | 713.5 | 718.3 | 716.8 | 715.8 | 715.5 | 725.3 | *715.5* | 716.3 | 709.0 |
| 25° | 786.8 | 795.8 | 788.8 | 795.3 | 795.3 | 798.6 | 802.3 | 814.9 | *798.6* | 793.8 | 775.0 |
| 27.5° | 900.2 | 909.2 | 895.4 | 899.4 | 898.2 | 906.2 | 902.2 | 933.3 | *915.7* | 907.9 | 870.1 |
| 30° | 1036.6 | 1052.7 | 1026.6 | 1025.6 | 1024.3 | 1037.1 | 1042.9 | 1063.5 | *1045.7* | 1037.9 | 992.2 |
| 32.5° | 1184.2 | 1201.0 | 1169.9 | 1160.8 | 1156.1 | 1163.8 | 1159.1 | 1175.6 | *1163.3* | 1151.3 | 1094.8 |
| 35° | 1340.2 | 1356.8 | 1327.2 | 1309.6 | 1290.5 | 1274.2 | 1257.2 | 1261.4 | *1249.9* | 1231.6 | 1173.1 |
| 37.5° | 1487.7 | 1518.1 | 1486.7 | 1467.9 | 1432.8 | 1400.9 | 1353.3 | 1333.4 | *1322.6* | 1305.8 | 1246.9 |
| 40° | 1638.0 | 1655.3 | 1631.5 | 1615.4 | 1577.3 | 1527.4 | 1451.1 | 1409.2 | *1394.6* | 1378.3 | 1328.4 |
| 42.5° | 1748.6 | 1765.2 | 1752.4 | 1741.4 | 1711.5 | 1653.6 | 1555.0 | 1502.5 | *1481.5* | 1463.1 | 1420.7 |
| 45° | 1836.5 | 1848.7 | 1840.7 | 1844.7 | 1831.9 | 1775.7 | 1662.6 | 1602.6 | *1580.8* | 1558.5 | 1525.1 |
| 47.5° | 1871.8 | 1884.9 | 1897.7 | 1921.5 | 1943.3 | 1901.9 | 1778.2 | 1711.0 | *1687.9* | 1665.1 | 1632.2 |
| 50° | 1867.8 | 1881.1 | 1918.2 | 1968.9 | 2036.7 | 2022.9 | 1900.2 | 1826.4 | *1805.1* | 1779.0 | 1748.6 |
| 52.5° | 1835.7 | 1850.8 | 1898.4 | 1982.7 | 2090.6 | 2113.4 | 2024.4 | 1945.6 | *1925.5* | 1894.4 | 1864.0 |
| 55° | 1751.4 | 1760.4 | 1831.9 | 1951.4 | 2103.4 | 2176.6 | 2146.0 | 2072.5 | *2052.5* | 2009.1 | 1975.9 |
| 57.5° | 1595.1 | 1608.1 | 1712.3 | 1866.8 | 2071.3 | 2219.5 | 2252.9 | 2206.0 | *2186.7* | 2124.2 | 2089.6 |
| 60° | 1391.1 | 1412.0 | 1531.1 | 1724.8 | 1989.5 | 2219.3 | 2350.0 | 2337.2 | *2321.2* | 2237.6 | 2201.5 |
| 62.5° | 1160.3 | 1184.4 | 1299.1 | 1524.1 | 1846.5 | 2156.3 | 2410.7 | 2447.1 | *2438.8* | 2342.2 | 2296.1 |
| 65° | 891.1 | 907.7 | 1021.8 | 1264.4 | 1624.0 | 2021.1 | 2417.7 | 2522.1 | *2523.6* | 2421.8 | 2345.5 |
| 67.5° | *593.3* | *641.0* | *740.1* | *948.8* | *1325.9* | *1800.1* | *2356.0* | *2534.4* | *2549.0* | *2449.1* | *2320.7* |
| 70° | 289.5 | 352.2 | 449.3 | 616.7 | 948.8 | 1461.1 | 2194.7 | 2433.5 | *2465.9* | 2369.3 | 2172.6 |
| 72.5° | 120.2 | 140.5 | 193.4 | 304.3 | 544.7 | 986.0 | 1870.6 | 2160.1 | *2220.0* | 2099.4 | 1826.7 |
| 75° | 81.0 | 87.8 | 110.6 | 156.0 | 248.1 | 486.2 | 1349.0 | 1610.7 | *1707.2* | 1585.6 | 1296.1 |
| 77.5° | 62.5 | 66.7 | 80.5 | 109.1 | 147.5 | 183.9 | 722.0 | 970.7 | *1020.6* | 944.8 | 674.4 |
| 80° | 49.2 | 52.4 | 60.2 | 79.5 | 104.6 | 98.3 | 246.1 | 439.8 | *468.6* | 393.1 | 216.8 |
| 82.5° | 42.6 | 43.9 | 43.2 | 53.9 | 69.5 | 57.5 | 80.8 | 162.3 | *179.1* | 130.0 | 70.7 |
| 85° | 30.9 | 34.4 | 35.9 | 33.4 | 36.9 | 29.1 | 33.1 | 57.5 | *63.2* | 56.4 | 39.9 |
| 87.5° | 12.5 | 18.6 | 22.8 | 21.6 | 13.5 | 8.3 | 10.3 | 16.8 | *19.3* | 21.1 | 13.0 |
| 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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Scaled Data Report

REPORT NUMBER: P1197441
CATALOG NUMBER: GPC-SB1A-760-U-T3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 | 529.6 |
| 2.5° | 530.1 | 531.9 | 533.1 | 534.6 | 535.6 | 537.1 | 540.1 | 541.9 | 542.2 | 543.4 | 543.2 |
| 5° | 534.9 | 537.4 | 540.1 | 544.2 | 548.7 | 552.4 | 558.2 | 562.2 | 563.7 | 565.0 | 564.7 |
| 7.5° | 545.2 | 548.7 | 553.7 | 560.7 | 567.2 | 572.3 | 579.3 | 584.1 | 588.8 | 590.6 | 590.8 |
| 10° | 560.5 | 565.5 | 572.8 | 582.3 | 589.3 | 595.8 | 603.1 | 607.1 | 611.9 | 613.9 | 614.9 |
| 12.5° | 579.5 | 584.8 | 594.3 | 607.6 | 614.2 | 618.7 | 621.2 | 620.2 | 621.2 | 622.9 | 623.4 |
| 15° | 601.4 | 607.1 | 617.9 | 632.2 | 636.7 | 632.7 | 627.2 | 622.2 | 621.4 | 621.9 | 623.7 |
| 17.5° | 627.2 | 631.5 | 644.0 | 656.1 | 652.8 | 636.2 | 624.2 | 616.2 | 612.2 | 610.9 | 612.7 |
| 20° | 663.3 | 663.3 | 673.6 | 681.1 | 659.3 | 631.2 | 612.4 | 599.4 | 591.1 | 587.6 | 586.8 |
| 22.5° | 707.2 | 703.2 | 709.7 | 704.5 | 658.1 | 617.2 | 591.1 | 568.5 | 556.0 | 550.9 | 550.2 |
| 25° | 762.9 | 758.2 | 756.4 | 723.8 | 649.0 | 594.8 | 552.4 | 525.1 | 514.1 | 511.3 | 511.8 |
| 27.5° | 847.0 | 834.9 | 812.1 | 734.3 | 632.5 | 559.7 | 507.3 | 481.9 | 475.7 | 475.9 | 476.7 |
| 30° | 958.9 | 934.8 | 878.8 | 736.1 | 605.4 | 510.0 | 461.1 | 443.1 | 440.0 | 441.3 | 445.6 |
| 32.5° | 1062.5 | 1039.7 | 947.1 | 728.1 | 563.7 | 461.4 | 419.7 | 407.7 | 403.2 | 404.7 | 406.7 |
| 35° | 1143.8 | 1137.5 | 1010.3 | 716.8 | 512.6 | 415.7 | 382.6 | 372.3 | 363.5 | 361.5 | 363.0 |
| 37.5° | 1220.5 | 1218.0 | 1057.7 | 701.0 | 461.9 | 383.3 | 352.7 | 339.2 | 326.4 | 319.4 | 319.6 |
| 40° | 1304.8 | 1302.3 | 1088.8 | 676.6 | 417.0 | 355.2 | 325.9 | 308.1 | 292.3 | 279.5 | 280.7 |
| 42.5° | 1399.7 | 1384.9 | 1103.6 | 641.8 | 378.8 | 331.4 | 304.1 | 280.0 | 259.2 | 247.4 | 248.1 |
| 45° | 1503.3 | 1469.9 | 1103.4 | 597.3 | 346.7 | 309.6 | 280.7 | 246.6 | 227.3 | 216.3 | 215.8 |
| 47.5° | 1613.2 | 1551.2 | 1089.8 | 548.2 | 315.6 | 285.5 | 244.6 | 218.5 | 205.7 | 198.9 | 197.4 |
| 50° | 1726.6 | 1627.2 | 1066.7 | 491.7 | 283.7 | 258.2 | 222.0 | 204.2 | 194.4 | 188.2 | 185.9 |
| 52.5° | 1833.2 | 1696.2 | 1038.9 | 427.8 | 251.4 | 231.6 | 212.0 | 198.2 | 187.9 | 180.9 | 177.9 |
| 55° | 1932.3 | 1755.7 | 999.5 | 362.3 | 225.0 | 213.8 | 207.2 | 195.7 | 183.9 | 175.6 | 172.4 |
| 57.5° | 2020.3 | 1794.3 | 931.5 | 300.8 | 206.2 | 201.5 | 202.2 | 191.4 | 177.9 | 170.9 | 166.3 |
| 60° | 2093.6 | 1822.7 | 830.9 | 243.9 | 190.9 | 189.4 | 194.4 | 183.4 | 167.6 | 159.6 | 156.0 |
| 62.5° | 2137.5 | 1822.2 | 707.5 | 199.7 | 177.9 | 178.4 | 184.1 | 173.4 | 157.3 | 149.8 | 147.5 |
| 65° | 2133.7 | 1777.5 | 572.0 | 170.9 | 165.3 | 165.8 | 173.4 | 162.3 | 148.8 | 144.3 | 144.0 |
| 67.5° | *2058.2* | *1668.6* | *438.8* | *152.0* | *151.5* | *153.8* | *162.6* | *154.8* | *143.5* | *143.0* | *143.8* |
| 70° | 1853.8 | 1442.6 | 316.1 | 137.0 | 137.2 | 140.5 | 152.0 | 150.0 | 140.7 | 141.7 | 141.5 |
| 72.5° | 1486.5 | 1099.9 | 212.2 | 121.2 | 121.4 | 126.7 | 142.0 | 146.3 | 138.0 | 151.3 | 153.3 |
| 75° | 990.0 | 685.9 | 136.5 | 104.4 | 104.6 | 111.4 | 133.2 | 139.0 | 130.5 | 150.8 | 152.0 |
| 77.5° | 475.7 | 308.3 | 98.8 | 87.8 | 87.8 | 94.1 | 115.2 | 124.4 | 111.1 | 117.2 | 107.4 |
| 80° | 164.3 | 115.9 | 77.8 | 70.7 | 69.2 | 73.5 | 97.1 | 107.9 | 95.8 | 88.3 | 82.8 |
| 82.5° | 64.7 | 60.2 | 62.5 | 54.9 | 49.9 | 52.7 | 75.5 | 89.1 | 70.5 | 63.7 | 63.5 |
| 85° | 37.1 | 39.1 | 44.2 | 36.4 | 28.9 | 32.4 | 55.4 | 64.0 | 53.2 | 46.9 | 47.9 |
| 87.5° | 10.0 | 13.8 | 20.3 | 18.8 | 13.0 | 13.8 | 26.3 | 35.4 | 30.6 | 23.6 | 24.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
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Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

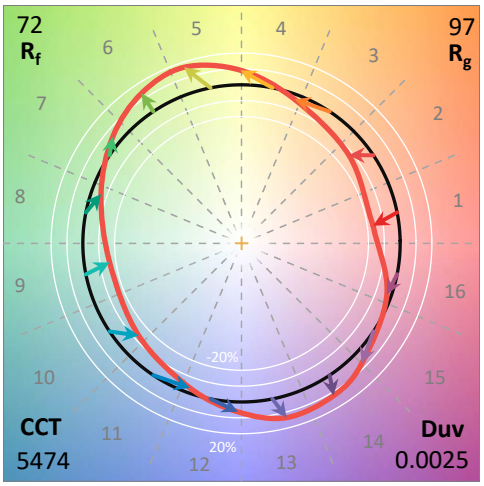
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON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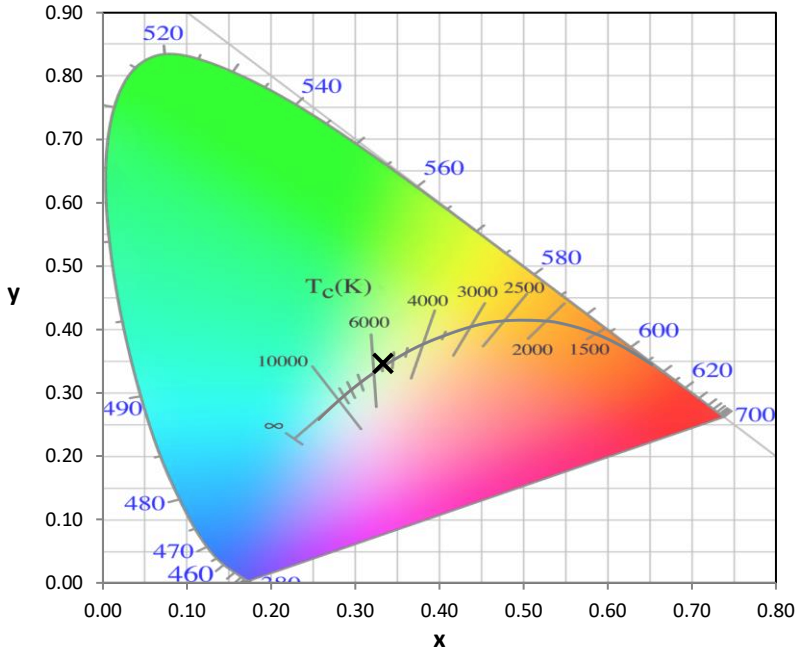
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

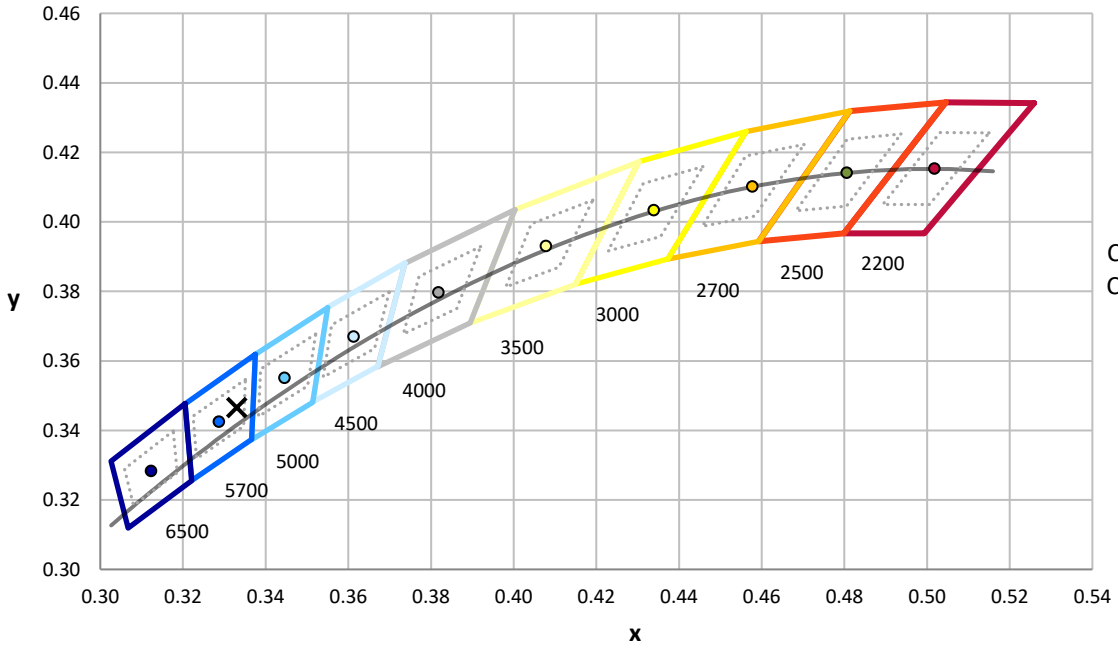
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



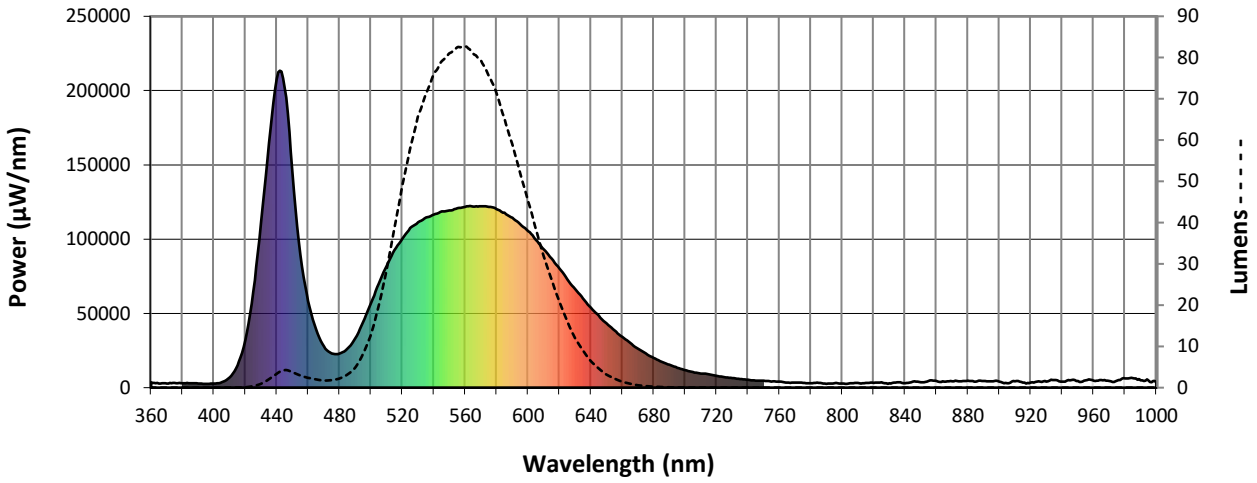

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



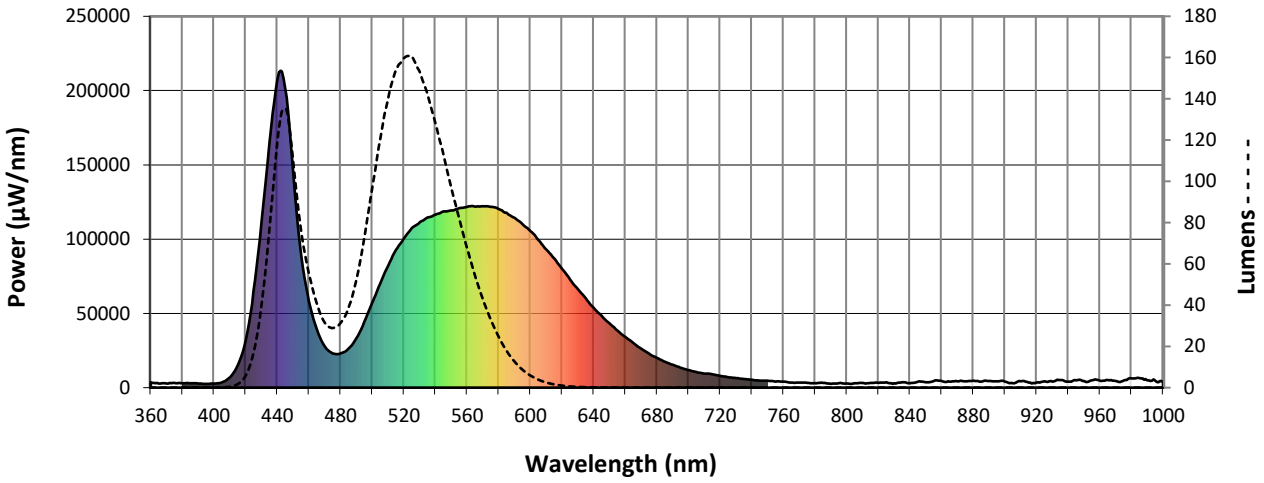

**Photopic Lumens: 7459.9**

| 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



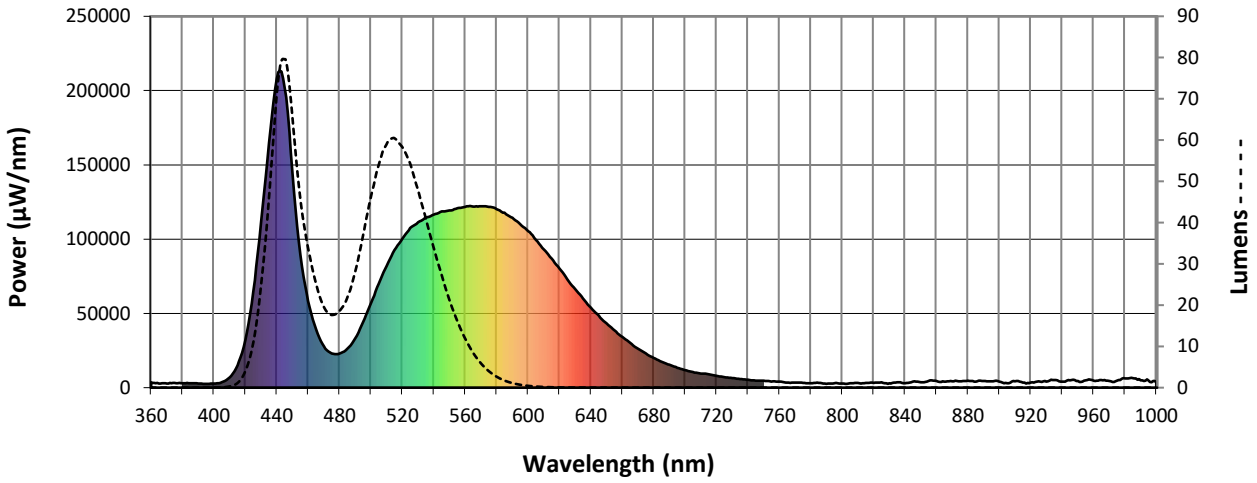

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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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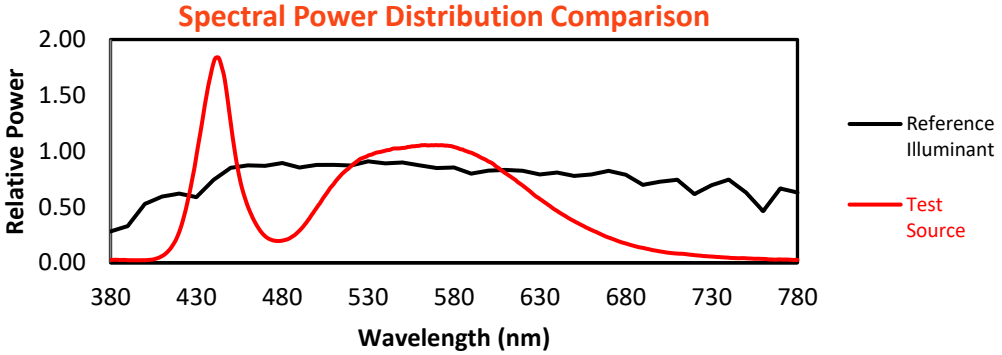
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# TM-30-18

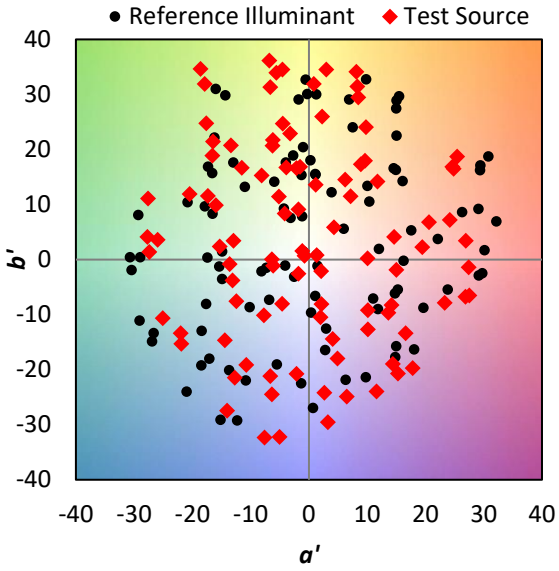
## Summary

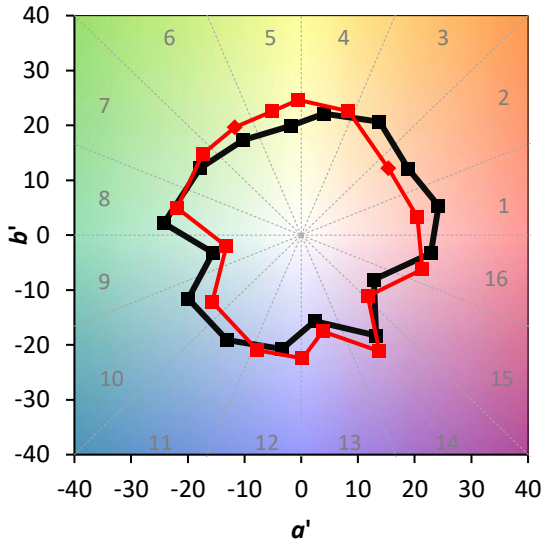
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

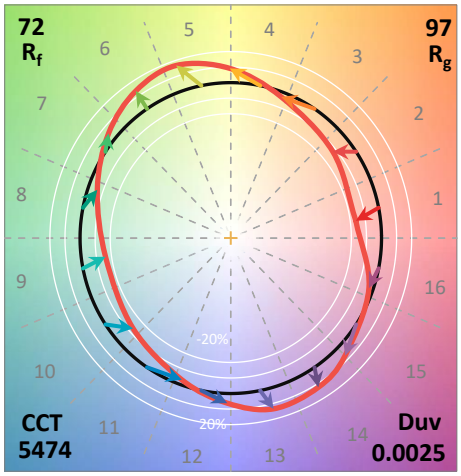
## Spectral Power Distribution Comparison

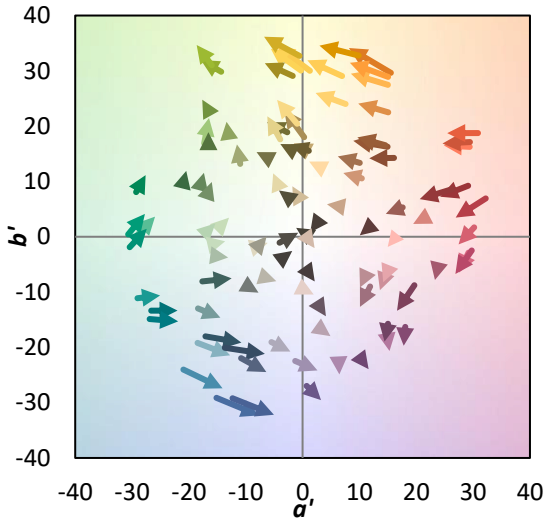



## Color Vector Graphics



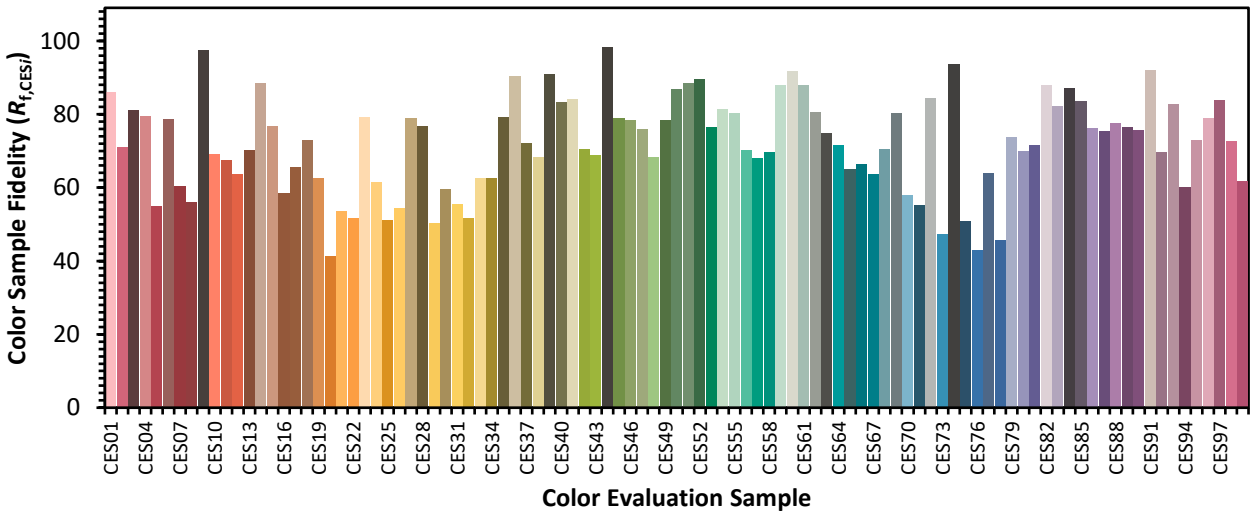
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Peachtree City, GA 30269

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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 | |

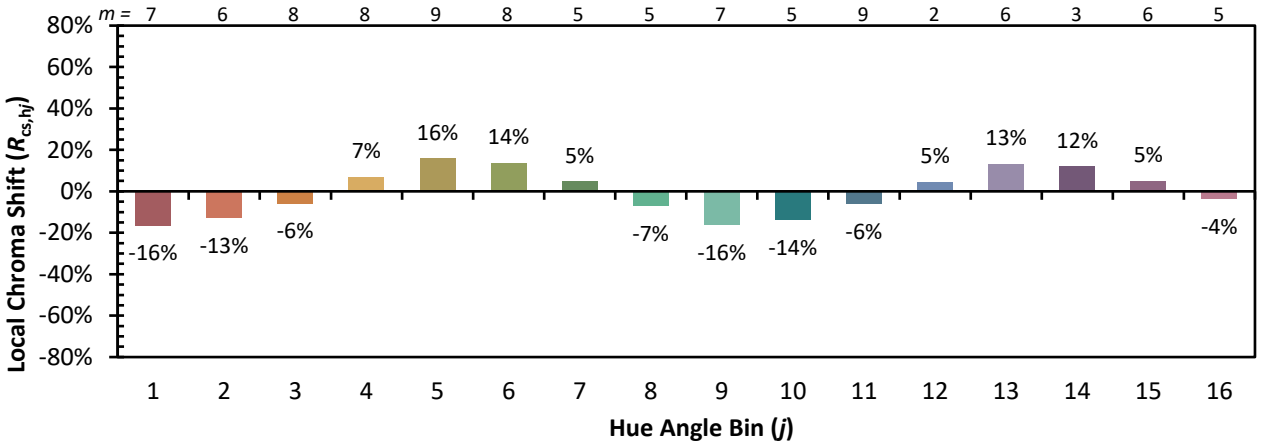


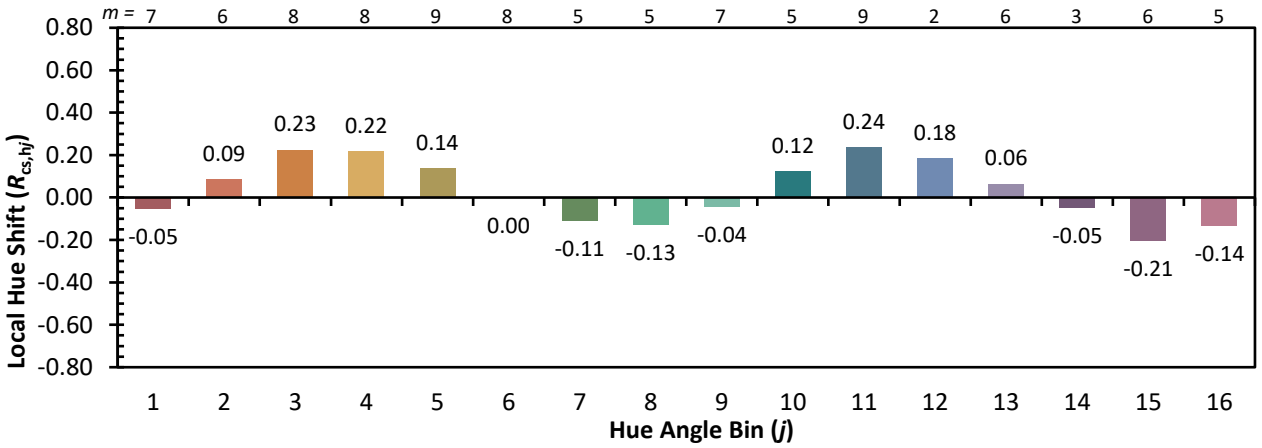
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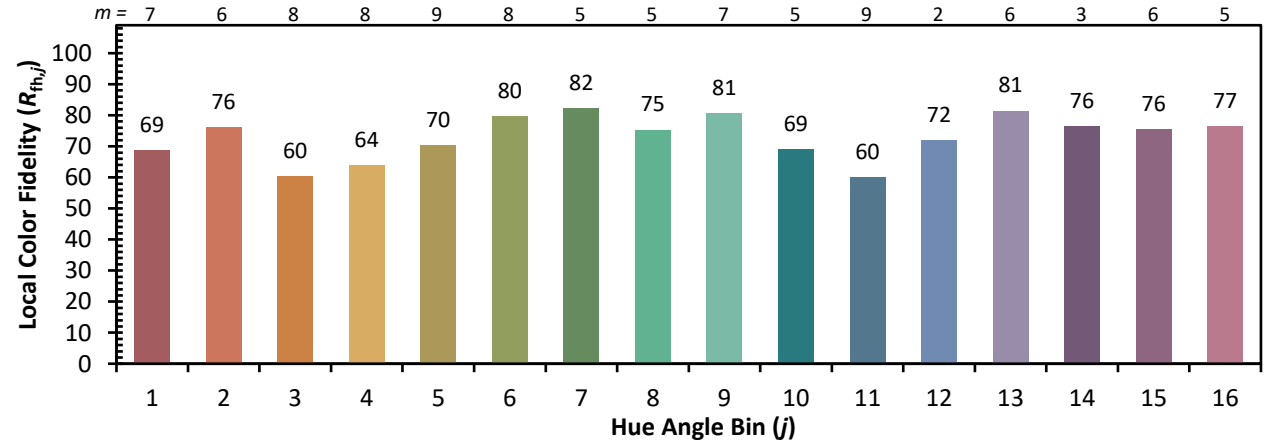
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



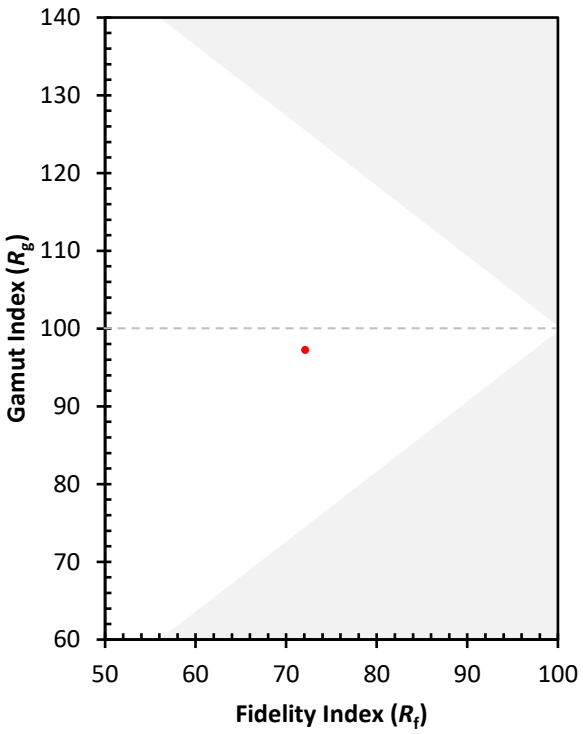



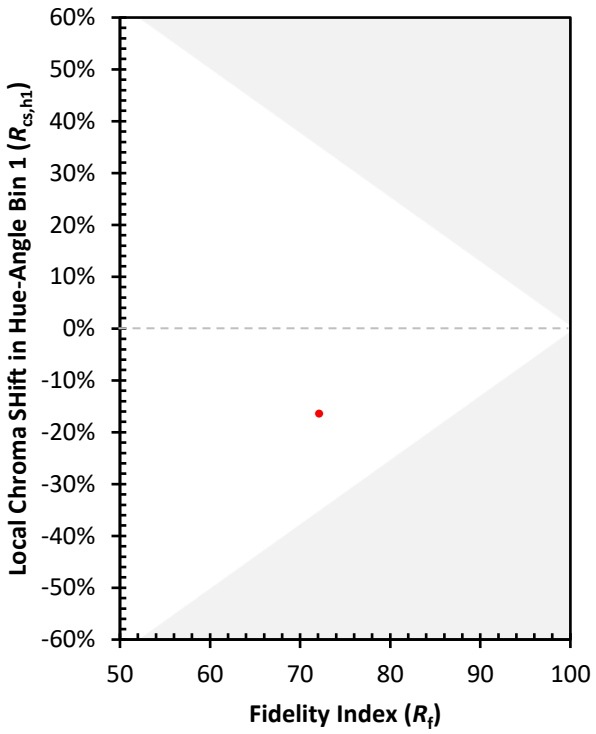
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### Measure Comparisons




(END OF REPORT)