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: P1199342

Luminaire Tested: GPC-SB2A-760-U-T3-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: | P1199342 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2A-760-U-T3-HSS |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III OPTICS WITH HOUSE SIDE SHIELD |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 7442 lumens |
| Efficiency: | N/A |
| Efficacy: | 129.9 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B1 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 57.3 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.484 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.038 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

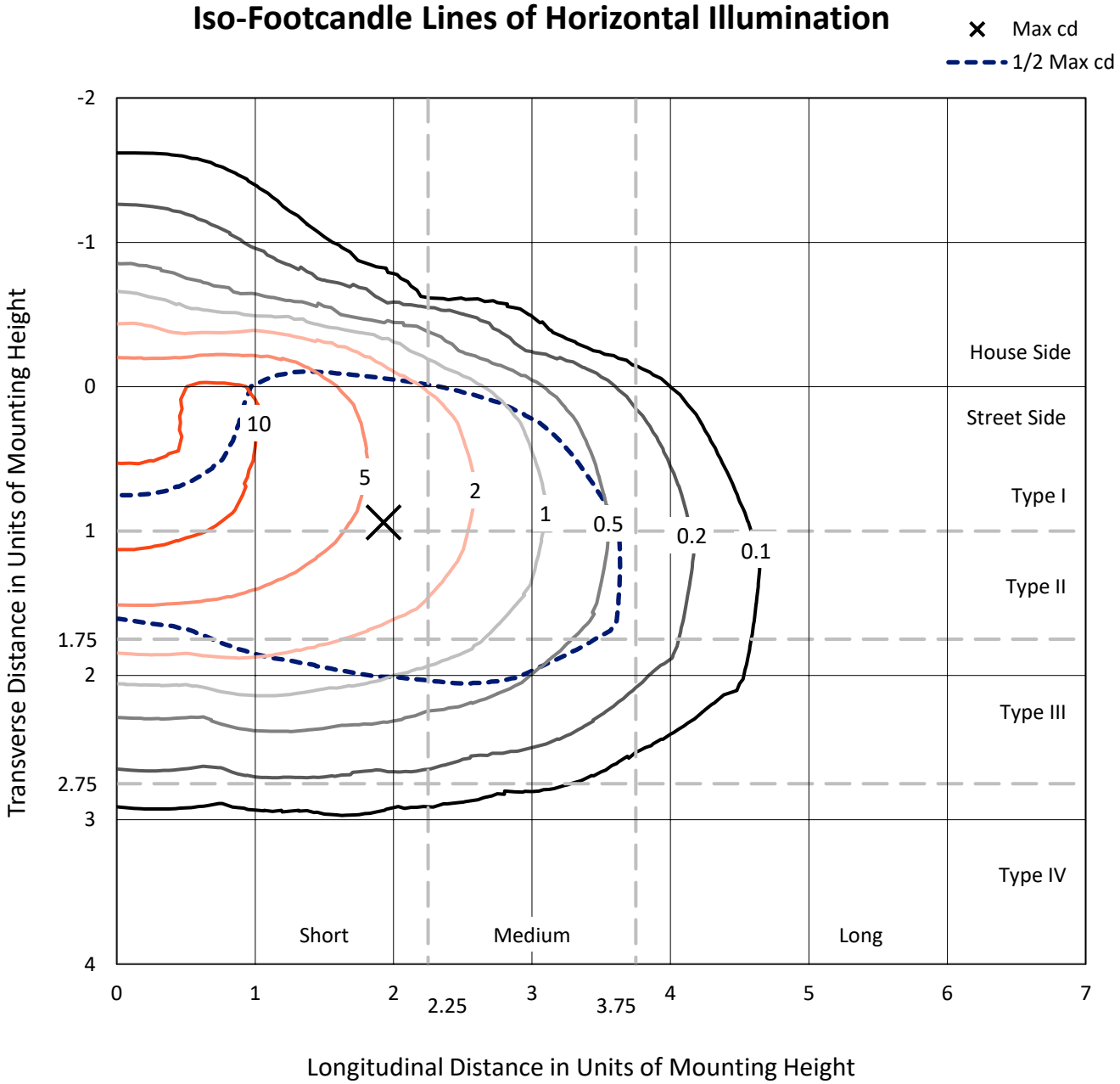


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REPORT NUMBER: P1199342
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## Iso-Footcandle Lines of Horizontal Illumination



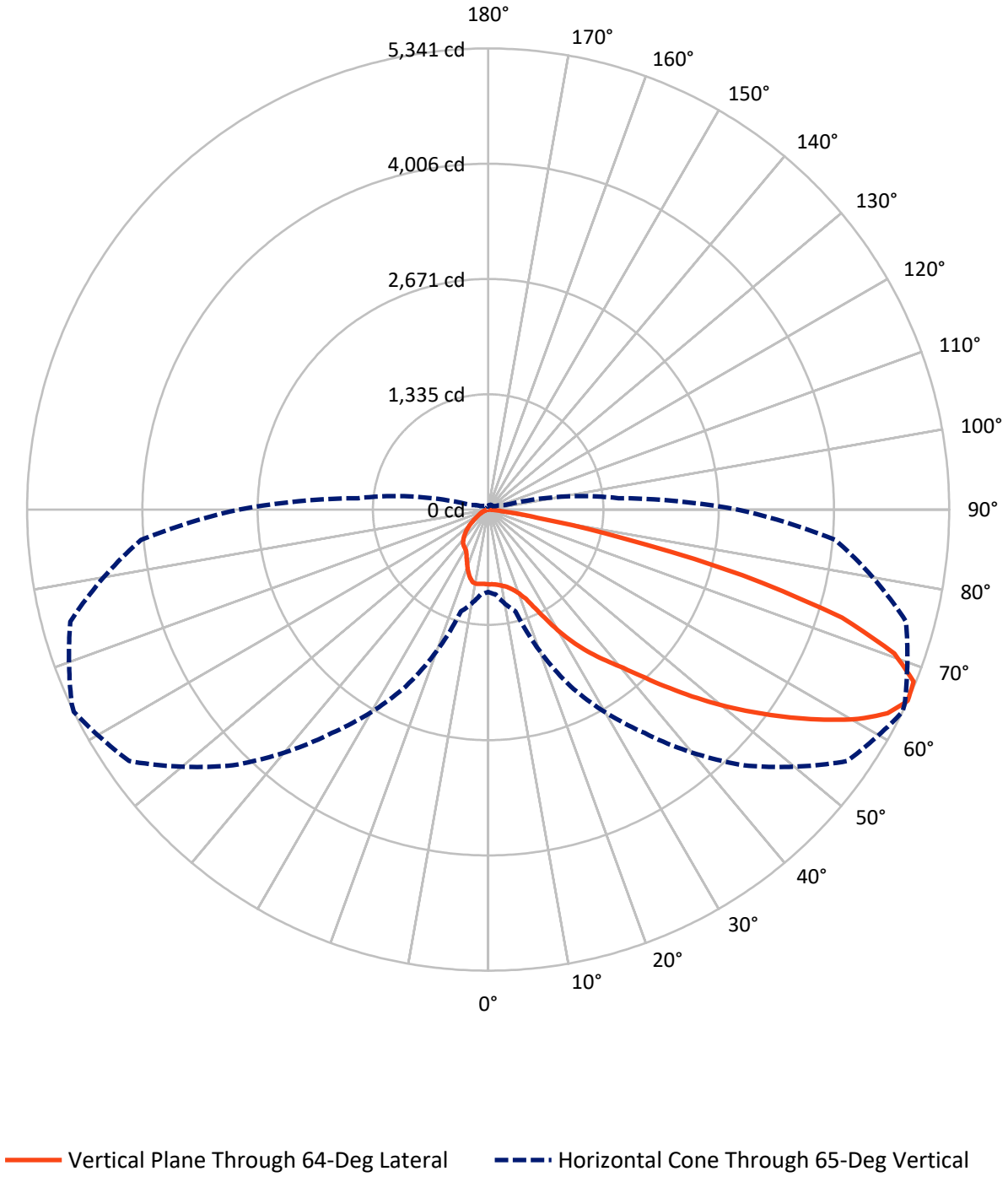

Based on 10 foot mounting height. Maximum calculated value = 13.6 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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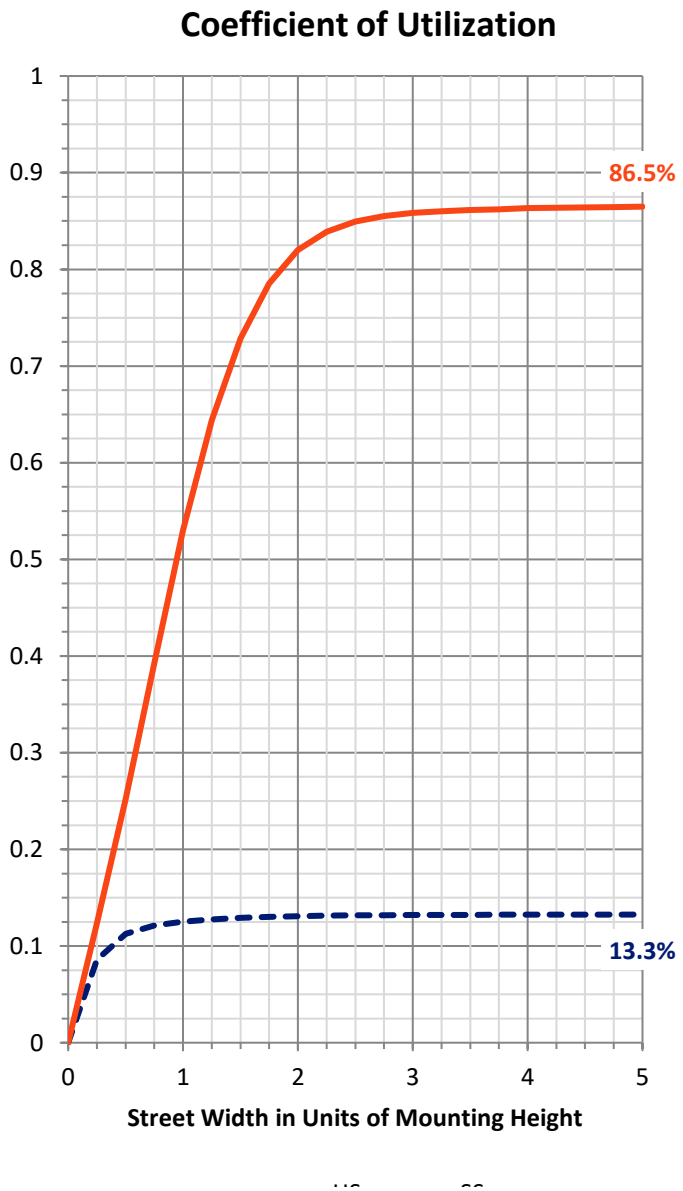
REPORT NUMBER: P1199342
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 995.2 | 0.0 | 995.2 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| **Street Side** | Lumens | 6446.8 | 0.0 | 6446.8 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| **Total** | Lumens | 7442.0 | 0.0 | 7442.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 79.9 | 1.1 |
| 10°-20° | 216.6 | 2.9 |
| 20°-30° | 410.4 | 5.5 |
| 30°-40° | 830.5 | 11.2 |
| 40°-50° | 1414.8 | 19.0 |
| 50°-60° | 1924.0 | 25.9 |
| 60°-70° | 1806.8 | 24.3 |
| 70°-80° | 723.9 | 9.7 |
| 80°-90° | 35.1 | 0.5 |
| 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° | 7442.0 | 100.0 |
| 0°-180° | 7442.0 | 100.0 |



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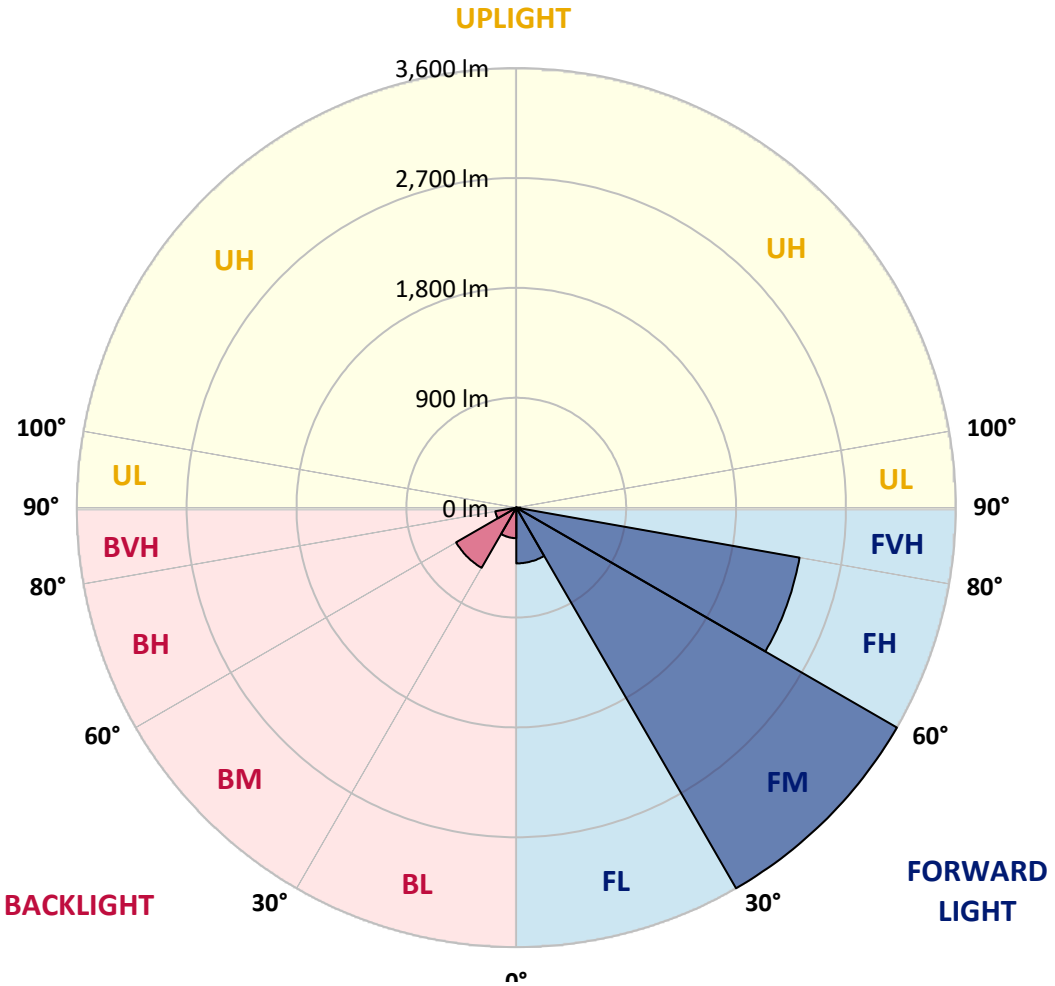
Scaled Data Report

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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°) | 457.0 | 6.1 | | | |
| FM | (30°-60°) | 3600.4 | 48.4 | | | |
| FH | (60°-80°) | 2356.0 | 31.7 | | | G2/5000 |
| FVH | (80°-90°) | 33.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 249.9 | 3.4 | B1/500 | | |
| BM | (30°-60°) | 569.0 | 7.6 | B1/1000 | | |
| BH | (60°-80°) | 174.7 | 2.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.7 | 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 Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | *865.6* | 865.6 | 865.6 | 865.6 |
| 2.5° | 862.6 | 868.6 | 867.1 | 865.6 | 865.1 | 866.1 | 866.6 | *866.1* | 866.1 | 866.1 | 866.6 |
| 5° | 846.1 | 851.1 | 851.1 | 854.6 | 859.6 | 865.6 | 870.1 | *871.1* | 872.1 | 873.6 | 873.1 |
| 7.5° | 814.7 | 818.7 | 821.7 | 833.2 | 845.6 | 861.6 | 875.1 | *882.0* | 883.0 | 888.5 | 890.5 |
| 10° | 793.2 | 798.2 | 803.2 | 815.2 | 833.2 | 857.1 | 880.0 | *897.0* | 899.5 | 912.5 | 918.5 |
| 12.5° | 792.2 | 797.2 | 803.7 | 816.7 | 837.6 | 863.1 | 891.0 | *915.5* | 920.0 | 938.9 | 951.4 |
| 15° | 802.7 | 808.7 | 814.7 | 830.7 | 853.1 | 884.0 | 914.0 | *944.4* | 948.9 | 975.8 | 989.3 |
| 17.5° | 824.2 | 832.2 | 836.6 | 852.6 | 876.6 | 911.0 | 950.4 | *985.3* | 989.3 | 1020.7 | 1037.7 |
| 20° | 866.6 | 876.1 | 877.6 | 890.5 | 914.0 | 950.9 | 997.8 | *1041.2* | 1046.2 | 1082.1 | 1101.1 |
| 22.5° | 954.4 | 967.9 | 955.9 | 962.4 | 983.3 | 1020.2 | 1071.1 | *1126.0* | 1133.0 | 1173.9 | 1190.9 |
| 25° | 1109.0 | 1128.0 | 1097.1 | 1086.1 | 1095.1 | 1133.5 | 1197.3 | *1266.7* | 1274.7 | 1307.6 | 1316.1 |
| 27.5° | 1412.9 | 1388.4 | 1341.5 | 1295.6 | 1268.7 | 1290.6 | 1362.5 | *1448.3* | 1458.3 | 1490.2 | 1480.2 |
| 30° | 1746.6 | 1725.2 | 1661.8 | 1560.0 | 1496.2 | 1492.7 | 1559.0 | *1654.8* | 1666.3 | 1696.7 | 1666.3 |
| 32.5° | 2080.9 | 2060.4 | 1991.6 | 1866.4 | 1755.6 | 1700.7 | 1746.6 | *1852.9* | 1858.9 | 1878.3 | 1833.4 |
| 35° | 2409.7 | 2388.7 | 2319.9 | 2191.6 | 2055.4 | 1930.7 | 1921.7 | *2041.5* | 2043.5 | 2063.9 | 1997.1 |
| 37.5° | 2740.4 | 2723.0 | 2649.6 | 2523.9 | 2389.7 | 2217.6 | 2134.3 | *2220.1* | 2222.6 | 2242.5 | 2173.2 |
| 40° | 2976.4 | 2983.9 | 2933.5 | 2836.2 | 2721.0 | 2532.9 | 2372.7 | *2410.2* | 2395.2 | 2428.6 | 2387.2 |
| 42.5° | 3179.0 | 3193.9 | 3150.0 | 3101.1 | 3034.3 | 2868.6 | 2668.1 | *2661.6* | 2637.7 | 2655.6 | 2612.7 |
| 45° | 3354.1 | 3366.5 | 3327.1 | 3315.7 | 3314.2 | 3197.9 | 2990.9 | *2952.0* | 2918.5 | 2915.0 | 2863.7 |
| 47.5° | 3418.4 | 3442.4 | 3459.3 | 3497.7 | 3572.6 | 3523.7 | 3324.6 | *3264.3* | 3226.8 | 3199.4 | 3118.1 |
| 50° | 3442.9 | 3468.3 | 3526.2 | 3637.9 | 3815.0 | 3836.0 | 3656.9 | *3589.0* | 3543.1 | 3493.3 | 3373.5 |
| 52.5° | 3409.9 | 3455.3 | 3533.2 | 3721.3 | 3978.2 | 4086.4 | 3975.7 | *3916.3* | 3863.9 | 3782.6 | 3605.0 |
| 55° | 3215.9 | 3261.3 | 3420.4 | 3720.3 | 4059.5 | 4262.1 | 4277.0 | *4250.6* | 4191.7 | 4063.5 | 3792.1 |
| 57.5° | 2806.8 | 2874.1 | 3126.1 | 3593.5 | 4058.0 | 4413.2 | 4572.4 | *4591.3* | 4525.5 | 4341.9 | 3939.3 |
| 60° | 2240.0 | 2331.3 | 2638.7 | 3312.7 | 3932.8 | 4495.0 | 4831.3 | *4926.1* | 4856.2 | 4616.3 | 4058.5 |
| 62.5° | 1563.0 | 1668.8 | 1959.7 | 2872.6 | 3646.4 | 4436.2 | 5020.4 | *5195.5* | 5142.6 | 4861.7 | 4104.4 |
| 65° | *953.4* | *987.3* | *1221.8* | *2260.5* | *3159.5* | *4189.7* | *5078.7* | *5341.2* | *5323.7* | *5011.9* | *4036.6* |
| 67.5° | 635.1 | 663.5 | 730.9 | 1550.1 | 2452.6 | 3697.3 | 4939.1 | *5315.7* | 5320.7 | 4987.4 | 3788.1 |
| 70° | 382.7 | 407.1 | 451.0 | 901.5 | 1589.5 | 2926.5 | 4506.5 | *4991.4* | 5020.4 | 4660.7 | 3317.1 |
| 72.5° | 157.7 | 174.1 | 214.0 | 408.6 | 823.2 | 1857.4 | 3588.5 | *4285.5* | 4352.9 | 3918.8 | 2545.9 |
| 75° | 89.3 | 97.8 | 125.7 | 205.0 | 357.2 | 865.6 | 2173.7 | *3042.3* | 3141.5 | 2701.0 | 1531.6 |
| 77.5° | 59.4 | 63.4 | 81.3 | 132.7 | 201.1 | 295.3 | 928.9 | *1585.0* | 1774.6 | 1475.2 | 663.0 |
| 80° | 39.9 | 43.4 | 55.9 | 88.8 | 130.7 | 126.7 | 295.8 | *587.2* | 722.4 | 506.9 | 161.6 |
| 82.5° | 26.9 | 27.4 | 39.9 | 58.4 | 82.8 | 61.4 | 87.3 | *182.6* | 229.5 | 146.7 | 61.4 |
| 85° | 15.5 | 15.0 | 29.4 | 33.9 | 36.9 | 25.4 | 26.4 | *54.9* | 71.8 | 61.9 | 34.9 |
| 87.5° | 2.0 | 3.0 | 11.5 | 9.0 | 5.0 | 5.5 | 5.5 | *9.5* | 14.0 | 15.0 | 7.5 |
| 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: P1199342
CATALOG NUMBER: GPC-SB2A-760-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 | 865.6 |
| 2.5° | 866.6 | 866.1 | 864.6 | 863.1 | 859.6 | 857.6 | 858.6 | 857.6 | 857.1 | 857.6 | 859.6 |
| 5° | 873.1 | 871.6 | 867.6 | 862.6 | 855.6 | 847.1 | 841.6 | 833.7 | 826.2 | 821.7 | 822.7 |
| 7.5° | 890.5 | 889.0 | 883.5 | 869.6 | 847.1 | 811.7 | 779.3 | 750.8 | 729.4 | 716.9 | 717.4 |
| 10° | 918.5 | 916.0 | 907.5 | 876.6 | 817.7 | 740.4 | 676.0 | 622.6 | 587.7 | 571.2 | 569.7 |
| 12.5° | 951.4 | 948.4 | 933.4 | 870.1 | 761.8 | 641.1 | 552.3 | 492.9 | 460.5 | 446.0 | 444.5 |
| 15° | 990.3 | 986.3 | 956.9 | 839.1 | 680.5 | 531.3 | 450.0 | 405.6 | 384.6 | 371.7 | 372.2 |
| 17.5° | 1038.7 | 1031.7 | 974.3 | 792.7 | 592.2 | 447.5 | 387.1 | 353.7 | 335.3 | 322.8 | 321.8 |
| 20° | 1101.6 | 1090.1 | 988.3 | 737.4 | 510.9 | 394.6 | 344.7 | 316.8 | 302.8 | 291.9 | 289.9 |
| 22.5° | 1189.4 | 1172.9 | 1005.3 | 677.5 | 453.5 | 358.2 | 313.3 | 292.9 | 281.4 | 268.9 | 266.9 |
| 25° | 1298.1 | 1278.7 | 1026.2 | 622.1 | 414.1 | 326.8 | 290.4 | 273.4 | 259.9 | 245.5 | 244.0 |
| 27.5° | 1450.3 | 1415.4 | 1051.2 | 576.7 | 380.2 | 299.8 | 269.4 | 250.4 | 235.0 | 223.0 | 220.5 |
| 30° | 1619.9 | 1562.5 | 1073.1 | 549.3 | 349.2 | 274.9 | 242.0 | 223.0 | 208.5 | 200.1 | 198.6 |
| 32.5° | 1780.6 | 1702.7 | 1087.6 | 537.3 | 321.3 | 246.5 | 212.0 | 191.6 | 180.6 | 178.1 | 179.6 |
| 35° | 1932.2 | 1829.4 | 1086.1 | 525.8 | 296.3 | 218.0 | 182.6 | 161.6 | 153.2 | 154.7 | 154.7 |
| 37.5° | 2106.8 | 1964.6 | 1075.6 | 507.9 | 275.9 | 192.1 | 157.2 | 138.7 | 131.2 | 131.7 | 133.7 |
| 40° | 2309.9 | 2120.8 | 1069.1 | 473.9 | 253.4 | 168.1 | 136.2 | 121.2 | 115.7 | 113.7 | 113.2 |
| 42.5° | 2526.4 | 2272.0 | 1070.1 | 435.5 | 225.5 | 146.7 | 121.7 | 109.3 | 104.3 | 102.8 | 102.3 |
| 45° | 2743.9 | 2416.1 | 1071.6 | 395.6 | 196.1 | 130.2 | 111.3 | 100.8 | 97.8 | 95.8 | 95.8 |
| 47.5° | 2948.5 | 2538.9 | 1043.7 | 352.7 | 167.1 | 117.7 | 102.8 | 95.8 | 93.3 | 90.8 | 90.8 |
| 50° | 3139.0 | 2620.7 | 976.3 | 302.8 | 144.2 | 107.8 | 96.3 | 91.3 | 88.8 | 86.3 | 86.3 |
| 52.5° | 3287.2 | 2633.7 | 865.1 | 251.4 | 128.2 | 100.3 | 92.3 | 87.8 | 84.8 | 82.3 | 81.8 |
| 55° | 3353.1 | 2552.3 | 706.9 | 203.5 | 115.7 | 93.8 | 88.3 | 83.8 | 80.3 | 77.8 | 77.3 |
| 57.5° | 3336.1 | 2381.2 | 551.3 | 163.6 | 103.8 | 87.3 | 83.3 | 80.3 | 76.3 | 72.3 | 71.8 |
| 60° | 3252.8 | 2152.2 | 415.6 | 136.2 | 92.8 | 80.3 | 77.8 | 75.3 | 69.8 | 63.9 | 62.9 |
| 62.5° | 3108.6 | 1864.4 | 296.3 | 112.8 | 80.8 | 72.3 | 71.3 | 69.3 | 61.4 | 50.4 | 49.4 |
| 65° | *2888.1* | *1514.6* | *199.6* | *93.8* | *69.3* | *63.4* | *63.9* | *60.4* | *49.9* | *37.4* | *36.4* |
| 67.5° | 2565.8 | 1107.5 | 127.7 | 76.8 | 57.9 | 52.9 | 53.4 | 51.4 | 42.4 | 31.9 | 30.4 |
| 70° | 2155.2 | 733.4 | 83.3 | 58.4 | 46.4 | 40.9 | 43.9 | 44.4 | 35.9 | 25.9 | 24.9 |
| 72.5° | 1580.0 | 433.0 | 58.4 | 43.4 | 33.9 | 28.4 | 35.9 | 36.9 | 28.9 | 19.5 | 18.5 |
| 75° | 900.5 | 205.5 | 43.9 | 31.4 | 21.0 | 20.0 | 27.9 | 27.9 | 20.0 | 13.0 | 12.0 |
| 77.5° | 378.2 | 85.8 | 30.9 | 20.5 | 12.0 | 11.5 | 19.0 | 17.5 | 10.0 | 6.0 | 6.0 |
| 80° | 109.3 | 38.4 | 16.5 | 10.0 | 5.0 | 4.5 | 7.5 | 5.5 | 2.5 | 1.0 | 1.0 |
| 82.5° | 42.9 | 17.0 | 6.5 | 4.0 | 2.0 | 2.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 25.4 | 7.0 | 3.0 | 1.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.5 | 1.5 | 1.0 | 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

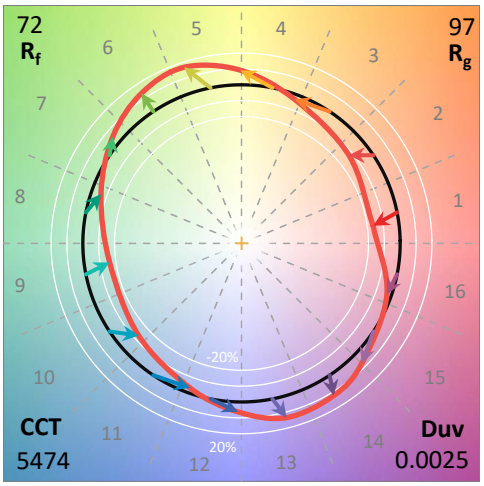
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON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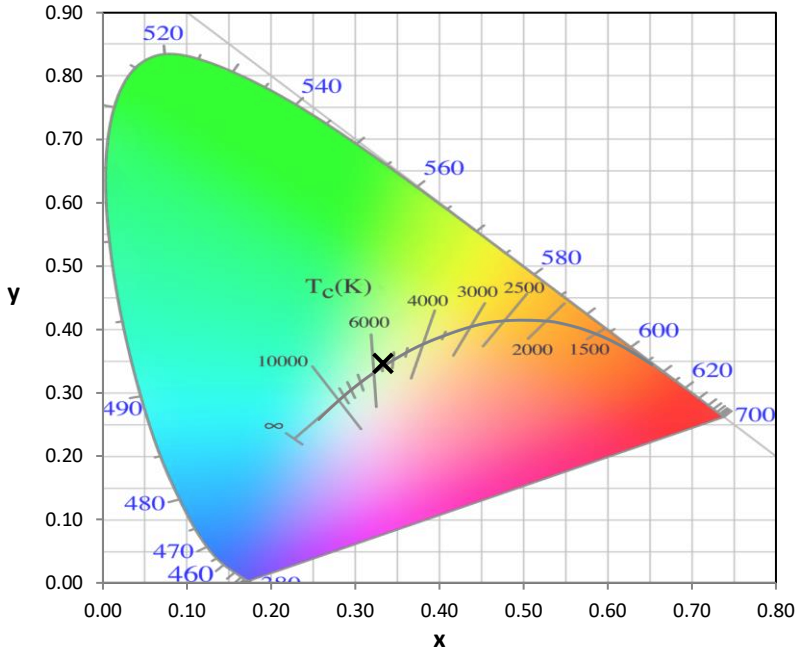
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

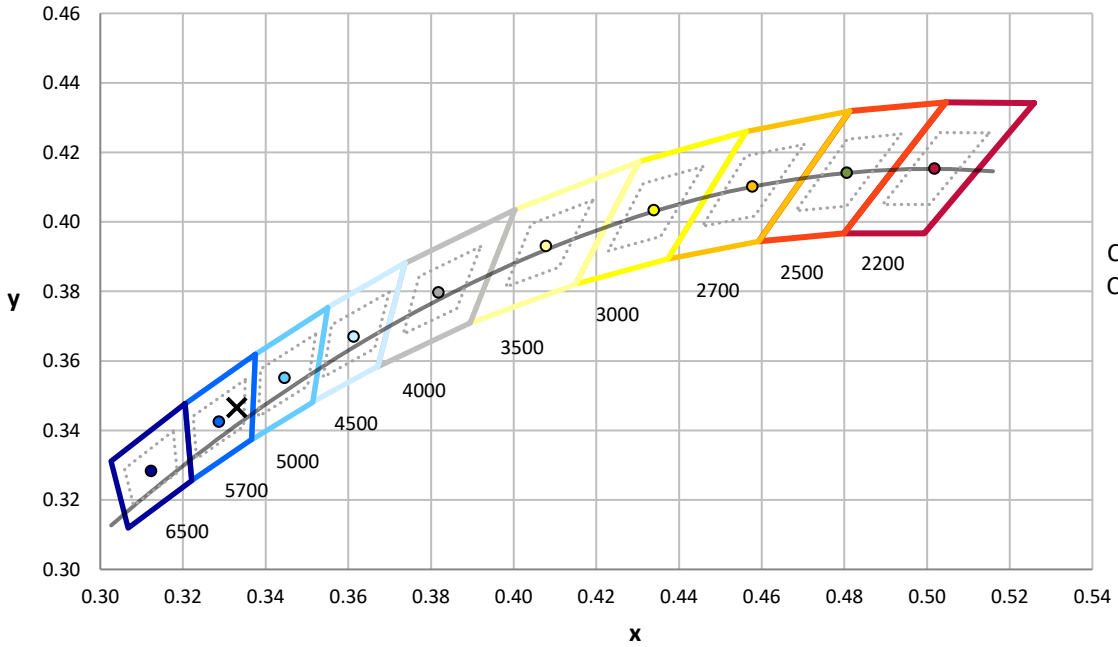
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

## CIE 1931 Chromaticity Diagram




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



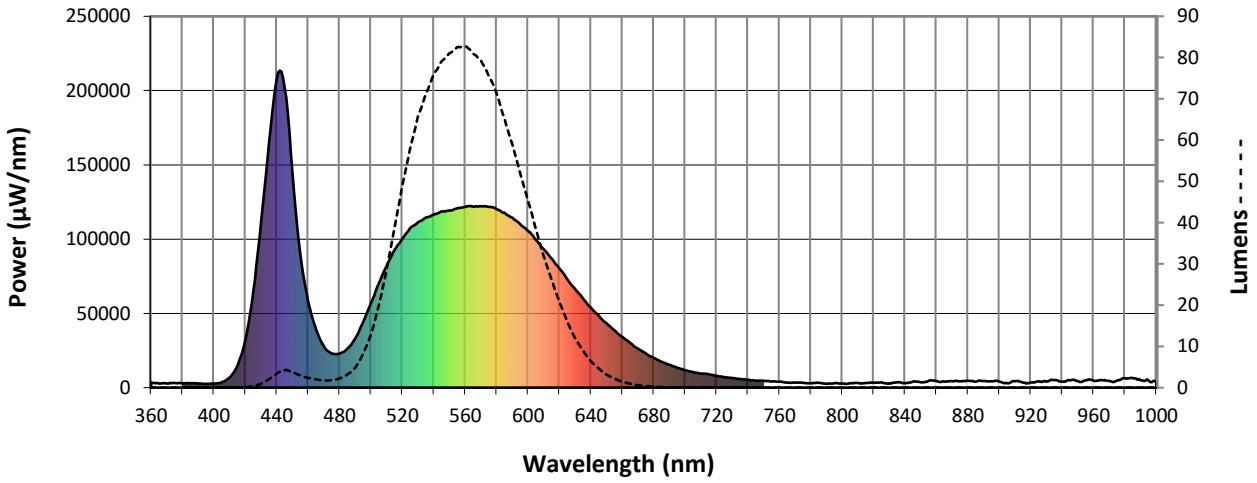

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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Peachtree City, GA 30269

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

## Photopic Flux vs. Wavelength



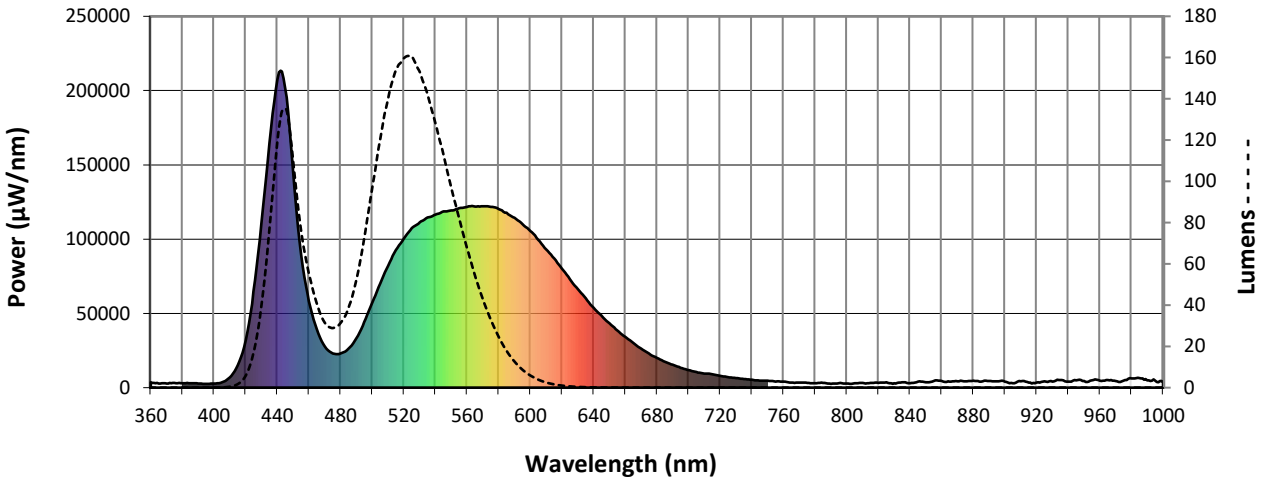

**Photopic Lumens: 7459.9**

| 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 | | | |

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

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

## Scotopic Flux vs. Wavelength



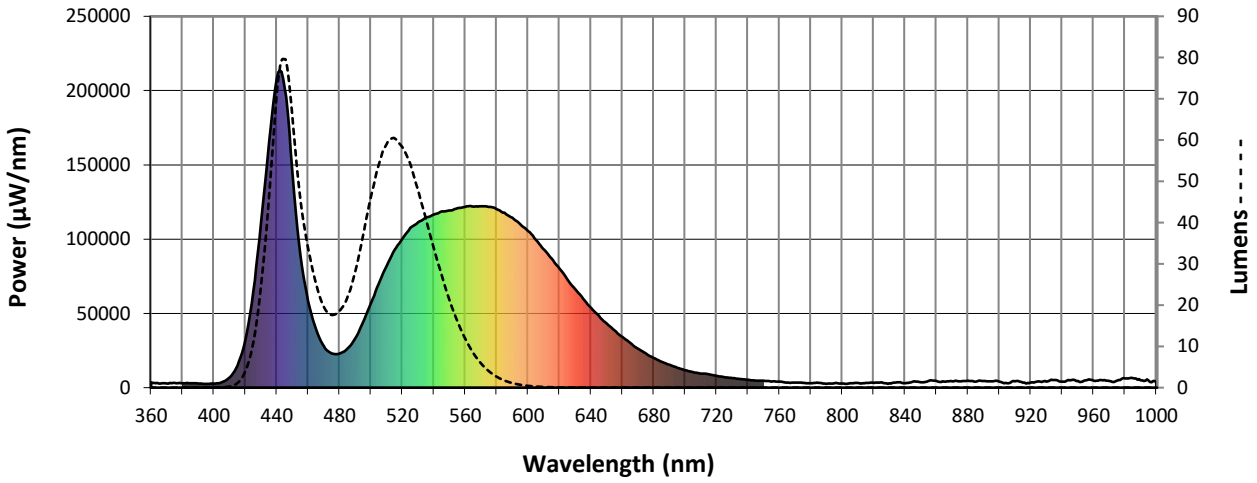

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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 | | | |

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

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

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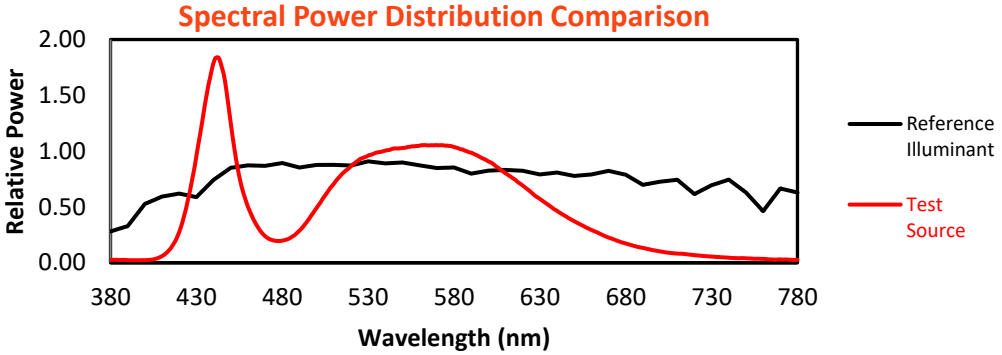
REPORT NUMBER: SP1-1908-441-9-R4

# TM-30-18

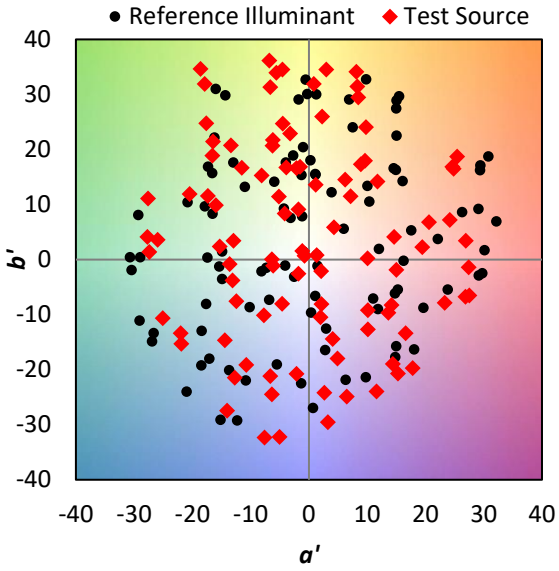
## Summary

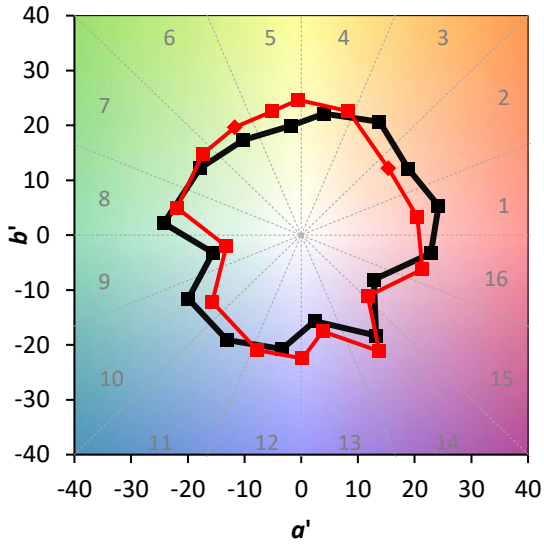
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

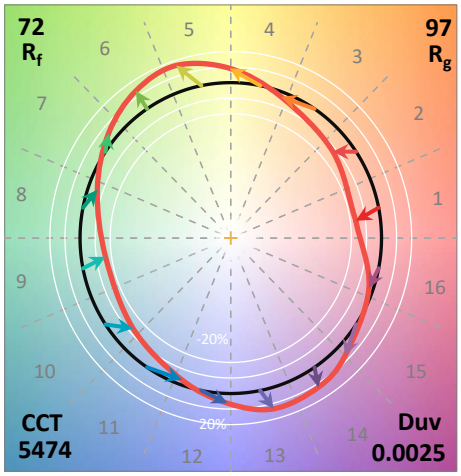
## Spectral Power Distribution Comparison

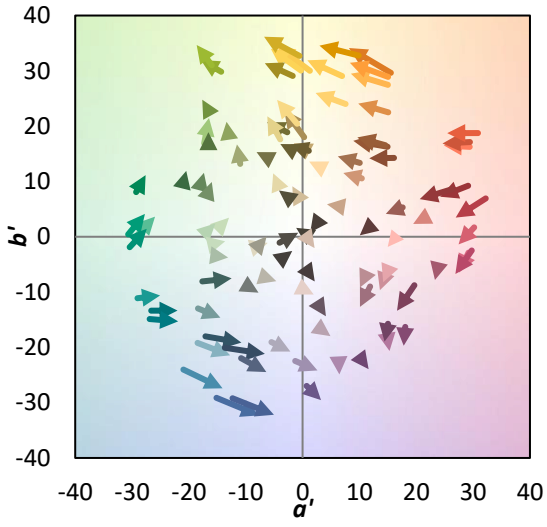



## Color Vector Graphics



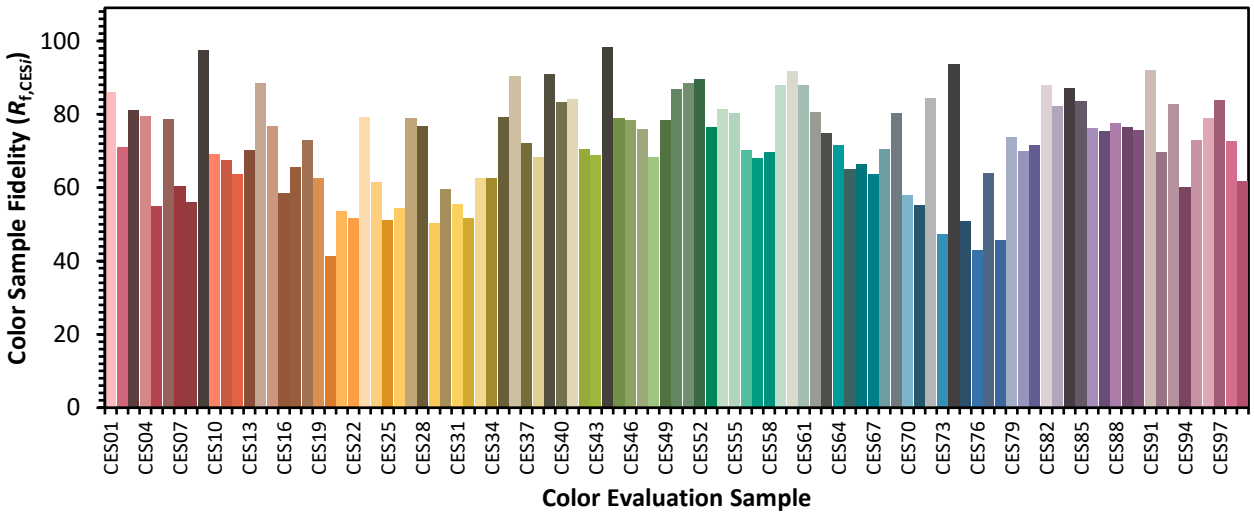
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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

# TM-30-18

## 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 | |

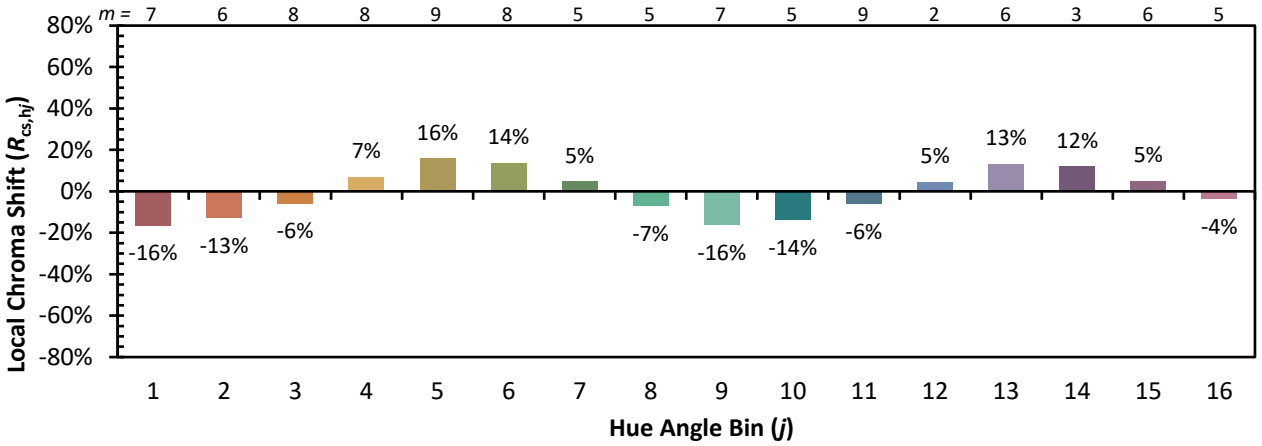


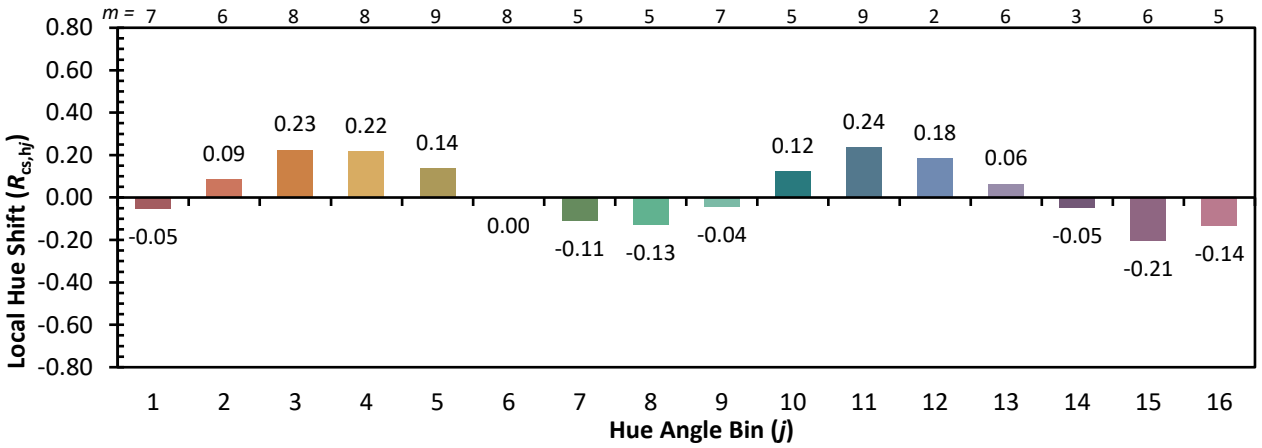
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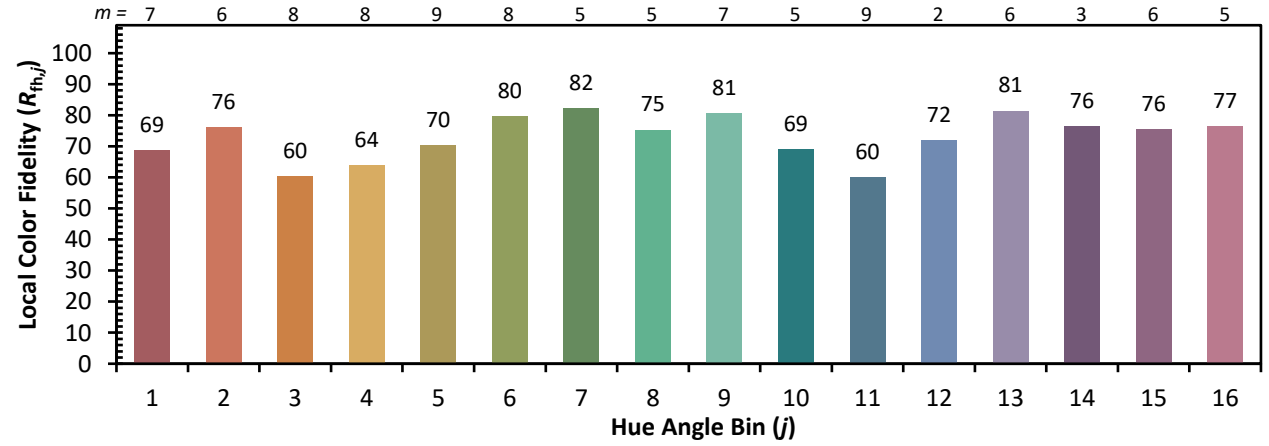
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



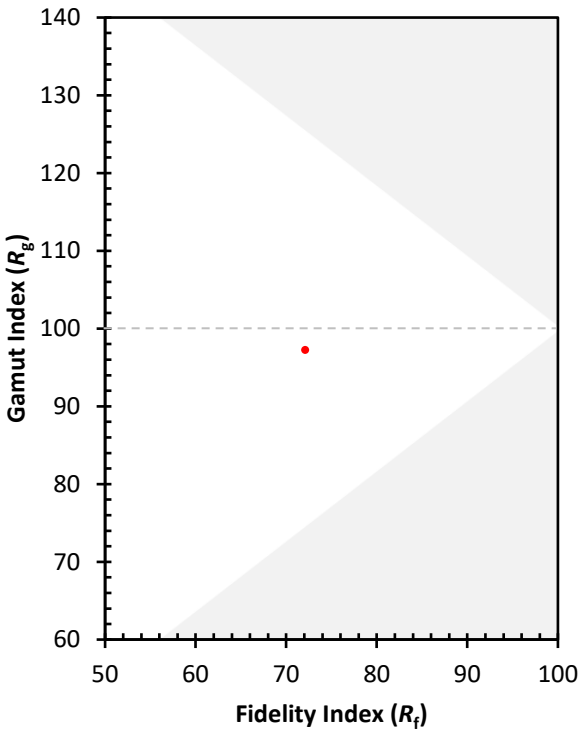



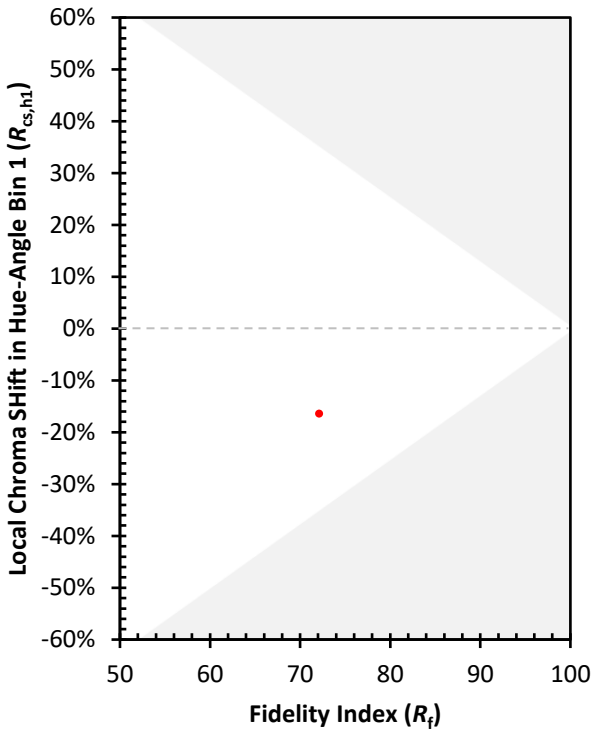
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REPORT NUMBER: SP1-1908-441-9-R4

## TM-30-18

### Measure Comparisons




(END OF REPORT)