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: P1202219

Luminaire Tested: GWC-SB1D-727-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: | P1202219 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-5) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/14/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GWC-SB1D-727-U-T3 |
| Description: | GALLEON WALL LUMINAIRE |
| | (1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 9495 lumens |
| Efficiency: | N/A |
| Efficacy: | 119.3 lumens/watt |
| Luminous Opening: | Rectangular (W 0.5' x L: 0.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B2 - U0 - G2 |

| | |
|---|---|
| Input Watts (W): | 79.6 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.638 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.997 |
| Total Harmonic Distortion (THDi): | 6.673 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

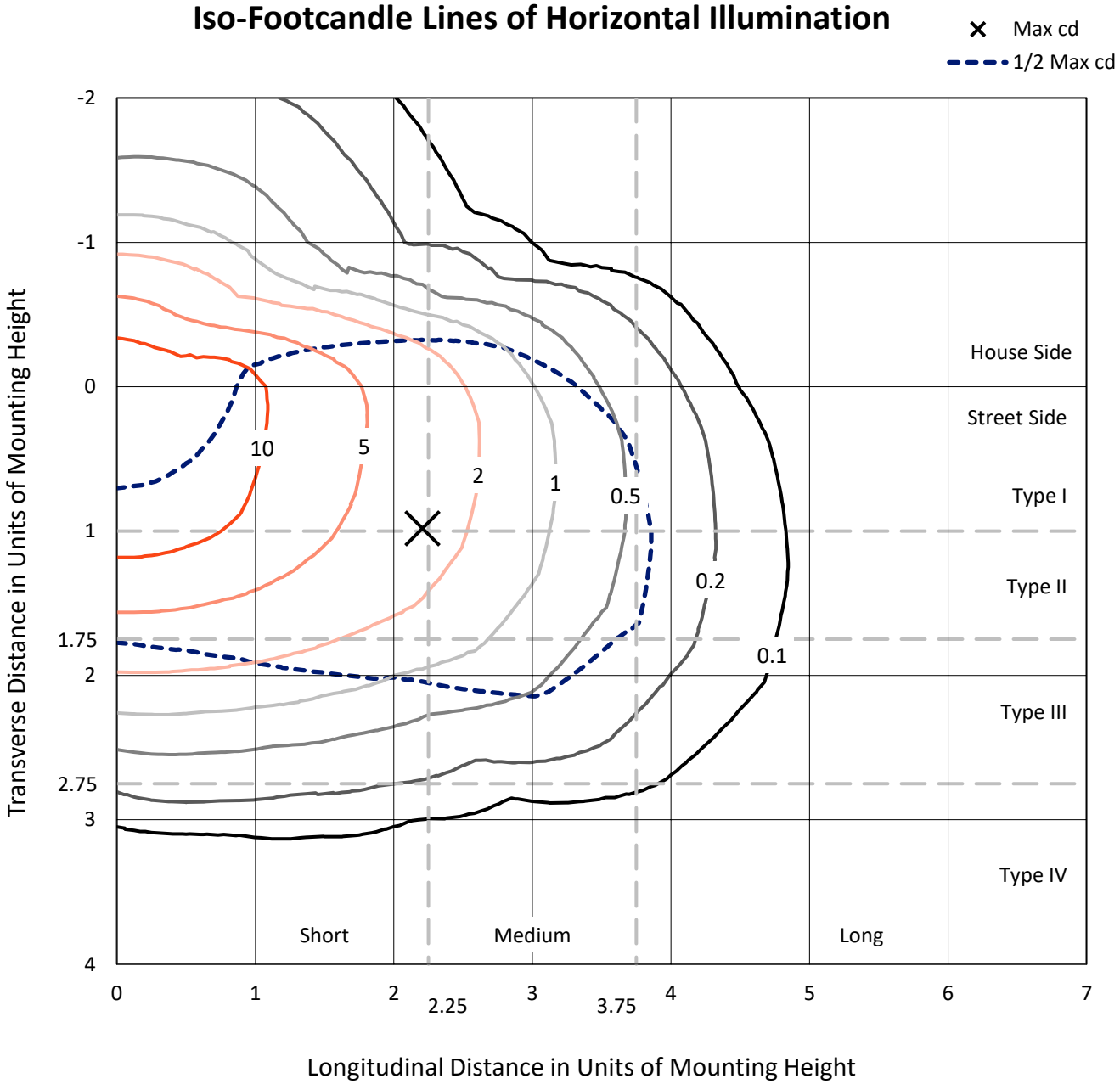


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Scaled Data Report

REPORT NUMBER: P1202219
CATALOG NUMBER: GWC-SB1D-727-U-T3

## Iso-Footcandle Lines of Horizontal Illumination



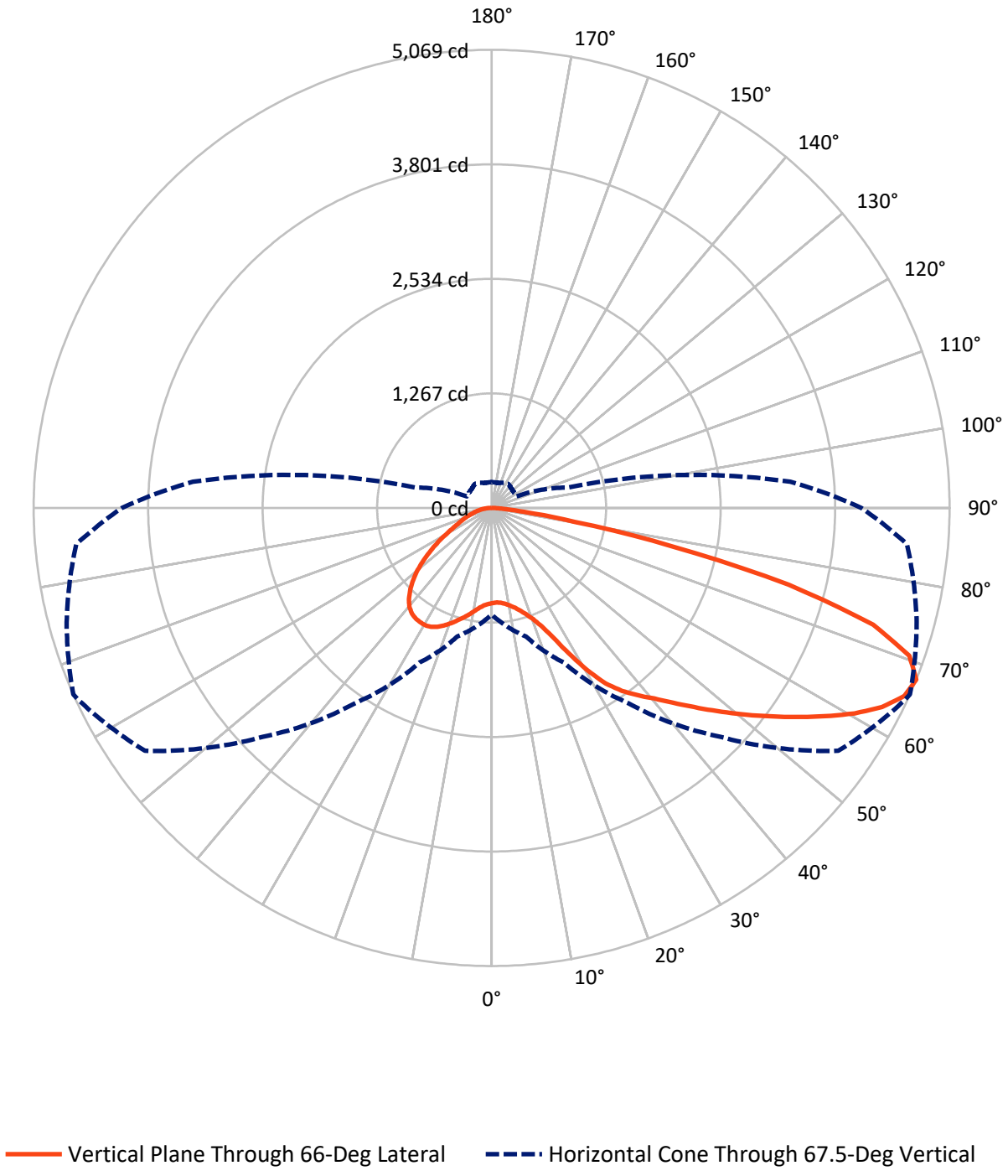

Based on 10 foot mounting height. Maximum calculated value = 13.6 fc
Type III - Short - N/A

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## Luminous Intensity Polar Plot



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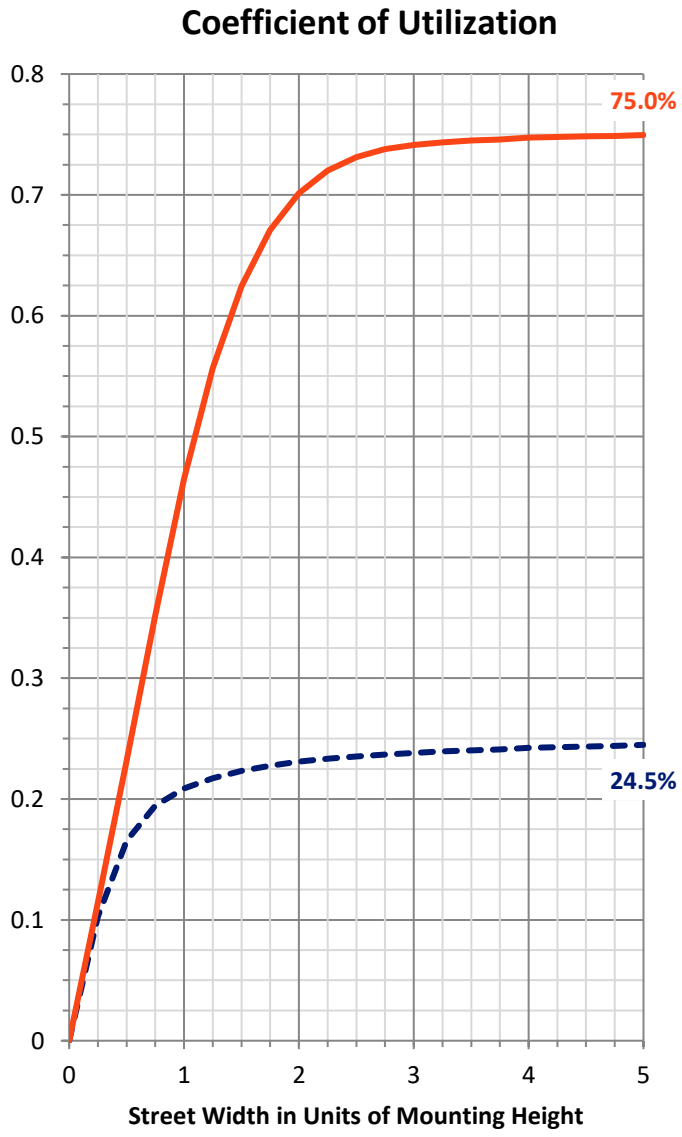
REPORT NUMBER: P1202219
CATALOG NUMBER: GWC-SB1D-727-U-T3

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 2360.9 | 0.0 | 2360.9 |
| | % Fixture | 24.9 | 0.0 | 24.9 |
| **Street Side** | Lumens | 7134.1 | 0.0 | 7134.1 |
| | % Fixture | 75.1 | 0.0 | 75.1 |
| **Total** | Lumens | 9495.0 | 0.0 | 9495.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 104.4 | 1.1 |
| 10°-20° | 345.0 | 3.6 |
| 20°-30° | 664.9 | 7.0 |
| 30°-40° | 1165.8 | 12.3 |
| 40°-50° | 1733.2 | 18.3 |
| 50°-60° | 2197.0 | 23.1 |
| 60°-70° | 2149.7 | 22.6 |
| 70°-80° | 1025.4 | 10.8 |
| 80°-90° | 109.6 | 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° | 9495.0 | 100.0 |
| 0°-180° | 9495.0 | 100.0 |



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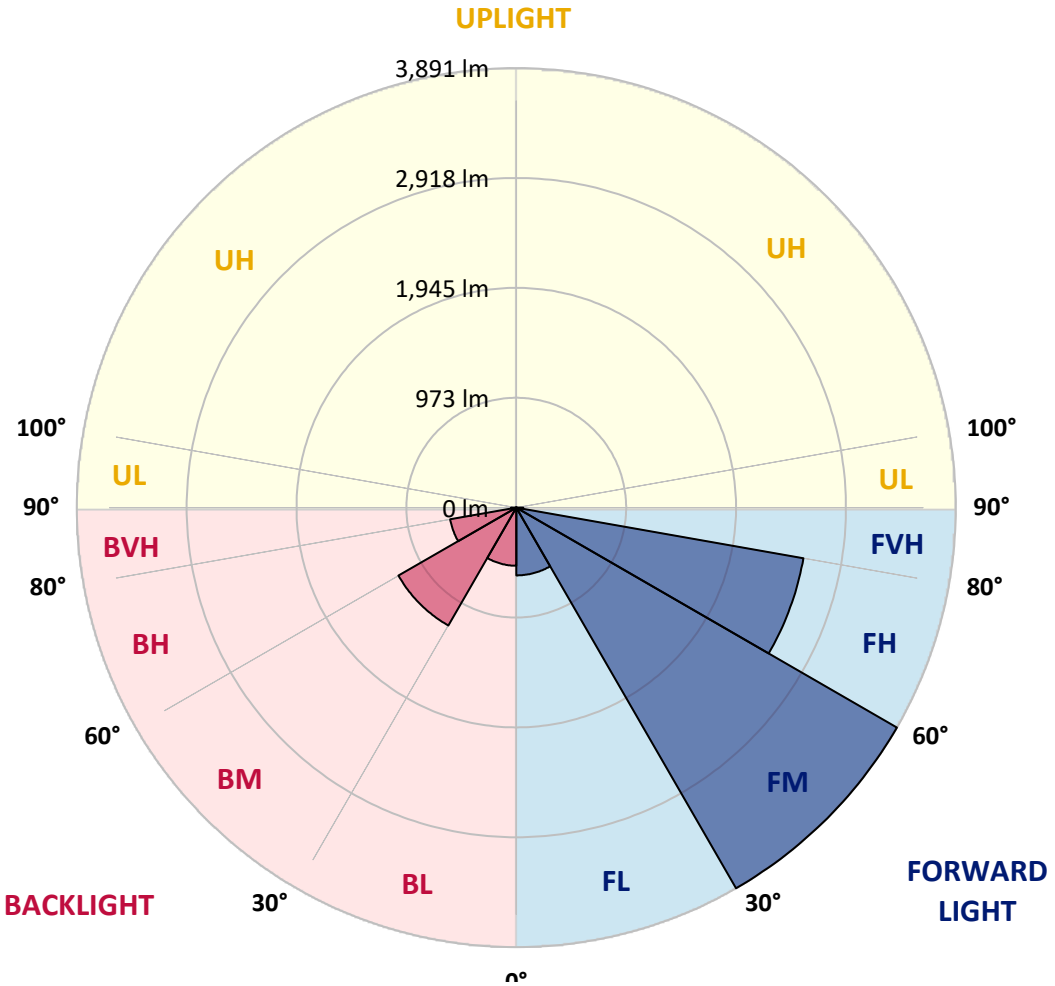
Scaled Data Report

REPORT NUMBER: P1202219
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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°) | 600.0 | 6.3 | | | |
| FM | (30°-60°) | 3891.0 | 41.0 | | | |
| FH | (60°-80°) | 2581.0 | 27.2 | | | G2/5000 |
| FVH | (80°-90°) | 62.1 | 0.7 | | | G1/100 |
| BL | (0°-30°) | 514.3 | 5.4 | B2/1000 | | |
| BM | (30°-60°) | 1205.0 | 12.7 | B2/2500 | | |
| BH | (60°-80°) | 594.1 | 6.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 47.5 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G2**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | *1053.1* | 1053.1 | 1053.1 |
| 2.5° | 1042.1 | 1048.1 | 1046.6 | 1044.1 | 1043.6 | 1044.6 | 1046.1 | 1047.6 | *1047.1* | 1049.6 | 1053.6 |
| 5° | 1039.2 | 1045.1 | 1044.6 | 1044.6 | 1046.6 | 1050.6 | 1053.1 | 1055.6 | *1053.1* | 1056.1 | 1061.6 |
| 7.5° | 1041.1 | 1045.6 | 1047.6 | 1049.6 | 1054.6 | 1062.1 | 1068.1 | 1073.6 | *1070.6* | 1074.1 | 1081.1 |
| 10° | 1066.6 | 1070.1 | 1072.1 | 1072.1 | 1075.6 | 1084.1 | 1090.0 | 1100.0 | *1097.5* | 1103.0 | 1112.0 |
| 12.5° | 1113.0 | 1116.5 | 1116.5 | 1114.5 | 1117.0 | 1122.5 | 1124.5 | 1135.4 | *1130.9* | 1139.9 | 1148.9 |
| 15° | 1169.9 | 1176.8 | 1171.4 | 1167.9 | 1168.9 | 1174.3 | 1173.8 | 1182.3 | *1177.8* | 1185.3 | 1193.3 |
| 17.5° | 1232.7 | 1241.7 | 1232.7 | 1232.2 | 1230.2 | 1236.2 | 1236.7 | 1244.2 | *1236.2* | 1241.7 | 1247.2 |
| 20° | 1307.0 | 1319.5 | 1312.0 | 1314.5 | 1310.0 | 1312.5 | 1315.0 | 1326.0 | *1313.5* | 1317.5 | 1316.0 |
| 22.5° | 1411.8 | 1426.8 | 1418.8 | 1428.3 | 1425.3 | 1423.3 | 1422.8 | 1442.2 | *1422.8* | 1424.3 | 1409.8 |
| 25° | 1564.5 | 1582.4 | 1568.5 | 1581.4 | 1581.4 | 1587.9 | 1595.4 | 1620.3 | *1587.9* | 1578.4 | 1541.0 |
| 27.5° | 1790.0 | 1807.9 | 1780.5 | 1788.5 | 1786.0 | 1801.9 | 1793.9 | 1855.8 | *1820.9* | 1805.4 | 1730.1 |
| 30° | 2061.3 | 2093.3 | 2041.4 | 2039.4 | 2036.9 | 2062.3 | 2073.8 | 2114.7 | *2079.3* | 2063.8 | 1973.0 |
| 32.5° | 2354.7 | 2388.1 | 2326.2 | 2308.3 | 2298.8 | 2314.3 | 2304.8 | 2337.7 | *2313.3* | 2289.3 | 2177.1 |
| 35° | 2665.0 | 2697.9 | 2639.0 | 2604.1 | 2566.2 | 2533.8 | 2499.9 | 2508.3 | *2485.4* | 2449.0 | 2332.7 |
| 37.5° | 2958.3 | 3018.7 | 2956.3 | 2918.9 | 2849.1 | 2785.7 | 2690.9 | 2651.5 | *2630.1* | 2596.6 | 2479.4 |
| 40° | 3257.1 | 3291.6 | 3244.2 | 3212.2 | 3136.4 | 3037.1 | 2885.5 | 2802.2 | *2773.2* | 2740.8 | 2641.5 |
| 42.5° | 3477.1 | 3510.1 | 3484.6 | 3462.7 | 3403.3 | 3288.1 | 3092.0 | 2987.8 | *2945.8* | 2909.4 | 2825.1 |
| 45° | 3651.8 | 3676.2 | 3660.2 | 3668.2 | 3642.8 | 3531.0 | 3306.0 | 3186.8 | *3143.4* | 3099.0 | 3032.6 |
| 47.5° | 3722.1 | 3748.0 | 3773.5 | 3820.9 | 3864.3 | 3782.0 | 3536.0 | 3402.3 | *3356.4* | 3311.0 | 3245.7 |
| 50° | 3714.1 | 3740.6 | 3814.4 | 3915.2 | 4049.9 | 4022.4 | 3778.5 | 3631.8 | *3589.4* | 3537.5 | 3477.1 |
| 52.5° | 3650.3 | 3680.2 | 3775.0 | 3942.6 | 4157.1 | 4202.5 | 4025.4 | 3868.8 | *3828.9* | 3767.0 | 3706.6 |
| 55° | 3482.6 | 3500.6 | 3642.8 | 3880.2 | 4182.6 | 4328.2 | 4267.4 | 4121.2 | *4081.3* | 3995.0 | 3929.1 |
| 57.5° | 3171.8 | 3197.8 | 3404.8 | 3712.1 | 4118.7 | 4413.5 | 4479.9 | 4386.6 | *4348.2* | 4224.0 | 4155.1 |
| 60° | 2766.3 | 2807.7 | 3044.6 | 3429.8 | 3956.1 | 4413.0 | 4672.9 | 4647.5 | *4615.6* | 4449.4 | 4377.6 |
| 62.5° | 2307.3 | 2355.2 | 2583.2 | 3030.7 | 3671.7 | 4287.8 | 4793.7 | 4866.0 | *4849.5* | 4657.5 | 4565.7 |
| 65° | 1772.0 | 1804.9 | 2031.9 | 2514.3 | 3229.2 | 4018.9 | 4807.6 | 5015.2 | *5018.2* | 4815.6 | 4664.0 |
| 67.5° | *1179.8* | *1274.6* | *1471.7* | *1886.7* | *2636.5* | *3579.4* | *4684.9* | *5039.6* | *5068.6* | *4870.0* | *4614.6* |
| 70° | 575.7 | 700.4 | 893.5 | 1226.2 | 1886.7 | 2905.4 | 4364.1 | 4839.1 | *4903.4* | 4711.4 | 4320.2 |
| 72.5° | 239.0 | 279.4 | 384.6 | 605.1 | 1083.1 | 1960.6 | 3719.6 | 4295.3 | *4414.5* | 4174.6 | 3632.3 |
| 75° | 161.1 | 174.6 | 220.0 | 310.3 | 493.4 | 966.8 | 2682.4 | 3202.8 | *3394.8* | 3152.9 | 2577.2 |
| 77.5° | 124.2 | 132.7 | 160.1 | 217.0 | 293.3 | 365.7 | 1435.8 | 1930.1 | *2029.4* | 1878.8 | 1341.0 |
| 80° | 97.8 | 104.3 | 119.7 | 158.1 | 208.0 | 195.6 | 489.4 | 874.5 | *931.9* | 781.7 | 431.0 |
| 82.5° | 84.8 | 87.3 | 85.8 | 107.3 | 138.2 | 114.2 | 160.6 | 322.8 | *356.2* | 258.4 | 140.7 |
| 85° | 61.4 | 68.3 | 71.3 | 66.4 | 73.3 | 57.9 | 65.9 | 114.2 | *125.7* | 112.2 | 79.3 |
| 87.5° | 24.9 | 36.9 | 45.4 | 42.9 | 26.9 | 16.5 | 20.5 | 33.4 | *38.4* | 41.9 | 25.9 |
| 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: P1202219
CATALOG NUMBER: GWC-SB1D-727-U-T3

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 | 1053.1 |
| 2.5° | 1054.1 | 1057.6 | 1060.1 | 1063.1 | 1065.1 | 1068.1 | 1074.1 | 1077.6 | 1078.1 | 1080.6 | 1080.1 |
| 5° | 1063.6 | 1068.6 | 1074.1 | 1082.1 | 1091.0 | 1098.5 | 1110.0 | 1118.0 | 1121.0 | 1123.5 | 1123.0 |
| 7.5° | 1084.1 | 1091.0 | 1101.0 | 1115.0 | 1128.0 | 1137.9 | 1151.9 | 1161.4 | 1170.9 | 1174.3 | 1174.8 |
| 10° | 1114.5 | 1124.5 | 1138.9 | 1157.9 | 1171.9 | 1184.8 | 1199.3 | 1207.3 | 1216.8 | 1220.7 | 1222.7 |
| 12.5° | 1152.4 | 1162.9 | 1181.8 | 1208.3 | 1221.2 | 1230.2 | 1235.2 | 1233.2 | 1235.2 | 1238.7 | 1239.7 |
| 15° | 1195.8 | 1207.3 | 1228.7 | 1257.2 | 1266.1 | 1258.2 | 1247.2 | 1237.2 | 1235.7 | 1236.7 | 1240.2 |
| 17.5° | 1247.2 | 1255.7 | 1280.6 | 1304.6 | 1298.1 | 1265.1 | 1241.2 | 1225.2 | 1217.3 | 1214.8 | 1218.2 |
| 20° | 1319.0 | 1319.0 | 1339.5 | 1354.4 | 1311.0 | 1255.2 | 1217.7 | 1191.8 | 1175.3 | 1168.4 | 1166.9 |
| 22.5° | 1406.3 | 1398.3 | 1411.3 | 1400.8 | 1308.5 | 1227.2 | 1175.3 | 1130.4 | 1105.5 | 1095.5 | 1094.0 |
| 25° | 1517.1 | 1507.6 | 1504.1 | 1439.2 | 1290.6 | 1182.8 | 1098.5 | 1044.1 | 1022.2 | 1016.7 | 1017.7 |
| 27.5° | 1684.2 | 1660.2 | 1614.9 | 1460.2 | 1257.7 | 1113.0 | 1008.7 | 958.3 | 945.9 | 946.4 | 947.9 |
| 30° | 1906.7 | 1858.8 | 1747.6 | 1463.7 | 1203.8 | 1014.2 | 916.9 | 881.0 | 875.0 | 877.5 | 886.0 |
| 32.5° | 2112.7 | 2067.3 | 1883.2 | 1447.7 | 1121.0 | 917.4 | 834.6 | 810.7 | 801.7 | 804.7 | 808.7 |
| 35° | 2274.4 | 2261.9 | 2009.0 | 1425.3 | 1019.2 | 826.6 | 760.8 | 740.3 | 722.9 | 718.9 | 721.9 |
| 37.5° | 2427.0 | 2422.0 | 2103.2 | 1393.9 | 918.4 | 762.3 | 701.4 | 674.5 | 649.0 | 635.1 | 635.6 |
| 40° | 2594.6 | 2589.6 | 2165.1 | 1345.5 | 829.1 | 706.4 | 648.0 | 612.6 | 581.2 | 555.7 | 558.2 |
| 42.5° | 2783.2 | 2753.8 | 2194.5 | 1276.1 | 753.3 | 659.0 | 604.6 | 556.7 | 515.3 | 491.9 | 493.4 |
| 45° | 2989.2 | 2922.9 | 2194.0 | 1187.8 | 689.4 | 615.6 | 558.2 | 490.4 | 452.0 | 430.0 | 429.0 |
| 47.5° | 3207.8 | 3084.5 | 2167.1 | 1090.0 | 627.6 | 567.7 | 486.4 | 434.5 | 409.1 | 395.6 | 392.6 |
| 50° | 3433.2 | 3235.7 | 2121.2 | 977.8 | 564.2 | 513.3 | 441.5 | 406.1 | 386.6 | 374.2 | 369.7 |
| 52.5° | 3645.3 | 3372.9 | 2065.8 | 850.6 | 499.9 | 460.5 | 421.5 | 394.1 | 373.7 | 359.7 | 353.7 |
| 55° | 3842.3 | 3491.1 | 1987.5 | 720.4 | 447.5 | 425.0 | 412.1 | 389.1 | 365.7 | 349.2 | 342.7 |
| 57.5° | 4017.4 | 3567.9 | 1852.3 | 598.1 | 410.1 | 400.6 | 402.1 | 380.6 | 353.7 | 339.7 | 330.8 |
| 60° | 4163.1 | 3624.3 | 1652.3 | 484.9 | 379.6 | 376.6 | 386.6 | 364.7 | 333.2 | 317.3 | 310.3 |
| 62.5° | 4250.4 | 3623.3 | 1406.8 | 397.1 | 353.7 | 354.7 | 366.2 | 344.7 | 312.8 | 297.8 | 293.3 |
| 65° | 4242.9 | 3534.5 | 1137.4 | 339.7 | 328.8 | 329.8 | 344.7 | 322.8 | 295.8 | 286.9 | 286.4 |
| 67.5° | *4092.8* | *3318.0* | *872.5* | *302.3* | *301.3* | *305.8* | *323.3* | *307.8* | *285.4* | *284.4* | *285.9* |
| 70° | 3686.2 | 2868.5 | 628.6 | 272.4 | 272.9 | 279.4 | 302.3 | 298.3 | 279.9 | 281.9 | 281.4 |
| 72.5° | 2955.8 | 2187.1 | 422.0 | 241.0 | 241.5 | 251.9 | 282.4 | 290.8 | 274.4 | 300.8 | 304.8 |
| 75° | 1968.6 | 1363.9 | 271.4 | 207.5 | 208.0 | 221.5 | 264.9 | 276.4 | 259.4 | 299.8 | 302.3 |
| 77.5° | 945.9 | 613.1 | 196.6 | 174.6 | 174.6 | 187.1 | 229.0 | 247.4 | 221.0 | 233.0 | 213.5 |
| 80° | 326.8 | 230.5 | 154.7 | 140.7 | 137.7 | 146.2 | 193.1 | 214.5 | 190.6 | 175.6 | 164.6 |
| 82.5° | 128.7 | 119.7 | 124.2 | 109.3 | 99.3 | 104.8 | 150.2 | 177.1 | 140.2 | 126.7 | 126.2 |
| 85° | 73.8 | 77.8 | 87.8 | 72.3 | 57.4 | 64.4 | 110.3 | 127.2 | 105.8 | 93.3 | 95.3 |
| 87.5° | 20.0 | 27.4 | 40.4 | 37.4 | 25.9 | 27.4 | 52.4 | 70.3 | 60.9 | 46.9 | 48.4 |
| 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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# LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-U-5WQ

Data in this report applies to products using SA and SB light squares

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

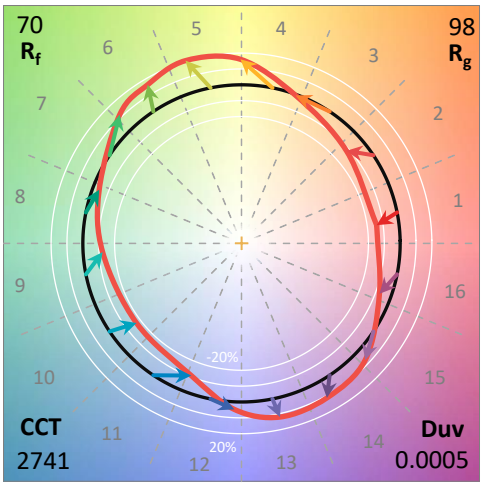
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-1-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | **SA1C-727-U-5WQ** |
| Description: | McGRAW EDISON ROADWAY AND AREA LUMINAIRE |

***THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.***TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

## Spectral Parameters

| | | | | | |
|---|---|---|---|---|---|
| CCT (K): | 2741 | CRI (Ra): | 71.5 | | |
| CIE u': | 0.2605 | R1: | 69.2 | R9: | -16.1 |
| CIE v': | 0.5272 | R2: | 79.4 | R10: | 51.4 |
| Duv: | 0.0005 | R3: | 87.8 | R11: | 63.1 |
| CIE x: | 0.4573 | R4: | 69.4 | R12: | 42.0 |
| CIE y: | 0.4113 | R5: | 66.4 | R13: | 70.2 |
| CIE z: | 0.1313 | R6: | 69.8 | R14: | 92.4 |
| Peak Wavelength (nm): | 602 | R7: | 79.8 | | |
| Dominant Wavelength (nm): | 583 | R8: | 50.1 | | |
| Purity: | 61.2 | | | | |

| | |
|---|---|
| Rf: | 69.9 |
| Rg: | 98.3 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 56M |
| Operation Time: | 12H |
| Room Temperature (°C) / RH%: | 25.3./42% |
| Sphere Temperature (°C): | 25.7 |

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1121 Highway 74 South
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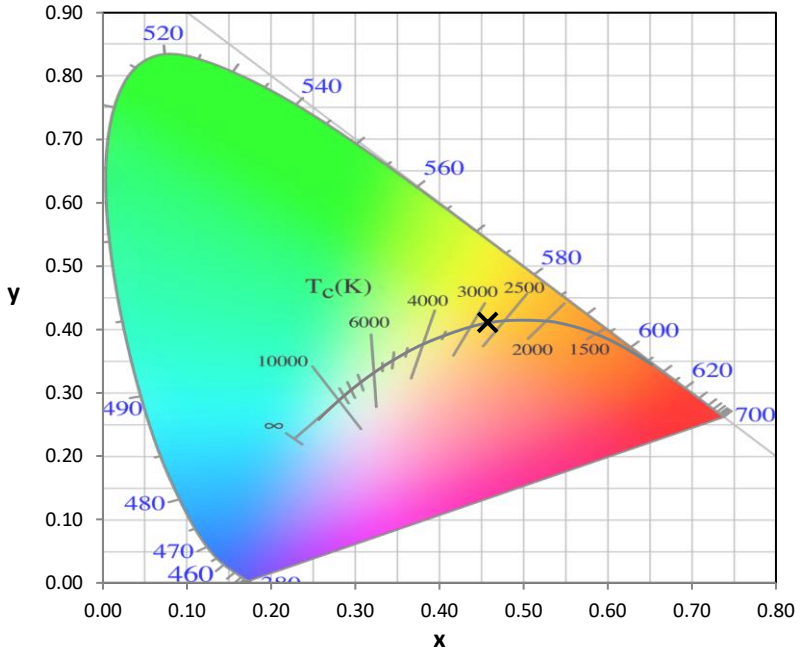
REPORT NUMBER: SP1-1908-441-1-R4

| 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 |

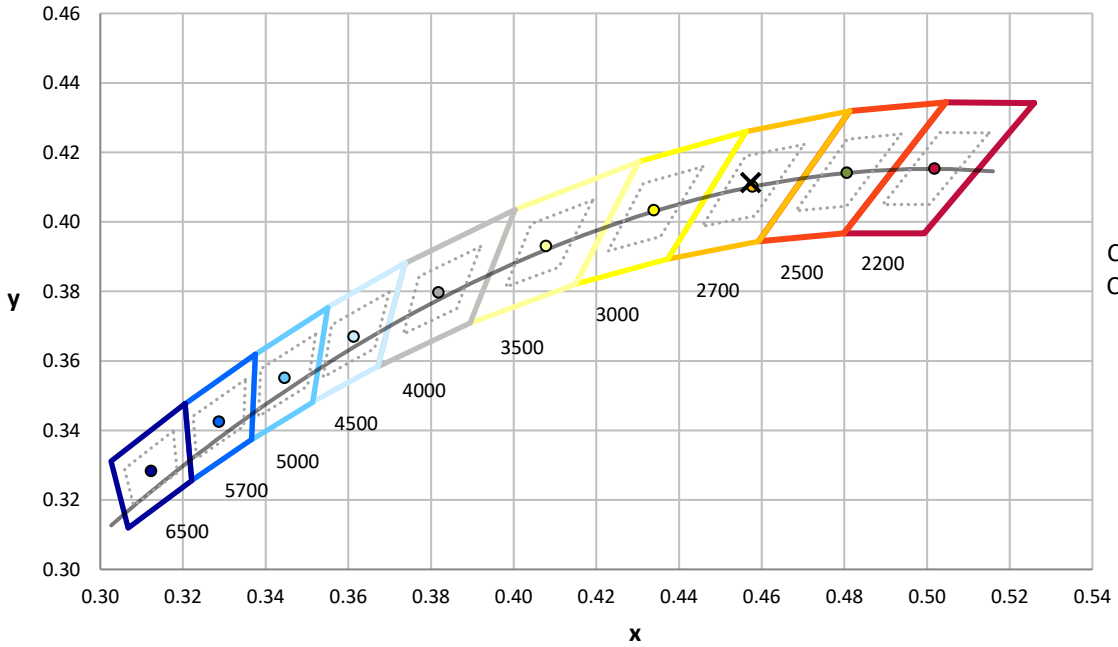
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## CIE 1931 Chromaticity Diagram




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



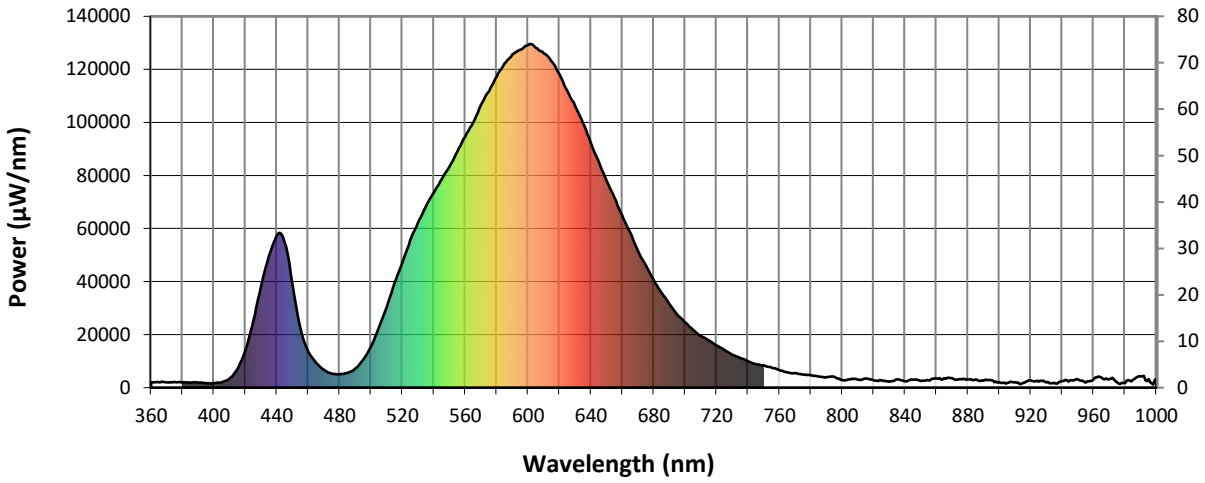

CCT = 2741K
CIE x = 0.4573
CIE y = 0.4113
Duv = 0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Photopic Flux vs. Wavelength



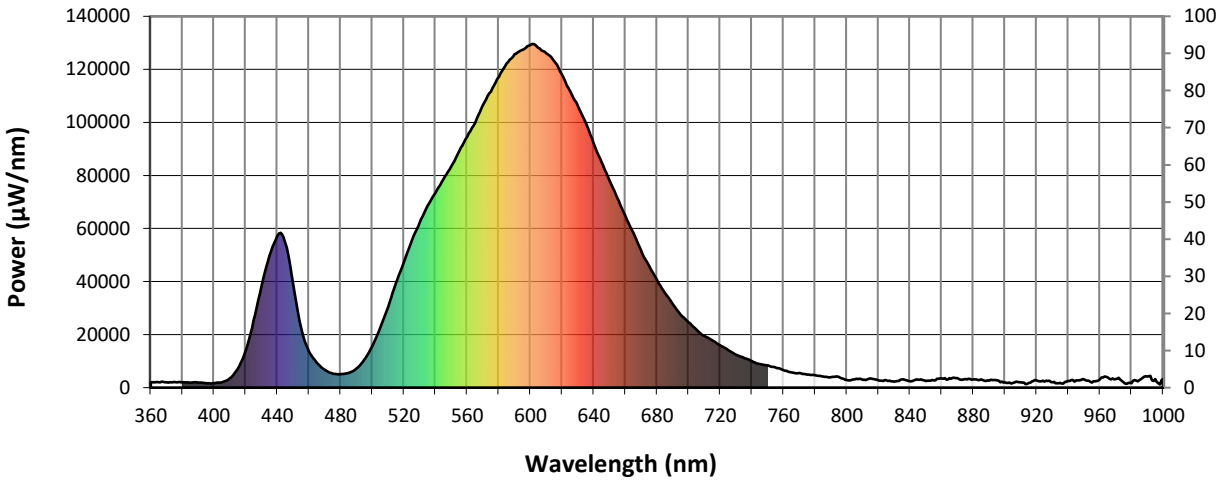

######

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Scotopic Flux vs. Wavelength



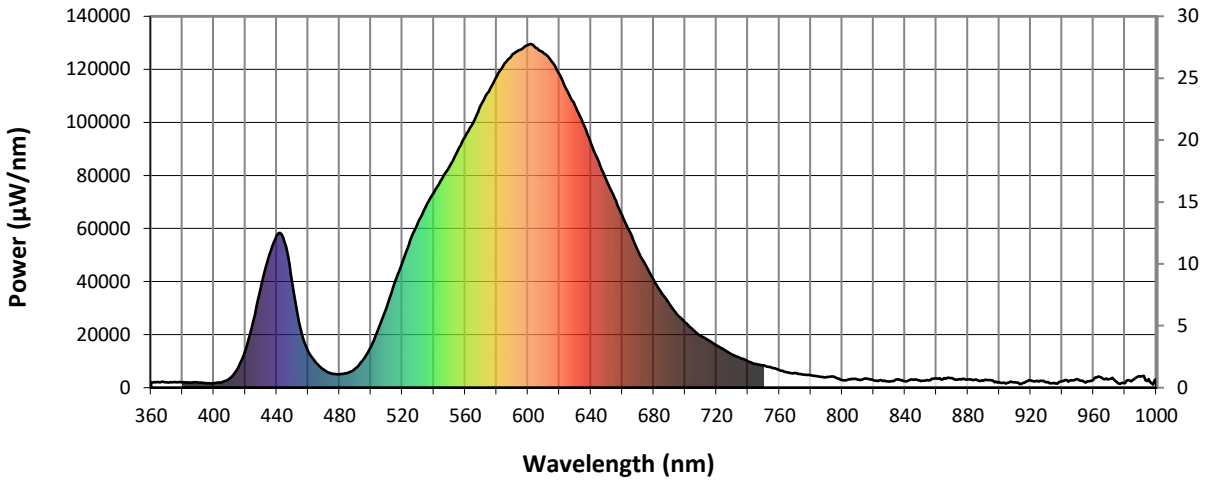

**Scotopic Lumens: 6474.3** **S/P: 1.04**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: 2145.7** **M/P: 0.35**

| 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 | 2044 | NR | 490 | 7179 | NR | 620 | 118034 | NR | 750 | 8362 | NR | 880 | 3128 | NR |
| 365 | 2016 | NR | 495 | 10476 | NR | 625 | 111884 | NR | 755 | 7635 | NR | 885 | 3110 | NR |
| 370 | 2020 | NR | 500 | 15549 | NR | 630 | 106119 | NR | 760 | 6582 | NR | 890 | 2632 | NR |
| 375 | 2137 | NR | 505 | 22477 | NR | 635 | 99706 | NR | 765 | 5777 | NR | 895 | 2709 | NR |
| 380 | 2046 | NR | 510 | 30417 | NR | 640 | 92142 | NR | 770 | 5474 | NR | 900 | 2016 | NR |
| 385 | 1925 | NR | 515 | 39274 | NR | 645 | 84987 | NR | 775 | 4977 | NR | 905 | 1748 | NR |
| 390 | 1893 | NR | 520 | 47282 | NR | 650 | 78016 | NR | 780 | 4723 | NR | 910 | 2046 | NR |
| 395 | 1695 | NR | 525 | 55413 | NR | 655 | 71541 | NR | 785 | 4219 | NR | 915 | 1844 | NR |
| 400 | 1633 | NR | 530 | 62377 | NR | 660 | 64863 | NR | 790 | 3969 | NR | 920 | 2734 | NR |
| 405 | 2065 | NR | 535 | 68520 | NR | 665 | 58485 | NR | 795 | 4122 | NR | 925 | 2307 | NR |
| 410 | 3449 | NR | 540 | 73435 | NR | 670 | 51641 | NR | 800 | 2864 | NR | 930 | 2039 | NR |
| 415 | 7117 | NR | 545 | 78677 | NR | 675 | 46030 | NR | 805 | 3151 | NR | 935 | 1784 | NR |
| 420 | 13992 | NR | 550 | 83331 | NR | 680 | 40590 | NR | 810 | 3022 | NR | 940 | 2464 | NR |
| 425 | 25176 | NR | 555 | 89120 | NR | 685 | 35691 | NR | 815 | 3471 | NR | 945 | 2794 | NR |
| 430 | 38151 | NR | 560 | 94613 | NR | 690 | 31631 | NR | 820 | 2749 | NR | 950 | 3090 | NR |
| 435 | 49673 | NR | 565 | 99818 | NR | 695 | 27437 | NR | 825 | 2729 | NR | 955 | 1866 | NR |
| 440 | 57273 | NR | 570 | 106526 | NR | 700 | 24589 | NR | 830 | 2282 | NR | 960 | 3110 | NR |
| 445 | 54802 | NR | 575 | 111610 | NR | 705 | 21832 | NR | 835 | 3140 | NR | 965 | 3880 | NR |
| 450 | 39184 | NR | 580 | 117163 | NR | 710 | 19500 | NR | 840 | 2365 | NR | 970 | 3243 | NR |
| 455 | 22506 | NR | 585 | 122201 | NR | 715 | 17870 | NR | 845 | 3024 | NR | 975 | 2014 | NR |
| 460 | 13692 | NR | 590 | 125662 | NR | 720 | 15924 | NR | 850 | 2510 | NR | 980 | 1688 | NR |
| 465 | 9446 | NR | 595 | 127415 | NR | 725 | 14268 | NR | 855 | 2739 | NR | 985 | 2827 | NR |
| 470 | 6698 | NR | 600 | 129155 | NR | 730 | 12438 | NR | 860 | 3515 | NR | 990 | 4172 | NR |
| 475 | 5328 | NR | 605 | 128057 | NR | 735 | 11255 | NR | 865 | 3600 | NR | 995 | 3177 | NR |
| 480 | 5081 | NR | 610 | 126031 | NR | 740 | 9951 | NR | 870 | 3609 | NR | 1000 | 3241 | NR |
| 485 | 5579 | NR | 615 | 123059 | NR | 745 | 8870 | NR | 875 | 3208 | NR | | | |

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1121 Highway 74 South
Peachtree City, GA 30269

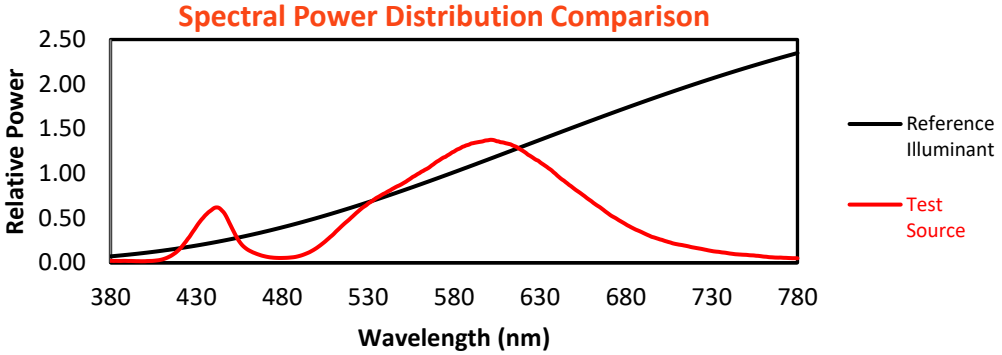
REPORT NUMBER: SP1-1908-441-1-R4

# TM-30-18

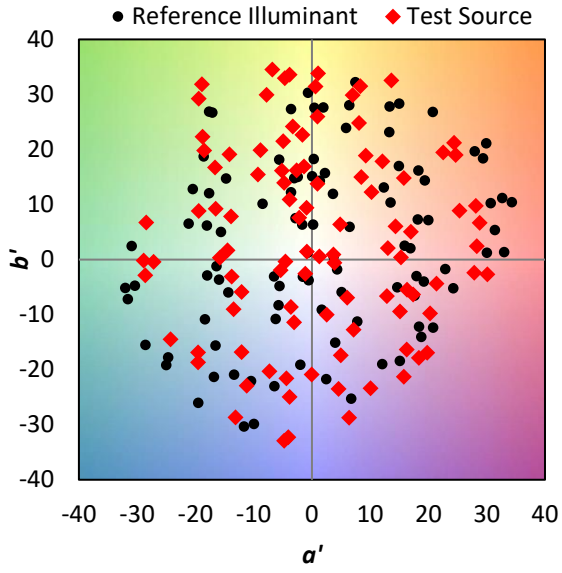
## Summary

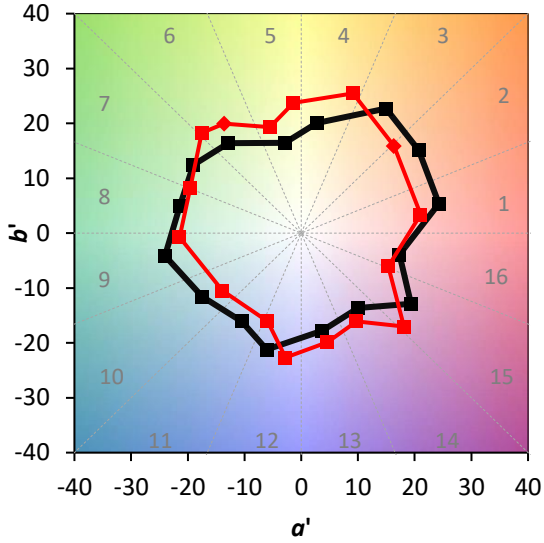
$R_f$ = 69.9
$R_g$ = 98.3
CIE $R_a$ = 71.5
$R_9$ = -16.1

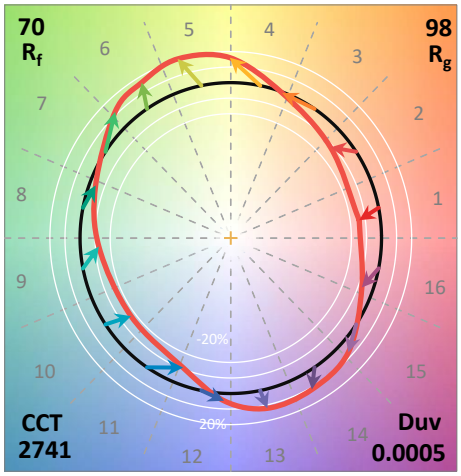
## Spectral Power Distribution Comparison

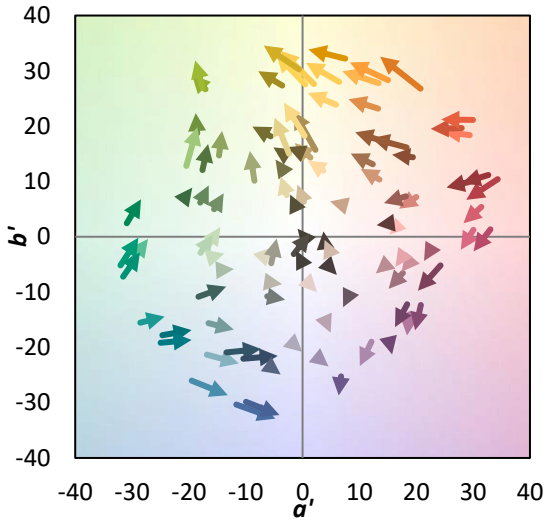



## Color Vector Graphics



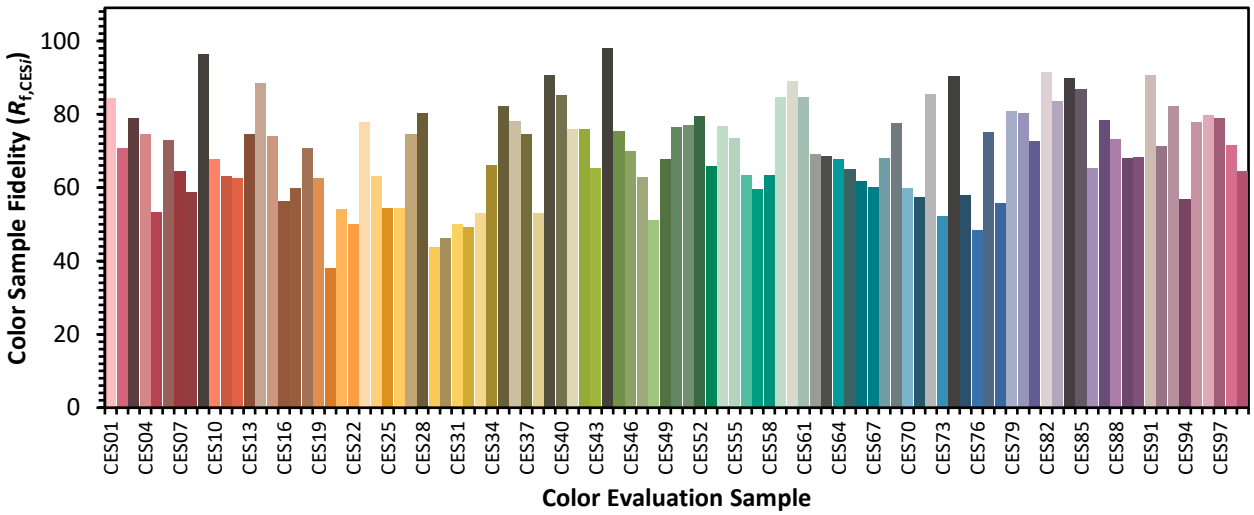
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 54 | CES51 = 77 | CES76 = 48 |
| CES02 = 63 | CES27 = 74 | CES52 = 80 | CES77 = 75 |
| CES03 = 31 | CES28 = 80 | CES53 = 66 | CES78 = 56 |
| CES04 = 71 | CES29 = 44 | CES54 = 77 | CES79 = 81 |
| CES05 = 50 | CES30 = 46 | CES55 = 74 | CES80 = 80 |
| CES06 = 52 | CES31 = 50 | CES56 = 63 | CES81 = 73 |
| CES07 = 42 | CES32 = 49 | CES57 = 60 | CES82 = 91 |
| CES08 = 41 | CES33 = 53 | CES58 = 63 | CES83 = 84 |
| CES09 = 29 | CES34 = 66 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 82 | CES60 = 89 | CES85 = 87 |
| CES11 = 60 | CES36 = 78 | CES61 = 85 | CES86 = 65 |
| CES12 = 66 | CES37 = 75 | CES62 = 69 | CES87 = 78 |
| CES13 = 43 | CES38 = 53 | CES63 = 68 | CES88 = 73 |
| CES14 = 74 | CES39 = 91 | CES64 = 68 | CES89 = 68 |
| CES15 = 71 | CES40 = 85 | CES65 = 65 | CES90 = 68 |
| CES16 = 48 | CES41 = 76 | CES66 = 62 | CES91 = 91 |
| CES17 = 50 | CES42 = 76 | CES67 = 60 | CES92 = 71 |
| CES18 = 57 | CES43 = 65 | CES68 = 68 | CES93 = 82 |
| CES19 = 73 | CES44 = 98 | CES69 = 77 | CES94 = 57 |
| CES20 = 67 | CES45 = 75 | CES70 = 60 | CES95 = 78 |
| CES21 = 88 | CES46 = 70 | CES71 = 57 | CES96 = 80 |
| CES22 = 80 | CES47 = 63 | CES72 = 86 | CES97 = 79 |
| CES23 = 92 | CES48 = 51 | CES73 = 52 | CES98 = 71 |
| CES24 = 91 | CES49 = 68 | CES74 = 90 | CES99 = 64 |
| CES25 = 73 | CES50 = 77 | CES75 = 58 | |

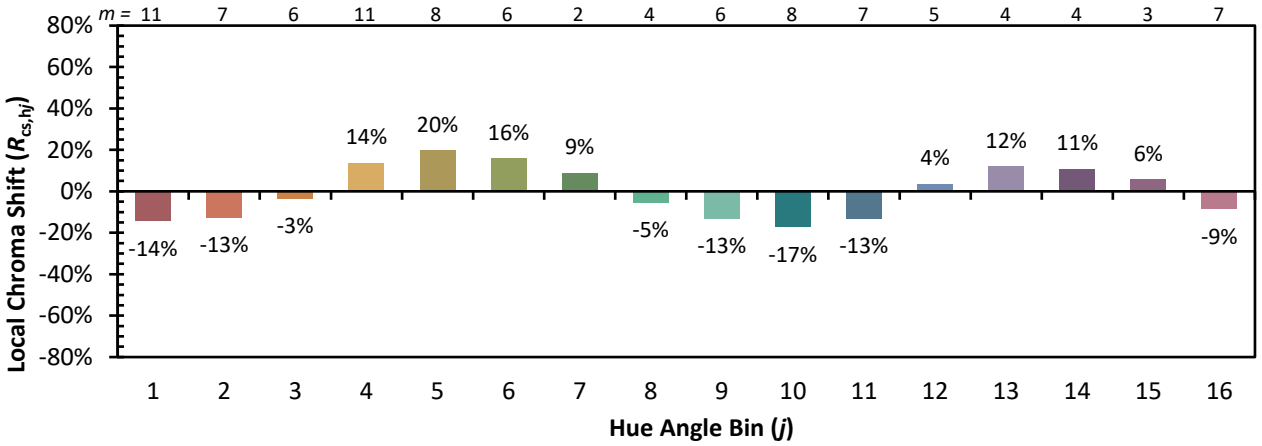


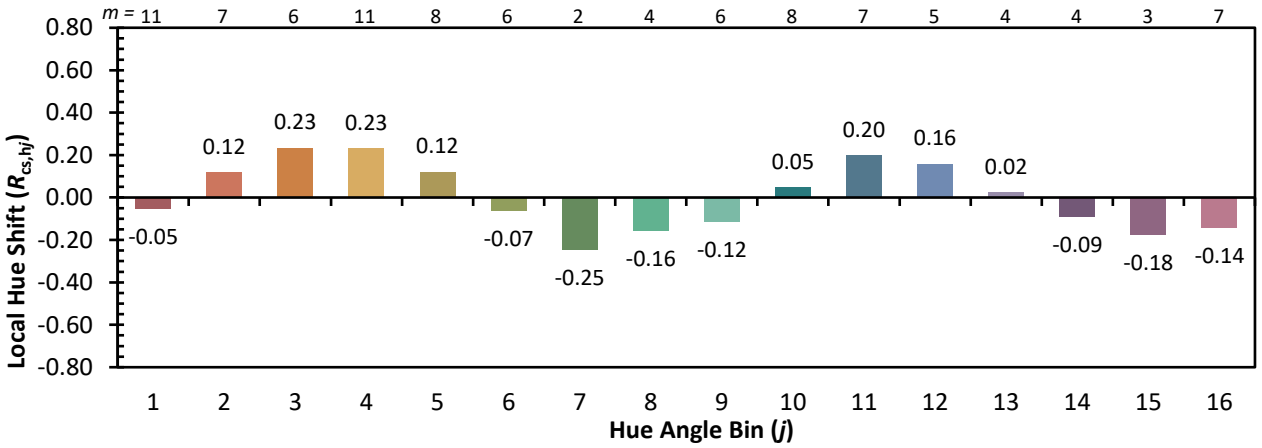
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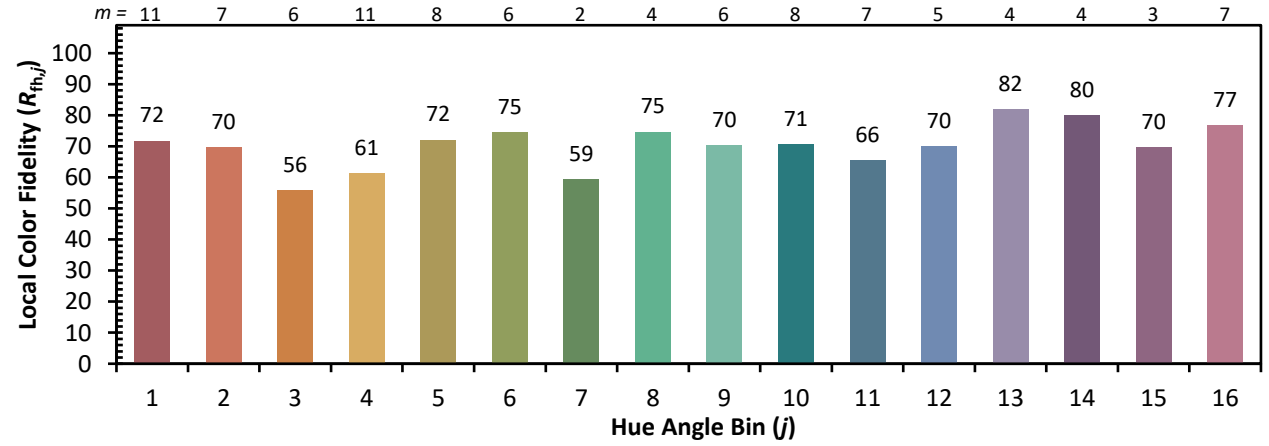
REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

### Color Rendition by Hue-Angle Bin



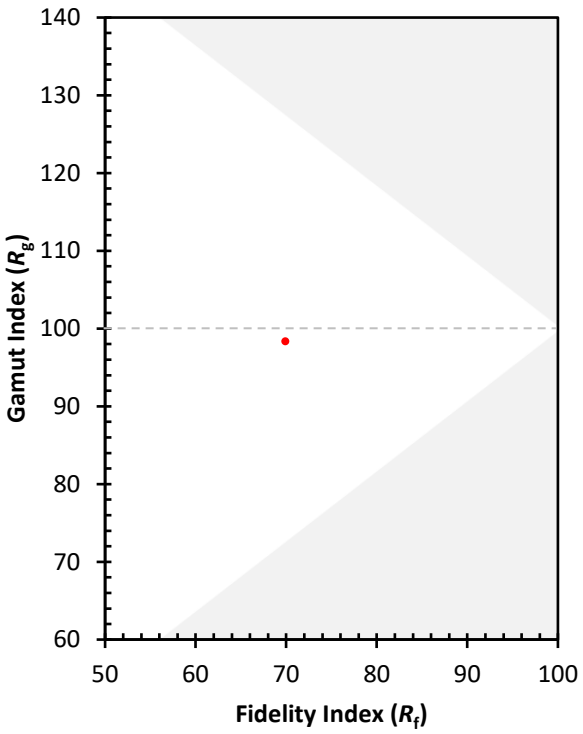



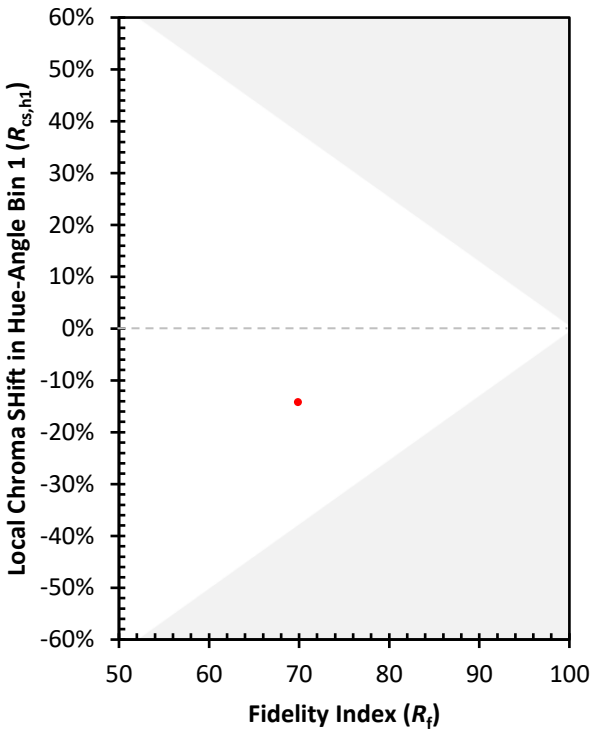
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1121 Highway 74 South
Peachtree City, GA 30269

REPORT NUMBER: SP1-1908-441-1-R4

## TM-30-18

### Measure Comparisons




(END OF REPORT)