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: P1200281

Luminaire Tested: GPC-SB2C-760-U-SL2

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: | P1200281 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/15/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| Catalog Number: | GPC-SB2C-760-U-SL2 |
| Description: | GALLEON PEDESTRIAN LUMINAIRE |
| | (2) 70 CRI, 5700K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II SPILL LIGHT ELIMINATOR OPTICS |
| Light Source: | - |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 15746 lumens |
| Efficiency: | N/A |
| Efficacy: | 156.1 lumens/watt |
| Luminous Opening: | Rectangular (W 1' x L: 0.5' x H: 0') |
| IES Classification: | Type II - Medium |
| BUG Rating: | B3 - U0 - G3 |

| | |
|---|---|
| Input Watts (W): | 100.9 |
| Input Voltage (V): | 120.0 |
| Input Current (Ain): | 0.857 |
| Voltage Rise (V): | NR |
| Power Factor: | 0.994 |
| Total Harmonic Distortion (THDi): | 9.472 |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

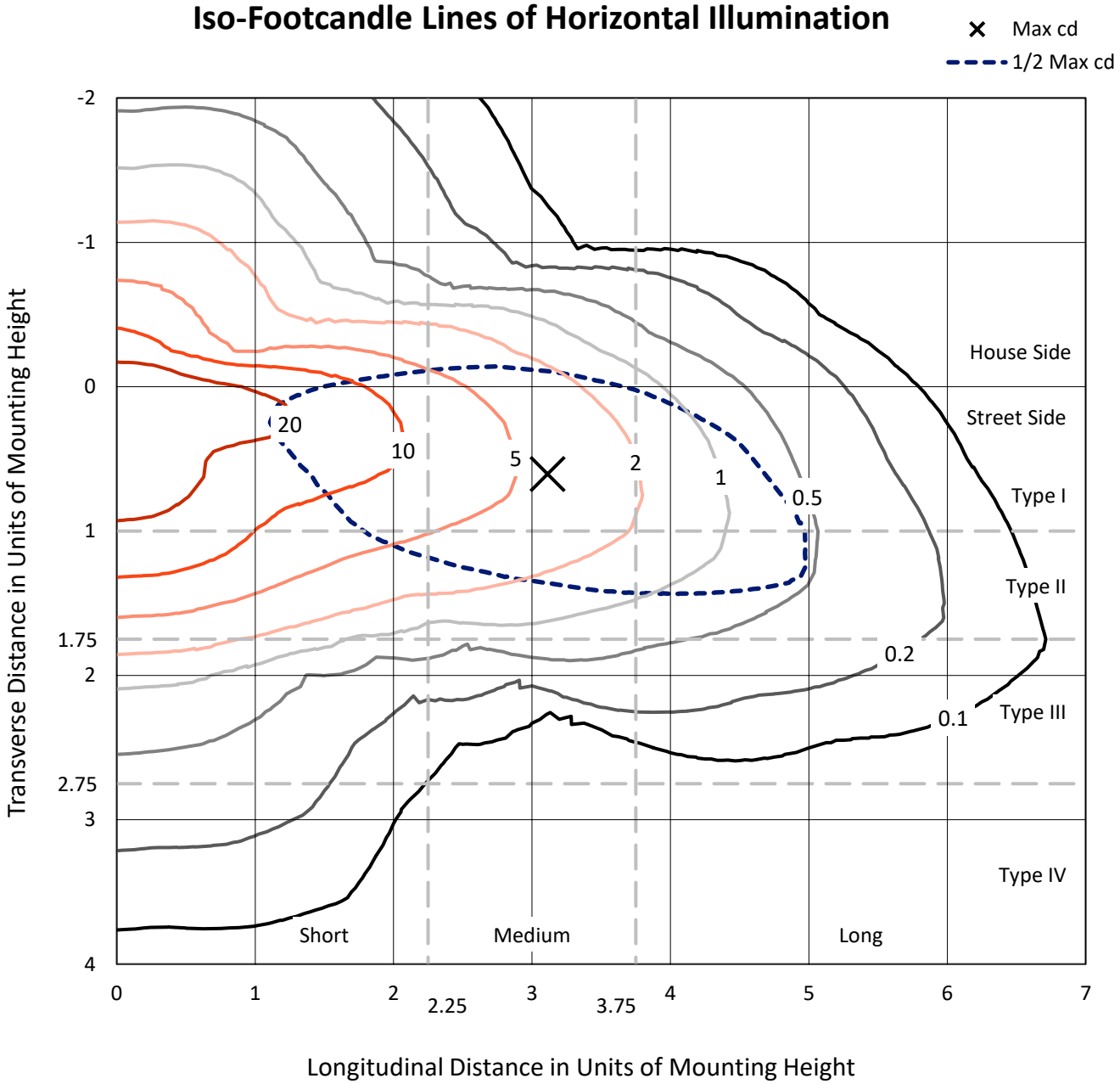


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## Iso-Footcandle Lines of Horizontal Illumination



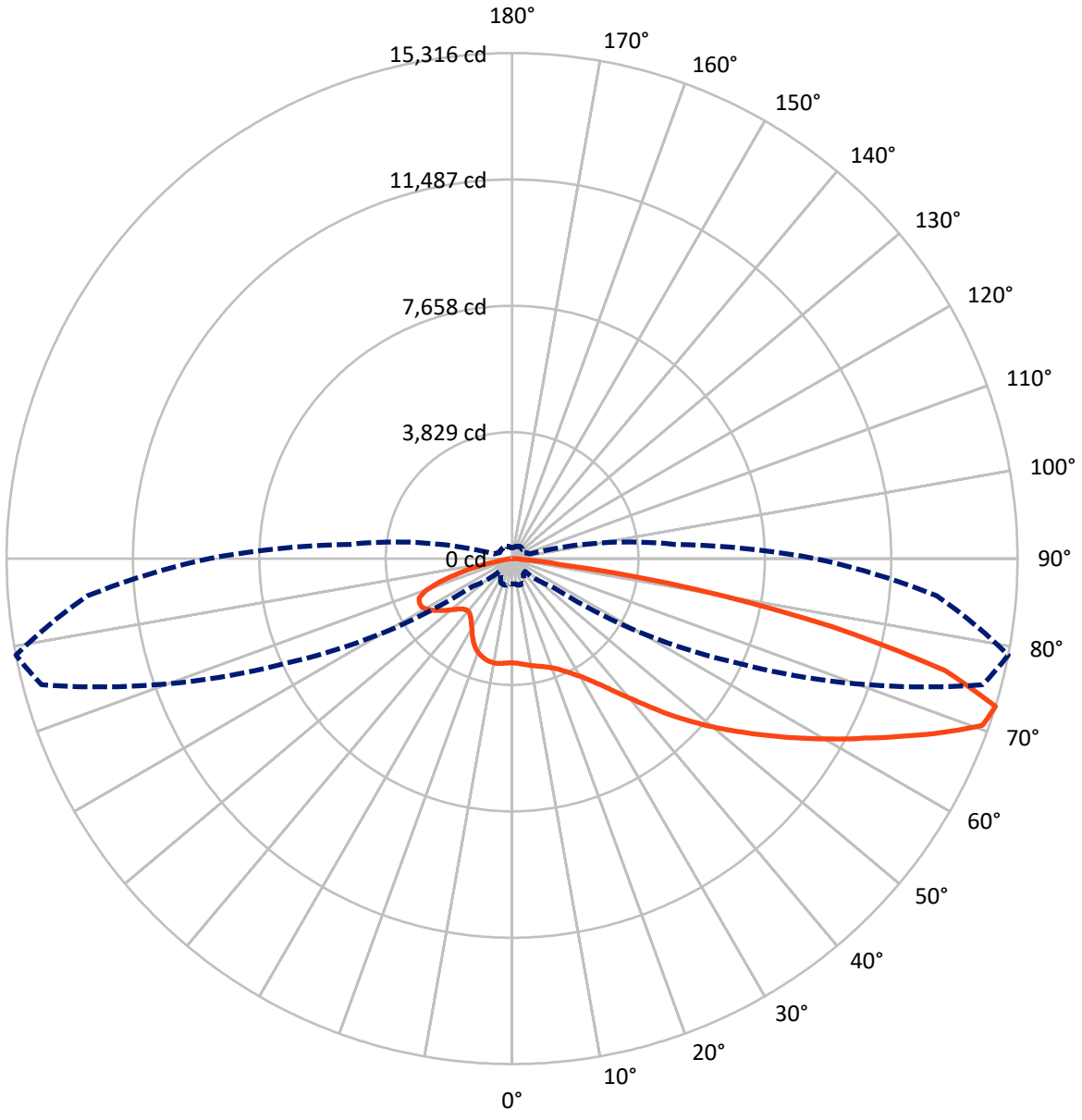

Based on 10 foot mounting height. Maximum calculated value = 31.7 fc
Type II - Medium - N/A

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## Luminous Intensity Polar Plot



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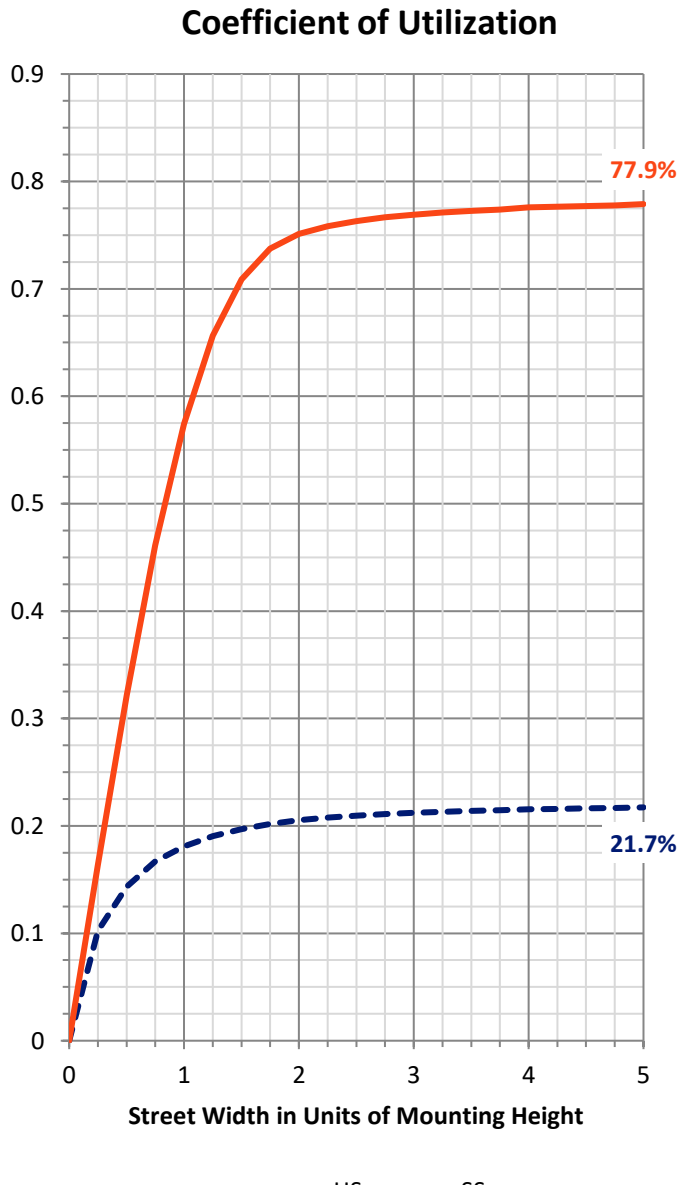
REPORT NUMBER: P1200281
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**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3465.0 | 0.0 | 3465.0 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| **Street Side** | Lumens | 12281.0 | 0.0 | 12281.0 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| **Total** | Lumens | 15746.0 | 0.0 | 15746.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 286.9 | 1.8 |
| 10°-20° | 750.1 | 4.8 |
| 20°-30° | 1210.4 | 7.7 |
| 30°-40° | 1816.7 | 11.5 |
| 40°-50° | 2577.0 | 16.4 |
| 50°-60° | 3254.5 | 20.7 |
| 60°-70° | 3305.3 | 21.0 |
| 70°-80° | 2252.7 | 14.3 |
| 80°-90° | 292.3 | 1.9 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-90° | 15746.0 | 100.0 |
| 0°-180° | 15746.0 | 100.0 |



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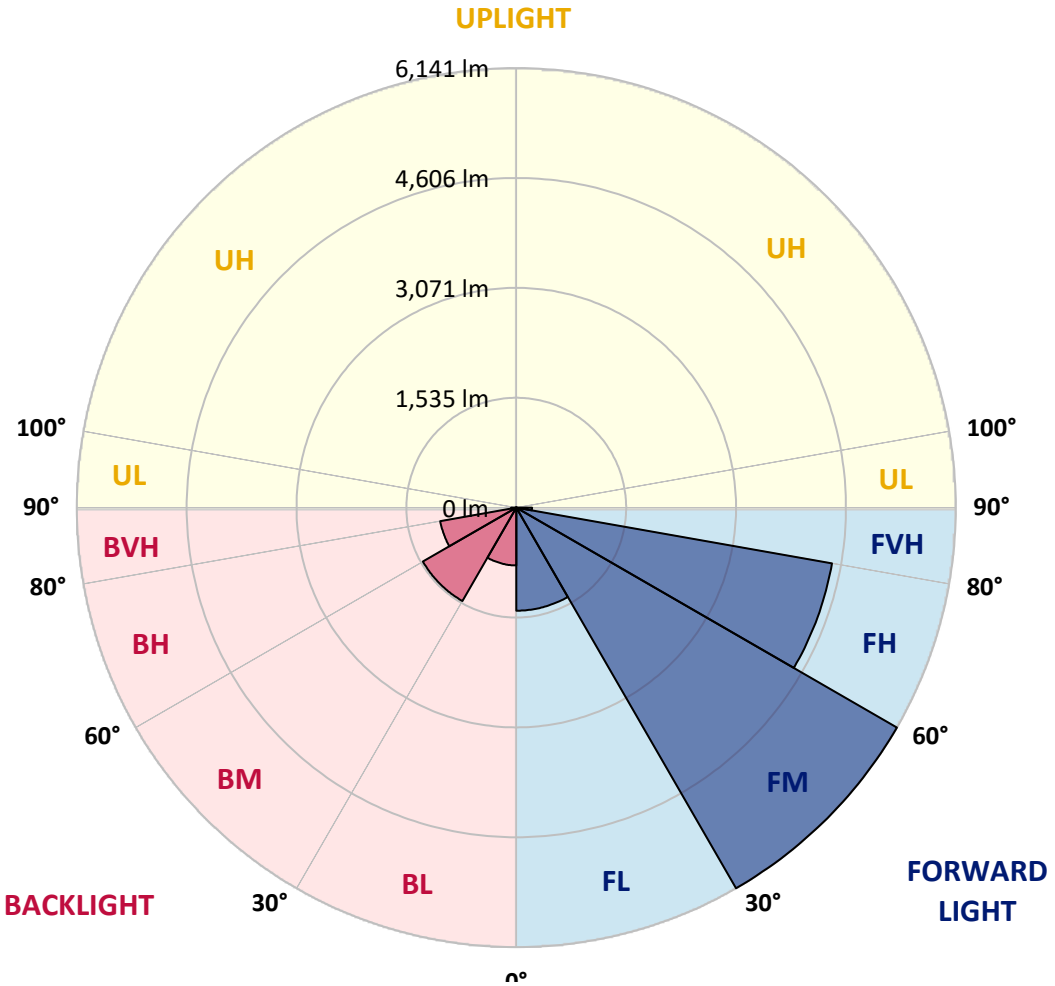
Scaled Data Report

REPORT NUMBER: P1200281
CATALOG NUMBER: GPC-SB2C-760-U-SL2

## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1440.4 | 9.1 | | | |
| FM | (30°-60°) | 6141.3 | 39.0 | | | |
| FH | (60°-80°) | 4479.2 | 28.4 | | | G2/5000 |
| FVH | (80°-90°) | 220.2 | 1.4 | | | G2/225 |
| BL | (0°-30°) | 807.1 | 5.1 | B2/1000 | | |
| BM | (30°-60°) | 1506.9 | 9.6 | B2/2500 | | |
| BH | (60°-80°) | 1078.9 | 6.9 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 72.1 | 0.5 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G3**
Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | *3160.9* | 3160.9 |
| 2.5° | 3162.5 | 3147.5 | 3156.7 | 3153.4 | 3157.5 | 3162.5 | 3164.2 | 3166.7 | 3175.0 | *3174.2* | 3173.4 |
| 5° | 3155.9 | 3140.9 | 3153.4 | 3149.2 | 3160.0 | 3171.7 | 3181.7 | 3190.8 | 3204.2 | *3210.0* | 3201.7 |
| 7.5° | 3141.7 | 3131.7 | 3144.2 | 3156.7 | 3176.7 | 3194.2 | 3208.3 | 3229.2 | 3248.3 | *3251.6* | 3257.5 |
| 10° | 3059.2 | 3051.7 | 3080.9 | 3113.4 | 3168.4 | 3215.8 | 3246.6 | 3270.8 | 3291.6 | *3295.0* | 3303.3 |
| 12.5° | 2973.5 | 2964.3 | 2996.8 | 3040.9 | 3130.0 | 3215.8 | 3280.8 | 3312.4 | 3330.8 | *3341.6* | 3354.1 |
| 15° | 2959.3 | 2951.8 | 2970.1 | 3008.4 | 3082.6 | 3193.3 | 3304.1 | 3362.4 | 3378.2 | *3390.7* | 3395.7 |
| 17.5° | 3027.6 | 3013.4 | 3020.9 | 3034.3 | 3077.6 | 3172.5 | 3322.4 | 3419.1 | 3443.2 | *3456.5* | 3456.5 |
| 20° | 3185.8 | 3165.9 | 3154.2 | 3127.5 | 3120.0 | 3175.9 | 3320.8 | 3487.4 | 3519.0 | *3535.7* | 3539.8 |
| 22.5° | 3396.6 | 3383.2 | 3358.3 | 3290.8 | 3217.5 | 3216.7 | 3352.4 | 3574.8 | 3633.9 | *3649.8* | 3639.8 |
| 25° | 3651.4 | 3631.4 | 3599.8 | 3508.2 | 3367.4 | 3297.5 | 3405.7 | 3686.4 | 3785.5 | *3789.7* | 3760.5 |
| 27.5° | 3944.6 | 3914.6 | 3871.3 | 3750.6 | 3560.7 | 3424.1 | 3487.4 | 3814.7 | 3959.6 | *3957.9* | 3898.0 |
| 30° | 4253.6 | 4223.6 | 4177.8 | 4031.2 | 3792.2 | 3594.8 | 3600.6 | 3952.9 | 4166.2 | *4157.0* | 4054.6 |
| 32.5° | 4479.3 | 4456.9 | 4447.7 | 4334.4 | 4058.7 | 3796.4 | 3730.6 | 4106.2 | 4421.0 | *4412.7* | 4269.5 |
| 35° | 4652.6 | 4623.4 | 4634.3 | 4576.8 | 4349.4 | 4022.1 | 3889.6 | 4288.6 | 4730.9 | *4730.0* | 4551.8 |
| 37.5° | 4824.2 | 4798.3 | 4807.5 | 4769.2 | 4618.4 | 4308.6 | 4083.7 | 4511.8 | 5114.8 | *5133.2* | 4893.3 |
| 40° | 4980.7 | 4953.3 | 4989.9 | 4954.1 | 4827.5 | 4613.4 | 4304.4 | 4764.2 | 5559.6 | *5594.6* | 5306.4 |
| 42.5° | 5074.9 | 5053.2 | 5114.0 | 5114.8 | 5009.1 | 4870.8 | 4546.8 | 5042.4 | 6074.3 | *6152.6* | 5814.5 |
| 45° | 5107.3 | 5099.9 | 5191.5 | 5210.6 | 5169.8 | 5019.9 | 4765.0 | 5345.6 | 6629.1 | *6769.0* | 6393.3 |
| 47.5° | 5072.4 | 5058.2 | 5184.8 | 5255.6 | 5288.1 | 5089.9 | 4945.8 | 5673.7 | 7195.4 | *7400.3* | 7024.7 |
| 50° | 4895.8 | 4868.3 | 5056.5 | 5205.6 | 5321.4 | 5135.7 | 5128.2 | 6052.7 | 7839.3 | *8063.3* | 7659.4 |
| 52.5° | 4578.5 | 4557.6 | 4771.7 | 5030.7 | 5248.1 | 5158.2 | 5333.1 | 6466.6 | 8450.6 | *8740.5* | 8309.9 |
| 55° | 4172.8 | 4145.3 | 4381.1 | 4719.2 | 5065.7 | 5150.7 | 5538.0 | 6929.7 | 9171.9 | *9465.9* | 8982.0 |
| 57.5° | 3529.8 | 3474.9 | 3773.0 | 4172.8 | 4768.4 | 5141.5 | 5751.2 | 7390.3 | 9904.9 | *10257.2* | 9699.1 |
| 60° | 2592.0 | 2510.4 | 2876.0 | 3349.9 | 4187.0 | 5052.4 | 6015.2 | 7906.7 | 10784.4 | *11101.7* | 10482.1 |
| 62.5° | 1509.2 | 1461.7 | 1700.8 | 2143.1 | 3155.9 | 4527.7 | 6163.5 | 8507.3 | 11649.0 | *11982.1* | 11251.7 |
| 65° | 1171.9 | 1158.6 | 1179.4 | 1213.5 | 1756.6 | 3389.9 | 5706.2 | 9092.8 | 12748.4 | *12981.6* | 12053.7 |
| 67.5° | 1071.9 | 1061.9 | 1071.1 | 1007.0 | 891.2 | 1888.2 | 4514.3 | 9241.0 | 13926.1 | *14067.7* | 12755.9 |
| 70° | 952.8 | 941.2 | 971.2 | 916.2 | 701.3 | 858.7 | 2916.8 | 8703.0 | 14863.1 | *15128.8* | 13289.8 |
| 72.5° | *776.3* | *762.9* | *832.9* | *807.9* | *590.5* | *551.4* | *1465.1* | *7424.5* | *14764.8* | *15316.2* | *12907.5* |
| 75° | 596.4 | 588.9 | 672.2 | 693.0 | 481.4 | 433.9 | 703.0 | 5518.8 | 12993.3 | *13548.8* | 11124.2 |
| 77.5° | 463.1 | 457.3 | 499.7 | 575.5 | 388.1 | 336.5 | 432.3 | 3500.7 | 9791.6 | *9889.0* | 7666.0 |
| 80° | 347.3 | 330.7 | 369.8 | 445.6 | 302.3 | 245.7 | 293.2 | 2041.4 | 6189.3 | *5610.4* | 3336.6 |
| 82.5° | 217.4 | 209.1 | 241.5 | 297.3 | 213.2 | 169.1 | 190.7 | 1127.7 | 2480.4 | *1460.9* | 643.8 |
| 85° | 124.1 | 120.8 | 131.6 | 169.9 | 115.8 | 97.4 | 109.1 | 498.1 | 453.1 | *311.5* | 194.1 |
| 87.5° | 50.0 | 48.3 | 60.0 | 75.8 | 42.5 | 35.8 | 38.3 | 119.9 | 99.9 | *92.5* | 64.1 |
| 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: P1200281
CATALOG NUMBER: GPC-SB2C-760-U-SL2

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 | 3160.9 |
| 2.5° | 3170.0 | 3170.0 | 3158.4 | 3140.0 | 3119.2 | 3105.9 | 3084.2 | 3078.4 | 3055.9 | 3049.3 | 3060.1 |
| 5° | 3208.3 | 3201.7 | 3165.9 | 3114.2 | 3043.4 | 2978.5 | 2906.8 | 2861.8 | 2798.5 | 2776.1 | 2792.7 |
| 7.5° | 3256.6 | 3238.3 | 3176.7 | 3063.4 | 2915.2 | 2769.4 | 2617.8 | 2502.9 | 2392.9 | 2353.8 | 2358.8 |
| 10° | 3300.8 | 3275.0 | 3170.0 | 2971.8 | 2715.3 | 2462.9 | 2221.3 | 2052.3 | 1924.0 | 1871.5 | 1883.2 |
| 12.5° | 3344.9 | 3297.5 | 3125.9 | 2819.4 | 2431.2 | 2088.9 | 1831.5 | 1700.0 | 1620.8 | 1557.5 | 1578.3 |
| 15° | 3386.6 | 3319.9 | 3057.6 | 2615.3 | 2119.7 | 1772.4 | 1582.5 | 1477.6 | 1414.3 | 1372.6 | 1380.1 |
| 17.5° | 3434.9 | 3339.1 | 2955.1 | 2356.3 | 1823.2 | 1553.4 | 1398.4 | 1335.1 | 1322.6 | 1317.6 | 1321.0 |
| 20° | 3502.3 | 3356.6 | 2820.2 | 2066.4 | 1605.0 | 1378.5 | 1298.5 | 1292.7 | 1291.8 | 1289.3 | 1297.7 |
| 22.5° | 3574.8 | 3377.4 | 2642.0 | 1803.2 | 1419.3 | 1269.3 | 1255.2 | 1243.5 | 1236.0 | 1235.2 | 1244.4 |
| 25° | 3660.6 | 3384.1 | 2418.7 | 1587.5 | 1261.0 | 1217.7 | 1201.0 | 1183.6 | 1178.6 | 1178.6 | 1183.6 |
| 27.5° | 3743.9 | 3361.6 | 2158.9 | 1400.1 | 1171.9 | 1170.2 | 1148.6 | 1142.7 | 1141.9 | 1144.4 | 1151.1 |
| 30° | 3827.2 | 3319.1 | 1900.7 | 1226.9 | 1120.3 | 1120.3 | 1112.8 | 1116.9 | 1120.3 | 1128.6 | 1134.4 |
| 32.5° | 3939.6 | 3274.1 | 1685.0 | 1098.6 | 1075.3 | 1066.9 | 1074.4 | 1082.8 | 1086.1 | 1096.9 | 1106.1 |
| 35° | 4104.5 | 3242.5 | 1513.4 | 1028.6 | 1028.6 | 1017.8 | 1022.0 | 1020.3 | 1012.8 | 1007.8 | 1019.5 |
| 37.5° | 4322.8 | 3240.8 | 1371.8 | 996.1 | 989.5 | 987.8 | 988.7 | 977.8 | 948.7 | 913.7 | 914.5 |
| 40° | 4585.1 | 3285.8 | 1262.7 | 973.7 | 968.7 | 978.7 | 973.7 | 944.5 | 864.6 | 803.7 | 802.1 |
| 42.5° | 4937.4 | 3414.1 | 1192.7 | 946.2 | 961.2 | 973.7 | 953.7 | 852.9 | 798.8 | 757.9 | 756.3 |
| 45° | 5352.2 | 3622.3 | 1156.9 | 917.0 | 947.0 | 962.0 | 865.4 | 821.2 | 777.9 | 728.8 | 725.5 |
| 47.5° | 5822.0 | 3884.7 | 1148.6 | 889.5 | 915.4 | 924.5 | 827.9 | 807.9 | 758.8 | 705.5 | 701.3 |
| 50° | 6333.4 | 4195.3 | 1171.1 | 857.1 | 869.5 | 837.9 | 815.4 | 797.1 | 746.3 | 693.8 | 688.0 |
| 52.5° | 6862.3 | 4537.6 | 1216.0 | 812.9 | 823.7 | 788.8 | 810.4 | 794.6 | 738.8 | 668.0 | 663.0 |
| 55° | 7382.0 | 4882.5 | 1259.3 | 761.3 | 777.1 | 744.6 | 796.3 | 784.6 | 704.6 | 624.7 | 620.5 |
| 57.5° | 7910.1 | 5225.6 | 1301.8 | 715.5 | 732.1 | 702.1 | 773.8 | 757.9 | 666.3 | 584.7 | 583.0 |
| 60° | 8458.9 | 5558.8 | 1321.8 | 671.3 | 683.0 | 663.0 | 739.6 | 712.1 | 623.0 | 543.9 | 541.4 |
| 62.5° | 8972.8 | 5836.1 | 1289.3 | 627.2 | 634.7 | 626.3 | 694.6 | 658.0 | 579.7 | 498.1 | 497.2 |
| 65° | 9488.4 | 6001.1 | 1189.4 | 583.9 | 585.5 | 581.4 | 631.3 | 599.7 | 528.9 | 458.1 | 453.1 |
| 67.5° | 9955.7 | 6093.5 | 1030.3 | 537.2 | 533.1 | 531.4 | 572.2 | 536.4 | 479.8 | 418.1 | 413.1 |
| 70° | 10054.8 | 5858.6 | 787.1 | 482.2 | 482.2 | 478.1 | 507.2 | 470.6 | 425.6 | 375.6 | 374.0 |
| 72.5° | *9183.6* | *4928.3* | *558.9* | *419.8* | *426.4* | *418.1* | *442.3* | *411.5* | *370.6* | *337.3* | *327.3* |
| 75° | 7405.3 | 3614.0 | 406.5 | 355.6 | 367.3 | 353.2 | 375.6 | 354.0 | 319.0 | 318.2 | 286.5 |
| 77.5° | 5088.2 | 2234.7 | 294.8 | 293.2 | 301.5 | 283.2 | 309.0 | 297.3 | 265.7 | 251.5 | 235.7 |
| 80° | 2171.4 | 891.2 | 214.9 | 226.5 | 226.5 | 209.9 | 239.9 | 243.2 | 215.7 | 209.1 | 209.1 |
| 82.5° | 432.3 | 253.2 | 150.8 | 155.8 | 146.6 | 141.6 | 169.9 | 188.2 | 259.9 | 289.0 | 289.8 |
| 85° | 129.9 | 93.3 | 90.8 | 85.0 | 75.0 | 75.8 | 99.9 | 189.1 | 233.2 | 133.3 | 114.9 |
| 87.5° | 35.8 | 23.3 | 24.2 | 19.2 | 15.8 | 20.8 | 34.1 | 143.3 | 78.3 | 33.3 | 28.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |


HS
SS

0

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Peachtree City, GA 30269

Report Generated By FNC07603 / LDUCLS01DT446
Version: v6.13

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## Test Information

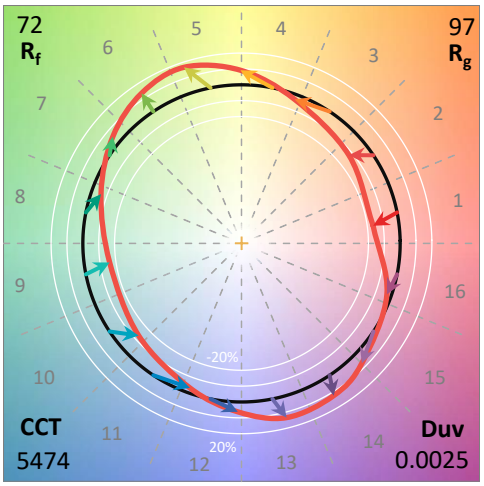
| | |
|---|---|
| Test Method: | LM-79-2008 |
| Report Number: | SP1-1908-441-9-R4 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/28/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGRAW-EDISON |
| 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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1121 Highway 74 South
Peachtree City, GA 30269

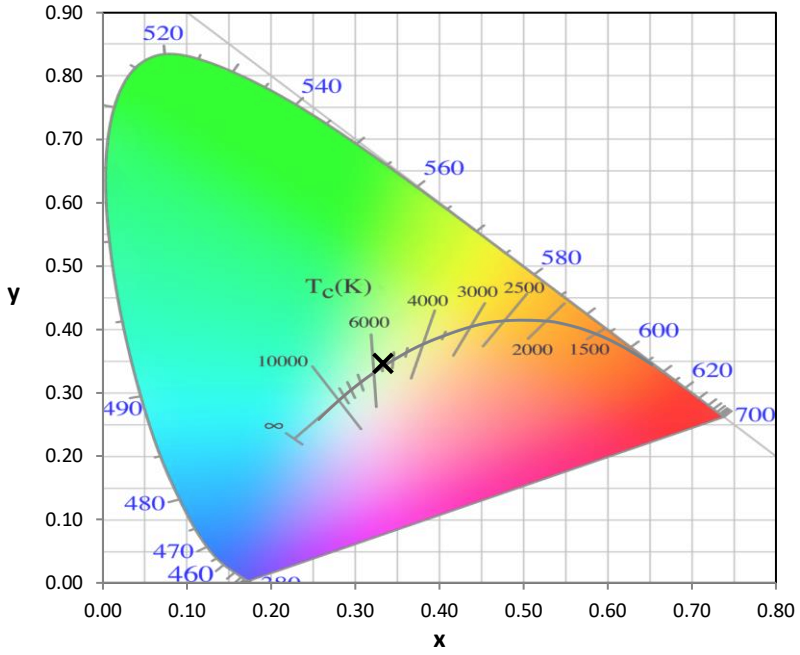
REPORT NUMBER: SP1-1908-441-9-R4

| 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 |

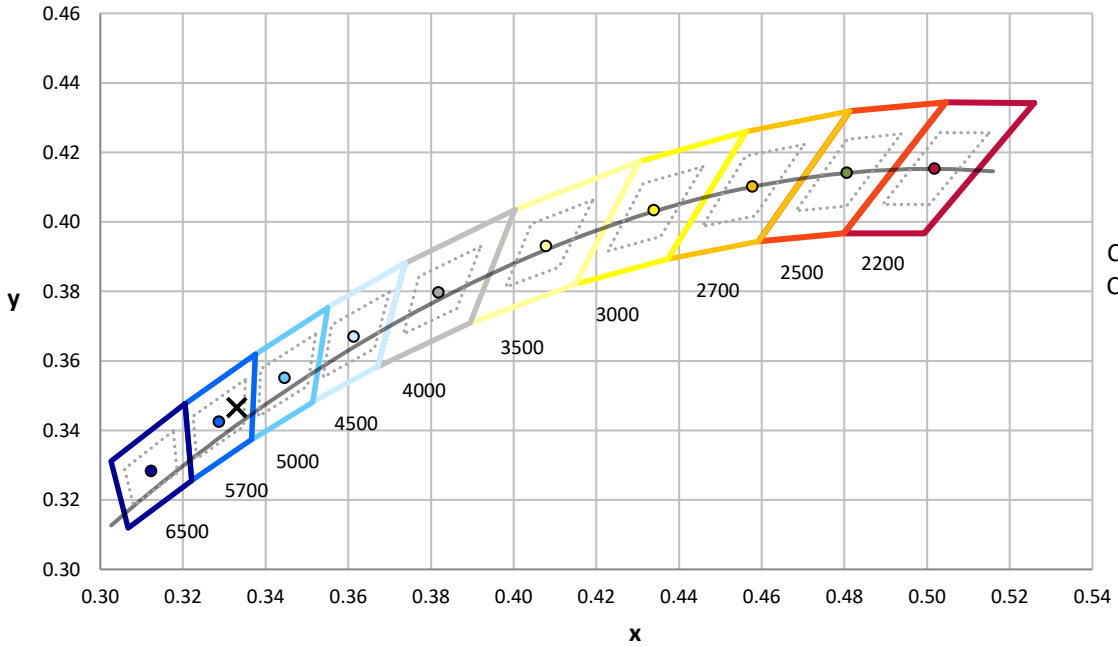
Cooper Lighting Solutions Photometric Lab
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## CIE 1931 Chromaticity Diagram




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



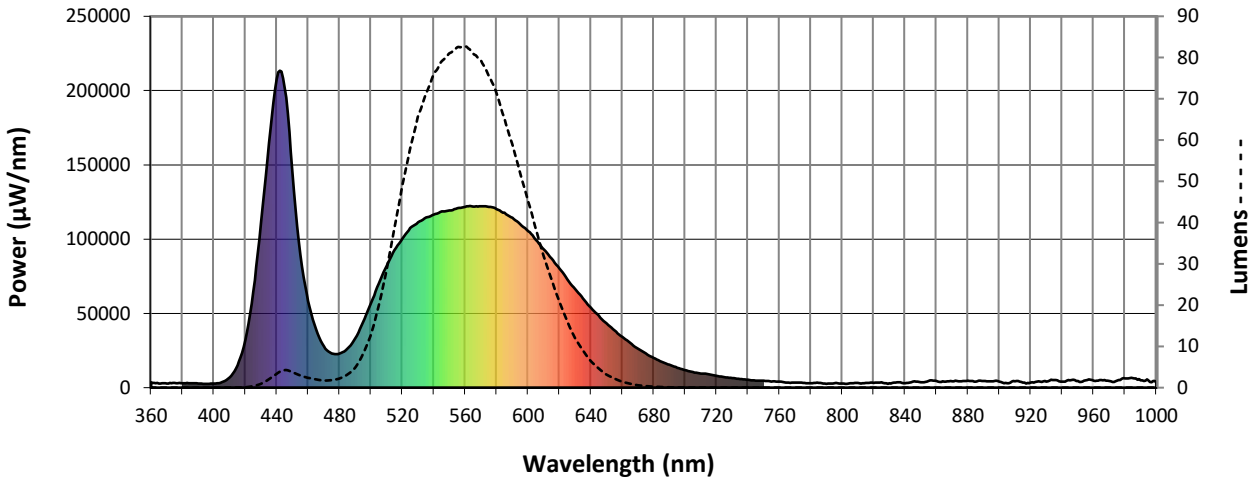

CCT = 5474K
CIE x = 0.3330
CIE y = 0.3466
Duv = 0.0025

Point lies inside the ANSI 5700K 4-step quadrangle

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## Photopic Flux vs. Wavelength



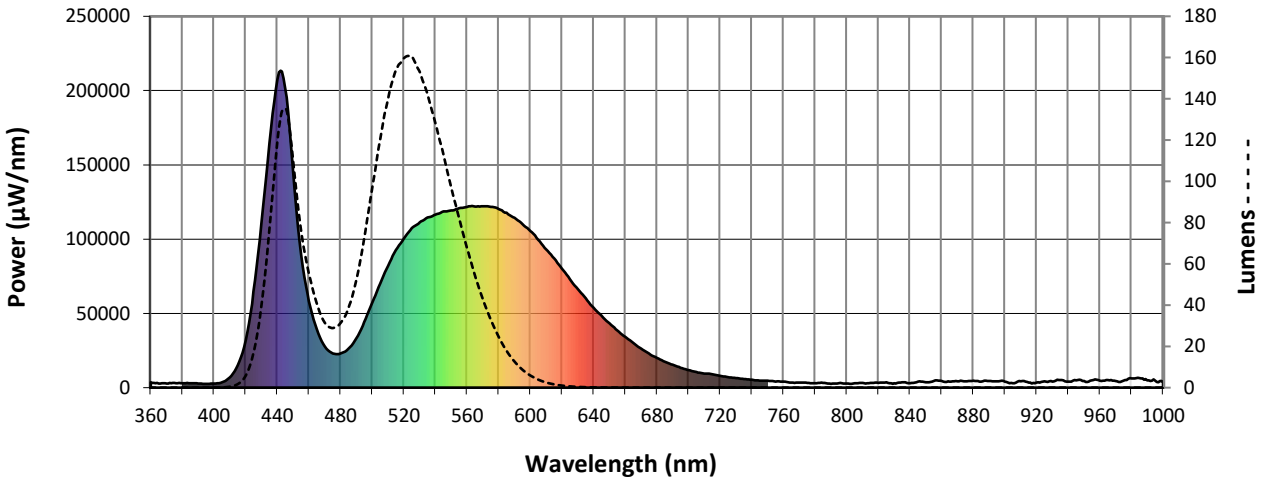

**Photopic Lumens: 7459.9**

| 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



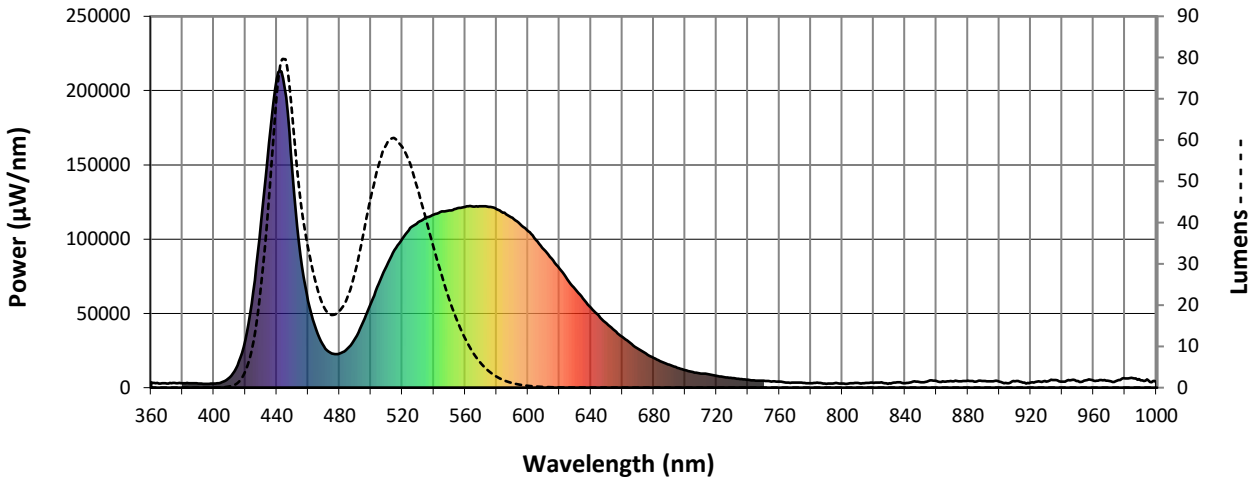

**Scotopic Lumens: 13759.3** **S/P: 1.85**

| 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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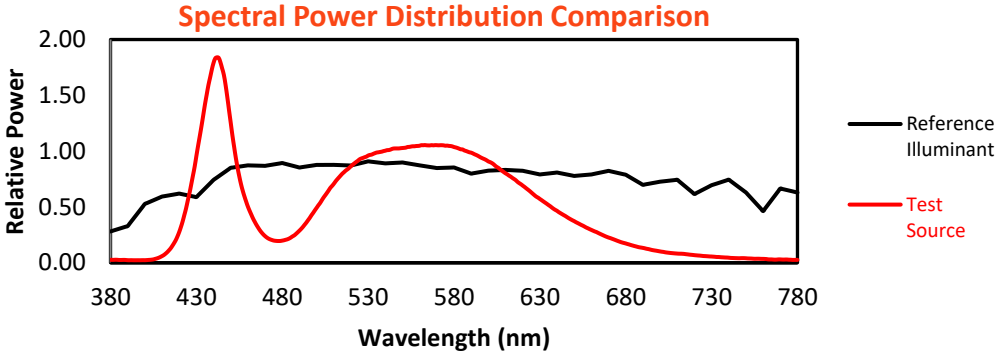
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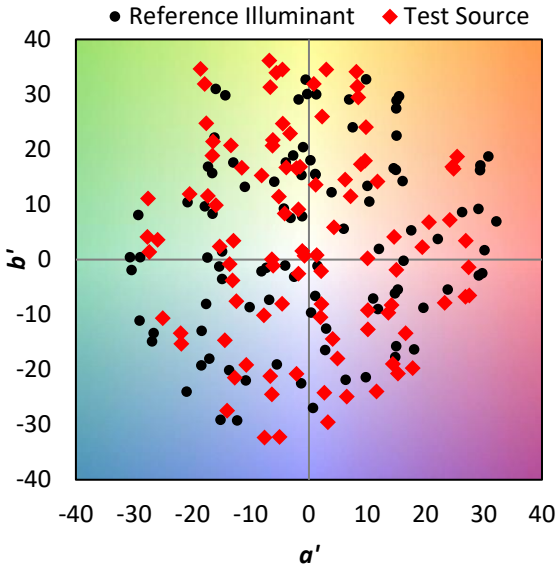
## Summary

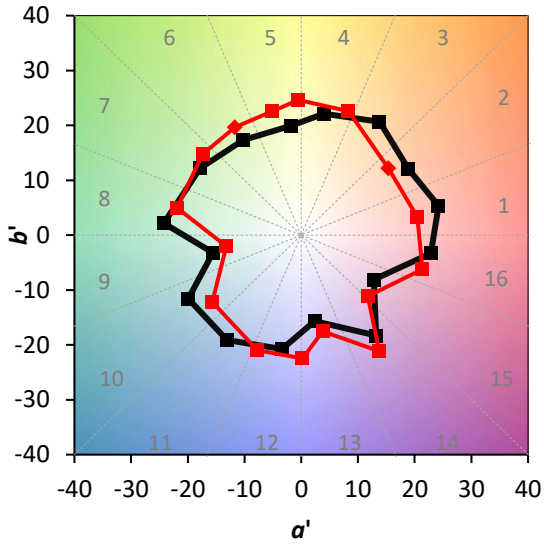
$R_f$ = 72.1
$R_g$ = 97.2
CIE $R_a$ = 71.7
$R_9$ = -27.1

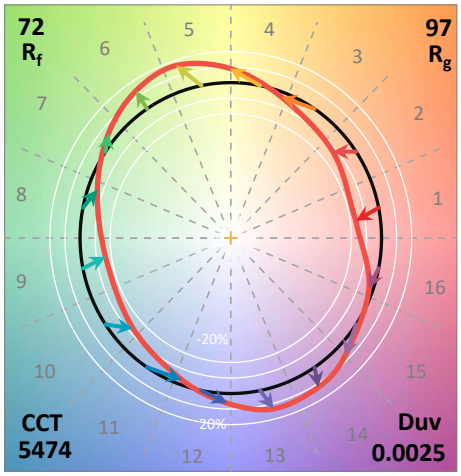
## Spectral Power Distribution Comparison

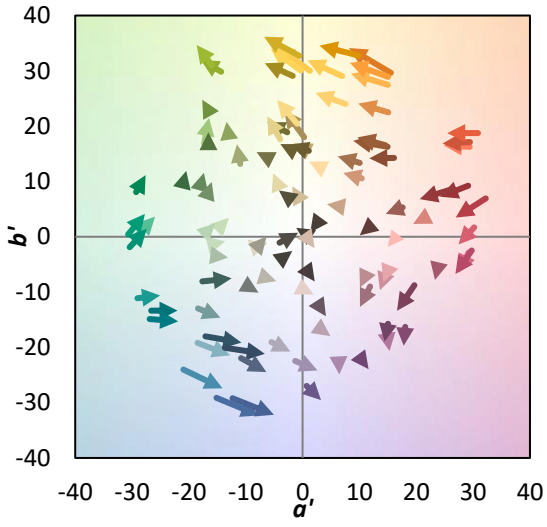



## Color Vector Graphics



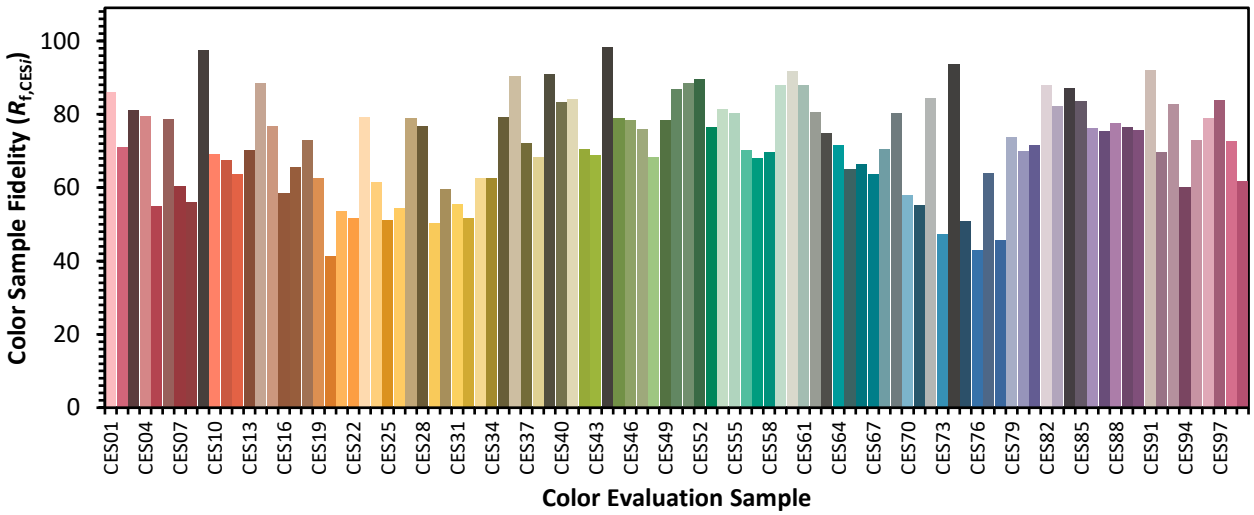
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## Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|---|---|---|---|
| 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 | |

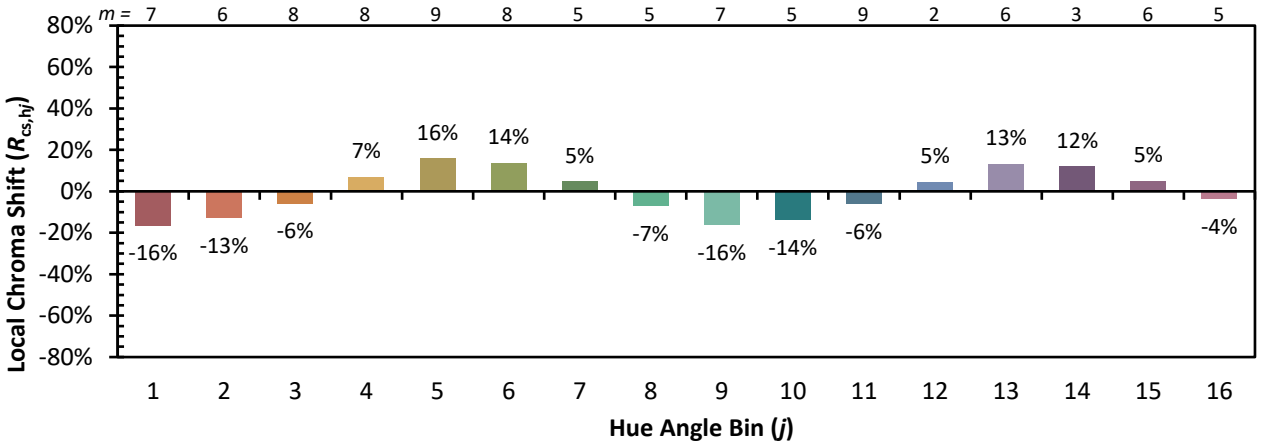


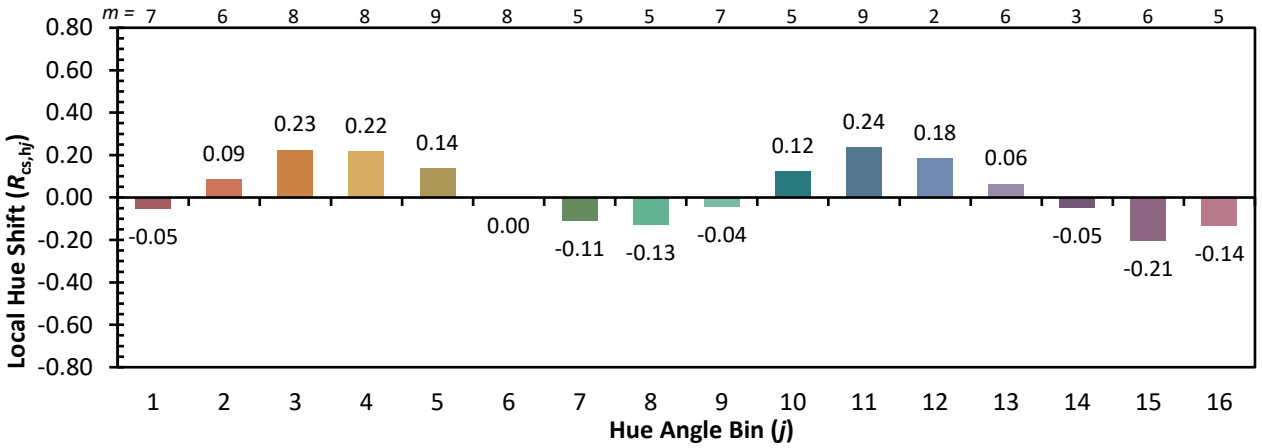
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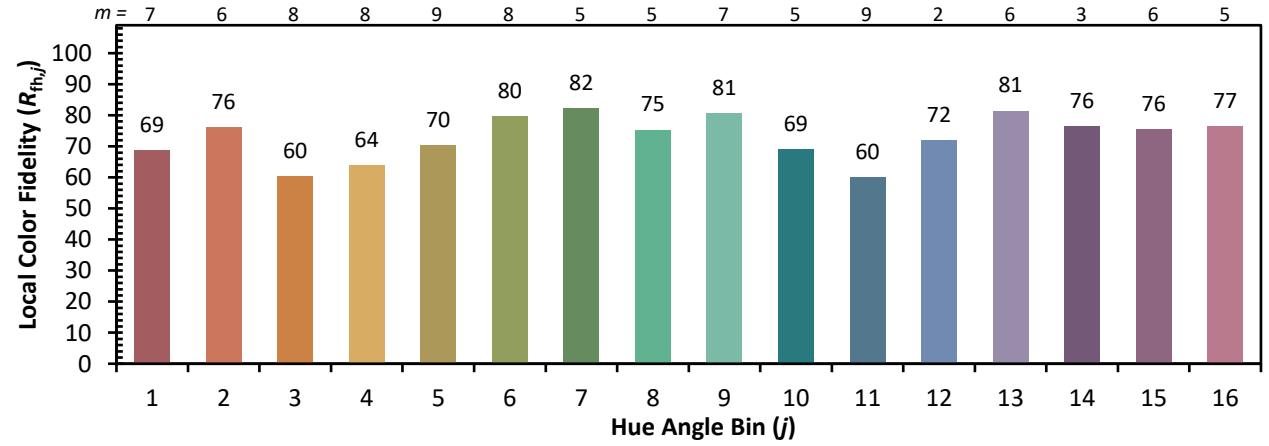
REPORT NUMBER: SP1-1908-441-9-R4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



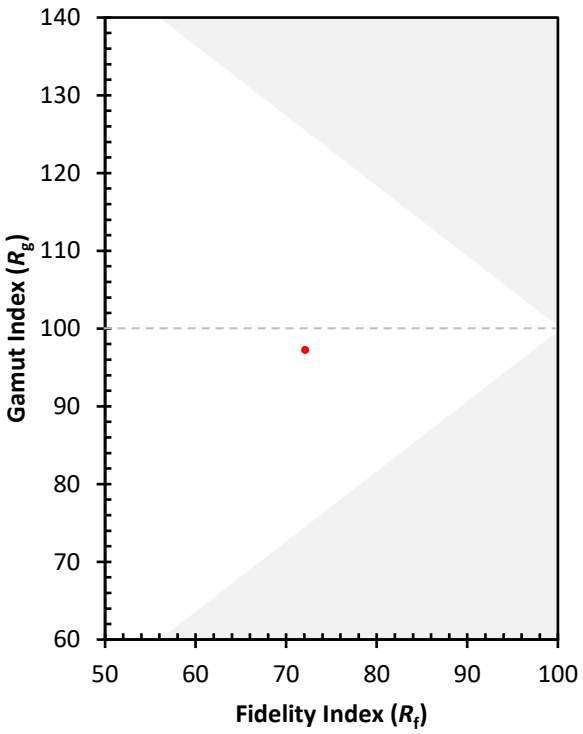



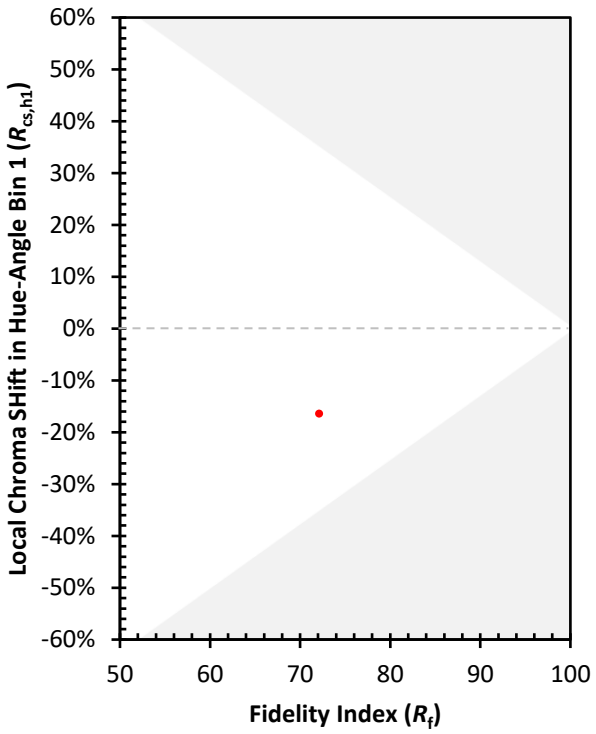
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### Measure Comparisons




(END OF REPORT)