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: LUMARK

Report Number: P1461180

Luminaire Tested: PRV-PC1D-727-U-T2RE

Issue Date: 06/10/2026

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-2024 |
| Report Number: | P1461180 |
| Test Lab: | INNOVATION CENTER(G3) |
| Issue Date: | 6/10/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | LUMARK |
| Catalog Number: | PRV-PC1D-727-U-T2RE |
| Description: | PREVAIL DISCRETE LED 1 SQUARE AT 1170MA 70CRI 2700K FIXTURE w/ TYPE II ROADWAY ILLUMINANCE DISTRIBUTION OPTIC |
| Light Source: | (40) 2700K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 19814.4 lumens |
| Efficiency: | N/A |
| Efficacy: | 130.4 lumens/watt |
| Luminous Opening: | Rectangular (W 0.67' x L: 0.67' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B3 - U0 - G3 |
| Input Watts (W): | 152 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.98 |
| Total Harmonic Distortion (THDi): | 2.75% |
| Frequency (hertz): | 60 |
| Stabilization Time: | NR |
| Operation Time: | NR |
| Ambient Temperature (°C): | NR |
| Test Distance: | 28.75 FT |

Cooper Lighting Solutions Photometric Lab
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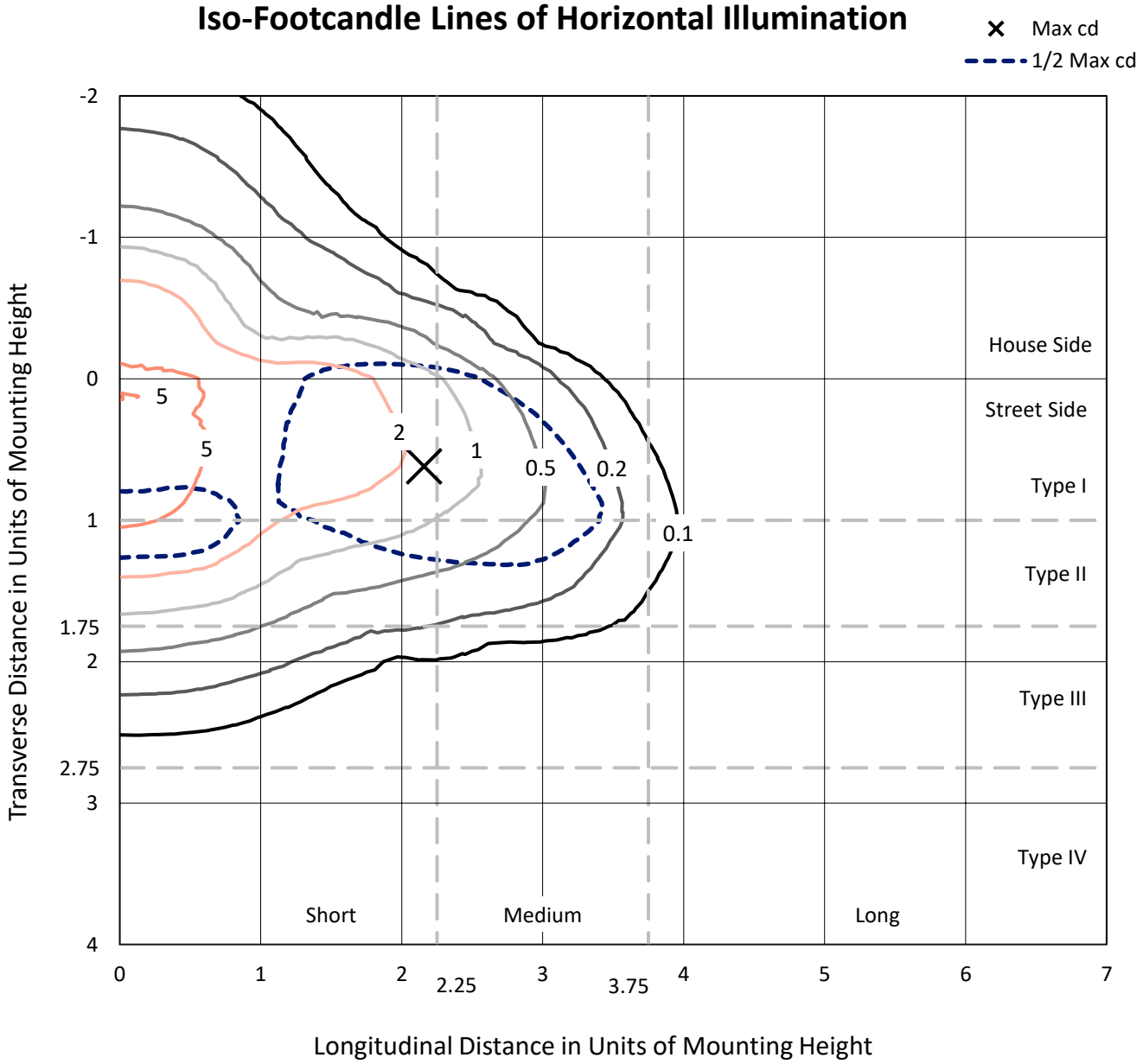
Scaled Data Report

REPORT NUMBER: P1461180
CATALOG NUMBER: PRV-PC1D-727-U-T2RE

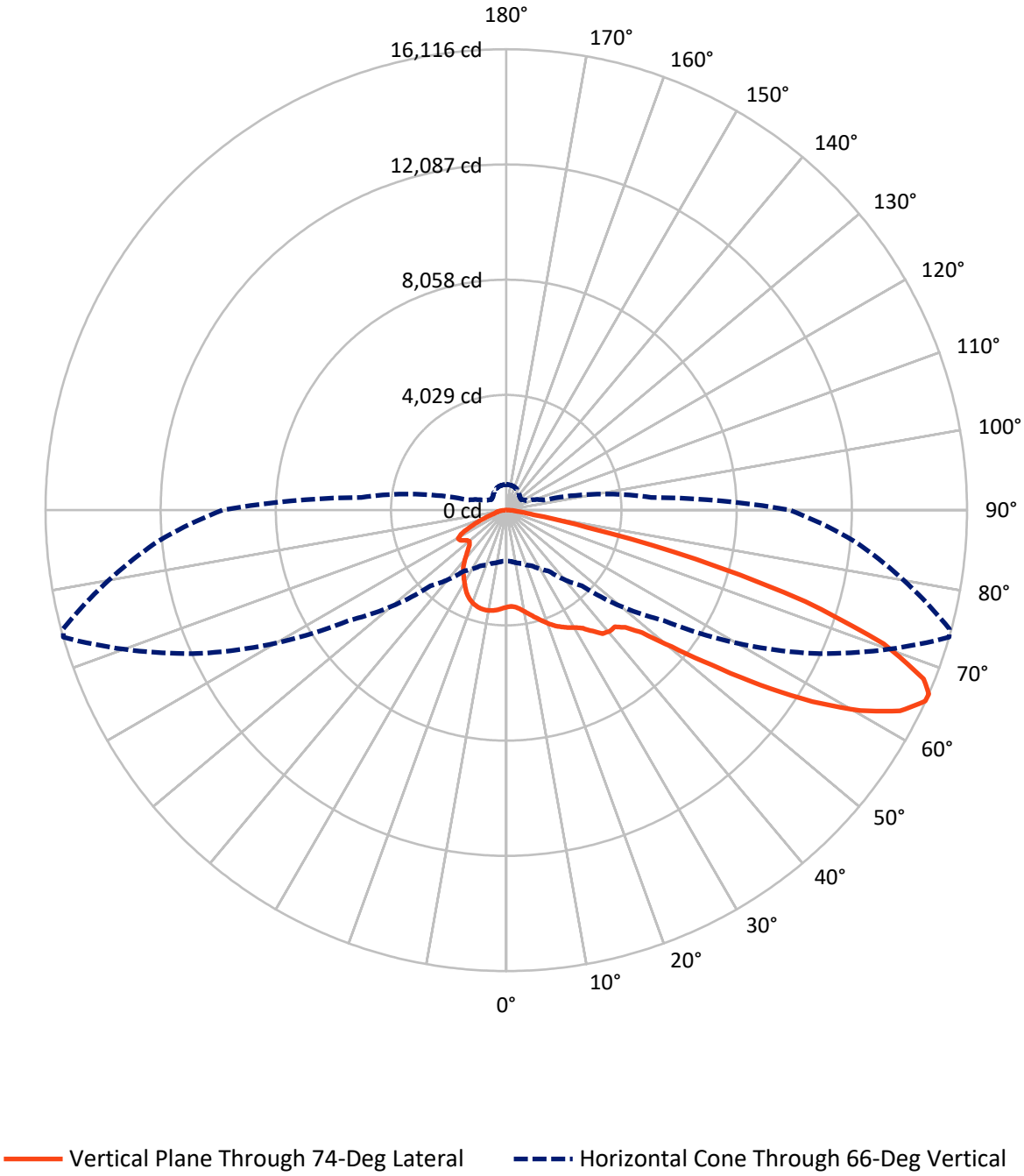
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 6.4 fc
Type II - Short - N/A

REPORT NUMBER: P1461180
CATALOG NUMBER: PRV-PC1D-727-U-T2RE

## Luminous Intensity Polar Plot



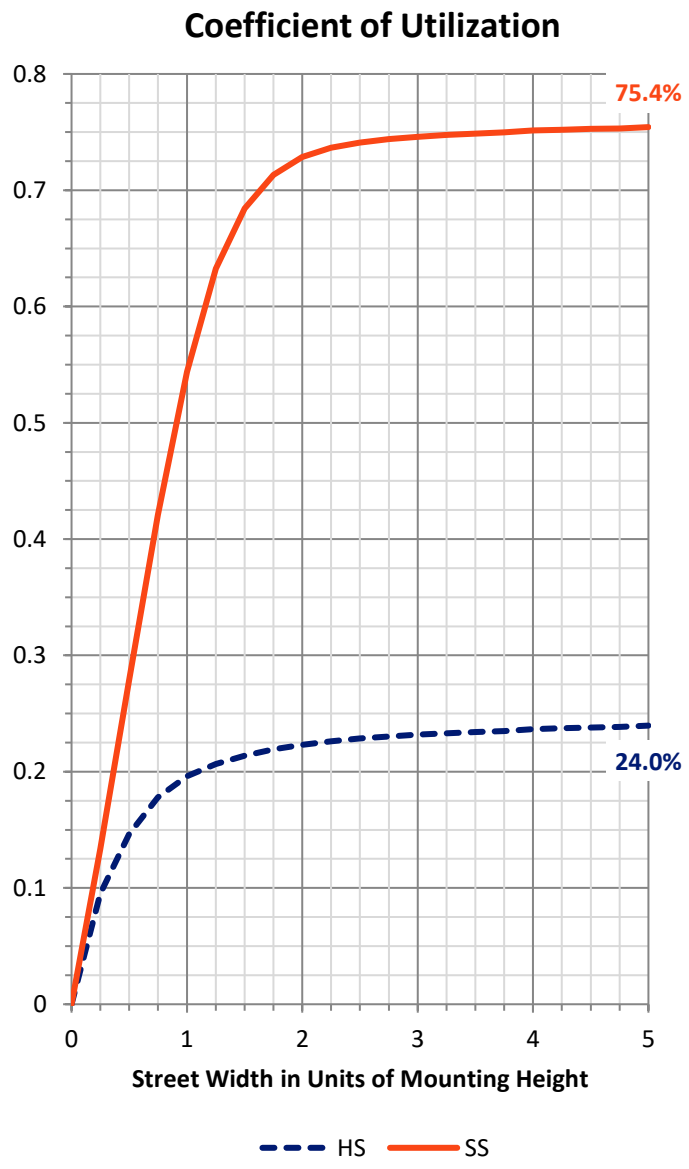
REPORT NUMBER: P1461180
CATALOG NUMBER: PRV-PC1D-727-U-T2RE

**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4822.9 | 0.0 | 4822.9 |
| | % Fixture | 24.3 | 0.0 | 24.3 |
| **Street Side** | Lumens | 14991.5 | 0.0 | 14991.5 |
| | % Fixture | 75.7 | 0.0 | 75.7 |
| **Total** | Lumens | 19814.4 | 0.0 | 19814.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 319.0 | 1.6 |
| 10°-20° | 985.1 | 5.0 |
| 20°-30° | 1835.5 | 9.3 |
| 30°-40° | 2753.6 | 13.9 |
| 40°-50° | 3628.9 | 18.3 |
| 50°-60° | 4423.3 | 22.3 |
| 60°-70° | 4042.9 | 20.4 |
| 70°-80° | 1580.2 | 8.0 |
| 80°-90° | 246.0 | 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° | 19814.4 | 100.0 |
| 0°-180° | 19814.4 | 100.0 |



REPORT NUMBER: P1461180
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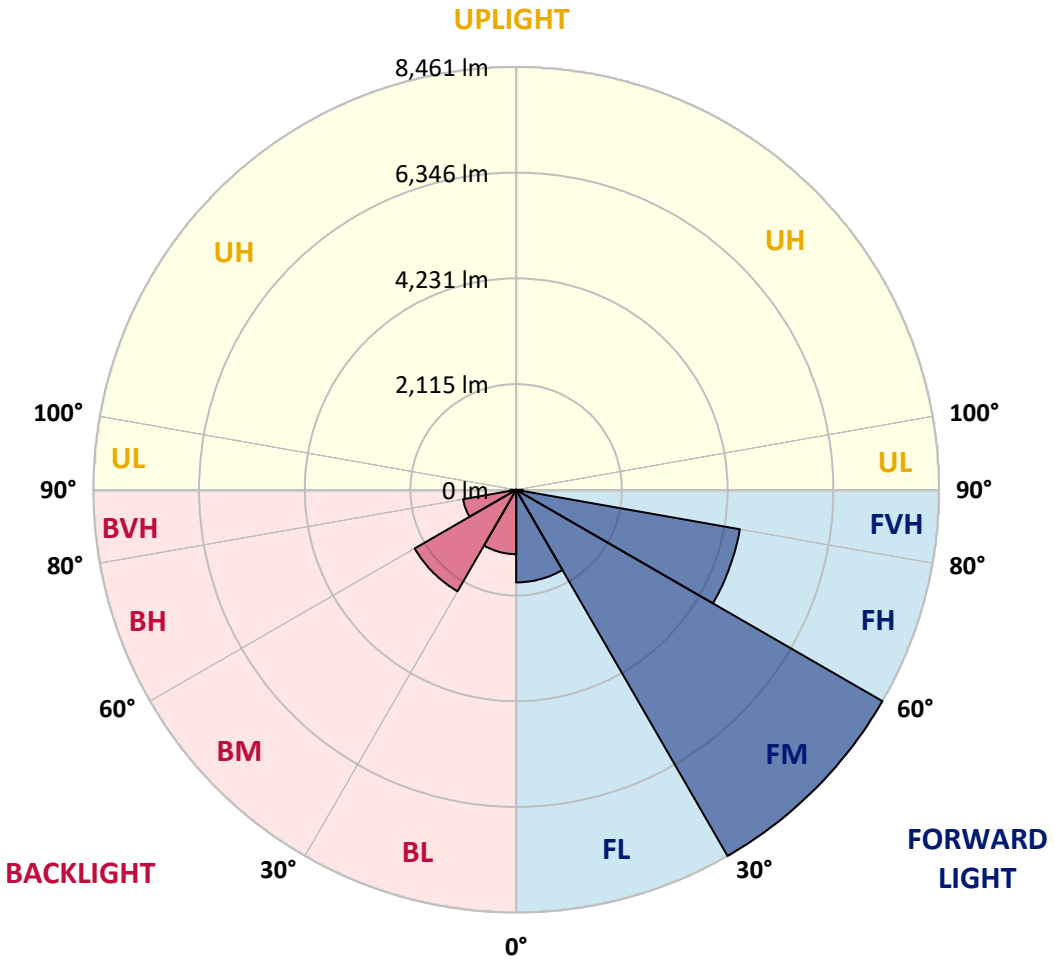
**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 1852.3 | 9.3 | | | |
| FM | (30°-60°) | 8461.0 | 42.7 | | | |
| FH | (60°-80°) | 4545.1 | 22.9 | | | G2/5000 |
| FVH | (80°-90°) | 133.1 | 0.7 | | | G2/225 |
| BL | (0°-30°) | 1287.3 | 6.5 | B3/2500 | | |
| BM | (30°-60°) | 2344.7 | 11.8 | B2/2500 | | |
| BH | (60°-80°) | 1078.0 | 5.4 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 112.9 | 0.6 | | | G2/225 |
| 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 Short



REPORT NUMBER: P1461180
CATALOG NUMBER: PRV-PC1D-727-U-T2RE

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 74° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | *3389.3* | 3389.3 | 3389.3 |
| 2.5° | 3357.1 | 3355.3 | 3347.9 | 3350.7 | 3354.4 | 3356.2 | 3363.5 | 3359.0 | *3366.3* | 3376.4 | 3383.8 |
| 5° | 3259.7 | 3261.5 | 3272.6 | 3296.5 | 3340.6 | 3379.2 | 3407.7 | 3410.4 | *3404.0* | 3415.9 | 3421.4 |
| 7.5° | 3111.7 | 3104.4 | 3128.3 | 3170.6 | 3227.5 | 3313.9 | 3420.5 | 3483.0 | *3487.6* | 3498.6 | 3503.2 |
| 10° | 3166.0 | 3167.8 | 3163.2 | 3151.3 | 3180.7 | 3259.7 | 3398.5 | 3540.9 | *3611.7* | 3623.6 | 3626.4 |
| 12.5° | 3481.2 | 3475.7 | 3441.7 | 3393.0 | 3350.7 | 3323.1 | 3417.8 | 3597.0 | *3750.4* | 3759.6 | 3788.1 |
| 15° | 3879.1 | 3841.4 | 3820.3 | 3756.0 | 3660.4 | 3554.7 | 3523.5 | 3684.3 | *3902.1* | 3928.7 | 3982.0 |
| 17.5° | 4248.5 | 4226.5 | 4204.4 | 4130.0 | 4001.3 | 3868.1 | 3733.9 | 3801.0 | *4071.2* | 4107.9 | 4186.1 |
| 20° | 4632.7 | 4627.2 | 4597.8 | 4530.7 | 4396.5 | 4212.7 | 4001.3 | 3961.8 | *4234.8* | 4279.8 | 4409.4 |
| 22.5° | 5026.0 | 5028.8 | 4999.4 | 4913.0 | 4803.6 | 4577.5 | 4300.9 | 4130.9 | *4393.7* | 4452.6 | 4617.1 |
| 25° | 5389.0 | 5382.6 | 5339.4 | 5307.2 | 5207.1 | 4977.3 | 4646.5 | 4327.6 | *4526.1* | 4589.5 | 4808.2 |
| 27.5° | 5667.5 | 5643.6 | 5689.5 | 5675.8 | 5578.3 | 5350.4 | 4972.7 | 4544.5 | *4651.1* | 4725.5 | 4974.6 |
| 30° | 5981.8 | 5960.6 | 6010.3 | 6052.5 | 5951.5 | 5724.5 | 5290.7 | 4727.3 | *4759.5* | 4845.0 | 5131.7 |
| 32.5° | 6422.0 | 6413.7 | 6409.1 | 6440.4 | 6365.0 | 6086.5 | 5611.4 | 4986.5 | *4923.1* | 5006.7 | 5290.7 |
| 35° | 7038.6 | 7011.1 | 6921.0 | 6866.8 | 6786.8 | 6439.4 | 5976.3 | 5339.4 | *5191.4* | 5277.8 | 5471.7 |
| 37.5° | 7706.7 | 7693.9 | 7528.5 | 7329.0 | 7116.7 | 6750.1 | 6316.3 | 5687.7 | *5479.1* | 5554.4 | 5615.1 |
| 40° | 8447.5 | 8350.0 | 8211.3 | 7906.2 | 7477.9 | 6938.5 | 6369.6 | 5651.9 | *5564.6* | 5660.1 | 5642.7 |
| 42.5° | 9067.8 | 8938.2 | 8782.9 | 8479.6 | 7845.5 | 7159.0 | 6445.0 | 5645.4 | *5577.4* | 5686.8 | 5599.5 |
| 45° | 9550.3 | 9489.6 | 9247.0 | 8936.4 | 8222.3 | 7362.1 | 6649.0 | 5899.1 | *5844.8* | 5960.6 | 5690.5 |
| 47.5° | 9631.1 | 9566.8 | 9485.0 | 9260.8 | 8478.7 | 7592.8 | 6932.0 | 6384.3 | *6398.1* | 6558.0 | 6059.0 |
| 50° | 8903.3 | 8887.7 | 9022.8 | 9173.5 | 8610.1 | 7739.8 | 7274.8 | 7109.4 | *7503.6* | 7600.1 | 6988.1 |
| 52.5° | 7498.1 | 7479.8 | 7921.8 | 8463.1 | 8287.6 | 7818.9 | 7691.1 | 8177.3 | *8968.5* | 9129.4 | 8200.3 |
| 55° | 5947.8 | 6063.6 | 6476.2 | 7346.5 | 7419.1 | 7499.1 | 8124.0 | 9411.5 | *10790.0* | 10870.0 | 9515.3 |
| 57.5° | 5016.8 | 4981.0 | 5287.9 | 6093.0 | 6333.8 | 6820.8 | 8302.3 | 10763.3 | *12625.2* | 12557.2 | 10794.6 |
| 60° | 4224.7 | 4238.4 | 4402.0 | 5003.0 | 5316.4 | 5840.3 | 8180.0 | 11981.0 | *14239.9* | 14158.1 | 11877.2 |
| 62.5° | 3198.1 | 3166.9 | 3330.5 | 3824.9 | 4468.2 | 4985.6 | 7756.4 | 12555.4 | *15454.8* | 15368.5 | 12404.7 |
| 65° | 2091.6 | 2130.2 | 2261.7 | 2570.4 | 3171.5 | 4163.1 | 7055.2 | 12218.1 | *16104.6* | 16024.6 | 12370.7 |
| 66° | *1779.2* | *1794.8* | *1928.1* | *2147.7* | *2601.7* | *3740.3* | *6724.3* | *11854.2* | *16115.6* | *16048.5* | *12186.0* |
| 67.5° | 1362.9 | 1385.9 | 1498.0 | 1634.0 | 1909.7 | 2898.5 | 6137.1 | 11108.0 | *15747.1* | 15686.4 | 11662.1 |
| 70° | 999.9 | 1007.2 | 1096.4 | 1127.6 | 1173.6 | 1602.7 | 4604.2 | 9581.5 | *14005.6* | 13987.2 | 9638.5 |
| 72.5° | 762.8 | 772.0 | 823.4 | 850.1 | 835.4 | 967.7 | 2605.4 | 7806.0 | *10936.1* | 10917.7 | 6644.4 |
| 75° | 658.0 | 655.2 | 670.9 | 669.0 | 659.8 | 692.0 | 1143.2 | 5261.3 | *6849.3* | 6885.2 | 3247.8 |
| 77.5° | 540.4 | 543.1 | 554.2 | 544.0 | 536.7 | 541.3 | 696.6 | 2729.4 | *2895.8* | 2819.5 | 982.4 |
| 80° | 432.8 | 436.5 | 447.6 | 441.1 | 431.0 | 441.1 | 507.3 | 987.9 | *971.4* | 863.9 | 396.1 |
| 82.5° | 340.9 | 330.8 | 340.0 | 344.6 | 336.4 | 349.2 | 380.5 | 451.2 | *420.9* | 409.9 | 277.5 |
| 85° | 220.6 | 222.4 | 205.9 | 229.8 | 222.4 | 226.1 | 261.0 | 307.9 | *295.0* | 292.2 | 191.2 |
| 87.5° | 73.5 | 80.0 | 87.3 | 89.1 | 91.9 | 95.6 | 112.1 | 136.0 | *170.9* | 177.4 | 79.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 |

REPORT NUMBER: P1461180
CATALOG NUMBER: PRV-PC1D-727-U-T2RE

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 | 3389.3 |
| 2.5° | 3397.5 | 3411.3 | 3429.7 | 3451.8 | 3467.4 | 3478.4 | 3472.0 | 3472.9 | 3470.1 | 3461.0 | 3459.1 |
| 5° | 3437.1 | 3458.2 | 3488.5 | 3495.0 | 3477.5 | 3442.6 | 3400.3 | 3358.0 | 3335.1 | 3310.2 | 3309.3 |
| 7.5° | 3521.6 | 3531.7 | 3539.1 | 3487.6 | 3392.0 | 3303.8 | 3211.0 | 3147.6 | 3119.1 | 3101.6 | 3117.3 |
| 10° | 3633.7 | 3634.7 | 3572.2 | 3421.4 | 3259.7 | 3139.3 | 3063.0 | 3014.3 | 2986.8 | 2976.6 | 2981.2 |
| 12.5° | 3778.9 | 3757.8 | 3593.3 | 3341.5 | 3132.0 | 3015.2 | 2951.8 | 2921.5 | 2900.4 | 2893.0 | 2896.7 |
| 15° | 3954.5 | 3885.5 | 3588.7 | 3244.1 | 3012.5 | 2920.6 | 2876.5 | 2853.5 | 2838.8 | 2833.3 | 2839.7 |
| 17.5° | 4128.2 | 3994.9 | 3559.3 | 3136.6 | 2922.4 | 2858.1 | 2828.7 | 2803.0 | 2796.5 | 2792.8 | 2798.4 |
| 20° | 4299.1 | 4090.5 | 3508.7 | 3020.8 | 2856.3 | 2824.1 | 2791.9 | 2776.3 | 2783.7 | 2787.3 | 2797.4 |
| 22.5° | 4455.3 | 4148.4 | 3427.9 | 2901.3 | 2803.0 | 2784.6 | 2773.5 | 2769.9 | 2782.7 | 2790.1 | 2799.3 |
| 25° | 4570.2 | 4164.9 | 3319.4 | 2797.4 | 2739.5 | 2746.9 | 2758.8 | 2753.3 | 2757.0 | 2757.9 | 2764.4 |
| 27.5° | 4660.3 | 4159.4 | 3164.1 | 2697.3 | 2662.3 | 2695.4 | 2723.0 | 2700.0 | 2689.9 | 2680.7 | 2686.2 |
| 30° | 4739.3 | 4146.5 | 2995.0 | 2578.7 | 2553.9 | 2610.0 | 2641.2 | 2598.0 | 2570.4 | 2553.0 | 2569.5 |
| 32.5° | 4806.4 | 4144.7 | 2837.9 | 2425.2 | 2428.0 | 2487.7 | 2519.9 | 2470.3 | 2428.9 | 2412.4 | 2409.6 |
| 35° | 4876.2 | 4150.2 | 2691.8 | 2269.0 | 2252.5 | 2332.4 | 2349.0 | 2303.0 | 2250.6 | 2232.3 | 2234.1 |
| 37.5° | 4919.4 | 4154.8 | 2540.1 | 2070.5 | 2061.3 | 2137.6 | 2153.2 | 2119.2 | 2081.5 | 2060.4 | 2054.0 |
| 40° | 4883.6 | 4099.7 | 2331.5 | 1868.3 | 1837.1 | 1902.3 | 1943.7 | 1937.3 | 1882.1 | 1818.7 | 1815.9 |
| 42.5° | 4862.4 | 4046.4 | 2110.9 | 1672.6 | 1644.1 | 1679.0 | 1752.5 | 1713.9 | 1610.1 | 1598.1 | 1589.9 |
| 45° | 5030.6 | 4078.5 | 1927.1 | 1509.0 | 1445.6 | 1501.6 | 1570.6 | 1478.7 | 1434.6 | 1418.9 | 1431.8 |
| 47.5° | 5504.8 | 4260.5 | 1792.1 | 1392.3 | 1305.9 | 1358.3 | 1384.0 | 1351.9 | 1314.2 | 1308.7 | 1314.2 |
| 50° | 6540.5 | 4739.3 | 1731.4 | 1328.0 | 1210.3 | 1241.6 | 1231.5 | 1247.1 | 1218.6 | 1224.1 | 1229.6 |
| 52.5° | 7854.7 | 5598.6 | 1762.6 | 1319.7 | 1144.2 | 1119.3 | 1112.0 | 1146.0 | 1151.5 | 1177.2 | 1186.4 |
| 55° | 9226.8 | 6355.8 | 1871.1 | 1349.1 | 1070.6 | 983.3 | 995.3 | 1055.0 | 1109.2 | 1144.2 | 1152.4 |
| 57.5° | 10389.3 | 6724.3 | 1991.5 | 1349.1 | 972.3 | 875.8 | 903.4 | 990.7 | 1077.1 | 1106.5 | 1110.2 |
| 60° | 10875.5 | 6666.4 | 2029.2 | 1258.1 | 870.3 | 788.5 | 835.4 | 952.1 | 1033.0 | 1049.5 | 1058.7 |
| 62.5° | 10809.3 | 6330.1 | 1871.1 | 1073.4 | 763.7 | 723.3 | 796.8 | 910.7 | 967.7 | 987.0 | 991.6 |
| 65° | 10309.4 | 5571.0 | 1535.7 | 857.4 | 673.6 | 676.4 | 764.6 | 858.3 | 904.3 | 927.3 | 936.5 |
| 66° | *9923.4* | *5087.6* | *1370.2* | *793.1* | *641.5* | *661.7* | *751.7* | *831.7* | *875.8* | *893.3* | *901.5* |
| 67.5° | 9097.2 | 4225.6 | 1169.9 | 690.2 | 605.6 | 641.5 | 724.2 | 791.3 | 826.2 | 846.4 | 852.8 |
| 70° | 6632.4 | 2576.0 | 840.9 | 551.4 | 553.2 | 601.9 | 655.2 | 702.1 | 768.3 | 796.8 | 806.0 |
| 72.5° | 3925.1 | 1287.5 | 612.1 | 466.9 | 511.0 | 560.6 | 586.3 | 639.6 | 725.1 | 774.7 | 787.6 |
| 75° | 1793.0 | 631.4 | 446.6 | 413.6 | 457.7 | 487.1 | 516.5 | 590.0 | 694.8 | 770.1 | 783.0 |
| 77.5° | 608.4 | 407.1 | 363.0 | 371.3 | 382.3 | 402.5 | 446.6 | 540.4 | 660.8 | 744.4 | 765.5 |
| 80° | 329.0 | 322.6 | 300.5 | 314.3 | 317.1 | 335.4 | 383.2 | 477.9 | 600.1 | 672.7 | 677.3 |
| 82.5° | 263.8 | 250.0 | 238.9 | 244.5 | 250.0 | 273.9 | 307.9 | 395.2 | 509.1 | 415.4 | 420.0 |
| 85° | 170.0 | 149.8 | 155.3 | 163.6 | 169.1 | 190.2 | 212.3 | 293.2 | 366.7 | 193.9 | 184.7 |
| 87.5° | 50.5 | 46.0 | 55.1 | 61.6 | 60.7 | 61.6 | 81.8 | 153.5 | 216.0 | 91.0 | 62.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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

# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP2-2501-321-3

Test Date: 04/09/2025

Luminaire Tested: GKO-PB1E-727-U-T4W

Data in this report applies to families of products including GKO-PB1E-727-U-T4W

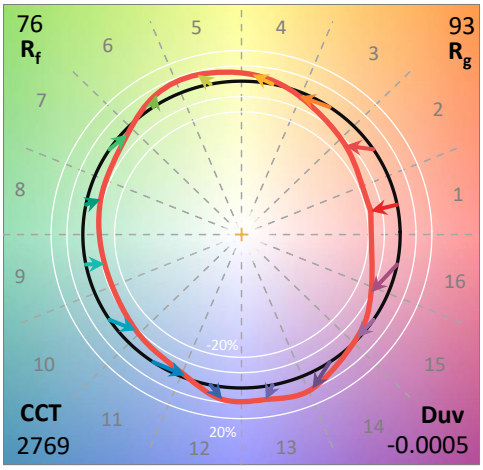
Report Generated By FNC07603 / LDUCLS01DT447
Version: v7.04

## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP2-2501-321-3 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP2 - 165CM SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 04/10/2025 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GKO-PB1E-727-U-T4W** |
| Description: | Gekko Wedge Wall Pack Fixture 1 SQ w/ T4W distribution |

## Spectral Parameters

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CCT (K): | 2769 | CRI (Ra): | | 71.7 | | | |
| CIE u': | 0.2596 | R1: | | 68.0 | R9: | | -34.5 |
| CIE v': | 0.5253 | R2: | | 84.0 | R10: | | 64.3 |
| Duv: | -0.0005 | R3: | | 94.6 | R11: | | 60.9 |
| CIE x: | 0.4535 | R4: | | 65.9 | R12: | | 54.4 |
| CIE y: | 0.4078 | R5: | | 67.3 | R13: | | 71.2 |
| CIE z: | 0.1387 | R6: | | 78.7 | R14: | | 97.6 |
| Peak Wavelength (nm): | 597 | R7: | | 75.2 | R15: | | 59.5 |
| Dominant Wavelength (nm): | 584 | R8: | | 39.8 | | | |
| Purity: | 58.54014 | | | | | | |
| Rf: | 75.7 | | | | | | |
| Rg: | 93.2 | | | | | | |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.0 |

| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN2187 | 1/6/2025 | 7/6/2025 |
| Power Meter | INXT2011002 | 1/21/2025 | 1/21/2026 |
| AC Power Source | IN0458 | 10/22/2024 | 10/22/2025 |
| DC Power Source | IN0212 | 10/22/2024 | 10/22/2025 |
| Sphere Thermometer | IN4036B | 10/22/2024 | 10/22/2025 |
| Room Thermometer | IN0046 | 10/22/2024 | 10/22/2025 |

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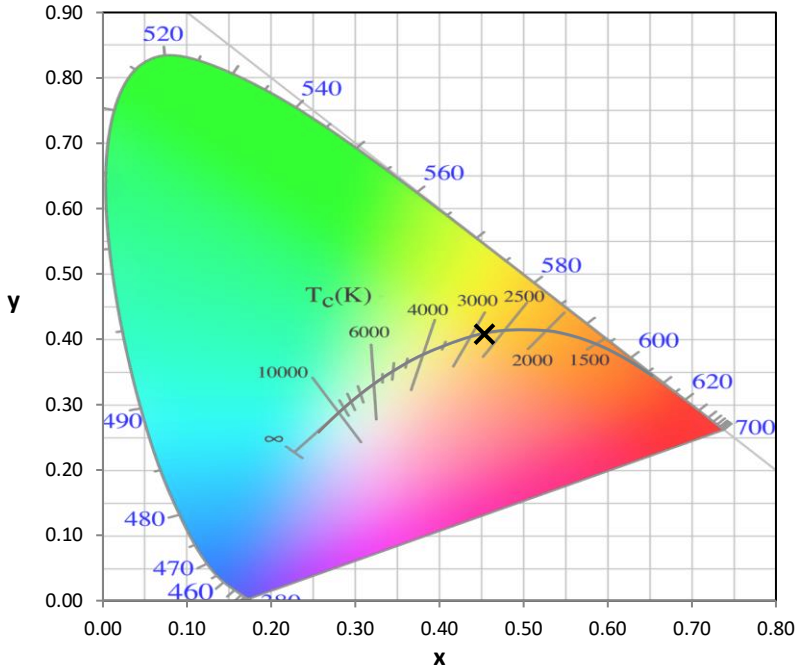
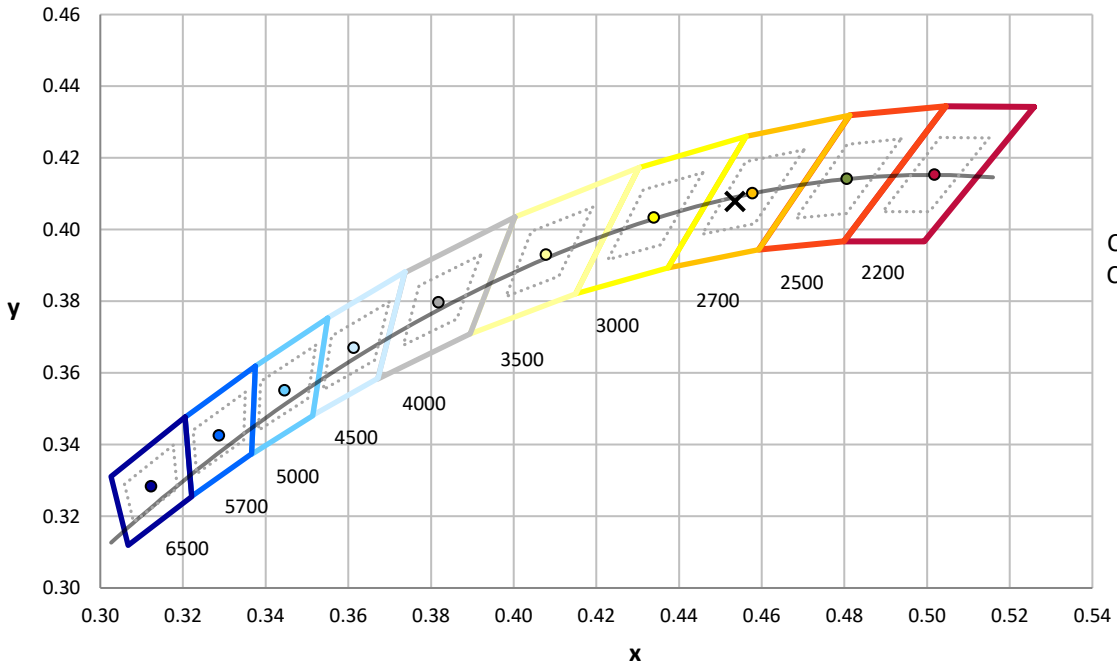
**CIE 1931 Chromaticity Diagram**




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




CCT = 2769K
CIE x = 0.4535
CIE y = 0.4078
Duv = -0.0005

Point lies inside the ANSI 2700K 4-step quadrangle

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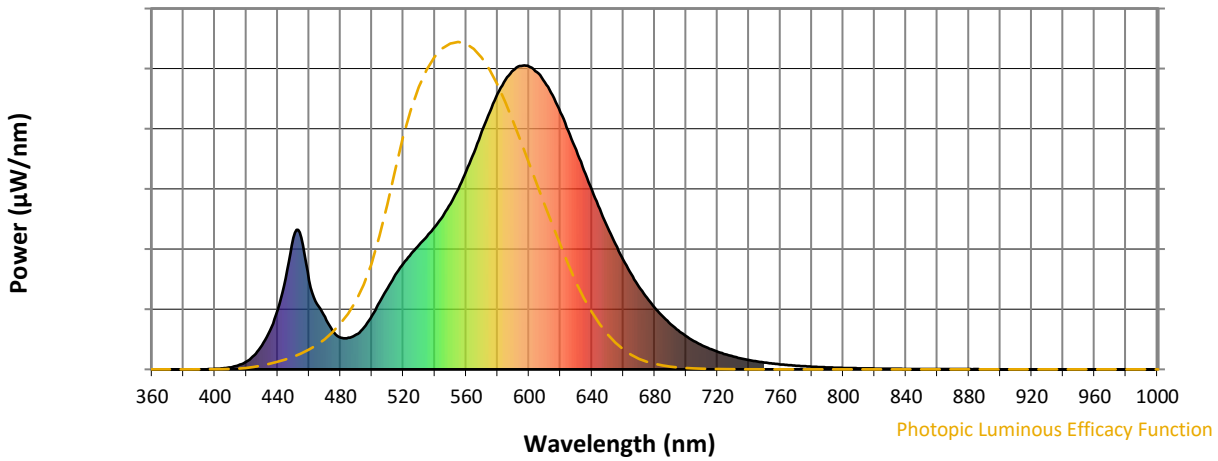
## Photopic Flux vs. Wavelength




**Photopic Lumens: NR**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

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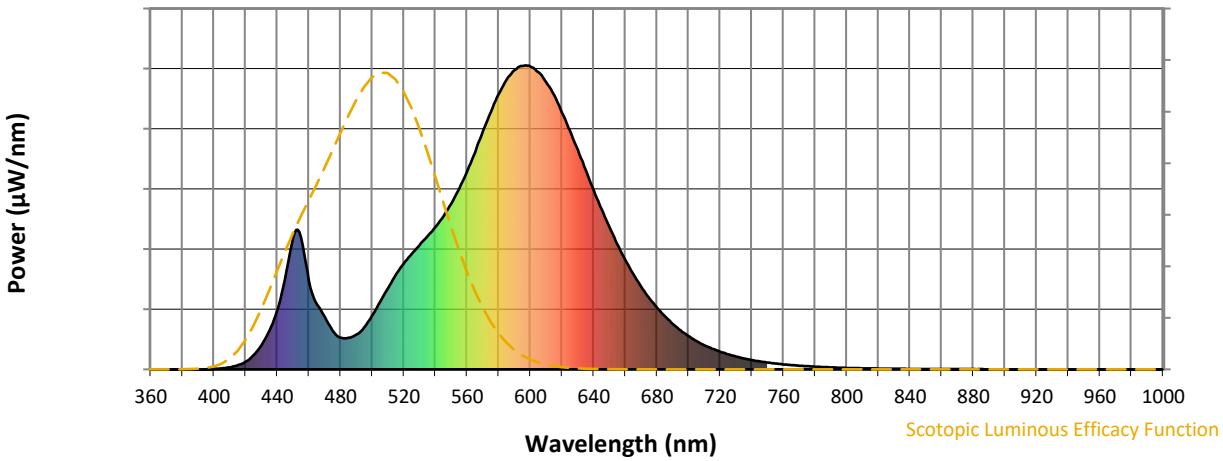
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.14**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

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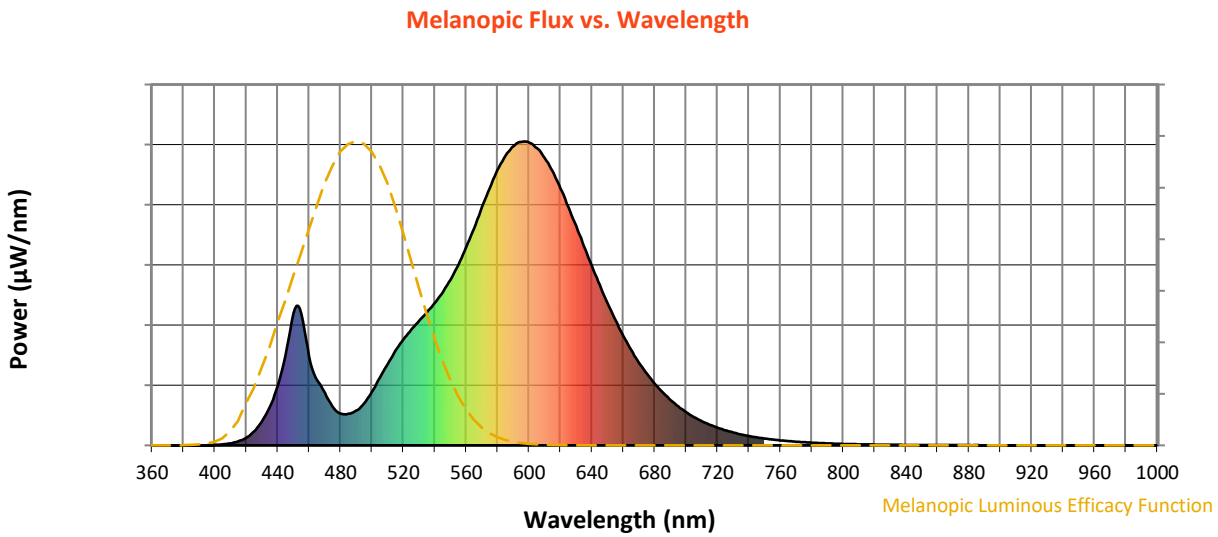


**Melanopic Lumens: NR** **M/P: 2.08**

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 114 | NR | 620 | 844 | NR | 750 | 22 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 138 | NR | 625 | 785 | NR | 755 | 19 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 176 | NR | 630 | 722 | NR | 760 | 16 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 222 | NR | 635 | 655 | NR | 765 | 14 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 268 | NR | 640 | 591 | NR | 770 | 12 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 311 | NR | 645 | 527 | NR | 775 | 10 | NR | 905 | 0 | NR |
| 390 | 0 | NR | 520 | 348 | NR | 650 | 467 | NR | 780 | 9 | NR | 910 | 0 | NR |
| 395 | 0 | NR | 525 | 381 | NR | 655 | 412 | NR | 785 | 8 | NR | 915 | 0 | NR |
| 400 | 2 | NR | 530 | 410 | NR | 660 | 360 | NR | 790 | 7 | NR | 920 | 0 | NR |
| 405 | 4 | NR | 535 | 438 | NR | 665 | 314 | NR | 795 | 6 | NR | 925 | 0 | NR |
| 410 | 7 | NR | 540 | 469 | NR | 670 | 272 | NR | 800 | 5 | NR | 930 | 0 | NR |
| 415 | 13 | NR | 545 | 503 | NR | 675 | 236 | NR | 805 | 4 | NR | 935 | 0 | NR |
| 420 | 25 | NR | 550 | 544 | NR | 680 | 203 | NR | 810 | 4 | NR | 940 | 0 | NR |
| 425 | 46 | NR | 555 | 594 | NR | 685 | 175 | NR | 815 | 3 | NR | 945 | 0 | NR |
| 430 | 79 | NR | 560 | 652 | NR | 690 | 149 | NR | 820 | 3 | NR | 950 | 0 | NR |
| 435 | 128 | NR | 565 | 714 | NR | 695 | 128 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 196 | NR | 570 | 783 | NR | 700 | 109 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 299 | NR | 575 | 847 | NR | 705 | 93 | NR | 835 | 2 | NR | 965 | 0 | NR |
| 450 | 433 | NR | 580 | 906 | NR | 710 | 80 | NR | 840 | 2 | NR | 970 | 0 | NR |
| 455 | 433 | NR | 585 | 953 | NR | 715 | 68 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 293 | NR | 590 | 985 | NR | 720 | 58 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 215 | NR | 595 | 998 | NR | 725 | 50 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 173 | NR | 600 | 997 | NR | 730 | 42 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 127 | NR | 605 | 978 | NR | 735 | 36 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 104 | NR | 610 | 945 | NR | 740 | 30 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 104 | NR | 615 | 902 | NR | 745 | 26 | NR | 875 | 1 | NR | | | |

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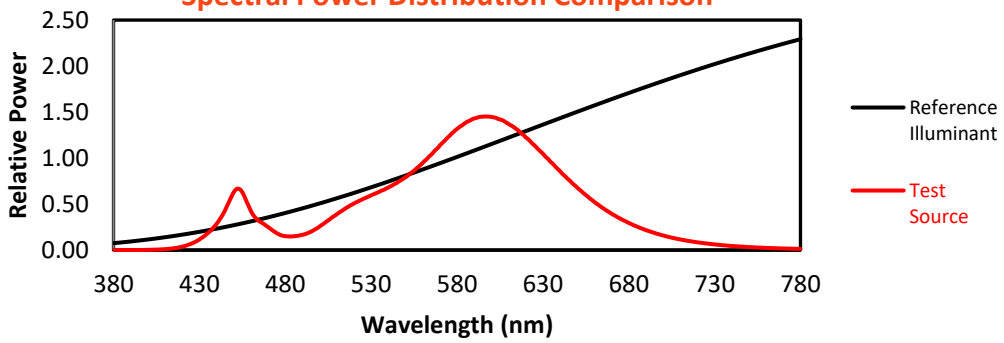
# TM-30-18

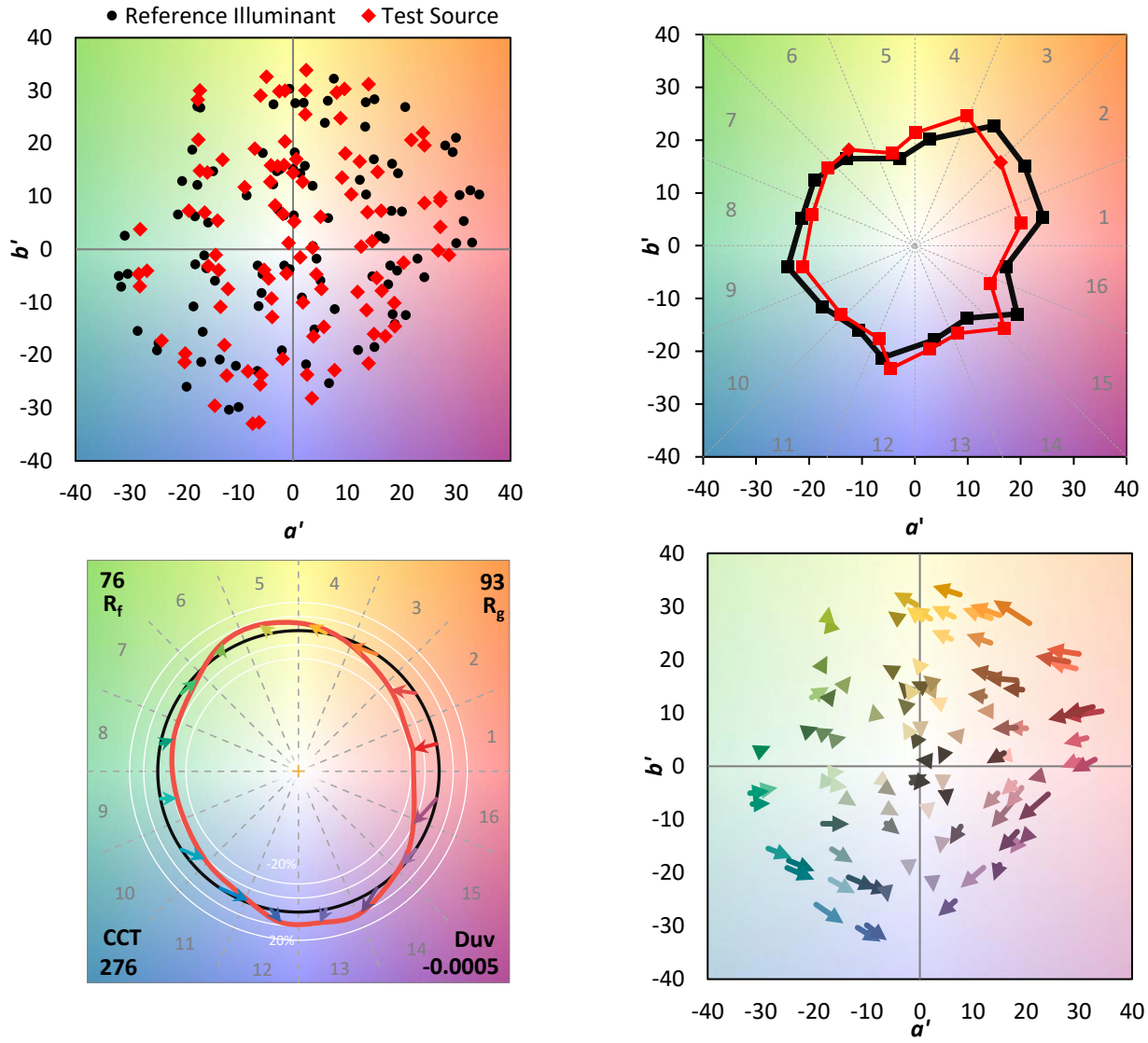
## Summary

$R_f$ = 75.7
$R_g$ = 93.2
CIE $R_a$ = 71.7
$R_9$ = -34.5

## Spectral Power Distribution Comparison

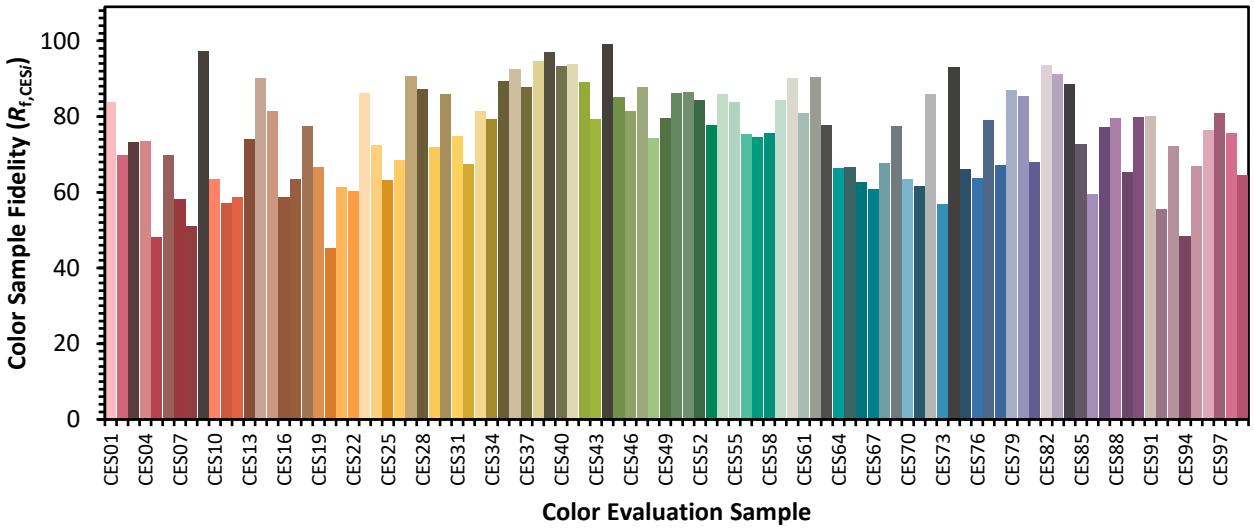



## Color Vector Graphics

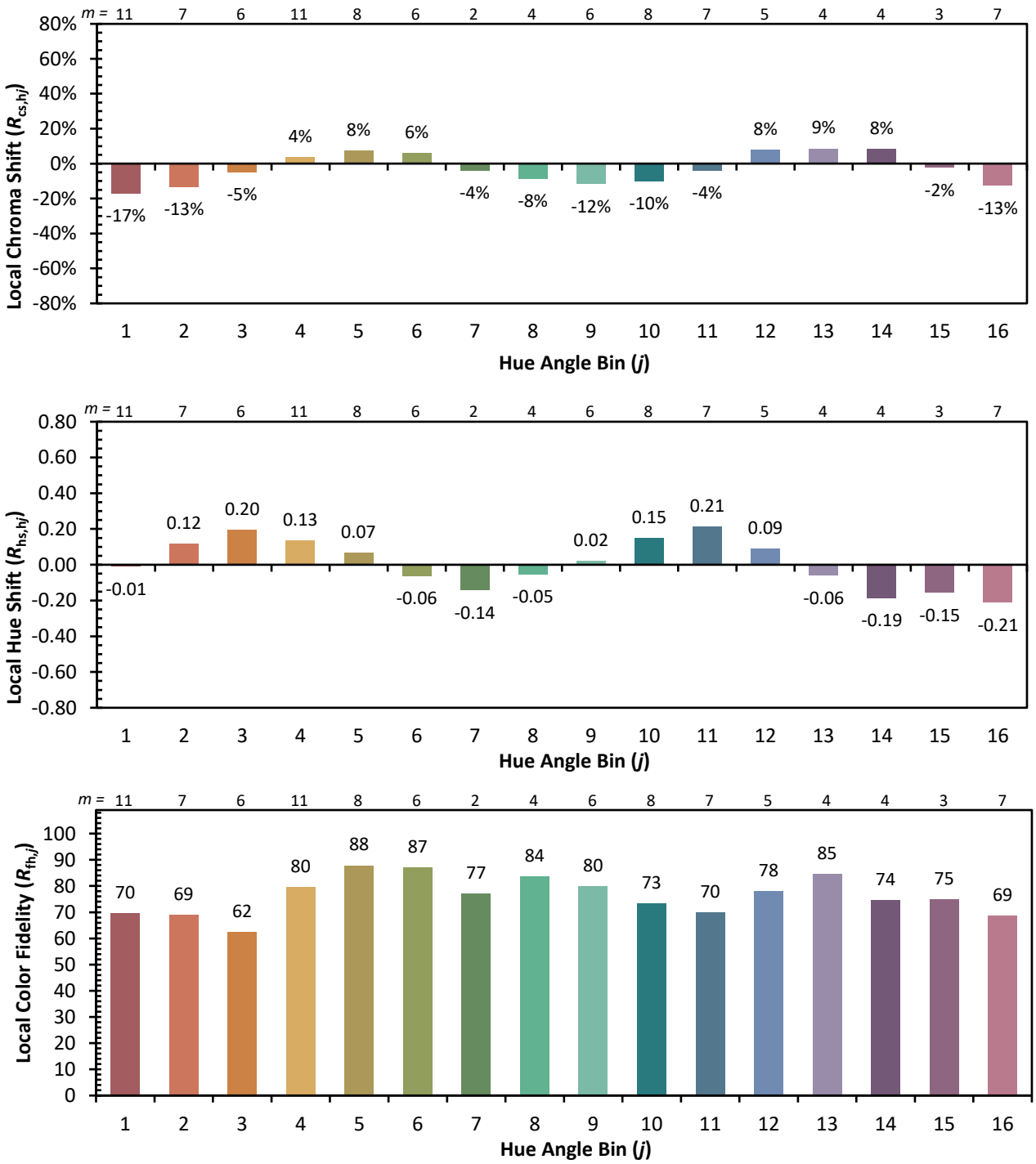


**Individual Sample Fidelity Index ($R_{f,i}$)**

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 68 | CES51 = 87 | CES76 = 64 |
| CES02 = 63 | CES27 = 91 | CES52 = 84 | CES77 = 79 |
| CES03 = 31 | CES28 = 87 | CES53 = 78 | CES78 = 67 |
| CES04 = 71 | CES29 = 72 | CES54 = 86 | CES79 = 87 |
| CES05 = 50 | CES30 = 86 | CES55 = 84 | CES80 = 85 |
| CES06 = 52 | CES31 = 75 | CES56 = 75 | CES81 = 68 |
| CES07 = 42 | CES32 = 67 | CES57 = 74 | CES82 = 94 |
| CES08 = 41 | CES33 = 81 | CES58 = 76 | CES83 = 91 |
| CES09 = 29 | CES34 = 79 | CES59 = 84 | CES84 = 89 |
| CES10 = 77 | CES35 = 89 | CES60 = 90 | CES85 = 73 |
| CES11 = 60 | CES36 = 92 | CES61 = 81 | CES86 = 59 |
| CES12 = 66 | CES37 = 88 | CES62 = 90 | CES87 = 77 |
| CES13 = 43 | CES38 = 95 | CES63 = 78 | CES88 = 79 |
| CES14 = 74 | CES39 = 97 | CES64 = 66 | CES89 = 65 |
| CES15 = 72 | CES40 = 93 | CES65 = 67 | CES90 = 80 |
| CES16 = 48 | CES41 = 94 | CES66 = 63 | CES91 = 80 |
| CES17 = 50 | CES42 = 89 | CES67 = 61 | CES92 = 55 |
| CES18 = 57 | CES43 = 79 | CES68 = 68 | CES93 = 72 |
| CES19 = 73 | CES44 = 99 | CES69 = 77 | CES94 = 48 |
| CES20 = 67 | CES45 = 85 | CES70 = 63 | CES95 = 67 |
| CES21 = 87 | CES46 = 81 | CES71 = 62 | CES96 = 76 |
| CES22 = 80 | CES47 = 88 | CES72 = 86 | CES97 = 81 |
| CES23 = 92 | CES48 = 74 | CES73 = 57 | CES98 = 76 |
| CES24 = 91 | CES49 = 80 | CES74 = 93 | CES99 = 64 |
| CES25 = 73 | CES50 = 86 | CES75 = 66 | |

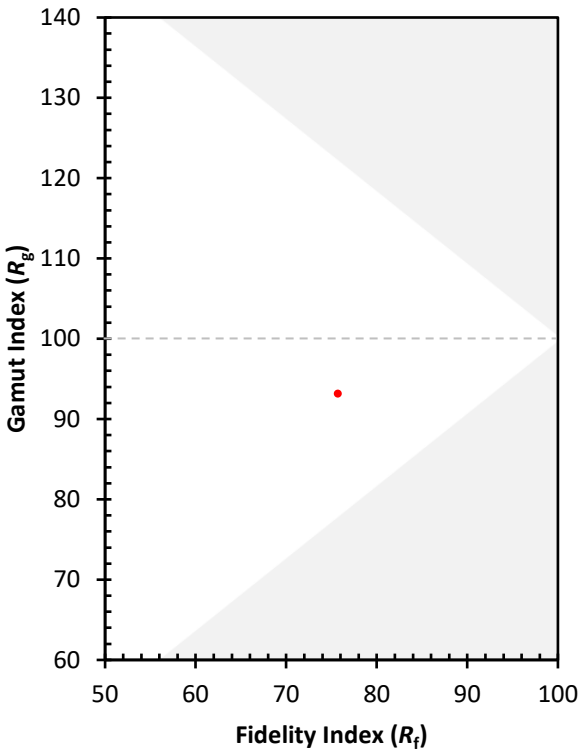


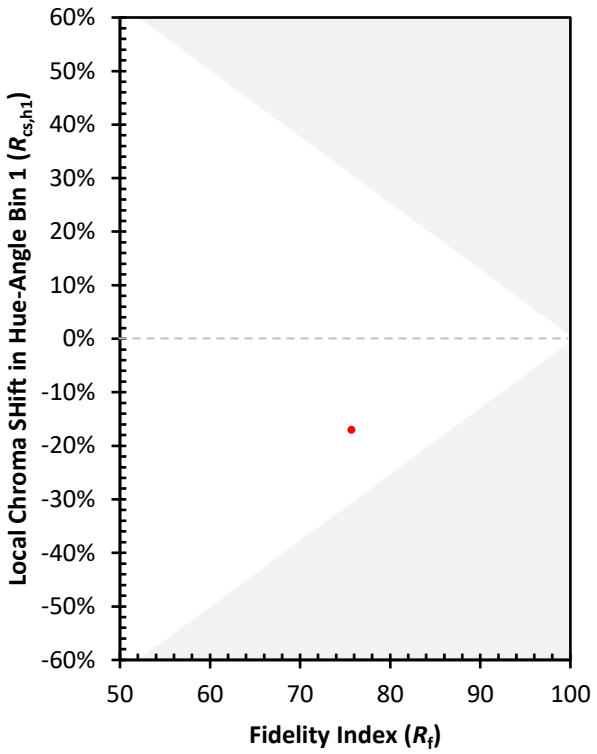
## Color Rendition by Hue-Angle Bin



## TM-30-18

### Measure Comparisons

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