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

Cooper Lighting Solutions Photometric Lab
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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: STREETWORKS

Report Number: P1456073

Luminaire Tested: GLAN-SB8C-830-U-T2LG

Issue Date: 05/20/2026

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: | P1456073 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB8C-830-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 8xLight Square PACKAGE 80CRI 3000K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (208) 3000K CCT, 80 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 52622.3 lumens |
| Efficiency: | N/A |
| Efficacy: | 131.6 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type II - Short |
| BUG Rating: | B4 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 399.8 |
| Input Voltage (V): | 120 |
| Input Current (Ain): | NR |
| Voltage Rise (V): | NR |
| Power Factor: | 0.97 |
| Total Harmonic Distortion (THDi): | NR |
| 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: P1456073
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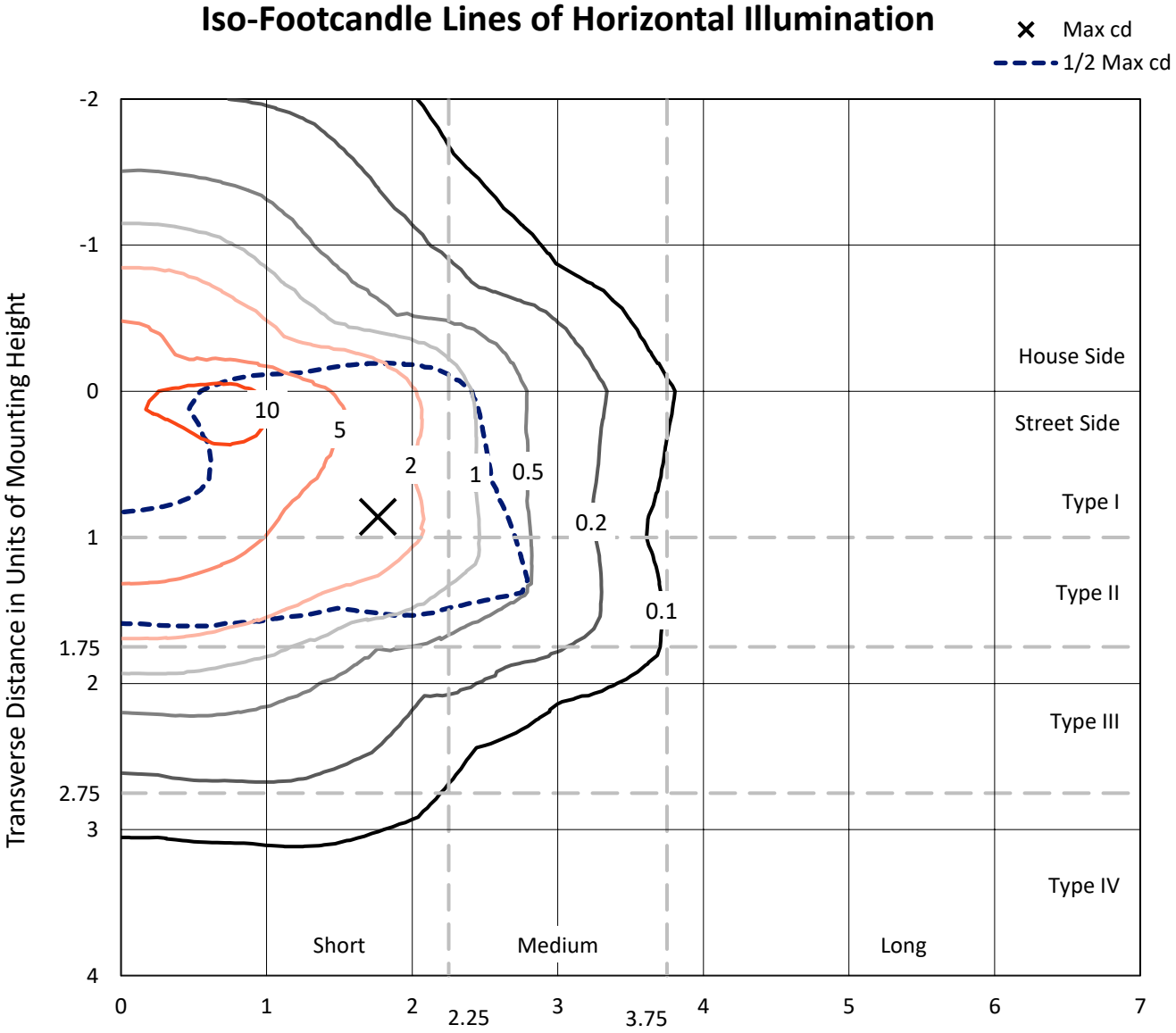
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 13.7 fc
Type II - Short - N/A

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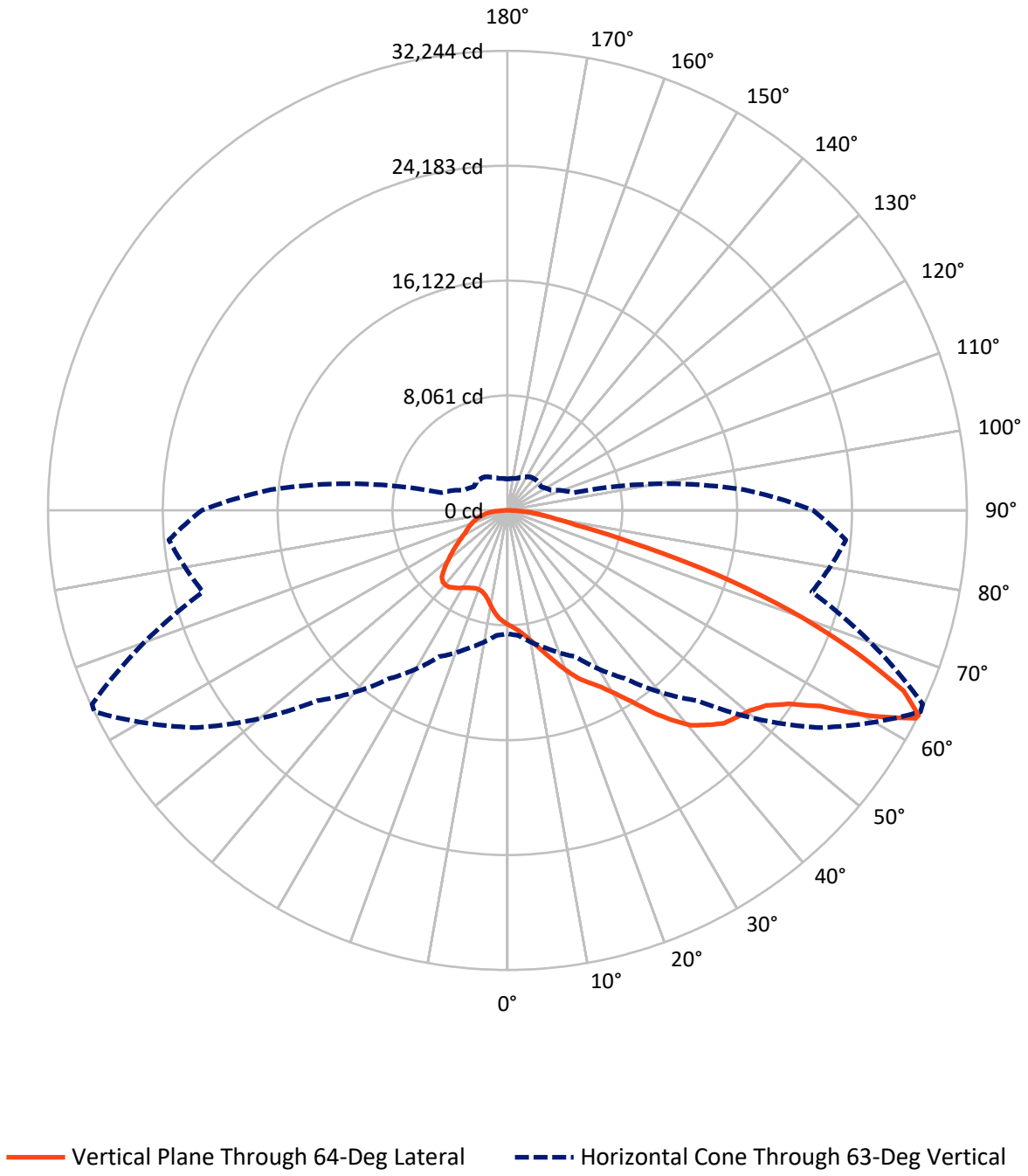
## Luminous Intensity Polar Plot



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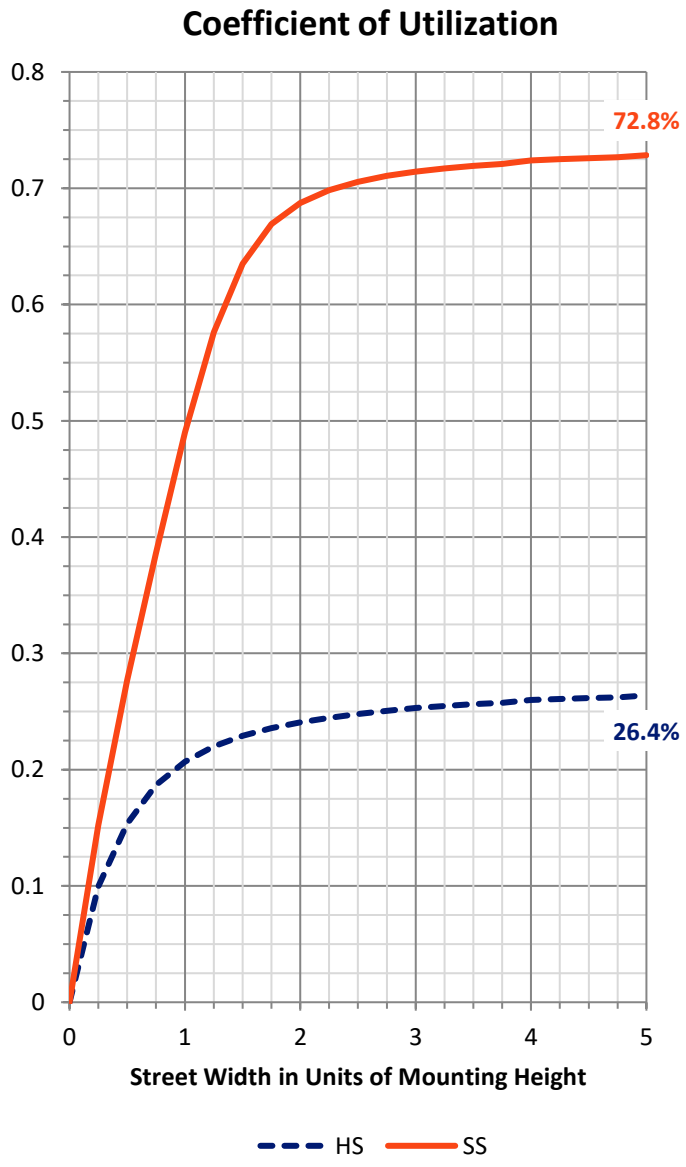
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 14138.1 | 0.0 | 14138.1 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 38484.1 | 0.0 | 38484.1 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 52622.3 | 0.0 | 52622.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 735.8 | 1.4 |
| 10°-20° | 2265.1 | 4.3 |
| 20°-30° | 4142.1 | 7.9 |
| 30°-40° | 7125.1 | 13.5 |
| 40°-50° | 10507.6 | 20.0 |
| 50°-60° | 12594.0 | 23.9 |
| 60°-70° | 10107.9 | 19.2 |
| 70°-80° | 4061.6 | 7.7 |
| 80°-90° | 1083.0 | 2.1 |
| 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° | 52622.3 | 100.0 |
| 0°-180° | 52622.3 | 100.0 |



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REPORT NUMBER: P1456073
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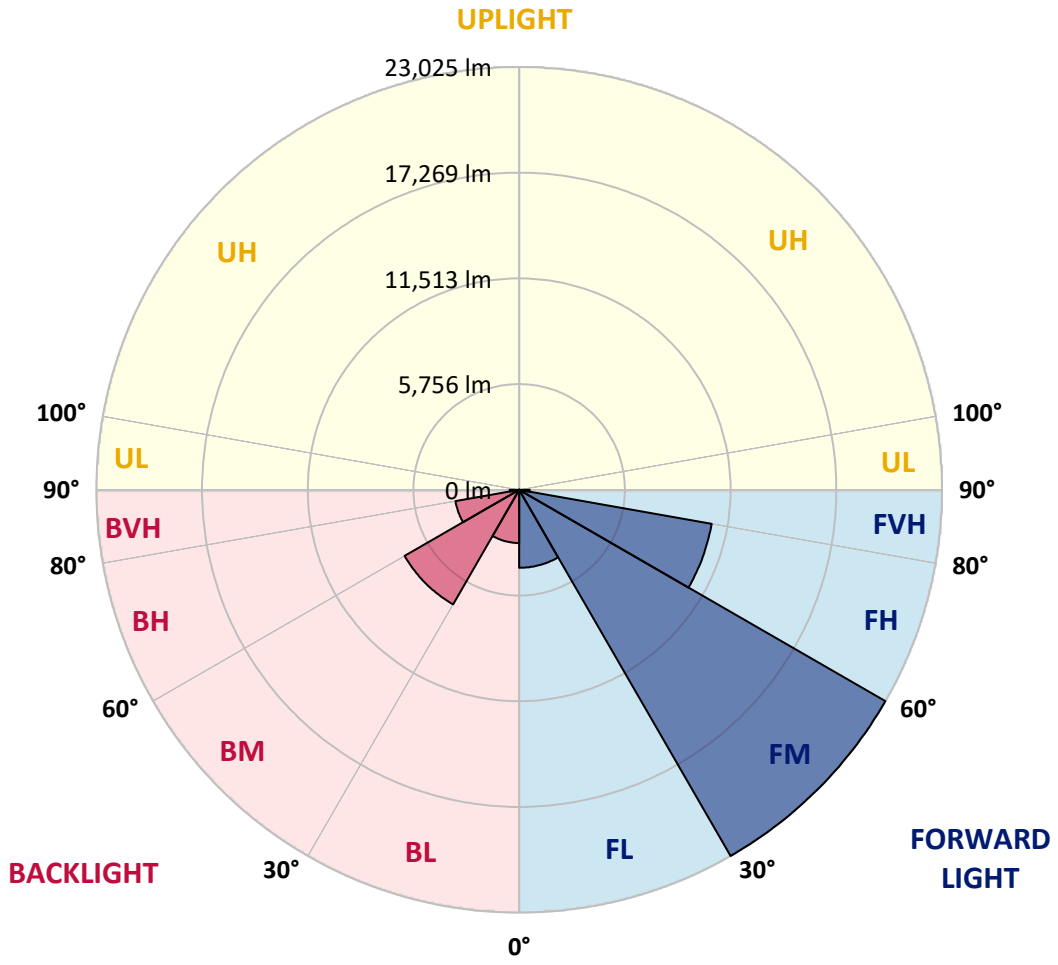
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 4245.6 | 8.1 | | | |
| FM | (30°-60°) | 23025.0 | 43.8 | | | |
| FH | (60°-80°) | 10644.5 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 569.0 | 1.1 | | | G4/750 |
| BL | (0°-30°) | 2897.4 | 5.5 | B4/5000 | | |
| BM | (30°-60°) | 7201.6 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 3525.1 | 6.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 514.0 | 1.0 | | | G4/750 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B4-U0-G4**
Type II Short



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Scaled Data Report

REPORT NUMBER: P1456073
CATALOG NUMBER: GLAN-SB8C-830-U-T2LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | *8013.8* | 8013.8 | 8013.8 | 8013.8 |
| 2.5° | 8344.7 | 8356.5 | 8321.1 | 8309.3 | 8332.9 | 8285.6 | 8273.8 | *8226.5* | 8202.9 | 8155.6 | 8096.5 |
| 5° | 8581.1 | 8592.9 | 8569.3 | 8569.3 | 8592.9 | 8557.5 | 8545.7 | *8498.4* | 8474.7 | 8427.5 | 8309.3 |
| 7.5° | 8569.3 | 8581.1 | 8604.8 | 8699.3 | 8817.5 | 8864.8 | 8900.3 | *8864.8* | 8853.0 | 8782.1 | 8663.9 |
| 10° | 8380.2 | 8392.0 | 8451.1 | 8592.9 | 8888.4 | 9101.2 | 9325.8 | *9325.8* | 9349.4 | 9290.3 | 9077.5 |
| 12.5° | 8120.2 | 8132.0 | 8273.8 | 8498.4 | 8888.4 | 9254.8 | 9715.8 | *9904.9* | 9893.1 | 9857.6 | 9609.4 |
| 15° | 7493.7 | 7493.7 | 7706.5 | 8132.0 | 8758.4 | 9361.2 | 10046.8 | *10555.0* | 10566.8 | 10602.3 | 10306.8 |
| 17.5° | 6961.8 | 6973.6 | 7150.9 | 7529.2 | 8344.7 | 9302.1 | 10401.4 | *11276.0* | 11311.5 | 11512.4 | 11086.9 |
| 20° | 7009.1 | 7009.1 | 7068.2 | 7233.7 | 7895.6 | 9065.7 | 10602.3 | *12044.3* | 12162.5 | 12635.3 | 12103.4 |
| 22.5° | 7375.5 | 7375.5 | 7422.8 | 7411.0 | 7812.8 | 8912.1 | 10732.3 | *12812.6* | 13025.3 | 14006.4 | 13320.8 |
| 25° | 8049.2 | 8037.4 | 7990.1 | 7919.2 | 8155.6 | 9077.5 | 11027.8 | *13403.6* | 13817.3 | 15519.3 | 14727.4 |
| 27.5° | 8876.6 | 8853.0 | 8782.1 | 8663.9 | 8829.3 | 9574.0 | 11536.1 | *14030.0* | 14479.2 | 17174.1 | 16216.7 |
| 30° | 9904.9 | 9834.0 | 9763.1 | 9609.4 | 9786.7 | 10389.5 | 12292.5 | *14916.5* | 15342.0 | 19053.4 | 18013.3 |
| 32.5° | 11122.4 | 11205.1 | 10968.7 | 10755.9 | 10945.1 | 11500.6 | 13415.4 | *15968.4* | 16429.4 | 21015.5 | 19880.8 |
| 35° | 12942.6 | 13190.8 | 13119.9 | 12044.3 | 12221.6 | 12836.2 | 14727.4 | *17327.7* | 17741.4 | 22800.2 | 21795.6 |
| 37.5° | 14739.2 | 14680.1 | 14739.2 | 13840.9 | 13557.2 | 14301.9 | 16133.9 | *18627.9* | 19029.8 | 24254.1 | 23485.8 |
| 40° | 16181.2 | 16358.5 | 16358.5 | 15625.7 | 15259.3 | 15755.7 | 17410.5 | *19821.7* | 20211.7 | 25057.8 | 24703.2 |
| 42.5° | 17753.2 | 17776.9 | 17729.6 | 17091.3 | 16949.5 | 17079.5 | 18533.3 | *20578.1* | 20897.3 | 25471.5 | 25530.6 |
| 45° | 19526.2 | 19514.4 | 19313.4 | 18781.5 | 18568.8 | 18450.6 | 19230.7 | *21311.0* | 21630.1 | 25660.6 | 25979.8 |
| 47.5° | 20991.8 | 21050.9 | 21062.7 | 20495.4 | 20140.8 | 19632.6 | 19833.5 | *21677.4* | 22043.8 | 25447.9 | 26074.3 |
| 50° | 21074.6 | 21169.1 | 21618.3 | 21783.8 | 21712.8 | 20897.3 | 20389.0 | *22067.4* | 22433.8 | 25495.1 | 26417.1 |
| 52.5° | 20554.5 | 20649.1 | 21228.2 | 21913.8 | 22741.1 | 22351.1 | 21263.7 | *22741.1* | 23119.4 | 25956.1 | 27197.2 |
| 55° | 19159.8 | 19313.4 | 20176.3 | 21133.7 | 22611.1 | 23166.7 | 22812.1 | *23958.6* | 24313.2 | 26322.5 | 28107.3 |
| 57.5° | 16677.6 | 16866.7 | 18060.5 | 19585.3 | 21606.5 | 22977.5 | 25057.8 | *25908.8* | 26204.3 | 26582.6 | 28119.1 |
| 60° | 12469.8 | 12623.5 | 14491.0 | 16547.6 | 19585.3 | 21795.6 | 26393.4 | *29253.8* | 29419.3 | 25176.0 | 26523.5 |
| 62.5° | 9183.9 | 9337.6 | 10590.5 | 12067.9 | 15389.3 | 19620.7 | 26653.5 | *32149.6* | 32173.3 | 22634.8 | 24325.0 |
| 63° | *8652.0* | *8805.7* | *9940.4* | *11323.3* | *14396.4* | *18887.9* | *26570.7* | *32244.2* | *32161.5* | *22114.7* | *23840.4* |
| 65° | 6737.2 | 7009.1 | 8191.1 | 9243.0 | 10791.4 | 15034.7 | 25507.0 | *30565.8* | 30684.0 | 20578.1 | 21405.5 |
| 67.5° | 4586.1 | 4787.0 | 6288.1 | 7505.5 | 8155.6 | 9574.0 | 20920.9 | *26157.0* | 26346.2 | 18982.5 | 17079.5 |
| 70° | 3545.9 | 3640.5 | 4515.1 | 5945.3 | 6595.4 | 6087.2 | 13640.0 | *21062.7* | 21062.7 | 14821.9 | 12103.4 |
| 72.5° | 2777.6 | 2813.1 | 3404.1 | 4645.2 | 5307.1 | 4680.6 | 7600.1 | *15318.4* | 14751.0 | 8793.9 | 8072.9 |
| 75° | 1985.7 | 2033.0 | 2564.9 | 3463.2 | 4231.5 | 3687.8 | 4857.9 | *8923.9* | 8581.1 | 5058.8 | 5389.8 |
| 77.5° | 1572.0 | 1595.7 | 1914.8 | 2553.1 | 3427.7 | 2813.1 | 3699.6 | *4869.7* | 4822.4 | 3557.7 | 3463.2 |
| 80° | 1241.1 | 1288.3 | 1501.1 | 1832.1 | 2647.6 | 2198.5 | 2754.0 | *3215.0* | 3120.4 | 2446.7 | 2222.1 |
| 82.5° | 886.5 | 969.2 | 1158.3 | 1394.7 | 1962.1 | 1572.0 | 1808.4 | *2269.4* | 2269.4 | 1843.9 | 1465.6 |
| 85° | 543.7 | 614.6 | 685.5 | 862.8 | 1394.7 | 1016.5 | 957.4 | *1465.6* | 1501.1 | 1382.9 | 945.6 |
| 87.5° | 260.0 | 283.7 | 331.0 | 366.4 | 508.2 | 461.0 | 378.2 | *555.5* | 567.3 | 614.6 | 390.1 |
| 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: P1456073
CATALOG NUMBER: GLAN-SB8C-830-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 | 8013.8 |
| 2.5° | 8084.7 | 8061.1 | 7942.9 | 7824.7 | 7694.6 | 7576.4 | 7458.2 | 7363.7 | 7257.3 | 7280.9 | 7292.8 |
| 5° | 8238.3 | 8179.2 | 7919.2 | 7611.9 | 7210.0 | 6831.8 | 6465.4 | 6205.4 | 6039.9 | 5992.6 | 5898.0 |
| 7.5° | 8569.3 | 8427.5 | 7954.7 | 7304.6 | 6559.9 | 5969.0 | 5626.2 | 5472.5 | 5425.3 | 5437.1 | 5413.4 |
| 10° | 8947.5 | 8734.8 | 8002.0 | 6938.2 | 5992.6 | 5590.7 | 5543.5 | 5638.0 | 5685.3 | 5732.6 | 5744.4 |
| 12.5° | 9444.0 | 9101.2 | 7978.3 | 6536.3 | 5720.7 | 5649.8 | 5827.1 | 6004.4 | 6110.8 | 6181.7 | 6169.9 |
| 15° | 10023.1 | 9562.2 | 7907.4 | 6205.4 | 5685.3 | 5874.4 | 6099.0 | 6299.9 | 6429.9 | 6500.8 | 6465.4 |
| 17.5° | 10720.5 | 10105.9 | 7824.7 | 5992.6 | 5791.7 | 6016.2 | 6252.6 | 6453.6 | 6595.4 | 6642.7 | 6607.2 |
| 20° | 11583.3 | 10720.5 | 7682.8 | 5898.0 | 5874.4 | 6075.3 | 6288.1 | 6477.2 | 6595.4 | 6642.7 | 6595.4 |
| 22.5° | 12599.8 | 11453.3 | 7564.6 | 5898.0 | 5909.9 | 6075.3 | 6229.0 | 6370.8 | 6477.2 | 6512.7 | 6453.6 |
| 25° | 13900.0 | 12304.3 | 7517.3 | 5992.6 | 5921.7 | 6016.2 | 6099.0 | 6181.7 | 6240.8 | 6264.5 | 6240.8 |
| 27.5° | 15223.8 | 13285.4 | 7541.0 | 6110.8 | 5909.9 | 5933.5 | 5933.5 | 5945.3 | 5957.1 | 5969.0 | 5957.1 |
| 30° | 16748.5 | 14278.2 | 7635.5 | 6264.5 | 5933.5 | 5815.3 | 5779.8 | 5708.9 | 5649.8 | 5602.5 | 5555.3 |
| 32.5° | 18226.0 | 15223.8 | 7801.0 | 6489.0 | 5909.9 | 5685.3 | 5614.4 | 5437.1 | 5271.6 | 5129.8 | 5129.8 |
| 35° | 19821.7 | 16204.8 | 8096.5 | 6654.5 | 5886.2 | 5567.1 | 5366.2 | 5165.2 | 4987.9 | 4787.0 | 4787.0 |
| 37.5° | 21192.8 | 17044.0 | 8332.9 | 6843.6 | 5862.6 | 5425.3 | 5106.1 | 4881.5 | 4692.4 | 4491.5 | 4467.9 |
| 40° | 22150.2 | 17528.7 | 8474.7 | 6914.5 | 5779.8 | 5236.1 | 4857.9 | 4574.2 | 4302.4 | 4030.5 | 4018.7 |
| 42.5° | 22611.1 | 17505.0 | 8392.0 | 6890.9 | 5626.2 | 4999.7 | 4645.2 | 4266.9 | 3900.5 | 3652.3 | 3628.7 |
| 45° | 22859.3 | 17351.4 | 8072.9 | 6690.0 | 5378.0 | 4751.5 | 4373.3 | 3971.4 | 3605.0 | 3380.4 | 3333.2 |
| 47.5° | 22812.1 | 16973.1 | 7635.5 | 6193.5 | 5047.0 | 4479.7 | 4101.4 | 3687.8 | 3392.3 | 3262.2 | 3262.2 |
| 50° | 22942.1 | 16677.6 | 7139.1 | 5626.2 | 4597.9 | 4160.5 | 3853.2 | 3475.0 | 3297.7 | 3132.2 | 3073.1 |
| 52.5° | 23521.2 | 16925.8 | 6713.6 | 5094.3 | 4172.4 | 3853.2 | 3640.5 | 3321.3 | 3096.8 | 2990.4 | 2954.9 |
| 55° | 24289.5 | 17457.7 | 6311.7 | 4621.5 | 3758.7 | 3581.4 | 3475.0 | 3179.5 | 2919.5 | 2813.1 | 2754.0 |
| 57.5° | 24431.4 | 17824.1 | 5921.7 | 4160.5 | 3415.9 | 3368.6 | 3333.2 | 2931.3 | 2718.5 | 2635.8 | 2588.5 |
| 60° | 23450.3 | 17552.3 | 5413.4 | 3746.9 | 3144.0 | 3167.7 | 3073.1 | 2777.6 | 2529.4 | 2446.7 | 2399.4 |
| 62.5° | 21783.8 | 16843.1 | 4905.2 | 3392.3 | 2931.3 | 2978.6 | 2884.0 | 2588.5 | 2340.3 | 2257.6 | 2233.9 |
| 63° | *21452.8* | *16654.0* | *4787.0* | *3356.8* | *2884.0* | *2943.1* | *2860.4* | *2564.9* | *2316.7* | *2233.9* | *2198.5* |
| 65° | 19478.9 | 15519.3 | 4373.3 | 3167.7 | 2730.4 | 2730.4 | 2742.2 | 2446.7 | 2233.9 | 2198.5 | 2174.8 |
| 67.5° | 15885.7 | 12954.4 | 3924.1 | 2943.1 | 2564.9 | 2600.3 | 2659.4 | 2494.0 | 2411.2 | 2387.6 | 2363.9 |
| 70° | 12008.8 | 9751.3 | 3534.1 | 2730.4 | 2387.6 | 2505.8 | 2907.7 | 2836.7 | 2529.4 | 2316.7 | 2269.4 |
| 72.5° | 8510.2 | 6642.7 | 3191.3 | 2517.6 | 2174.8 | 2470.3 | 3014.0 | 2706.7 | 2281.2 | 2033.0 | 1985.7 |
| 75° | 5697.1 | 4278.7 | 2848.6 | 2293.0 | 1938.4 | 2281.2 | 2848.6 | 2470.3 | 1985.7 | 1926.6 | 1855.7 |
| 77.5° | 3581.4 | 3049.5 | 2505.8 | 2033.0 | 1678.4 | 2033.0 | 2588.5 | 2198.5 | 1713.9 | 1737.5 | 1631.1 |
| 80° | 2186.6 | 2174.8 | 2103.9 | 1725.7 | 1347.4 | 1619.3 | 2174.8 | 1855.7 | 1371.1 | 1371.1 | 1217.4 |
| 82.5° | 1300.2 | 1572.0 | 1784.8 | 1430.2 | 981.0 | 1158.3 | 1572.0 | 1394.7 | 1146.5 | 1111.1 | 1040.1 |
| 85° | 874.7 | 1063.8 | 1418.4 | 1099.2 | 626.4 | 709.2 | 1087.4 | 1170.2 | 1052.0 | 921.9 | 862.8 |
| 87.5° | 319.1 | 425.5 | 650.1 | 449.1 | 271.9 | 425.5 | 815.6 | 851.0 | 638.3 | 496.4 | 449.1 |
| 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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# LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGraw-Edison

Report Number: SP1-2407-184-9

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-830-U-5WQ

Data in this report applies to families of products including GSS-SB1A-830-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

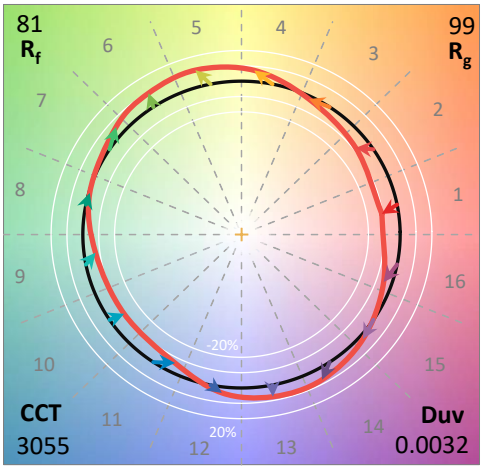
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-9 |
| Test Lab: | COOPER LIGHTING SOLUTIONS |
| Photometer: | SP1 - 76IN SPHERE |
| Measurement Geometry: | 4π |
| Issue Date: | 10/15/2024 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | McGraw-Edison |
| Catalog Number: | **GSS-SB1A-830-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 80 CRI 3000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 3055 |
| CIE u': | 0.2475 |
| CIE v': | 0.5247 |
| Duv: | 0.0032 |
| CIE x: | 0.4377 |
| CIE y: | 0.4124 |
| CIE z: | 0.1499 |
| Peak Wavelength (nm): | 604 |
| Dominant Wavelength (nm): | 581 |
| Purity: | 55.16339 |
| Rf: | 81.5 |
| Rg: | 99.2 |

| | |
|---|---|
| CRI (Ra): | 80.9 |
| R1: | 79.5 |
| R2: | 85.6 |
| R3: | 92.1 |
| R4: | 82.4 |
| R5: | 78.9 |
| R6: | 81.7 |
| R7: | 85.1 |
| R8: | 61.9 |
| R9: | 6.8 |
| R10: | 67.1 |
| R11: | 82.5 |
| R12: | 63.4 |
| R13: | 80.2 |
| R14: | 95.1 |
| R15: | 71.7 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 20M |
| Operation Time: | 1H 20M |
| Sphere Temperature (°C): | 25.2 |

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| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC Power Source | IN0208 | 10/24/2023 | 10/24/2024 |
| Sphere Thermometer | IN0085 | 10/24/2023 | 10/24/2024 |
| Room Thermometer | IN0046 | 10/24/2023 | 10/24/2024 |

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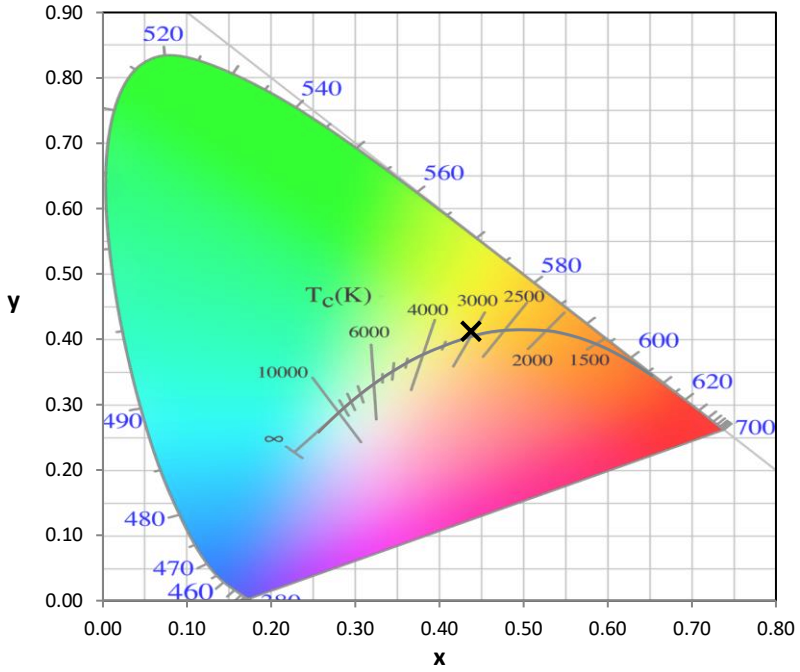
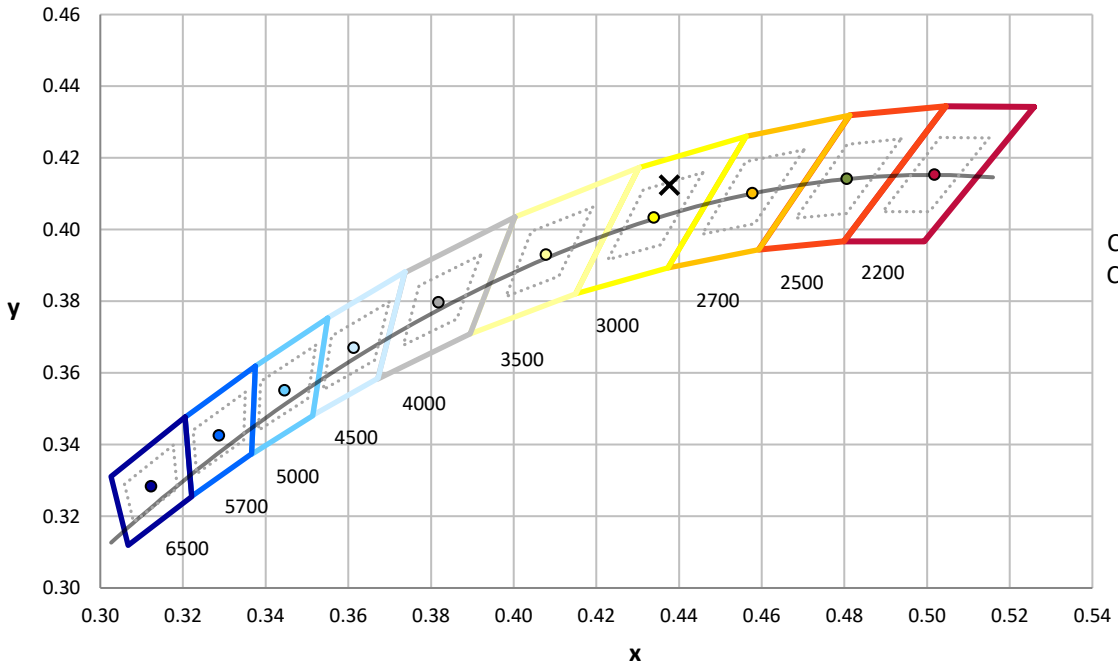
## CIE 1931 Chromaticity Diagram




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




CCT = 3055K
CIE x = 0.4377
CIE y = 0.4124
Duv = 0.0032

Point lies inside the ANSI 3000K 4-step quadrangle

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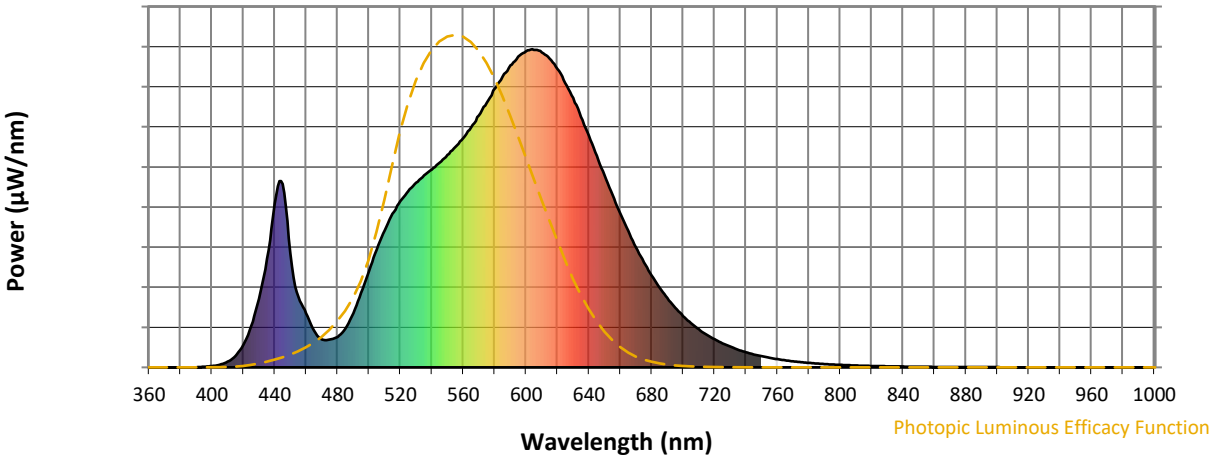
## Photopic Flux vs. Wavelength




## 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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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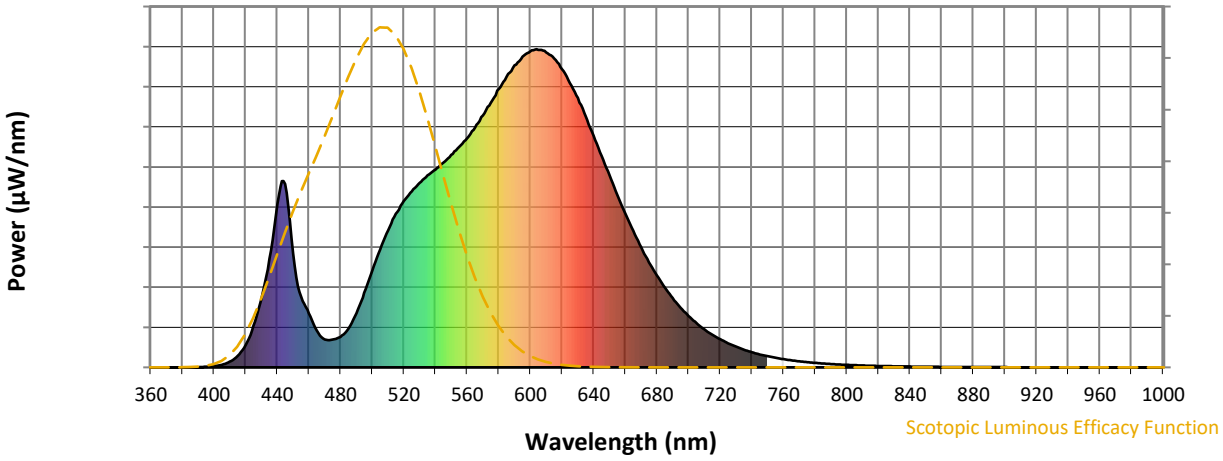
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.28**

| 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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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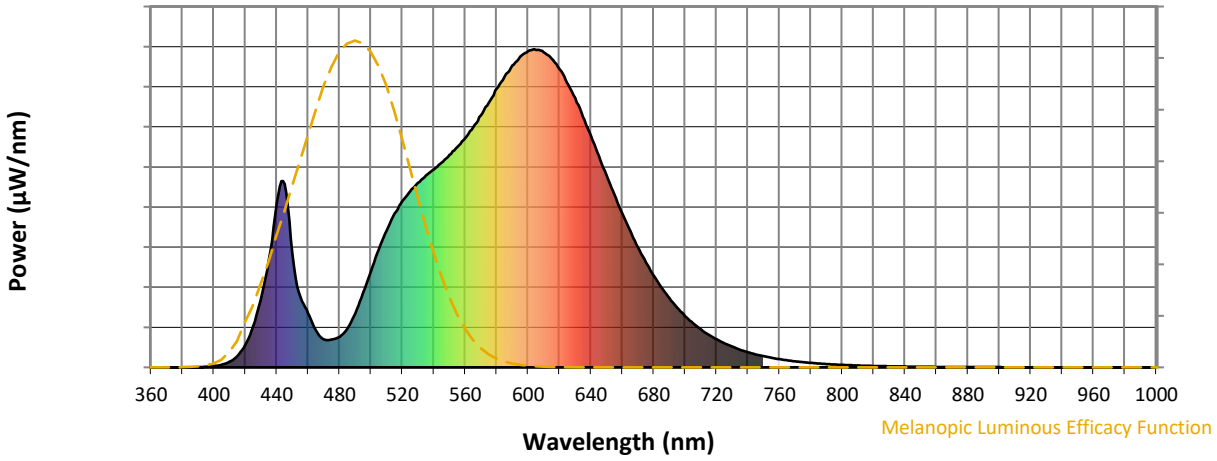
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.33**

| 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 | 170 | NR | 620 | 938 | NR | 750 | 35 | NR | 880 | 1 | NR |
| 365 | 0 | NR | 495 | 234 | NR | 625 | 894 | NR | 755 | 30 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 302 | NR | 630 | 847 | NR | 760 | 26 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 371 | NR | 635 | 788 | NR | 765 | 22 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 431 | NR | 640 | 728 | NR | 770 | 19 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 482 | NR | 645 | 665 | NR | 775 | 16 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 523 | NR | 650 | 603 | NR | 780 | 14 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 553 | NR | 655 | 542 | NR | 785 | 12 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 580 | NR | 660 | 484 | NR | 790 | 11 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 603 | NR | 665 | 430 | NR | 795 | 9 | NR | 925 | 0 | NR |
| 410 | 18 | NR | 540 | 622 | NR | 670 | 377 | NR | 800 | 8 | NR | 930 | 0 | NR |
| 415 | 36 | NR | 545 | 644 | NR | 675 | 330 | NR | 805 | 7 | NR | 935 | 0 | NR |
| 420 | 71 | NR | 550 | 668 | NR | 680 | 289 | NR | 810 | 6 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 693 | NR | 685 | 250 | NR | 815 | 5 | NR | 945 | 0 | NR |
| 430 | 215 | NR | 560 | 720 | NR | 690 | 218 | NR | 820 | 4 | NR | 950 | 0 | NR |
| 435 | 341 | NR | 565 | 754 | NR | 695 | 188 | NR | 825 | 4 | NR | 955 | 0 | NR |
| 440 | 514 | NR | 570 | 792 | NR | 700 | 161 | NR | 830 | 3 | NR | 960 | 0 | NR |
| 445 | 576 | NR | 575 | 832 | NR | 705 | 139 | NR | 835 | 3 | NR | 965 | 0 | NR |
| 450 | 358 | NR | 580 | 875 | NR | 710 | 119 | NR | 840 | 3 | NR | 970 | 0 | NR |
| 455 | 222 | NR | 585 | 913 | NR | 715 | 102 | NR | 845 | 2 | NR | 975 | 0 | NR |
| 460 | 170 | NR | 590 | 950 | NR | 720 | 88 | NR | 850 | 2 | NR | 980 | 0 | NR |
| 465 | 115 | NR | 595 | 977 | NR | 725 | 76 | NR | 855 | 2 | NR | 985 | 0 | NR |
| 470 | 88 | NR | 600 | 994 | NR | 730 | 65 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 87 | NR | 605 | 997 | NR | 735 | 56 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 96 | NR | 610 | 990 | NR | 740 | 47 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 122 | NR | 615 | 971 | NR | 745 | 41 | NR | 875 | 1 | NR | | | |

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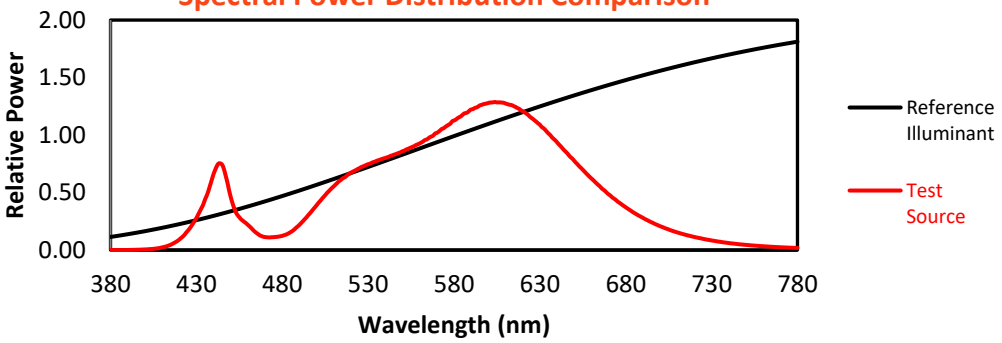
# TM-30-18

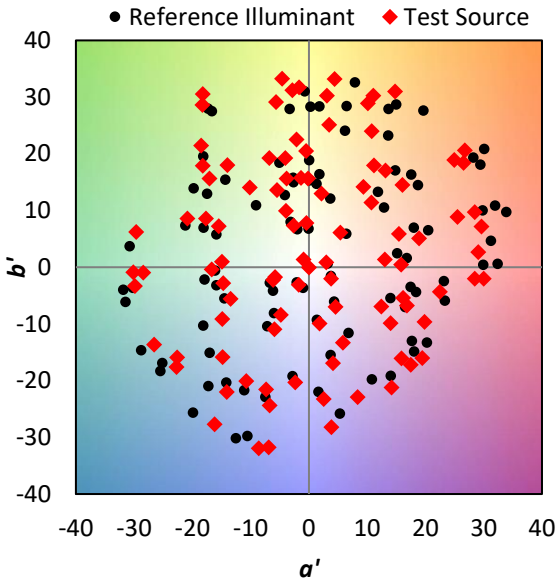
## Summary

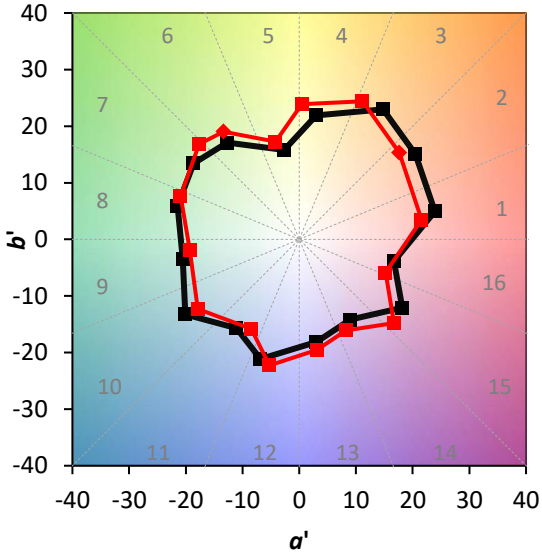
$R_f$ = 81.5
$R_g$ = 99.2
CIE $R_a$ = 80.9
$R_9$ = 6.8

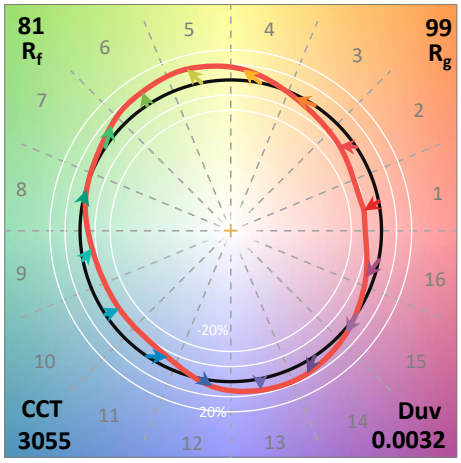
## Spectral Power Distribution Comparison

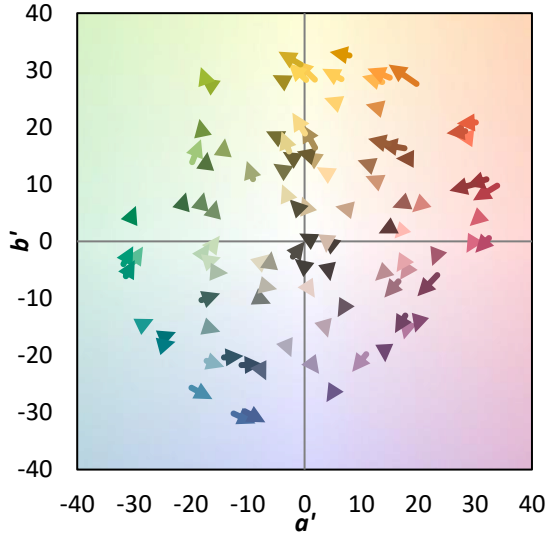



## Color Vector Graphics



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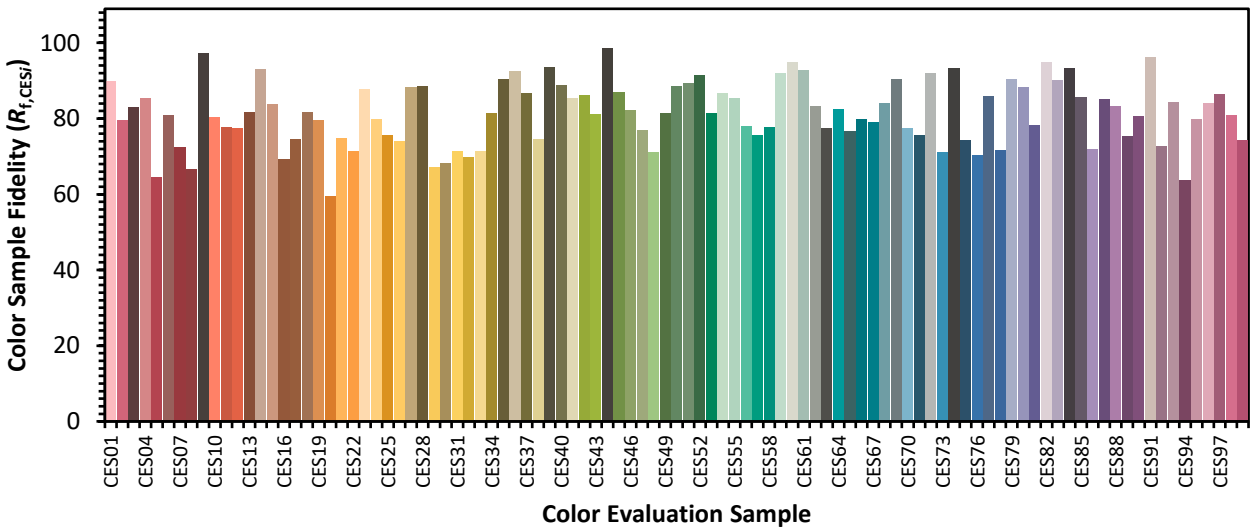
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 74 | CES51 = 89 | CES76 = 70 |
| CES02 = 63 | CES27 = 88 | CES52 = 91 | CES77 = 86 |
| CES03 = 31 | CES28 = 89 | CES53 = 81 | CES78 = 72 |
| CES04 = 70 | CES29 = 67 | CES54 = 87 | CES79 = 90 |
| CES05 = 50 | CES30 = 68 | CES55 = 85 | CES80 = 88 |
| CES06 = 51 | CES31 = 71 | CES56 = 78 | CES81 = 78 |
| CES07 = 42 | CES32 = 70 | CES57 = 76 | CES82 = 95 |
| CES08 = 41 | CES33 = 71 | CES58 = 78 | CES83 = 90 |
| CES09 = 29 | CES34 = 82 | CES59 = 92 | CES84 = 93 |
| CES10 = 76 | CES35 = 90 | CES60 = 95 | CES85 = 86 |
| CES11 = 59 | CES36 = 93 | CES61 = 93 | CES86 = 72 |
| CES12 = 65 | CES37 = 87 | CES62 = 83 | CES87 = 85 |
| CES13 = 43 | CES38 = 75 | CES63 = 77 | CES88 = 83 |
| CES14 = 74 | CES39 = 94 | CES64 = 83 | CES89 = 75 |
| CES15 = 71 | CES40 = 89 | CES65 = 77 | CES90 = 81 |
| CES16 = 47 | CES41 = 85 | CES66 = 80 | CES91 = 96 |
| CES17 = 50 | CES42 = 86 | CES67 = 79 | CES92 = 73 |
| CES18 = 56 | CES43 = 81 | CES68 = 84 | CES93 = 84 |
| CES19 = 72 | CES44 = 99 | CES69 = 90 | CES94 = 64 |
| CES20 = 66 | CES45 = 87 | CES70 = 77 | CES95 = 80 |
| CES21 = 87 | CES46 = 82 | CES71 = 76 | CES96 = 84 |
| CES22 = 79 | CES47 = 77 | CES72 = 92 | CES97 = 87 |
| CES23 = 92 | CES48 = 71 | CES73 = 71 | CES98 = 81 |
| CES24 = 91 | CES49 = 81 | CES74 = 93 | CES99 = 74 |
| CES25 = 72 | CES50 = 89 | CES75 = 74 | |



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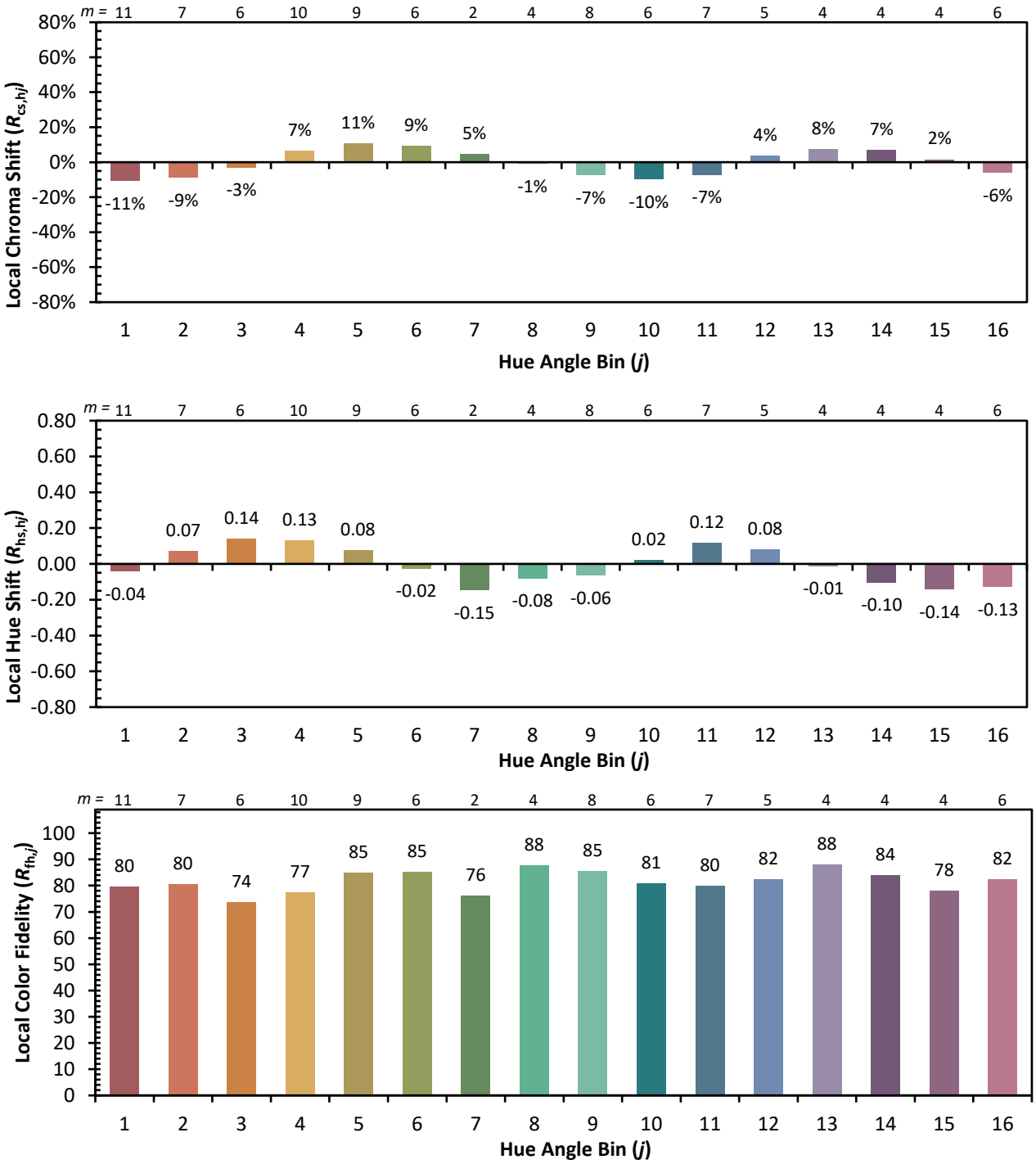
# TM-30-18

## Color Rendition by Hue-Angle Bin



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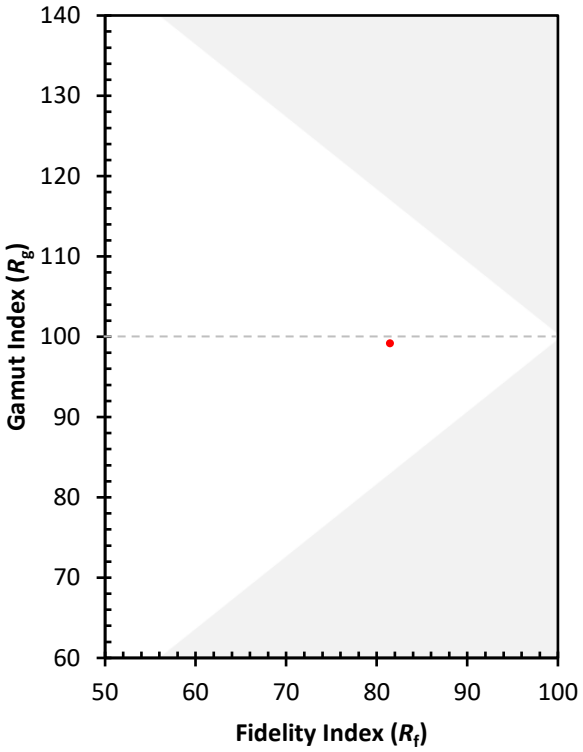
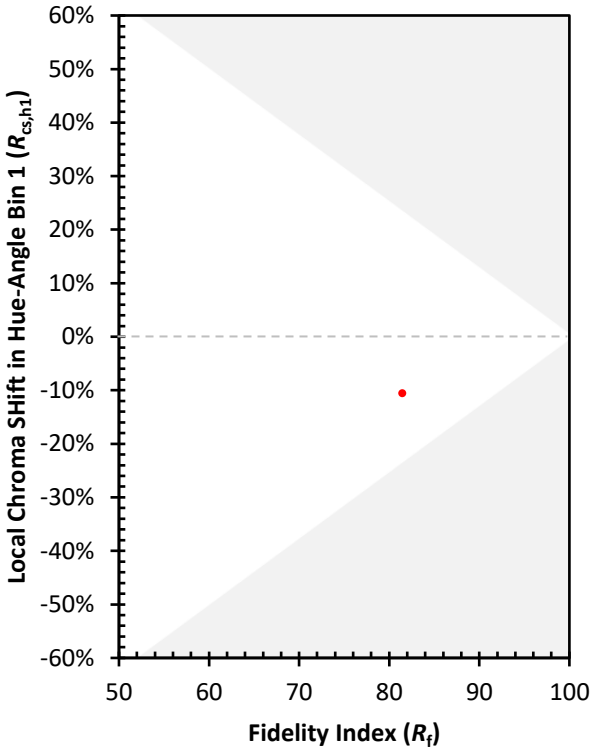
## Measure Comparisons




(END OF REPORT)