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

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Scaled data based on original data using

LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: STREETWORKS

Report Number: P1455964

Luminaire Tested: GLAN-SB8B-750-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: | P1455964 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB8B-750-U-T2LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 450mA 8xLight Square PACKAGE 70CRI 5000K FIXTURE w/ TYPE II LOW GLARE |
| Light Source: | (208) 5000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 46604.2 lumens |
| Efficiency: | N/A |
| Efficacy: | 159.2 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): | 292.8 |
| 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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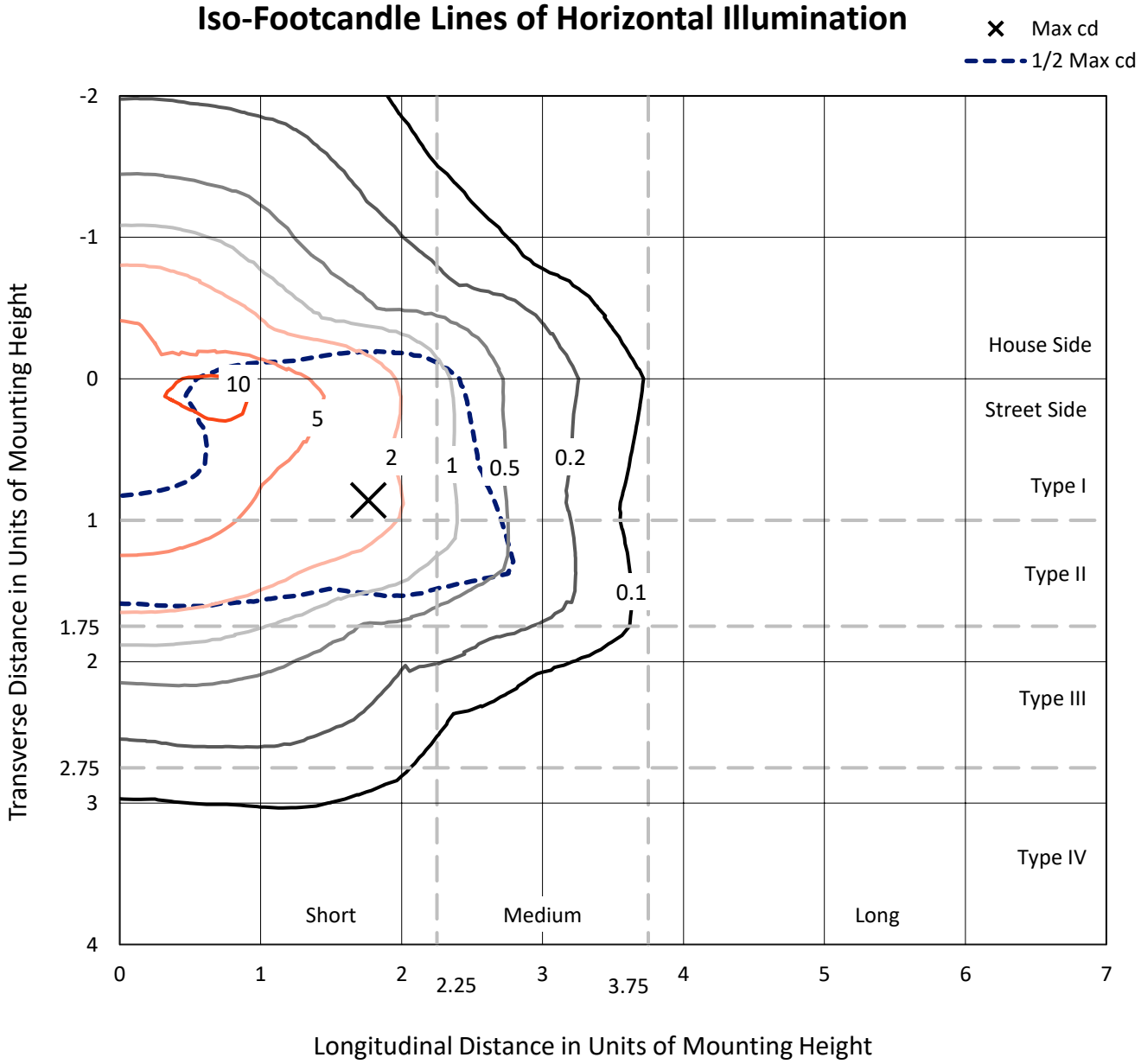
Scaled Data Report

REPORT NUMBER: P1455964
CATALOG NUMBER: GLAN-SB8B-750-U-T2LG

## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 12.2 fc
Type II - Short - N/A

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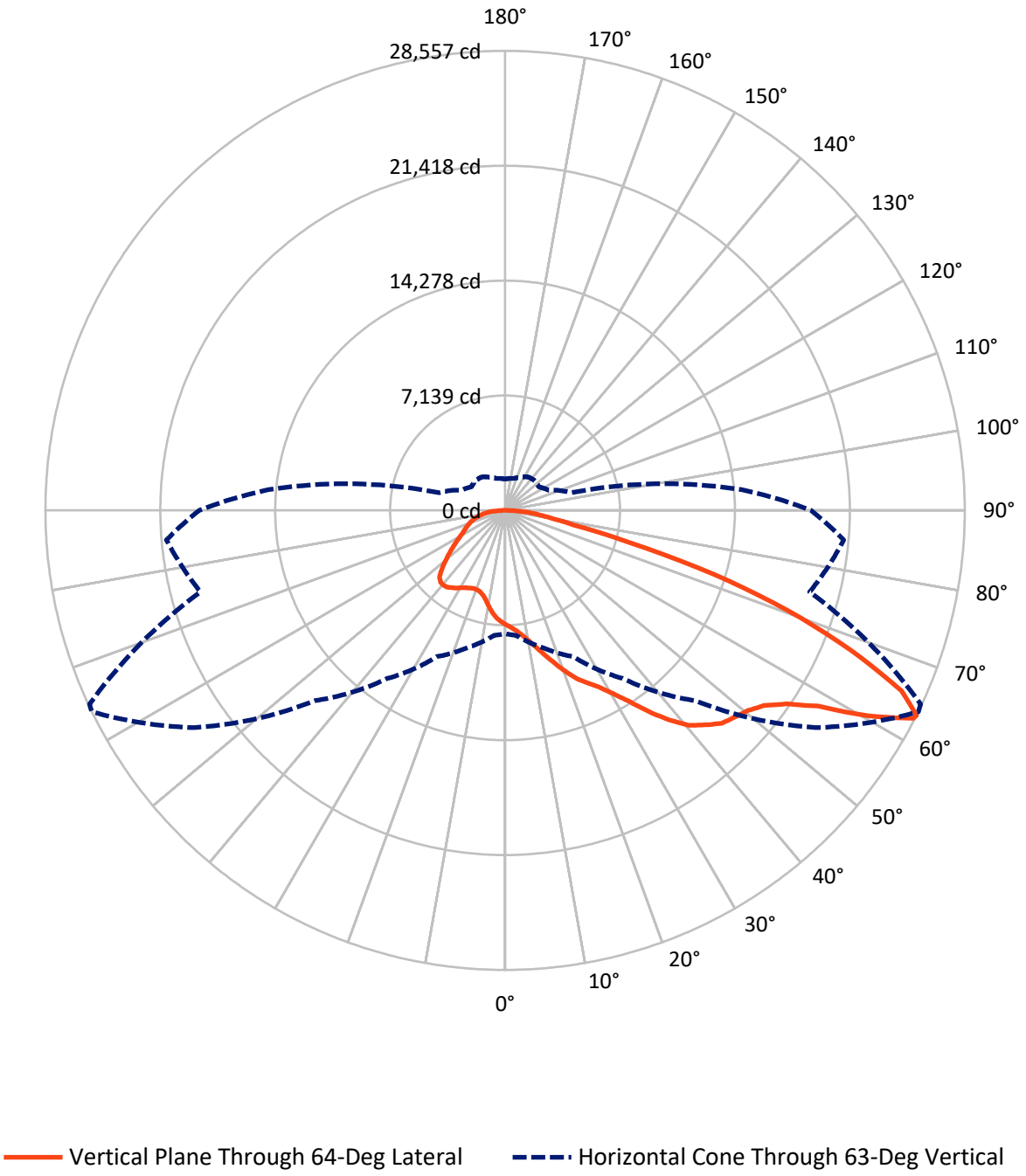
## Luminous Intensity Polar Plot



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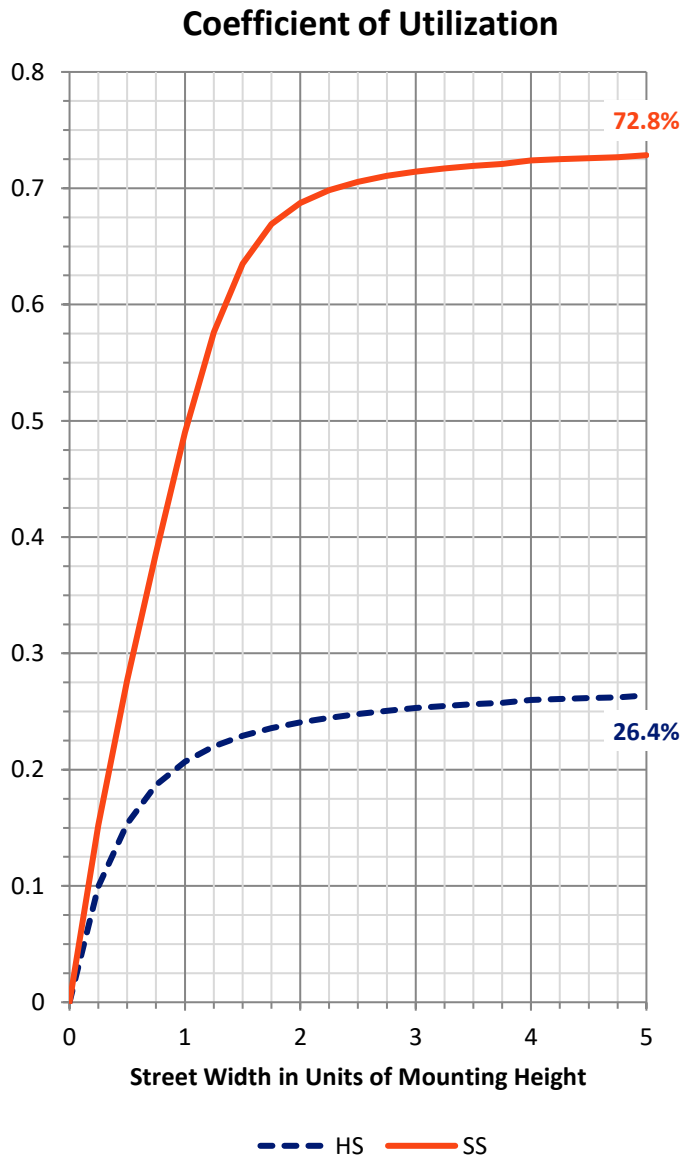
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 12521.2 | 0.0 | 12521.2 |
| | % Fixture | 26.9 | 0.0 | 26.9 |
| **Street Side** | Lumens | 34083.0 | 0.0 | 34083.0 |
| | % Fixture | 73.1 | 0.0 | 73.1 |
| **Total** | Lumens | 46604.2 | 0.0 | 46604.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 651.6 | 1.4 |
| 10°-20° | 2006.1 | 4.3 |
| 20°-30° | 3668.4 | 7.9 |
| 30°-40° | 6310.2 | 13.5 |
| 40°-50° | 9305.9 | 20.0 |
| 50°-60° | 11153.7 | 23.9 |
| 60°-70° | 8951.9 | 19.2 |
| 70°-80° | 3597.1 | 7.7 |
| 80°-90° | 959.2 | 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° | 46604.2 | 100.0 |
| 0°-180° | 46604.2 | 100.0 |



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REPORT NUMBER: P1455964
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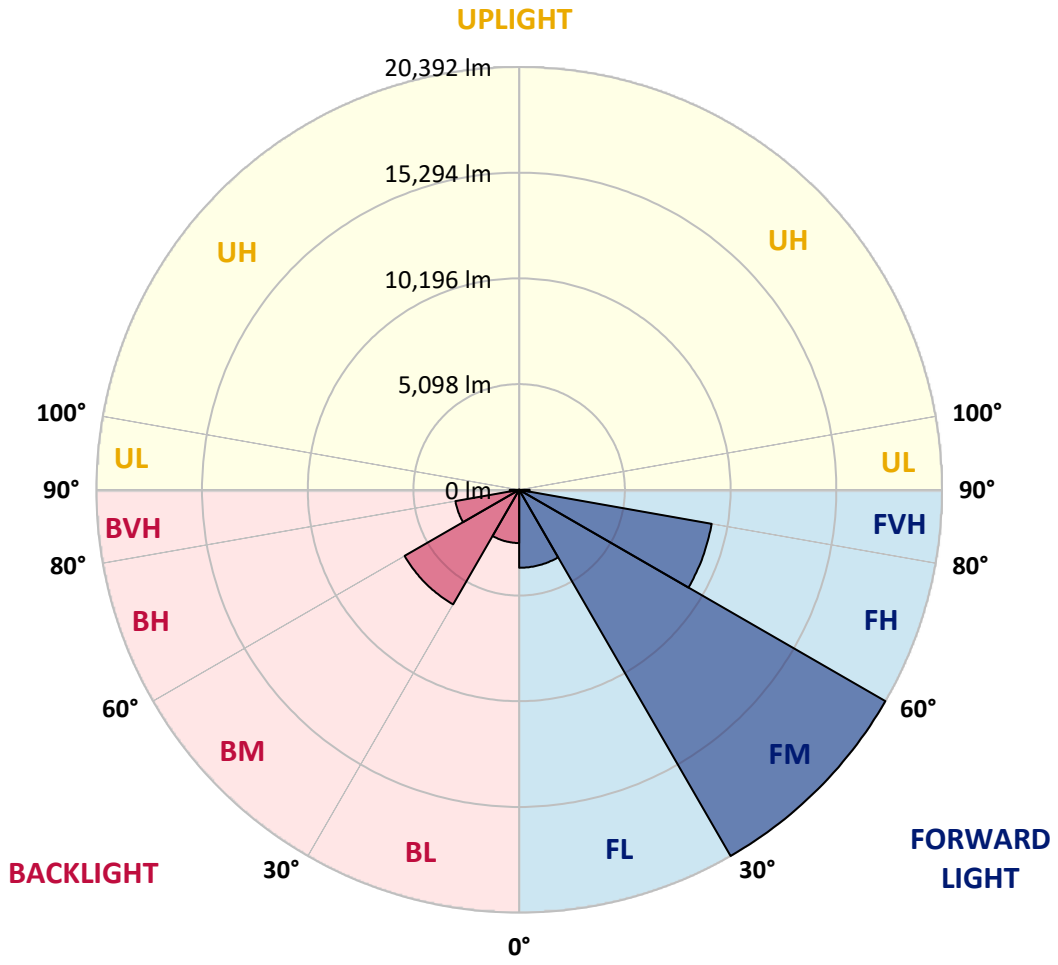
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 3760.1 | 8.1 | | | |
| FM | (30°-60°) | 20391.8 | 43.8 | | | |
| FH | (60°-80°) | 9427.1 | 20.2 | | | G4/12000 |
| FVH | (80°-90°) | 503.9 | 1.1 | | | G4/750 |
| BL | (0°-30°) | 2566.0 | 5.5 | B4/5000 | | |
| BM | (30°-60°) | 6378.0 | 13.7 | B4/8500 | | |
| BH | (60°-80°) | 3121.9 | 6.7 | B4/5000 | | G4/5000 |
| BVH | (80°-90°) | 455.2 | 1.0 | | | G3/500 |
| 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: P1455964
CATALOG NUMBER: GLAN-SB8B-750-U-T2LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | *7097.3* | 7097.3 | 7097.3 | 7097.3 |
| 2.5° | 7390.4 | 7400.9 | 7369.5 | 7359.0 | 7379.9 | 7338.1 | 7327.6 | *7285.7* | 7264.8 | 7222.9 | 7170.6 |
| 5° | 7599.8 | 7610.2 | 7589.3 | 7589.3 | 7610.2 | 7578.8 | 7568.4 | *7526.5* | 7505.5 | 7463.7 | 7359.0 |
| 7.5° | 7589.3 | 7599.8 | 7620.7 | 7704.4 | 7809.1 | 7851.0 | 7882.4 | *7851.0* | 7840.5 | 7777.7 | 7673.0 |
| 10° | 7421.8 | 7432.3 | 7484.6 | 7610.2 | 7871.9 | 8060.3 | 8259.2 | *8259.2* | 8280.2 | 8227.8 | 8039.4 |
| 12.5° | 7191.5 | 7202.0 | 7327.6 | 7526.5 | 7871.9 | 8196.4 | 8604.7 | *8772.2* | 8761.7 | 8730.3 | 8510.5 |
| 15° | 6636.7 | 6636.7 | 6825.1 | 7202.0 | 7756.8 | 8290.6 | 8897.8 | *9347.9* | 9358.4 | 9389.8 | 9128.1 |
| 17.5° | 6165.6 | 6176.1 | 6333.1 | 6668.1 | 7390.4 | 8238.3 | 9211.8 | *9986.5* | 10017.9 | 10195.8 | 9819.0 |
| 20° | 6207.5 | 6207.5 | 6259.9 | 6406.4 | 6992.6 | 8028.9 | 9389.8 | *10666.9* | 10771.6 | 11190.3 | 10719.2 |
| 22.5° | 6532.0 | 6532.0 | 6573.9 | 6563.4 | 6919.3 | 7892.9 | 9504.9 | *11347.3* | 11535.7 | 12404.6 | 11797.4 |
| 25° | 7128.7 | 7118.2 | 7076.4 | 7013.5 | 7222.9 | 8039.4 | 9766.6 | *11870.7* | 12237.1 | 13744.5 | 13043.1 |
| 27.5° | 7861.5 | 7840.5 | 7777.7 | 7673.0 | 7819.6 | 8479.1 | 10216.8 | *12425.5* | 12823.3 | 15210.0 | 14362.1 |
| 30° | 8772.2 | 8709.4 | 8646.6 | 8510.5 | 8667.5 | 9201.4 | 10886.7 | *13210.6* | 13587.4 | 16874.4 | 15953.2 |
| 32.5° | 9850.4 | 9923.6 | 9714.3 | 9525.9 | 9693.4 | 10185.3 | 11881.2 | *14142.2* | 14550.5 | 18612.1 | 17607.1 |
| 35° | 11462.4 | 11682.3 | 11619.5 | 10666.9 | 10823.9 | 11368.2 | 13043.1 | *15346.1* | 15712.4 | 20192.7 | 19303.0 |
| 37.5° | 13053.6 | 13001.2 | 13053.6 | 12258.0 | 12006.8 | 12666.3 | 14288.8 | *16497.5* | 16853.5 | 21480.3 | 20799.9 |
| 40° | 14330.7 | 14487.7 | 14487.7 | 13838.7 | 13514.2 | 13953.8 | 15419.3 | *17554.8* | 17900.3 | 22192.1 | 21878.1 |
| 42.5° | 15722.9 | 15743.8 | 15702.0 | 15136.7 | 15011.1 | 15126.2 | 16413.8 | *18224.8* | 18507.4 | 22558.5 | 22610.8 |
| 45° | 17293.1 | 17282.6 | 17104.7 | 16633.6 | 16445.2 | 16340.5 | 17031.4 | *18873.8* | 19156.4 | 22726.0 | 23008.6 |
| 47.5° | 18591.1 | 18643.5 | 18653.9 | 18151.5 | 17837.4 | 17387.3 | 17565.3 | *19198.3* | 19522.8 | 22537.6 | 23092.4 |
| 50° | 18664.4 | 18748.2 | 19145.9 | 19292.5 | 19229.7 | 18507.4 | 18057.3 | *19543.7* | 19868.2 | 22579.4 | 23395.9 |
| 52.5° | 18203.8 | 18287.6 | 18800.5 | 19407.6 | 20140.4 | 19795.0 | 18831.9 | *20140.4* | 20475.4 | 22987.7 | 24086.8 |
| 55° | 16968.6 | 17104.7 | 17868.8 | 18716.8 | 20025.3 | 20517.2 | 20203.2 | *21218.6* | 21532.6 | 23312.2 | 24892.9 |
| 57.5° | 14770.3 | 14937.8 | 15995.1 | 17345.4 | 19135.5 | 20349.8 | 22192.1 | *22945.8* | 23207.5 | 23542.5 | 24903.3 |
| 60° | 11043.7 | 11179.8 | 12833.7 | 14655.2 | 17345.4 | 19303.0 | 23375.0 | *25908.3* | 26054.8 | 22296.8 | 23490.2 |
| 62.5° | 8133.6 | 8269.7 | 9379.3 | 10687.8 | 13629.3 | 17376.9 | 23605.3 | *28472.9* | 28493.8 | 20046.2 | 21543.1 |
| 63° | *7662.6* | *7798.6* | *8803.6* | *10028.3* | *12750.0* | *16727.8* | *23532.0* | *28556.7* | *28483.4* | *19585.6* | *21113.9* |
| 65° | 5966.8 | 6207.5 | 7254.3 | 8186.0 | 9557.3 | 13315.3 | 22589.9 | *27070.2* | 27174.9 | 18224.8 | 18957.5 |
| 67.5° | 4061.6 | 4239.5 | 5569.0 | 6647.2 | 7222.9 | 8479.1 | 18528.3 | *23165.6* | 23333.1 | 16811.6 | 15126.2 |
| 70° | 3140.4 | 3224.1 | 3998.8 | 5265.4 | 5841.1 | 5391.0 | 12080.1 | *18653.9* | 18653.9 | 13126.9 | 10719.2 |
| 72.5° | 2460.0 | 2491.4 | 3014.8 | 4113.9 | 4700.1 | 4145.3 | 6730.9 | *13566.5* | 13064.0 | 7788.2 | 7149.6 |
| 75° | 1758.6 | 1800.5 | 2271.6 | 3067.1 | 3747.5 | 3266.0 | 4302.3 | *7903.3* | 7599.8 | 4480.3 | 4773.4 |
| 77.5° | 1392.2 | 1413.2 | 1695.8 | 2261.1 | 3035.7 | 2491.4 | 3276.5 | *4312.8* | 4270.9 | 3150.9 | 3067.1 |
| 80° | 1099.1 | 1141.0 | 1329.4 | 1622.5 | 2344.8 | 1947.0 | 2439.0 | *2847.3* | 2763.5 | 2166.9 | 1968.0 |
| 82.5° | 785.1 | 858.4 | 1025.9 | 1235.2 | 1737.7 | 1392.2 | 1601.6 | *2009.9* | 2009.9 | 1633.0 | 1298.0 |
| 85° | 481.5 | 544.3 | 607.1 | 764.2 | 1235.2 | 900.2 | 847.9 | *1298.0* | 1329.4 | 1224.8 | 837.4 |
| 87.5° | 230.3 | 251.2 | 293.1 | 324.5 | 450.1 | 408.3 | 335.0 | *492.0* | 502.5 | 544.3 | 345.4 |
| 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: P1455964
CATALOG NUMBER: GLAN-SB8B-750-U-T2LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 | 7097.3 |
| 2.5° | 7160.1 | 7139.2 | 7034.5 | 6929.8 | 6814.7 | 6710.0 | 6605.3 | 6521.6 | 6427.3 | 6448.3 | 6458.7 |
| 5° | 7296.2 | 7243.8 | 7013.5 | 6741.4 | 6385.5 | 6050.5 | 5726.0 | 5495.7 | 5349.1 | 5307.3 | 5223.5 |
| 7.5° | 7589.3 | 7463.7 | 7045.0 | 6469.2 | 5809.7 | 5286.3 | 4982.8 | 4846.7 | 4804.8 | 4815.3 | 4794.3 |
| 10° | 7924.3 | 7735.8 | 7086.8 | 6144.7 | 5307.3 | 4951.4 | 4909.5 | 4993.2 | 5035.1 | 5077.0 | 5087.4 |
| 12.5° | 8363.9 | 8060.3 | 7065.9 | 5788.8 | 5066.5 | 5003.7 | 5160.7 | 5317.7 | 5411.9 | 5474.8 | 5464.3 |
| 15° | 8876.8 | 8468.6 | 7003.1 | 5495.7 | 5035.1 | 5202.6 | 5401.5 | 5579.4 | 5694.6 | 5757.4 | 5726.0 |
| 17.5° | 9494.5 | 8950.1 | 6929.8 | 5307.3 | 5129.3 | 5328.2 | 5537.6 | 5715.5 | 5841.1 | 5883.0 | 5851.6 |
| 20° | 10258.6 | 9494.5 | 6804.2 | 5223.5 | 5202.6 | 5380.5 | 5569.0 | 5736.5 | 5841.1 | 5883.0 | 5841.1 |
| 22.5° | 11158.9 | 10143.5 | 6699.5 | 5223.5 | 5234.0 | 5380.5 | 5516.6 | 5642.2 | 5736.5 | 5767.9 | 5715.5 |
| 25° | 12310.3 | 10897.2 | 6657.6 | 5307.3 | 5244.5 | 5328.2 | 5401.5 | 5474.8 | 5527.1 | 5548.0 | 5527.1 |
| 27.5° | 13482.8 | 11766.0 | 6678.6 | 5411.9 | 5234.0 | 5254.9 | 5254.9 | 5265.4 | 5275.9 | 5286.3 | 5275.9 |
| 30° | 14833.1 | 12645.3 | 6762.3 | 5548.0 | 5254.9 | 5150.2 | 5118.8 | 5056.0 | 5003.7 | 4961.8 | 4920.0 |
| 32.5° | 16141.6 | 13482.8 | 6908.9 | 5746.9 | 5234.0 | 5035.1 | 4972.3 | 4815.3 | 4668.7 | 4543.1 | 4543.1 |
| 35° | 17554.8 | 14351.6 | 7170.6 | 5893.5 | 5213.1 | 4930.4 | 4752.5 | 4574.5 | 4417.5 | 4239.5 | 4239.5 |
| 37.5° | 18769.1 | 15094.8 | 7379.9 | 6061.0 | 5192.1 | 4804.8 | 4522.2 | 4323.3 | 4155.8 | 3977.8 | 3956.9 |
| 40° | 19617.0 | 15524.0 | 7505.5 | 6123.8 | 5118.8 | 4637.3 | 4302.3 | 4051.1 | 3810.3 | 3569.6 | 3559.1 |
| 42.5° | 20025.3 | 15503.1 | 7432.3 | 6102.8 | 4982.8 | 4428.0 | 4113.9 | 3778.9 | 3454.4 | 3234.6 | 3213.7 |
| 45° | 20245.1 | 15367.0 | 7149.6 | 5924.9 | 4762.9 | 4208.1 | 3873.2 | 3517.2 | 3192.7 | 2993.8 | 2952.0 |
| 47.5° | 20203.2 | 15032.0 | 6762.3 | 5485.2 | 4469.8 | 3967.4 | 3632.4 | 3266.0 | 3004.3 | 2889.2 | 2889.2 |
| 50° | 20318.4 | 14770.3 | 6322.7 | 4982.8 | 4072.0 | 3684.7 | 3412.6 | 3077.6 | 2920.6 | 2774.0 | 2721.7 |
| 52.5° | 20831.3 | 14990.2 | 5945.8 | 4511.7 | 3695.2 | 3412.6 | 3224.1 | 2941.5 | 2742.6 | 2648.4 | 2617.0 |
| 55° | 21511.7 | 15461.2 | 5589.9 | 4093.0 | 3328.8 | 3171.8 | 3077.6 | 2815.9 | 2585.6 | 2491.4 | 2439.0 |
| 57.5° | 21637.3 | 15785.7 | 5244.5 | 3684.7 | 3025.2 | 2983.4 | 2952.0 | 2596.1 | 2407.6 | 2334.4 | 2292.5 |
| 60° | 20768.5 | 15545.0 | 4794.3 | 3318.4 | 2784.5 | 2805.4 | 2721.7 | 2460.0 | 2240.1 | 2166.9 | 2125.0 |
| 62.5° | 19292.5 | 14916.9 | 4344.2 | 3004.3 | 2596.1 | 2637.9 | 2554.2 | 2292.5 | 2072.7 | 1999.4 | 1978.4 |
| 63° | *18999.4* | *14749.4* | *4239.5* | *2972.9* | *2554.2* | *2606.5* | *2533.3* | *2271.6* | *2051.7* | *1978.4* | *1947.0* |
| 65° | 17251.2 | 13744.5 | 3873.2 | 2805.4 | 2418.1 | 2418.1 | 2428.6 | 2166.9 | 1978.4 | 1947.0 | 1926.1 |
| 67.5° | 14069.0 | 11472.9 | 3475.4 | 2606.5 | 2271.6 | 2303.0 | 2355.3 | 2208.7 | 2135.5 | 2114.5 | 2093.6 |
| 70° | 10635.5 | 8636.1 | 3129.9 | 2418.1 | 2114.5 | 2219.2 | 2575.1 | 2512.3 | 2240.1 | 2051.7 | 2009.9 |
| 72.5° | 7536.9 | 5883.0 | 2826.4 | 2229.7 | 1926.1 | 2187.8 | 2669.3 | 2397.2 | 2020.3 | 1800.5 | 1758.6 |
| 75° | 5045.6 | 3789.4 | 2522.8 | 2030.8 | 1716.7 | 2020.3 | 2522.8 | 2187.8 | 1758.6 | 1706.3 | 1643.5 |
| 77.5° | 3171.8 | 2700.7 | 2219.2 | 1800.5 | 1486.5 | 1800.5 | 2292.5 | 1947.0 | 1517.9 | 1538.8 | 1444.6 |
| 80° | 1936.6 | 1926.1 | 1863.3 | 1528.3 | 1193.4 | 1434.1 | 1926.1 | 1643.5 | 1214.3 | 1214.3 | 1078.2 |
| 82.5° | 1151.5 | 1392.2 | 1580.7 | 1266.6 | 868.8 | 1025.9 | 1392.2 | 1235.2 | 1015.4 | 984.0 | 921.2 |
| 85° | 774.6 | 942.1 | 1256.2 | 973.5 | 554.8 | 628.1 | 963.1 | 1036.3 | 931.7 | 816.5 | 764.2 |
| 87.5° | 282.6 | 376.8 | 575.7 | 397.8 | 240.8 | 376.8 | 722.3 | 753.7 | 565.3 | 439.7 | 397.8 |
| 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: SP1-2407-184-6

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-750-U-5WQ

Data in this report applies to families of products including GSS-SB1A-750-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

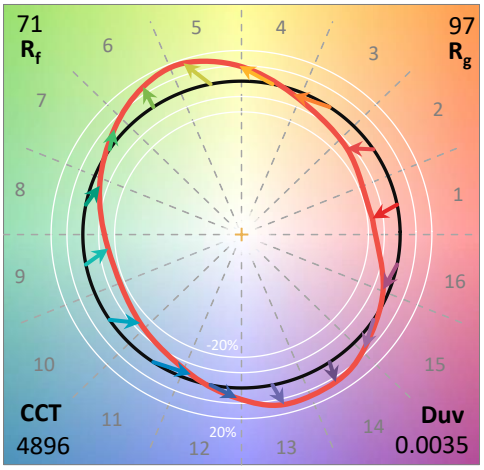
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-6 |
| 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-750-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 5000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 4896 |
| CIE u': | 0.2101 |
| CIE v': | 0.4901 |
| Duv: | 0.0035 |
| CIE x: | 0.3489 |
| CIE y: | 0.3618 |
| CIE z: | 0.2893 |
| Peak Wavelength (nm): | 443 |
| Dominant Wavelength (nm): | 570 |
| Purity: | 13.25435 |
| Rf: | 70.7 |
| Rg: | 96.8 |

| | |
|---|---|
| CRI (Ra): | 70.2 |
| R1: | 68.1 |
| R2: | 73.9 |
| R3: | 79.4 |
| R4: | 72.1 |
| R5: | 69.2 |
| R6: | 65.7 |
| R7: | 78.1 |
| R8: | 55.3 |
| R9: | -35.1 |
| R10: | 39.3 |
| R11: | 71.1 |
| R12: | 43.8 |
| R13: | 68.1 |
| R14: | 88.4 |
| R15: | 59.7 |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | 21M |
| Operation Time: | 1H 21M |
| 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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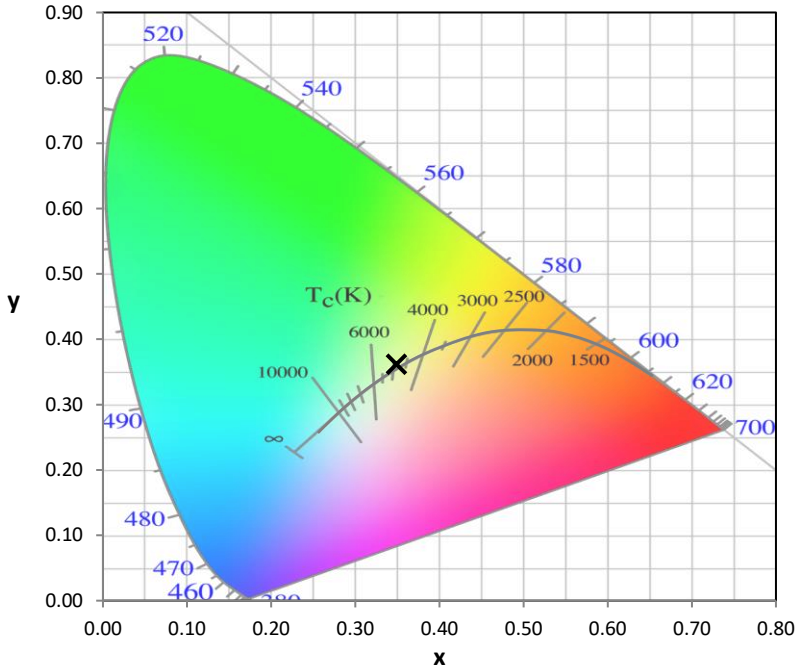
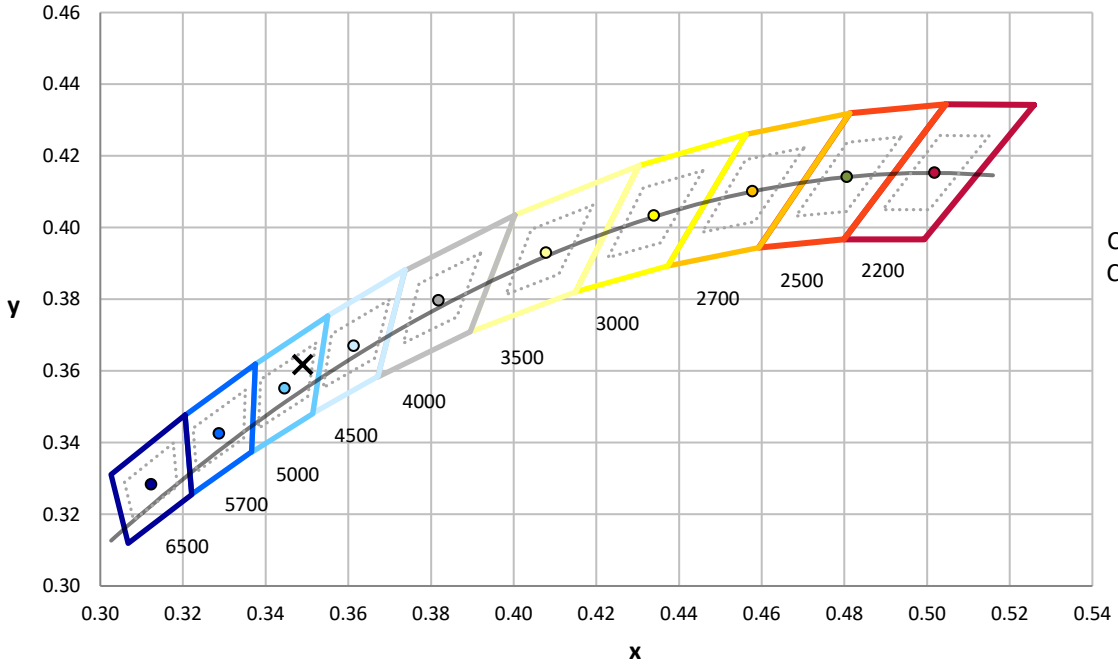
## CIE 1931 Chromaticity Diagram




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




CCT = 4896K
CIE x = 0.3489
CIE y = 0.3618
Duv = 0.0035

Point lies inside the ANSI 5000K 4-step quadrangle

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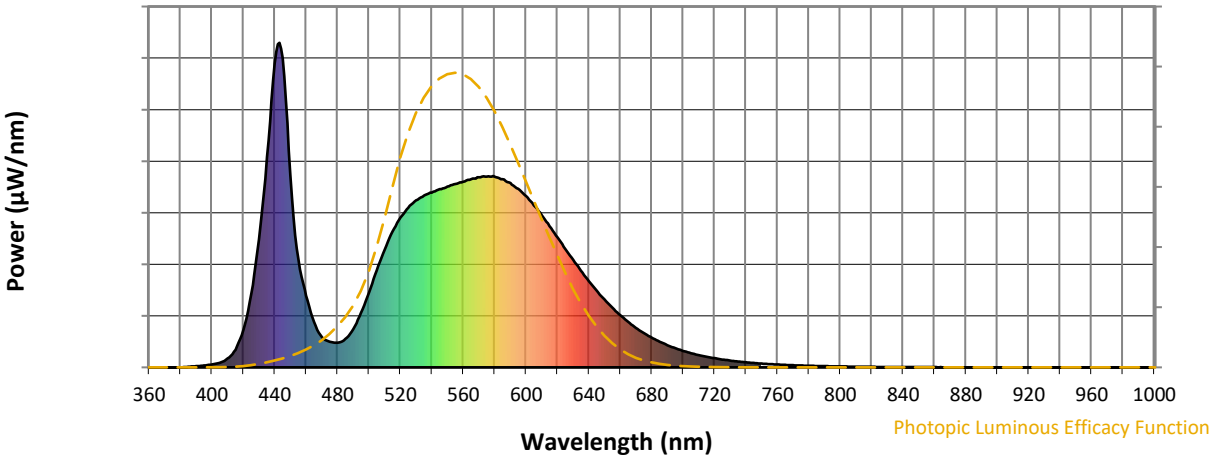
## Photopic Flux vs. Wavelength




## 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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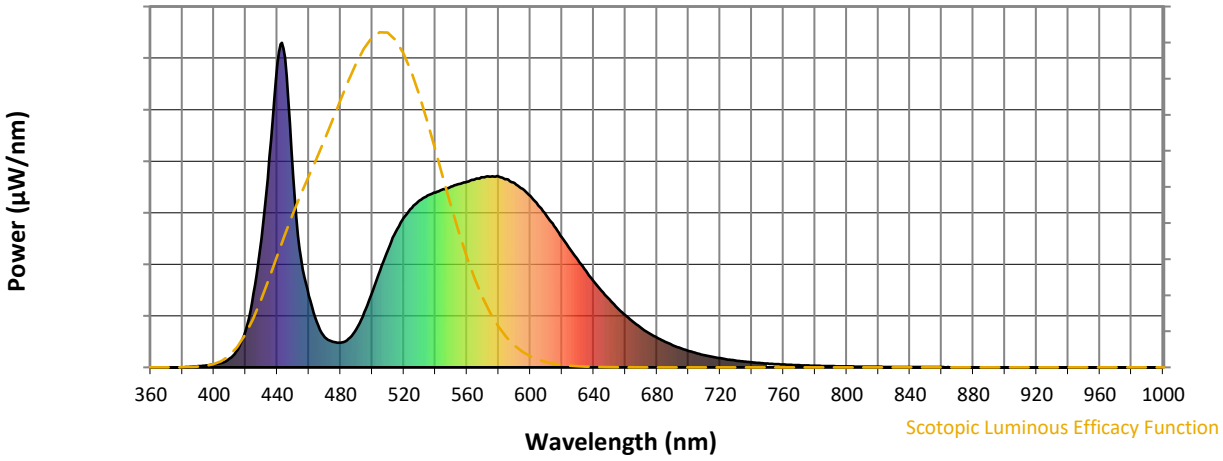
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.7**

| 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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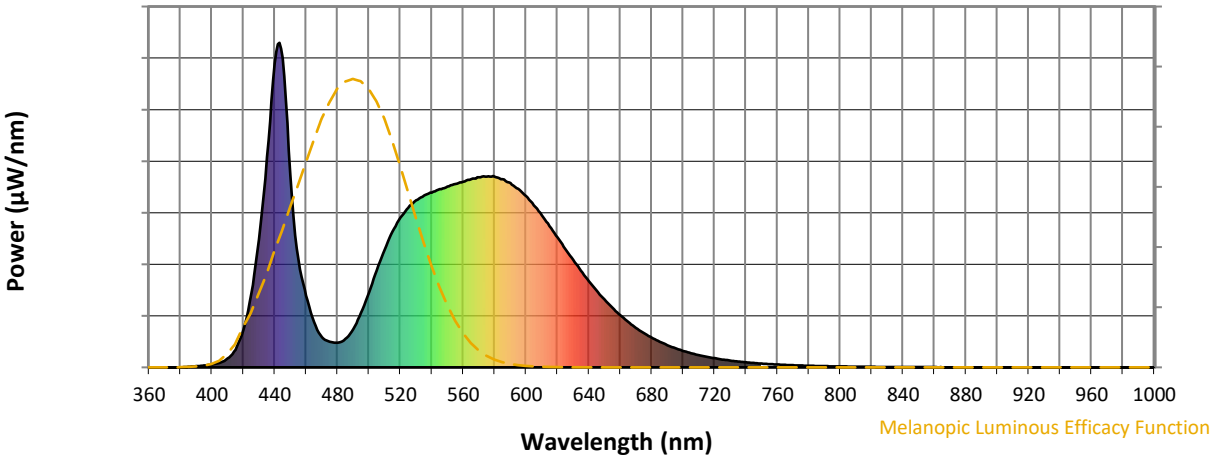
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 3.37**

| 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 | 118 | NR | 620 | 401 | NR | 750 | 12 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 168 | NR | 625 | 365 | NR | 755 | 10 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 230 | NR | 630 | 331 | NR | 760 | 9 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 299 | NR | 635 | 298 | NR | 765 | 8 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 362 | NR | 640 | 266 | NR | 770 | 6 | NR | 900 | 0 | NR |
| 385 | 2 | NR | 515 | 418 | NR | 645 | 236 | NR | 775 | 6 | NR | 905 | 0 | NR |
| 390 | 4 | NR | 520 | 461 | NR | 650 | 209 | NR | 780 | 5 | NR | 910 | 0 | NR |
| 395 | 6 | NR | 525 | 491 | NR | 655 | 184 | NR | 785 | 4 | NR | 915 | 0 | NR |
| 400 | 9 | NR | 530 | 514 | NR | 660 | 160 | NR | 790 | 4 | NR | 920 | 0 | NR |
| 405 | 14 | NR | 535 | 530 | NR | 665 | 140 | NR | 795 | 3 | NR | 925 | 0 | NR |
| 410 | 27 | NR | 540 | 539 | NR | 670 | 122 | NR | 800 | 3 | NR | 930 | 0 | NR |
| 415 | 55 | NR | 545 | 549 | NR | 675 | 106 | NR | 805 | 2 | NR | 935 | 0 | NR |
| 420 | 115 | NR | 550 | 557 | NR | 680 | 92 | NR | 810 | 2 | NR | 940 | 0 | NR |
| 425 | 226 | NR | 555 | 565 | NR | 685 | 79 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 395 | NR | 560 | 572 | NR | 690 | 68 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 648 | NR | 565 | 580 | NR | 695 | 59 | NR | 825 | 1 | NR | 955 | 0 | NR |
| 440 | 937 | NR | 570 | 586 | NR | 700 | 51 | NR | 830 | 1 | NR | 960 | 0 | NR |
| 445 | 953 | NR | 575 | 588 | NR | 705 | 44 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 591 | NR | 580 | 588 | NR | 710 | 38 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 334 | NR | 585 | 580 | NR | 715 | 32 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 221 | NR | 590 | 568 | NR | 720 | 28 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 140 | NR | 595 | 550 | NR | 725 | 24 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 93 | NR | 600 | 527 | NR | 730 | 21 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 79 | NR | 605 | 499 | NR | 735 | 18 | NR | 865 | 0 | NR | 995 | 0 | NR |
| 480 | 76 | NR | 610 | 469 | NR | 740 | 15 | NR | 870 | 0 | NR | 1000 | 0 | NR |
| 485 | 87 | NR | 615 | 435 | NR | 745 | 13 | NR | 875 | 0 | NR | | | |

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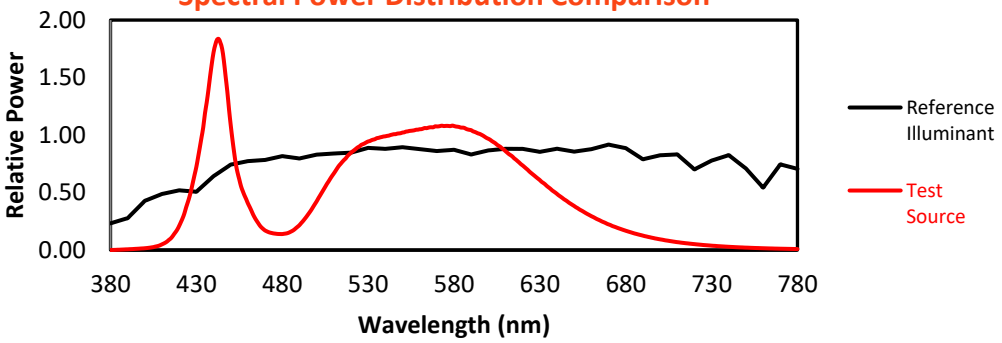
# TM-30-18

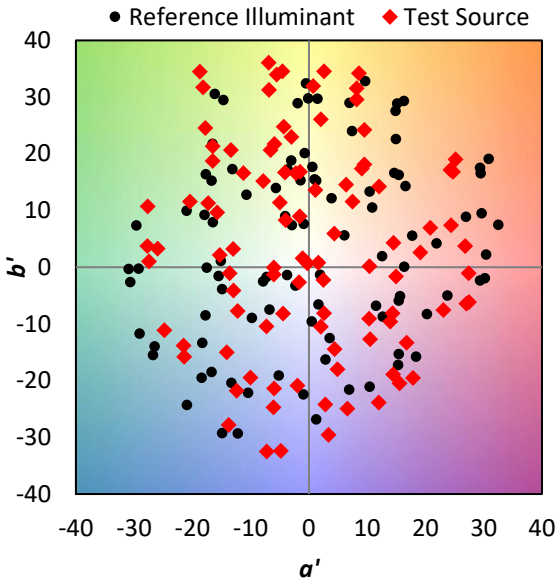
## Summary

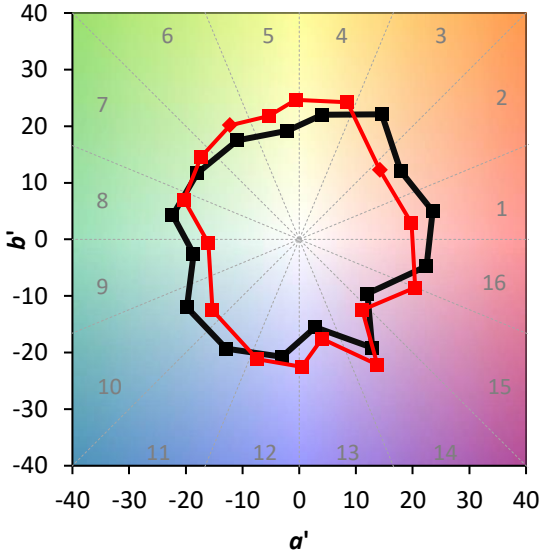
$R_f$ = 70.7
$R_g$ = 96.8
CIE $R_a$ = 70.2
$R_9$ = -35.1

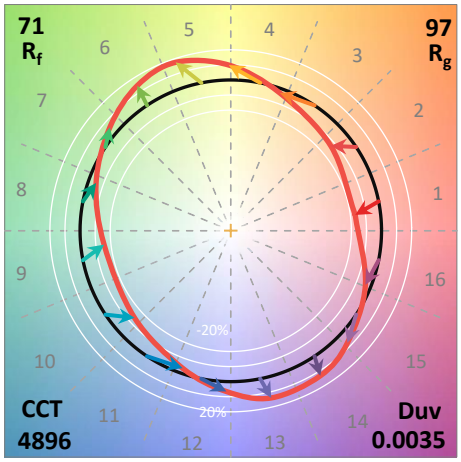
## Spectral Power Distribution Comparison

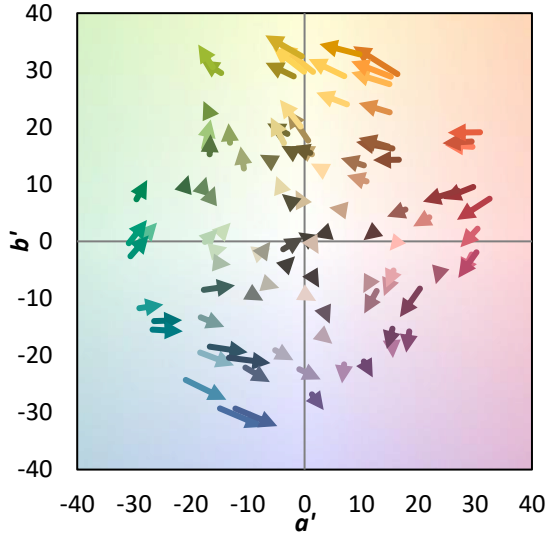



## Color Vector Graphics



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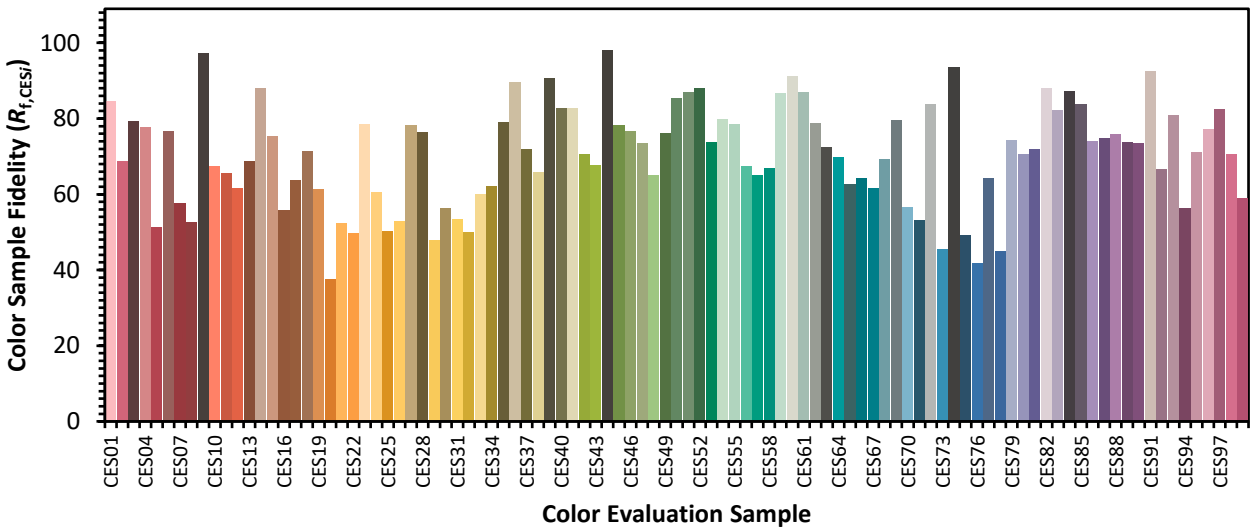
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 85 | CES26 = 53 | CES51 = 87 | CES76 = 42 |
| CES02 = 59 | CES27 = 78 | CES52 = 88 | CES77 = 64 |
| CES03 = 30 | CES28 = 76 | CES53 = 74 | CES78 = 45 |
| CES04 = 69 | CES29 = 48 | CES54 = 80 | CES79 = 74 |
| CES05 = 46 | CES30 = 56 | CES55 = 79 | CES80 = 71 |
| CES06 = 50 | CES31 = 54 | CES56 = 68 | CES81 = 72 |
| CES07 = 39 | CES32 = 50 | CES57 = 65 | CES82 = 88 |
| CES08 = 38 | CES33 = 60 | CES58 = 67 | CES83 = 82 |
| CES09 = 29 | CES34 = 62 | CES59 = 87 | CES84 = 87 |
| CES10 = 72 | CES35 = 79 | CES60 = 91 | CES85 = 84 |
| CES11 = 56 | CES36 = 90 | CES61 = 87 | CES86 = 74 |
| CES12 = 61 | CES37 = 72 | CES62 = 79 | CES87 = 75 |
| CES13 = 41 | CES38 = 66 | CES63 = 72 | CES88 = 76 |
| CES14 = 74 | CES39 = 91 | CES64 = 70 | CES89 = 74 |
| CES15 = 70 | CES40 = 83 | CES65 = 63 | CES90 = 73 |
| CES16 = 46 | CES41 = 83 | CES66 = 64 | CES91 = 92 |
| CES17 = 49 | CES42 = 70 | CES67 = 62 | CES92 = 67 |
| CES18 = 55 | CES43 = 68 | CES68 = 69 | CES93 = 81 |
| CES19 = 71 | CES44 = 98 | CES69 = 80 | CES94 = 56 |
| CES20 = 64 | CES45 = 78 | CES70 = 56 | CES95 = 71 |
| CES21 = 85 | CES46 = 77 | CES71 = 53 | CES96 = 77 |
| CES22 = 77 | CES47 = 73 | CES72 = 84 | CES97 = 82 |
| CES23 = 91 | CES48 = 65 | CES73 = 46 | CES98 = 71 |
| CES24 = 90 | CES49 = 76 | CES74 = 94 | CES99 = 59 |
| CES25 = 71 | CES50 = 85 | CES75 = 49 | |



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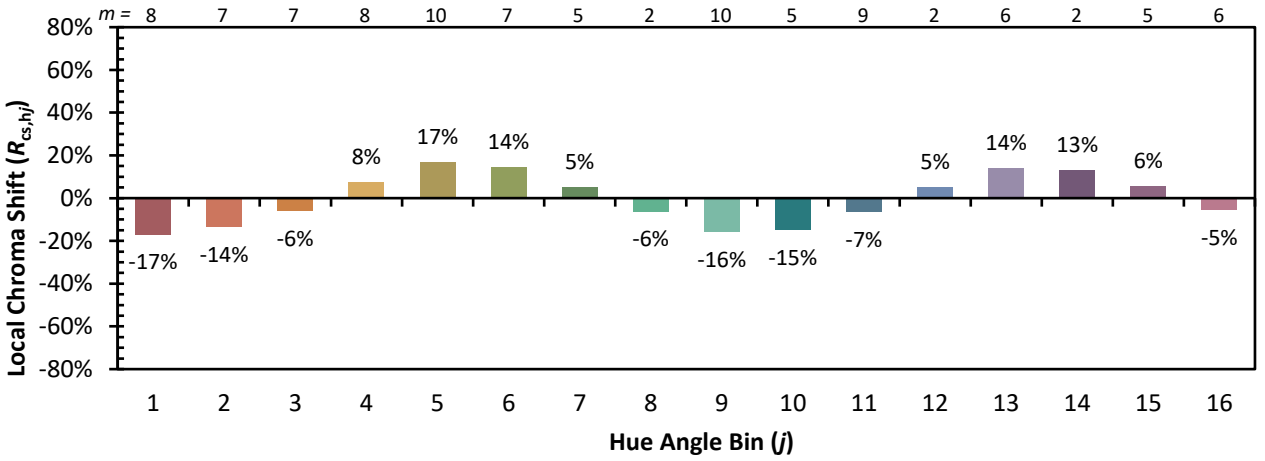
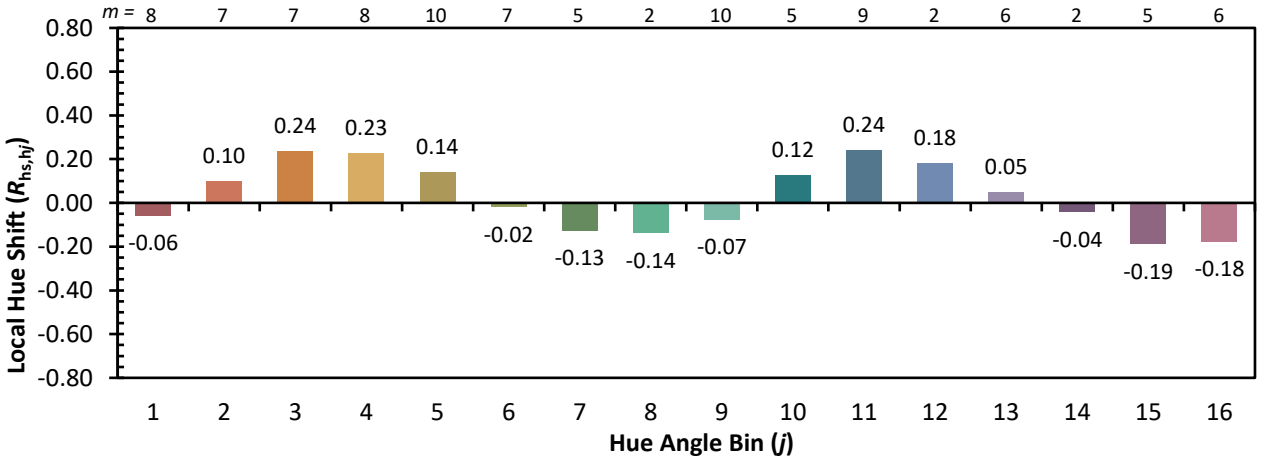
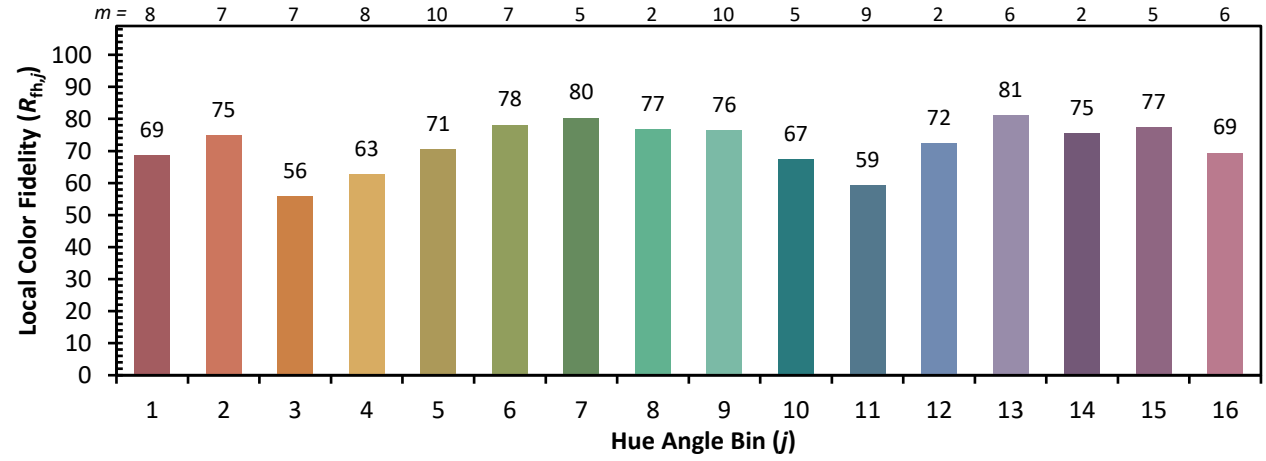
# TM-30-18

## Color Rendition by Hue-Angle Bin



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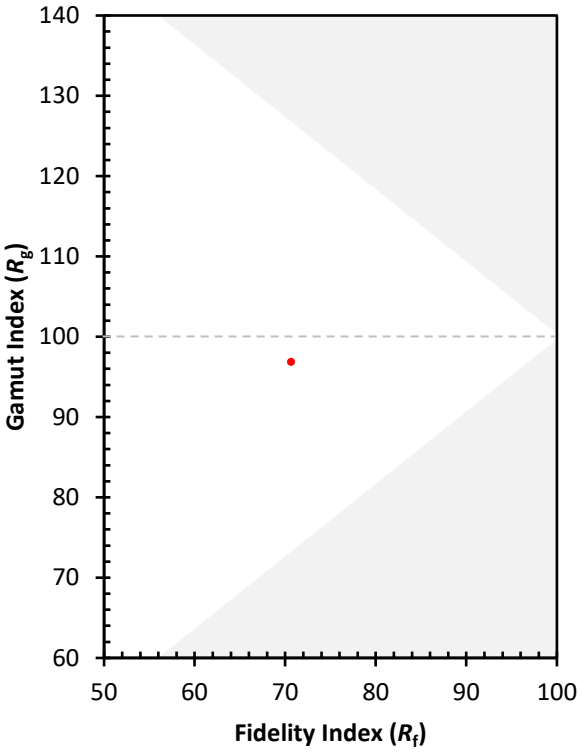
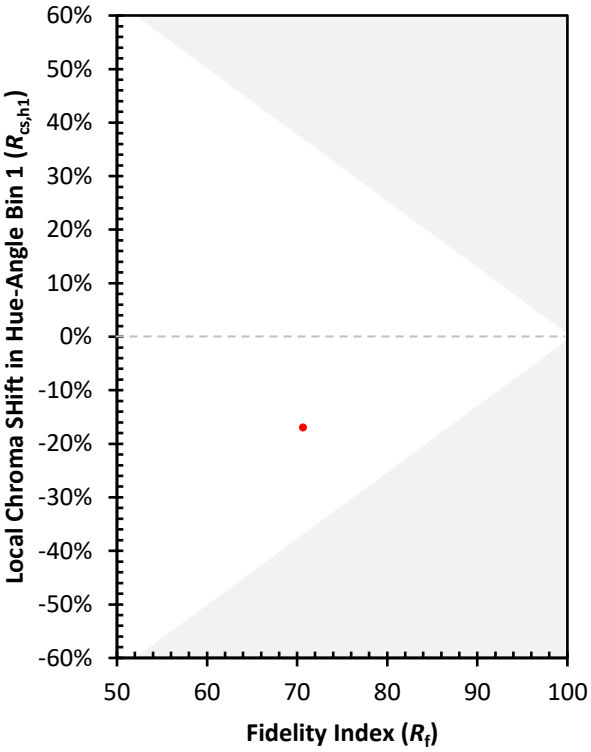
## Measure Comparisons




(END OF REPORT)