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: STREETWORKS

Report Number: P1457037

Luminaire Tested: GLAN-SB6C-730-U-T4LG

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: | P1457037 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6C-730-U-T4LG |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 6xLight Square PACKAGE 70CRI 3000K FIXTURE w/ TYPE IV LOW GLARE |
| Light Source: | (156) 3000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 44435.7 lumens |
| Efficiency: | N/A |
| Efficacy: | 147.7 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| BUG Rating: | B4 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 300.9 |
| 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: P1457037
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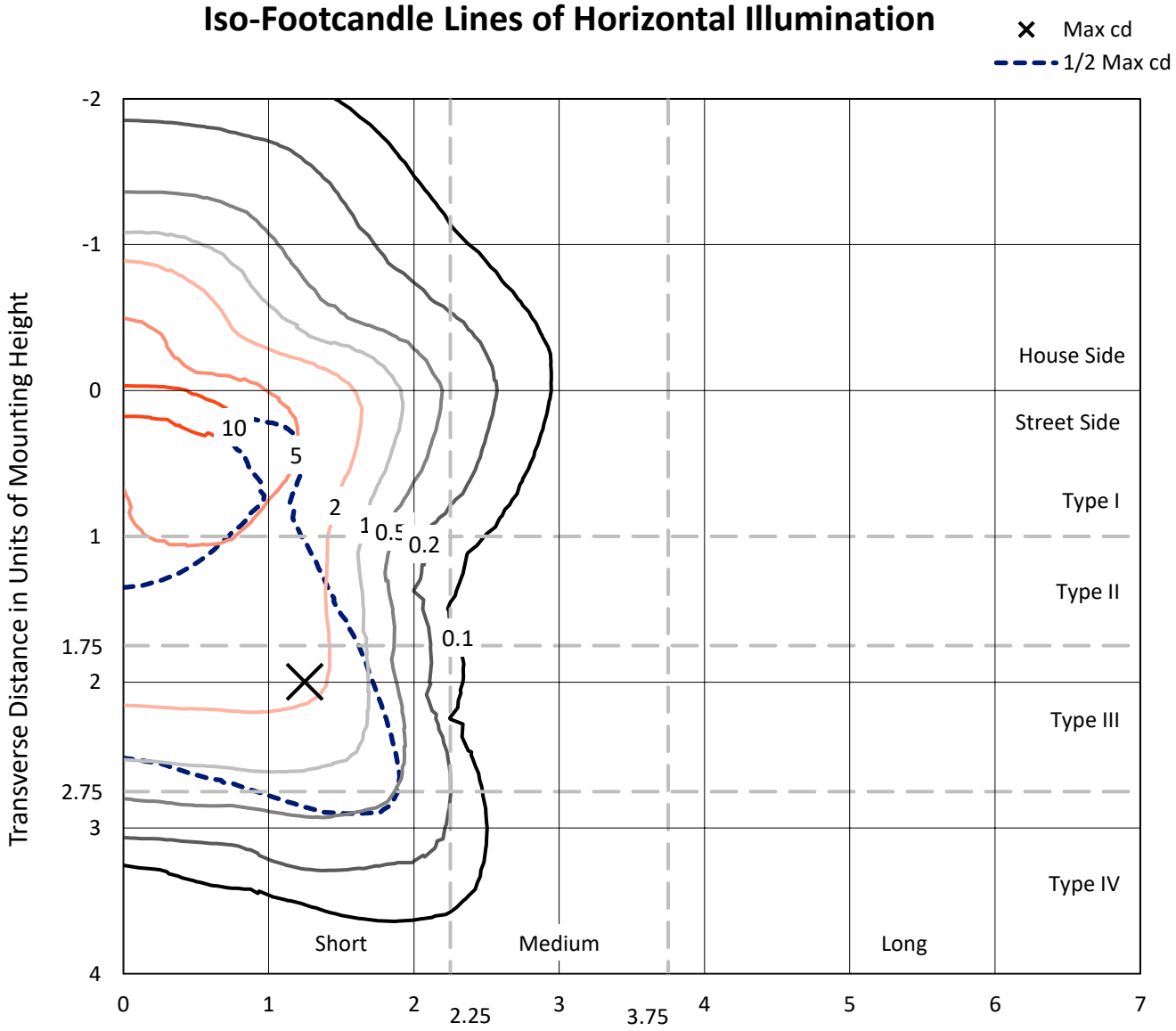
## Iso-Footcandle Lines of Horizontal Illumination




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

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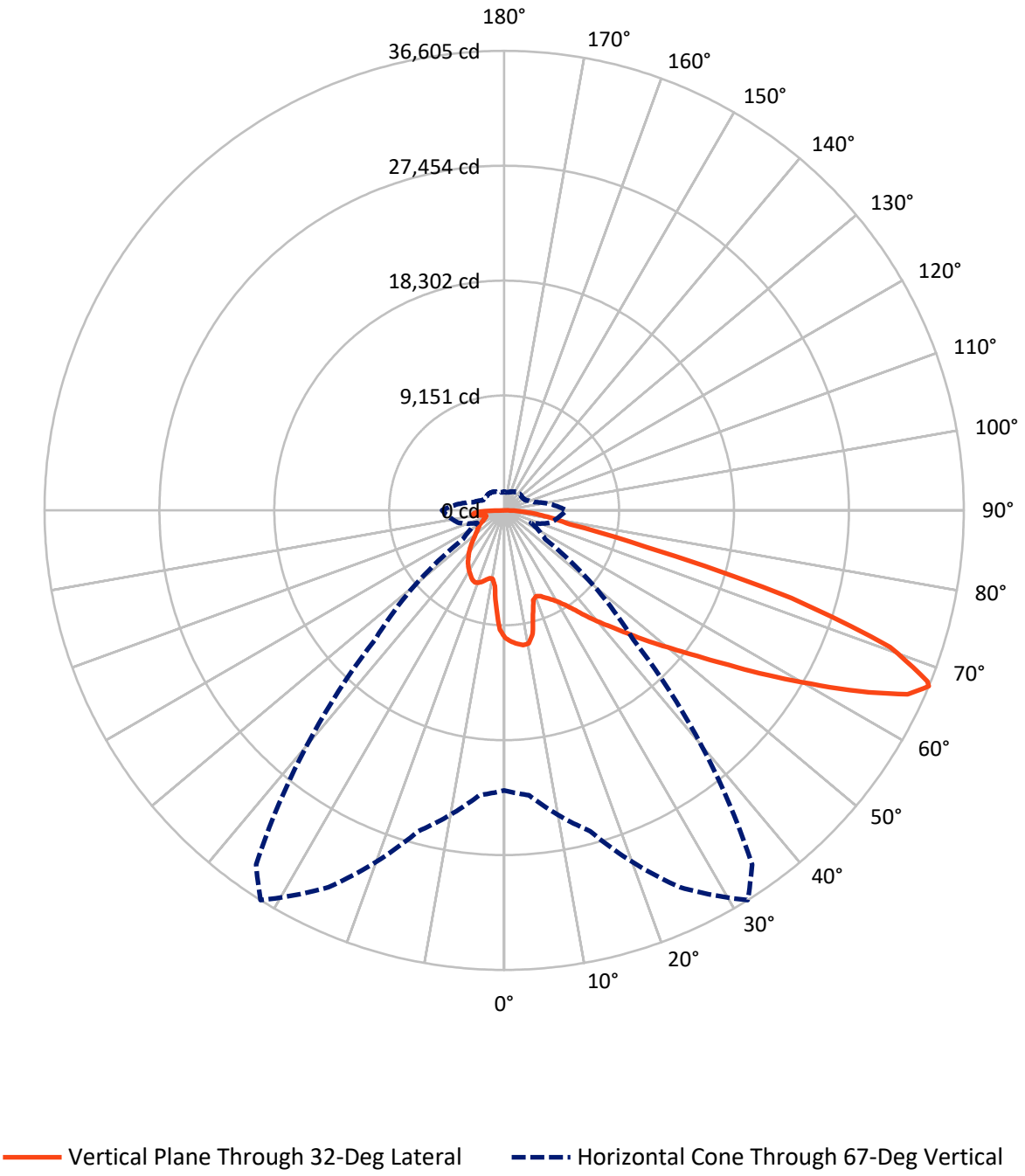
## Luminous Intensity Polar Plot



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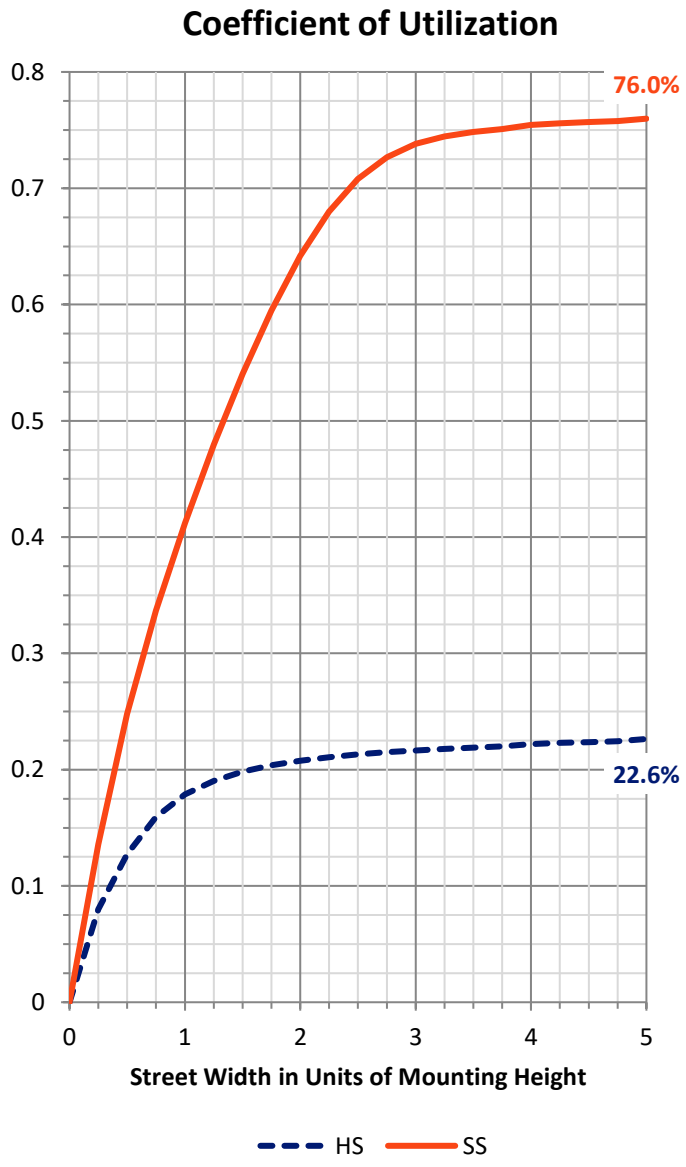
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 10520.0 | 0.0 | 10520.0 |
| | % Fixture | 23.7 | 0.0 | 23.7 |
| **Street Side** | Lumens | 33915.7 | 0.0 | 33915.7 |
| | % Fixture | 76.3 | 0.0 | 76.3 |
| **Total** | Lumens | 44435.7 | 0.0 | 44435.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 887.1 | 2.0 |
| 10°-20° | 2355.3 | 5.3 |
| 20°-30° | 3846.3 | 8.7 |
| 30°-40° | 5669.1 | 12.8 |
| 40°-50° | 7818.1 | 17.6 |
| 50°-60° | 9876.6 | 22.2 |
| 60°-70° | 9558.7 | 21.5 |
| 70°-80° | 3411.4 | 7.7 |
| 80°-90° | 1013.1 | 2.3 |
| 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° | 44435.7 | 100.0 |
| 0°-180° | 44435.7 | 100.0 |



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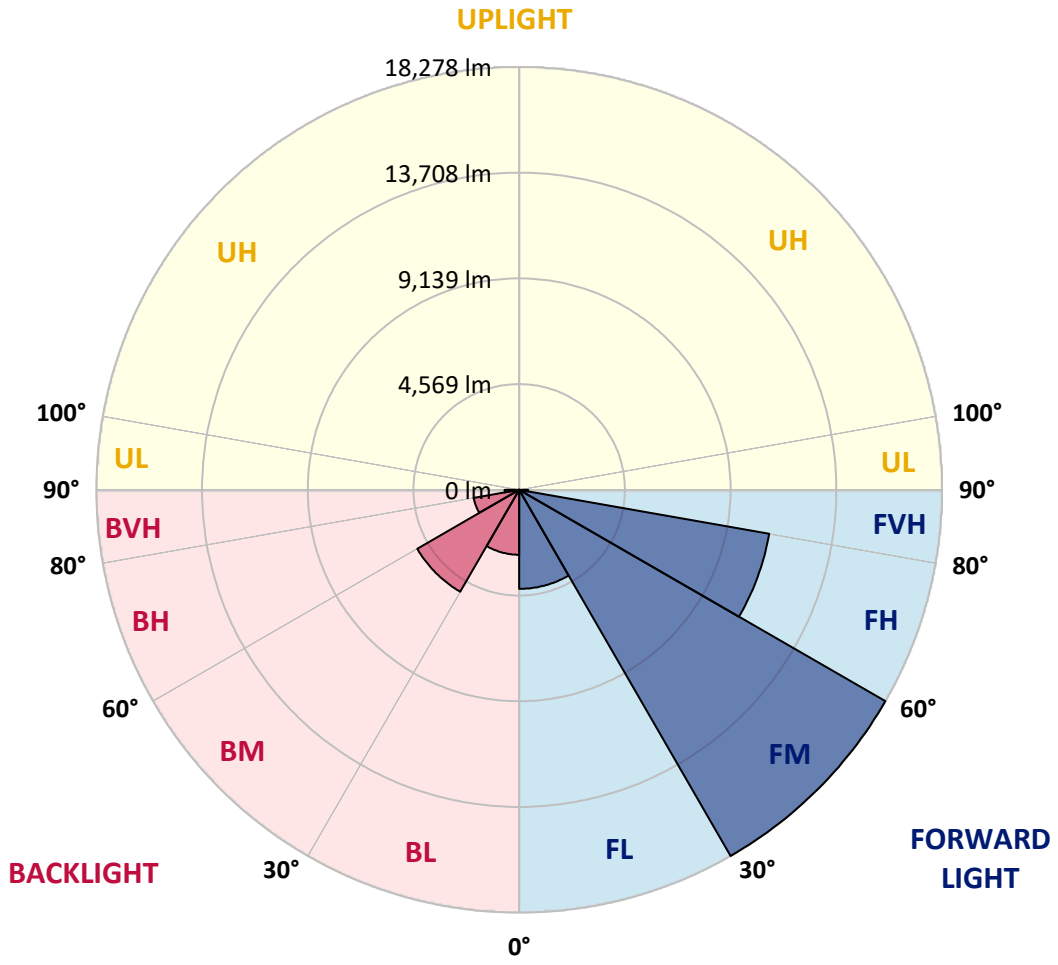
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 4281.5 | 9.6 | | | |
| FM | (30°-60°) | 18277.8 | 41.1 | | | |
| FH | (60°-80°) | 10974.7 | 24.7 | | | G4/12000 |
| FVH | (80°-90°) | 381.7 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 2807.3 | 6.3 | B4/5000 | | |
| BM | (30°-60°) | 5085.9 | 11.4 | B4/8500 | | |
| BH | (60°-80°) | 1995.5 | 4.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 631.3 | 1.4 | | | 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 IV Short



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REPORT NUMBER: P1457037
CATALOG NUMBER: GLAN-SB6C-730-U-T4LG

**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 10152.7 | 10152.7 | 10152.7 | 10152.7 | *10152.7* | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 |
| 2.5° | 10537.5 | 10507.9 | 10478.3 | 10498.0 | *10458.5* | 10448.7 | 10399.3 | 10379.6 | 10320.4 | 10310.6 | 10202.0 |
| 5° | 10754.5 | 10695.3 | 10685.5 | 10705.2 | *10665.7* | 10665.7 | 10626.3 | 10596.7 | 10507.9 | 10458.5 | 10300.7 |
| 7.5° | 10754.5 | 10744.7 | 10764.4 | 10833.5 | *10843.3* | 10843.3 | 10843.3 | 10853.2 | 10764.4 | 10695.3 | 10448.7 |
| 10° | 10142.8 | 10044.2 | 10261.2 | 10606.5 | *10774.3* | 10872.9 | 11050.5 | 11159.1 | 11090.0 | 11040.7 | 10705.2 |
| 12.5° | 8317.5 | 8327.4 | 8672.7 | 9412.7 | *10083.6* | 10369.7 | 11109.7 | 11504.4 | 11534.0 | 11455.1 | 11030.8 |
| 15° | 7054.6 | 7103.9 | 7281.5 | 7814.3 | *8583.9* | 9008.2 | 10764.4 | 11810.3 | 12047.1 | 11968.1 | 11425.5 |
| 17.5° | 6669.8 | 6699.4 | 6778.3 | 7084.2 | *7518.3* | 7863.6 | 9827.1 | 12007.6 | 12668.7 | 12570.0 | 11869.5 |
| 20° | 6610.6 | 6630.3 | 6729.0 | 6985.5 | *7281.5* | 7478.8 | 8870.0 | 11849.7 | 13250.8 | 13211.3 | 12274.0 |
| 22.5° | 6620.5 | 6640.2 | 6768.5 | 7123.7 | *7429.5* | 7597.2 | 8564.2 | 11484.7 | 13862.5 | 13902.0 | 12688.4 |
| 25° | 6640.2 | 6650.1 | 6847.4 | 7321.0 | *7705.8* | 7913.0 | 8761.5 | 11159.1 | 14375.6 | 14711.0 | 13142.3 |
| 27.5° | 6748.7 | 6778.3 | 7044.7 | 7577.5 | *8031.4* | 8268.2 | 9225.2 | 11267.6 | 14938.0 | 15628.6 | 13684.9 |
| 30° | 7044.7 | 7064.5 | 7390.0 | 7942.6 | *8435.9* | 8682.6 | 9777.8 | 11701.7 | 15628.6 | 16575.8 | 14217.7 |
| 32.5° | 7508.4 | 7528.2 | 7903.1 | 8475.4 | *9008.2* | 9304.2 | 10498.0 | 12530.5 | 16398.2 | 17572.3 | 14750.5 |
| 35° | 8149.8 | 8159.6 | 8583.9 | 9195.6 | *9758.0* | 10093.5 | 11336.7 | 13467.8 | 17197.4 | 18420.9 | 15145.2 |
| 37.5° | 8909.5 | 8978.6 | 9412.7 | 10054.0 | *10715.1* | 11020.9 | 12323.3 | 14563.0 | 17907.8 | 19141.1 | 15372.1 |
| 40° | 9955.4 | 9975.1 | 10399.3 | 11020.9 | *11721.5* | 12017.5 | 13310.0 | 15599.0 | 18687.3 | 19565.4 | 15579.3 |
| 42.5° | 11030.8 | 11198.5 | 11553.7 | 12244.4 | *12767.3* | 13004.1 | 14434.8 | 16546.2 | 19308.8 | 19585.1 | 15490.5 |
| 45° | 12471.3 | 12599.6 | 12954.8 | 13566.5 | *14089.4* | 14365.7 | 15648.4 | 17414.5 | 19624.6 | 19417.4 | 15293.2 |
| 47.5° | 14119.0 | 14198.0 | 14484.1 | 15036.6 | *15618.8* | 15816.1 | 16911.3 | 17907.8 | 19743.0 | 19299.0 | 15204.4 |
| 50° | 16062.8 | 16062.8 | 16269.9 | 16743.5 | *17276.3* | 17552.6 | 18075.5 | 18203.8 | 20088.3 | 19091.8 | 15431.3 |
| 52.5° | 17700.6 | 17779.5 | 18055.8 | 18726.7 | *19259.5* | 19575.2 | 18983.3 | 18657.7 | 19387.8 | 17937.4 | 15500.4 |
| 55° | 19269.4 | 19358.2 | 19979.8 | 20818.4 | *21726.2* | 22071.5 | 20117.9 | 18430.7 | 17029.7 | 16250.2 | 15026.8 |
| 57.5° | 20769.1 | 20956.6 | 21736.0 | 23373.9 | *24745.3* | 24715.7 | 21558.4 | 16398.2 | 13902.0 | 14385.4 | 13990.8 |
| 60° | 22860.8 | 23058.1 | 24301.3 | 26363.4 | *28040.8* | 27340.2 | 21578.2 | 13645.4 | 10833.5 | 11484.7 | 12047.1 |
| 62.5° | 24607.2 | 24942.7 | 26768.0 | 30201.5 | *31740.7* | 30645.5 | 19792.3 | 10448.7 | 7192.7 | 8011.6 | 9314.0 |
| 65° | 24449.3 | 24893.3 | 27725.0 | 33023.4 | *35322.3* | 34306.0 | 17177.7 | 6610.6 | 3709.8 | 5475.9 | 6521.8 |
| 67° | *22298.4* | *22781.9* | *26452.2* | *33122.0* | *36604.9* | *34434.3* | *14503.8* | *3996.0* | *2358.1* | *3798.6* | *4528.7* |
| 67.5° | 21065.1 | 21775.5 | 25820.8 | 32934.6 | *36368.1* | 33891.6 | 13300.1 | 3344.8 | 2220.0 | 3532.2 | 4124.2 |
| 70° | 12954.8 | 14099.3 | 19377.9 | 29116.2 | *32599.1* | 28366.3 | 7390.0 | 1894.4 | 1805.6 | 2368.0 | 2851.4 |
| 72.5° | 3897.3 | 4242.6 | 7478.8 | 18677.4 | *23926.4* | 21025.6 | 3325.0 | 1460.3 | 1618.1 | 1904.2 | 2200.2 |
| 75° | 1894.4 | 2022.6 | 3088.2 | 7636.7 | *11652.4* | 11593.2 | 1854.9 | 1253.1 | 1499.7 | 1598.4 | 1736.5 |
| 77.5° | 1213.6 | 1292.5 | 1924.0 | 4272.2 | *5337.8* | 4755.7 | 1341.9 | 1095.2 | 1332.0 | 1312.3 | 1292.5 |
| 80° | 759.7 | 799.2 | 1233.3 | 2476.5 | *3936.8* | 3285.6 | 986.7 | 897.9 | 1144.5 | 1016.3 | 917.6 |
| 82.5° | 493.3 | 542.7 | 789.3 | 1509.6 | *2812.0* | 2446.9 | 651.2 | 641.3 | 947.2 | 809.1 | 710.4 |
| 85° | 325.6 | 365.1 | 503.2 | 888.0 | *1667.4* | 1746.4 | 424.3 | 444.0 | 730.1 | 611.7 | 542.7 |
| 87.5° | 118.4 | 148.0 | 256.5 | 394.7 | *779.5* | 966.9 | 177.6 | 167.7 | 355.2 | 286.1 | 226.9 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | *0.0* | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Scaled Data Report

REPORT NUMBER: P1457037
CATALOG NUMBER: GLAN-SB6C-730-U-T4LG

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 | 10152.7 |
| 2.5° | 10182.3 | 10152.7 | 10014.6 | 9896.2 | 9807.4 | 9689.0 | 9560.7 | 9412.7 | 9314.0 | 9333.8 | 9304.2 |
| 5° | 10231.6 | 10152.7 | 9886.3 | 9481.8 | 9087.1 | 8593.8 | 7962.3 | 7587.4 | 7301.3 | 7153.3 | 7192.7 |
| 7.5° | 10340.1 | 10202.0 | 9639.6 | 8820.7 | 7794.6 | 6788.2 | 6166.6 | 5811.4 | 5643.7 | 5574.6 | 5564.7 |
| 10° | 10527.6 | 10290.8 | 9323.9 | 7794.6 | 6452.7 | 5771.9 | 5545.0 | 5446.3 | 5426.6 | 5426.6 | 5416.7 |
| 12.5° | 10754.5 | 10379.6 | 8791.1 | 6798.1 | 5811.4 | 5564.7 | 5525.3 | 5535.1 | 5564.7 | 5594.3 | 5545.0 |
| 15° | 11030.8 | 10419.1 | 8130.0 | 6196.2 | 5683.1 | 5623.9 | 5683.1 | 5752.2 | 5801.5 | 5841.0 | 5791.7 |
| 17.5° | 11307.1 | 10379.6 | 7508.4 | 5910.1 | 5702.9 | 5781.8 | 5900.2 | 6008.7 | 6038.3 | 6097.5 | 6058.1 |
| 20° | 11504.4 | 10241.5 | 6975.7 | 5801.5 | 5752.2 | 5929.8 | 6077.8 | 6196.2 | 6255.4 | 6294.9 | 6255.4 |
| 22.5° | 11652.4 | 10063.9 | 6590.9 | 5693.0 | 5752.2 | 5969.3 | 6146.9 | 6285.0 | 6354.1 | 6393.5 | 6344.2 |
| 25° | 11780.7 | 9817.2 | 6294.9 | 5535.1 | 5633.8 | 5841.0 | 6038.3 | 6176.5 | 6275.1 | 6334.3 | 6304.7 |
| 27.5° | 11938.5 | 9619.9 | 6018.6 | 5298.3 | 5387.1 | 5584.5 | 5791.7 | 5959.4 | 6146.9 | 6245.5 | 6225.8 |
| 30° | 12116.1 | 9521.2 | 5752.2 | 5041.8 | 5101.0 | 5298.3 | 5545.0 | 5771.9 | 6028.5 | 6156.7 | 6156.7 |
| 32.5° | 12323.3 | 9452.2 | 5505.5 | 4795.1 | 4844.5 | 5061.5 | 5298.3 | 5505.5 | 5781.8 | 5989.0 | 5979.1 |
| 35° | 12412.1 | 9373.2 | 5308.2 | 4568.2 | 4666.9 | 4844.5 | 5031.9 | 5170.1 | 5456.2 | 5702.9 | 5722.6 |
| 37.5° | 12500.9 | 9343.6 | 5209.5 | 4390.6 | 4469.5 | 4607.7 | 4706.3 | 4775.4 | 5041.8 | 5298.3 | 5308.2 |
| 40° | 12609.5 | 9481.8 | 5278.6 | 4272.2 | 4203.2 | 4341.3 | 4390.6 | 4430.1 | 4568.2 | 4735.9 | 4735.9 |
| 42.5° | 12540.4 | 9580.4 | 5436.5 | 4163.7 | 3877.6 | 4035.4 | 4055.2 | 4045.3 | 4055.2 | 4065.0 | 4055.2 |
| 45° | 12362.8 | 9481.8 | 5436.5 | 3996.0 | 3532.2 | 3700.0 | 3690.1 | 3640.8 | 3561.8 | 3354.6 | 3325.0 |
| 47.5° | 12323.3 | 9422.6 | 5229.3 | 3719.7 | 3186.9 | 3325.0 | 3344.8 | 3246.1 | 3019.2 | 2802.1 | 2733.0 |
| 50° | 12491.1 | 9531.1 | 4903.7 | 3384.2 | 2890.9 | 3009.3 | 3058.6 | 2890.9 | 2634.4 | 2407.4 | 2368.0 |
| 52.5° | 12737.7 | 9669.2 | 4430.1 | 3019.2 | 2644.2 | 2762.6 | 2821.8 | 2634.4 | 2368.0 | 2190.4 | 2170.6 |
| 55° | 12708.1 | 9669.2 | 3897.3 | 2683.7 | 2456.8 | 2545.6 | 2644.2 | 2446.9 | 2239.7 | 2141.0 | 2131.2 |
| 57.5° | 12066.8 | 9304.2 | 3502.6 | 2446.9 | 2279.2 | 2358.1 | 2486.4 | 2298.9 | 2101.6 | 2121.3 | 2150.9 |
| 60° | 10813.7 | 8357.0 | 3206.6 | 2289.0 | 2121.3 | 2200.2 | 2338.4 | 2121.3 | 1864.8 | 1795.7 | 1795.7 |
| 62.5° | 8909.5 | 6886.9 | 2969.8 | 2131.2 | 1973.3 | 2072.0 | 2141.0 | 1854.9 | 1687.2 | 1608.2 | 1608.2 |
| 65° | 6679.7 | 5327.9 | 2723.2 | 2002.9 | 1845.0 | 1953.6 | 1874.6 | 1736.5 | 1568.8 | 1509.6 | 1519.4 |
| 67° | *4953.0* | *4134.1* | *2516.0* | *1894.4* | *1766.1* | *1815.4* | *1756.2* | *1657.6* | *1489.8* | *1440.5* | *1489.8* |
| 67.5° | 4449.8 | 3926.9 | 2466.6 | 1864.8 | 1746.4 | 1785.8 | 1726.6 | 1647.7 | 1470.1 | 1420.8 | 1470.1 |
| 70° | 3058.6 | 3019.2 | 2200.2 | 1726.6 | 1637.8 | 1598.4 | 1628.0 | 1529.3 | 1381.3 | 1361.6 | 1410.9 |
| 72.5° | 2328.5 | 2407.4 | 1973.3 | 1608.2 | 1519.4 | 1470.1 | 1539.2 | 1440.5 | 1292.5 | 1322.1 | 1371.5 |
| 75° | 1825.3 | 1943.7 | 1766.1 | 1440.5 | 1381.3 | 1391.2 | 1529.3 | 1489.8 | 1371.5 | 1401.1 | 1410.9 |
| 77.5° | 1351.7 | 1568.8 | 1509.6 | 1253.1 | 1203.7 | 1341.9 | 1726.6 | 1845.0 | 1637.8 | 1588.5 | 1519.4 |
| 80° | 986.7 | 1124.8 | 1272.8 | 1036.0 | 1006.4 | 1292.5 | 2131.2 | 2358.1 | 2022.6 | 1825.3 | 1776.0 |
| 82.5° | 730.1 | 789.3 | 1045.9 | 828.8 | 730.1 | 1154.4 | 2368.0 | 2772.5 | 2407.4 | 2032.5 | 1973.3 |
| 85° | 522.9 | 611.7 | 828.8 | 611.7 | 483.5 | 947.2 | 2318.6 | 2713.3 | 2387.7 | 1924.0 | 1874.6 |
| 87.5° | 187.5 | 266.4 | 355.2 | 276.3 | 246.7 | 651.2 | 1914.1 | 1953.6 | 1489.8 | 680.8 | 690.7 |
| 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: SP1-2407-184-4

Test Date: 10/10/2024

Luminaire Tested: GSS-SB1A-730-U-5WQ

Data in this report applies to families of products including GSS-SB1A-730-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

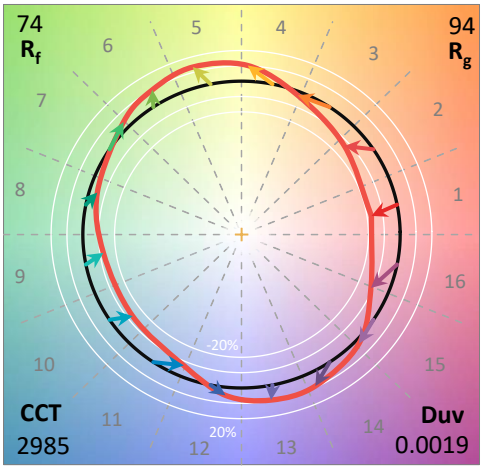
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-4 |
| 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-730-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 70 CRI 3000K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2985 |
| CIE u': | 0.2504 |
| CIE v': | 0.5243 |
| Duv: | 0.0019 |
| CIE x: | 0.4408 |
| CIE y: | 0.4101 |
| CIE z: | 0.1491 |
| Peak Wavelength (nm): | 595 |
| Dominant Wavelength (nm): | 582 |
| Purity: | 55.41818 |
| Rf: | 73.8 |
| Rg: | 94.4 |

| | |
|---|---|
| CRI (Ra): | 70.8 |
| R1: | 66.3 |
| R2: | 80.6 |
| R3: | 94.5 |
| R4: | 68.2 |
| R5: | 66.5 |
| R6: | 74.7 |
| R7: | 76.2 |
| R8: | 39.6 |
| R9: | -43.2 |
| R10: | 57.6 |
| R11: | 64.8 |
| R12: | 53.5 |
| R13: | 68.7 |
| R14: | 97.0 |
| R15: | 56.4 |




## Test Conditions

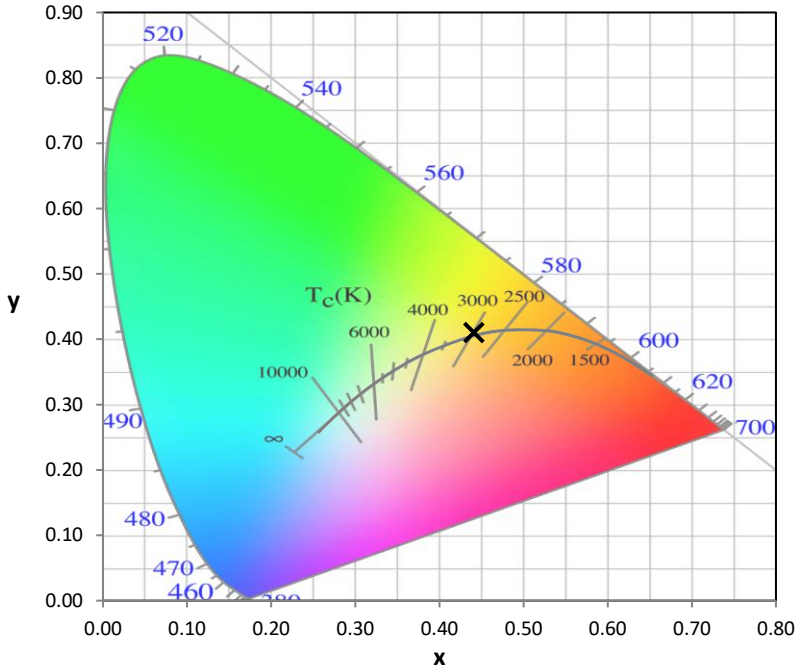
| | |
|---|---|
| Stabilization Time: | 36M |
| Operation Time: | 1H 36M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-4

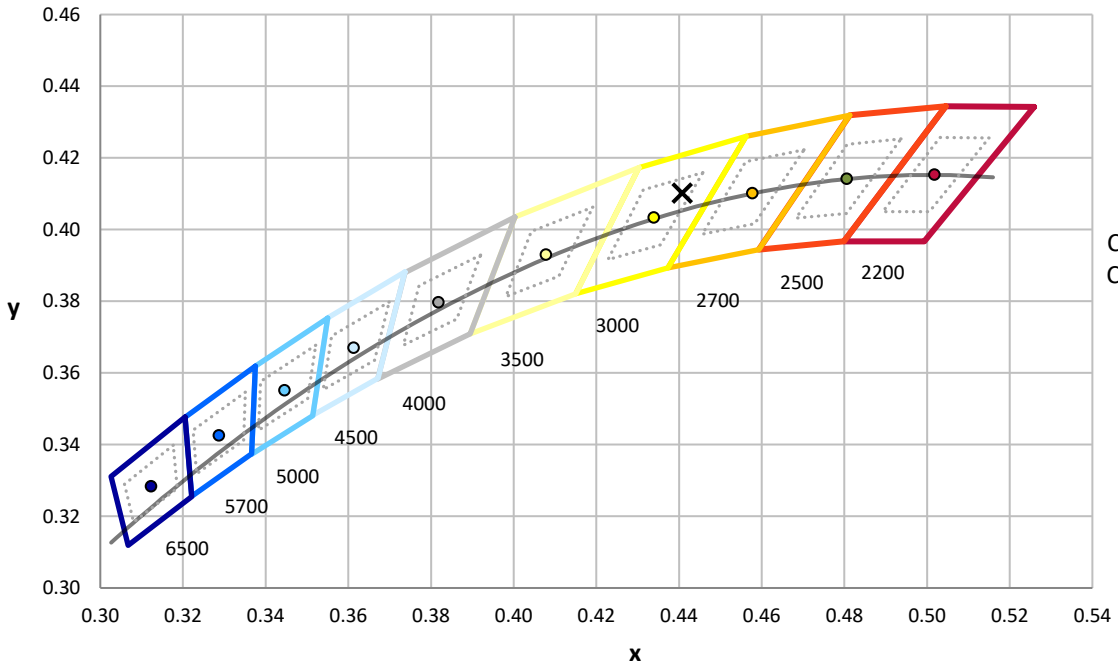
| Measurement and Test Equipment | | | |
|---|---|---|---|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/18/2024 | 12/18/2024 |
| Power Meter | INXT2011004 | 2/8/2024 | 2/8/2025 |
| AC Power Source | IN0063 | 10/24/2023 | 10/24/2024 |
| DC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

REPORT NUMBER: SP1-2407-184-4

## CIE 1931 Chromaticity Diagram




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

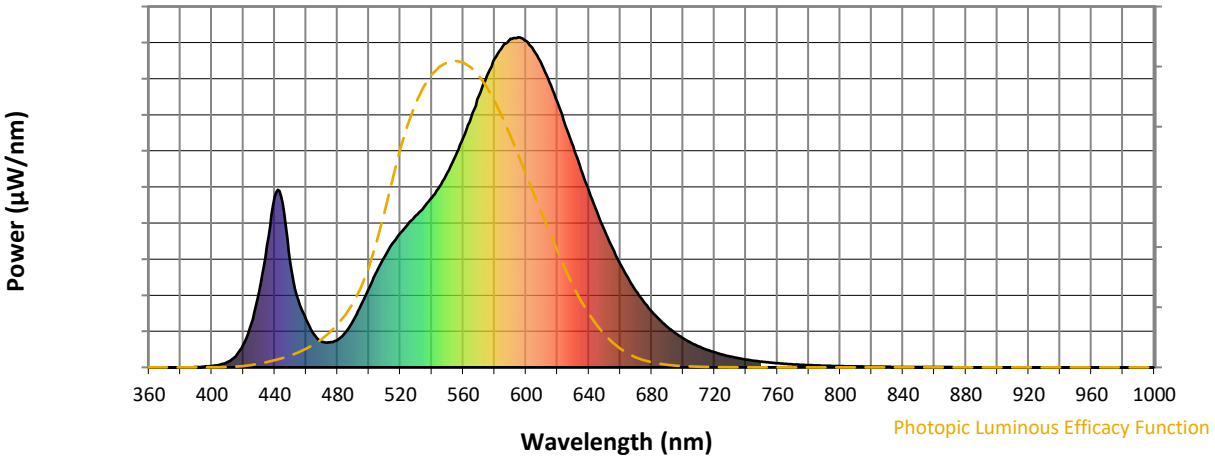



CCT = 2985K
CIE x = 0.4408
CIE y = 0.4101
Duv = 0.0019

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-184-4

## Photopic Flux vs. Wavelength

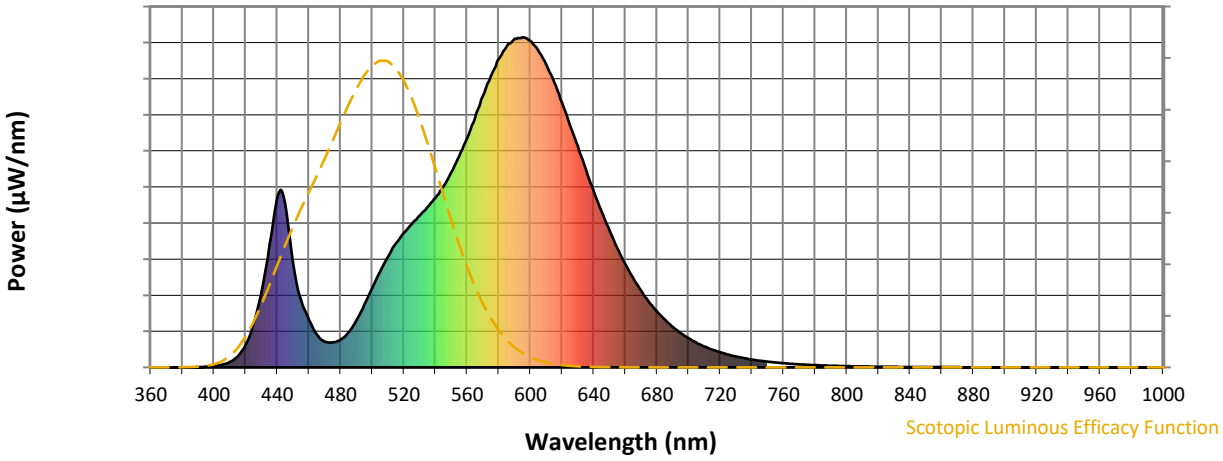



## Photopic Lumens: NR

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

## Scotopic Flux vs. Wavelength

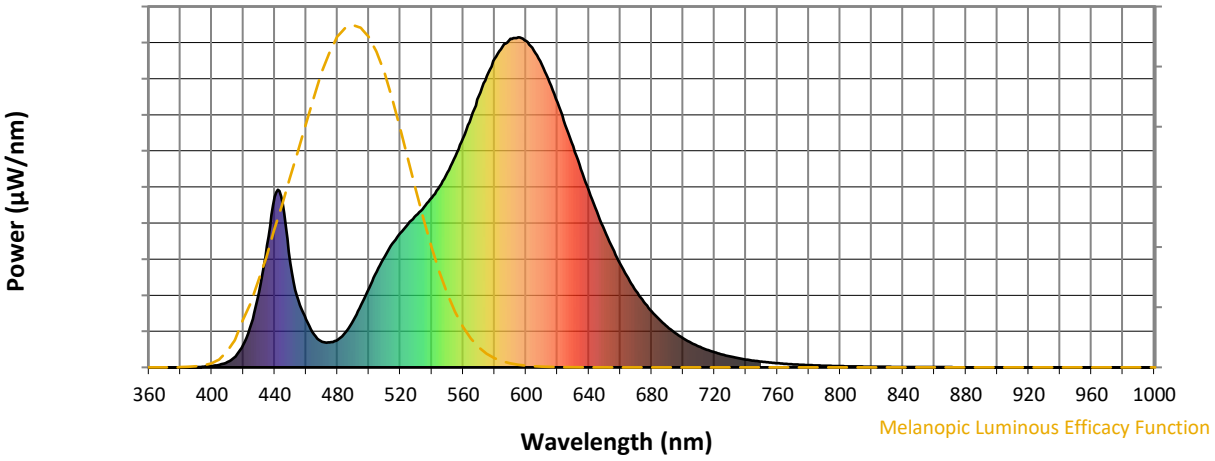



**Scotopic Lumens: NR** **S/P: 1.19**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

REPORT NUMBER: SP1-2407-184-4

## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.13**

| 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 | 142 | NR | 620 | 803 | NR | 750 | 17 | NR | 880 | 0 | NR |
| 365 | 0 | NR | 495 | 189 | NR | 625 | 734 | NR | 755 | 15 | NR | 885 | 0 | NR |
| 370 | 0 | NR | 500 | 240 | NR | 630 | 670 | NR | 760 | 13 | NR | 890 | 0 | NR |
| 375 | 0 | NR | 505 | 290 | NR | 635 | 600 | NR | 765 | 11 | NR | 895 | 0 | NR |
| 380 | 0 | NR | 510 | 335 | NR | 640 | 535 | NR | 770 | 9 | NR | 900 | 0 | NR |
| 385 | 0 | NR | 515 | 375 | NR | 645 | 473 | NR | 775 | 8 | NR | 905 | 0 | NR |
| 390 | 1 | NR | 520 | 408 | NR | 650 | 415 | NR | 780 | 7 | NR | 910 | 0 | NR |
| 395 | 2 | NR | 525 | 434 | NR | 655 | 362 | NR | 785 | 6 | NR | 915 | 0 | NR |
| 400 | 4 | NR | 530 | 461 | NR | 660 | 313 | NR | 790 | 5 | NR | 920 | 0 | NR |
| 405 | 8 | NR | 535 | 486 | NR | 665 | 271 | NR | 795 | 4 | NR | 925 | 0 | NR |
| 410 | 16 | NR | 540 | 514 | NR | 670 | 231 | NR | 800 | 4 | NR | 930 | 0 | NR |
| 415 | 33 | NR | 545 | 549 | NR | 675 | 198 | NR | 805 | 3 | NR | 935 | 0 | NR |
| 420 | 69 | NR | 550 | 591 | NR | 680 | 169 | NR | 810 | 3 | NR | 940 | 0 | NR |
| 425 | 131 | NR | 555 | 640 | NR | 685 | 144 | NR | 815 | 2 | NR | 945 | 0 | NR |
| 430 | 227 | NR | 560 | 695 | NR | 690 | 123 | NR | 820 | 2 | NR | 950 | 0 | NR |
| 435 | 369 | NR | 565 | 757 | NR | 695 | 104 | NR | 825 | 2 | NR | 955 | 0 | NR |
| 440 | 517 | NR | 570 | 822 | NR | 700 | 88 | NR | 830 | 2 | NR | 960 | 0 | NR |
| 445 | 498 | NR | 575 | 882 | NR | 705 | 75 | NR | 835 | 1 | NR | 965 | 0 | NR |
| 450 | 315 | NR | 580 | 935 | NR | 710 | 63 | NR | 840 | 1 | NR | 970 | 0 | NR |
| 455 | 204 | NR | 585 | 972 | NR | 715 | 54 | NR | 845 | 1 | NR | 975 | 0 | NR |
| 460 | 145 | NR | 590 | 996 | NR | 720 | 46 | NR | 850 | 1 | NR | 980 | 0 | NR |
| 465 | 100 | NR | 595 | 1000 | NR | 725 | 39 | NR | 855 | 1 | NR | 985 | 0 | NR |
| 470 | 78 | NR | 600 | 989 | NR | 730 | 33 | NR | 860 | 1 | NR | 990 | 0 | NR |
| 475 | 76 | NR | 605 | 960 | NR | 735 | 28 | NR | 865 | 1 | NR | 995 | 0 | NR |
| 480 | 83 | NR | 610 | 918 | NR | 740 | 24 | NR | 870 | 1 | NR | 1000 | 0 | NR |
| 485 | 105 | NR | 615 | 864 | NR | 745 | 20 | NR | 875 | 1 | NR | | | |

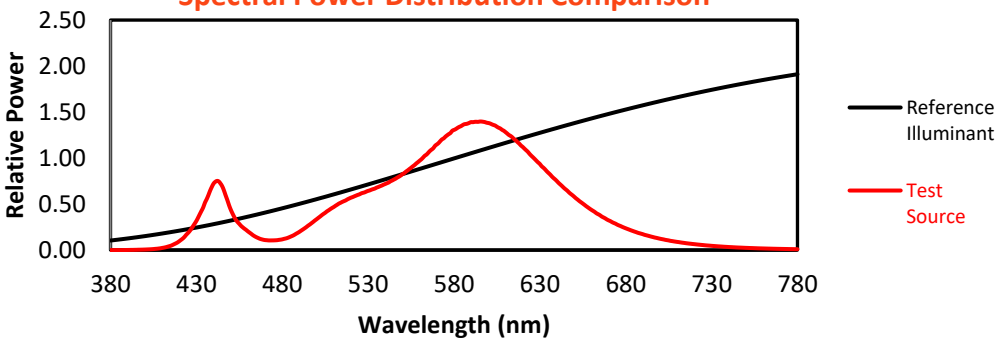
REPORT NUMBER: SP1-2407-184-4

# TM-30-18

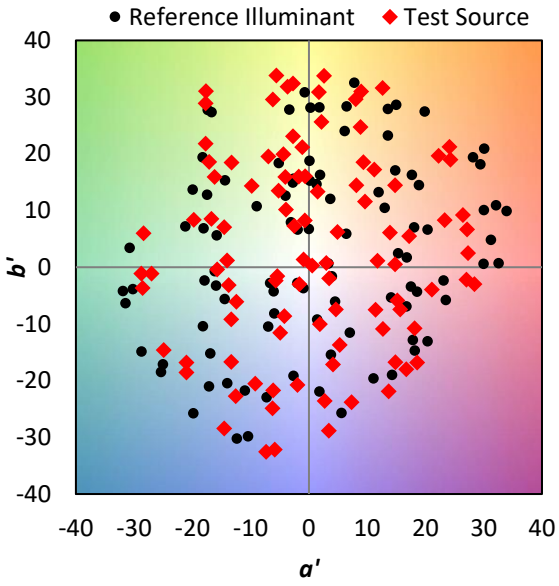
## Summary

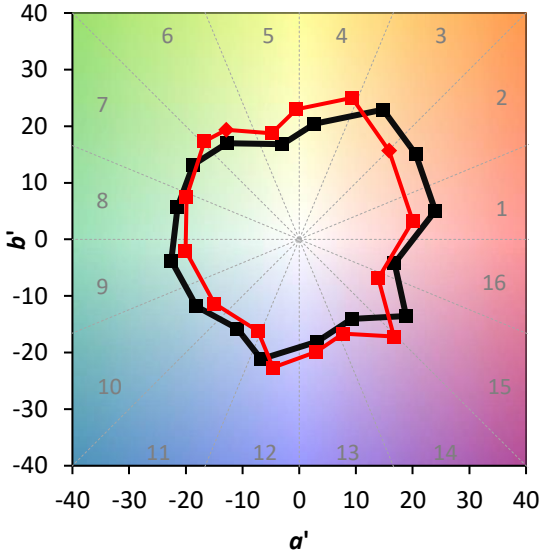
$R_f$ = 73.8
$R_g$ = 94.4
CIE $R_a$ = 70.8
$R_9$ = -43.2

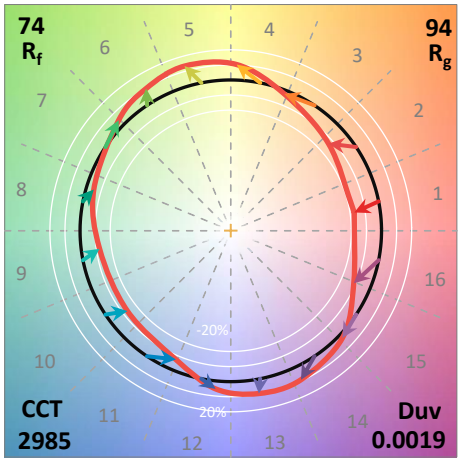
## Spectral Power Distribution Comparison

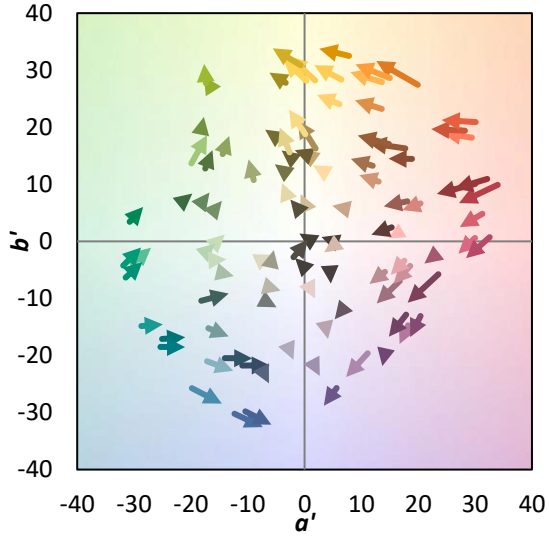



## Color Vector Graphics



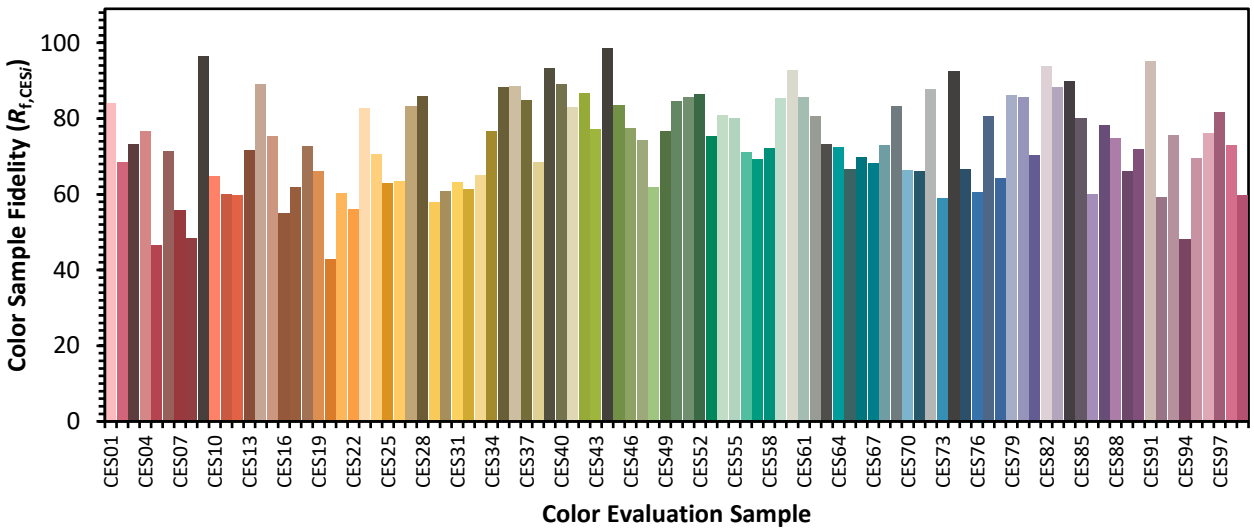



REPORT NUMBER: SP1-2407-184-4

# TM-30-18

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

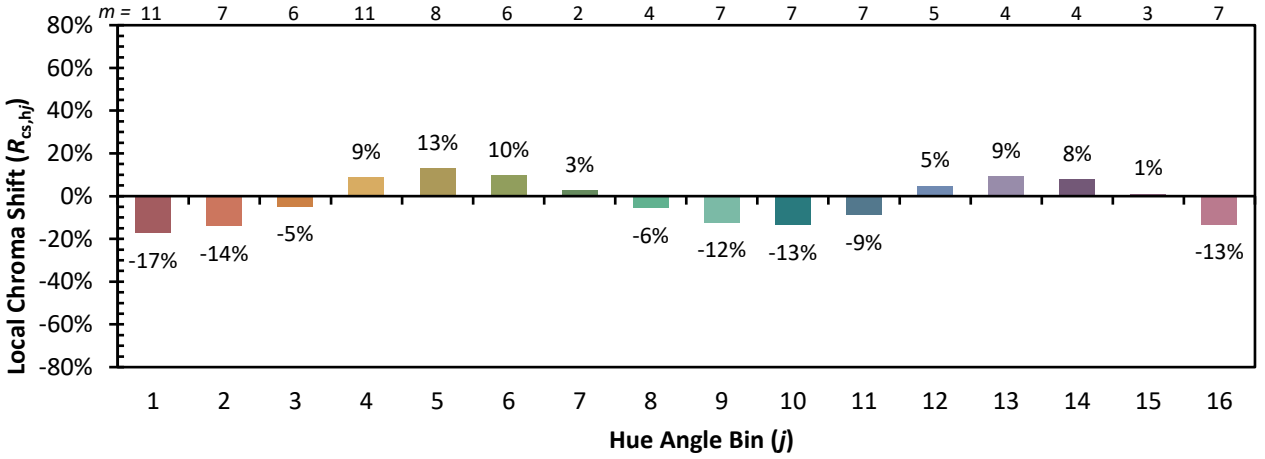
| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 63 | CES51 = 86 | CES76 = 61 |
| CES02 = 62 | CES27 = 83 | CES52 = 86 | CES77 = 81 |
| CES03 = 31 | CES28 = 86 | CES53 = 75 | CES78 = 64 |
| CES04 = 71 | CES29 = 58 | CES54 = 81 | CES79 = 86 |
| CES05 = 49 | CES30 = 61 | CES55 = 80 | CES80 = 86 |
| CES06 = 51 | CES31 = 63 | CES56 = 71 | CES81 = 70 |
| CES07 = 41 | CES32 = 61 | CES57 = 69 | CES82 = 94 |
| CES08 = 40 | CES33 = 65 | CES58 = 72 | CES83 = 88 |
| CES09 = 29 | CES34 = 77 | CES59 = 85 | CES84 = 90 |
| CES10 = 76 | CES35 = 88 | CES60 = 93 | CES85 = 80 |
| CES11 = 59 | CES36 = 89 | CES61 = 86 | CES86 = 60 |
| CES12 = 65 | CES37 = 85 | CES62 = 81 | CES87 = 78 |
| CES13 = 43 | CES38 = 69 | CES63 = 73 | CES88 = 75 |
| CES14 = 74 | CES39 = 93 | CES64 = 72 | CES89 = 66 |
| CES15 = 71 | CES40 = 89 | CES65 = 67 | CES90 = 72 |
| CES16 = 47 | CES41 = 83 | CES66 = 70 | CES91 = 95 |
| CES17 = 50 | CES42 = 87 | CES67 = 68 | CES92 = 59 |
| CES18 = 56 | CES43 = 77 | CES68 = 73 | CES93 = 76 |
| CES19 = 73 | CES44 = 99 | CES69 = 83 | CES94 = 48 |
| CES20 = 66 | CES45 = 83 | CES70 = 66 | CES95 = 70 |
| CES21 = 87 | CES46 = 77 | CES71 = 66 | CES96 = 76 |
| CES22 = 79 | CES47 = 74 | CES72 = 88 | CES97 = 82 |
| CES23 = 92 | CES48 = 62 | CES73 = 59 | CES98 = 73 |
| CES24 = 91 | CES49 = 77 | CES74 = 93 | CES99 = 60 |
| CES25 = 73 | CES50 = 85 | CES75 = 67 | |

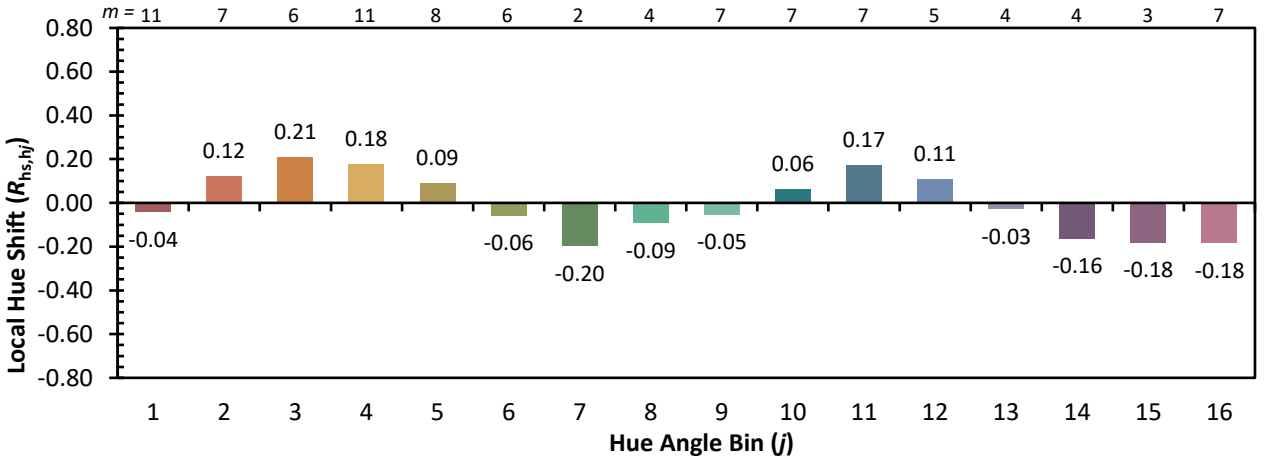


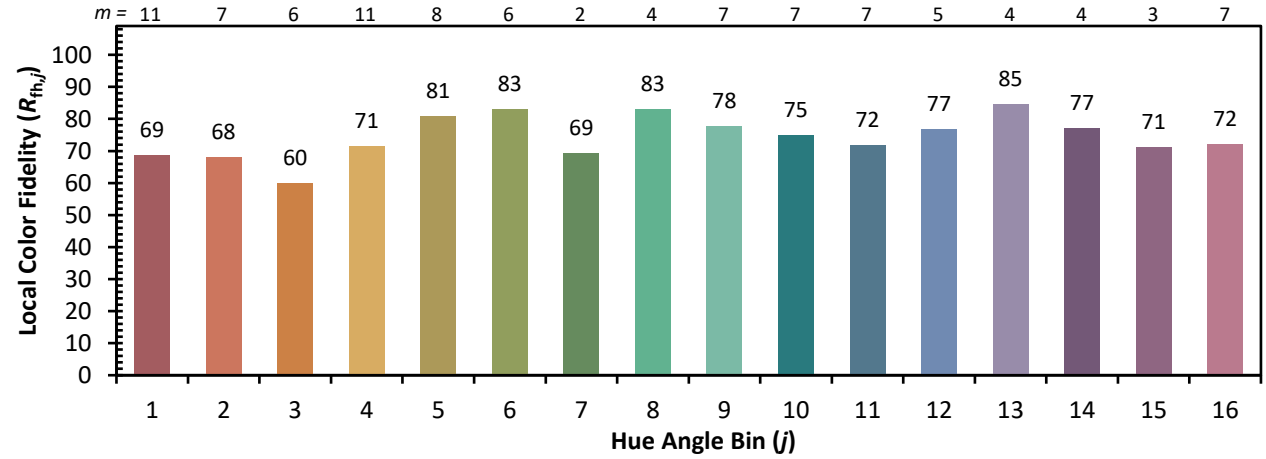
REPORT NUMBER: SP1-2407-184-4

**TM-30-18**

## Color Rendition by Hue-Angle Bin



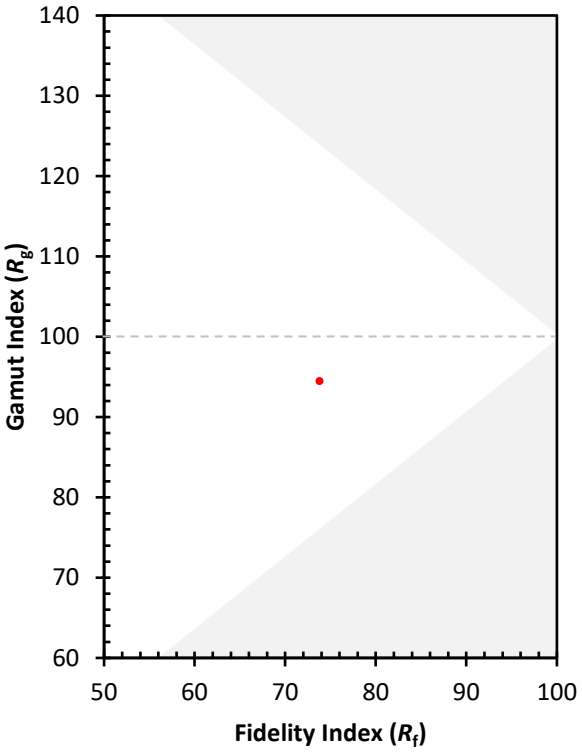



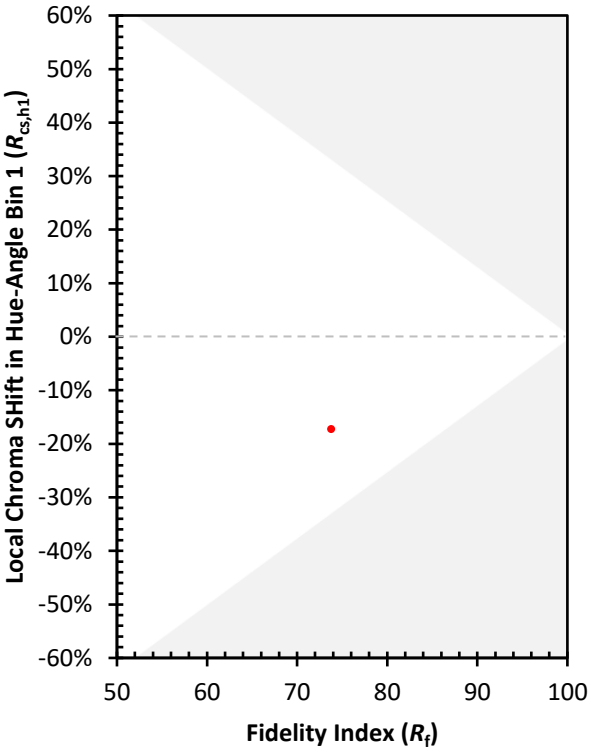



REPORT NUMBER: SP1-2407-184-4

# TM-30-18

## Measure Comparisons




(END OF REPORT)