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: P1458193

Luminaire Tested: GLAN-SB7C-730-U-T3LG-HSS

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: | P1458193 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/21/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB7C-730-U-T3LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 615mA 7xLight Square PACKAGE 70CRI 3000K FIXTURE w/ TYPE III LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (182) 3000K CCT, 70 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 40698.6 lumens |
| Efficiency: | N/A |
| Efficacy: | 116.1 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1.5' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B3 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 350.5 |
| 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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REPORT NUMBER: P1458193
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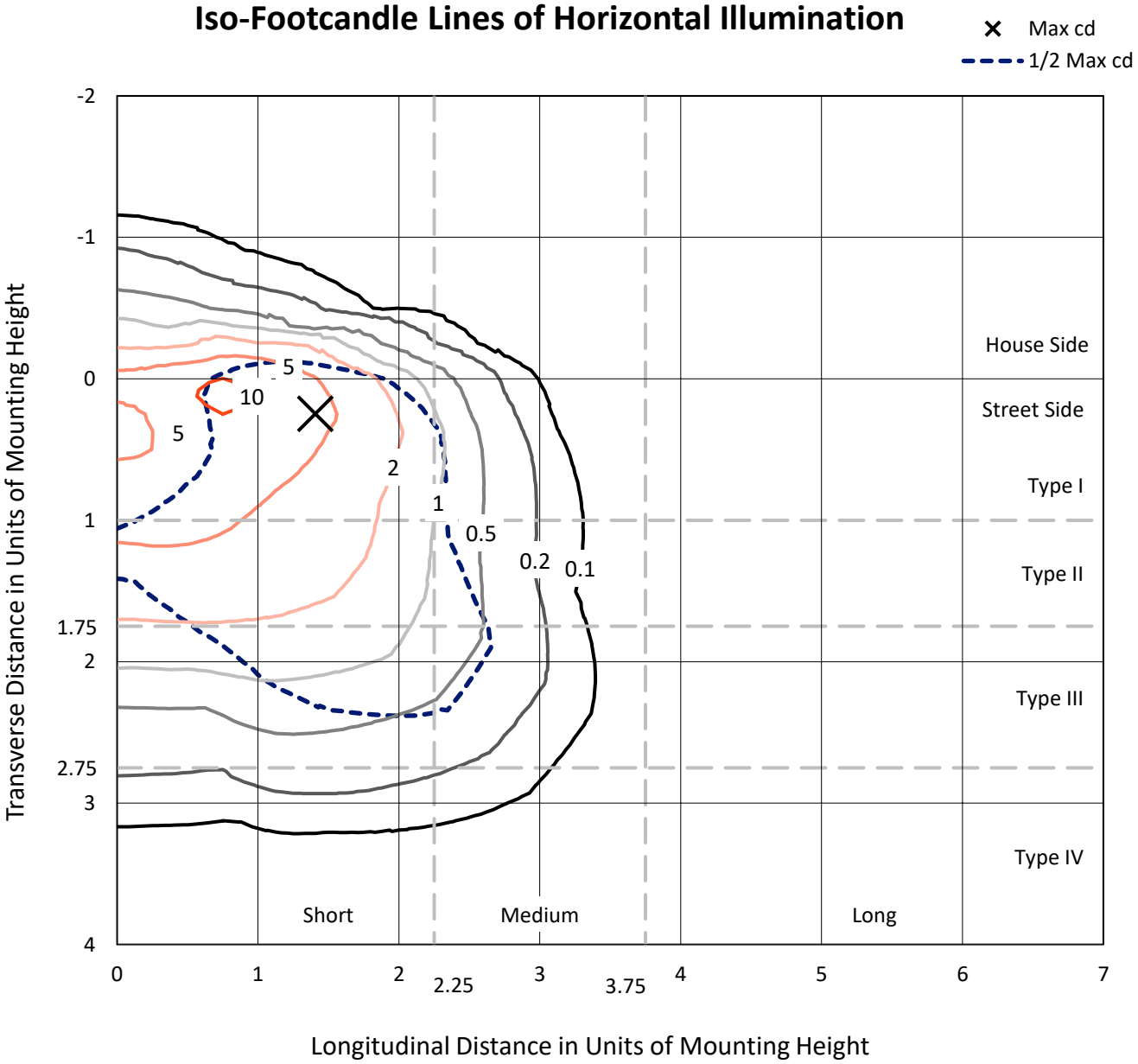
## Iso-Footcandle Lines of Horizontal Illumination




Based on 30 foot mounting height. Maximum calculated value = 11.2 fc
Type III - Short - N/A

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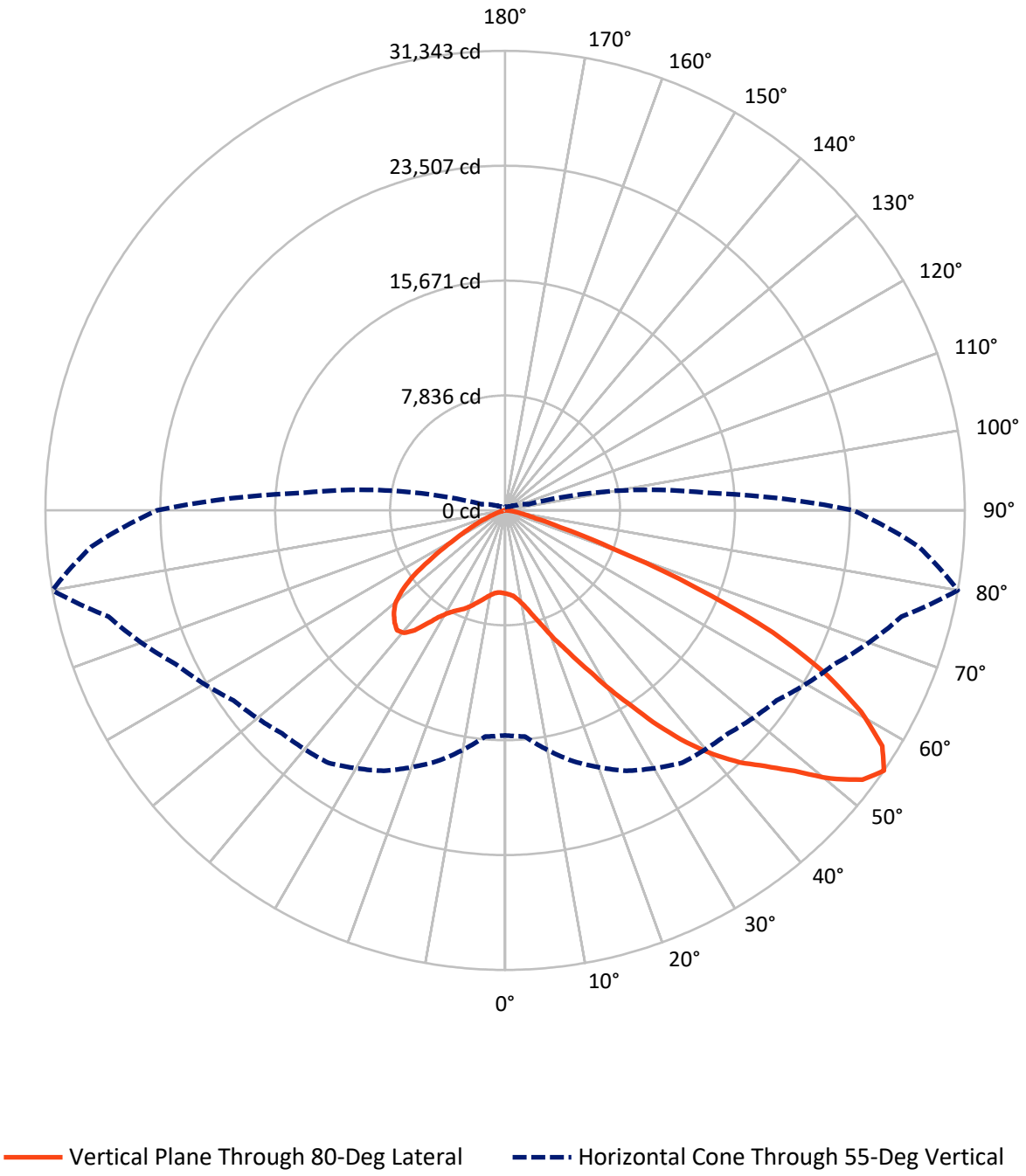
## Luminous Intensity Polar Plot



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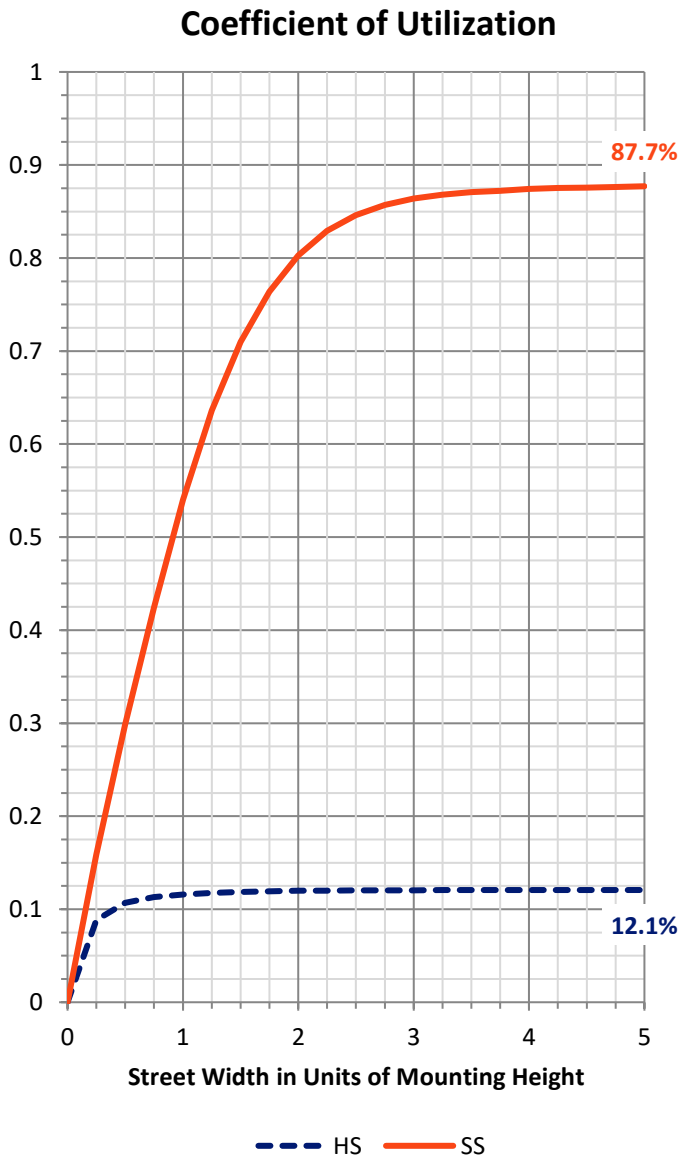
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 4947.4 | 0.0 | 4947.4 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| **Street Side** | Lumens | 35751.3 | 0.0 | 35751.3 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| **Total** | Lumens | 40698.6 | 0.0 | 40698.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 475.8 | 1.2 |
| 10°-20° | 1254.3 | 3.1 |
| 20°-30° | 2455.5 | 6.0 |
| 30°-40° | 4995.6 | 12.3 |
| 40°-50° | 8421.9 | 20.7 |
| 50°-60° | 10760.6 | 26.4 |
| 60°-70° | 9187.0 | 22.6 |
| 70°-80° | 2935.8 | 7.2 |
| 80°-90° | 212.0 | 0.5 |
| 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° | 40698.6 | 100.0 |
| 0°-180° | 40698.6 | 100.0 |



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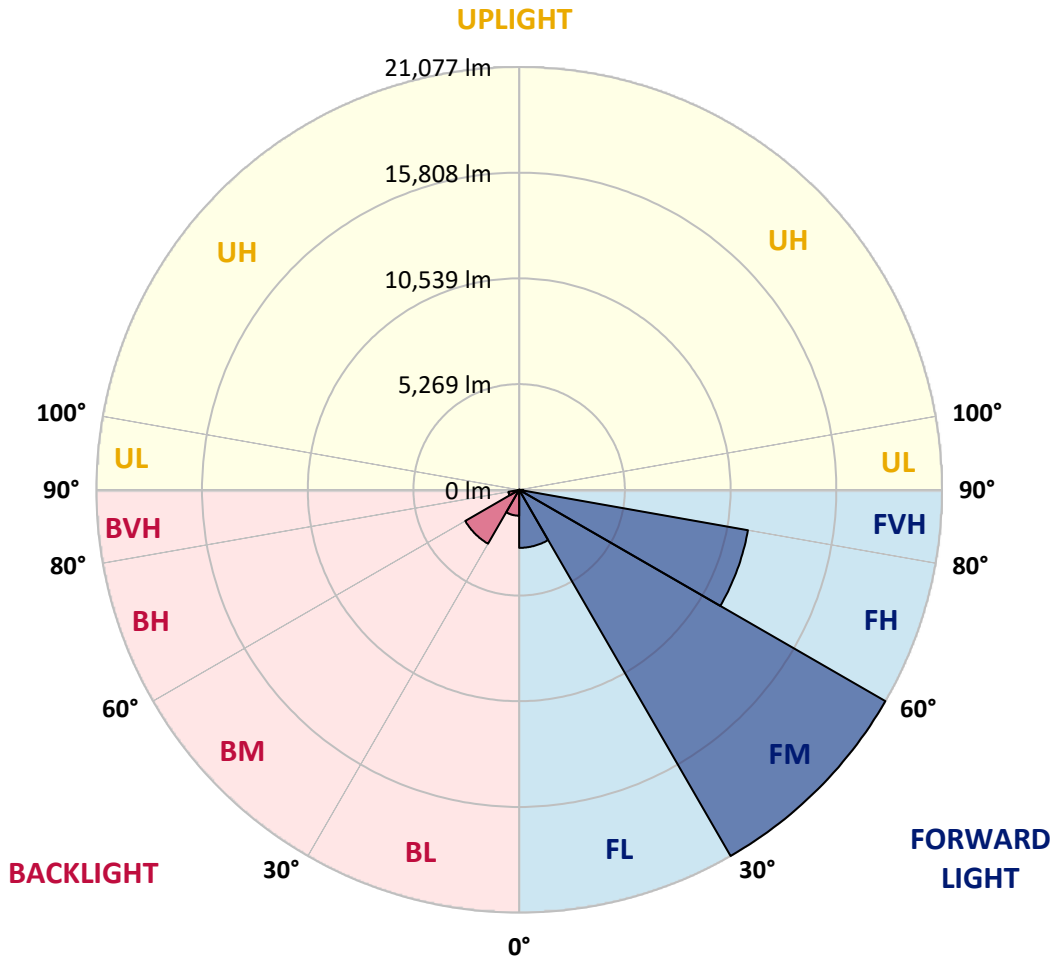
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2893.7 | 7.1 | | | |
| FM | (30°-60°) | 21077.5 | 51.8 | | | |
| FH | (60°-80°) | 11579.1 | 28.5 | | | G4/12000 |
| FVH | (80°-90°) | 200.9 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 1291.9 | 3.2 | B3/2500 | | |
| BM | (30°-60°) | 3100.7 | 7.6 | B3/5000 | | |
| BH | (60°-80°) | 543.8 | 1.3 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 11.0 | 0.0 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B3-U0-G4**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | *5669.3* | 5669.3 |
| 2.5° | 5704.0 | 5715.5 | 5704.0 | 5715.5 | 5738.7 | 5727.1 | 5773.4 | 5761.8 | 5761.8 | *5750.2* | 5704.0 |
| 5° | 5380.0 | 5391.6 | 5414.7 | 5472.6 | 5553.6 | 5634.5 | 5738.7 | 5808.1 | 5877.5 | *5865.9* | 5819.7 |
| 7.5° | 4743.7 | 4766.8 | 4859.4 | 4975.1 | 5241.2 | 5484.1 | 5750.2 | 5923.8 | 6074.2 | *6120.5* | 6085.8 |
| 10° | 4385.0 | 4408.1 | 4466.0 | 4581.7 | 4824.7 | 5229.6 | 5750.2 | 6108.9 | 6375.0 | *6467.6* | 6479.1 |
| 12.5° | 4350.3 | 4361.9 | 4408.1 | 4535.4 | 4743.7 | 5090.8 | 5738.7 | 6351.9 | 6803.1 | *6941.9* | 6988.2 |
| 15° | 4373.4 | 4396.6 | 4442.8 | 4547.0 | 4789.9 | 5183.3 | 5831.2 | 6733.7 | 7370.0 | *7566.7* | 7578.3 |
| 17.5° | 4466.0 | 4489.1 | 4547.0 | 4662.7 | 4928.8 | 5426.3 | 6120.5 | 7127.1 | 8052.7 | *8272.5* | 8399.8 |
| 20° | 4651.1 | 4662.7 | 4732.1 | 4882.5 | 5183.3 | 5727.1 | 6548.6 | 7659.3 | 8874.1 | *9198.1* | 9290.6 |
| 22.5° | 4894.1 | 4928.8 | 5021.3 | 5206.5 | 5588.3 | 6143.6 | 7138.6 | 8307.2 | 9776.6 | *10112.1* | 10274.1 |
| 25° | 5160.2 | 5206.5 | 5345.3 | 5646.1 | 6132.0 | 6780.0 | 7867.5 | 9163.4 | 10841.0 | *11245.9* | 11465.8 |
| 27.5° | 5704.0 | 5715.5 | 5808.1 | 6189.9 | 6814.7 | 7613.0 | 8793.1 | 10262.5 | 12090.6 | *12564.9* | 12807.9 |
| 30° | 6895.7 | 6907.2 | 6826.2 | 6930.4 | 7566.7 | 8596.4 | 9880.7 | 11546.8 | 13548.4 | *14207.8* | 14404.5 |
| 32.5° | 8353.5 | 8411.3 | 8399.8 | 8330.3 | 8619.6 | 9579.9 | 11176.5 | 13085.6 | 15260.7 | *15954.9* | 16140.0 |
| 35° | 10008.0 | 10146.8 | 10112.1 | 10089.0 | 10123.7 | 10841.0 | 12657.5 | 14786.3 | 17204.4 | *18049.1* | 18199.5 |
| 37.5° | 11627.8 | 11662.5 | 11824.4 | 12021.1 | 12044.3 | 12541.8 | 14369.8 | 16591.2 | 19009.4 | *20085.4* | 20316.8 |
| 40° | 12877.3 | 12993.0 | 13397.9 | 13791.3 | 14196.3 | 14589.6 | 15781.3 | 18049.1 | 20444.0 | *21890.3* | 21994.4 |
| 42.5° | 13849.2 | 14126.9 | 14716.9 | 15330.1 | 16151.6 | 16591.2 | 17123.5 | 19078.8 | 21612.6 | *23498.5* | 23452.2 |
| 45° | 15029.3 | 15145.0 | 15978.0 | 16787.9 | 17621.0 | 18292.0 | 18280.4 | 19946.5 | 22526.6 | *24875.3* | 24586.0 |
| 47.5° | 15827.6 | 15966.5 | 17100.3 | 18049.1 | 18905.2 | 19240.8 | 19310.2 | 20883.7 | 23787.7 | *26541.4* | 25858.7 |
| 50° | 16255.7 | 16498.7 | 17736.7 | 18939.9 | 19865.5 | 19969.7 | 20282.0 | 22110.1 | 25442.2 | *28751.2* | 27467.0 |
| 52.5° | 16302.0 | 16533.4 | 17956.5 | 19506.9 | 20513.4 | 20721.7 | 21253.9 | 23498.5 | 27050.4 | *30521.4* | 28392.5 |
| 55° | *15341.7* | *15480.5* | *17690.4* | *19599.4* | *21022.5* | *21508.5* | *22596.0* | *24782.7* | *27987.6* | *31342.9* | *28311.6* |
| 57.5° | 14439.2 | 14578.1 | 16498.7 | 19437.4 | 21543.2 | 22538.2 | 24030.7 | 25662.0 | 27258.7 | *30324.7* | 26506.7 |
| 60° | 13664.1 | 13733.5 | 15480.5 | 18685.4 | 21739.9 | 23544.8 | 25268.7 | 24794.3 | 25372.8 | *27883.5* | 23417.5 |
| 62.5° | 12206.2 | 12252.5 | 14323.5 | 17331.7 | 21346.5 | 24319.9 | 25696.8 | 22954.7 | 23301.8 | *24516.6* | 19784.5 |
| 65° | 9221.2 | 9394.8 | 11292.2 | 16313.6 | 20698.6 | 24678.6 | 24701.7 | 20710.1 | 20351.5 | *20062.2* | 15561.5 |
| 67.5° | 6259.3 | 6456.0 | 7601.4 | 14670.6 | 19645.7 | 24829.0 | 22769.6 | 17806.1 | 15503.7 | *14011.2* | 10193.1 |
| 70° | 4998.2 | 4998.2 | 5391.6 | 11789.7 | 17146.6 | 22908.4 | 20374.6 | 13444.2 | 9846.0 | *7740.3* | 5461.0 |
| 72.5° | 3285.9 | 3297.4 | 3667.7 | 7485.7 | 12160.0 | 17470.6 | 16614.4 | 7775.0 | 5113.9 | *3945.3* | 2695.8 |
| 75° | 1191.7 | 1191.7 | 1608.2 | 2996.6 | 6432.9 | 10401.3 | 10123.7 | 3713.9 | 2776.8 | *2152.0* | 1631.4 |
| 77.5° | 636.3 | 659.5 | 775.2 | 1238.0 | 2464.4 | 4234.6 | 3956.9 | 1897.5 | 1573.5 | *1342.1* | 1018.2 |
| 80° | 428.1 | 439.7 | 520.6 | 763.6 | 1191.7 | 1631.4 | 1272.7 | 1064.4 | 1064.4 | *902.5* | 682.6 |
| 82.5° | 231.4 | 243.0 | 347.1 | 497.5 | 636.3 | 763.6 | 613.2 | 624.8 | 752.0 | *613.2* | 393.4 |
| 85° | 162.0 | 162.0 | 266.1 | 358.7 | 358.7 | 370.2 | 266.1 | 393.4 | 439.7 | *381.8* | 266.1 |
| 87.5° | 92.6 | 92.6 | 150.4 | 173.5 | 173.5 | 162.0 | 81.0 | 138.8 | 173.5 | *196.7* | 115.7 |
| 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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Scaled Data Report

REPORT NUMBER: P1458193
CATALOG NUMBER: GLAN-SB7C-730-U-T3LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 | 5669.3 |
| 2.5° | 5692.4 | 5657.7 | 5588.3 | 5449.4 | 5380.0 | 5287.4 | 5206.5 | 5102.3 | 5079.2 | 5067.6 | 5021.3 |
| 5° | 5785.0 | 5715.5 | 5507.3 | 5206.5 | 4951.9 | 4709.0 | 4466.0 | 4327.1 | 4211.4 | 4153.6 | 4142.0 |
| 7.5° | 6016.4 | 5877.5 | 5495.7 | 4963.5 | 4489.1 | 4072.6 | 3713.9 | 3401.6 | 3239.6 | 3100.7 | 3112.3 |
| 10° | 6363.4 | 6143.6 | 5518.8 | 4732.1 | 4026.3 | 3355.3 | 2834.6 | 2383.4 | 2059.4 | 1909.0 | 1897.5 |
| 12.5° | 6826.2 | 6513.9 | 5599.8 | 4500.7 | 3459.4 | 2522.2 | 1862.8 | 1596.6 | 1527.2 | 1515.7 | 1504.1 |
| 15° | 7393.2 | 6953.5 | 5680.8 | 4199.9 | 2695.8 | 1747.1 | 1515.7 | 1457.8 | 1446.2 | 1434.7 | 1434.7 |
| 17.5° | 8075.8 | 7462.6 | 5727.1 | 3690.8 | 1966.9 | 1504.1 | 1423.1 | 1388.4 | 1376.8 | 1365.2 | 1365.2 |
| 20° | 8932.0 | 8029.5 | 5785.0 | 3042.9 | 1666.1 | 1446.2 | 1353.7 | 1307.4 | 1295.8 | 1295.8 | 1284.3 |
| 22.5° | 9776.6 | 8665.9 | 5738.7 | 2476.0 | 1608.2 | 1376.8 | 1272.7 | 1226.4 | 1203.3 | 1203.3 | 1191.7 |
| 25° | 10748.4 | 9313.8 | 5599.8 | 2233.0 | 1596.6 | 1319.0 | 1191.7 | 1122.3 | 1087.6 | 1076.0 | 1076.0 |
| 27.5° | 11859.2 | 10054.2 | 5380.0 | 2244.6 | 1596.6 | 1272.7 | 1087.6 | 995.0 | 971.9 | 948.7 | 948.7 |
| 30° | 13131.8 | 10956.7 | 5218.0 | 2395.0 | 1619.8 | 1226.4 | 995.0 | 879.3 | 844.6 | 821.5 | 833.0 |
| 32.5° | 14589.6 | 11963.3 | 5206.5 | 2637.9 | 1654.5 | 1157.0 | 890.9 | 763.6 | 728.9 | 717.3 | 728.9 |
| 35° | 16244.1 | 13212.8 | 5472.6 | 2823.1 | 1561.9 | 1006.6 | 763.6 | 659.5 | 624.8 | 624.8 | 636.3 |
| 37.5° | 18083.8 | 14647.5 | 5831.2 | 2776.8 | 1261.1 | 798.3 | 659.5 | 578.5 | 543.8 | 555.4 | 566.9 |
| 40° | 19761.4 | 15769.8 | 5889.1 | 2371.8 | 948.7 | 682.6 | 566.9 | 509.1 | 485.9 | 497.5 | 509.1 |
| 42.5° | 21034.1 | 16672.2 | 5333.7 | 1839.6 | 798.3 | 578.5 | 485.9 | 439.7 | 428.1 | 451.2 | 451.2 |
| 45° | 22063.8 | 17030.9 | 4454.4 | 1365.2 | 705.8 | 497.5 | 428.1 | 404.9 | 381.8 | 393.4 | 393.4 |
| 47.5° | 23139.8 | 17088.7 | 3633.0 | 1099.1 | 624.8 | 451.2 | 393.4 | 370.2 | 347.1 | 347.1 | 347.1 |
| 50° | 24181.1 | 16949.9 | 2776.8 | 971.9 | 578.5 | 404.9 | 358.7 | 335.5 | 312.4 | 300.8 | 300.8 |
| 52.5° | 24435.6 | 15839.2 | 2036.3 | 902.5 | 532.2 | 381.8 | 335.5 | 312.4 | 289.2 | 277.7 | 277.7 |
| 55° | *23729.9* | *13733.5* | *1596.6* | *809.9* | *485.9* | *347.1* | *312.4* | *289.2* | *254.5* | *243.0* | *243.0* |
| 57.5° | 21404.3 | 10470.8 | 1272.7 | 694.2 | 439.7 | 335.5 | 289.2 | 266.1 | 231.4 | 219.8 | 219.8 |
| 60° | 18384.6 | 7427.9 | 1029.7 | 566.9 | 404.9 | 300.8 | 266.1 | 231.4 | 208.3 | 185.1 | 185.1 |
| 62.5° | 15040.9 | 5333.7 | 833.0 | 474.4 | 381.8 | 266.1 | 243.0 | 208.3 | 162.0 | 127.3 | 127.3 |
| 65° | 11535.2 | 3829.6 | 647.9 | 381.8 | 347.1 | 231.4 | 208.3 | 173.5 | 127.3 | 92.6 | 92.6 |
| 67.5° | 7462.6 | 2476.0 | 485.9 | 335.5 | 266.1 | 196.7 | 162.0 | 138.8 | 115.7 | 81.0 | 69.4 |
| 70° | 3933.8 | 1446.2 | 358.7 | 289.2 | 196.7 | 150.4 | 138.8 | 115.7 | 92.6 | 57.8 | 57.8 |
| 72.5° | 2036.3 | 948.7 | 266.1 | 254.5 | 150.4 | 104.1 | 115.7 | 92.6 | 69.4 | 34.7 | 34.7 |
| 75° | 1307.4 | 636.3 | 196.7 | 208.3 | 92.6 | 81.0 | 81.0 | 57.8 | 34.7 | 23.1 | 11.6 |
| 77.5° | 844.6 | 428.1 | 138.8 | 173.5 | 57.8 | 46.3 | 46.3 | 23.1 | 11.6 | 0.0 | 0.0 |
| 80° | 497.5 | 266.1 | 92.6 | 115.7 | 23.1 | 23.1 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 254.5 | 138.8 | 46.3 | 46.3 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 162.0 | 69.4 | 11.6 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 81.0 | 23.1 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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

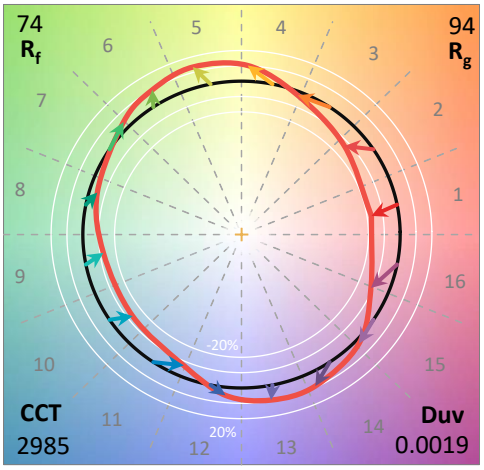
## Test Information

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

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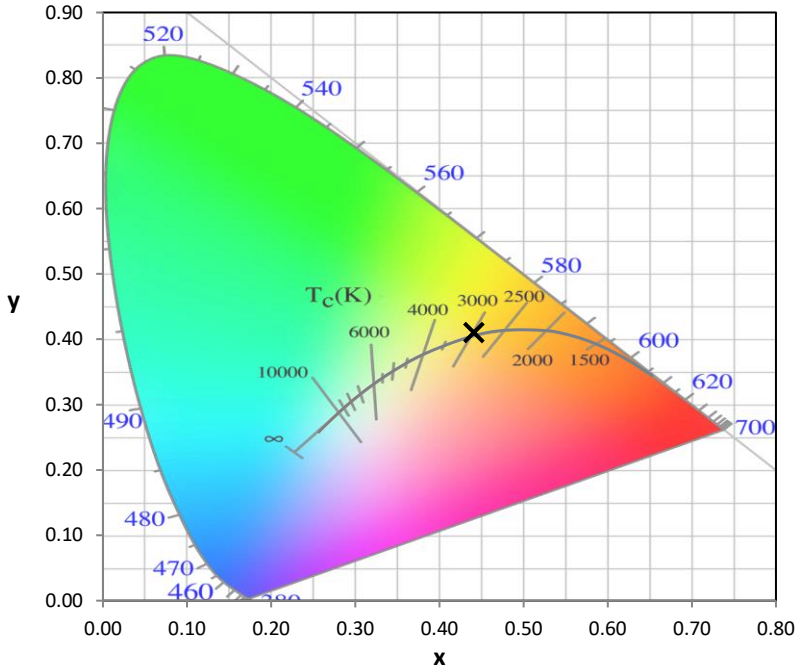
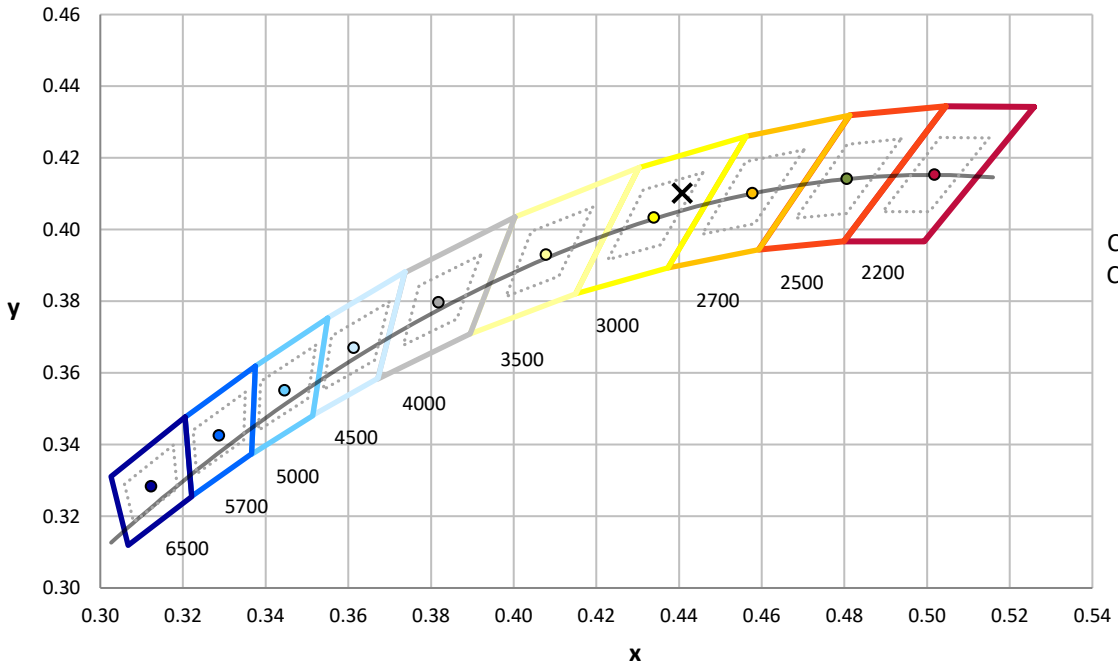
## CIE 1931 Chromaticity Diagram




## 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

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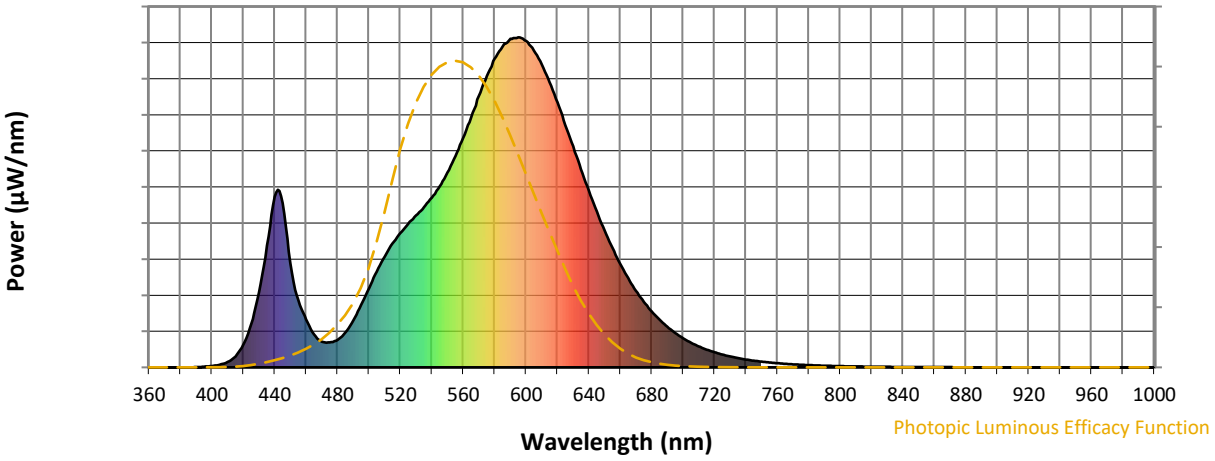
## Photopic Flux vs. Wavelength




## 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 | 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 | | | |

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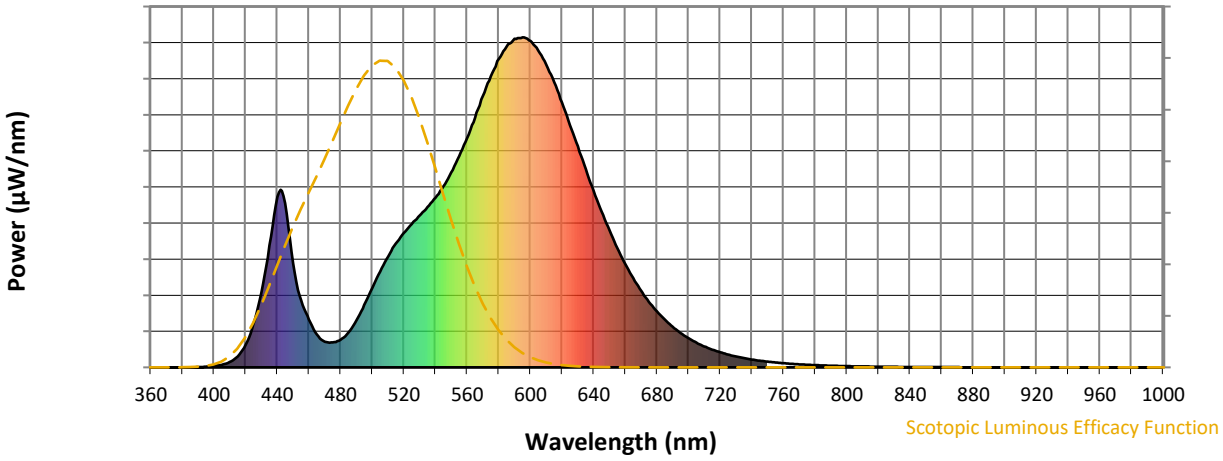
## Scotopic Flux vs. Wavelength




**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 | | | |

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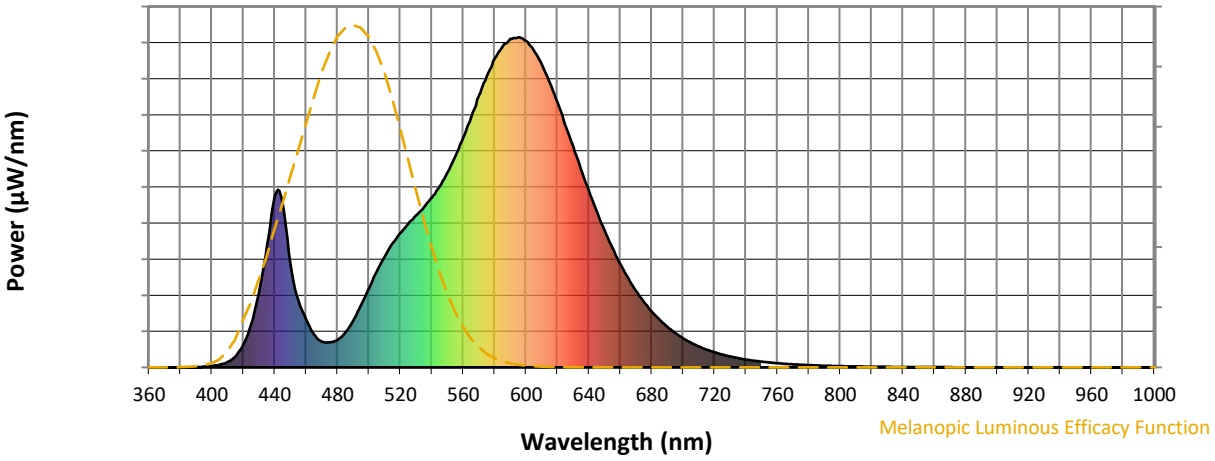
## Melanopic Flux vs. Wavelength




**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 | | | |

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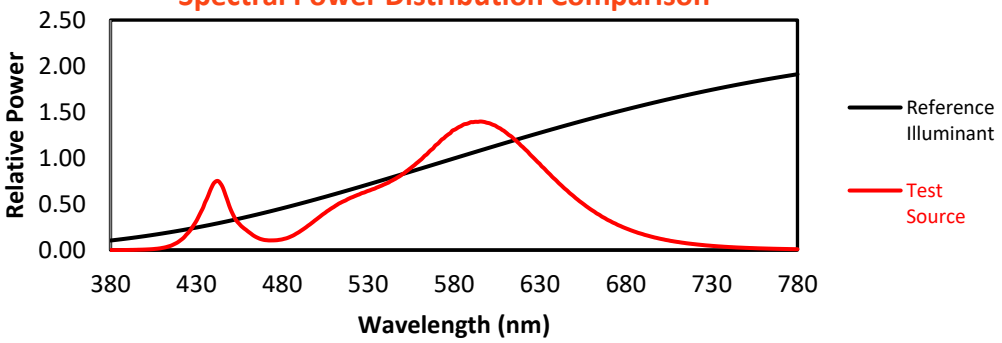
# TM-30-18

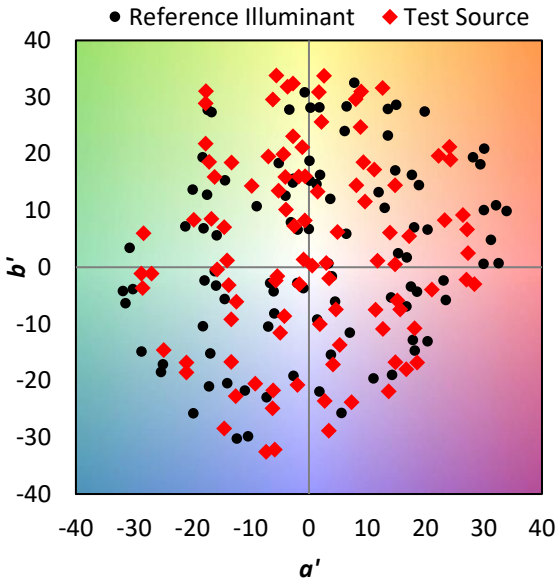
## Summary

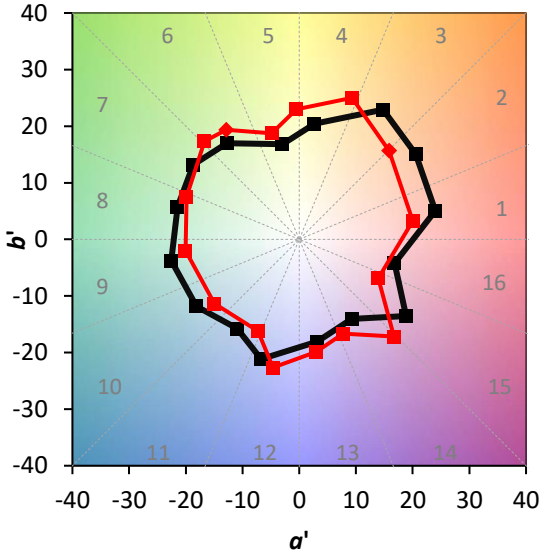
$R_f$ = 73.8
$R_g$ = 94.4
CIE $R_a$ = 70.8
$R_9$ = -43.2

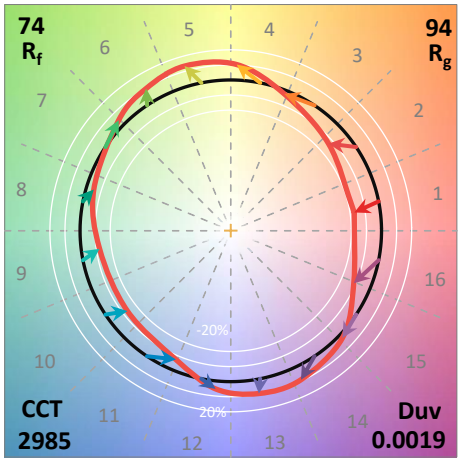
## Spectral Power Distribution Comparison

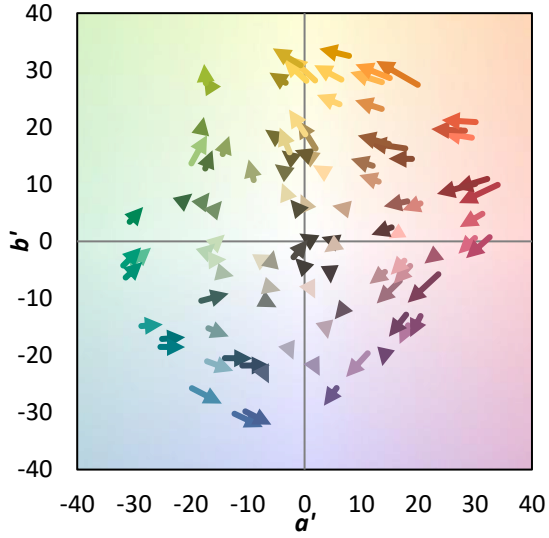



## Color Vector Graphics



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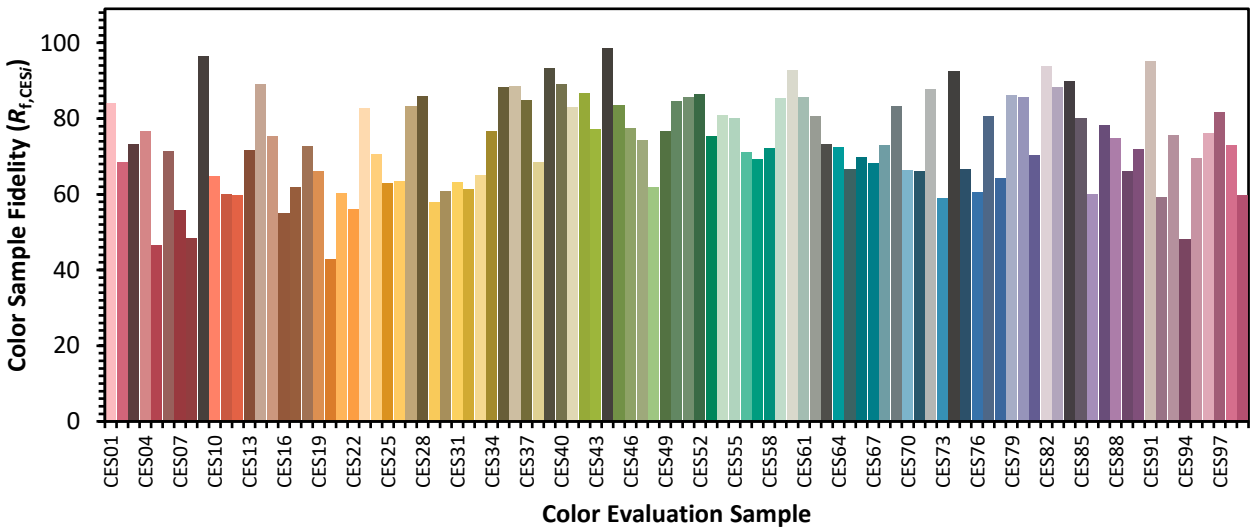
**Individual Sample Fidelity Index ($R_{f,i}$)**

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



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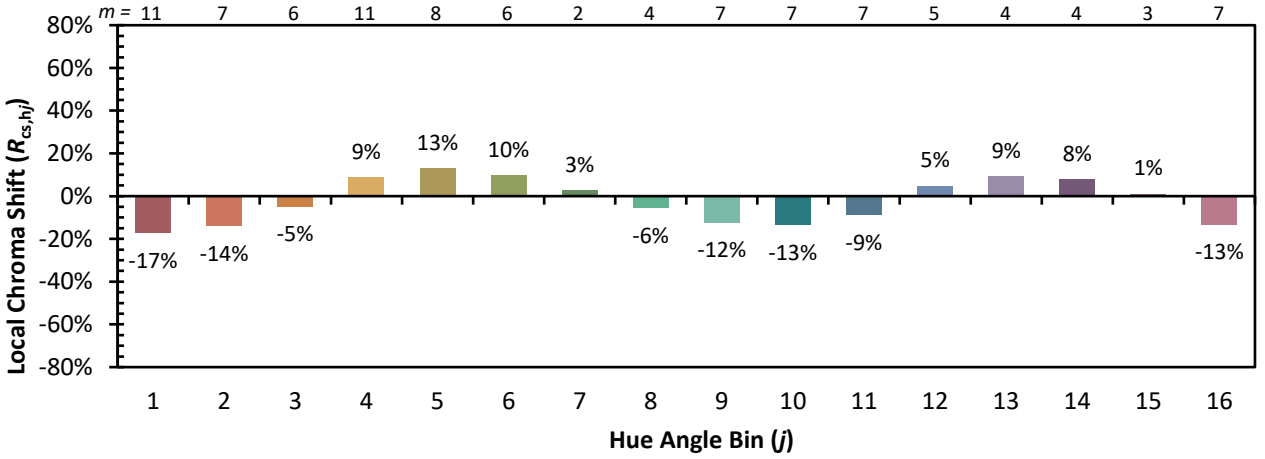
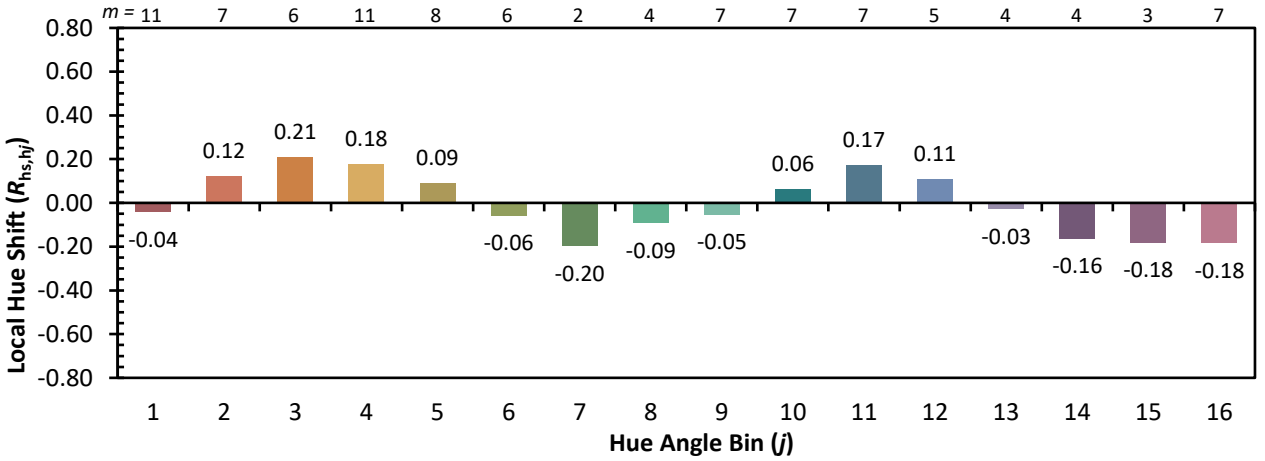
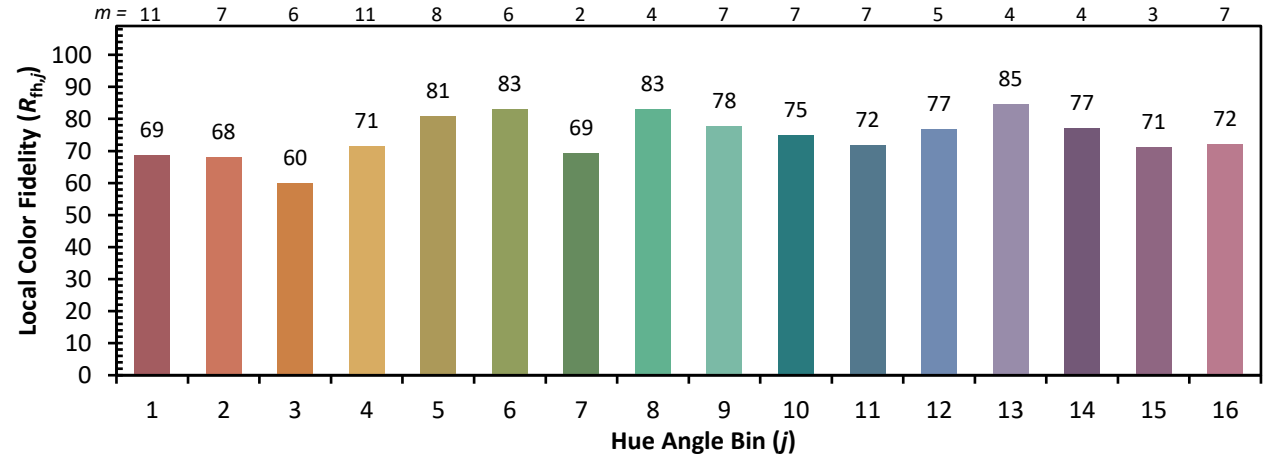
## Color Rendition by Hue-Angle Bin



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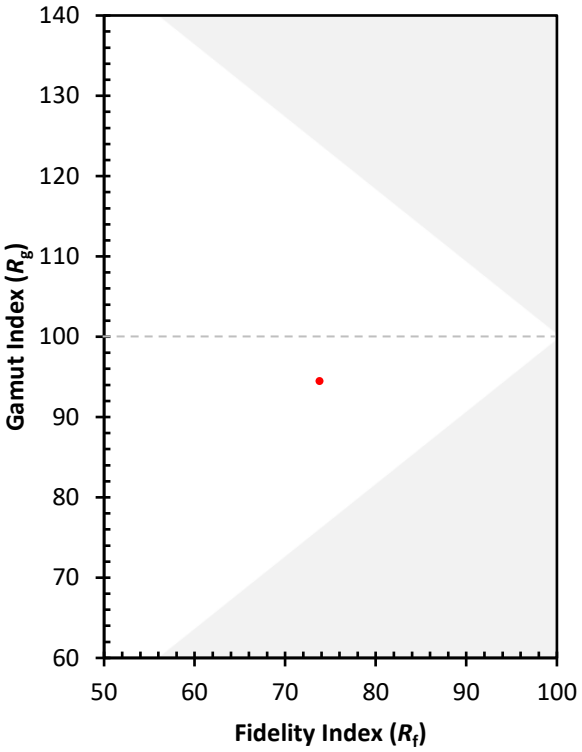
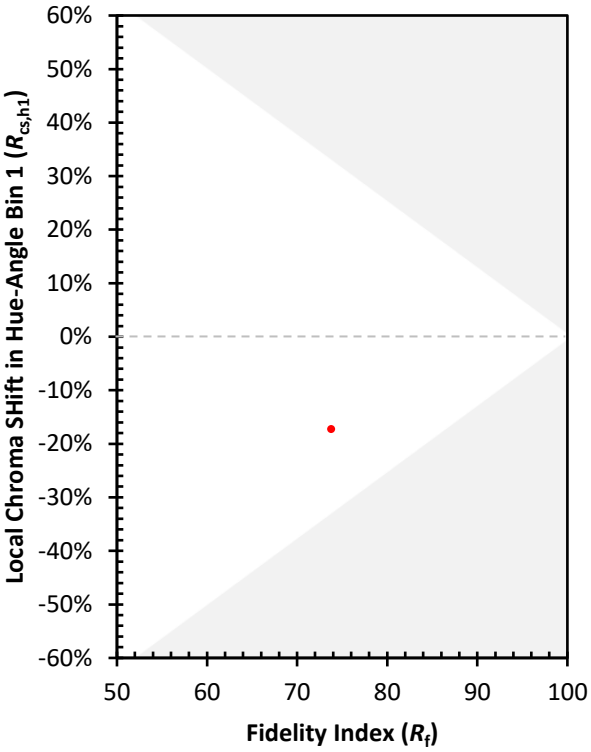
## Measure Comparisons




(END OF REPORT)