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: P1458514

Luminaire Tested: GLAN-SB6D-927-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: | P1458514 |
| Test Lab: | INNOVATION CENTER(G1) |
| Issue Date: | 5/22/2026 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS |
| Product Line: | STREETWORKS |
| Catalog Number: | GLAN-SB6D-927-U-T3LG-HSS |
| Description: | GALLEON II AREA AND ROADWAY HIGH DENSITY LUMINAIRE 900mA 6xLight Square PACKAGE 90CRI 2700K FIXTURE w/ TYPE III LOW GLARE WITH HOUSE SIDE SHIELD |
| Light Source: | (156) 2700K CCT, 90 CRI LEDS |
| Ballast/Driver: | ELECTRONIC DRIVER |

**Summary**

| | |
|---|---|
| Lumens per Lamp: | N/A |
| Luminaire Lumens: | 28691.9 lumens |
| Efficiency: | N/A |
| Efficacy: | 65.2 lumens/watt |
| Luminous Opening: | Rectangular (W 1.5' x L: 1' x H: 0') |
| IES Classification: | Type III - Short |
| BUG Rating: | B2 - U0 - G4 |

| | |
|---|---|
| Input Watts (W): | 440.1 |
| 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: P1458514
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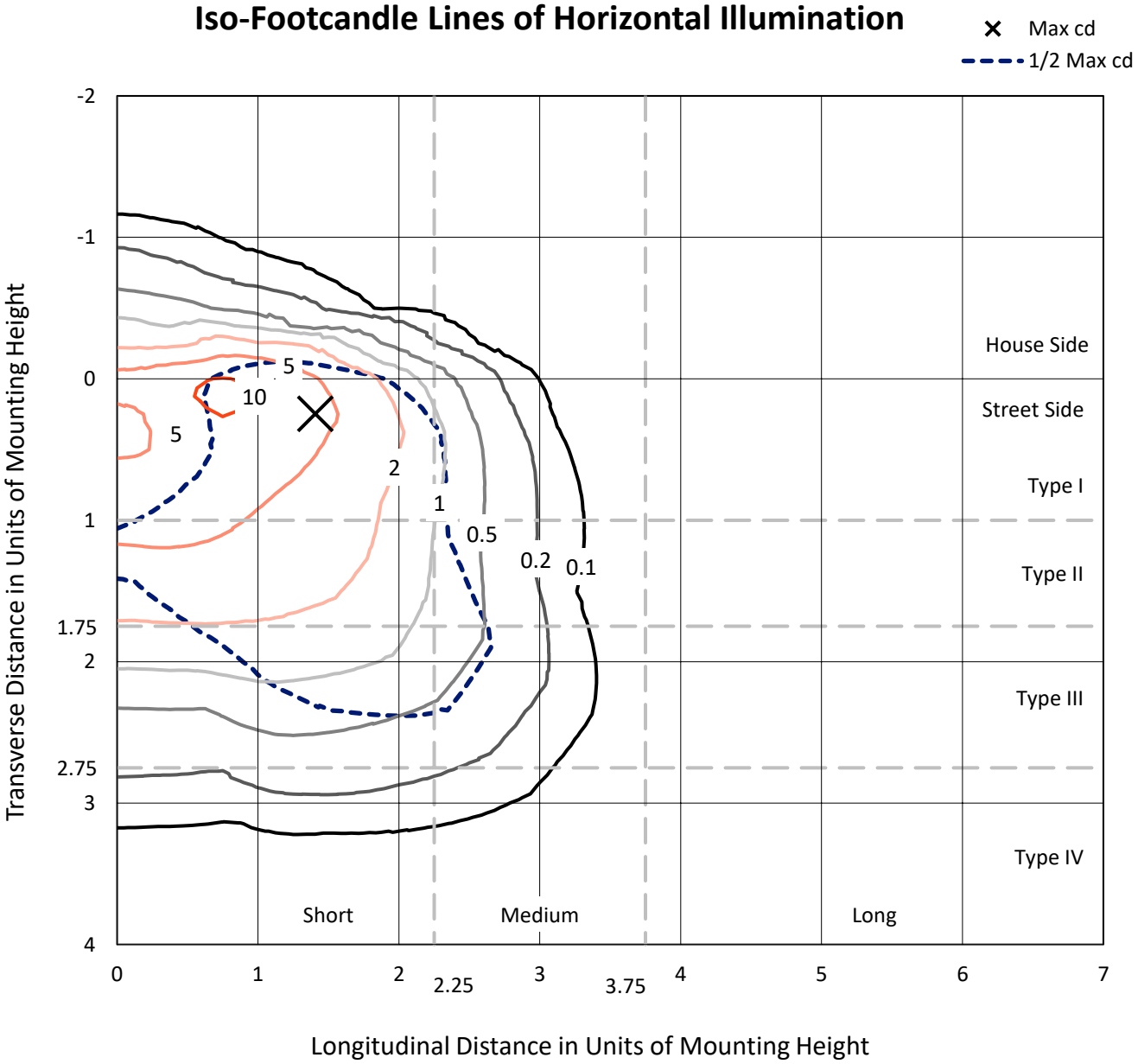
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 11.3 fc
Type III - Short - N/A

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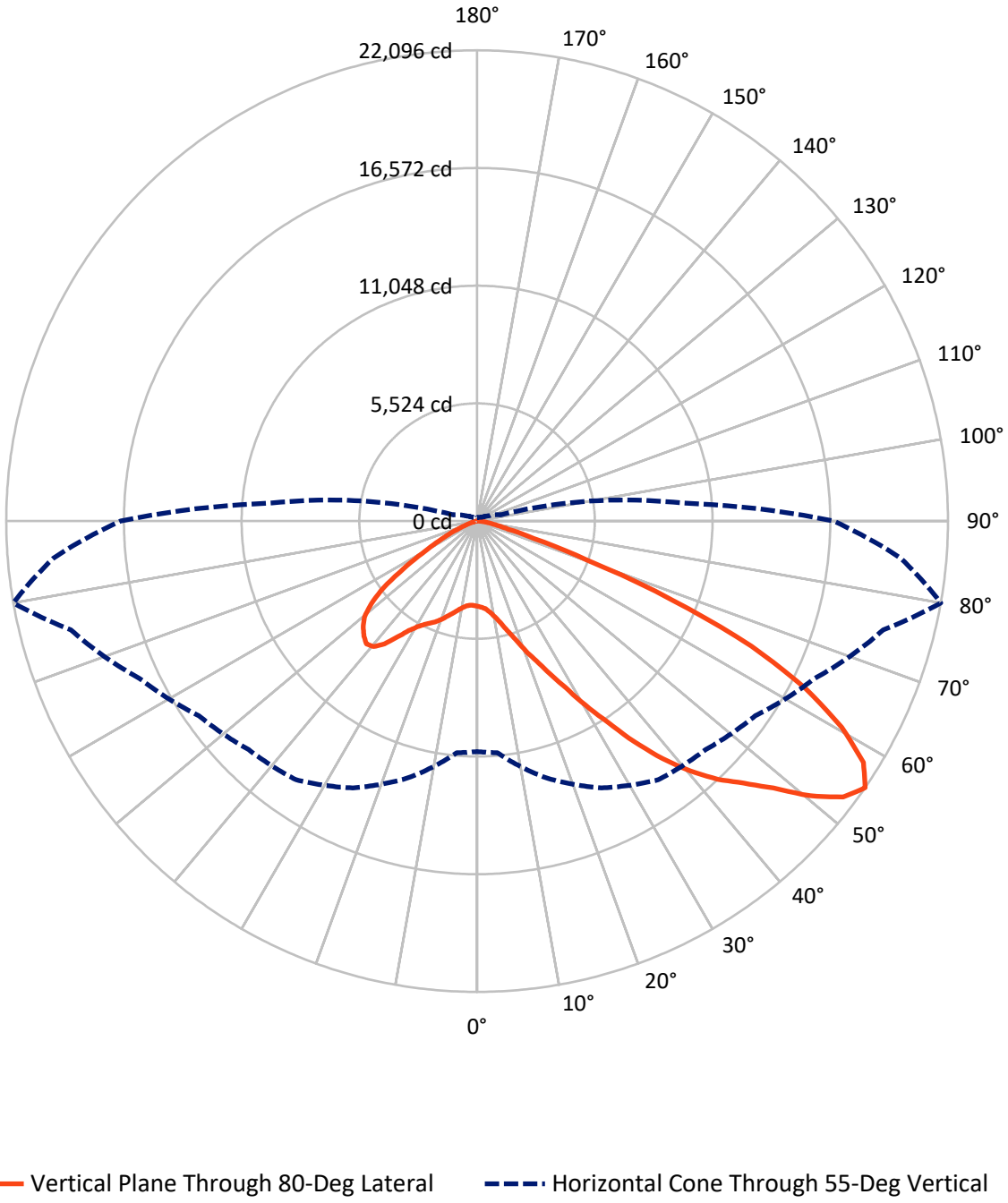
## Luminous Intensity Polar Plot



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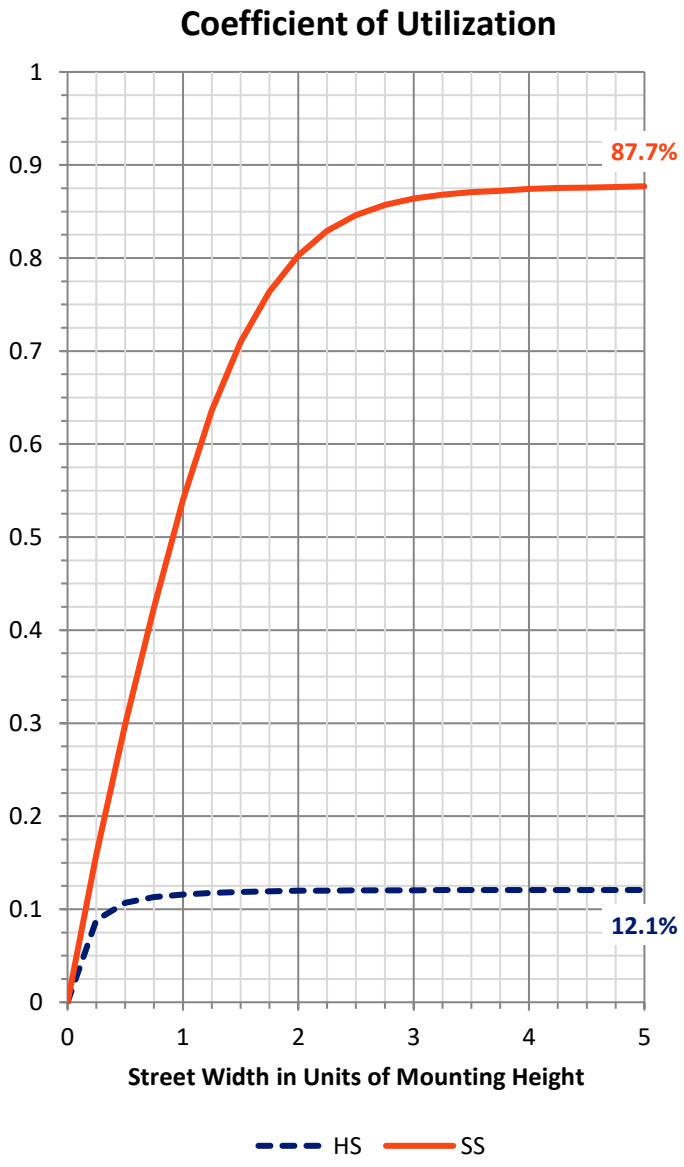
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 3487.8 | 0.0 | 3487.8 |
| | % Fixture | 12.2 | 0.0 | 12.2 |
| **Street Side** | Lumens | 25204.1 | 0.0 | 25204.1 |
| | % Fixture | 87.8 | 0.0 | 87.8 |
| **Total** | Lumens | 28691.9 | 0.0 | 28691.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 335.4 | 1.2 |
| 10°-20° | 884.3 | 3.1 |
| 20°-30° | 1731.1 | 6.0 |
| 30°-40° | 3521.8 | 12.3 |
| 40°-50° | 5937.3 | 20.7 |
| 50°-60° | 7586.1 | 26.4 |
| 60°-70° | 6476.7 | 22.6 |
| 70°-80° | 2069.7 | 7.2 |
| 80°-90° | 149.4 | 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° | 28691.9 | 100.0 |
| 0°-180° | 28691.9 | 100.0 |



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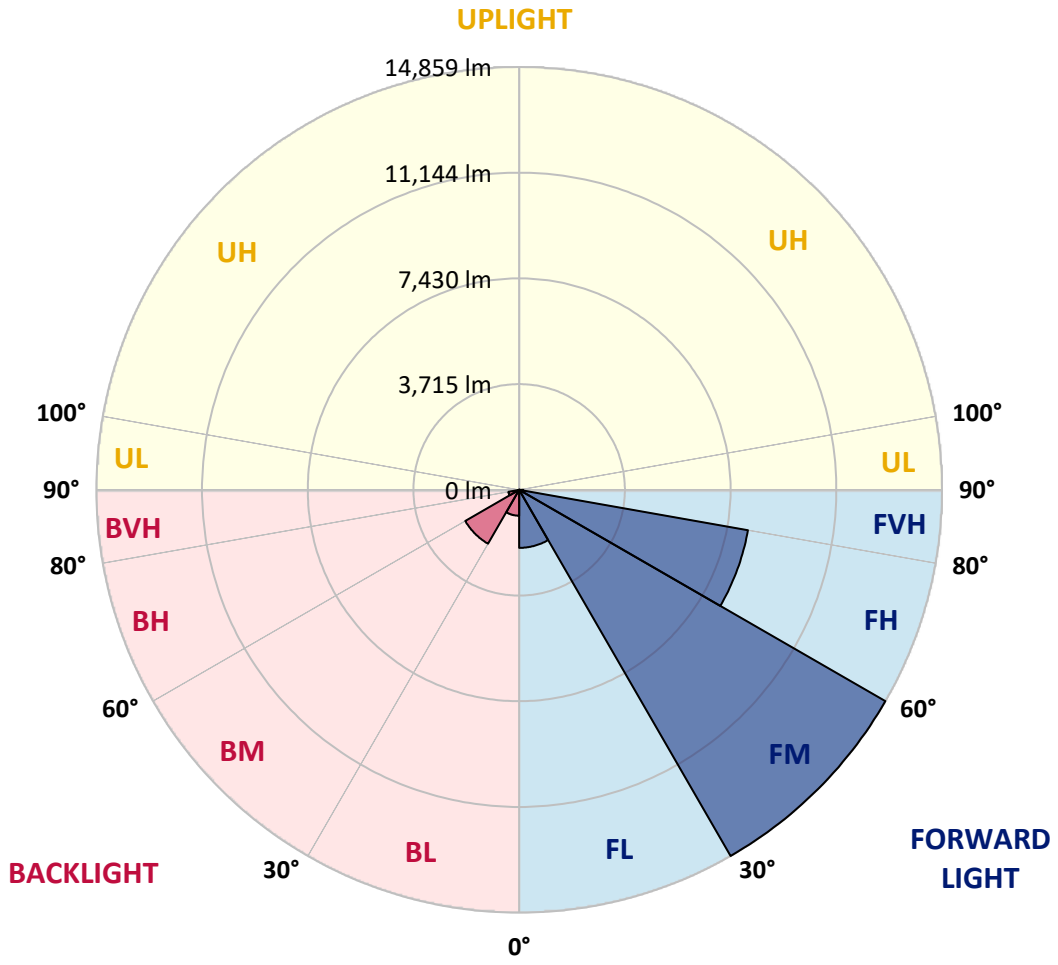
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2040.0 | 7.1 | | | |
| FM | (30°-60°) | 14859.3 | 51.8 | | | |
| FH | (60°-80°) | 8163.1 | 28.5 | | | G4/12000 |
| FVH | (80°-90°) | 141.7 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 910.8 | 3.2 | B2/1000 | | |
| BM | (30°-60°) | 2185.9 | 7.6 | B2/2500 | | |
| BH | (60°-80°) | 383.4 | 1.3 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 7.8 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

**BUG Rating: B2-U0-G4**
Type III Short



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**CANDELA DISTRIBUTION (FULL):**

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 80° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | *3996.7* | 3996.7 |
| 2.5° | 4021.2 | 4029.4 | 4021.2 | 4029.4 | 4045.7 | 4037.5 | 4070.1 | 4062.0 | 4062.0 | *4053.8* | 4021.2 |
| 5° | 3792.8 | 3801.0 | 3817.3 | 3858.1 | 3915.2 | 3972.3 | 4045.7 | 4094.6 | 4143.5 | *4135.4* | 4102.8 |
| 7.5° | 3344.2 | 3360.5 | 3425.8 | 3507.3 | 3694.9 | 3866.2 | 4053.8 | 4176.2 | 4282.2 | *4314.8* | 4290.4 |
| 10° | 3091.3 | 3107.7 | 3148.4 | 3230.0 | 3401.3 | 3686.8 | 4053.8 | 4306.7 | 4494.3 | *4559.5* | 4567.7 |
| 12.5° | 3066.9 | 3075.0 | 3107.7 | 3197.4 | 3344.2 | 3588.9 | 4045.7 | 4478.0 | 4796.1 | *4894.0* | 4926.6 |
| 15° | 3083.2 | 3099.5 | 3132.1 | 3205.5 | 3376.8 | 3654.2 | 4110.9 | 4747.1 | 5195.7 | *5334.4* | 5342.6 |
| 17.5° | 3148.4 | 3164.8 | 3205.5 | 3287.1 | 3474.7 | 3825.4 | 4314.8 | 5024.5 | 5677.0 | *5832.0* | 5921.7 |
| 20° | 3279.0 | 3287.1 | 3336.0 | 3442.1 | 3654.2 | 4037.5 | 4616.6 | 5399.7 | 6256.1 | *6484.5* | 6549.7 |
| 22.5° | 3450.2 | 3474.7 | 3540.0 | 3670.5 | 3939.6 | 4331.2 | 5032.6 | 5856.4 | 6892.3 | *7128.9* | 7243.1 |
| 25° | 3637.8 | 3670.5 | 3768.3 | 3980.4 | 4323.0 | 4779.8 | 5546.5 | 6460.0 | 7642.7 | *7928.2* | 8083.2 |
| 27.5° | 4021.2 | 4029.4 | 4094.6 | 4363.8 | 4804.2 | 5367.0 | 6199.0 | 7234.9 | 8523.6 | *8858.1* | 9029.3 |
| 30° | 4861.3 | 4869.5 | 4812.4 | 4885.8 | 5334.4 | 6060.3 | 6965.7 | 8140.3 | 9551.4 | *10016.3* | 10155.0 |
| 32.5° | 5889.1 | 5929.8 | 5921.7 | 5872.7 | 6076.7 | 6753.7 | 7879.3 | 9225.1 | 10758.5 | *11247.9* | 11378.4 |
| 35° | 7055.5 | 7153.3 | 7128.9 | 7112.5 | 7137.0 | 7642.7 | 8923.3 | 10424.1 | 12128.9 | *12724.3* | 12830.3 |
| 37.5° | 8197.4 | 8221.8 | 8336.0 | 8474.7 | 8491.0 | 8841.7 | 10130.5 | 11696.6 | 13401.3 | *14159.8* | 14323.0 |
| 40° | 9078.3 | 9159.9 | 9445.3 | 9722.7 | 10008.1 | 10285.5 | 11125.6 | 12724.3 | 14412.7 | *15432.3* | 15505.7 |
| 42.5° | 9763.4 | 9959.2 | 10375.2 | 10807.5 | 11386.6 | 11696.6 | 12071.8 | 13450.2 | 15236.5 | *16566.0* | 16533.4 |
| 45° | 10595.4 | 10677.0 | 11264.3 | 11835.2 | 12422.5 | 12895.6 | 12887.4 | 14062.0 | 15880.9 | *17536.7* | 17332.8 |
| 47.5° | 11158.2 | 11256.1 | 12055.4 | 12724.3 | 13327.9 | 13564.4 | 13613.4 | 14722.6 | 16770.0 | *18711.2* | 18230.0 |
| 50° | 11460.0 | 11631.3 | 12504.1 | 13352.3 | 14004.9 | 14078.3 | 14298.5 | 15587.2 | 17936.3 | *20269.1* | 19363.8 |
| 52.5° | 11492.6 | 11655.8 | 12659.0 | 13752.0 | 14461.6 | 14608.5 | 14983.7 | 16566.0 | 19070.1 | *21517.1* | 20016.3 |
| 55° | *10815.6* | *10913.5* | *12471.4* | *13817.3* | *14820.5* | *15163.1* | *15929.8* | *17471.4* | *19730.8* | *22096.2* | *19959.2* |
| 57.5° | 10179.4 | 10277.3 | 11631.3 | 13703.1 | 15187.6 | 15889.0 | 16941.2 | 18091.3 | 19216.9 | *21378.4* | 18686.8 |
| 60° | 9632.9 | 9681.9 | 10913.5 | 13172.9 | 15326.2 | 16598.7 | 17814.0 | 17479.6 | 17887.4 | *19657.4* | 16508.9 |
| 62.5° | 8605.2 | 8637.8 | 10097.9 | 12218.6 | 15048.9 | 17145.2 | 18115.8 | 16182.7 | 16427.4 | *17283.8* | 13947.8 |
| 65° | 6500.8 | 6623.2 | 7960.8 | 11500.8 | 14592.1 | 17398.0 | 17414.3 | 14600.3 | 14347.4 | *14143.5* | 10970.6 |
| 67.5° | 4412.7 | 4551.4 | 5358.9 | 10342.6 | 13849.9 | 17504.0 | 16052.2 | 12553.0 | 10929.8 | *9877.6* | 7186.0 |
| 70° | 3523.6 | 3523.6 | 3801.0 | 8311.6 | 12088.1 | 16150.1 | 14363.8 | 9478.0 | 6941.3 | *5456.8* | 3849.9 |
| 72.5° | 2316.5 | 2324.6 | 2585.6 | 5277.3 | 8572.6 | 12316.5 | 11712.9 | 5481.2 | 3605.2 | *2781.4* | 1900.5 |
| 75° | 840.1 | 840.1 | 1133.8 | 2112.6 | 4535.1 | 7332.8 | 7137.0 | 2618.3 | 1957.6 | *1517.1* | 1150.1 |
| 77.5° | 448.6 | 464.9 | 546.5 | 872.8 | 1737.4 | 2985.3 | 2789.6 | 1337.7 | 1109.3 | *946.2* | 717.8 |
| 80° | 301.8 | 310.0 | 367.0 | 538.3 | 840.1 | 1150.1 | 897.2 | 750.4 | 750.4 | *636.2* | 481.2 |
| 82.5° | 163.1 | 171.3 | 244.7 | 350.7 | 448.6 | 538.3 | 432.3 | 440.5 | 530.2 | *432.3* | 277.3 |
| 85° | 114.2 | 114.2 | 187.6 | 252.9 | 252.9 | 261.0 | 187.6 | 277.3 | 310.0 | *269.2* | 187.6 |
| 87.5° | 65.3 | 65.3 | 106.0 | 122.3 | 122.3 | 114.2 | 57.1 | 97.9 | 122.3 | *138.7* | 81.6 |
| 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: P1458514
CATALOG NUMBER: GLAN-SB6D-927-U-T3LG-HSS

**CANDELA DISTRIBUTION (continued):**

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 | 3996.7 |
| 2.5° | 4013.0 | 3988.6 | 3939.6 | 3841.8 | 3792.8 | 3727.6 | 3670.5 | 3597.1 | 3580.7 | 3572.6 | 3540.0 |
| 5° | 4078.3 | 4029.4 | 3882.5 | 3670.5 | 3491.0 | 3319.7 | 3148.4 | 3050.6 | 2969.0 | 2928.2 | 2920.1 |
| 7.5° | 4241.4 | 4143.5 | 3874.4 | 3499.2 | 3164.8 | 2871.1 | 2618.3 | 2398.0 | 2283.8 | 2186.0 | 2194.1 |
| 10° | 4486.1 | 4331.2 | 3890.7 | 3336.0 | 2838.5 | 2365.4 | 1998.4 | 1680.3 | 1451.9 | 1345.8 | 1337.7 |
| 12.5° | 4812.4 | 4592.2 | 3947.8 | 3172.9 | 2438.8 | 1778.1 | 1313.2 | 1125.6 | 1076.7 | 1068.5 | 1060.4 |
| 15° | 5212.1 | 4902.1 | 4004.9 | 2960.8 | 1900.5 | 1231.6 | 1068.5 | 1027.7 | 1019.6 | 1011.4 | 1011.4 |
| 17.5° | 5693.3 | 5261.0 | 4037.5 | 2602.0 | 1386.6 | 1060.4 | 1003.3 | 978.8 | 970.6 | 962.5 | 962.5 |
| 20° | 6296.9 | 5660.7 | 4078.3 | 2145.2 | 1174.5 | 1019.6 | 954.3 | 921.7 | 913.5 | 913.5 | 905.4 |
| 22.5° | 6892.3 | 6109.3 | 4045.7 | 1745.5 | 1133.8 | 970.6 | 897.2 | 864.6 | 848.3 | 848.3 | 840.1 |
| 25° | 7577.5 | 6566.1 | 3947.8 | 1574.2 | 1125.6 | 929.9 | 840.1 | 791.2 | 766.7 | 758.6 | 758.6 |
| 27.5° | 8360.5 | 7088.1 | 3792.8 | 1582.4 | 1125.6 | 897.2 | 766.7 | 701.5 | 685.2 | 668.8 | 668.8 |
| 30° | 9257.7 | 7724.3 | 3678.6 | 1688.4 | 1141.9 | 864.6 | 701.5 | 619.9 | 595.4 | 579.1 | 587.3 |
| 32.5° | 10285.5 | 8433.9 | 3670.5 | 1859.7 | 1166.4 | 815.7 | 628.1 | 538.3 | 513.9 | 505.7 | 513.9 |
| 35° | 11451.9 | 9314.8 | 3858.1 | 1990.2 | 1101.1 | 709.6 | 538.3 | 464.9 | 440.5 | 440.5 | 448.6 |
| 37.5° | 12748.8 | 10326.2 | 4110.9 | 1957.6 | 889.1 | 562.8 | 464.9 | 407.8 | 383.4 | 391.5 | 399.7 |
| 40° | 13931.5 | 11117.4 | 4151.7 | 1672.1 | 668.8 | 481.2 | 399.7 | 358.9 | 342.6 | 350.7 | 358.9 |
| 42.5° | 14828.7 | 11753.6 | 3760.2 | 1296.9 | 562.8 | 407.8 | 342.6 | 310.0 | 301.8 | 318.1 | 318.1 |
| 45° | 15554.6 | 12006.5 | 3140.3 | 962.5 | 497.6 | 350.7 | 301.8 | 285.5 | 269.2 | 277.3 | 277.3 |
| 47.5° | 16313.2 | 12047.3 | 2561.2 | 774.9 | 440.5 | 318.1 | 277.3 | 261.0 | 244.7 | 244.7 | 244.7 |
| 50° | 17047.3 | 11949.4 | 1957.6 | 685.2 | 407.8 | 285.5 | 252.9 | 236.5 | 220.2 | 212.1 | 212.1 |
| 52.5° | 17226.7 | 11166.4 | 1435.6 | 636.2 | 375.2 | 269.2 | 236.5 | 220.2 | 203.9 | 195.8 | 195.8 |
| 55° | *16729.2* | *9681.9* | *1125.6* | *571.0* | *342.6* | *244.7* | *220.2* | *203.9* | *179.4* | *171.3* | *171.3* |
| 57.5° | 15089.7 | 7381.7 | 897.2 | 489.4 | 310.0 | 236.5 | 203.9 | 187.6 | 163.1 | 155.0 | 155.0 |
| 60° | 12960.8 | 5236.5 | 725.9 | 399.7 | 285.5 | 212.1 | 187.6 | 163.1 | 146.8 | 130.5 | 130.5 |
| 62.5° | 10603.6 | 3760.2 | 587.3 | 334.4 | 269.2 | 187.6 | 171.3 | 146.8 | 114.2 | 89.7 | 89.7 |
| 65° | 8132.1 | 2699.8 | 456.8 | 269.2 | 244.7 | 163.1 | 146.8 | 122.3 | 89.7 | 65.3 | 65.3 |
| 67.5° | 5261.0 | 1745.5 | 342.6 | 236.5 | 187.6 | 138.7 | 114.2 | 97.9 | 81.6 | 57.1 | 48.9 |
| 70° | 2773.2 | 1019.6 | 252.9 | 203.9 | 138.7 | 106.0 | 97.9 | 81.6 | 65.3 | 40.8 | 40.8 |
| 72.5° | 1435.6 | 668.8 | 187.6 | 179.4 | 106.0 | 73.4 | 81.6 | 65.3 | 48.9 | 24.5 | 24.5 |
| 75° | 921.7 | 448.6 | 138.7 | 146.8 | 65.3 | 57.1 | 57.1 | 40.8 | 24.5 | 16.3 | 8.2 |
| 77.5° | 595.4 | 301.8 | 97.9 | 122.3 | 40.8 | 32.6 | 32.6 | 16.3 | 8.2 | 0.0 | 0.0 |
| 80° | 350.7 | 187.6 | 65.3 | 81.6 | 16.3 | 16.3 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 179.4 | 97.9 | 32.6 | 32.6 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 114.2 | 48.9 | 8.2 | 8.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 57.1 | 16.3 | 8.2 | 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: SP1-2407-184-13

Test Date: 10/11/2024

Luminaire Tested: GSS-SB1A-927-U-5WQ

Data in this report applies to families of products including GSS-SB1A-927-U-5WQ

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

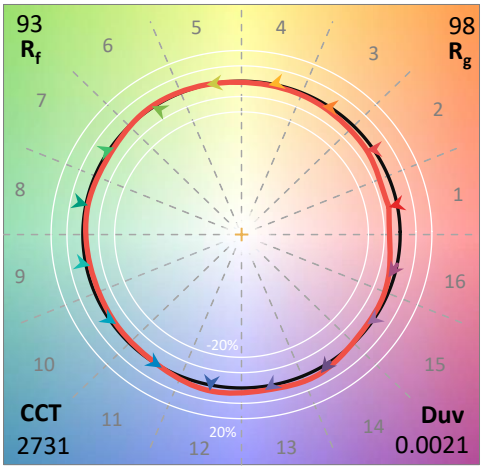
## Test Information

| | |
|---|---|
| Test Method: | LM-79-2019 |
| Report Number: | SP1-2407-184-13 |
| 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-927-U-5WQ** |
| Description: | GALLEON II SITE SLIM 1SQ 350MA 5WQ HIGH DENSITY LIGHTSQUARE WITH 90 CRI 2700K CCT 26 LEDS |

## Spectral Parameters

| | |
|---|---|
| CCT (K): | 2731 |
| CIE u': | 0.2605 |
| CIE v': | 0.5298 |
| Duv: | 0.0021 |
| CIE x: | 0.4610 |
| CIE y: | 0.4166 |
| CIE z: | 0.1224 |
| Peak Wavelength (nm): | 622 |
| Dominant Wavelength (nm): | 583 |
| Purity: | 63.43685 |
| Rf: | 92.6 |
| Rg: | 98 |

| | | | | | |
|---|---|---|---|---|---|
| CRI (Ra): | 91.8 | | | | |
| R1: | 91.4 | R9: | 54.7 | | |
| R2: | 95.1 | R10: | 87.7 | | |
| R3: | 97.6 | R11: | 92.9 | | |
| R4: | 92.3 | R12: | 84.0 | | |
| R5: | 91.1 | R13: | 92.2 | | |
| R6: | 94.7 | R14: | 97.8 | | |
| R7: | 92.3 | R15: | 86.8 | | |
| R8: | 80.0 | | | | |




## Test Conditions

| | |
|---|---|
| Stabilization Time: | M |
| Operation Time: | 1H 0M |
| Sphere Temperature (°C): | 25.2 |

REPORT NUMBER: SP1-2407-184-13

| 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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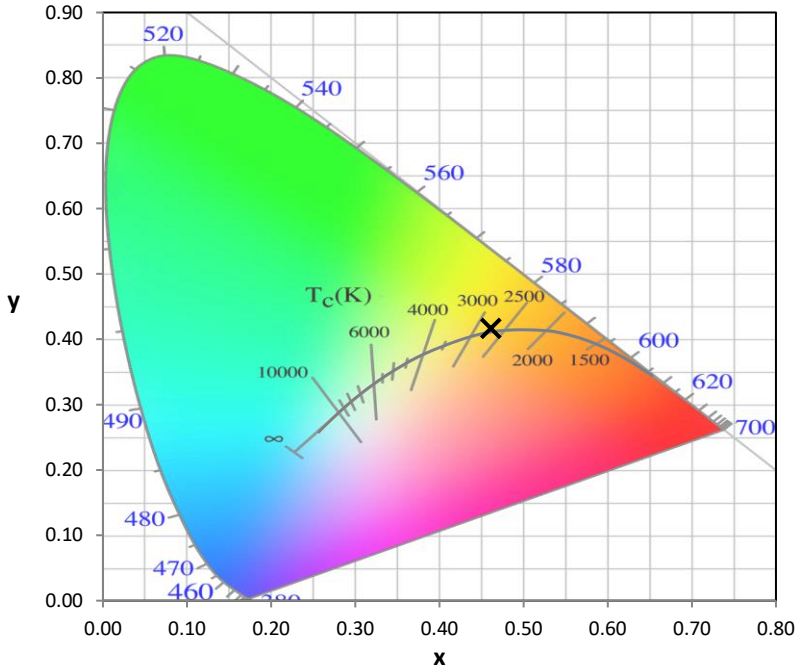
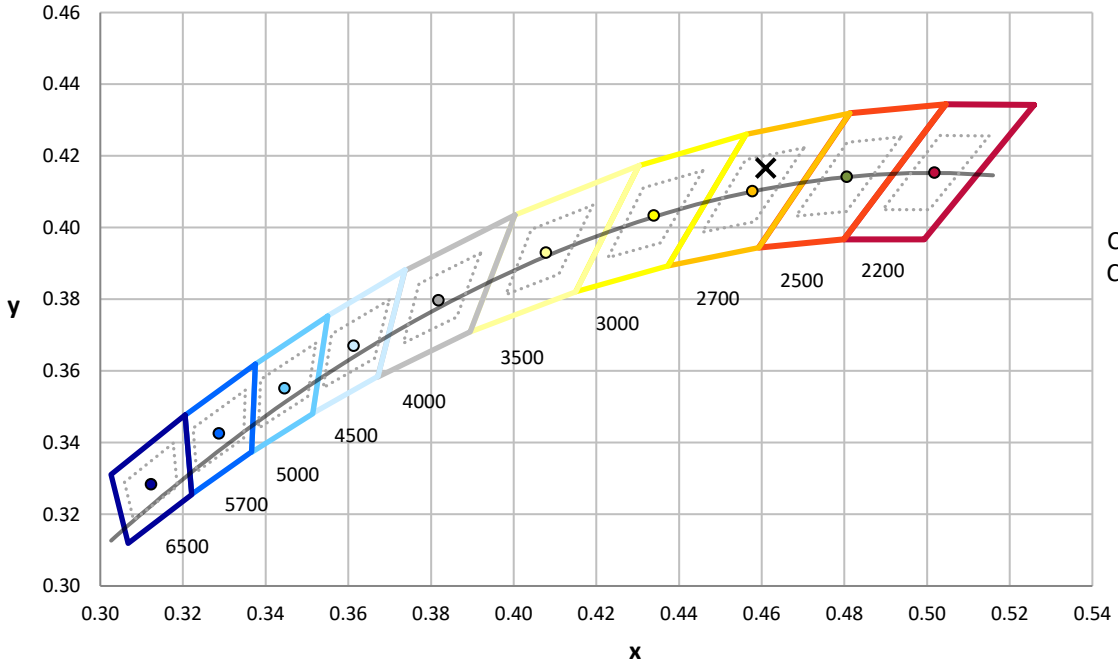
## CIE 1931 Chromaticity Diagram




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




CCT = 2731K
CIE x = 0.4610
CIE y = 0.4166
Duv = 0.0021

Point lies inside the ANSI 2700K 4-step quadrangle

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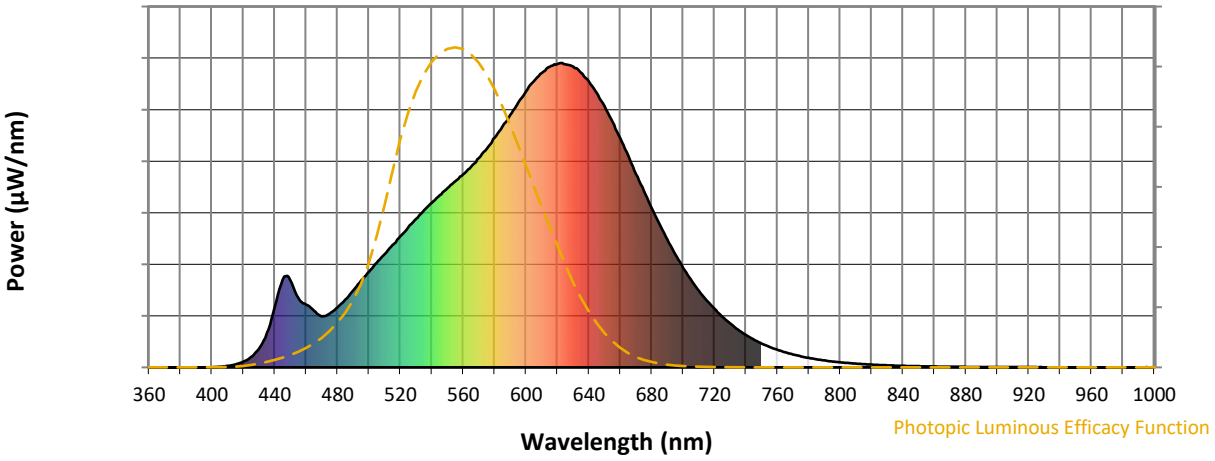
## Photopic Flux vs. Wavelength




## Photopic Lumens: NR

| λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) | λ (nm) | Power W^/nm | Lumens (ϕ/nm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 360 | 0 | NR | 490 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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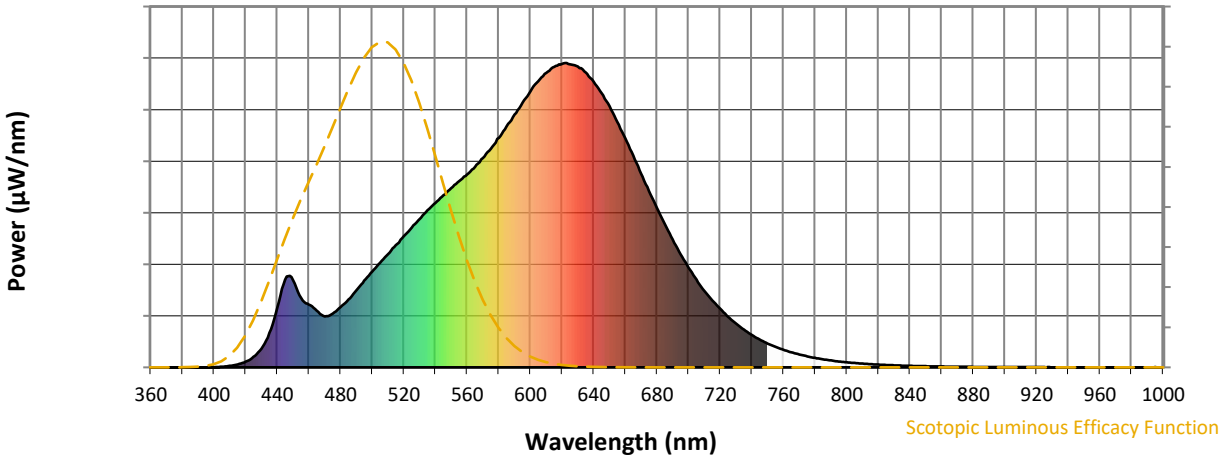
## Scotopic Flux vs. Wavelength




**Scotopic Lumens: NR** **S/P: 1.27**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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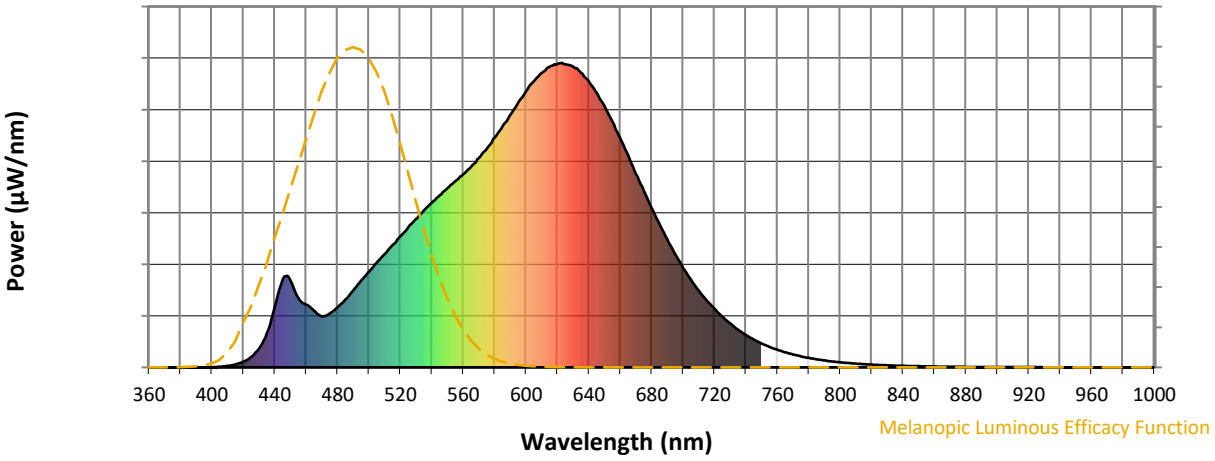
## Melanopic Flux vs. Wavelength




**Melanopic Lumens: NR** **M/P: 2.38**

| 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 | 253 | NR | 620 | 997 | NR | 750 | 78 | NR | 880 | 2 | NR |
| 365 | 0 | NR | 495 | 285 | NR | 625 | 996 | NR | 755 | 67 | NR | 885 | 1 | NR |
| 370 | 0 | NR | 500 | 314 | NR | 630 | 989 | NR | 760 | 58 | NR | 890 | 1 | NR |
| 375 | 0 | NR | 505 | 343 | NR | 635 | 969 | NR | 765 | 50 | NR | 895 | 1 | NR |
| 380 | 0 | NR | 510 | 372 | NR | 640 | 939 | NR | 770 | 42 | NR | 900 | 1 | NR |
| 385 | 0 | NR | 515 | 401 | NR | 645 | 901 | NR | 775 | 36 | NR | 905 | 1 | NR |
| 390 | 0 | NR | 520 | 431 | NR | 650 | 858 | NR | 780 | 31 | NR | 910 | 1 | NR |
| 395 | 0 | NR | 525 | 459 | NR | 655 | 806 | NR | 785 | 26 | NR | 915 | 1 | NR |
| 400 | 0 | NR | 530 | 488 | NR | 660 | 752 | NR | 790 | 23 | NR | 920 | 1 | NR |
| 405 | 2 | NR | 535 | 516 | NR | 665 | 696 | NR | 795 | 19 | NR | 925 | 1 | NR |
| 410 | 5 | NR | 540 | 540 | NR | 670 | 636 | NR | 800 | 17 | NR | 930 | 0 | NR |
| 415 | 10 | NR | 545 | 566 | NR | 675 | 579 | NR | 805 | 14 | NR | 935 | 0 | NR |
| 420 | 19 | NR | 550 | 589 | NR | 680 | 524 | NR | 810 | 12 | NR | 940 | 0 | NR |
| 425 | 34 | NR | 555 | 612 | NR | 685 | 470 | NR | 815 | 11 | NR | 945 | 0 | NR |
| 430 | 61 | NR | 560 | 634 | NR | 690 | 421 | NR | 820 | 9 | NR | 950 | 0 | NR |
| 435 | 113 | NR | 565 | 660 | NR | 695 | 371 | NR | 825 | 8 | NR | 955 | 0 | NR |
| 440 | 198 | NR | 570 | 688 | NR | 700 | 327 | NR | 830 | 7 | NR | 960 | 0 | NR |
| 445 | 288 | NR | 575 | 719 | NR | 705 | 288 | NR | 835 | 6 | NR | 965 | 0 | NR |
| 450 | 286 | NR | 580 | 754 | NR | 710 | 251 | NR | 840 | 5 | NR | 970 | 0 | NR |
| 455 | 228 | NR | 585 | 791 | NR | 715 | 220 | NR | 845 | 4 | NR | 975 | 0 | NR |
| 460 | 207 | NR | 590 | 831 | NR | 720 | 192 | NR | 850 | 4 | NR | 980 | 0 | NR |
| 465 | 186 | NR | 595 | 870 | NR | 725 | 166 | NR | 855 | 3 | NR | 985 | 0 | NR |
| 470 | 168 | NR | 600 | 907 | NR | 730 | 144 | NR | 860 | 3 | NR | 990 | 1 | NR |
| 475 | 177 | NR | 605 | 940 | NR | 735 | 124 | NR | 865 | 2 | NR | 995 | 1 | NR |
| 480 | 198 | NR | 610 | 967 | NR | 740 | 106 | NR | 870 | 2 | NR | 1000 | 0 | NR |
| 485 | 223 | NR | 615 | 988 | NR | 745 | 91 | NR | 875 | 2 | NR | | | |

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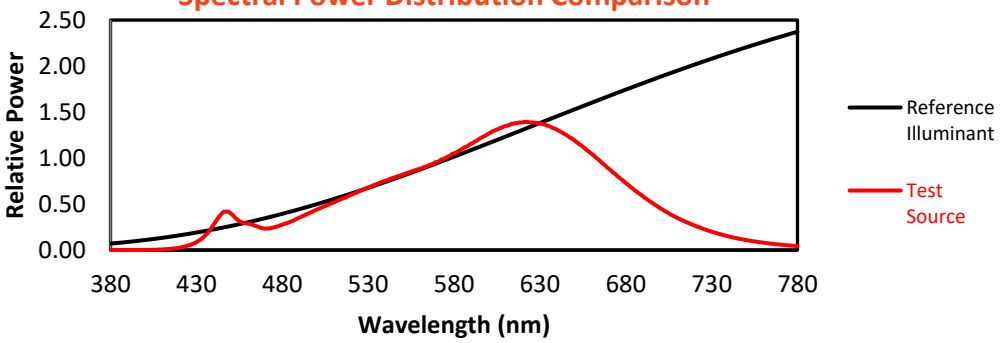
# TM-30-18

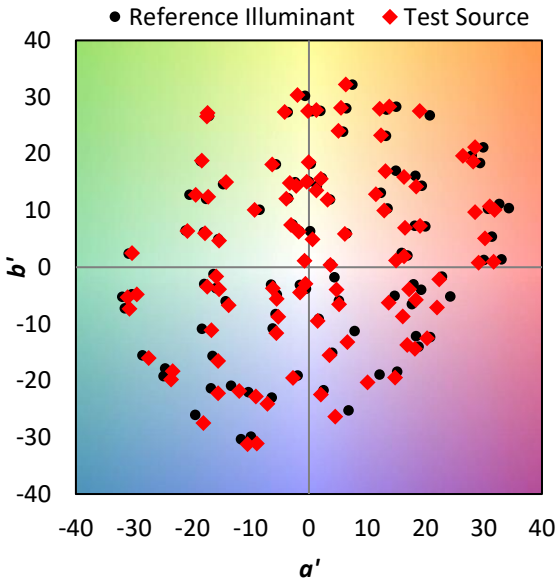
## Summary

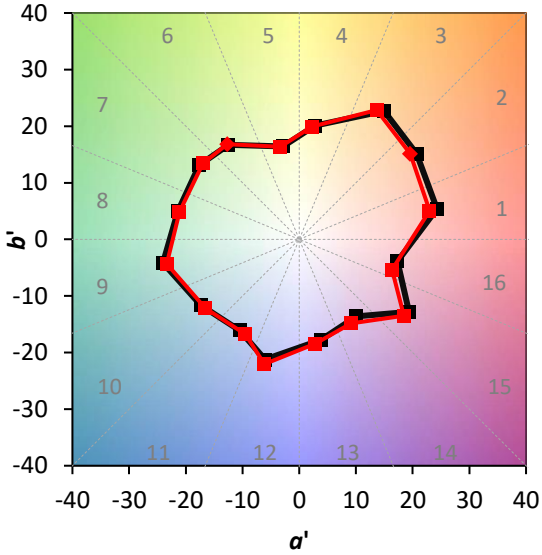
$R_f$ = 92.6
$R_g$ = 98
CIE $R_a$ = 91.8
$R_9$ = 54.7

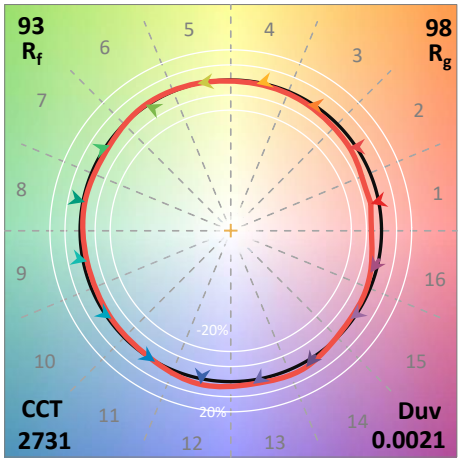
## Spectral Power Distribution Comparison

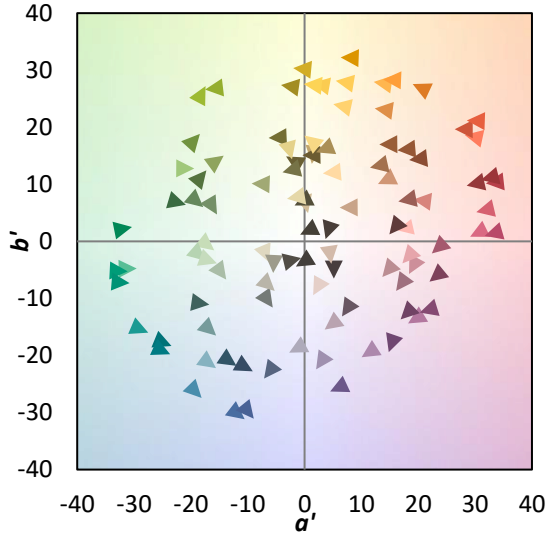



## Color Vector Graphics



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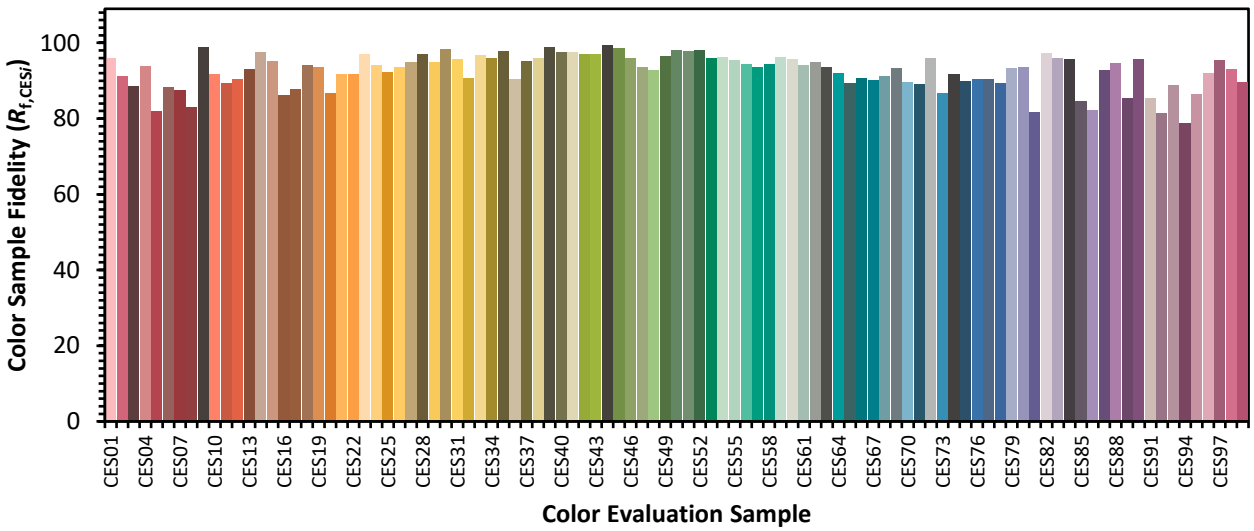
# TM-30-18

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

| | | | |
|---|---|---|---|
| CES01 = 86 | CES26 = 94 | CES51 = 98 | CES76 = 90 |
| CES02 = 64 | CES27 = 95 | CES52 = 98 | CES77 = 90 |
| CES03 = 32 | CES28 = 97 | CES53 = 96 | CES78 = 89 |
| CES04 = 71 | CES29 = 95 | CES54 = 96 | CES79 = 93 |
| CES05 = 51 | CES30 = 98 | CES55 = 95 | CES80 = 94 |
| CES06 = 52 | CES31 = 96 | CES56 = 94 | CES81 = 82 |
| CES07 = 44 | CES32 = 91 | CES57 = 94 | CES82 = 97 |
| CES08 = 43 | CES33 = 97 | CES58 = 94 | CES83 = 96 |
| CES09 = 29 | CES34 = 96 | CES59 = 96 | CES84 = 96 |
| CES10 = 77 | CES35 = 98 | CES60 = 96 | CES85 = 85 |
| CES11 = 59 | CES36 = 90 | CES61 = 94 | CES86 = 82 |
| CES12 = 66 | CES37 = 95 | CES62 = 95 | CES87 = 93 |
| CES13 = 44 | CES38 = 96 | CES63 = 94 | CES88 = 95 |
| CES14 = 74 | CES39 = 99 | CES64 = 92 | CES89 = 85 |
| CES15 = 72 | CES40 = 98 | CES65 = 89 | CES90 = 96 |
| CES16 = 48 | CES41 = 98 | CES66 = 91 | CES91 = 85 |
| CES17 = 50 | CES42 = 97 | CES67 = 90 | CES92 = 82 |
| CES18 = 57 | CES43 = 97 | CES68 = 91 | CES93 = 89 |
| CES19 = 72 | CES44 = 99 | CES69 = 93 | CES94 = 79 |
| CES20 = 68 | CES45 = 99 | CES70 = 90 | CES95 = 87 |
| CES21 = 87 | CES46 = 96 | CES71 = 89 | CES96 = 92 |
| CES22 = 79 | CES47 = 94 | CES72 = 96 | CES97 = 96 |
| CES23 = 92 | CES48 = 93 | CES73 = 87 | CES98 = 93 |
| CES24 = 91 | CES49 = 96 | CES74 = 92 | CES99 = 90 |
| CES25 = 72 | CES50 = 98 | CES75 = 90 | |



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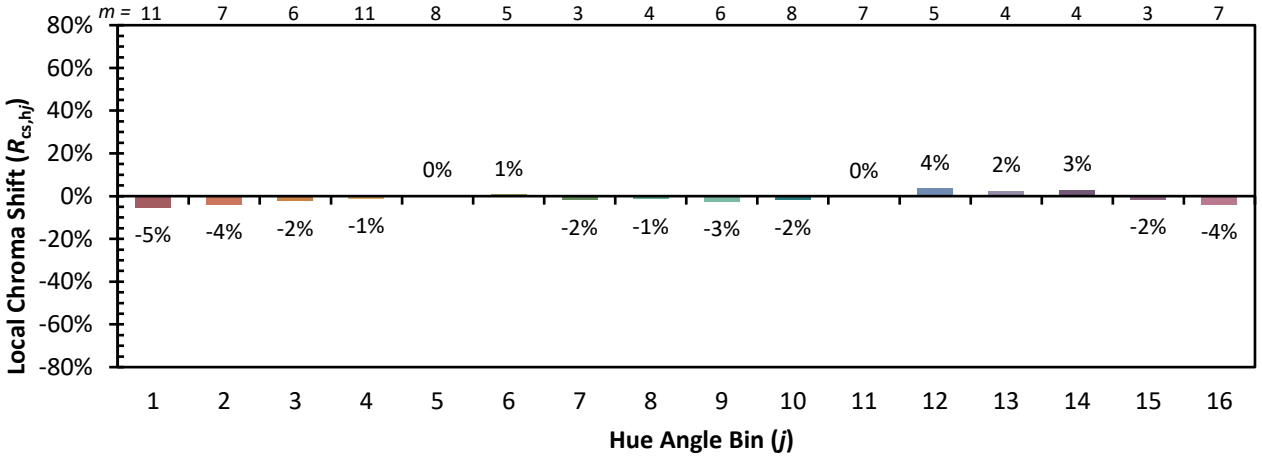
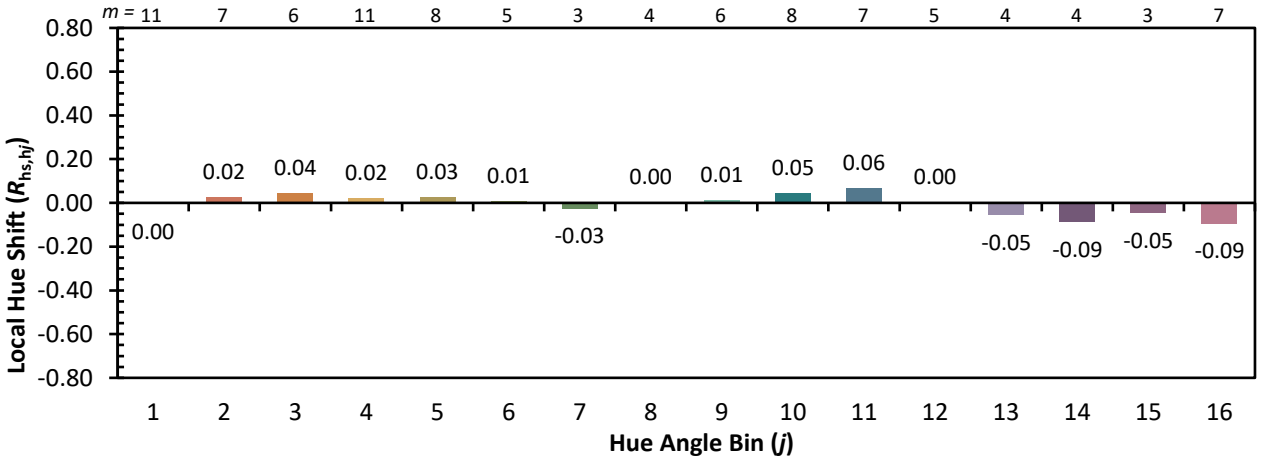
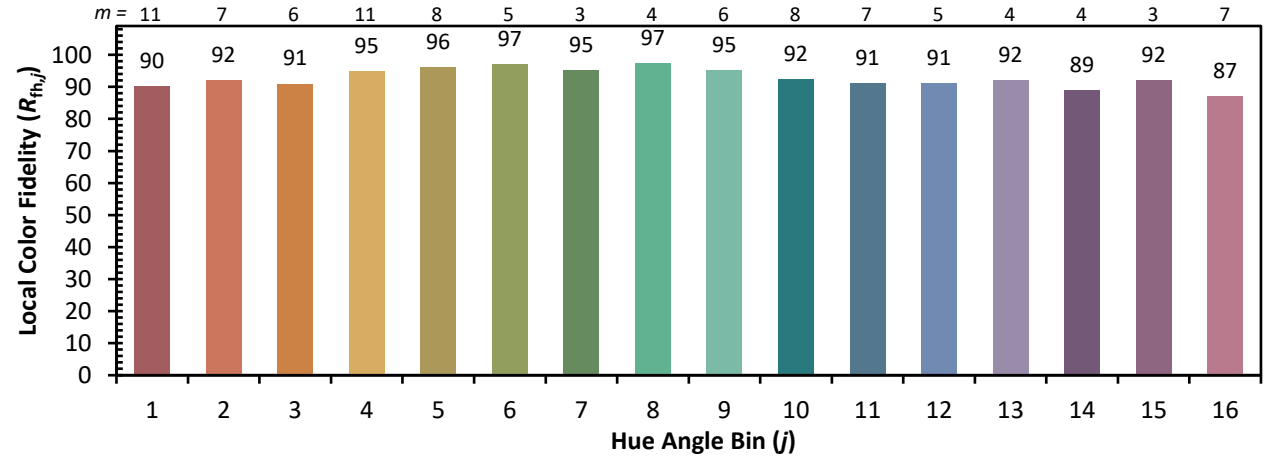
**TM-30-18**

## Color Rendition by Hue-Angle Bin



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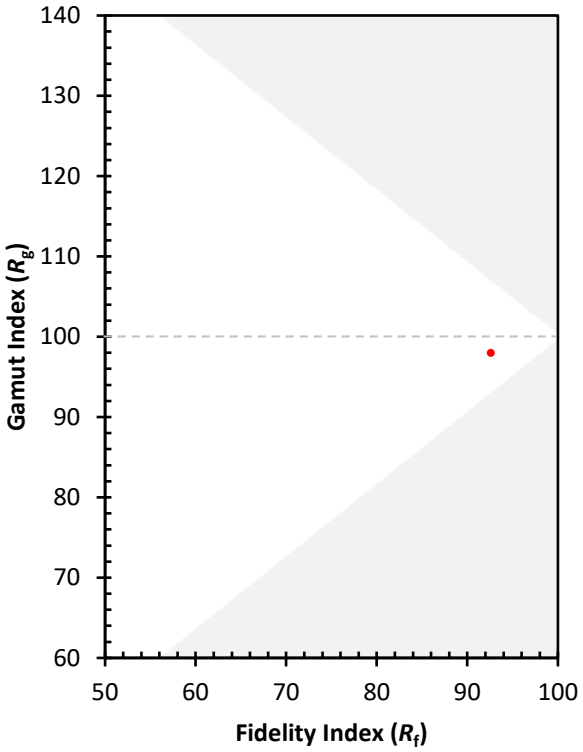
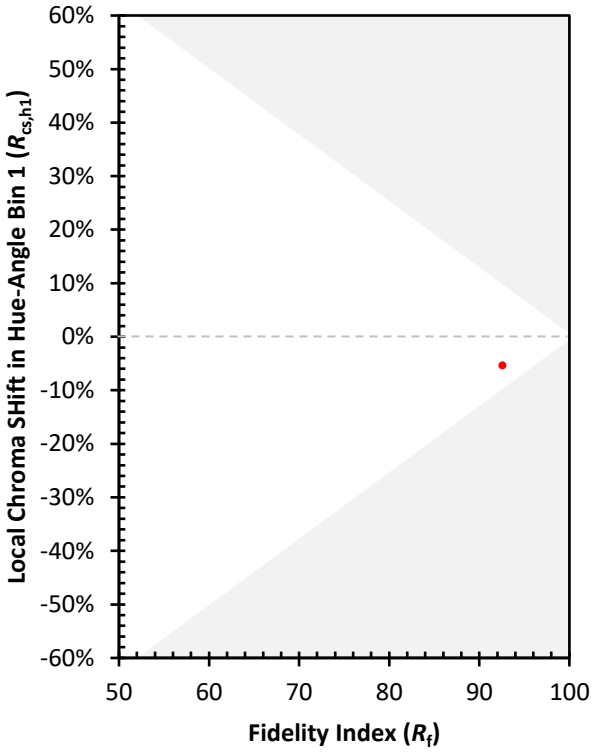
## Measure Comparisons

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