

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P324424

Luminaire Tested: **GLEON-SA0D-727-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324424
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-28)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA0D-727-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR RIGHT OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47610 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

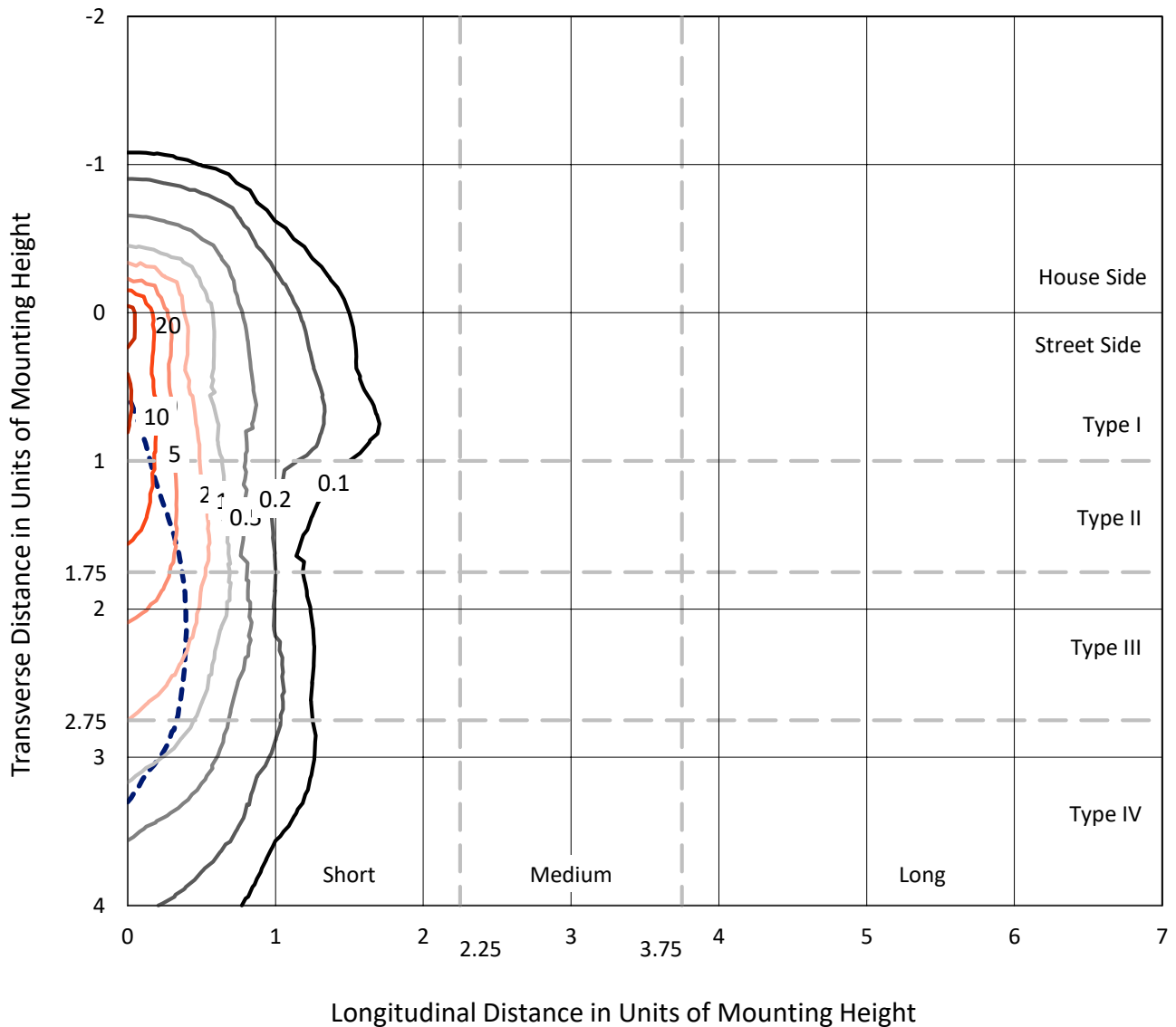
Input Watts (W): 640
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P324424
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Iso-Footcandle Lines of Horizontal Illumination

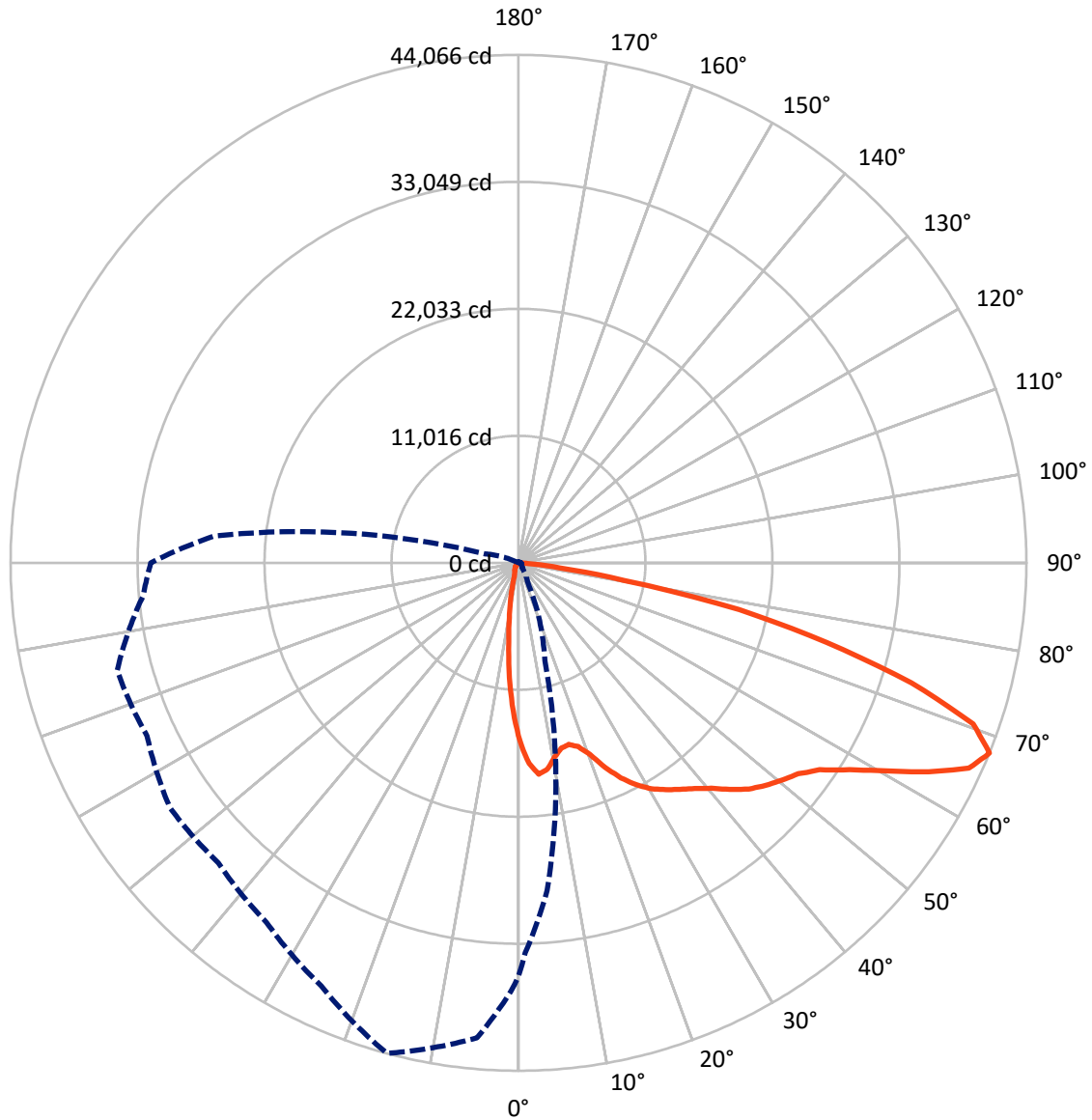
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 24.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 345-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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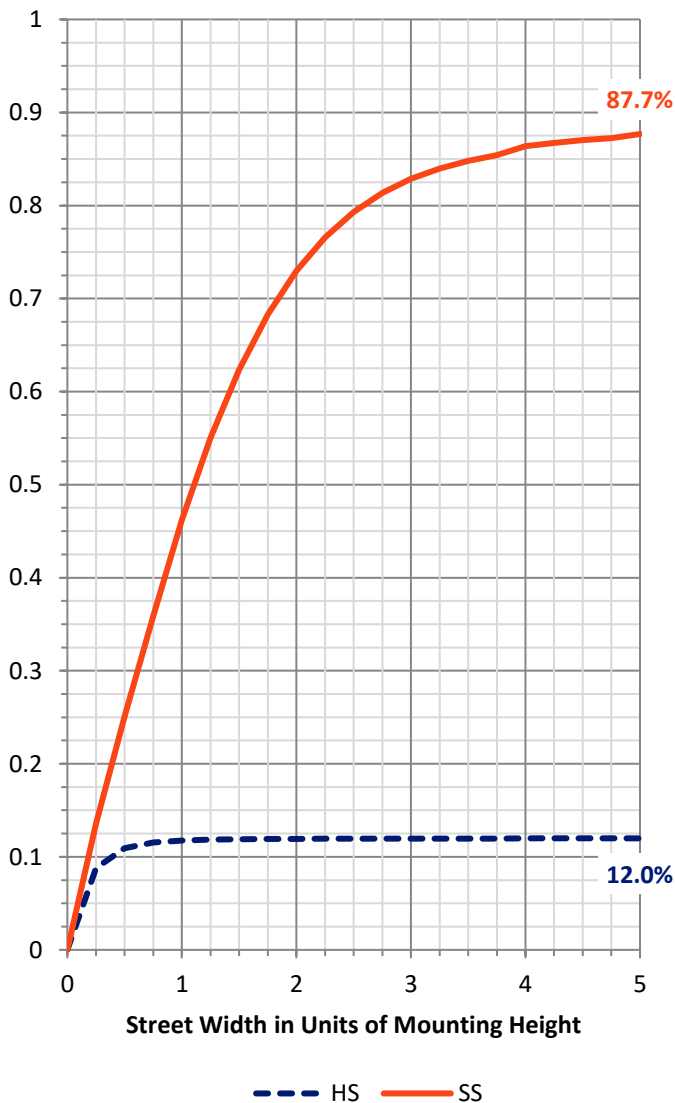
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5762.4 | 0.0 | 5762.4 |
| | % Fixture | 12.1 | 0.0 | 12.1 |
| Street Side | Lumens | 41847.6 | 0.0 | 41847.6 |
| | % Fixture | 87.9 | 0.0 | 87.9 |
| Total | Lumens | 47610.0 | 0.0 | 47610.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1190.3 | 2.5 |
| 10°-20° | 2369.2 | 5.0 |
| 20°-30° | 3364.3 | 7.1 |
| 30°-40° | 4969.3 | 10.4 |
| 40°-50° | 7166.8 | 15.1 |
| 50°-60° | 10060.8 | 21.1 |
| 60°-70° | 11727.9 | 24.6 |
| 70°-80° | 5995.6 | 12.6 |
| 80°-90° | 765.7 | 1.6 |
| 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° | 47610.0 | 100.0 |
| 0°-180° | 47610.0 | 100.0 |

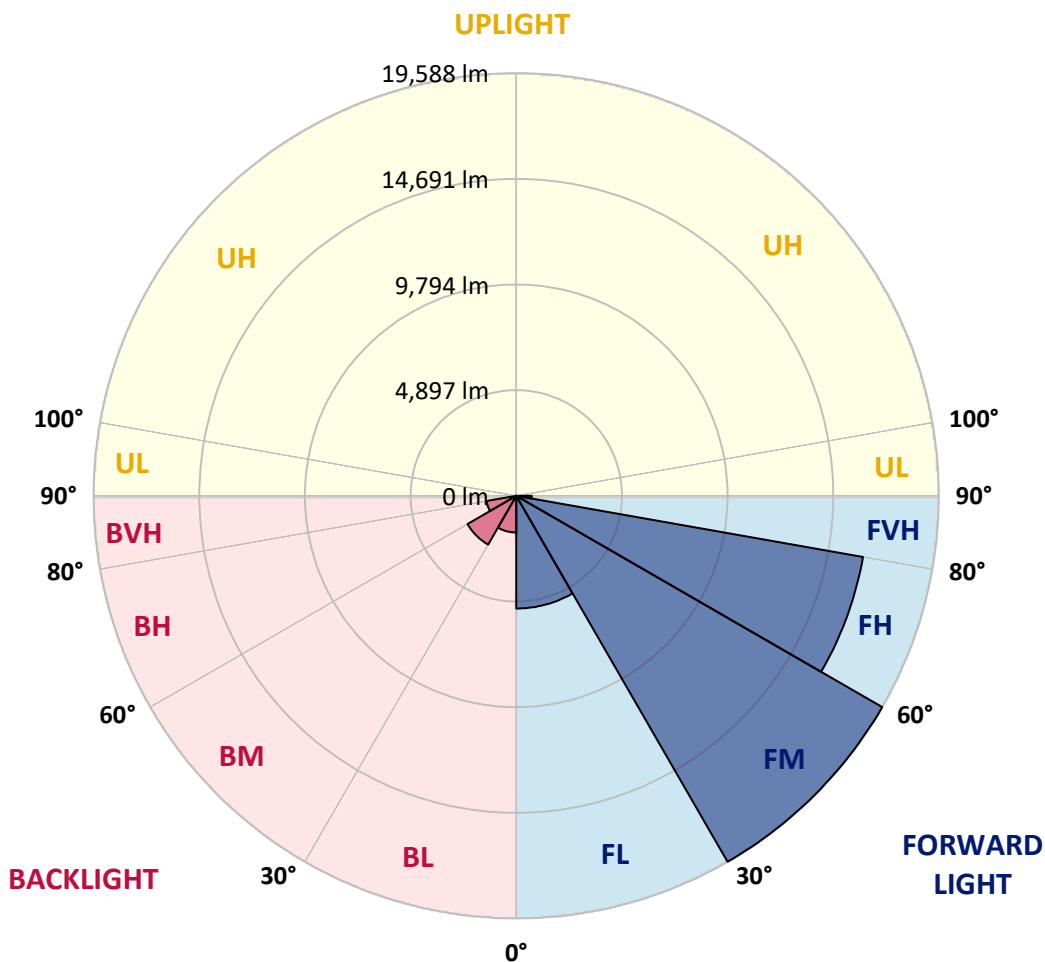


REPORT NUMBER: P324424
 CATALOG NUMBER: GLEON-SA0D-727-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 5221.9 | 11.0 | | | |
| FM (30°-60°) | 19587.5 | 41.1 | | | |
| FH (60°-80°) | 16319.0 | 34.3 | | | G5 |
| FVH (80°-90°) | 719.2 | 1.5 | | | G4/750 |
| BL (0°-30°) | 1702.0 | 3.6 | B3/2500 | | |
| BM (30°-60°) | 2609.4 | 5.5 | B3/5000 | | |
| BH (60°-80°) | 1404.5 | 2.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 46.5 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Medium





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CATALOG NUMBER: GLEON-SA0D-727-U-SLR-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 |
| 2.5° | 16981.7 | 16850.9 | 16706.5 | 16235.1 | 15797.6 | 15296.9 | 14888.6 | 14604.4 | 14248.0 | 13785.7 | 13668.4 |
| 5° | 16859.9 | 16720.1 | 16266.7 | 15217.9 | 14299.9 | 13406.7 | 12545.1 | 12039.9 | 11412.9 | 10776.8 | 10618.9 |
| 7.5° | 15635.2 | 15488.6 | 14834.5 | 13397.7 | 12161.7 | 10871.5 | 9752.8 | 9060.4 | 8352.1 | 7770.2 | 7461.2 |
| 10° | 14360.8 | 14200.7 | 13465.4 | 11721.9 | 10199.4 | 9033.3 | 8212.3 | 7551.4 | 6881.6 | 6259.0 | 5762.8 |
| 12.5° | 13483.4 | 13273.7 | 12475.2 | 10499.4 | 9173.1 | 8381.5 | 7614.6 | 6822.9 | 5916.2 | 5248.6 | 4702.7 |
| 15° | 13115.8 | 12876.7 | 12033.1 | 10028.0 | 8810.0 | 7880.7 | 6881.6 | 5909.4 | 4847.1 | 4082.5 | 3581.7 |
| 17.5° | 13400.0 | 13088.7 | 12184.3 | 9996.4 | 8354.4 | 7089.1 | 5826.0 | 4684.7 | 3532.1 | 2758.5 | 2402.1 |
| 20° | 14365.3 | 13957.1 | 12809.0 | 9987.4 | 7801.8 | 6148.5 | 4547.1 | 3257.0 | 2327.7 | 1872.1 | 1684.9 |
| 22.5° | 15885.5 | 15346.5 | 13706.7 | 10059.6 | 7231.2 | 5160.6 | 3284.0 | 2212.7 | 1748.0 | 1511.2 | 1400.7 |
| 25° | 17721.5 | 17096.7 | 14999.1 | 10314.4 | 6730.4 | 4199.8 | 2386.3 | 1748.0 | 1475.1 | 1301.4 | 1209.0 |
| 27.5° | 19467.3 | 18959.8 | 16632.1 | 10682.1 | 6342.5 | 3423.9 | 1937.5 | 1481.9 | 1260.8 | 1145.8 | 1071.4 |
| 30° | 21210.8 | 20572.5 | 18308.0 | 11119.7 | 5875.6 | 2898.3 | 1702.9 | 1351.0 | 1130.0 | 1008.2 | 960.8 |
| 32.5° | 22478.4 | 21948.3 | 19620.7 | 11435.4 | 5377.1 | 2555.5 | 1522.5 | 1236.0 | 1055.6 | 931.5 | 861.6 |
| 35° | 23969.3 | 23369.3 | 20746.2 | 11505.3 | 5056.8 | 2339.0 | 1369.1 | 1112.0 | 915.7 | 805.2 | 730.8 |
| 37.5° | 25579.7 | 24833.1 | 22045.3 | 11352.0 | 4806.5 | 2233.0 | 1254.1 | 1055.6 | 854.8 | 742.1 | 663.1 |
| 40° | 27361.6 | 26518.0 | 23292.6 | 11130.9 | 4560.6 | 2196.9 | 1166.1 | 1012.7 | 807.5 | 692.4 | 611.2 |
| 42.5° | 29238.1 | 28243.5 | 24373.0 | 10898.6 | 4405.0 | 2072.8 | 1157.1 | 969.9 | 771.4 | 647.3 | 566.1 |
| 45° | 30814.7 | 29806.5 | 25482.7 | 10821.9 | 4294.5 | 1937.5 | 1195.4 | 940.5 | 746.6 | 611.2 | 532.3 |
| 47.5° | 32071.1 | 31117.0 | 26619.5 | 10993.3 | 4231.3 | 1813.4 | 1089.4 | 978.9 | 733.0 | 579.7 | 503.0 |
| 50° | 33571.0 | 32490.6 | 28220.9 | 11505.3 | 4138.9 | 1689.4 | 985.7 | 1121.0 | 733.0 | 559.4 | 478.2 |
| 52.5° | 35452.1 | 34383.0 | 30007.3 | 12299.3 | 3953.9 | 1518.0 | 886.4 | 1123.2 | 739.8 | 532.3 | 446.6 |
| 55° | 37818.1 | 37042.2 | 32558.3 | 13169.9 | 3658.4 | 1265.3 | 766.9 | 965.4 | 712.7 | 482.7 | 417.3 |
| 57.5° | 40087.1 | 39453.3 | 34883.7 | 13765.4 | 3263.7 | 987.9 | 667.6 | 778.2 | 651.8 | 424.0 | 372.2 |
| 59° | 40707.4 | 40015.0 | 35736.3 | 13792.4 | 2968.2 | 861.6 | 618.0 | 642.8 | 638.3 | 397.0 | 345.1 |
| 60° | 40707.4 | 39972.1 | 35982.1 | 13648.1 | 2754.0 | 791.7 | 586.4 | 572.9 | 665.4 | 378.9 | 329.3 |
| 62.5° | 39969.8 | 38936.8 | 35183.7 | 12671.4 | 2246.5 | 674.4 | 512.0 | 473.7 | 597.7 | 340.6 | 291.0 |
| 65° | 38436.1 | 36931.7 | 32463.5 | 10905.4 | 2002.9 | 618.0 | 442.1 | 387.9 | 415.0 | 300.0 | 254.9 |
| 67.5° | 35878.4 | 33839.4 | 28541.2 | 8810.0 | 1905.9 | 602.2 | 381.2 | 329.3 | 313.5 | 257.1 | 223.3 |
| 70° | 31374.1 | 29111.8 | 23779.8 | 6926.7 | 1822.5 | 595.5 | 320.3 | 277.4 | 252.6 | 216.5 | 189.5 |
| 72.5° | 22834.8 | 20475.5 | 16882.5 | 5415.5 | 1772.8 | 609.0 | 257.1 | 232.3 | 207.5 | 169.2 | 146.6 |
| 75° | 13061.6 | 11516.6 | 9488.9 | 3577.2 | 1511.2 | 581.9 | 198.5 | 194.0 | 148.9 | 121.8 | 101.5 |
| 77.5° | 6748.5 | 6543.2 | 5686.1 | 1373.6 | 724.0 | 254.9 | 130.8 | 112.8 | 88.0 | 74.4 | 60.9 |
| 80° | 2911.9 | 2880.3 | 2492.3 | 397.0 | 191.7 | 142.1 | 74.4 | 47.4 | 40.6 | 31.6 | 24.8 |
| 82.5° | 1006.0 | 1006.0 | 886.4 | 133.1 | 85.7 | 69.9 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 203.0 | 227.8 | 160.1 | 0.0 | 29.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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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CATALOG NUMBER: GLEON-SA0D-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 |
| 2.5° | 13526.3 | 13253.4 | 13235.3 | 13063.9 | 12849.6 | 12752.6 | 12696.3 | 12795.5 | 12917.3 | 12930.8 | 13113.5 |
| 5° | 10499.4 | 10212.9 | 10332.5 | 10028.0 | 10088.9 | 10028.0 | 9928.7 | 9946.8 | 10000.9 | 9831.8 | 10041.5 |
| 7.5° | 7373.3 | 7156.7 | 7294.3 | 7213.1 | 7321.4 | 7364.2 | 7303.3 | 7213.1 | 6947.0 | 6915.4 | 7098.1 |
| 10° | 5557.6 | 5311.7 | 5165.1 | 5011.7 | 5045.6 | 5115.5 | 5092.9 | 5027.5 | 4858.4 | 4867.4 | 5043.3 |
| 12.5° | 4465.9 | 4190.7 | 3899.8 | 3523.1 | 3430.6 | 3482.5 | 3430.6 | 3392.3 | 3229.9 | 3243.4 | 3399.0 |
| 15° | 3387.8 | 3162.2 | 2857.7 | 2555.5 | 2390.8 | 2406.6 | 2262.3 | 2160.8 | 2059.3 | 1937.5 | 2032.2 |
| 17.5° | 2287.1 | 2149.5 | 2059.3 | 1969.1 | 1772.8 | 1727.7 | 1545.0 | 1348.8 | 1272.1 | 1215.7 | 1256.3 |
| 20° | 1619.5 | 1545.0 | 1508.9 | 1504.4 | 1391.6 | 1335.3 | 1157.1 | 1035.3 | 996.9 | 985.7 | 1010.5 |
| 22.5° | 1353.3 | 1299.2 | 1247.3 | 1218.0 | 1161.6 | 1096.2 | 960.8 | 899.9 | 872.9 | 859.3 | 877.4 |
| 25° | 1177.4 | 1136.8 | 1082.6 | 1033.0 | 1010.5 | 940.5 | 843.6 | 798.4 | 780.4 | 766.9 | 775.9 |
| 27.5° | 1046.6 | 1010.5 | 947.3 | 915.7 | 897.7 | 836.8 | 753.3 | 717.3 | 701.5 | 697.0 | 694.7 |
| 30° | 942.8 | 909.0 | 850.3 | 814.2 | 782.7 | 728.5 | 678.9 | 642.8 | 627.0 | 622.5 | 618.0 |
| 32.5° | 839.0 | 812.0 | 773.6 | 737.6 | 703.7 | 654.1 | 611.2 | 581.9 | 557.1 | 552.6 | 550.3 |
| 35° | 708.2 | 681.2 | 660.9 | 658.6 | 627.0 | 579.7 | 548.1 | 509.7 | 489.4 | 482.7 | 484.9 |
| 37.5° | 629.3 | 593.2 | 548.1 | 563.9 | 554.9 | 521.0 | 478.2 | 439.8 | 419.5 | 415.0 | 415.0 |
| 40° | 579.7 | 541.3 | 489.4 | 462.4 | 489.4 | 482.7 | 415.0 | 376.7 | 356.4 | 354.1 | 349.6 |
| 42.5° | 532.3 | 494.0 | 435.3 | 390.2 | 403.7 | 424.0 | 358.6 | 322.5 | 302.2 | 297.7 | 291.0 |
| 45° | 498.5 | 457.9 | 392.5 | 340.6 | 313.5 | 356.4 | 306.7 | 261.6 | 250.4 | 241.3 | 236.8 |
| 47.5° | 466.9 | 428.5 | 354.1 | 295.5 | 250.4 | 257.1 | 245.9 | 214.3 | 200.7 | 191.7 | 189.5 |
| 50° | 439.8 | 399.2 | 320.3 | 252.6 | 207.5 | 189.5 | 198.5 | 169.2 | 157.9 | 148.9 | 144.4 |
| 52.5° | 408.2 | 369.9 | 284.2 | 218.8 | 173.7 | 148.9 | 151.1 | 133.1 | 121.8 | 115.0 | 112.8 |
| 55° | 383.4 | 345.1 | 254.9 | 191.7 | 153.4 | 121.8 | 108.3 | 103.8 | 97.0 | 92.5 | 90.2 |
| 57.5° | 349.6 | 313.5 | 225.6 | 162.4 | 130.8 | 99.2 | 83.5 | 83.5 | 81.2 | 76.7 | 74.4 |
| 59° | 329.3 | 297.7 | 207.5 | 146.6 | 119.5 | 85.7 | 74.4 | 76.7 | 74.4 | 69.9 | 67.7 |
| 60° | 313.5 | 284.2 | 194.0 | 135.3 | 112.8 | 78.9 | 67.7 | 72.2 | 69.9 | 65.4 | 63.2 |
| 62.5° | 277.4 | 257.1 | 166.9 | 112.8 | 99.2 | 63.2 | 56.4 | 60.9 | 60.9 | 58.6 | 56.4 |
| 65° | 243.6 | 221.0 | 142.1 | 94.7 | 92.5 | 54.1 | 45.1 | 54.1 | 56.4 | 51.9 | 47.4 |
| 67.5° | 212.0 | 189.5 | 124.1 | 76.7 | 85.7 | 42.9 | 33.8 | 45.1 | 60.9 | 47.4 | 42.9 |
| 70° | 180.4 | 157.9 | 97.0 | 60.9 | 90.2 | 29.3 | 27.1 | 40.6 | 72.2 | 51.9 | 40.6 |
| 72.5° | 139.8 | 121.8 | 67.7 | 45.1 | 97.0 | 20.3 | 20.3 | 33.8 | 81.2 | 56.4 | 38.3 |
| 75° | 97.0 | 78.9 | 40.6 | 27.1 | 78.9 | 13.5 | 13.5 | 31.6 | 76.7 | 51.9 | 36.1 |
| 77.5° | 56.4 | 42.9 | 13.5 | 2.3 | 40.6 | 0.0 | 2.3 | 22.6 | 54.1 | 31.6 | 15.8 |
| 80° | 20.3 | 9.0 | 0.0 | 0.0 | 24.8 | 0.0 | 0.0 | 0.0 | 4.5 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 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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CATALOG NUMBER: GLEON-SA0D-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 |
| 2.5° | 13160.9 | 13465.4 | 13738.3 | 14151.1 | 14640.5 | 15204.4 | 15689.3 | 16210.3 | 16699.8 | 16902.8 | 17042.6 |
| 5° | 10084.4 | 10461.0 | 10900.9 | 11507.6 | 12315.1 | 13309.7 | 14241.3 | 15294.6 | 16426.9 | 16993.0 | 17525.3 |
| 7.5° | 7129.7 | 7513.1 | 8058.9 | 8704.0 | 9680.6 | 10864.8 | 12082.8 | 13537.6 | 15071.3 | 15966.7 | 16848.6 |
| 10° | 5126.8 | 5598.2 | 6107.9 | 6989.8 | 7982.2 | 9105.5 | 10359.5 | 11983.5 | 13693.2 | 14685.6 | 15748.0 |
| 12.5° | 3489.3 | 4026.1 | 4797.5 | 5785.4 | 6951.5 | 8052.2 | 9141.6 | 10691.1 | 12676.0 | 13659.4 | 14798.4 |
| 15° | 2093.1 | 2390.8 | 3207.3 | 4350.9 | 5780.9 | 7152.2 | 8345.4 | 9899.4 | 12015.1 | 13219.5 | 14403.7 |
| 17.5° | 1290.2 | 1427.7 | 1872.1 | 2810.4 | 4312.5 | 6047.0 | 7682.3 | 9631.0 | 12109.8 | 13575.9 | 14843.5 |
| 20° | 1028.5 | 1082.6 | 1224.7 | 1660.1 | 2857.7 | 4829.0 | 6935.7 | 9576.9 | 12883.5 | 14687.9 | 16047.9 |
| 22.5° | 893.2 | 945.1 | 1039.8 | 1206.7 | 1797.6 | 3615.6 | 6227.5 | 9626.5 | 13993.2 | 16354.7 | 17942.6 |
| 25° | 787.2 | 832.3 | 922.5 | 1060.1 | 1317.2 | 2546.5 | 5469.6 | 9847.5 | 15438.9 | 18423.0 | 20110.1 |
| 27.5° | 703.7 | 742.1 | 825.5 | 951.8 | 1130.0 | 1777.3 | 4610.3 | 10116.0 | 17153.1 | 20538.7 | 22203.2 |
| 30° | 627.0 | 660.9 | 735.3 | 852.6 | 981.1 | 1366.8 | 3667.5 | 10298.6 | 18869.6 | 22203.2 | 23698.6 |
| 32.5° | 561.6 | 586.4 | 654.1 | 753.3 | 852.6 | 1089.4 | 2787.8 | 10269.3 | 20143.9 | 23588.1 | 24774.5 |
| 35° | 494.0 | 518.8 | 577.4 | 663.1 | 742.1 | 899.9 | 2192.4 | 9721.2 | 21253.6 | 25024.9 | 26006.0 |
| 37.5° | 419.5 | 451.1 | 507.5 | 584.2 | 638.3 | 791.7 | 1772.8 | 9060.4 | 22379.1 | 26666.9 | 27379.6 |
| 40° | 356.4 | 387.9 | 437.6 | 521.0 | 554.9 | 751.1 | 1362.3 | 8255.2 | 23644.5 | 28502.8 | 28886.3 |
| 42.5° | 295.5 | 324.8 | 376.7 | 448.8 | 523.3 | 647.3 | 1008.2 | 7334.9 | 24860.2 | 30072.7 | 30259.9 |
| 45° | 239.1 | 268.4 | 322.5 | 394.7 | 559.4 | 536.8 | 780.4 | 6349.3 | 25841.3 | 31378.6 | 31439.5 |
| 47.5° | 189.5 | 216.5 | 272.9 | 372.2 | 521.0 | 428.5 | 557.1 | 5575.6 | 26664.6 | 32398.1 | 32238.0 |
| 50° | 146.6 | 169.2 | 227.8 | 426.3 | 455.6 | 354.1 | 421.8 | 5318.5 | 27402.2 | 33029.7 | 32614.6 |
| 52.5° | 115.0 | 135.3 | 187.2 | 399.2 | 354.1 | 293.2 | 354.1 | 5559.8 | 28412.6 | 33552.9 | 32826.7 |
| 55° | 92.5 | 112.8 | 146.6 | 227.8 | 241.3 | 248.1 | 302.2 | 5785.4 | 30156.1 | 34779.9 | 34078.5 |
| 57.5° | 76.7 | 97.0 | 119.5 | 160.1 | 182.7 | 209.8 | 268.4 | 5810.2 | 32210.9 | 36818.9 | 36155.8 |
| 59° | 69.9 | 88.0 | 108.3 | 142.1 | 160.1 | 191.7 | 252.6 | 5674.9 | 32934.9 | 37561.0 | 37229.4 |
| 60° | 65.4 | 83.5 | 101.5 | 130.8 | 148.9 | 180.4 | 243.6 | 5546.3 | 32966.5 | 37533.9 | 37687.3 |
| 62.5° | 56.4 | 74.4 | 90.2 | 110.5 | 126.3 | 153.4 | 218.8 | 5070.4 | 31631.2 | 36304.6 | 37412.1 |
| 65° | 49.6 | 65.4 | 81.2 | 94.7 | 108.3 | 137.6 | 198.5 | 4202.0 | 29350.9 | 34322.1 | 35528.8 |
| 67.5° | 45.1 | 56.4 | 74.4 | 83.5 | 97.0 | 121.8 | 175.9 | 2995.3 | 26502.2 | 31897.4 | 32680.0 |
| 70° | 40.6 | 54.1 | 67.7 | 76.7 | 88.0 | 106.0 | 151.1 | 1721.0 | 22379.1 | 28347.2 | 28904.3 |
| 72.5° | 38.3 | 51.9 | 60.9 | 72.2 | 78.9 | 94.7 | 137.6 | 809.7 | 16386.3 | 22708.4 | 24163.3 |
| 75° | 33.8 | 47.4 | 56.4 | 67.7 | 74.4 | 85.7 | 117.3 | 387.9 | 10898.6 | 16433.6 | 18086.9 |
| 77.5° | 20.3 | 38.3 | 51.9 | 60.9 | 65.4 | 74.4 | 97.0 | 223.3 | 6956.0 | 11374.5 | 13397.7 |
| 80° | 0.0 | 13.5 | 38.3 | 51.9 | 56.4 | 63.2 | 74.4 | 175.9 | 3721.6 | 6498.1 | 7799.5 |
| 82.5° | 0.0 | 0.0 | 27.1 | 40.6 | 38.3 | 42.9 | 56.4 | 110.5 | 1678.1 | 4247.1 | 4786.2 |
| 85° | 0.0 | 0.0 | 9.0 | 31.6 | 27.1 | 20.3 | 38.3 | 38.3 | 367.6 | 2149.5 | 2681.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 2.3 | 13.5 | 9.0 | 15.8 | 4.5 | 2.3 | 160.1 | 649.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P324424

CATALOG NUMBER: GLEON-SA0D-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 | 15508.9 |
| 2.5° | 17532.1 | 17699.0 | 17980.9 | 18114.0 | 18048.6 | 17771.1 | 17439.6 | 17101.3 | 16902.8 | 16981.7 |
| 5° | 18610.2 | 19469.5 | 19965.8 | 20130.4 | 19855.2 | 19232.7 | 18418.5 | 17344.9 | 16963.7 | 16859.9 |
| 7.5° | 18610.2 | 20227.4 | 21251.4 | 21431.8 | 20818.3 | 19598.1 | 18071.1 | 16395.3 | 15838.2 | 15635.2 |
| 10° | 17956.1 | 20157.5 | 21585.2 | 21871.7 | 21014.6 | 19189.9 | 17144.1 | 15231.4 | 14570.6 | 14360.8 |
| 12.5° | 17218.5 | 19589.1 | 21093.5 | 21488.2 | 20784.5 | 18783.9 | 16501.3 | 14444.3 | 13666.1 | 13483.4 |
| 15° | 16765.2 | 18889.9 | 20134.9 | 20421.4 | 20123.6 | 18547.0 | 16347.9 | 14207.4 | 13291.7 | 13115.8 |
| 17.5° | 16927.6 | 18348.6 | 18797.4 | 18964.3 | 19165.0 | 18463.6 | 16765.2 | 14726.2 | 13566.9 | 13400.0 |
| 20° | 17538.8 | 17777.9 | 17545.6 | 17755.4 | 18296.7 | 18544.8 | 17759.9 | 15980.3 | 14588.6 | 14365.3 |
| 22.5° | 18576.4 | 17482.4 | 16830.6 | 16914.1 | 17572.7 | 18813.2 | 19280.1 | 17771.1 | 16165.2 | 15885.5 |
| 25° | 19785.3 | 17721.5 | 16433.6 | 16359.2 | 17035.8 | 19167.3 | 20669.5 | 19719.9 | 18030.5 | 17721.5 |
| 27.5° | 21305.5 | 18258.3 | 16352.4 | 16278.0 | 16848.6 | 19498.9 | 21824.3 | 21646.1 | 19995.1 | 19467.3 |
| 30° | 22478.4 | 18786.1 | 16593.8 | 16422.3 | 17035.8 | 19728.9 | 22751.3 | 23281.3 | 21560.4 | 21210.8 |
| 32.5° | 23319.7 | 19408.6 | 16986.2 | 16738.1 | 17563.6 | 20125.9 | 23466.3 | 24779.0 | 23008.4 | 22478.4 |
| 35° | 23960.3 | 20085.3 | 17620.0 | 17211.8 | 18289.9 | 20728.1 | 24136.2 | 26373.6 | 24548.9 | 23969.3 |
| 37.5° | 24560.2 | 21034.9 | 18610.2 | 18123.0 | 19428.9 | 21698.0 | 24844.4 | 28182.6 | 26272.2 | 25579.7 |
| 40° | 25397.0 | 22110.7 | 20137.2 | 19704.1 | 21343.9 | 23019.7 | 25728.6 | 30068.2 | 28232.2 | 27361.6 |
| 42.5° | 26233.8 | 23265.6 | 21700.2 | 21817.5 | 23732.4 | 24625.6 | 26869.9 | 32062.0 | 30167.4 | 29238.1 |
| 45° | 26998.4 | 24456.5 | 23926.4 | 24467.7 | 25949.6 | 26387.2 | 28004.4 | 33214.6 | 31712.4 | 30814.7 |
| 47.5° | 27679.6 | 25945.1 | 26139.1 | 27580.3 | 28471.3 | 27981.8 | 28852.5 | 34209.3 | 32862.7 | 32071.1 |
| 50° | 28471.3 | 27871.3 | 29055.4 | 31094.4 | 31374.1 | 29425.4 | 29623.8 | 35386.7 | 34207.0 | 33571.0 |
| 52.5° | 29337.4 | 29901.3 | 32285.3 | 34083.0 | 33992.8 | 30992.9 | 30399.7 | 36706.1 | 36049.8 | 35452.1 |
| 55° | 30320.8 | 31541.0 | 35129.5 | 36879.8 | 36803.1 | 32743.2 | 31685.4 | 38336.9 | 38359.4 | 37818.1 |
| 57.5° | 31780.1 | 32953.0 | 37060.2 | 39142.1 | 39270.6 | 34764.1 | 33864.2 | 40163.8 | 40448.0 | 40087.1 |
| 59° | 32826.7 | 33868.7 | 37824.9 | 40087.1 | 40610.4 | 36327.2 | 35456.6 | 41223.9 | 41036.7 | 40707.4 |
| 60° | 33602.5 | 34450.6 | 38203.8 | 40581.1 | 41388.6 | 37387.3 | 36631.7 | 41846.4 | 41106.6 | 40707.4 |
| 62.5° | 35522.0 | 35718.2 | 38887.2 | 41140.5 | 42284.0 | 39742.0 | 39938.3 | 42906.5 | 40621.7 | 39969.8 |
| 65° | 36417.4 | 36518.9 | 38878.2 | 40139.0 | 41417.9 | 41575.8 | 42938.1 | 42938.1 | 39437.5 | 38436.1 |
| 67.5° | 36043.0 | 35553.6 | 36949.7 | 36818.9 | 38095.5 | 40486.4 | 44065.8 | 41363.8 | 37173.0 | 35878.4 |
| 70° | 32998.1 | 31114.7 | 30494.5 | 30550.8 | 31527.5 | 35215.2 | 41832.9 | 36730.9 | 32887.6 | 31374.1 |
| 72.5° | 27456.3 | 22938.5 | 21407.0 | 23155.0 | 23409.9 | 27063.8 | 35650.6 | 27661.5 | 24253.5 | 22834.8 |
| 75° | 22083.7 | 16169.7 | 13679.7 | 15524.7 | 15957.7 | 19805.6 | 27578.1 | 17227.6 | 14166.8 | 13061.6 |
| 77.5° | 15865.2 | 11606.8 | 9816.0 | 9687.4 | 10246.8 | 12560.9 | 19568.8 | 8670.2 | 7231.2 | 6748.5 |
| 80° | 9013.0 | 7639.4 | 8225.8 | 7761.2 | 8043.1 | 7853.7 | 9297.2 | 3802.8 | 3114.9 | 2911.9 |
| 82.5° | 5440.3 | 4515.5 | 4889.9 | 4071.2 | 5151.6 | 4486.2 | 3581.7 | 1218.0 | 1057.8 | 1006.0 |
| 85° | 3538.9 | 2467.5 | 1285.6 | 861.6 | 1775.1 | 2866.7 | 800.7 | 331.6 | 254.9 | 203.0 |
| 87.5° | 1220.2 | 629.3 | 63.2 | 27.1 | 189.5 | 534.6 | 29.3 | 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 |

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



LM-79-2008: Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Report Prepared for

Cooper Lighting Solutions

McGRAW-EDISON

Report Number: SP1-1908-441-1-R4

Test Date: 08/20/2019

Luminaire Tested: SA1C-727-U-5WQ

Test Information

Test Method: LM-79-2008
 Report Number: SP1-1908-441-1-R4
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 10/28/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: McGRAW-EDISON
 Catalog Number: **SA1C-727-U-5WQ**
 Description: McGRAW EDISON ROADWAY AND AREA LUMINAIRE

THIS IS A REVISION OF SP1-1908-441-1-R3. TO UPDATE THE CATALOG NUMBER.TESTED IN SITU. (1) 70 CRI, 2700K, 1050MA LIGHTSQUARE WITH 16 LEDS AND TYPE V WIDE OPTICS.

Spectral Parameters

CCT (K): 2741
 CIE u': 0.2605
 CIE v': 0.5272
 Duv: 0.0005
 CIE x: 0.4573
 CIE y: 0.4113
 CIE z: 0.1313
 Peak Wavelength (nm): 602
 Dominant Wavelength (nm): 583
 Purity: 61.2

| | | | |
|-----------|------|------|-------|
| CRI (Ra): | 71.5 | | |
| R1: | 69.2 | R9: | -16.1 |
| R2: | 79.4 | R10: | 51.4 |
| R3: | 87.8 | R11: | 63.1 |
| R4: | 69.4 | R12: | 42.0 |
| R5: | 66.4 | R13: | 70.2 |
| R6: | 69.8 | R14: | 92.4 |
| R7: | 79.8 | | |
| R8: | 50.1 | | |

Rf: 69.9
 Rg: 98.3



Test Conditions

Stabilization Time: 56M
 Operation Time: 12H
 Room Temperature (°C) / RH%: 25.3./42%
 Sphere Temperature (°C): 25.7

REPORT NUMBER: SP1-1908-441-1-R4

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | IN0058 | 6/28/2019 | 12/28/2019 |
| Power Meter | IN0071 | 12/5/2018 | 12/5/2019 |
| AC Power Source | IN0063 | 12/5/2018 | 12/5/2019 |
| DC Power Source | IN0208 | 12/5/2018 | 12/5/2019 |
| Sphere Thermometer | IN0085 | 12/5/2018 | 12/5/2019 |
| Room Thermometer | IN0046 | 12/5/2018 | 12/5/2019 |

REPORT NUMBER: SP1-1908-441-1-R4

CIE 1931 Chromaticity Diagram



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



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-1908-441-1-R4

Photopic Flux vs. Wavelength



Photopic Lumens: 6211.7

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|
| 360 | 2044 | 0.0 | 490 | 7179 | 1.0 | 620 | 118034 | 30.7 | 750 | 8362 | 0.0 | 880 | 3128 | 0.0 |
| 365 | 2016 | 0.0 | 495 | 10476 | 1.9 | 625 | 111884 | 24.7 | 755 | 7635 | 0.0 | 885 | 3110 | 0.0 |
| 370 | 2020 | 0.0 | 500 | 15549 | 3.4 | 630 | 106119 | 19.2 | 760 | 6582 | 0.0 | 890 | 2632 | 0.0 |
| 375 | 2137 | 0.0 | 505 | 22477 | 6.3 | 635 | 99706 | 15.0 | 765 | 5777 | 0.0 | 895 | 2709 | 0.0 |
| 380 | 2046 | 0.0 | 510 | 30417 | 10.4 | 640 | 92142 | 11.0 | 770 | 5474 | 0.0 | 900 | 2016 | 0.0 |
| 385 | 1925 | 0.0 | 515 | 39274 | 16.3 | 645 | 84987 | 8.2 | 775 | 4977 | 0.0 | 905 | 1748 | 0.0 |
| 390 | 1893 | 0.0 | 520 | 47282 | 22.9 | 650 | 78016 | 5.7 | 780 | 4723 | 0.0 | 910 | 2046 | 0.0 |
| 395 | 1695 | 0.0 | 525 | 55413 | 29.7 | 655 | 71541 | 4.1 | 785 | 4219 | 0.0 | 915 | 1844 | 0.0 |
| 400 | 1633 | 0.0 | 530 | 62377 | 36.7 | 660 | 64863 | 2.7 | 790 | 3969 | 0.0 | 920 | 2734 | 0.0 |
| 405 | 2065 | 0.0 | 535 | 68520 | 42.5 | 665 | 58485 | 1.9 | 795 | 4122 | 0.0 | 925 | 2307 | 0.0 |
| 410 | 3449 | 0.0 | 540 | 73435 | 47.8 | 670 | 51641 | 1.1 | 800 | 2864 | 0.0 | 930 | 2039 | 0.0 |
| 415 | 7117 | 0.0 | 545 | 78677 | 52.4 | 675 | 46030 | 0.8 | 805 | 3151 | 0.0 | 935 | 1784 | 0.0 |
| 420 | 13992 | 0.0 | 550 | 83331 | 56.6 | 680 | 40590 | 0.5 | 810 | 3022 | 0.0 | 940 | 2464 | 0.0 |
| 425 | 25176 | 0.1 | 555 | 89120 | 60.9 | 685 | 35691 | 0.3 | 815 | 3471 | 0.0 | 945 | 2794 | 0.0 |
| 430 | 38151 | 0.3 | 560 | 94613 | 64.3 | 690 | 31631 | 0.2 | 820 | 2749 | 0.0 | 950 | 3090 | 0.0 |
| 435 | 49673 | 0.6 | 565 | 99818 | 66.4 | 695 | 27437 | 0.1 | 825 | 2729 | 0.0 | 955 | 1866 | 0.0 |
| 440 | 57273 | 0.9 | 570 | 106526 | 69.3 | 700 | 24589 | 0.1 | 830 | 2282 | 0.0 | 960 | 3110 | 0.0 |
| 445 | 54802 | 1.1 | 575 | 111610 | 69.4 | 705 | 21832 | 0.0 | 835 | 3140 | 0.0 | 965 | 3880 | 0.0 |
| 450 | 39184 | 1.0 | 580 | 117163 | 69.6 | 710 | 19500 | 0.0 | 840 | 2365 | 0.0 | 970 | 3243 | 0.0 |
| 455 | 22506 | 0.8 | 585 | 122201 | 67.9 | 715 | 17870 | 0.0 | 845 | 3024 | 0.0 | 975 | 2014 | 0.0 |
| 460 | 13692 | 0.6 | 590 | 125662 | 65.0 | 720 | 15924 | 0.0 | 850 | 2510 | 0.0 | 980 | 1688 | 0.0 |
| 465 | 9446 | 0.5 | 595 | 127415 | 60.4 | 725 | 14268 | 0.0 | 855 | 2739 | 0.0 | 985 | 2827 | 0.0 |
| 470 | 6698 | 0.4 | 600 | 129155 | 55.7 | 730 | 12438 | 0.0 | 860 | 3515 | 0.0 | 990 | 4172 | 0.0 |
| 475 | 5328 | 0.4 | 605 | 128057 | 49.6 | 735 | 11255 | 0.0 | 865 | 3600 | 0.0 | 995 | 3177 | 0.0 |
| 480 | 5081 | 0.5 | 610 | 126031 | 43.3 | 740 | 9951 | 0.0 | 870 | 3609 | 0.0 | 1000 | 3241 | 0.0 |
| 485 | 5579 | 0.7 | 615 | 123059 | 37.1 | 745 | 8870 | 0.0 | 875 | 3208 | 0.0 | | | |

REPORT NUMBER: SP1-1908-441-1-R4

Scotopic Flux vs. Wavelength



Scotopic Lumens: 6474.3

S/P: 1.04

| λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) | λ (nm) | Power (µW/nm) | Lumens (φ/nm) |
|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|--------|---------------|---------------|
| 360 | 2044 | 0.0 | 490 | 7179 | 6.0 | 620 | 118034 | 0.1 | 750 | 8362 | 0.0 | 880 | 3128 | 0.0 |
| 365 | 2016 | 0.0 | 495 | 10476 | 8.6 | 625 | 111884 | 0.1 | 755 | 7635 | 0.0 | 885 | 3110 | 0.0 |
| 370 | 2020 | 0.0 | 500 | 15549 | 12.5 | 630 | 106119 | 0.0 | 760 | 6582 | 0.0 | 890 | 2632 | 0.0 |
| 375 | 2137 | 0.0 | 505 | 22477 | 17.3 | 635 | 99706 | 0.0 | 765 | 5777 | 0.0 | 895 | 2709 | 0.0 |
| 380 | 2046 | 0.0 | 510 | 30417 | 21.8 | 640 | 92142 | 0.0 | 770 | 5474 | 0.0 | 900 | 2016 | 0.0 |
| 385 | 1925 | 0.0 | 515 | 39274 | 25.7 | 645 | 84987 | 0.0 | 775 | 4977 | 0.0 | 905 | 1748 | 0.0 |
| 390 | 1893 | 0.0 | 520 | 47282 | 27.5 | 650 | 78016 | 0.0 | 780 | 4723 | 0.0 | 910 | 2046 | 0.0 |
| 395 | 1695 | 0.0 | 525 | 55413 | 28.1 | 655 | 71541 | 0.0 | 785 | 4219 | 0.0 | 915 | 1844 | 0.0 |
| 400 | 1633 | 0.0 | 530 | 62377 | 27.0 | 660 | 64863 | 0.0 | 790 | 3969 | 0.0 | 920 | 2734 | 0.0 |
| 405 | 2065 | 0.0 | 535 | 68520 | 24.7 | 665 | 58485 | 0.0 | 795 | 4122 | 0.0 | 925 | 2307 | 0.0 |
| 410 | 3449 | 0.1 | 540 | 73435 | 21.5 | 670 | 51641 | 0.0 | 800 | 2864 | 0.0 | 930 | 2039 | 0.0 |
| 415 | 7117 | 0.5 | 545 | 78677 | 18.3 | 675 | 46030 | 0.0 | 805 | 3151 | 0.0 | 935 | 1784 | 0.0 |
| 420 | 13992 | 1.6 | 550 | 83331 | 15.0 | 680 | 40590 | 0.0 | 810 | 3022 | 0.0 | 940 | 2464 | 0.0 |
| 425 | 25176 | 3.9 | 555 | 89120 | 12.0 | 685 | 35691 | 0.0 | 815 | 3471 | 0.0 | 945 | 2794 | 0.0 |
| 430 | 38151 | 8.1 | 560 | 94613 | 9.3 | 690 | 31631 | 0.0 | 820 | 2749 | 0.0 | 950 | 3090 | 0.0 |
| 435 | 49673 | 13.3 | 565 | 99818 | 7.0 | 695 | 27437 | 0.0 | 825 | 2729 | 0.0 | 955 | 1866 | 0.0 |
| 440 | 57273 | 19.1 | 570 | 106526 | 5.2 | 700 | 24589 | 0.0 | 830 | 2282 | 0.0 | 960 | 3110 | 0.0 |
| 445 | 54802 | 21.6 | 575 | 111610 | 3.7 | 705 | 21832 | 0.0 | 835 | 3140 | 0.0 | 965 | 3880 | 0.0 |
| 450 | 39184 | 18.1 | 580 | 117163 | 2.6 | 710 | 19500 | 0.0 | 840 | 2365 | 0.0 | 970 | 3243 | 0.0 |
| 455 | 22506 | 11.8 | 585 | 122201 | 1.8 | 715 | 17870 | 0.0 | 845 | 3024 | 0.0 | 975 | 2014 | 0.0 |
| 460 | 13692 | 8.1 | 590 | 125662 | 1.2 | 720 | 15924 | 0.0 | 850 | 2510 | 0.0 | 980 | 1688 | 0.0 |
| 465 | 9446 | 6.2 | 595 | 127415 | 0.8 | 725 | 14268 | 0.0 | 855 | 2739 | 0.0 | 985 | 2827 | 0.0 |
| 470 | 6698 | 4.8 | 600 | 129155 | 0.5 | 730 | 12438 | 0.0 | 860 | 3515 | 0.0 | 990 | 4172 | 0.0 |
| 475 | 5328 | 4.1 | 605 | 128057 | 0.4 | 735 | 11255 | 0.0 | 865 | 3600 | 0.0 | 995 | 3177 | 0.0 |
| 480 | 5081 | 4.1 | 610 | 126031 | 0.2 | 740 | 9951 | 0.0 | 870 | 3609 | 0.0 | 1000 | 3241 | 0.0 |
| 485 | 5579 | 4.6 | 615 | 123059 | 0.1 | 745 | 8870 | 0.0 | 875 | 3208 | 0.0 | | | |

REPORT NUMBER: SP1-1908-441-1-R4

Melanopic Flux vs. Wavelength



Melanopic Lumens: 2145.7 M/P: 0.35

| λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) | λ (nm) | Power ($\mu\text{W}/\text{nm}$) | Lumens (ϕ/nm) |
|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|----------------|-----------------------------------|-----------------------------|
| 360 | 2044 | 0.0 | 490 | 7179 | 11.1 | 620 | 118034 | 1.5 | 750 | 8362 | 0.0 | 880 | 3128 | 0.0 |
| 365 | 2016 | 0.0 | 495 | 10476 | 16.9 | 625 | 111884 | 0.9 | 755 | 7635 | 0.0 | 885 | 3110 | 0.0 |
| 370 | 2020 | 0.0 | 500 | 15549 | 26.0 | 630 | 106119 | 0.6 | 760 | 6582 | 0.0 | 890 | 2632 | 0.0 |
| 375 | 2137 | 0.0 | 505 | 22477 | 38.2 | 635 | 99706 | 0.4 | 765 | 5777 | 0.0 | 895 | 2709 | 0.0 |
| 380 | 2046 | 0.0 | 510 | 30417 | 51.6 | 640 | 92142 | 0.2 | 770 | 5474 | 0.0 | 900 | 2016 | 0.0 |
| 385 | 1925 | 0.0 | 515 | 39274 | 65.1 | 645 | 84987 | 0.1 | 775 | 4977 | 0.0 | 905 | 1748 | 0.0 |
| 390 | 1893 | 0.0 | 520 | 47282 | 75.2 | 650 | 78016 | 0.1 | 780 | 4723 | 0.0 | 910 | 2046 | 0.0 |
| 395 | 1695 | 0.0 | 525 | 55413 | 82.9 | 655 | 71541 | 0.1 | 785 | 4219 | 0.0 | 915 | 1844 | 0.0 |
| 400 | 1633 | 0.0 | 530 | 62377 | 86.0 | 660 | 64863 | 0.0 | 790 | 3969 | 0.0 | 920 | 2734 | 0.0 |
| 405 | 2065 | 0.1 | 535 | 68520 | 85.4 | 665 | 58485 | 0.0 | 795 | 4122 | 0.0 | 925 | 2307 | 0.0 |
| 410 | 3449 | 0.2 | 540 | 73435 | 81.1 | 670 | 51641 | 0.0 | 800 | 2864 | 0.0 | 930 | 2039 | 0.0 |
| 415 | 7117 | 0.7 | 545 | 78677 | 75.4 | 675 | 46030 | 0.0 | 805 | 3151 | 0.0 | 935 | 1784 | 0.0 |
| 420 | 13992 | 2.3 | 550 | 83331 | 68.1 | 680 | 40590 | 0.0 | 810 | 3022 | 0.0 | 940 | 2464 | 0.0 |
| 425 | 25176 | 6.2 | 555 | 89120 | 60.9 | 685 | 35691 | 0.0 | 815 | 3471 | 0.0 | 945 | 2794 | 0.0 |
| 430 | 38151 | 13.0 | 560 | 94613 | 52.9 | 690 | 31631 | 0.0 | 820 | 2749 | 0.0 | 950 | 3090 | 0.0 |
| 435 | 49673 | 22.2 | 565 | 99818 | 44.8 | 695 | 27437 | 0.0 | 825 | 2729 | 0.0 | 955 | 1866 | 0.0 |
| 440 | 57273 | 32.0 | 570 | 106526 | 37.6 | 700 | 24589 | 0.0 | 830 | 2282 | 0.0 | 960 | 3110 | 0.0 |
| 445 | 54802 | 36.7 | 575 | 111610 | 30.4 | 705 | 21832 | 0.0 | 835 | 3140 | 0.0 | 965 | 3880 | 0.0 |
| 450 | 39184 | 30.4 | 580 | 117163 | 24.1 | 710 | 19500 | 0.0 | 840 | 2365 | 0.0 | 970 | 3243 | 0.0 |
| 455 | 22506 | 19.7 | 585 | 122201 | 18.7 | 715 | 17870 | 0.0 | 845 | 3024 | 0.0 | 975 | 2014 | 0.0 |
| 460 | 13692 | 13.2 | 590 | 125662 | 14.0 | 720 | 15924 | 0.0 | 850 | 2510 | 0.0 | 980 | 1688 | 0.0 |
| 465 | 9446 | 10.0 | 595 | 127415 | 10.2 | 725 | 14268 | 0.0 | 855 | 2739 | 0.0 | 985 | 2827 | 0.0 |
| 470 | 6698 | 7.7 | 600 | 129155 | 7.3 | 730 | 12438 | 0.0 | 860 | 3515 | 0.0 | 990 | 4172 | 0.0 |
| 475 | 5328 | 6.7 | 605 | 128057 | 5.0 | 735 | 11255 | 0.0 | 865 | 3600 | 0.0 | 995 | 3177 | 0.0 |
| 480 | 5081 | 6.9 | 610 | 126031 | 3.4 | 740 | 9951 | 0.0 | 870 | 3609 | 0.0 | 1000 | 3241 | 0.0 |
| 485 | 5579 | 8.1 | 615 | 123059 | 2.3 | 745 | 8870 | 0.0 | 875 | 3208 | 0.0 | | | |

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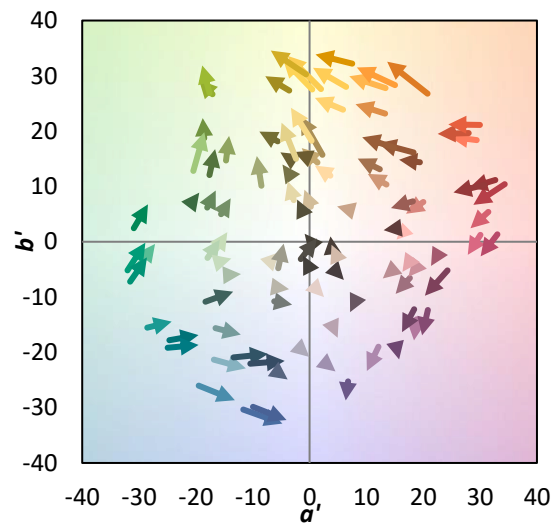
TM-30-18

Summary

$R_f = 69.9$
 $R_g = 98.3$
 CIE $R_a = 71.5$
 $R_g = -16.1$



Color Vector Graphics

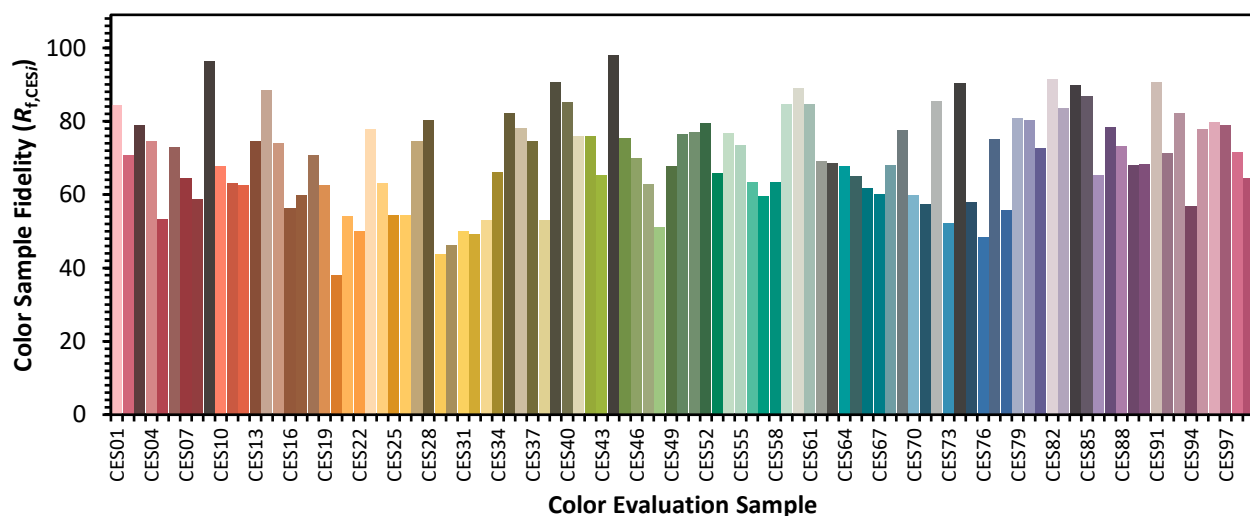


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Individual Sample Fidelity Index ($R_{f,i}$)

| | | | |
|------------|------------|------------|------------|
| CES01 = 86 | CES26 = 54 | CES51 = 77 | CES76 = 48 |
| CES02 = 63 | CES27 = 74 | CES52 = 80 | CES77 = 75 |
| CES03 = 31 | CES28 = 80 | CES53 = 66 | CES78 = 56 |
| CES04 = 71 | CES29 = 44 | CES54 = 77 | CES79 = 81 |
| CES05 = 50 | CES30 = 46 | CES55 = 74 | CES80 = 80 |
| CES06 = 52 | CES31 = 50 | CES56 = 63 | CES81 = 73 |
| CES07 = 42 | CES32 = 49 | CES57 = 60 | CES82 = 91 |
| CES08 = 41 | CES33 = 53 | CES58 = 63 | CES83 = 84 |
| CES09 = 29 | CES34 = 66 | CES59 = 85 | CES84 = 90 |
| CES10 = 77 | CES35 = 82 | CES60 = 89 | CES85 = 87 |
| CES11 = 60 | CES36 = 78 | CES61 = 85 | CES86 = 65 |
| CES12 = 66 | CES37 = 75 | CES62 = 69 | CES87 = 78 |
| CES13 = 43 | CES38 = 53 | CES63 = 68 | CES88 = 73 |
| CES14 = 74 | CES39 = 91 | CES64 = 68 | CES89 = 68 |
| CES15 = 71 | CES40 = 85 | CES65 = 65 | CES90 = 68 |
| CES16 = 48 | CES41 = 76 | CES66 = 62 | CES91 = 91 |
| CES17 = 50 | CES42 = 76 | CES67 = 60 | CES92 = 71 |
| CES18 = 57 | CES43 = 65 | CES68 = 68 | CES93 = 82 |
| CES19 = 73 | CES44 = 98 | CES69 = 77 | CES94 = 57 |
| CES20 = 67 | CES45 = 75 | CES70 = 60 | CES95 = 78 |
| CES21 = 88 | CES46 = 70 | CES71 = 57 | CES96 = 80 |
| CES22 = 80 | CES47 = 63 | CES72 = 86 | CES97 = 79 |
| CES23 = 92 | CES48 = 51 | CES73 = 52 | CES98 = 71 |
| CES24 = 91 | CES49 = 68 | CES74 = 90 | CES99 = 64 |
| CES25 = 73 | CES50 = 77 | CES75 = 58 | |



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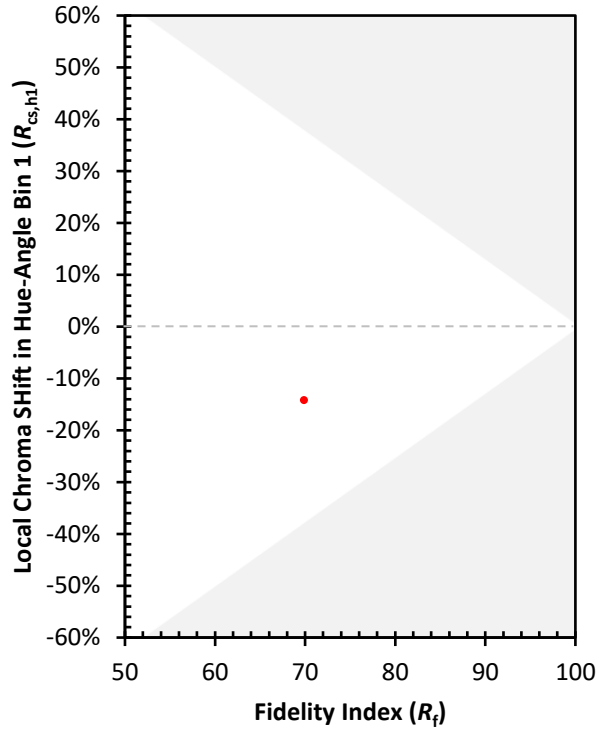
Color Rendition by Hue-Angle Bin



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Measure Comparisons



(END OF REPORT)