

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: P324403

Luminaire Tested: **GLEON-SA9B-727-U-SLR-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324403
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-SA9B-727-U-SLR-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 800mA 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: 31670 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

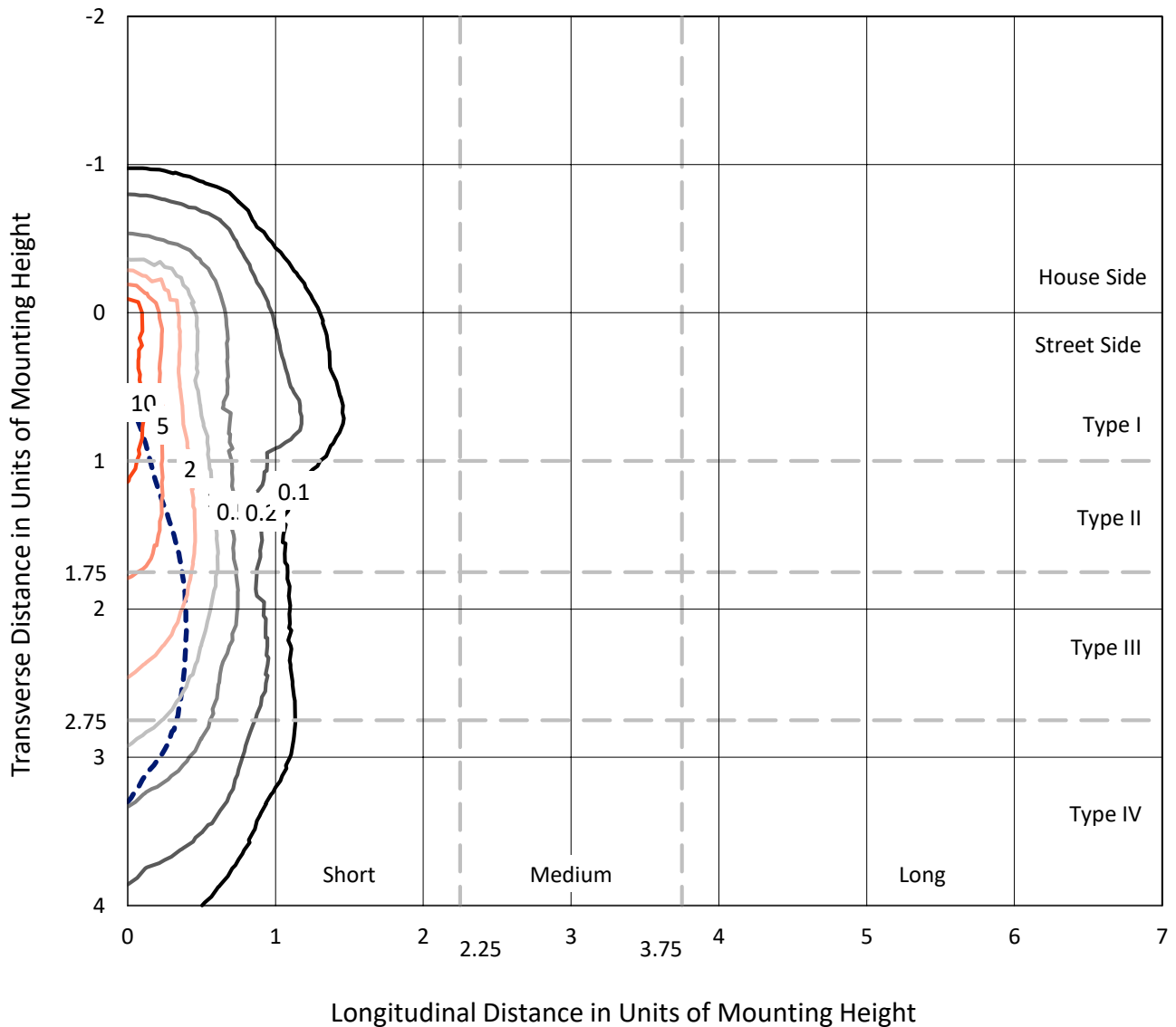
Input Watts (W): 374
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

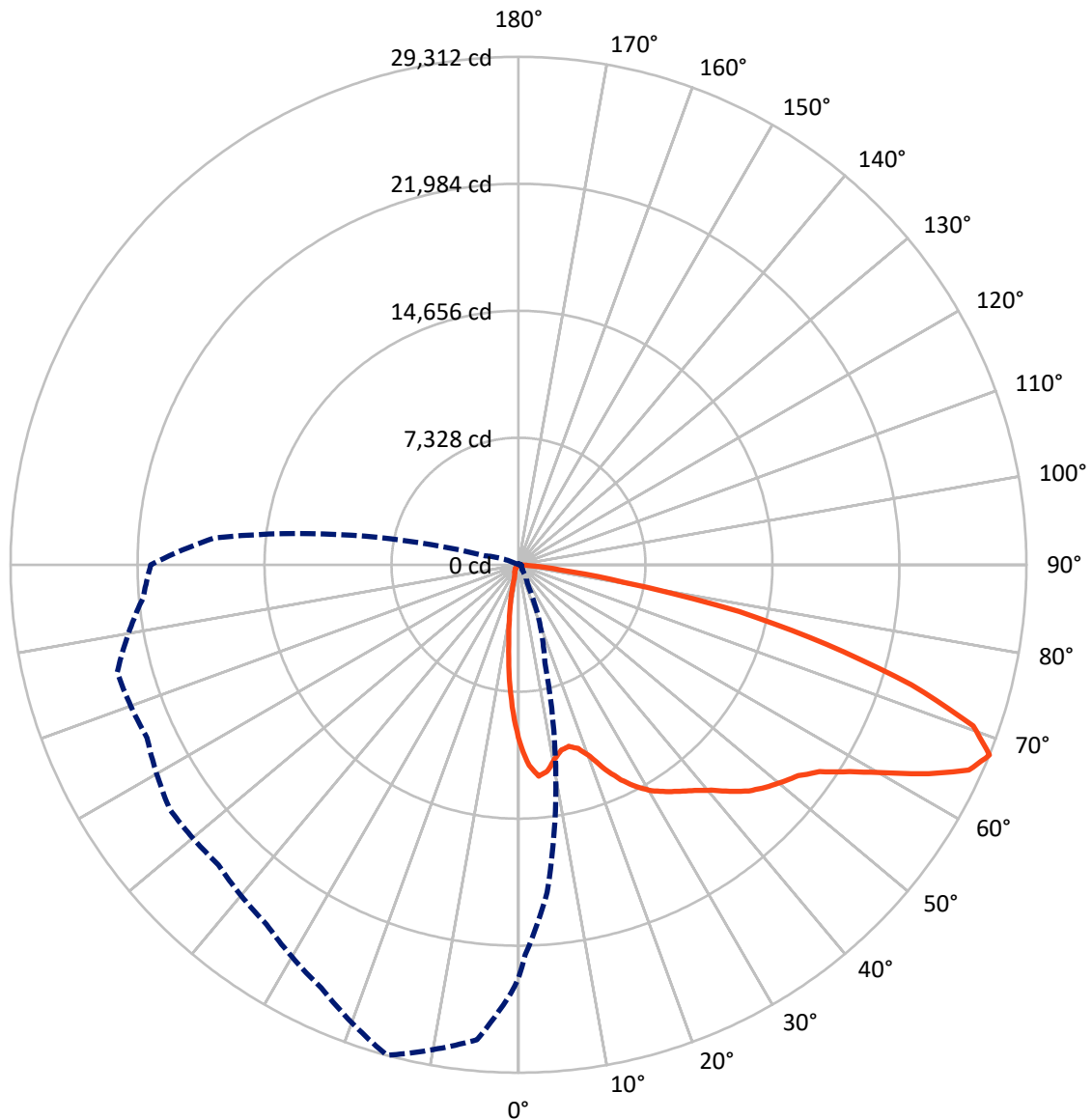
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 16.5 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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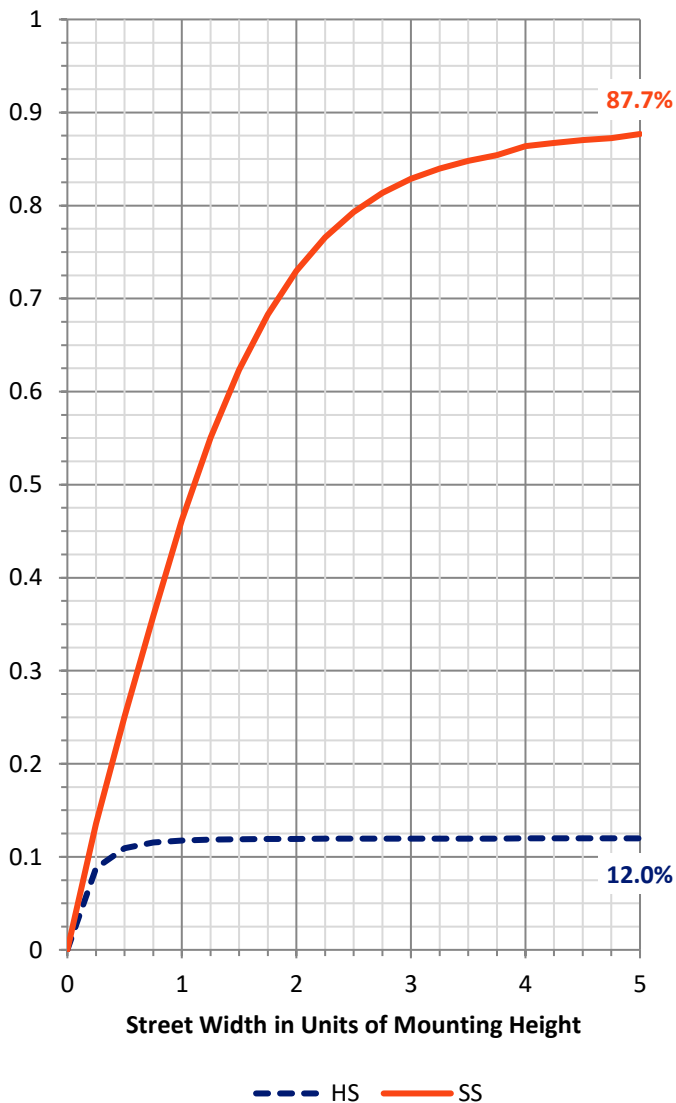
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3833.1 | 0.0 | 3833.1 |
| | % Fixture | 12.1 | 0.0 | 12.1 |
| Street Side | Lumens | 27836.9 | 0.0 | 27836.9 |
| | % Fixture | 87.9 | 0.0 | 87.9 |
| Total | Lumens | 31670.0 | 0.0 | 31670.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 791.8 | 2.5 |
| 10°-20° | 1576.0 | 5.0 |
| 20°-30° | 2237.9 | 7.1 |
| 30°-40° | 3305.6 | 10.4 |
| 40°-50° | 4767.4 | 15.1 |
| 50°-60° | 6692.4 | 21.1 |
| 60°-70° | 7801.4 | 24.6 |
| 70°-80° | 3988.2 | 12.6 |
| 80°-90° | 509.3 | 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° | 31670.0 | 100.0 |
| 0°-180° | 31670.0 | 100.0 |

Coefficient of Utilization

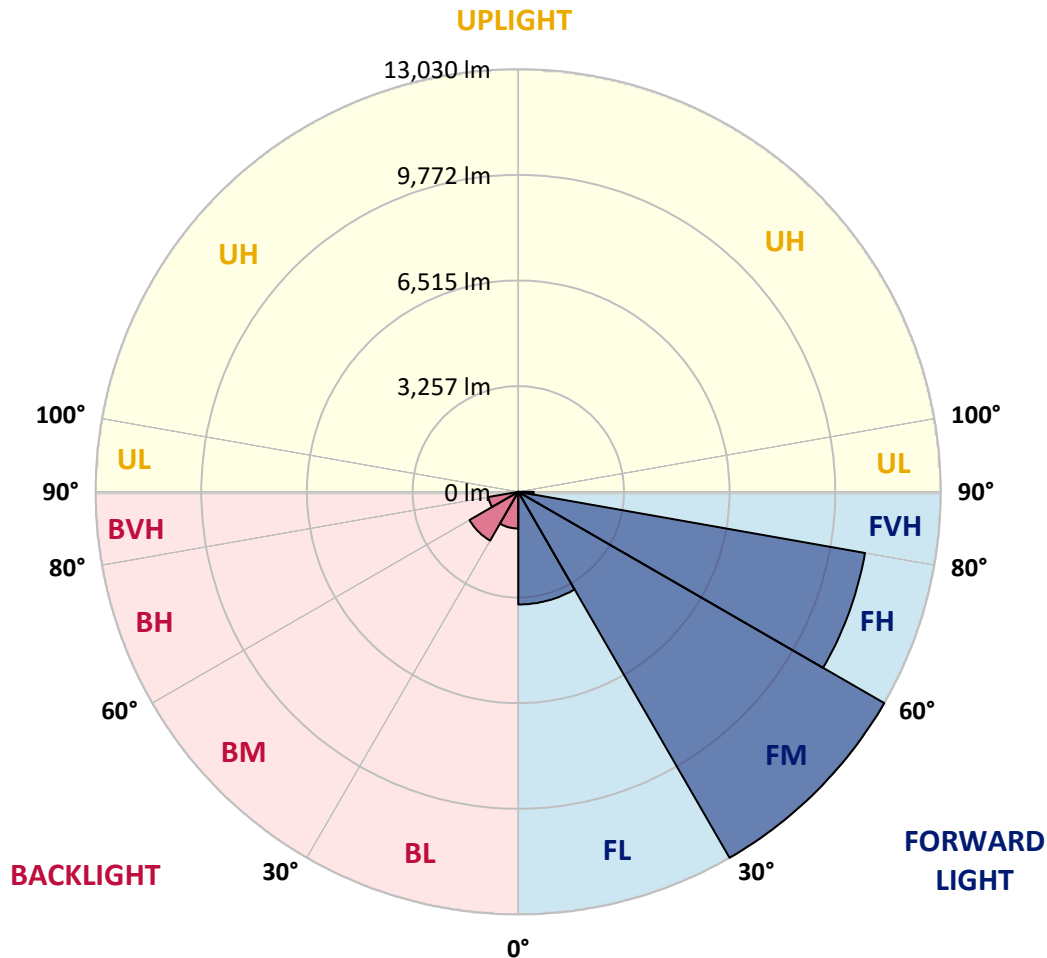


REPORT NUMBER: P324403
 CATALOG NUMBER: GLEON-SA9B-727-U-SLR-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 3473.6 | 11.0 | | | |
| FM (30°-60°) | 13029.6 | 41.1 | | | |
| FH (60°-80°) | 10855.4 | 34.3 | | | G4/12000 |
| FVH (80°-90°) | 478.4 | 1.5 | | | G3/500 |
| BL (0°-30°) | 1132.2 | 3.6 | B3/2500 | | |
| BM (30°-60°) | 1735.8 | 5.5 | B2/2500 | | |
| BH (60°-80°) | 934.2 | 2.9 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 30.9 | 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-G4
 Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 1° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 |
| 2.5° | 11296.2 | 11209.2 | 11113.1 | 10799.6 | 10508.5 | 10175.4 | 9903.8 | 9714.8 | 9477.7 | 9170.2 | 9092.2 |
| 5° | 11215.2 | 11122.1 | 10820.6 | 10122.9 | 9512.3 | 8918.1 | 8345.0 | 8008.9 | 7591.8 | 7168.7 | 7063.7 |
| 7.5° | 10400.5 | 10302.9 | 9867.8 | 8912.1 | 8089.9 | 7231.7 | 6487.5 | 6026.9 | 5555.8 | 5168.7 | 4963.2 |
| 10° | 9552.8 | 9446.2 | 8957.1 | 7797.3 | 6784.6 | 6008.9 | 5462.8 | 5023.2 | 4577.6 | 4163.5 | 3833.4 |
| 12.5° | 8969.1 | 8829.6 | 8298.5 | 6984.2 | 6101.9 | 5575.3 | 5065.2 | 4538.6 | 3935.4 | 3491.3 | 3128.2 |
| 15° | 8724.6 | 8565.5 | 8004.4 | 6670.6 | 5860.4 | 5242.2 | 4577.6 | 3930.9 | 3224.3 | 2715.6 | 2382.6 |
| 17.5° | 8913.6 | 8706.6 | 8104.9 | 6649.6 | 5557.3 | 4715.6 | 3875.4 | 3116.2 | 2349.6 | 1834.9 | 1597.9 |
| 20° | 9555.8 | 9284.2 | 8520.5 | 6643.6 | 5189.7 | 4090.0 | 3024.7 | 2166.5 | 1548.4 | 1245.3 | 1120.8 |
| 22.5° | 10567.0 | 10208.4 | 9117.7 | 6691.6 | 4810.1 | 3432.8 | 2184.5 | 1471.8 | 1162.8 | 1005.2 | 931.7 |
| 25° | 11788.3 | 11372.7 | 9977.4 | 6861.1 | 4477.1 | 2793.7 | 1587.4 | 1162.8 | 981.2 | 865.7 | 804.2 |
| 27.5° | 12949.6 | 12612.0 | 11063.6 | 7105.7 | 4219.0 | 2277.5 | 1288.8 | 985.7 | 838.7 | 762.2 | 712.7 |
| 30° | 14109.3 | 13684.7 | 12178.4 | 7396.8 | 3908.4 | 1928.0 | 1132.8 | 898.7 | 751.7 | 670.7 | 639.2 |
| 32.5° | 14952.5 | 14600.0 | 13051.6 | 7606.8 | 3576.8 | 1699.9 | 1012.7 | 822.2 | 702.2 | 619.6 | 573.1 |
| 35° | 15944.3 | 15545.2 | 13800.3 | 7653.3 | 3363.8 | 1555.9 | 910.7 | 739.7 | 609.1 | 535.6 | 486.1 |
| 37.5° | 17015.5 | 16518.9 | 14664.5 | 7551.3 | 3197.3 | 1485.4 | 834.2 | 702.2 | 568.6 | 493.6 | 441.1 |
| 40° | 18200.8 | 17639.7 | 15494.2 | 7404.3 | 3033.7 | 1461.3 | 775.7 | 673.7 | 537.1 | 460.6 | 406.6 |
| 42.5° | 19449.1 | 18787.5 | 16212.8 | 7249.7 | 2930.2 | 1378.8 | 769.7 | 645.2 | 513.1 | 430.6 | 376.6 |
| 45° | 20497.9 | 19827.2 | 16951.0 | 7198.7 | 2856.7 | 1288.8 | 795.2 | 625.6 | 496.6 | 406.6 | 354.1 |
| 47.5° | 21333.6 | 20698.9 | 17707.2 | 7312.7 | 2814.7 | 1206.3 | 724.7 | 651.2 | 487.6 | 385.6 | 334.6 |
| 50° | 22331.3 | 21612.6 | 18772.4 | 7653.3 | 2753.2 | 1123.8 | 655.7 | 745.7 | 487.6 | 372.1 | 318.1 |
| 52.5° | 23582.6 | 22871.4 | 19960.7 | 8181.4 | 2630.1 | 1009.7 | 589.6 | 747.2 | 492.1 | 354.1 | 297.1 |
| 55° | 25156.5 | 24640.3 | 21657.6 | 8760.6 | 2433.6 | 841.7 | 510.1 | 642.2 | 474.1 | 321.1 | 277.6 |
| 57.5° | 26665.8 | 26244.2 | 23204.5 | 9156.7 | 2171.0 | 657.2 | 444.1 | 517.6 | 433.6 | 282.1 | 247.6 |
| 59° | 27078.4 | 26617.8 | 23771.6 | 9174.7 | 1974.5 | 573.1 | 411.1 | 427.6 | 424.6 | 264.1 | 229.6 |
| 60° | 27078.4 | 26589.3 | 23935.2 | 9078.7 | 1831.9 | 526.6 | 390.1 | 381.1 | 442.6 | 252.1 | 219.1 |
| 62.5° | 26587.8 | 25900.6 | 23404.0 | 8429.0 | 1494.4 | 448.6 | 340.6 | 315.1 | 397.6 | 226.6 | 193.5 |
| 65° | 25567.6 | 24566.8 | 21594.6 | 7254.2 | 1332.3 | 411.1 | 294.1 | 258.1 | 276.1 | 199.5 | 169.5 |
| 67.5° | 23866.2 | 22509.8 | 18985.5 | 5860.4 | 1267.8 | 400.6 | 253.6 | 219.1 | 208.5 | 171.0 | 148.5 |
| 70° | 20869.9 | 19365.1 | 15818.2 | 4607.6 | 1212.3 | 396.1 | 213.1 | 184.5 | 168.0 | 144.0 | 126.0 |
| 72.5° | 15189.6 | 13620.2 | 11230.2 | 3602.4 | 1179.3 | 405.1 | 171.0 | 154.5 | 138.0 | 112.5 | 97.5 |
| 75° | 8688.6 | 7660.8 | 6312.0 | 2379.6 | 1005.2 | 387.1 | 132.0 | 129.0 | 99.0 | 81.0 | 67.5 |
| 77.5° | 4489.1 | 4352.5 | 3782.4 | 913.7 | 481.6 | 169.5 | 87.0 | 75.0 | 58.5 | 49.5 | 40.5 |
| 80° | 1937.0 | 1916.0 | 1657.9 | 264.1 | 127.5 | 94.5 | 49.5 | 31.5 | 27.0 | 21.0 | 16.5 |
| 82.5° | 669.2 | 669.2 | 589.6 | 88.5 | 57.0 | 46.5 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 135.0 | 151.5 | 106.5 | 0.0 | 19.5 | 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-SA9B-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 |
| 2.5° | 8997.6 | 8816.1 | 8804.1 | 8690.1 | 8547.5 | 8483.0 | 8445.5 | 8511.5 | 8592.5 | 8601.5 | 8723.1 |
| 5° | 6984.2 | 6793.6 | 6873.1 | 6670.6 | 6711.1 | 6670.6 | 6604.6 | 6616.6 | 6652.6 | 6540.0 | 6679.6 |
| 7.5° | 4904.7 | 4760.6 | 4852.1 | 4798.1 | 4870.2 | 4898.7 | 4858.2 | 4798.1 | 4621.1 | 4600.1 | 4721.6 |
| 10° | 3696.9 | 3533.3 | 3435.8 | 3333.8 | 3356.3 | 3402.8 | 3387.8 | 3344.3 | 3231.8 | 3237.8 | 3354.8 |
| 12.5° | 2970.7 | 2787.7 | 2594.1 | 2343.6 | 2282.0 | 2316.5 | 2282.0 | 2256.5 | 2148.5 | 2157.5 | 2261.0 |
| 15° | 2253.5 | 2103.5 | 1901.0 | 1699.9 | 1590.4 | 1600.9 | 1504.9 | 1437.3 | 1369.8 | 1288.8 | 1351.8 |
| 17.5° | 1521.4 | 1429.8 | 1369.8 | 1309.8 | 1179.3 | 1149.3 | 1027.7 | 897.2 | 846.2 | 808.7 | 835.7 |
| 20° | 1077.3 | 1027.7 | 1003.7 | 1000.7 | 925.7 | 888.2 | 769.7 | 688.7 | 663.2 | 655.7 | 672.2 |
| 22.5° | 900.2 | 864.2 | 829.7 | 810.2 | 772.7 | 729.2 | 639.2 | 598.6 | 580.6 | 571.6 | 583.6 |
| 25° | 783.2 | 756.2 | 720.2 | 687.2 | 672.2 | 625.6 | 561.1 | 531.1 | 519.1 | 510.1 | 516.1 |
| 27.5° | 696.2 | 672.2 | 630.1 | 609.1 | 597.1 | 556.6 | 501.1 | 477.1 | 466.6 | 463.6 | 462.1 |
| 30° | 627.1 | 604.6 | 565.6 | 541.6 | 520.6 | 484.6 | 451.6 | 427.6 | 417.1 | 414.1 | 411.1 |
| 32.5° | 558.1 | 540.1 | 514.6 | 490.6 | 468.1 | 435.1 | 406.6 | 387.1 | 370.6 | 367.6 | 366.1 |
| 35° | 471.1 | 453.1 | 439.6 | 438.1 | 417.1 | 385.6 | 364.6 | 339.1 | 325.6 | 321.1 | 322.6 |
| 37.5° | 418.6 | 394.6 | 364.6 | 375.1 | 369.1 | 346.6 | 318.1 | 292.6 | 279.1 | 276.1 | 276.1 |
| 40° | 385.6 | 360.1 | 325.6 | 307.6 | 325.6 | 321.1 | 276.1 | 250.6 | 237.1 | 235.6 | 232.6 |
| 42.5° | 354.1 | 328.6 | 289.6 | 259.6 | 268.6 | 282.1 | 238.6 | 214.6 | 201.0 | 198.0 | 193.5 |
| 45° | 331.6 | 304.6 | 261.1 | 226.6 | 208.5 | 237.1 | 204.0 | 174.0 | 166.5 | 160.5 | 157.5 |
| 47.5° | 310.6 | 285.1 | 235.6 | 196.5 | 166.5 | 171.0 | 163.5 | 142.5 | 133.5 | 127.5 | 126.0 |
| 50° | 292.6 | 265.6 | 213.1 | 168.0 | 138.0 | 126.0 | 132.0 | 112.5 | 105.0 | 99.0 | 96.0 |
| 52.5° | 271.6 | 246.1 | 189.0 | 145.5 | 115.5 | 99.0 | 100.5 | 88.5 | 81.0 | 76.5 | 75.0 |
| 55° | 255.1 | 229.6 | 169.5 | 127.5 | 102.0 | 81.0 | 72.0 | 69.0 | 64.5 | 61.5 | 60.0 |
| 57.5° | 232.6 | 208.5 | 150.0 | 108.0 | 87.0 | 66.0 | 55.5 | 55.5 | 54.0 | 51.0 | 49.5 |
| 59° | 219.1 | 198.0 | 138.0 | 97.5 | 79.5 | 57.0 | 49.5 | 51.0 | 49.5 | 46.5 | 45.0 |
| 60° | 208.5 | 189.0 | 129.0 | 90.0 | 75.0 | 52.5 | 45.0 | 48.0 | 46.5 | 43.5 | 42.0 |
| 62.5° | 184.5 | 171.0 | 111.0 | 75.0 | 66.0 | 42.0 | 37.5 | 40.5 | 40.5 | 39.0 | 37.5 |
| 65° | 162.0 | 147.0 | 94.5 | 63.0 | 61.5 | 36.0 | 30.0 | 36.0 | 37.5 | 34.5 | 31.5 |
| 67.5° | 141.0 | 126.0 | 82.5 | 51.0 | 57.0 | 28.5 | 22.5 | 30.0 | 40.5 | 31.5 | 28.5 |
| 70° | 120.0 | 105.0 | 64.5 | 40.5 | 60.0 | 19.5 | 18.0 | 27.0 | 48.0 | 34.5 | 27.0 |
| 72.5° | 93.0 | 81.0 | 45.0 | 30.0 | 64.5 | 13.5 | 13.5 | 22.5 | 54.0 | 37.5 | 25.5 |
| 75° | 64.5 | 52.5 | 27.0 | 18.0 | 52.5 | 9.0 | 9.0 | 21.0 | 51.0 | 34.5 | 24.0 |
| 77.5° | 37.5 | 28.5 | 9.0 | 1.5 | 27.0 | 0.0 | 1.5 | 15.0 | 36.0 | 21.0 | 10.5 |
| 80° | 13.5 | 6.0 | 0.0 | 0.0 | 16.5 | 0.0 | 0.0 | 0.0 | 3.0 | 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-SA9B-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 185° | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 |
| 2.5° | 8754.6 | 8957.1 | 9138.7 | 9413.2 | 9738.8 | 10113.9 | 10436.5 | 10783.1 | 11108.6 | 11243.7 | 11336.7 |
| 5° | 6708.1 | 6958.6 | 7251.2 | 7654.8 | 8191.9 | 8853.6 | 9473.2 | 10173.9 | 10927.1 | 11303.7 | 11657.8 |
| 7.5° | 4742.6 | 4997.7 | 5360.8 | 5789.9 | 6439.5 | 7227.2 | 8037.4 | 9005.1 | 10025.4 | 10621.0 | 11207.7 |
| 10° | 3410.3 | 3723.9 | 4063.0 | 4649.6 | 5309.8 | 6056.9 | 6891.1 | 7971.4 | 9108.7 | 9768.8 | 10475.5 |
| 12.5° | 2321.0 | 2678.1 | 3191.3 | 3848.4 | 4624.1 | 5356.3 | 6080.9 | 7111.7 | 8432.0 | 9086.2 | 9843.8 |
| 15° | 1392.3 | 1590.4 | 2133.5 | 2894.2 | 3845.4 | 4757.6 | 5551.3 | 6585.1 | 7992.4 | 8793.6 | 9581.3 |
| 17.5° | 858.2 | 949.7 | 1245.3 | 1869.4 | 2868.7 | 4022.5 | 5110.2 | 6406.5 | 8055.4 | 9030.6 | 9873.8 |
| 20° | 684.2 | 720.2 | 814.7 | 1104.3 | 1901.0 | 3212.3 | 4613.6 | 6370.5 | 8570.0 | 9770.3 | 10675.0 |
| 22.5° | 594.1 | 628.6 | 691.7 | 802.7 | 1195.8 | 2405.1 | 4142.5 | 6403.5 | 9308.2 | 10879.1 | 11935.3 |
| 25° | 523.6 | 553.6 | 613.6 | 705.2 | 876.2 | 1693.9 | 3638.4 | 6550.6 | 10269.9 | 12254.9 | 13377.2 |
| 27.5° | 468.1 | 493.6 | 549.1 | 633.1 | 751.7 | 1182.3 | 3066.7 | 6729.1 | 11410.2 | 13662.2 | 14769.5 |
| 30° | 417.1 | 439.6 | 489.1 | 567.1 | 652.7 | 909.2 | 2439.6 | 6850.6 | 12552.0 | 14769.5 | 15764.2 |
| 32.5° | 373.6 | 390.1 | 435.1 | 501.1 | 567.1 | 724.7 | 1854.4 | 6831.1 | 13399.7 | 15690.7 | 16479.9 |
| 35° | 328.6 | 345.1 | 384.1 | 441.1 | 493.6 | 598.6 | 1458.3 | 6466.5 | 14137.8 | 16646.4 | 17299.1 |
| 37.5° | 279.1 | 300.1 | 337.6 | 388.6 | 424.6 | 526.6 | 1179.3 | 6026.9 | 14886.5 | 17738.7 | 18212.8 |
| 40° | 237.1 | 258.1 | 291.1 | 346.6 | 369.1 | 499.6 | 906.2 | 5491.3 | 15728.2 | 18960.0 | 19215.1 |
| 42.5° | 196.5 | 216.1 | 250.6 | 298.6 | 348.1 | 430.6 | 670.7 | 4879.2 | 16536.9 | 20004.2 | 20128.8 |
| 45° | 159.0 | 178.5 | 214.6 | 262.6 | 372.1 | 357.1 | 519.1 | 4223.5 | 17189.6 | 20872.9 | 20913.5 |
| 47.5° | 126.0 | 144.0 | 181.5 | 247.6 | 346.6 | 285.1 | 370.6 | 3708.9 | 17737.2 | 21551.1 | 21444.6 |
| 50° | 97.5 | 112.5 | 151.5 | 283.6 | 303.1 | 235.6 | 280.6 | 3537.8 | 18227.8 | 21971.2 | 21695.1 |
| 52.5° | 76.5 | 90.0 | 124.5 | 265.6 | 235.6 | 195.0 | 235.6 | 3698.4 | 18900.0 | 22319.3 | 21836.2 |
| 55° | 61.5 | 75.0 | 97.5 | 151.5 | 160.5 | 165.0 | 201.0 | 3848.4 | 20059.8 | 23135.5 | 22668.9 |
| 57.5° | 51.0 | 64.5 | 79.5 | 106.5 | 121.5 | 139.5 | 178.5 | 3864.9 | 21426.6 | 24491.8 | 24050.7 |
| 59° | 46.5 | 58.5 | 72.0 | 94.5 | 106.5 | 127.5 | 168.0 | 3774.9 | 21908.2 | 24985.4 | 24764.9 |
| 60° | 43.5 | 55.5 | 67.5 | 87.0 | 99.0 | 120.0 | 162.0 | 3689.4 | 21929.2 | 24967.4 | 25069.4 |
| 62.5° | 37.5 | 49.5 | 60.0 | 73.5 | 84.0 | 102.0 | 145.5 | 3372.8 | 21041.0 | 24149.7 | 24886.4 |
| 65° | 33.0 | 43.5 | 54.0 | 63.0 | 72.0 | 91.5 | 132.0 | 2795.2 | 19524.1 | 22830.9 | 23633.6 |
| 67.5° | 30.0 | 37.5 | 49.5 | 55.5 | 64.5 | 81.0 | 117.0 | 1992.5 | 17629.2 | 21218.0 | 21738.6 |
| 70° | 27.0 | 36.0 | 45.0 | 51.0 | 58.5 | 70.5 | 100.5 | 1144.8 | 14886.5 | 18856.5 | 19227.1 |
| 72.5° | 25.5 | 34.5 | 40.5 | 48.0 | 52.5 | 63.0 | 91.5 | 538.6 | 10900.1 | 15105.6 | 16073.3 |
| 75° | 22.5 | 31.5 | 37.5 | 45.0 | 49.5 | 57.0 | 78.0 | 258.1 | 7249.7 | 10931.6 | 12031.4 |
| 77.5° | 13.5 | 25.5 | 34.5 | 40.5 | 43.5 | 49.5 | 64.5 | 148.5 | 4627.1 | 7566.3 | 8912.1 |
| 80° | 0.0 | 9.0 | 25.5 | 34.5 | 37.5 | 42.0 | 49.5 | 117.0 | 2475.6 | 4322.5 | 5188.2 |
| 82.5° | 0.0 | 0.0 | 18.0 | 27.0 | 25.5 | 28.5 | 37.5 | 73.5 | 1116.3 | 2825.2 | 3183.8 |
| 85° | 0.0 | 0.0 | 6.0 | 21.0 | 18.0 | 13.5 | 25.5 | 25.5 | 244.6 | 1429.8 | 1783.9 |
| 87.5° | 0.0 | 0.0 | 0.0 | 1.5 | 9.0 | 6.0 | 10.5 | 3.0 | 1.5 | 106.5 | 432.1 |
| 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: P324403

CATALOG NUMBER: GLEON-SA9B-727-U-SLR-HSS

CANDELA DISTRIBUTION (continued):

| | 285° | 295° | 305° | 315° | 325° | 335° | 345° | 355° | 359° | 360° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 | 10316.4 |
| 2.5° | 11662.3 | 11773.3 | 11960.8 | 12049.4 | 12005.8 | 11821.3 | 11600.7 | 11375.7 | 11243.7 | 11296.2 |
| 5° | 12379.4 | 12951.1 | 13281.1 | 13390.7 | 13207.6 | 12793.5 | 12251.9 | 11537.7 | 11284.2 | 11215.2 |
| 7.5° | 12379.4 | 13455.2 | 14136.3 | 14256.4 | 13848.3 | 13036.6 | 12020.8 | 10906.1 | 10535.5 | 10400.5 |
| 10° | 11944.3 | 13408.7 | 14358.4 | 14548.9 | 13978.8 | 12765.0 | 11404.2 | 10131.9 | 9692.3 | 9552.8 |
| 12.5° | 11453.7 | 13030.6 | 14031.3 | 14293.9 | 13825.8 | 12495.0 | 10976.6 | 9608.3 | 9090.7 | 8969.1 |
| 15° | 11152.1 | 12565.5 | 13393.7 | 13584.2 | 13386.2 | 12337.4 | 10874.6 | 9450.7 | 8841.6 | 8724.6 |
| 17.5° | 11260.2 | 12205.4 | 12504.0 | 12615.0 | 12748.5 | 12281.9 | 11152.1 | 9795.8 | 9024.6 | 8913.6 |
| 20° | 11666.8 | 11825.8 | 11671.3 | 11810.8 | 12170.9 | 12335.9 | 11813.8 | 10630.0 | 9704.3 | 9555.8 |
| 22.5° | 12356.9 | 11629.3 | 11195.7 | 11251.2 | 11689.3 | 12514.5 | 12825.0 | 11821.3 | 10753.0 | 10567.0 |
| 25° | 13161.1 | 11788.3 | 10931.6 | 10882.1 | 11332.2 | 12750.0 | 13749.3 | 13117.6 | 11993.8 | 11788.3 |
| 27.5° | 14172.4 | 12145.4 | 10877.6 | 10828.1 | 11207.7 | 12970.6 | 14517.4 | 14398.9 | 13300.7 | 12949.6 |
| 30° | 14952.5 | 12496.5 | 11038.1 | 10924.1 | 11332.2 | 13123.6 | 15134.1 | 15486.7 | 14341.9 | 14109.3 |
| 32.5° | 15512.2 | 12910.6 | 11299.2 | 11134.1 | 11683.3 | 13387.7 | 15609.7 | 16482.9 | 15305.1 | 14952.5 |
| 35° | 15938.3 | 13360.7 | 11720.8 | 11449.2 | 12166.4 | 13788.3 | 16055.3 | 17543.7 | 16329.9 | 15944.3 |
| 37.5° | 16337.4 | 13992.3 | 12379.4 | 12055.4 | 12924.1 | 14433.4 | 16526.4 | 18746.9 | 17476.1 | 17015.5 |
| 40° | 16894.0 | 14708.0 | 13395.2 | 13107.1 | 14197.9 | 15312.6 | 17114.6 | 20001.2 | 18779.9 | 18200.8 |
| 42.5° | 17450.6 | 15476.2 | 14434.9 | 14512.9 | 15786.7 | 16380.9 | 17873.7 | 21327.6 | 20067.3 | 19449.1 |
| 45° | 17959.3 | 16268.4 | 15915.8 | 16275.9 | 17261.6 | 17552.7 | 18628.4 | 22094.2 | 21095.0 | 20497.9 |
| 47.5° | 18412.4 | 17258.6 | 17387.6 | 18346.3 | 18939.0 | 18613.4 | 19192.5 | 22755.9 | 21860.2 | 21333.6 |
| 50° | 18939.0 | 18539.9 | 19327.6 | 20683.9 | 20869.9 | 19573.6 | 19705.7 | 23539.1 | 22754.4 | 22331.3 |
| 52.5° | 19515.1 | 19890.2 | 21476.1 | 22671.9 | 22611.9 | 20616.4 | 20221.8 | 24416.8 | 23980.2 | 23582.6 |
| 55° | 20169.3 | 20981.0 | 23368.0 | 24532.3 | 24481.3 | 21780.7 | 21077.0 | 25501.5 | 25516.5 | 25156.5 |
| 57.5° | 21140.0 | 21920.2 | 24652.3 | 26037.2 | 26122.7 | 23125.0 | 22526.3 | 26716.8 | 26905.9 | 26665.8 |
| 59° | 21836.2 | 22529.3 | 25161.0 | 26665.8 | 27013.9 | 24164.7 | 23585.6 | 27422.0 | 27297.5 | 27078.4 |
| 60° | 22352.3 | 22916.4 | 25413.0 | 26994.4 | 27531.5 | 24869.9 | 24367.3 | 27836.1 | 27344.0 | 27078.4 |
| 62.5° | 23629.1 | 23759.6 | 25867.6 | 27366.5 | 28127.2 | 26436.3 | 26566.8 | 28541.3 | 27021.4 | 26587.8 |
| 65° | 24224.7 | 24292.3 | 25861.6 | 26700.3 | 27551.0 | 27656.1 | 28562.3 | 28562.3 | 26233.7 | 25567.6 |
| 67.5° | 23975.7 | 23650.1 | 24578.8 | 24491.8 | 25341.0 | 26931.4 | 29312.4 | 27515.0 | 24727.4 | 23866.2 |
| 70° | 21950.2 | 20697.4 | 20284.8 | 20322.3 | 20972.0 | 23425.0 | 27827.1 | 24433.3 | 21876.7 | 20869.9 |
| 72.5° | 18263.8 | 15258.6 | 14239.9 | 15402.6 | 15572.2 | 18002.8 | 23714.6 | 18400.4 | 16133.3 | 15189.6 |
| 75° | 14690.0 | 10756.0 | 9099.7 | 10326.9 | 10615.0 | 13174.6 | 18344.8 | 11459.7 | 9423.7 | 8688.6 |
| 77.5° | 10553.5 | 7720.8 | 6529.5 | 6444.0 | 6816.1 | 8355.5 | 13017.1 | 5767.4 | 4810.1 | 4489.1 |
| 80° | 5995.4 | 5081.7 | 5471.8 | 5162.7 | 5350.3 | 5224.2 | 6184.5 | 2529.6 | 2072.0 | 1937.0 |
| 82.5° | 3618.9 | 3003.7 | 3252.8 | 2708.1 | 3426.8 | 2984.2 | 2382.6 | 810.2 | 703.7 | 669.2 |
| 85° | 2354.1 | 1641.4 | 855.2 | 573.1 | 1180.8 | 1907.0 | 532.6 | 220.6 | 169.5 | 135.0 |
| 87.5° | 811.7 | 418.6 | 42.0 | 18.0 | 126.0 | 355.6 | 19.5 | 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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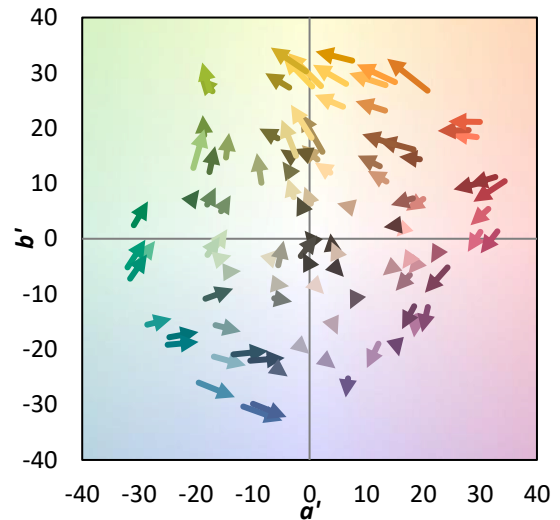
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Summary

$R_f = 69.9$
 $R_g = 98.3$
 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)