

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: P324936

Luminaire Tested: **GLEON-SA2D-827-U-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P324936
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-30)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA2D-827-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9554 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

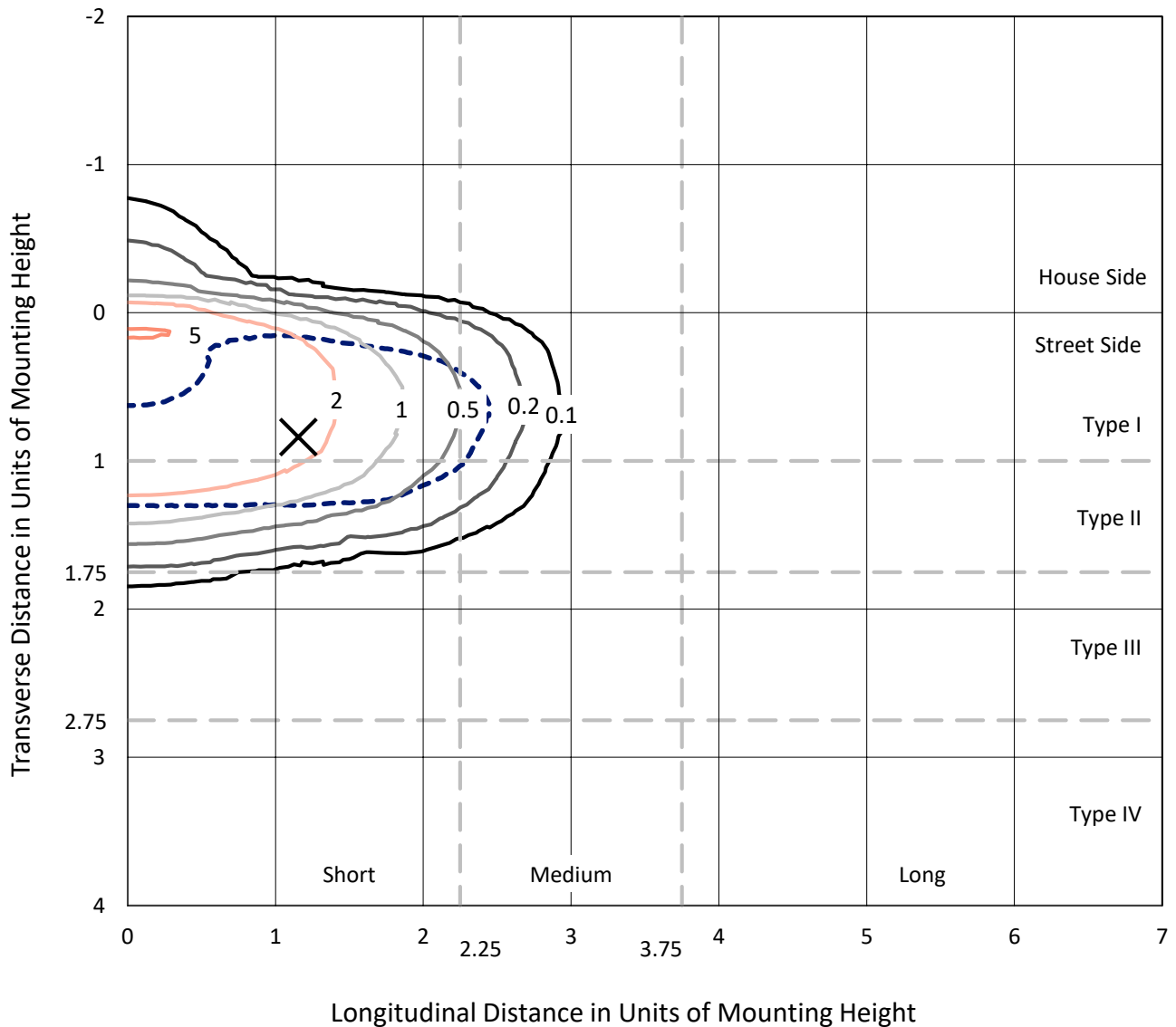
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

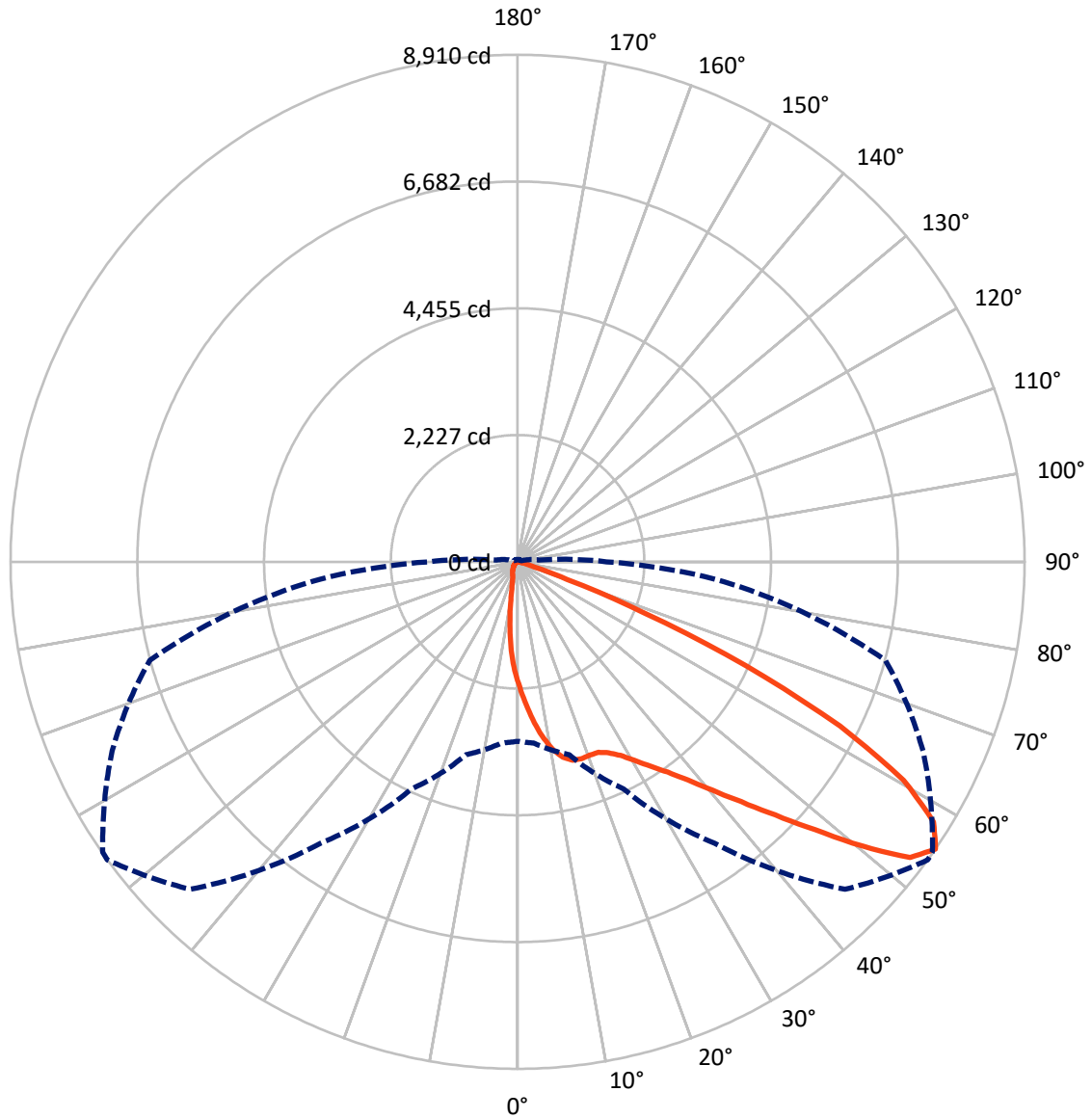
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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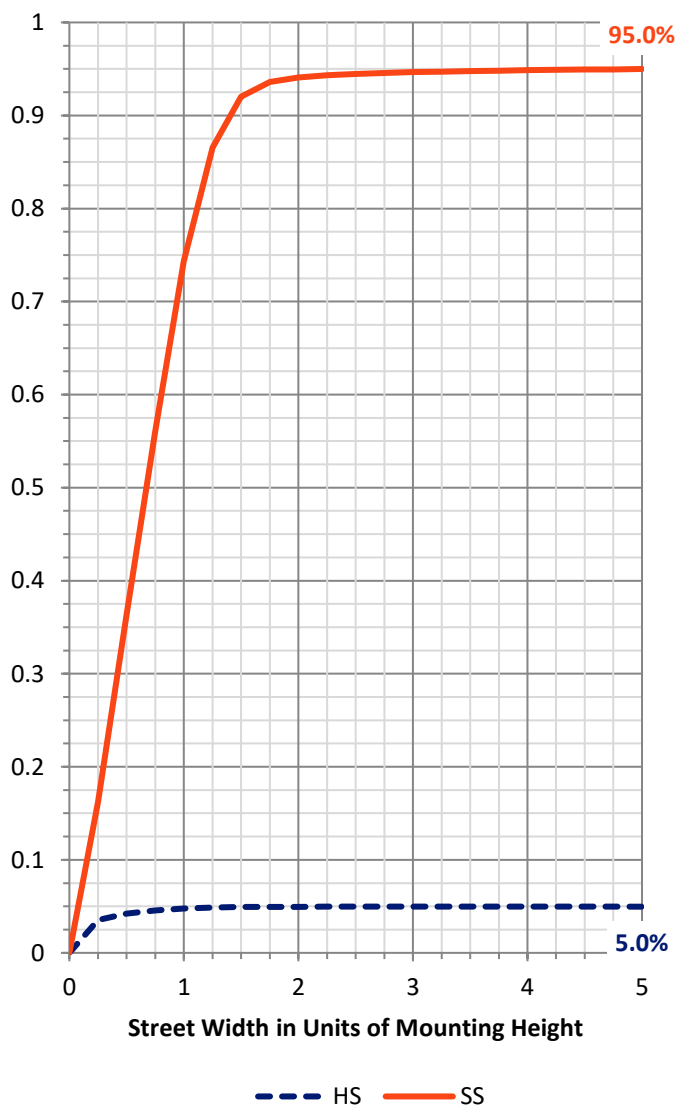
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 476.7 | 0.0 | 476.7 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 9077.3 | 0.0 | 9077.3 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 9554.0 | 0.0 | 9554.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 197.0 | 2.1 |
| 10°-20° | 540.4 | 5.7 |
| 20°-30° | 922.6 | 9.7 |
| 30°-40° | 1480.7 | 15.5 |
| 40°-50° | 2366.1 | 24.8 |
| 50°-60° | 2535.4 | 26.5 |
| 60°-70° | 1301.7 | 13.6 |
| 70°-80° | 197.2 | 2.1 |
| 80°-90° | 12.8 | 0.1 |
| 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° | 9554.0 | 100.0 |
| 0°-180° | 9554.0 | 100.0 |

Coefficient of Utilization

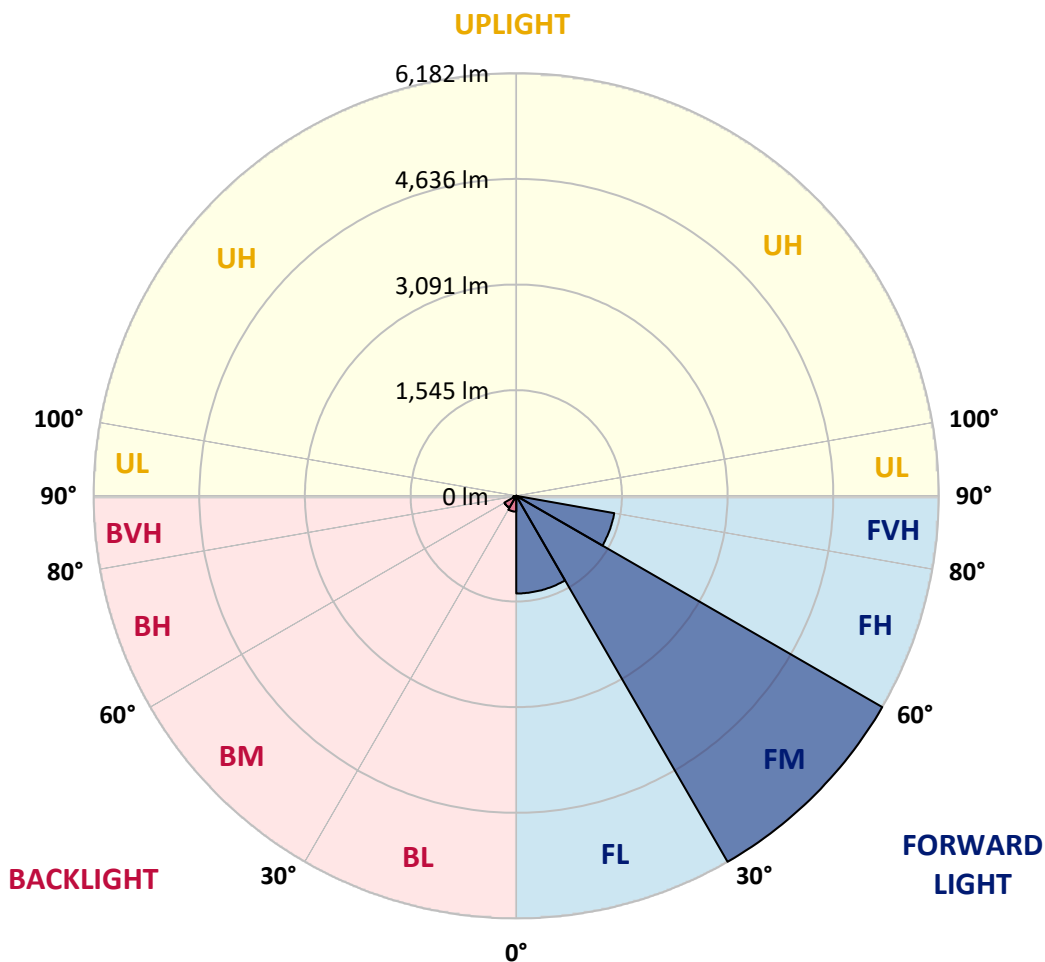


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1428.2 | 14.9 | | | |
| FM (30°-60°) | 6181.9 | 64.7 | | | |
| FH (60°-80°) | 1455.0 | 15.2 | | | G1/1800 |
| FVH (80°-90°) | 12.3 | 0.1 | | | G1/100 |
| BL (0°-30°) | 231.9 | 2.4 | B1/500 | | |
| BM (30°-60°) | 200.3 | 2.1 | B0/220 | | |
| BH (60°-80°) | 43.9 | 0.5 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 |
| 2.5° | 2685.2 | 2645.1 | 2646.4 | 2628.2 | 2561.8 | 2509.8 | 2455.8 | 2443.0 | 2358.8 | 2270.5 | 2185.5 |
| 5° | 3149.3 | 3120.0 | 3113.0 | 3078.0 | 2985.5 | 2887.7 | 2782.9 | 2758.6 | 2594.0 | 2413.3 | 2235.4 |
| 7.5° | 3387.8 | 3388.2 | 3382.4 | 3369.7 | 3311.9 | 3217.0 | 3089.1 | 3063.5 | 2839.5 | 2568.4 | 2287.4 |
| 10° | 3318.5 | 3334.2 | 3366.4 | 3408.9 | 3453.0 | 3441.0 | 3344.9 | 3321.8 | 3078.4 | 2732.6 | 2345.2 |
| 12.5° | 3156.8 | 3158.8 | 3194.7 | 3264.4 | 3391.5 | 3521.9 | 3523.6 | 3515.7 | 3306.5 | 2904.2 | 2408.7 |
| 15° | 3076.3 | 3084.1 | 3097.3 | 3142.3 | 3262.8 | 3471.6 | 3620.9 | 3632.1 | 3515.7 | 3086.6 | 2476.4 |
| 17.5° | 3129.1 | 3140.3 | 3129.1 | 3134.5 | 3204.2 | 3391.9 | 3637.8 | 3666.3 | 3698.5 | 3266.9 | 2540.3 |
| 20° | 3272.3 | 3282.6 | 3262.8 | 3240.9 | 3254.5 | 3368.8 | 3625.9 | 3664.2 | 3841.7 | 3427.0 | 2594.0 |
| 22.5° | 3465.4 | 3469.5 | 3439.4 | 3403.5 | 3393.6 | 3447.2 | 3635.8 | 3675.4 | 3956.4 | 3571.8 | 2627.8 |
| 25° | 3677.9 | 3681.6 | 3644.0 | 3602.8 | 3579.3 | 3601.1 | 3717.1 | 3746.8 | 4057.4 | 3710.0 | 2647.2 |
| 27.5° | 3909.3 | 3912.6 | 3865.6 | 3814.8 | 3787.6 | 3788.4 | 3851.2 | 3882.9 | 4165.1 | 3867.7 | 2662.9 |
| 30° | 4154.0 | 4152.3 | 4109.0 | 4038.5 | 4003.8 | 4003.0 | 4044.2 | 4076.4 | 4321.1 | 4069.8 | 2684.3 |
| 32.5° | 4428.8 | 4425.5 | 4364.0 | 4276.5 | 4237.3 | 4243.1 | 4279.8 | 4298.4 | 4514.6 | 4285.2 | 2722.7 |
| 35° | 4790.6 | 4781.1 | 4688.3 | 4579.8 | 4507.6 | 4505.5 | 4536.5 | 4551.3 | 4761.3 | 4546.0 | 2786.7 |
| 37.5° | 5260.2 | 5251.5 | 5125.7 | 4968.0 | 4866.5 | 4828.6 | 4865.3 | 4884.3 | 5113.3 | 4880.6 | 2889.4 |
| 40° | 5723.1 | 5714.4 | 5639.7 | 5495.3 | 5339.0 | 5247.8 | 5276.7 | 5296.9 | 5552.7 | 5286.6 | 3019.0 |
| 42.5° | 6042.4 | 6049.9 | 6075.9 | 6087.8 | 5941.4 | 5749.9 | 5763.1 | 5784.2 | 6014.4 | 5720.6 | 3167.1 |
| 45° | 6126.6 | 6142.7 | 6289.6 | 6578.0 | 6632.9 | 6483.5 | 6345.3 | 6356.8 | 6483.5 | 6154.7 | 3315.2 |
| 47.5° | 5873.7 | 5903.4 | 6186.8 | 6723.2 | 7187.8 | 7293.4 | 7031.8 | 7016.6 | 6933.6 | 6505.8 | 3420.4 |
| 50° | 5298.9 | 5326.2 | 5693.4 | 6486.8 | 7356.1 | 8066.6 | 7854.6 | 7809.6 | 7328.5 | 6715.8 | 3457.5 |
| 52.5° | 4467.2 | 4500.2 | 4798.5 | 5742.5 | 7038.9 | 8411.6 | 8633.5 | 8596.0 | 7618.1 | 6732.3 | 3463.7 |
| 55° | 3154.7 | 3194.7 | 3510.3 | 4401.1 | 6033.4 | 8137.2 | 8909.6 | 8898.4 | 7858.7 | 6688.6 | 3476.9 |
| 57.5° | 1772.9 | 1801.8 | 2142.2 | 2821.3 | 4418.9 | 7087.5 | 8621.2 | 8695.0 | 8003.9 | 6612.6 | 3496.7 |
| 60° | 787.2 | 795.1 | 971.2 | 1404.5 | 2587.0 | 5416.5 | 7795.6 | 7920.2 | 7879.3 | 6511.1 | 3530.2 |
| 62.5° | 436.5 | 429.9 | 429.9 | 583.8 | 1124.3 | 3353.2 | 6356.8 | 6562.7 | 7347.5 | 6391.1 | 3531.8 |
| 65° | 342.0 | 335.9 | 318.1 | 320.6 | 428.3 | 1488.2 | 4402.0 | 4767.9 | 6337.4 | 6039.1 | 3413.0 |
| 67.5° | 290.1 | 284.7 | 266.9 | 259.9 | 266.1 | 491.0 | 2418.6 | 2798.6 | 4808.8 | 5124.4 | 2956.2 |
| 70° | 245.1 | 241.4 | 232.3 | 223.6 | 207.9 | 242.6 | 925.4 | 1183.7 | 2963.3 | 3408.9 | 2018.0 |
| 72.5° | 197.2 | 195.6 | 198.9 | 191.4 | 172.5 | 161.7 | 316.5 | 383.3 | 1331.0 | 1521.2 | 831.4 |
| 75° | 170.0 | 169.2 | 170.8 | 163.4 | 141.9 | 112.6 | 160.9 | 175.8 | 375.5 | 372.2 | 168.3 |
| 77.5° | 110.6 | 111.8 | 141.5 | 138.2 | 122.1 | 75.1 | 83.3 | 89.9 | 113.9 | 85.4 | 51.2 |
| 80° | 70.6 | 69.7 | 71.8 | 114.7 | 109.8 | 57.4 | 41.7 | 43.7 | 54.9 | 42.1 | 24.8 |
| 82.5° | 42.9 | 42.1 | 47.0 | 53.6 | 55.3 | 40.0 | 25.6 | 26.0 | 34.2 | 27.2 | 13.2 |
| 85° | 3.7 | 5.0 | 28.5 | 26.4 | 19.0 | 12.4 | 12.4 | 13.2 | 18.2 | 16.1 | 7.4 |
| 87.5° | 0.0 | 0.0 | 5.0 | 7.4 | 4.1 | 4.5 | 4.5 | 5.0 | 7.0 | 7.0 | 3.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: GLEON-SA2D-827-U-AFL-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 | 2139.7 |
| 2.5° | 2141.4 | 2098.5 | 2011.8 | 1928.5 | 1857.9 | 1789.8 | 1712.3 | 1635.5 | 1599.6 | 1585.2 | 1570.3 |
| 5° | 2145.1 | 2056.8 | 1878.1 | 1698.2 | 1511.7 | 1343.8 | 1200.6 | 1053.8 | 980.3 | 948.1 | 933.3 |
| 7.5° | 2150.0 | 2015.5 | 1726.7 | 1424.7 | 1124.3 | 896.6 | 697.7 | 569.8 | 514.5 | 505.8 | 484.4 |
| 10° | 2150.9 | 1965.6 | 1550.9 | 1122.7 | 753.8 | 540.5 | 415.9 | 349.9 | 325.5 | 321.4 | 314.4 |
| 12.5° | 2152.5 | 1906.6 | 1355.8 | 831.4 | 502.5 | 361.4 | 300.8 | 278.9 | 272.3 | 271.9 | 271.9 |
| 15° | 2157.5 | 1844.7 | 1153.2 | 599.1 | 361.0 | 286.3 | 264.1 | 255.4 | 252.9 | 254.2 | 253.7 |
| 17.5° | 2157.5 | 1771.7 | 954.3 | 446.4 | 291.7 | 257.5 | 245.1 | 239.3 | 238.5 | 239.7 | 240.1 |
| 20° | 2141.8 | 1683.0 | 772.0 | 347.4 | 258.7 | 238.9 | 227.8 | 222.4 | 220.3 | 221.2 | 221.6 |
| 22.5° | 2104.2 | 1574.0 | 623.4 | 287.6 | 236.8 | 222.0 | 210.0 | 201.8 | 198.5 | 198.9 | 198.9 |
| 25° | 2045.6 | 1444.9 | 487.7 | 248.8 | 219.1 | 203.8 | 189.8 | 180.3 | 178.2 | 177.8 | 178.7 |
| 27.5° | 1970.5 | 1302.1 | 388.3 | 219.1 | 198.0 | 183.6 | 169.6 | 161.7 | 160.1 | 160.5 | 160.9 |
| 30° | 1896.7 | 1154.0 | 306.1 | 193.9 | 174.5 | 160.9 | 150.2 | 146.5 | 146.5 | 147.7 | 148.1 |
| 32.5° | 1829.0 | 1011.7 | 242.2 | 172.1 | 153.5 | 141.1 | 134.9 | 134.5 | 136.6 | 137.4 | 137.8 |
| 35° | 1770.9 | 880.1 | 200.5 | 155.1 | 137.0 | 126.3 | 124.2 | 125.8 | 128.3 | 130.0 | 130.4 |
| 37.5° | 1729.6 | 762.5 | 175.4 | 141.1 | 124.2 | 115.5 | 115.1 | 118.4 | 121.7 | 125.4 | 126.3 |
| 40° | 1712.3 | 663.0 | 158.0 | 128.7 | 113.9 | 107.3 | 106.0 | 110.6 | 116.8 | 122.1 | 123.0 |
| 42.5° | 1697.8 | 581.8 | 143.2 | 116.8 | 105.6 | 96.1 | 95.7 | 101.5 | 108.9 | 114.3 | 115.5 |
| 45° | 1685.4 | 516.6 | 129.6 | 104.0 | 94.9 | 82.5 | 83.8 | 91.2 | 97.0 | 102.7 | 104.0 |
| 47.5° | 1659.9 | 462.9 | 114.7 | 90.4 | 78.4 | 70.6 | 73.0 | 79.6 | 84.2 | 92.8 | 94.1 |
| 50° | 1614.1 | 419.2 | 99.4 | 73.9 | 64.0 | 61.1 | 64.8 | 69.3 | 75.1 | 82.5 | 83.3 |
| 52.5° | 1583.1 | 386.2 | 86.2 | 61.9 | 52.8 | 53.6 | 57.4 | 59.0 | 62.3 | 65.2 | 64.4 |
| 55° | 1565.4 | 368.0 | 75.5 | 53.6 | 45.0 | 47.4 | 48.3 | 46.2 | 44.6 | 41.7 | 40.4 |
| 57.5° | 1563.3 | 351.5 | 67.3 | 46.6 | 39.6 | 40.8 | 38.0 | 30.9 | 25.2 | 21.9 | 21.0 |
| 60° | 1560.0 | 331.3 | 60.7 | 39.2 | 35.1 | 33.4 | 27.2 | 16.9 | 12.0 | 11.1 | 11.1 |
| 62.5° | 1524.1 | 300.0 | 55.7 | 33.0 | 29.7 | 25.2 | 15.7 | 7.8 | 6.6 | 7.0 | 7.0 |
| 65° | 1409.8 | 256.2 | 50.7 | 26.8 | 23.5 | 18.2 | 7.8 | 4.5 | 2.5 | 2.9 | 2.9 |
| 67.5° | 1198.6 | 204.2 | 45.4 | 20.6 | 17.7 | 11.6 | 4.5 | 2.1 | 0.0 | 0.0 | 0.0 |
| 70° | 802.5 | 126.7 | 38.4 | 14.4 | 11.6 | 7.0 | 3.3 | 0.4 | 0.0 | 0.0 | 0.0 |
| 72.5° | 307.8 | 68.5 | 30.9 | 8.7 | 7.4 | 5.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 69.3 | 45.0 | 21.5 | 6.2 | 5.4 | 3.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 26.4 | 32.6 | 12.4 | 4.1 | 3.7 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 12.8 | 19.4 | 5.8 | 2.5 | 2.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 6.6 | 7.4 | 2.5 | 1.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.7 | 3.7 | 1.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.1 | 1.2 | 0.4 | 0.4 | 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 |

(END OF REPORT)