

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: STREETWORKS

Report Number: P649670

Luminaire Tested: **GLAN-SA9D-835-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P649670
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA9D-835-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 54791.2 lumens
Efficiency: N/A
Efficacy: 99.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

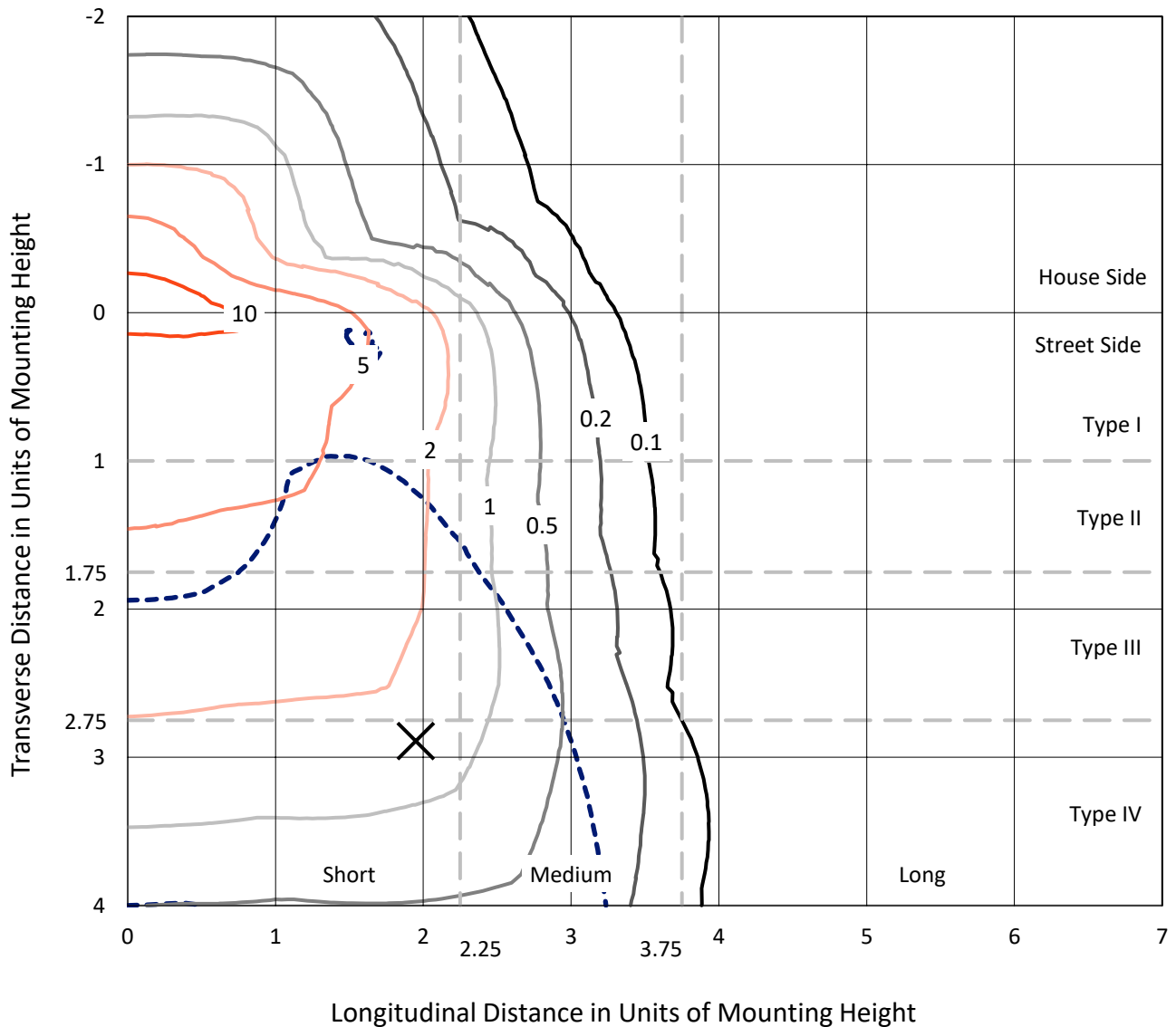
Input Watts (W): 552
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

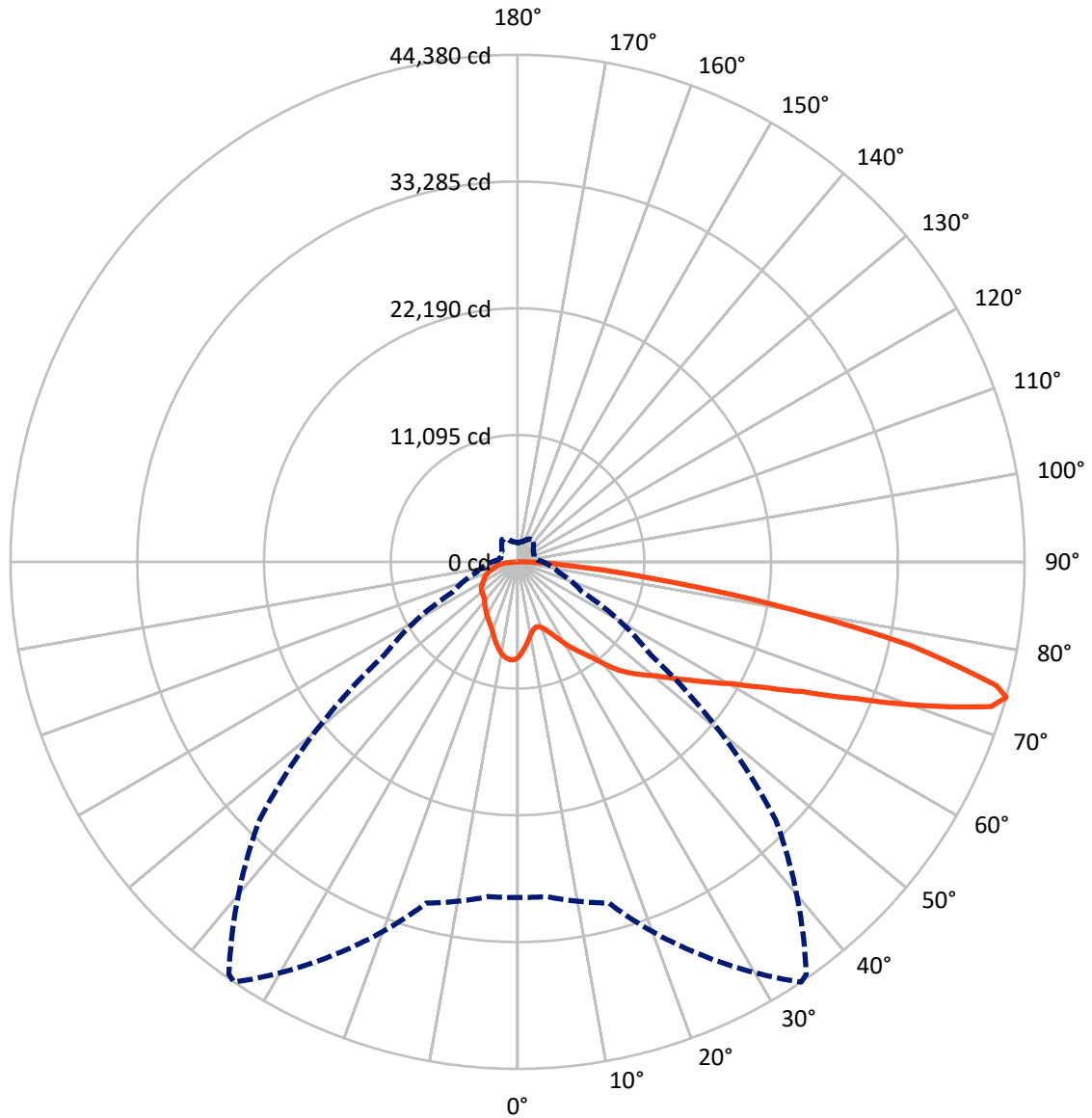
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.4 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 11660.0 | 0.0 | 11660.0 |
| | % Fixture | 21.3 | 0.0 | 21.3 |
| Street Side | Lumens | 43131.3 | 0.0 | 43131.3 |
| | % Fixture | 78.7 | 0.0 | 78.7 |
| Total | Lumens | 54791.2 | 0.0 | 54791.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 760.8 | 1.4 |
| 10°-20° | 2082.7 | 3.8 |
| 20°-30° | 3433.8 | 6.3 |
| 30°-40° | 5143.4 | 9.4 |
| 40°-50° | 7477.2 | 13.6 |
| 50°-60° | 10443.8 | 19.1 |
| 60°-70° | 13075.1 | 23.9 |
| 70°-80° | 10812.1 | 19.7 |
| 80°-90° | 1562.3 | 2.9 |
| 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° | 54791.2 | 100.0 |
| 0°-180° | 54791.2 | 100.0 |

Coefficient of Utilization



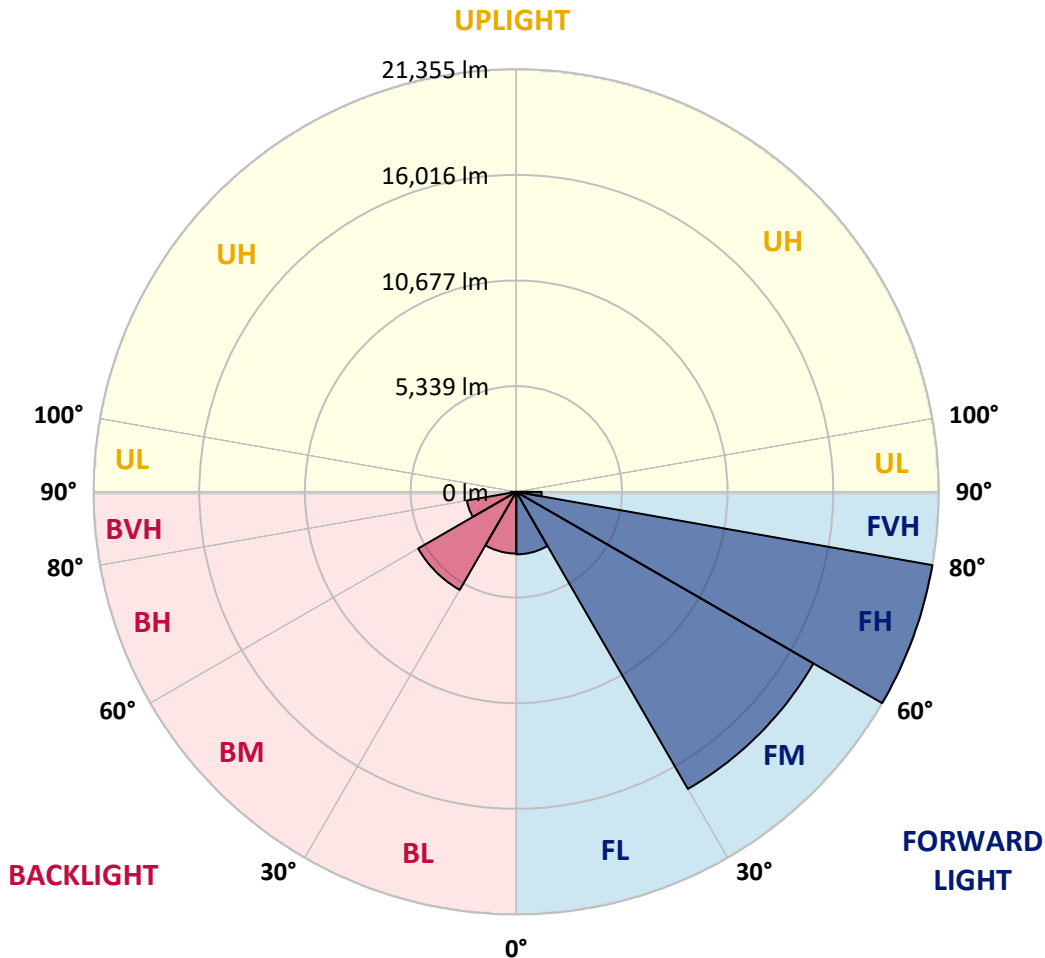
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3158.5 | 5.8 | | | |
| FM (30°-60°) | 17338.2 | 31.6 | | | |
| FH (60°-80°) | 21354.7 | 39.0 | | | G5 |
| FVH (80°-90°) | 1279.9 | 2.3 | | | G5 |
| BL (0°-30°) | 3118.8 | 5.7 | B4/5000 | | |
| BM (30°-60°) | 5726.2 | 10.5 | B4/8500 | | |
| BH (60°-80°) | 2532.5 | 4.6 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 282.4 | 0.5 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5

Type IV Short





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CATALOG NUMBER: GLAN-SA9D-835-U-T4FT

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 |
| 2.5° | 7731.1 | 7770.6 | 7791.9 | 7867.7 | 7885.9 | 7910.3 | 7974.0 | 8058.9 | 8168.3 | 8265.3 | 8350.4 |
| 5° | 7087.6 | 7148.3 | 7184.7 | 7251.5 | 7382.0 | 7394.2 | 7564.2 | 7758.4 | 7980.0 | 8186.4 | 8356.4 |
| 7.5° | 6477.5 | 6544.3 | 6574.6 | 6696.1 | 6869.1 | 6896.4 | 7145.3 | 7451.9 | 7822.2 | 8134.8 | 8395.9 |
| 10° | 6019.2 | 6052.6 | 6119.4 | 6210.4 | 6416.8 | 6435.0 | 6759.8 | 7169.6 | 7649.2 | 8110.5 | 8462.7 |
| 12.5° | 5770.2 | 5788.5 | 5803.7 | 5900.8 | 6104.2 | 6131.5 | 6471.4 | 6935.9 | 7512.6 | 8128.8 | 8572.0 |
| 15° | 5806.7 | 5812.8 | 5746.0 | 5764.2 | 5928.1 | 5967.6 | 6304.5 | 6781.1 | 7427.6 | 8174.3 | 8735.9 |
| 17.5° | 6113.3 | 6092.1 | 5928.1 | 5843.1 | 5958.5 | 5976.7 | 6271.1 | 6720.3 | 7388.2 | 8259.3 | 8905.8 |
| 20° | 6595.9 | 6565.5 | 6283.3 | 6095.0 | 6161.8 | 6177.0 | 6380.4 | 6765.9 | 7427.6 | 8398.9 | 9169.9 |
| 22.5° | 7196.9 | 7184.7 | 6756.7 | 6529.1 | 6526.1 | 6526.1 | 6632.3 | 6929.8 | 7546.0 | 8590.1 | 9446.1 |
| 25° | 8037.7 | 7974.0 | 7415.5 | 7121.0 | 7039.1 | 7033.0 | 7020.8 | 7199.9 | 7697.8 | 8793.6 | 9774.0 |
| 27.5° | 8899.7 | 8790.5 | 8292.7 | 7840.4 | 7664.4 | 7643.1 | 7564.2 | 7582.4 | 7892.0 | 9024.2 | 10147.3 |
| 30° | 9673.8 | 9604.0 | 9136.5 | 8635.7 | 8426.3 | 8377.7 | 8159.1 | 8058.9 | 8216.8 | 9440.1 | 10742.2 |
| 32.5° | 10265.7 | 10223.2 | 9858.9 | 9403.7 | 9094.0 | 9084.9 | 8766.2 | 8684.3 | 8723.7 | 9943.9 | 11422.2 |
| 35° | 10745.3 | 10760.5 | 10575.3 | 10180.7 | 9825.6 | 9774.0 | 9561.4 | 9458.2 | 9342.9 | 10672.4 | 12278.1 |
| 37.5° | 11400.9 | 11434.3 | 11422.2 | 11082.2 | 10648.2 | 10660.3 | 10611.7 | 10441.8 | 10135.2 | 11485.9 | 13228.2 |
| 40° | 12123.3 | 12147.6 | 12144.6 | 12014.0 | 11786.4 | 11798.6 | 11780.3 | 11586.1 | 11127.8 | 12521.0 | 14284.6 |
| 42.5° | 13122.0 | 13006.6 | 12706.1 | 12836.7 | 12970.2 | 13027.9 | 13152.4 | 12967.2 | 12338.8 | 13625.8 | 15277.1 |
| 45° | 14239.0 | 14020.5 | 13340.5 | 13401.3 | 13896.0 | 14005.3 | 14691.3 | 14436.3 | 13653.2 | 14894.7 | 16445.7 |
| 47.5° | 14943.2 | 14727.7 | 14154.1 | 14141.8 | 14797.5 | 14903.8 | 16117.9 | 16023.9 | 14849.1 | 16263.6 | 17872.4 |
| 50° | 15571.5 | 15541.2 | 14894.7 | 15049.5 | 15689.9 | 15847.8 | 17672.1 | 17584.0 | 16042.0 | 17878.5 | 19426.5 |
| 52.5° | 16503.4 | 16257.6 | 15741.5 | 16060.3 | 16907.1 | 17113.6 | 19214.0 | 18956.0 | 17137.8 | 19305.1 | 20935.1 |
| 55° | 16922.3 | 16864.6 | 16834.3 | 17110.5 | 18273.0 | 18421.8 | 20713.5 | 20121.6 | 18072.7 | 20513.2 | 22082.5 |
| 57.5° | 18042.4 | 17936.1 | 18236.6 | 18424.9 | 19881.8 | 20109.5 | 22279.8 | 21338.8 | 18892.3 | 21472.4 | 22641.0 |
| 60° | 19493.3 | 19435.6 | 19711.8 | 20051.8 | 21678.8 | 22024.8 | 24064.6 | 22376.9 | 19551.0 | 21955.0 | 22334.4 |
| 62.5° | 21660.5 | 21654.5 | 21602.9 | 22331.4 | 24225.5 | 24544.2 | 26113.4 | 23387.7 | 19654.2 | 21593.7 | 20749.9 |
| 65° | 24768.8 | 24659.5 | 24210.3 | 25005.6 | 27394.4 | 27767.8 | 28247.4 | 23952.3 | 19031.9 | 19739.1 | 17471.7 |
| 67.5° | 28019.7 | 28013.6 | 27649.4 | 28681.4 | 31944.4 | 32329.9 | 30915.4 | 23827.8 | 17304.8 | 15990.4 | 12408.7 |
| 70° | 30715.1 | 30584.6 | 31049.0 | 33799.1 | 37757.2 | 38203.4 | 33249.6 | 22361.7 | 13783.7 | 10560.1 | 7373.0 |
| 72.5° | 31361.7 | 31367.7 | 32333.0 | 37745.1 | 43339.3 | 43409.1 | 34090.5 | 18124.3 | 9224.5 | 5824.9 | 3688.0 |
| 74° | 29370.4 | 29422.0 | 30918.5 | 37942.4 | 44380.4 | 44064.7 | 31941.4 | 14245.1 | 6237.7 | 3803.3 | 2659.0 |
| 75° | 26808.6 | 26483.8 | 28648.0 | 36628.0 | 43299.8 | 42959.8 | 29425.1 | 11431.3 | 4759.5 | 3038.4 | 2328.2 |
| 77.5° | 14333.1 | 14663.9 | 18002.9 | 27333.7 | 35177.1 | 34785.6 | 19951.6 | 5481.9 | 2571.0 | 2115.7 | 1675.5 |
| 80° | 5102.5 | 5627.6 | 7910.3 | 14302.7 | 22553.0 | 22674.3 | 9522.0 | 2513.3 | 1809.1 | 1560.2 | 1183.8 |
| 82.5° | 2082.3 | 2139.9 | 3396.6 | 6347.0 | 11452.5 | 11561.8 | 3888.3 | 1493.4 | 1293.0 | 1074.5 | 707.3 |
| 85° | 813.5 | 837.7 | 1502.5 | 2853.3 | 4887.0 | 5205.7 | 1344.6 | 789.2 | 795.3 | 616.2 | 361.2 |
| 87.5° | 273.2 | 309.6 | 616.2 | 950.1 | 1660.4 | 1627.0 | 391.6 | 233.7 | 285.3 | 267.1 | 112.3 |
| 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: GLAN-SA9D-835-U-T4FT

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 | 8365.6 |
| 2.5° | 8392.8 | 8450.5 | 8490.0 | 8532.5 | 8572.0 | 8584.1 | 8574.9 | 8602.3 | 8605.3 | 8608.4 | 8611.4 |
| 5° | 8441.4 | 8520.4 | 8596.2 | 8638.7 | 8656.9 | 8641.7 | 8590.1 | 8562.8 | 8538.5 | 8520.4 | 8526.4 |
| 7.5° | 8508.2 | 8620.5 | 8690.3 | 8708.5 | 8660.0 | 8590.1 | 8462.7 | 8362.5 | 8298.8 | 8256.3 | 8253.2 |
| 10° | 8611.4 | 8720.7 | 8778.4 | 8726.8 | 8593.2 | 8423.2 | 8222.9 | 8034.7 | 7892.0 | 7849.5 | 7846.5 |
| 12.5° | 8742.0 | 8866.4 | 8863.3 | 8711.6 | 8477.9 | 8174.3 | 7849.5 | 7631.0 | 7436.7 | 7339.6 | 7379.1 |
| 15° | 8911.9 | 9006.0 | 8918.0 | 8644.8 | 8274.5 | 7858.7 | 7457.9 | 7160.5 | 6941.9 | 6838.7 | 6844.8 |
| 17.5° | 9109.2 | 9191.2 | 8957.4 | 8526.4 | 7989.2 | 7454.9 | 6990.5 | 6708.2 | 6535.2 | 6459.3 | 6453.3 |
| 20° | 9355.0 | 9379.3 | 8957.4 | 8320.0 | 7621.9 | 6984.4 | 6541.3 | 6343.9 | 6246.9 | 6207.4 | 6219.5 |
| 22.5° | 9619.2 | 9570.6 | 8908.9 | 8028.6 | 7139.2 | 6492.7 | 6195.3 | 6107.2 | 6058.6 | 6052.6 | 6058.6 |
| 25° | 9916.6 | 9780.1 | 8808.7 | 7634.0 | 6635.4 | 6067.8 | 5894.7 | 5909.9 | 5919.0 | 5919.0 | 5940.2 |
| 27.5° | 10280.9 | 10007.7 | 8641.7 | 7136.2 | 6046.5 | 5673.1 | 5624.6 | 5730.8 | 5779.4 | 5788.5 | 5803.7 |
| 30° | 10760.5 | 10256.6 | 8365.6 | 6513.9 | 5545.7 | 5318.0 | 5403.0 | 5545.7 | 5600.3 | 5633.7 | 5627.6 |
| 32.5° | 11331.1 | 10529.8 | 7992.2 | 5891.7 | 5142.0 | 5069.1 | 5172.3 | 5318.0 | 5378.7 | 5396.9 | 5372.6 |
| 35° | 12001.9 | 10839.4 | 7500.4 | 5308.9 | 4789.8 | 4832.4 | 4953.7 | 4999.3 | 5054.0 | 5054.0 | 5066.1 |
| 37.5° | 12724.4 | 11088.3 | 6899.4 | 4774.7 | 4516.7 | 4671.5 | 4759.5 | 4717.0 | 4692.7 | 4662.4 | 4677.6 |
| 40° | 13458.9 | 11273.4 | 6119.4 | 4246.5 | 4243.5 | 4504.5 | 4528.8 | 4407.4 | 4310.3 | 4279.9 | 4264.7 |
| 42.5° | 14099.4 | 11388.8 | 5415.1 | 3836.7 | 3985.5 | 4340.6 | 4358.8 | 4164.5 | 4009.7 | 3918.7 | 3888.3 |
| 45° | 14855.2 | 11522.3 | 4726.1 | 3496.8 | 3745.6 | 4210.1 | 4255.6 | 3994.6 | 3766.9 | 3575.7 | 3527.1 |
| 47.5° | 15890.3 | 11825.9 | 4182.8 | 3232.7 | 3572.7 | 4128.1 | 4191.9 | 3854.9 | 3554.4 | 3305.5 | 3266.0 |
| 50° | 17058.9 | 12241.7 | 3760.8 | 3053.6 | 3439.1 | 4055.3 | 4134.2 | 3712.3 | 3357.1 | 3080.9 | 3050.6 |
| 52.5° | 18130.4 | 12466.4 | 3396.6 | 2892.7 | 3308.6 | 3921.7 | 4058.3 | 3609.1 | 3162.9 | 2856.3 | 2829.0 |
| 55° | 18716.2 | 12102.1 | 3038.4 | 2734.9 | 3129.5 | 3748.7 | 3952.1 | 3466.4 | 2974.7 | 2737.9 | 2698.5 |
| 57.5° | 18795.1 | 11349.4 | 2713.6 | 2564.9 | 2941.3 | 3536.3 | 3754.8 | 3293.4 | 2853.3 | 2655.9 | 2622.6 |
| 60° | 18185.0 | 10226.2 | 2461.7 | 2425.3 | 2750.1 | 3296.4 | 3533.2 | 3141.6 | 2728.8 | 2564.9 | 2531.5 |
| 62.5° | 16667.3 | 9006.0 | 2285.7 | 2297.8 | 2555.8 | 3044.5 | 3369.2 | 2995.9 | 2610.4 | 2464.7 | 2434.3 |
| 65° | 14056.9 | 7433.6 | 2115.7 | 2167.3 | 2382.7 | 2847.2 | 3220.6 | 2874.5 | 2492.1 | 2388.9 | 2361.5 |
| 67.5° | 9764.9 | 5366.6 | 1976.1 | 2030.7 | 2218.9 | 2646.9 | 3047.5 | 2744.0 | 2358.5 | 2303.9 | 2261.4 |
| 70° | 5406.1 | 3302.5 | 1812.1 | 1875.8 | 2048.9 | 2422.2 | 2853.3 | 2546.7 | 2164.2 | 2139.9 | 2079.3 |
| 72.5° | 2841.1 | 2103.5 | 1627.0 | 1696.8 | 1818.2 | 2133.9 | 2555.8 | 2331.1 | 1973.0 | 1869.8 | 1790.9 |
| 74° | 2218.9 | 1724.1 | 1502.5 | 1575.4 | 1657.3 | 1963.9 | 2379.8 | 2176.3 | 1836.4 | 1715.0 | 1654.3 |
| 75° | 1933.5 | 1535.9 | 1396.2 | 1490.4 | 1563.3 | 1848.6 | 2243.1 | 2067.1 | 1760.5 | 1645.2 | 1590.5 |
| 77.5° | 1365.9 | 1150.4 | 1141.3 | 1253.6 | 1293.0 | 1620.9 | 2021.5 | 1881.9 | 1569.3 | 1447.8 | 1396.2 |
| 80° | 959.2 | 862.1 | 904.5 | 974.4 | 1029.0 | 1432.7 | 1875.8 | 1627.0 | 1287.0 | 1144.4 | 1126.1 |
| 82.5° | 625.3 | 564.6 | 646.5 | 710.3 | 728.5 | 1056.3 | 1514.6 | 1235.4 | 938.0 | 761.9 | 707.3 |
| 85° | 288.4 | 282.3 | 370.3 | 361.2 | 358.1 | 516.0 | 898.5 | 722.4 | 540.3 | 403.7 | 379.4 |
| 87.5° | 72.8 | 69.8 | 91.1 | 75.9 | 91.1 | 78.9 | 82.0 | 21.2 | 3.1 | 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)