

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: P649886

Luminaire Tested: **GLAN-SA4A-835-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P649886
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA4A-835-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11090.4 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

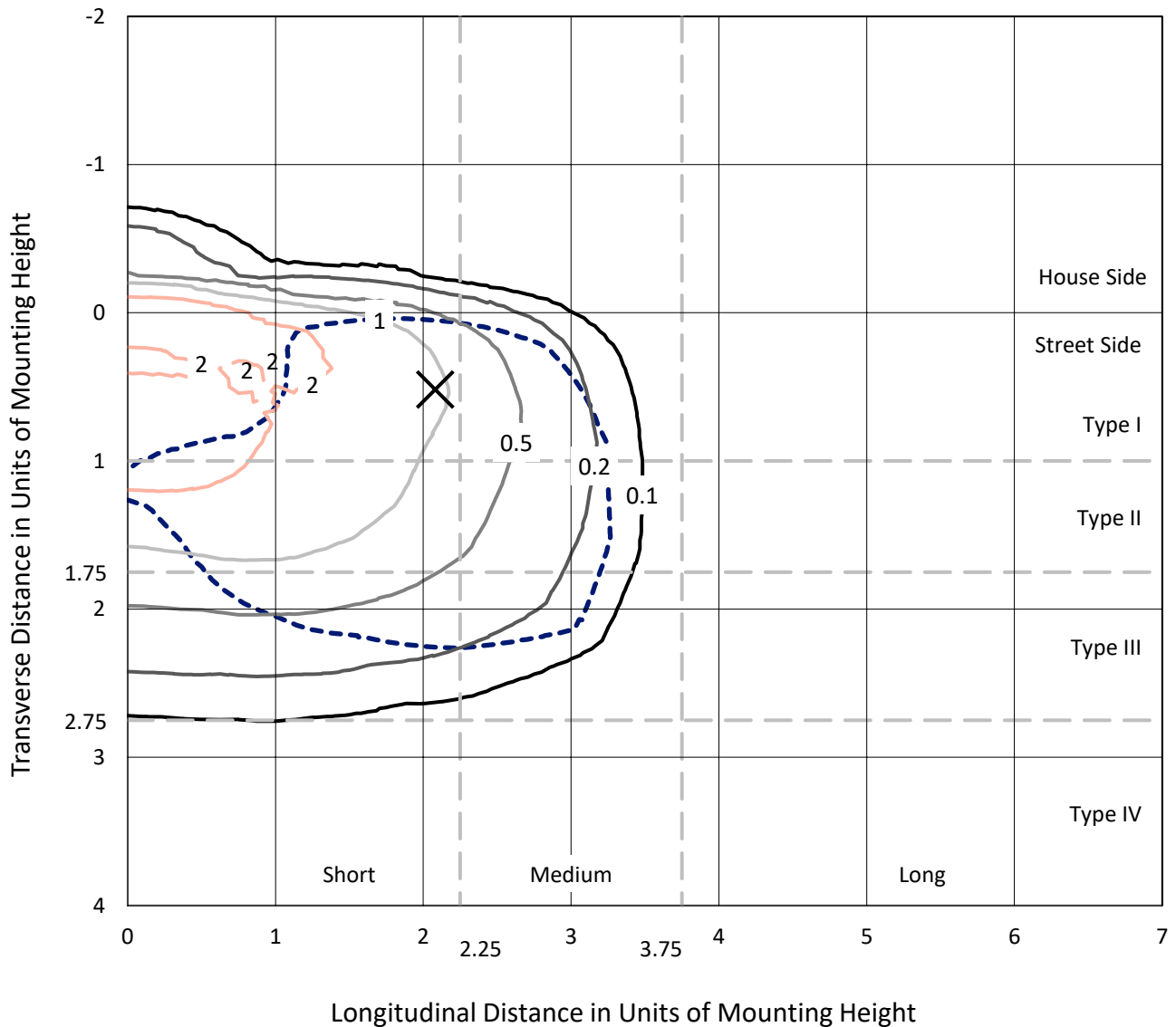
Input Watts (W): 121
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

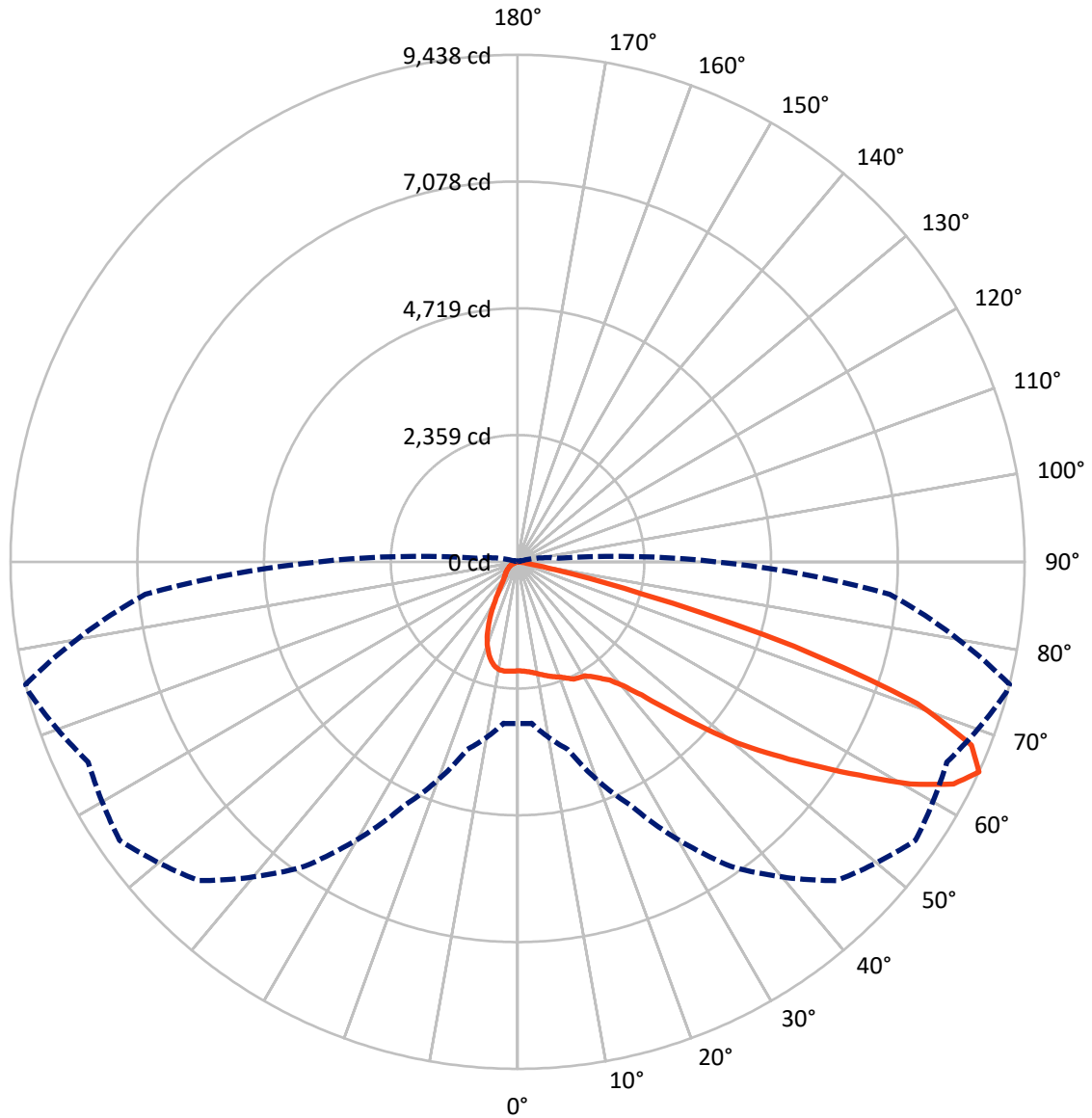
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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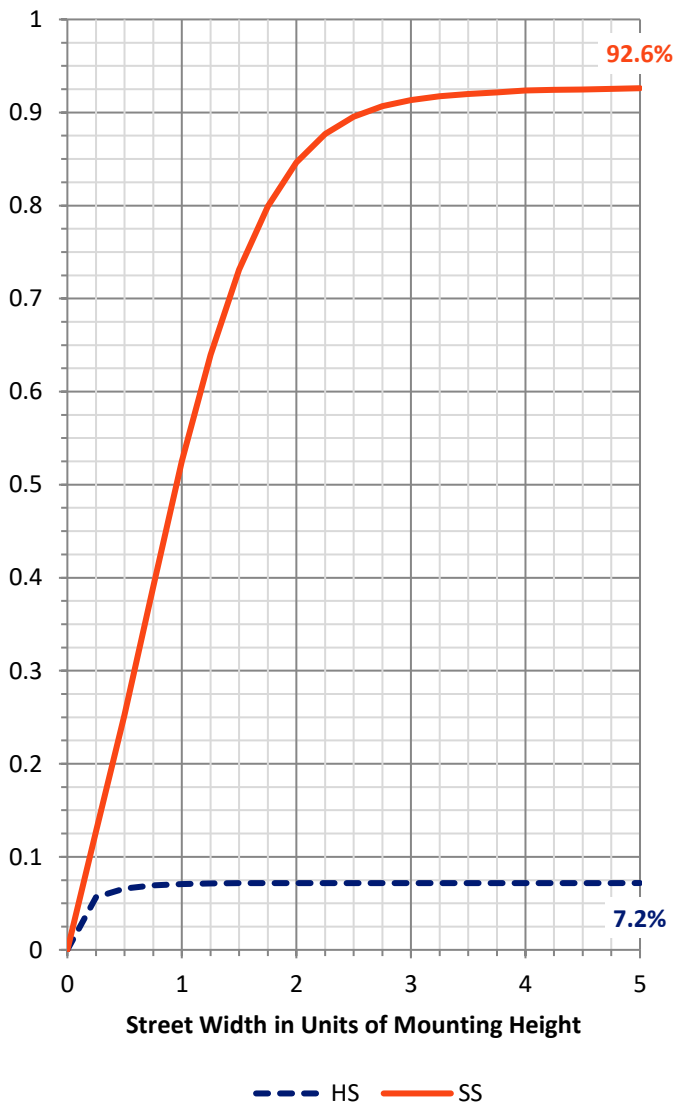
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 800.9 | 0.0 | 800.9 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 10289.5 | 0.0 | 10289.5 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 11090.4 | 0.0 | 11090.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 167.1 | 1.5 |
| 10°-20° | 372.1 | 3.4 |
| 20°-30° | 599.6 | 5.4 |
| 30°-40° | 1042.6 | 9.4 |
| 40°-50° | 1722.9 | 15.5 |
| 50°-60° | 2661.4 | 24.0 |
| 60°-70° | 3250.0 | 29.3 |
| 70°-80° | 1233.5 | 11.1 |
| 80°-90° | 41.2 | 0.4 |
| 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° | 11090.4 | 100.0 |
| 0°-180° | 11090.4 | 100.0 |

Coefficient of Utilization



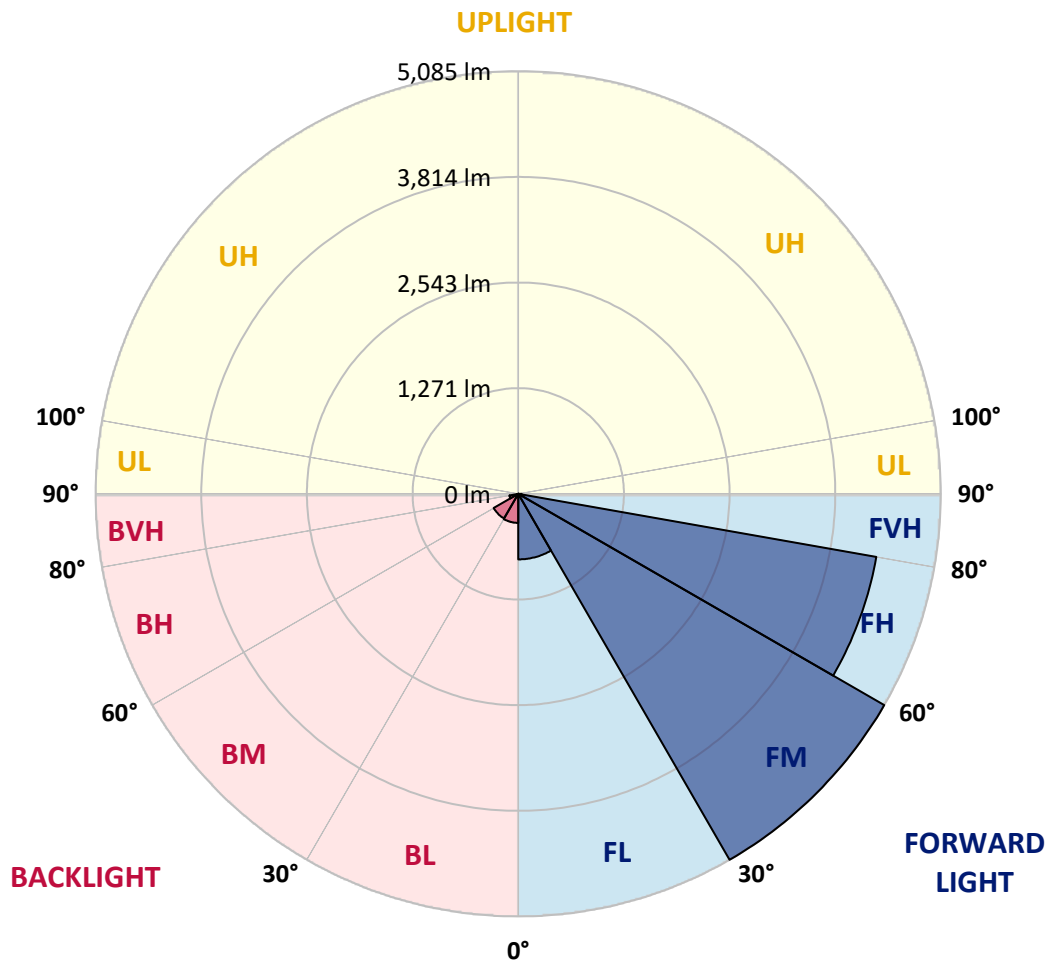
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 788.9 | 7.1 | | | |
| FM (30°-60°) | 5085.1 | 45.9 | | | |
| FH (60°-80°) | 4374.8 | 39.4 | | | G2/5000 |
| FVH (80°-90°) | 40.6 | 0.4 | | | G1/100 |
| BL (0°-30°) | 349.9 | 3.2 | B1/500 | | |
| BM (30°-60°) | 341.8 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 108.7 | 1.0 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.6 | 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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 |
| 2.5° | 1938.7 | 1939.5 | 1944.2 | 1955.9 | 1973.9 | 1988.8 | 2001.3 | 2021.7 | 2035.8 | 2037.4 | 2042.1 |
| 5° | 1804.8 | 1795.4 | 1804.8 | 1835.4 | 1862.8 | 1904.3 | 1955.2 | 2006.0 | 2051.5 | 2054.6 | 2076.5 |
| 7.5° | 1654.5 | 1662.3 | 1677.2 | 1708.5 | 1760.2 | 1823.6 | 1897.2 | 1988.0 | 2074.2 | 2082.0 | 2125.1 |
| 10° | 1501.8 | 1519.0 | 1543.3 | 1591.1 | 1663.1 | 1745.3 | 1845.5 | 1975.5 | 2110.2 | 2121.1 | 2195.6 |
| 12.5° | 1360.9 | 1368.7 | 1398.4 | 1462.6 | 1551.9 | 1667.8 | 1806.4 | 1968.5 | 2150.2 | 2163.5 | 2270.8 |
| 15° | 1252.8 | 1263.0 | 1288.8 | 1346.8 | 1446.2 | 1595.0 | 1774.3 | 1966.1 | 2189.3 | 2208.1 | 2345.9 |
| 17.5° | 1232.4 | 1238.7 | 1249.7 | 1288.8 | 1375.7 | 1537.0 | 1745.3 | 1965.3 | 2226.9 | 2249.6 | 2415.6 |
| 20° | 1316.2 | 1310.7 | 1299.8 | 1295.9 | 1343.6 | 1492.4 | 1724.2 | 1971.6 | 2262.9 | 2288.8 | 2489.2 |
| 22.5° | 1526.1 | 1533.1 | 1468.9 | 1393.0 | 1377.3 | 1485.4 | 1721.0 | 2001.3 | 2320.1 | 2350.6 | 2571.5 |
| 25° | 1971.6 | 1917.6 | 1817.3 | 1635.7 | 1498.7 | 1528.4 | 1756.3 | 2071.8 | 2386.7 | 2420.3 | 2645.8 |
| 27.5° | 2464.2 | 2447.7 | 2291.9 | 1992.7 | 1737.5 | 1619.2 | 1818.9 | 2125.8 | 2408.6 | 2443.0 | 2688.1 |
| 30° | 2948.1 | 2967.6 | 2789.1 | 2458.7 | 2084.3 | 1787.6 | 1877.6 | 2146.3 | 2428.2 | 2464.2 | 2742.1 |
| 32.5° | 3396.7 | 3420.2 | 3263.6 | 2936.3 | 2493.2 | 2078.9 | 1978.6 | 2225.4 | 2510.4 | 2547.2 | 2832.2 |
| 35° | 3749.9 | 3753.0 | 3634.8 | 3374.0 | 2939.5 | 2432.9 | 2197.2 | 2364.0 | 2621.6 | 2664.6 | 2927.7 |
| 37.5° | 4074.0 | 4069.3 | 3930.7 | 3706.0 | 3311.4 | 2784.4 | 2472.0 | 2523.7 | 2748.4 | 2793.0 | 3065.5 |
| 40° | 4314.4 | 4317.5 | 4272.9 | 4061.5 | 3658.3 | 3109.4 | 2689.7 | 2673.2 | 2961.4 | 3031.1 | 3266.0 |
| 42.5° | 4474.9 | 4503.9 | 4525.8 | 4418.5 | 4094.4 | 3509.5 | 3024.0 | 2993.5 | 3331.0 | 3388.9 | 3549.4 |
| 45° | 4604.9 | 4656.6 | 4766.2 | 4760.7 | 4513.3 | 4000.4 | 3482.9 | 3420.2 | 3854.8 | 3916.6 | 3910.4 |
| 47.5° | 4699.6 | 4752.1 | 4933.8 | 5043.4 | 4907.1 | 4476.5 | 4059.9 | 4005.9 | 4480.4 | 4547.7 | 4308.9 |
| 50° | 4748.2 | 4810.8 | 5042.6 | 5254.8 | 5214.9 | 4935.3 | 4717.7 | 4720.8 | 5236.0 | 5301.0 | 4770.9 |
| 52.5° | 4634.7 | 4716.1 | 5100.5 | 5482.6 | 5560.2 | 5374.6 | 5333.9 | 5437.2 | 5908.6 | 5964.2 | 5188.2 |
| 55° | 4272.1 | 4374.7 | 5021.5 | 5676.8 | 5960.3 | 5892.9 | 6033.9 | 6191.3 | 6643.9 | 6679.9 | 5616.5 |
| 57.5° | 4042.7 | 4151.5 | 4788.1 | 5842.0 | 6441.1 | 6544.5 | 6767.6 | 6882.7 | 7402.6 | 7494.2 | 6108.3 |
| 60° | 3849.3 | 3934.7 | 4596.3 | 5877.3 | 6929.7 | 7341.6 | 7558.5 | 7677.5 | 8339.1 | 8398.6 | 6649.4 |
| 62.5° | 3527.5 | 3625.4 | 4272.1 | 5631.4 | 7175.6 | 7979.7 | 8429.2 | 8375.9 | 9063.4 | 9104.9 | 6981.4 |
| 65° | 3009.9 | 3018.5 | 3614.4 | 5013.6 | 6921.9 | 8393.9 | 9040.7 | 8817.5 | 9409.5 | 9437.7 | 6955.5 |
| 67.5° | 2246.5 | 2329.5 | 2780.5 | 3940.9 | 5846.7 | 8040.0 | 9238.8 | 8829.3 | 9191.0 | 9112.7 | 6403.5 |
| 70° | 1447.0 | 1510.4 | 1884.7 | 2732.7 | 4215.8 | 6709.7 | 8581.8 | 8224.0 | 8066.6 | 7892.8 | 5241.5 |
| 72.5° | 667.9 | 749.3 | 1119.7 | 1561.3 | 2500.2 | 4779.5 | 6966.5 | 6681.5 | 5806.0 | 5376.9 | 3331.7 |
| 75° | 291.3 | 311.6 | 552.8 | 823.7 | 1172.2 | 2527.6 | 4593.2 | 4147.6 | 2622.3 | 2395.3 | 1333.4 |
| 77.5° | 177.7 | 191.1 | 289.7 | 441.6 | 460.4 | 963.1 | 2474.4 | 1809.5 | 810.4 | 714.9 | 361.7 |
| 80° | 120.6 | 135.5 | 210.6 | 231.0 | 157.4 | 268.6 | 928.6 | 483.1 | 163.6 | 156.6 | 77.5 |
| 82.5° | 58.7 | 74.4 | 155.8 | 129.2 | 68.1 | 86.1 | 270.1 | 103.4 | 47.8 | 44.6 | 27.4 |
| 85° | 8.6 | 14.9 | 87.7 | 84.6 | 30.5 | 20.4 | 47.8 | 25.8 | 16.4 | 15.7 | 12.5 |
| 87.5° | 0.0 | 0.0 | 29.8 | 13.3 | 3.1 | 3.1 | 5.5 | 5.5 | 6.3 | 5.5 | 6.3 |
| 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-SA4A-835-U-T3R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 | 2028.8 |
| 2.5° | 2044.4 | 2048.3 | 2033.5 | 2012.3 | 1989.6 | 1966.9 | 1934.8 | 1905.8 | 1888.6 | 1898.8 | 1873.7 |
| 5° | 2081.2 | 2078.1 | 2038.9 | 1974.7 | 1889.4 | 1786.8 | 1685.0 | 1598.1 | 1569.9 | 1527.6 | 1522.9 |
| 7.5° | 2132.2 | 2123.5 | 2040.5 | 1893.3 | 1700.7 | 1508.1 | 1320.1 | 1195.6 | 1124.4 | 1064.1 | 1065.7 |
| 10° | 2203.4 | 2178.4 | 2022.5 | 1750.0 | 1432.9 | 1142.4 | 902.8 | 738.4 | 667.1 | 644.4 | 626.4 |
| 12.5° | 2277.0 | 2228.5 | 1972.4 | 1556.6 | 1115.8 | 780.7 | 548.9 | 448.7 | 404.8 | 390.7 | 389.2 |
| 15° | 2342.8 | 2266.1 | 1884.7 | 1324.1 | 811.2 | 498.8 | 374.3 | 341.4 | 335.9 | 336.7 | 335.9 |
| 17.5° | 2407.8 | 2295.8 | 1763.3 | 1077.4 | 551.2 | 357.8 | 321.8 | 314.0 | 316.3 | 319.5 | 318.7 |
| 20° | 2461.8 | 2302.1 | 1608.3 | 822.2 | 389.9 | 314.0 | 302.2 | 300.7 | 303.0 | 305.4 | 305.4 |
| 22.5° | 2520.6 | 2306.8 | 1424.3 | 569.2 | 318.7 | 292.1 | 285.8 | 285.8 | 288.9 | 292.1 | 292.8 |
| 25° | 2564.4 | 2281.0 | 1204.3 | 408.7 | 281.1 | 270.9 | 267.8 | 268.6 | 271.7 | 273.3 | 272.5 |
| 27.5° | 2571.5 | 2208.1 | 970.9 | 313.2 | 255.3 | 245.1 | 241.9 | 245.1 | 241.2 | 243.5 | 241.9 |
| 30° | 2577.7 | 2115.7 | 734.5 | 263.9 | 231.8 | 216.1 | 211.4 | 206.7 | 203.6 | 199.7 | 198.9 |
| 32.5° | 2597.3 | 2006.8 | 536.4 | 237.2 | 209.8 | 192.6 | 181.7 | 168.3 | 158.2 | 155.0 | 154.3 |
| 35° | 2605.9 | 1876.1 | 393.8 | 216.1 | 190.3 | 171.5 | 151.9 | 133.1 | 118.2 | 112.8 | 116.7 |
| 37.5° | 2638.8 | 1749.2 | 305.4 | 200.4 | 173.0 | 149.6 | 124.5 | 101.0 | 86.9 | 83.8 | 85.3 |
| 40° | 2706.1 | 1611.4 | 256.0 | 187.1 | 158.2 | 129.2 | 98.7 | 76.0 | 66.6 | 63.4 | 62.6 |
| 42.5° | 2814.2 | 1474.4 | 227.9 | 174.6 | 143.3 | 108.8 | 77.5 | 59.5 | 51.7 | 49.3 | 49.3 |
| 45° | 2945.7 | 1342.8 | 208.3 | 161.3 | 127.6 | 87.7 | 61.1 | 47.8 | 43.1 | 41.5 | 41.5 |
| 47.5° | 3118.8 | 1227.7 | 191.8 | 148.0 | 110.4 | 69.7 | 49.3 | 41.5 | 38.4 | 39.2 | 39.9 |
| 50° | 3294.2 | 1142.4 | 173.8 | 133.1 | 90.8 | 57.2 | 42.3 | 36.8 | 36.0 | 36.8 | 36.8 |
| 52.5° | 3426.5 | 1092.3 | 149.6 | 112.8 | 71.3 | 47.8 | 37.6 | 34.5 | 33.7 | 32.1 | 32.1 |
| 55° | 3605.0 | 1081.3 | 119.0 | 91.6 | 56.4 | 39.9 | 33.7 | 31.3 | 29.0 | 27.4 | 26.6 |
| 57.5° | 3834.4 | 1093.9 | 91.6 | 71.3 | 43.8 | 32.9 | 29.8 | 25.8 | 22.7 | 19.6 | 19.6 |
| 60° | 3976.9 | 1065.7 | 71.3 | 54.8 | 32.1 | 26.6 | 22.7 | 18.8 | 14.9 | 12.5 | 11.7 |
| 62.5° | 3931.5 | 946.6 | 56.4 | 40.7 | 22.7 | 19.6 | 14.9 | 12.5 | 8.6 | 6.3 | 5.5 |
| 65° | 3697.4 | 764.2 | 45.4 | 28.2 | 16.4 | 11.7 | 7.8 | 7.8 | 3.9 | 0.8 | 0.0 |
| 67.5° | 3236.2 | 566.1 | 36.0 | 18.8 | 9.4 | 5.5 | 3.9 | 2.3 | 0.0 | 0.0 | 0.0 |
| 70° | 2634.1 | 408.7 | 28.2 | 11.7 | 5.5 | 3.9 | 1.6 | 0.8 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1672.5 | 234.1 | 21.9 | 7.0 | 3.9 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 646.8 | 91.6 | 14.9 | 4.7 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 183.2 | 43.1 | 8.6 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 47.8 | 18.8 | 4.7 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 22.7 | 7.8 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 13.3 | 3.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.3 | 0.8 | 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 |

(END OF REPORT)