

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: P654341

Luminaire Tested: **GLAN-SA4B-840-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P654341
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-SA4B-840-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 800mA 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: 14821.8 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

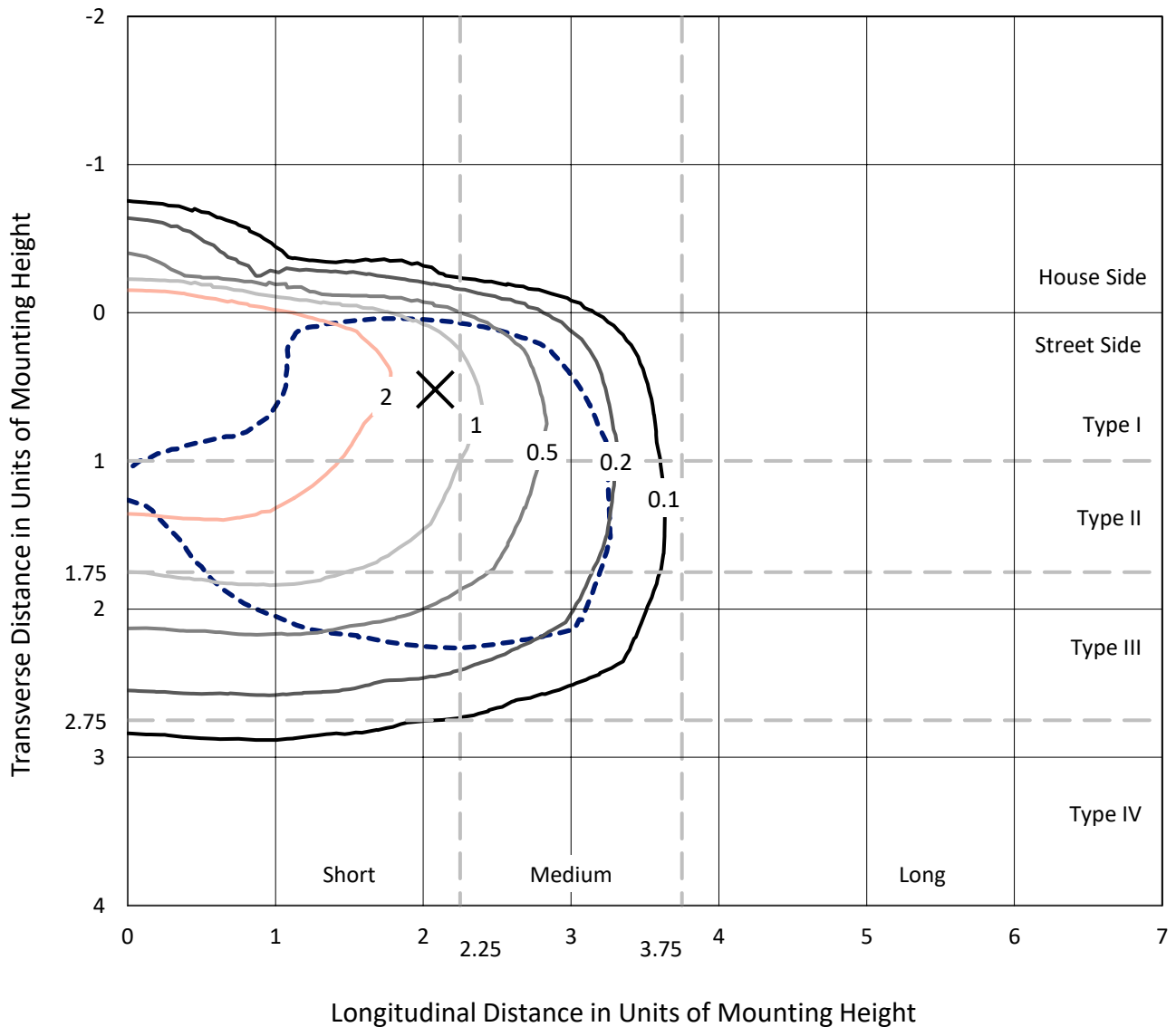
Input Watts (W): 164
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

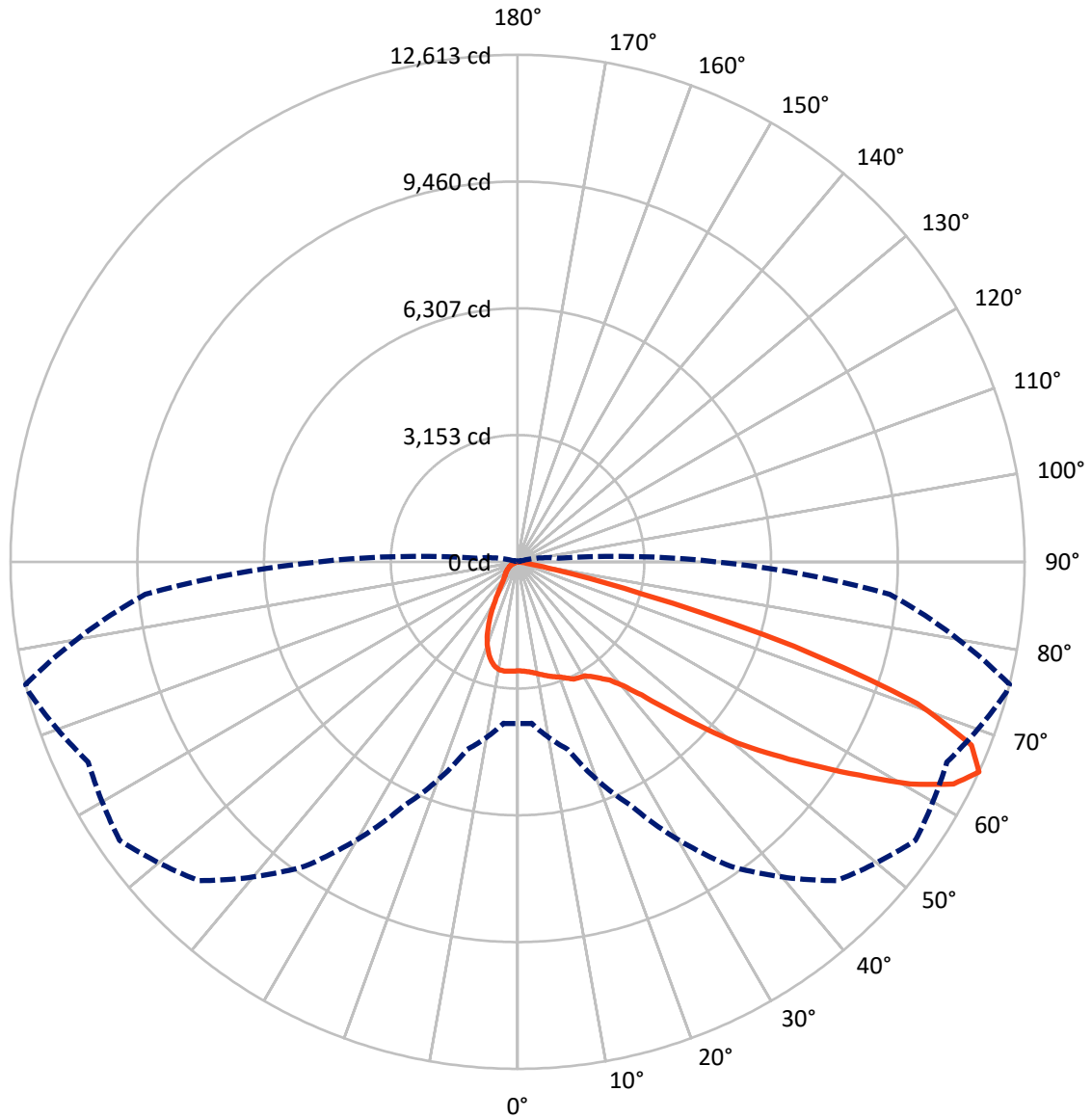
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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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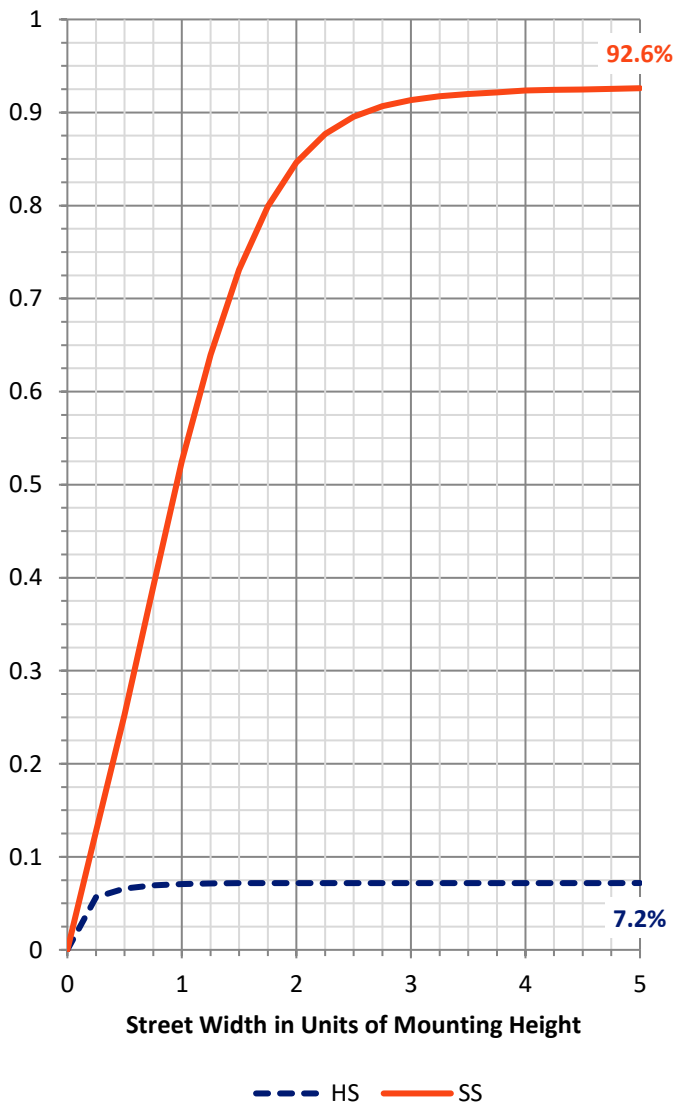
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1070.4 | 0.0 | 1070.4 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 13751.3 | 0.0 | 13751.3 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 14821.8 | 0.0 | 14821.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 223.3 | 1.5 |
| 10°-20° | 497.3 | 3.4 |
| 20°-30° | 801.4 | 5.4 |
| 30°-40° | 1393.4 | 9.4 |
| 40°-50° | 2302.5 | 15.5 |
| 50°-60° | 3556.9 | 24.0 |
| 60°-70° | 4343.5 | 29.3 |
| 70°-80° | 1648.5 | 11.1 |
| 80°-90° | 55.0 | 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° | 14821.8 | 100.0 |
| 0°-180° | 14821.8 | 100.0 |

Coefficient of Utilization



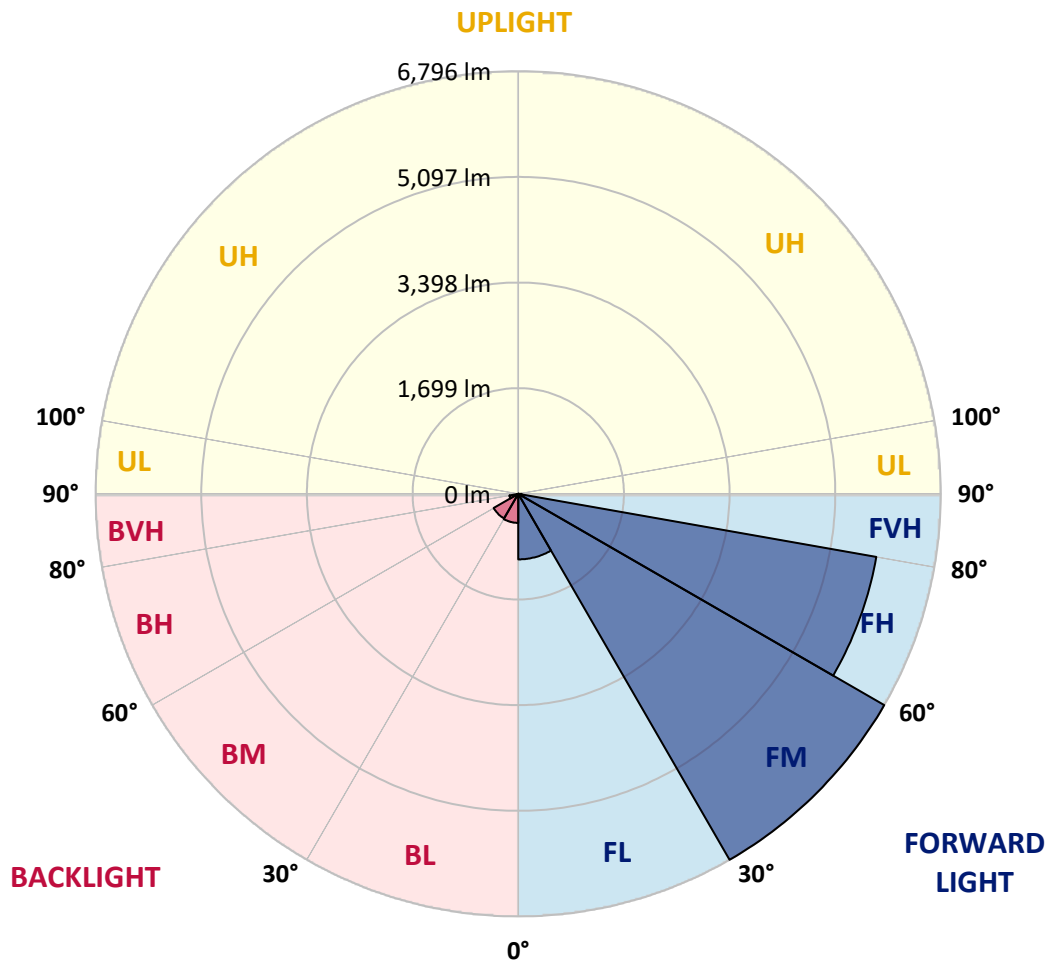
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1054.4 | 7.1 | | | |
| FM (30°-60°) | 6796.0 | 45.9 | | | |
| FH (60°-80°) | 5846.7 | 39.4 | | | G3/7500 |
| FVH (80°-90°) | 54.3 | 0.4 | | | G1/100 |
| BL (0°-30°) | 467.6 | 3.2 | B1/500 | | |
| BM (30°-60°) | 456.8 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 145.2 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.8 | 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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0° | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 |
| 2.5° | 2591.0 | 2592.0 | 2598.4 | 2614.1 | 2638.1 | 2658.0 | 2674.7 | 2702.0 | 2720.8 | 2722.9 | 2729.1 |
| 5° | 2412.1 | 2399.5 | 2412.1 | 2452.9 | 2489.5 | 2545.0 | 2613.0 | 2681.0 | 2741.7 | 2745.9 | 2775.2 |
| 7.5° | 2211.2 | 2221.7 | 2241.5 | 2283.4 | 2352.4 | 2437.2 | 2535.5 | 2657.0 | 2772.1 | 2782.5 | 2840.1 |
| 10° | 2007.1 | 2030.2 | 2062.6 | 2126.4 | 2222.7 | 2332.6 | 2466.5 | 2640.2 | 2820.2 | 2834.8 | 2934.2 |
| 12.5° | 1818.7 | 1829.2 | 1869.0 | 1954.8 | 2074.1 | 2229.0 | 2414.2 | 2630.8 | 2873.6 | 2891.4 | 3034.7 |
| 15° | 1674.3 | 1688.0 | 1722.5 | 1799.9 | 1932.8 | 2131.6 | 2371.3 | 2627.6 | 2925.9 | 2951.0 | 3135.2 |
| 17.5° | 1647.1 | 1655.5 | 1670.1 | 1722.5 | 1838.6 | 2054.2 | 2332.6 | 2626.6 | 2976.1 | 3006.5 | 3228.3 |
| 20° | 1759.1 | 1751.8 | 1737.1 | 1731.9 | 1795.7 | 1994.5 | 2304.3 | 2635.0 | 3024.2 | 3058.8 | 3326.7 |
| 22.5° | 2039.5 | 2048.9 | 1963.1 | 1861.6 | 1840.7 | 1985.1 | 2300.1 | 2674.7 | 3100.7 | 3141.5 | 3436.6 |
| 25° | 2635.0 | 2562.8 | 2428.8 | 2186.1 | 2002.9 | 2042.7 | 2347.2 | 2768.9 | 3189.6 | 3234.6 | 3536.0 |
| 27.5° | 3293.2 | 3271.2 | 3063.0 | 2663.3 | 2322.1 | 2164.1 | 2430.9 | 2841.2 | 3218.9 | 3264.9 | 3592.5 |
| 30° | 3939.9 | 3966.1 | 3727.5 | 3285.9 | 2785.6 | 2389.0 | 2509.4 | 2868.3 | 3245.1 | 3293.2 | 3664.7 |
| 32.5° | 4539.5 | 4570.9 | 4361.7 | 3924.2 | 3332.0 | 2778.3 | 2644.4 | 2974.0 | 3354.9 | 3404.1 | 3785.0 |
| 35° | 5011.5 | 5015.6 | 4857.7 | 4509.2 | 3928.4 | 3251.4 | 2936.4 | 3159.3 | 3503.5 | 3561.1 | 3912.8 |
| 37.5° | 5444.7 | 5438.4 | 5253.2 | 4952.9 | 4425.5 | 3721.2 | 3303.7 | 3372.7 | 3673.1 | 3732.7 | 4096.9 |
| 40° | 5766.0 | 5770.2 | 5710.6 | 5428.0 | 4889.1 | 4155.5 | 3594.6 | 3572.7 | 3957.7 | 4050.8 | 4364.8 |
| 42.5° | 5980.5 | 6019.2 | 6048.6 | 5905.2 | 5472.0 | 4690.3 | 4041.4 | 4000.6 | 4451.7 | 4529.0 | 4743.6 |
| 45° | 6154.3 | 6223.3 | 6369.8 | 6362.5 | 6031.8 | 5346.3 | 4654.7 | 4570.9 | 5151.7 | 5234.4 | 5226.1 |
| 47.5° | 6280.8 | 6351.0 | 6593.8 | 6740.3 | 6558.2 | 5982.6 | 5425.9 | 5353.7 | 5987.8 | 6077.8 | 5758.7 |
| 50° | 6345.8 | 6429.4 | 6739.2 | 7022.8 | 6969.5 | 6595.8 | 6304.9 | 6309.1 | 6997.7 | 7084.5 | 6376.0 |
| 52.5° | 6194.0 | 6302.8 | 6816.6 | 7327.3 | 7430.9 | 7182.9 | 7128.5 | 7266.6 | 7896.6 | 7970.9 | 6933.9 |
| 55° | 5709.5 | 5846.5 | 6710.9 | 7586.8 | 7965.6 | 7875.6 | 8064.0 | 8274.3 | 8879.2 | 8927.4 | 7506.3 |
| 57.5° | 5402.8 | 5548.3 | 6399.1 | 7807.7 | 8608.1 | 8746.3 | 9044.5 | 9198.4 | 9893.3 | 10015.6 | 8163.4 |
| 60° | 5144.4 | 5258.4 | 6142.7 | 7854.7 | 9261.2 | 9811.6 | 10101.5 | 10260.5 | 11144.8 | 11224.3 | 8886.5 |
| 62.5° | 4714.3 | 4845.1 | 5709.5 | 7526.1 | 9589.8 | 10664.5 | 11265.1 | 11194.0 | 12112.8 | 12168.3 | 9330.2 |
| 65° | 4022.6 | 4034.1 | 4830.5 | 6700.5 | 9250.7 | 11218.0 | 12082.4 | 11784.2 | 12575.3 | 12613.0 | 9295.7 |
| 67.5° | 3002.3 | 3113.2 | 3716.0 | 5266.8 | 7813.9 | 10745.0 | 12347.1 | 11799.9 | 12283.3 | 12178.7 | 8557.9 |
| 70° | 1933.9 | 2018.7 | 2518.8 | 3652.1 | 5634.1 | 8967.1 | 11469.2 | 10990.9 | 10780.6 | 10548.3 | 7005.0 |
| 72.5° | 892.6 | 1001.5 | 1496.5 | 2086.6 | 3341.4 | 6387.6 | 9310.4 | 8929.4 | 7759.5 | 7186.0 | 4452.7 |
| 75° | 389.3 | 416.5 | 738.8 | 1100.9 | 1566.5 | 3378.0 | 6138.5 | 5543.1 | 3504.6 | 3201.1 | 1782.1 |
| 77.5° | 237.6 | 255.3 | 387.2 | 590.2 | 615.4 | 1287.2 | 3306.8 | 2418.4 | 1083.1 | 955.4 | 483.5 |
| 80° | 161.1 | 181.1 | 281.5 | 308.7 | 210.3 | 358.9 | 1241.1 | 645.6 | 218.7 | 209.3 | 103.6 |
| 82.5° | 78.5 | 99.4 | 208.2 | 172.7 | 91.1 | 115.1 | 361.0 | 138.1 | 63.8 | 59.6 | 36.7 |
| 85° | 11.5 | 19.8 | 117.2 | 113.0 | 40.8 | 27.2 | 63.8 | 34.6 | 22.0 | 20.9 | 16.7 |
| 87.5° | 0.0 | 0.0 | 39.8 | 17.8 | 4.2 | 4.2 | 7.3 | 7.3 | 8.4 | 7.3 | 8.4 |
| 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-SA4B-840-U-T3R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 | 2711.4 |
| 2.5° | 2732.3 | 2737.5 | 2717.7 | 2689.4 | 2659.1 | 2628.7 | 2585.8 | 2547.1 | 2524.1 | 2537.6 | 2504.2 |
| 5° | 2781.5 | 2777.3 | 2725.0 | 2639.1 | 2525.1 | 2388.0 | 2251.9 | 2135.8 | 2098.1 | 2041.6 | 2035.4 |
| 7.5° | 2849.5 | 2838.0 | 2727.1 | 2530.3 | 2272.9 | 2015.5 | 1764.3 | 1598.0 | 1502.7 | 1422.1 | 1424.2 |
| 10° | 2944.8 | 2911.3 | 2703.0 | 2338.8 | 1915.0 | 1526.8 | 1206.6 | 986.8 | 891.5 | 861.3 | 837.1 |
| 12.5° | 3043.1 | 2978.2 | 2636.0 | 2080.4 | 1491.2 | 1043.3 | 733.6 | 599.6 | 541.0 | 522.2 | 520.1 |
| 15° | 3131.0 | 3028.4 | 2518.8 | 1769.5 | 1084.1 | 666.6 | 500.2 | 456.2 | 448.9 | 450.0 | 448.9 |
| 17.5° | 3217.8 | 3068.2 | 2356.7 | 1440.0 | 736.7 | 478.2 | 430.1 | 419.7 | 422.8 | 427.0 | 425.9 |
| 20° | 3290.1 | 3076.6 | 2149.4 | 1098.8 | 521.2 | 419.7 | 403.9 | 401.8 | 404.9 | 408.1 | 408.1 |
| 22.5° | 3368.5 | 3082.9 | 1903.5 | 760.8 | 425.9 | 390.3 | 382.0 | 382.0 | 386.1 | 390.3 | 391.4 |
| 25° | 3427.2 | 3048.4 | 1609.4 | 546.2 | 375.7 | 362.1 | 357.9 | 358.9 | 363.1 | 365.2 | 364.2 |
| 27.5° | 3436.6 | 2951.0 | 1297.6 | 418.6 | 341.1 | 327.6 | 323.4 | 327.6 | 322.3 | 325.5 | 323.4 |
| 30° | 3444.9 | 2827.5 | 981.6 | 352.6 | 309.7 | 288.8 | 282.6 | 276.3 | 272.1 | 266.8 | 265.8 |
| 32.5° | 3471.1 | 2682.1 | 716.8 | 317.1 | 280.5 | 257.4 | 242.8 | 225.0 | 211.3 | 207.2 | 206.1 |
| 35° | 3482.6 | 2507.4 | 526.4 | 288.8 | 254.3 | 229.2 | 203.0 | 177.9 | 158.0 | 150.7 | 155.9 |
| 37.5° | 3526.6 | 2337.8 | 408.1 | 267.9 | 231.3 | 199.9 | 166.3 | 135.0 | 116.1 | 111.9 | 114.0 |
| 40° | 3616.6 | 2153.6 | 342.2 | 250.1 | 211.3 | 172.7 | 131.9 | 101.5 | 89.0 | 84.8 | 83.7 |
| 42.5° | 3761.0 | 1970.5 | 304.5 | 233.4 | 191.5 | 145.5 | 103.6 | 79.6 | 69.0 | 65.9 | 65.9 |
| 45° | 3936.8 | 1794.7 | 278.4 | 215.5 | 170.6 | 117.2 | 81.7 | 63.8 | 57.5 | 55.4 | 55.4 |
| 47.5° | 4168.1 | 1640.9 | 256.4 | 197.8 | 147.5 | 93.1 | 65.9 | 55.4 | 51.3 | 52.3 | 53.4 |
| 50° | 4402.5 | 1526.8 | 232.3 | 177.9 | 121.4 | 76.4 | 56.5 | 49.2 | 48.1 | 49.2 | 49.2 |
| 52.5° | 4579.3 | 1459.8 | 199.9 | 150.7 | 95.2 | 63.8 | 50.2 | 46.0 | 45.0 | 42.9 | 42.9 |
| 55° | 4817.9 | 1445.2 | 159.0 | 122.4 | 75.4 | 53.4 | 45.0 | 41.9 | 38.7 | 36.7 | 35.6 |
| 57.5° | 5124.5 | 1461.9 | 122.4 | 95.2 | 58.6 | 44.0 | 39.8 | 34.6 | 30.4 | 26.2 | 26.2 |
| 60° | 5315.0 | 1424.2 | 95.2 | 73.3 | 42.9 | 35.6 | 30.4 | 25.1 | 19.8 | 16.7 | 15.7 |
| 62.5° | 5254.3 | 1265.2 | 75.4 | 54.4 | 30.4 | 26.2 | 19.8 | 16.7 | 11.5 | 8.4 | 7.3 |
| 65° | 4941.4 | 1021.3 | 60.7 | 37.7 | 22.0 | 15.7 | 10.4 | 10.4 | 5.2 | 1.0 | 0.0 |
| 67.5° | 4325.0 | 756.6 | 48.1 | 25.1 | 12.5 | 7.3 | 5.2 | 3.1 | 0.0 | 0.0 | 0.0 |
| 70° | 3520.3 | 546.2 | 37.7 | 15.7 | 7.3 | 5.2 | 2.1 | 1.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2235.2 | 312.9 | 29.3 | 9.4 | 5.2 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 864.4 | 122.4 | 19.8 | 6.3 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 244.9 | 57.5 | 11.5 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 63.8 | 25.1 | 6.3 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 30.4 | 10.4 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 17.8 | 4.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 8.4 | 1.0 | 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 |

(END OF REPORT)