

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: P653354

Luminaire Tested: **GLAN-SA4D-840-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P653354
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA4D-840-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18533.1 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G4

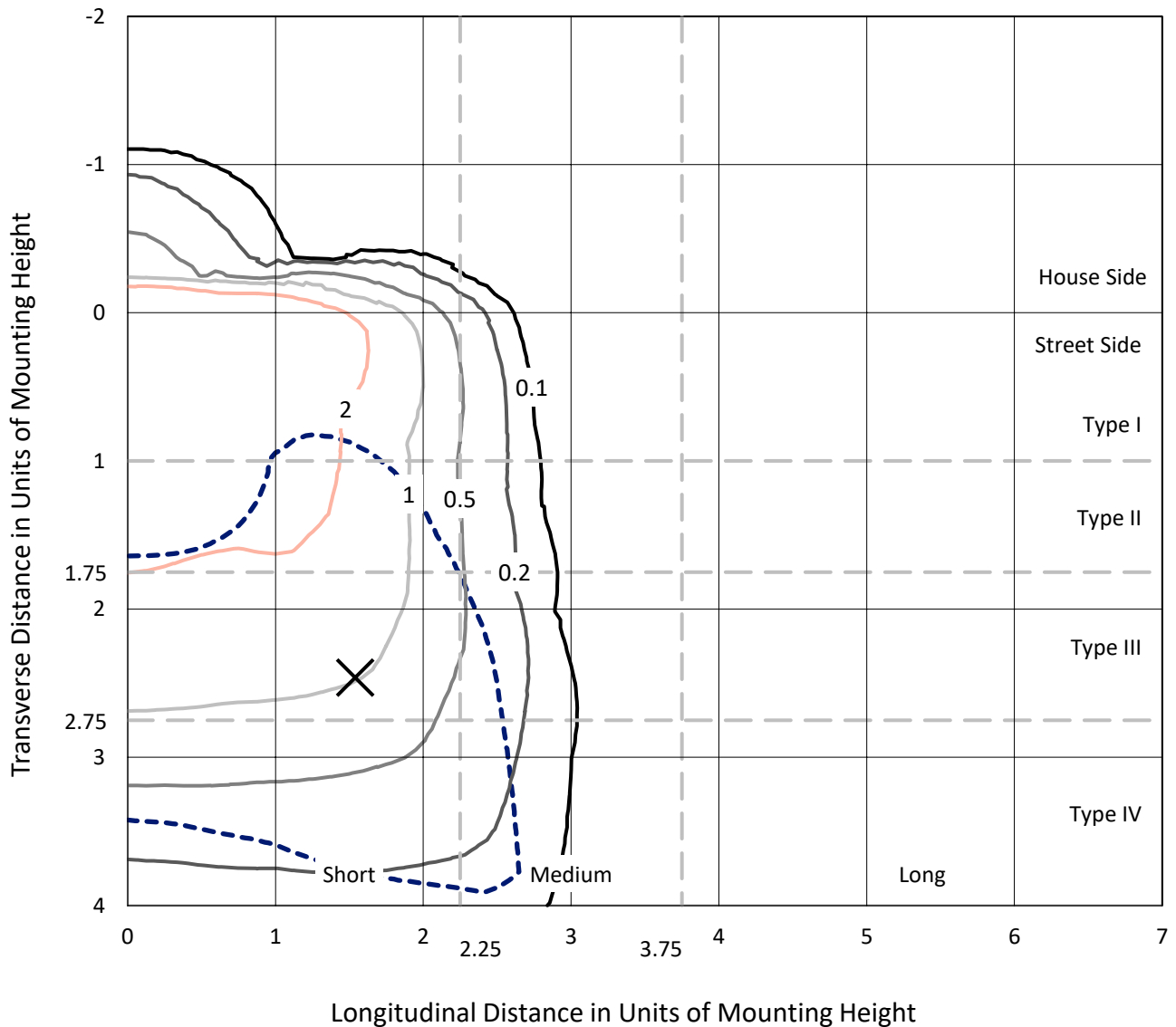
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

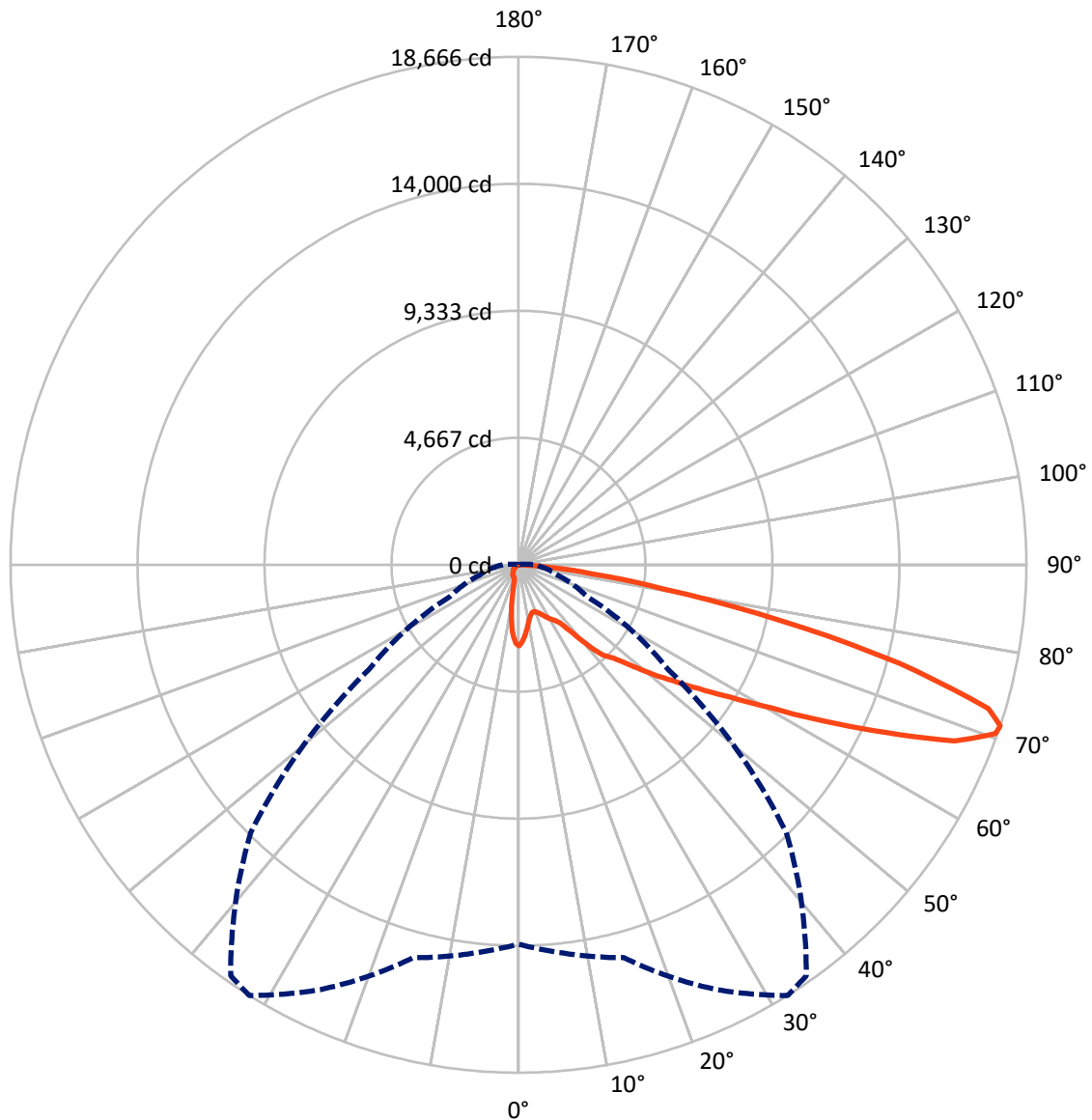
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1552.4 | 0.0 | 1552.4 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 16980.8 | 0.0 | 16980.8 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 18533.1 | 0.0 | 18533.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 242.3 | 1.3 |
| 10°-20° | 526.0 | 2.8 |
| 20°-30° | 818.2 | 4.4 |
| 30°-40° | 1363.2 | 7.4 |
| 40°-50° | 2535.8 | 13.7 |
| 50°-60° | 4071.3 | 22.0 |
| 60°-70° | 5476.1 | 29.5 |
| 70°-80° | 3249.0 | 17.5 |
| 80°-90° | 251.1 | 1.4 |
| 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° | 18533.1 | 100.0 |
| 0°-180° | 18533.1 | 100.0 |



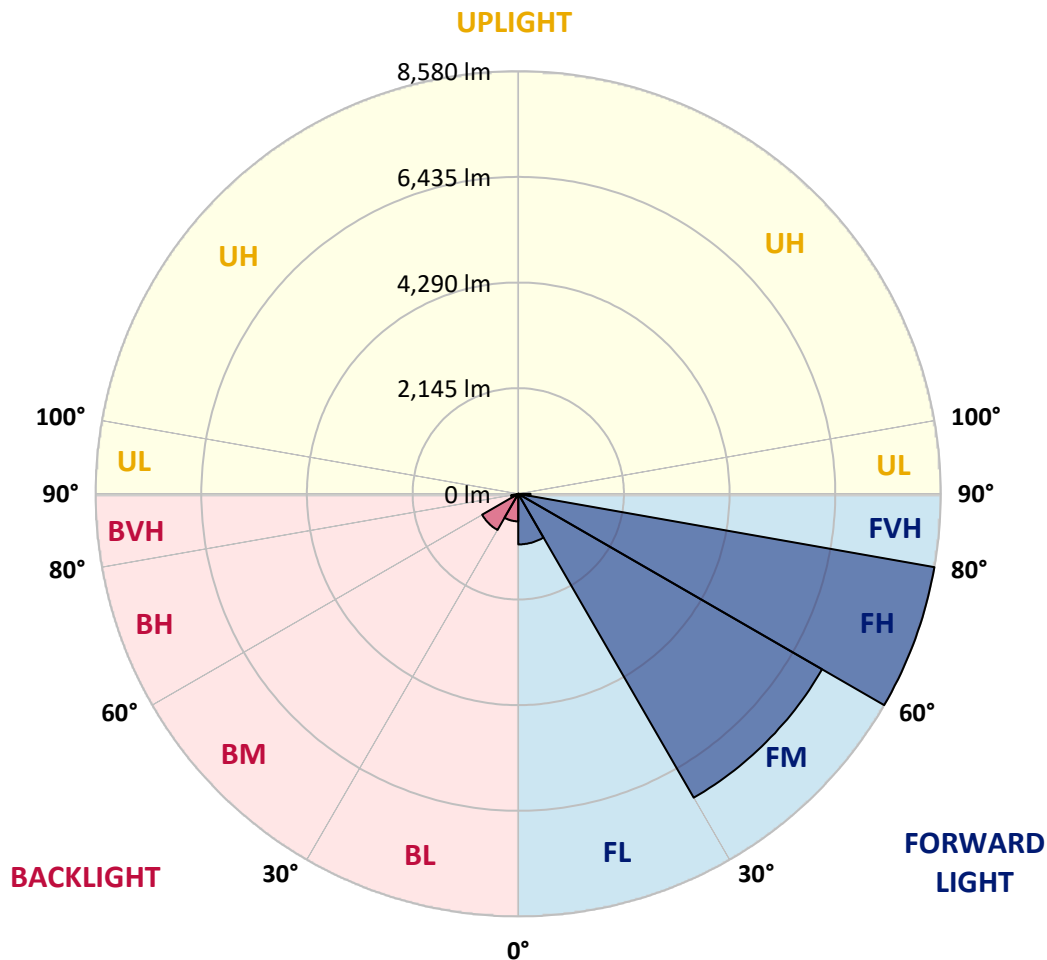
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1027.2 | 5.5 | | | |
| FM (30°-60°) | 7123.4 | 38.4 | | | |
| FH (60°-80°) | 8579.9 | 46.3 | | | G4/12000 |
| FVH (80°-90°) | 250.2 | 1.3 | | | G3/500 |
| BL (0°-30°) | 559.3 | 3.0 | B2/1000 | | |
| BM (30°-60°) | 846.8 | 4.6 | B1/1000 | | |
| BH (60°-80°) | 145.2 | 0.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|
| 0° | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 |
| 2.5° | 2764.2 | 2792.6 | 2788.3 | 2798.3 | 2822.5 | 2832.5 | 2859.5 | 2889.3 | 2930.6 | 2959.1 | 2977.6 |
| 5° | 2475.4 | 2496.8 | 2499.5 | 2549.3 | 2573.5 | 2600.5 | 2680.3 | 2767.1 | 2863.8 | 2940.6 | 2991.8 |
| 7.5° | 2166.7 | 2178.0 | 2200.8 | 2266.2 | 2327.5 | 2354.5 | 2475.4 | 2626.2 | 2778.4 | 2922.1 | 3014.6 |
| 10° | 1912.0 | 1924.8 | 1966.1 | 2035.8 | 2092.7 | 2128.2 | 2296.1 | 2485.3 | 2698.8 | 2912.1 | 3047.3 |
| 12.5° | 1766.9 | 1774.0 | 1789.6 | 1852.3 | 1924.8 | 1963.2 | 2143.9 | 2360.2 | 2634.7 | 2916.4 | 3102.8 |
| 15° | 1756.9 | 1754.1 | 1735.6 | 1761.2 | 1826.7 | 1866.5 | 2042.9 | 2274.8 | 2577.8 | 2930.6 | 3168.2 |
| 17.5° | 1809.6 | 1802.5 | 1758.4 | 1758.4 | 1812.4 | 1845.2 | 2000.2 | 2229.2 | 2549.3 | 2963.3 | 3260.6 |
| 20° | 1890.7 | 1879.3 | 1806.7 | 1801.1 | 1853.6 | 1887.8 | 2025.8 | 2232.1 | 2555.0 | 3024.5 | 3384.4 |
| 22.5° | 1993.1 | 1980.3 | 1870.7 | 1873.6 | 1930.5 | 1964.7 | 2099.8 | 2283.3 | 2590.6 | 3099.9 | 3516.7 |
| 25° | 2126.8 | 2112.6 | 1983.2 | 1977.4 | 2037.2 | 2067.1 | 2209.3 | 2374.4 | 2640.4 | 3193.8 | 3690.3 |
| 27.5° | 2304.7 | 2274.8 | 2119.7 | 2111.2 | 2175.2 | 2213.6 | 2341.7 | 2496.8 | 2728.6 | 3323.3 | 3923.6 |
| 30° | 2451.2 | 2418.5 | 2270.5 | 2247.7 | 2316.0 | 2345.9 | 2478.3 | 2661.8 | 2902.2 | 3549.4 | 4246.5 |
| 32.5° | 2643.3 | 2594.9 | 2421.3 | 2361.5 | 2434.1 | 2472.5 | 2676.0 | 2969.1 | 3159.6 | 3788.5 | 4630.6 |
| 35° | 3075.7 | 3045.8 | 2833.9 | 2624.8 | 2620.5 | 2668.8 | 2967.6 | 3279.1 | 3424.3 | 4161.2 | 5154.2 |
| 37.5° | 3694.6 | 3673.2 | 3448.4 | 3168.2 | 3087.1 | 3064.4 | 3321.9 | 3620.6 | 3846.8 | 4673.4 | 5763.1 |
| 40° | 4413.0 | 4363.2 | 4156.9 | 3919.3 | 3814.1 | 3747.2 | 3740.1 | 4128.5 | 4398.8 | 5369.0 | 6397.6 |
| 42.5° | 4928.0 | 4836.9 | 4586.6 | 4569.5 | 4546.7 | 4477.1 | 4275.0 | 4871.1 | 5111.5 | 6117.3 | 7076.2 |
| 45° | 5468.6 | 5330.6 | 4957.9 | 4893.9 | 4885.3 | 4881.1 | 5083.1 | 5750.3 | 5888.3 | 6928.2 | 7773.3 |
| 47.5° | 5888.3 | 5778.8 | 5472.9 | 5444.4 | 5480.0 | 5576.8 | 6151.5 | 6683.5 | 6655.1 | 7650.9 | 8357.9 |
| 50° | 6447.4 | 6364.9 | 6024.8 | 6078.9 | 6262.4 | 6420.4 | 7356.4 | 7700.7 | 7285.3 | 8219.9 | 8783.3 |
| 52.5° | 7107.5 | 6955.2 | 6639.4 | 6785.9 | 7067.6 | 7330.8 | 8635.4 | 8591.2 | 7727.7 | 8648.2 | 9100.5 |
| 55° | 7679.3 | 7571.3 | 7463.1 | 7615.3 | 8036.4 | 8365.1 | 9790.6 | 9258.5 | 8049.3 | 8992.5 | 9240.0 |
| 57.5° | 8646.7 | 8621.2 | 8510.2 | 8665.2 | 9176.0 | 9517.4 | 10824.8 | 9776.3 | 8255.5 | 9171.7 | 9076.4 |
| 60° | 10078.0 | 10036.7 | 9830.4 | 10028.2 | 10693.9 | 11230.3 | 11778.0 | 10241.5 | 8302.5 | 9102.0 | 8605.5 |
| 62.5° | 11799.3 | 11658.4 | 11482.1 | 11773.7 | 12687.1 | 12923.2 | 12675.6 | 10517.5 | 8127.5 | 8547.2 | 7470.3 |
| 65° | 13406.9 | 13261.8 | 13266.0 | 13880.6 | 14875.0 | 15035.8 | 13722.7 | 10476.3 | 7615.3 | 7157.2 | 5509.9 |
| 67.5° | 14637.4 | 14613.3 | 14786.8 | 15986.1 | 17286.4 | 17175.4 | 14658.8 | 9858.9 | 6097.4 | 4639.2 | 2927.8 |
| 70° | 14700.1 | 14747.0 | 15244.9 | 17269.3 | 18589.5 | 18413.1 | 14579.2 | 8013.7 | 3801.2 | 2134.0 | 1153.8 |
| 71° | 13943.2 | 14259.1 | 14947.6 | 17229.5 | 18666.3 | 18437.3 | 13907.6 | 6712.0 | 2788.3 | 1488.1 | 832.3 |
| 72.5° | 11881.8 | 12048.3 | 13536.3 | 16215.2 | 18058.9 | 17569.5 | 12204.8 | 4704.6 | 1785.4 | 910.5 | 478.0 |
| 75° | 6544.1 | 6953.8 | 9065.1 | 12721.2 | 14444.0 | 14014.3 | 7953.9 | 2235.0 | 890.5 | 498.0 | 197.7 |
| 77.5° | 3115.6 | 3035.9 | 4423.0 | 7565.6 | 9793.4 | 9770.7 | 4007.5 | 993.0 | 519.2 | 337.2 | 99.6 |
| 80° | 890.5 | 1001.5 | 1692.9 | 3596.5 | 5437.3 | 5497.0 | 1539.3 | 479.5 | 359.9 | 263.1 | 51.2 |
| 82.5° | 268.9 | 274.6 | 621.7 | 1590.5 | 2704.4 | 2549.3 | 577.6 | 244.7 | 258.9 | 209.2 | 29.9 |
| 85° | 46.9 | 58.4 | 183.5 | 560.5 | 1031.4 | 782.5 | 145.1 | 116.6 | 170.7 | 138.0 | 17.1 |
| 87.5° | 2.9 | 4.3 | 61.1 | 64.0 | 91.1 | 52.6 | 25.6 | 17.1 | 37.0 | 37.0 | 9.9 |
| 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-SA4D-840-U-T4FT-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 | 2980.4 |
| 2.5° | 2990.3 | 2998.9 | 2993.2 | 2980.4 | 2959.1 | 2933.5 | 2899.3 | 2870.8 | 2846.7 | 2833.9 | 2849.6 |
| 5° | 3008.8 | 3020.3 | 2991.8 | 2927.8 | 2831.1 | 2725.8 | 2606.3 | 2513.8 | 2441.3 | 2418.5 | 2410.0 |
| 7.5° | 3037.4 | 3044.4 | 2967.6 | 2825.3 | 2620.5 | 2371.5 | 2153.9 | 1970.4 | 1828.1 | 1785.4 | 1722.8 |
| 10° | 3074.3 | 3070.1 | 2924.9 | 2660.3 | 2300.4 | 1926.2 | 1589.1 | 1338.7 | 1149.5 | 1081.2 | 1075.5 |
| 12.5° | 3131.2 | 3108.4 | 2870.8 | 2435.5 | 1919.2 | 1429.8 | 1012.9 | 792.4 | 672.9 | 633.1 | 624.5 |
| 15° | 3202.4 | 3148.3 | 2785.5 | 2172.4 | 1469.6 | 923.2 | 624.5 | 557.7 | 542.0 | 539.2 | 536.3 |
| 17.5° | 3286.3 | 3200.9 | 2673.1 | 1849.4 | 1032.8 | 599.0 | 522.1 | 520.7 | 522.1 | 519.2 | 517.8 |
| 20° | 3400.1 | 3256.4 | 2539.4 | 1466.7 | 682.9 | 505.0 | 498.0 | 498.0 | 499.4 | 498.0 | 498.0 |
| 22.5° | 3521.0 | 3321.9 | 2374.4 | 1119.6 | 515.0 | 479.5 | 478.0 | 480.9 | 483.7 | 482.3 | 482.3 |
| 25° | 3670.4 | 3407.2 | 2156.7 | 766.8 | 461.0 | 458.1 | 459.5 | 465.2 | 470.9 | 472.3 | 470.9 |
| 27.5° | 3886.6 | 3512.5 | 1923.4 | 527.8 | 422.5 | 425.4 | 439.6 | 453.8 | 462.4 | 463.8 | 463.8 |
| 30° | 4129.9 | 3629.2 | 1618.9 | 428.2 | 391.2 | 391.2 | 408.3 | 435.3 | 453.8 | 456.7 | 458.1 |
| 32.5° | 4442.9 | 3764.3 | 1281.8 | 385.5 | 361.4 | 358.5 | 374.2 | 406.9 | 441.0 | 450.9 | 450.9 |
| 35° | 4829.9 | 3923.6 | 953.2 | 358.5 | 340.0 | 332.9 | 341.4 | 368.4 | 412.6 | 441.0 | 443.9 |
| 37.5° | 5283.7 | 4074.4 | 697.1 | 334.3 | 320.1 | 310.2 | 315.8 | 337.2 | 372.7 | 415.4 | 426.8 |
| 40° | 5703.3 | 4208.1 | 520.7 | 314.4 | 300.2 | 293.1 | 297.3 | 307.3 | 337.2 | 377.0 | 384.1 |
| 42.5° | 6161.4 | 4312.0 | 414.0 | 293.1 | 280.2 | 277.4 | 277.4 | 281.7 | 301.6 | 324.4 | 325.8 |
| 45° | 6618.1 | 4349.0 | 347.1 | 267.4 | 258.9 | 261.8 | 260.4 | 257.5 | 266.0 | 263.1 | 263.1 |
| 47.5° | 6943.9 | 4304.9 | 287.4 | 243.3 | 243.3 | 247.5 | 240.4 | 230.4 | 226.2 | 209.2 | 210.6 |
| 50° | 7167.3 | 4144.1 | 236.2 | 214.8 | 226.2 | 231.9 | 217.7 | 202.0 | 186.4 | 167.9 | 163.6 |
| 52.5° | 7259.7 | 3858.2 | 193.5 | 177.8 | 200.6 | 207.7 | 190.7 | 172.2 | 147.9 | 132.3 | 128.0 |
| 55° | 7200.0 | 3505.4 | 160.8 | 145.1 | 169.3 | 177.8 | 160.8 | 139.4 | 112.4 | 95.3 | 92.5 |
| 57.5° | 6936.7 | 3084.3 | 136.6 | 115.2 | 135.1 | 140.9 | 129.4 | 106.7 | 79.6 | 62.6 | 62.6 |
| 60° | 6481.5 | 2649.0 | 110.9 | 91.1 | 101.0 | 109.6 | 98.1 | 76.8 | 54.1 | 38.4 | 35.6 |
| 62.5° | 5558.3 | 2151.0 | 89.7 | 71.1 | 71.1 | 78.2 | 68.3 | 55.5 | 34.1 | 19.9 | 18.5 |
| 65° | 4013.3 | 1475.3 | 71.1 | 52.6 | 51.2 | 51.2 | 42.6 | 37.0 | 19.9 | 8.5 | 5.7 |
| 67.5° | 2180.9 | 832.3 | 56.9 | 39.9 | 35.6 | 34.1 | 27.0 | 21.4 | 8.5 | 1.4 | 0.0 |
| 70° | 857.8 | 320.1 | 44.1 | 27.0 | 22.8 | 21.4 | 14.2 | 9.9 | 5.7 | 0.0 | 0.0 |
| 71° | 581.9 | 220.5 | 38.4 | 22.8 | 18.5 | 15.6 | 11.4 | 8.5 | 4.3 | 0.0 | 0.0 |
| 72.5° | 332.9 | 136.6 | 29.9 | 17.1 | 14.2 | 11.4 | 8.5 | 5.7 | 4.3 | 0.0 | 0.0 |
| 75° | 145.1 | 69.7 | 18.5 | 12.8 | 9.9 | 7.1 | 5.7 | 4.3 | 1.4 | 0.0 | 0.0 |
| 77.5° | 74.0 | 38.4 | 12.8 | 9.9 | 5.7 | 4.3 | 2.9 | 1.4 | 0.0 | 0.0 | 0.0 |
| 80° | 41.3 | 19.9 | 8.5 | 5.7 | 4.3 | 2.9 | 1.4 | 1.4 | 0.0 | 0.0 | 0.0 |
| 82.5° | 22.8 | 11.4 | 4.3 | 2.9 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 14.2 | 7.1 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 7.1 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 1.4 | 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)