

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: P321308

Luminaire Tested: **GAN-SA4A-750-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321308
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-SA4A-750-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15174 lumens
Efficiency: N/A
Efficacy: 117.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

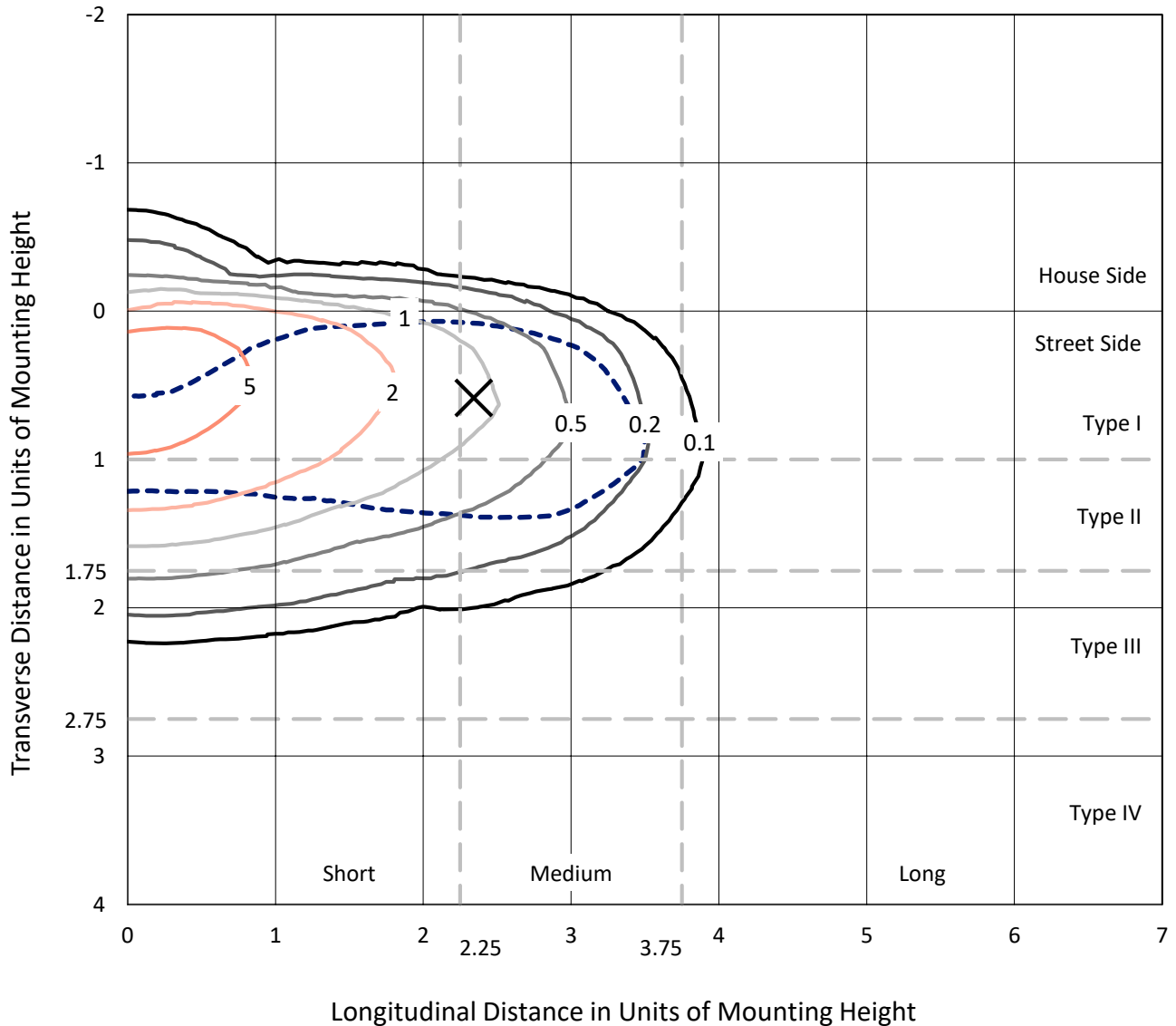
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

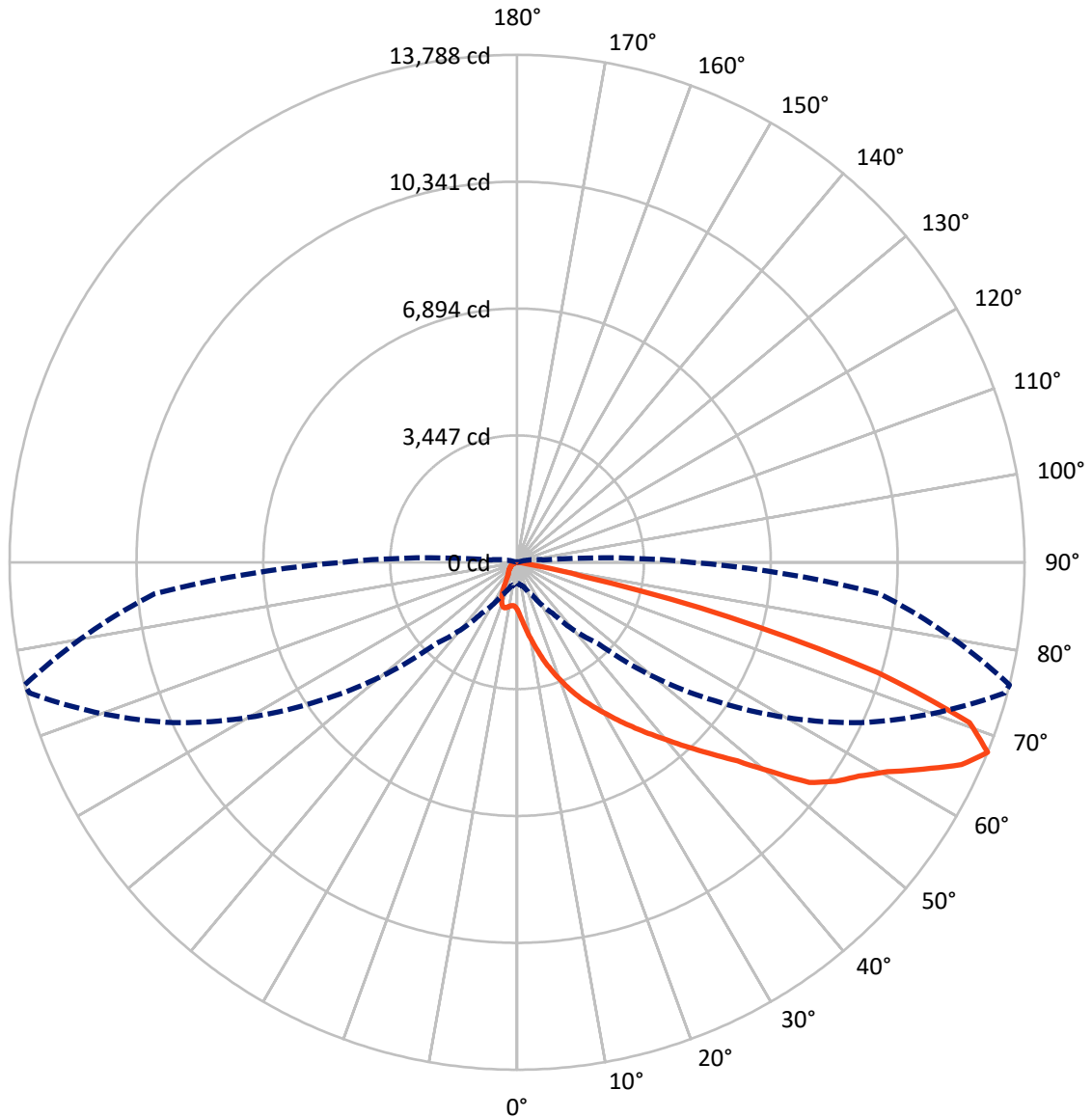
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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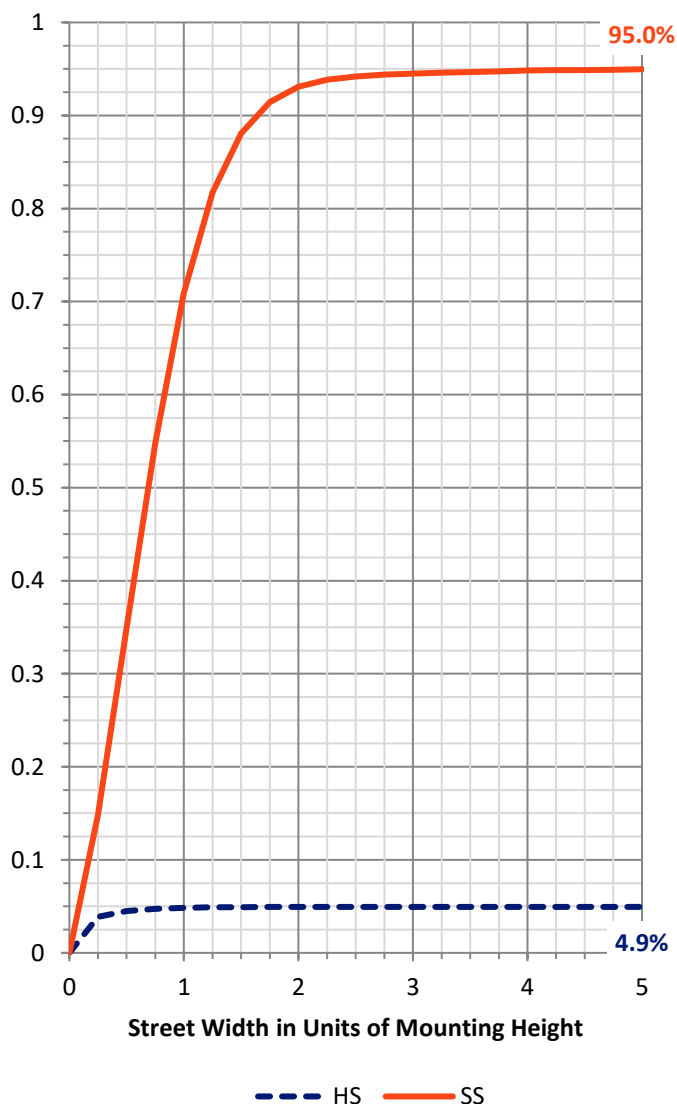
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 753.5 | 0.0 | 753.5 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 14420.5 | 0.0 | 14420.5 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 15174.0 | 0.0 | 15174.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 160.1 | 1.1 |
| 10°-20° | 634.5 | 4.2 |
| 20°-30° | 1291.0 | 8.5 |
| 30°-40° | 2240.8 | 14.8 |
| 40°-50° | 3165.9 | 20.9 |
| 50°-60° | 3590.3 | 23.7 |
| 60°-70° | 2977.8 | 19.6 |
| 70°-80° | 1078.6 | 7.1 |
| 80°-90° | 35.0 | 0.2 |
| 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° | 15174.0 | 100.0 |
| 0°-180° | 15174.0 | 100.0 |

Coefficient of Utilization

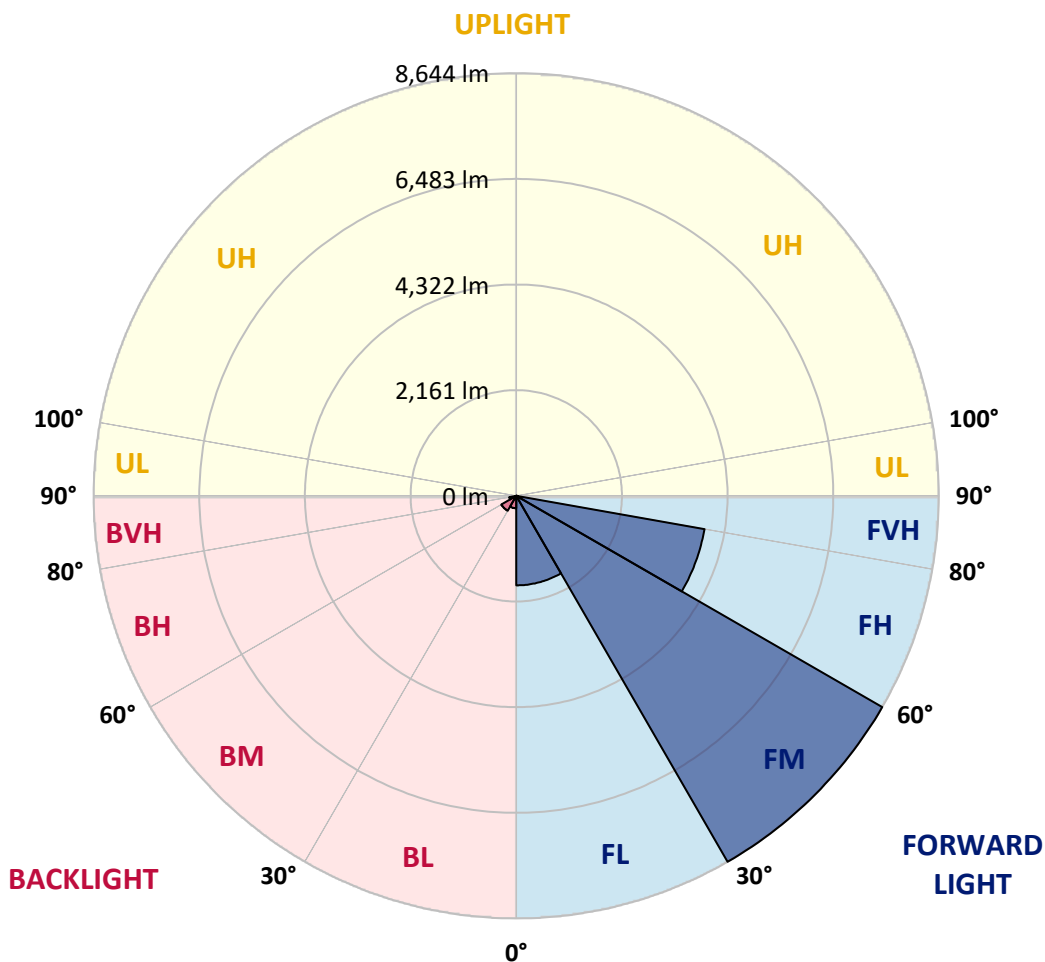


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1831.5 | 12.1 | | | |
| FM (30°-60°) | 8644.3 | 57.0 | | | |
| FH (60°-80°) | 3910.8 | 25.8 | | | G2/5000 |
| FVH (80°-90°) | 33.9 | 0.2 | | | G1/100 |
| BL (0°-30°) | 254.1 | 1.7 | B1/500 | | |
| BM (30°-60°) | 352.7 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 145.6 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 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 II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|
| 0° | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 |
| 2.5° | 1921.5 | 1878.3 | 1888.2 | 1860.3 | 1809.8 | 1706.1 | 1617.6 | 1533.9 | 1436.1 | 1432.8 | 1352.4 |
| 5° | 2591.0 | 2554.4 | 2549.8 | 2493.3 | 2401.5 | 2225.3 | 2053.8 | 1858.3 | 1640.2 | 1624.3 | 1453.4 |
| 7.5° | 3198.7 | 3169.5 | 3158.8 | 3091.7 | 2920.8 | 2749.3 | 2525.9 | 2238.6 | 1897.5 | 1868.3 | 1589.7 |
| 10° | 3665.4 | 3651.5 | 3654.1 | 3606.3 | 3460.0 | 3300.4 | 3007.2 | 2640.9 | 2189.4 | 2144.2 | 1753.3 |
| 12.5° | 4019.2 | 4022.5 | 4046.4 | 4017.2 | 3935.4 | 3817.0 | 3503.9 | 3069.7 | 2512.6 | 2450.7 | 1940.1 |
| 15° | 4279.1 | 4295.7 | 4339.6 | 4376.2 | 4370.2 | 4267.8 | 3980.6 | 3505.2 | 2855.6 | 2787.1 | 2148.2 |
| 17.5° | 4447.3 | 4466.0 | 4529.8 | 4610.9 | 4685.4 | 4661.4 | 4440.7 | 3925.4 | 3202.7 | 3123.6 | 2370.9 |
| 20° | 4594.9 | 4616.9 | 4685.4 | 4792.4 | 4931.4 | 4961.3 | 4816.3 | 4333.0 | 3549.1 | 3452.7 | 2601.0 |
| 22.5° | 4914.7 | 4914.1 | 4956.0 | 5018.5 | 5150.8 | 5227.9 | 5136.1 | 4711.3 | 3891.5 | 3791.1 | 2835.7 |
| 25° | 5493.2 | 5471.2 | 5456.6 | 5407.4 | 5436.7 | 5484.5 | 5433.3 | 5065.0 | 4235.9 | 4134.2 | 3073.7 |
| 27.5° | 6180.7 | 6194.0 | 6075.6 | 5943.3 | 5840.9 | 5791.7 | 5707.9 | 5392.8 | 4567.0 | 4455.3 | 3306.4 |
| 30° | 6906.0 | 6910.0 | 6770.4 | 6601.5 | 6376.1 | 6189.3 | 6044.4 | 5705.9 | 4907.4 | 4785.8 | 3532.5 |
| 32.5° | 7560.3 | 7534.3 | 7396.1 | 7166.0 | 6881.4 | 6671.3 | 6370.2 | 6055.7 | 5267.8 | 5150.1 | 3783.8 |
| 35° | 8078.9 | 8048.3 | 7880.1 | 7670.6 | 7375.4 | 7164.0 | 6801.7 | 6404.7 | 5646.8 | 5531.7 | 4035.8 |
| 37.5° | 8457.9 | 8421.9 | 8249.1 | 8033.7 | 7779.0 | 7656.0 | 7302.3 | 6784.4 | 6060.3 | 5936.7 | 4301.1 |
| 40° | 8589.5 | 8558.2 | 8449.9 | 8292.3 | 8087.5 | 8059.6 | 7833.5 | 7221.2 | 6510.4 | 6378.8 | 4601.6 |
| 42.5° | 8511.0 | 8480.5 | 8441.9 | 8388.7 | 8303.6 | 8330.2 | 8334.9 | 7719.2 | 7010.4 | 6880.8 | 4933.4 |
| 45° | 8199.9 | 8172.6 | 8212.5 | 8290.3 | 8396.0 | 8527.7 | 8792.3 | 8254.4 | 7568.9 | 7430.6 | 5317.0 |
| 47.5° | 7741.8 | 7721.8 | 7832.2 | 8026.4 | 8335.5 | 8698.5 | 9210.5 | 8816.9 | 8195.9 | 8067.6 | 5795.7 |
| 50° | 7090.2 | 7086.9 | 7307.6 | 7662.0 | 8137.4 | 8781.0 | 9642.7 | 9456.5 | 9066.9 | 8931.9 | 6461.2 |
| 52.5° | 6075.6 | 6082.3 | 6516.4 | 7083.6 | 7789.7 | 8725.1 | 9920.6 | 10278.3 | 10080.1 | 9939.9 | 7037.7 |
| 55° | 5109.6 | 5149.4 | 5457.3 | 6275.1 | 7256.4 | 8517.7 | 10016.3 | 10661.9 | 10639.3 | 10506.3 | 7358.2 |
| 57.5° | 4163.4 | 4235.9 | 4532.4 | 5296.4 | 6477.9 | 8039.6 | 9963.8 | 10828.1 | 11055.5 | 10953.8 | 7781.0 |
| 60° | 3138.2 | 3171.4 | 3513.2 | 4227.3 | 5478.6 | 7167.3 | 9582.8 | 10918.5 | 11624.6 | 11554.2 | 8394.7 |
| 62.5° | 1996.6 | 2079.7 | 2382.9 | 3071.7 | 4265.8 | 5955.9 | 8940.6 | 10917.2 | 12336.7 | 12375.3 | 9186.6 |
| 65° | 1051.8 | 1148.9 | 1309.8 | 1903.5 | 2931.4 | 4602.9 | 7974.5 | 10814.8 | 13210.4 | 13264.2 | 9805.6 |
| 67.5° | 567.1 | 595.1 | 680.2 | 988.0 | 1700.1 | 3118.3 | 6555.0 | 10309.5 | 13716.3 | 13787.5 | 9892.0 |
| 70° | 414.9 | 430.2 | 462.1 | 546.5 | 855.7 | 1811.1 | 4783.1 | 9163.9 | 13064.1 | 13037.5 | 8789.0 |
| 72.5° | 318.5 | 342.4 | 366.3 | 400.3 | 492.0 | 966.7 | 2978.0 | 7176.0 | 10423.9 | 10248.4 | 6569.6 |
| 75° | 251.3 | 255.3 | 289.2 | 319.8 | 369.0 | 550.5 | 1322.4 | 4179.4 | 6362.2 | 5946.6 | 3406.8 |
| 77.5° | 200.8 | 203.5 | 223.4 | 250.0 | 296.5 | 361.7 | 409.6 | 1644.2 | 2031.2 | 1812.4 | 739.3 |
| 80° | 119.0 | 125.7 | 166.2 | 192.8 | 246.0 | 228.1 | 149.6 | 357.0 | 317.1 | 287.2 | 124.3 |
| 82.5° | 66.5 | 71.8 | 93.7 | 152.3 | 171.5 | 109.0 | 74.5 | 96.4 | 74.5 | 72.5 | 35.2 |
| 85° | 0.0 | 3.3 | 60.5 | 94.4 | 69.8 | 23.9 | 31.2 | 31.9 | 21.9 | 20.6 | 14.0 |
| 87.5° | 0.0 | 0.0 | 18.6 | 18.0 | 2.7 | 4.0 | 7.3 | 10.6 | 8.6 | 8.6 | 7.3 |
| 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: GAN-SA4A-750-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 | 1287.2 |
| 2.5° | 1312.5 | 1276.6 | 1208.7 | 1142.3 | 1086.4 | 1040.5 | 999.3 | 982.7 | 969.4 | 967.4 | 956.8 |
| 5° | 1371.0 | 1298.5 | 1168.8 | 1062.5 | 991.3 | 940.8 | 897.6 | 871.0 | 850.4 | 842.4 | 835.1 |
| 7.5° | 1459.4 | 1349.7 | 1163.5 | 1041.2 | 956.1 | 871.0 | 791.2 | 704.8 | 650.9 | 630.3 | 618.3 |
| 10° | 1567.1 | 1417.5 | 1183.5 | 1035.2 | 886.3 | 706.8 | 574.5 | 464.7 | 420.2 | 405.6 | 401.6 |
| 12.5° | 1692.8 | 1501.9 | 1218.0 | 998.0 | 737.3 | 502.0 | 396.3 | 359.0 | 349.1 | 344.4 | 344.4 |
| 15° | 1837.0 | 1594.4 | 1242.6 | 890.3 | 545.2 | 379.6 | 343.1 | 325.8 | 315.1 | 309.2 | 309.8 |
| 17.5° | 1984.6 | 1684.8 | 1230.7 | 734.0 | 402.2 | 337.8 | 310.5 | 291.9 | 277.3 | 271.3 | 269.9 |
| 20° | 2133.6 | 1768.6 | 1164.2 | 546.5 | 340.4 | 306.5 | 275.9 | 255.3 | 240.7 | 234.7 | 233.4 |
| 22.5° | 2287.8 | 1839.7 | 1047.2 | 400.9 | 305.8 | 271.9 | 242.0 | 221.4 | 207.4 | 202.1 | 199.5 |
| 25° | 2438.1 | 1897.5 | 883.6 | 324.5 | 273.3 | 239.4 | 210.8 | 191.5 | 178.9 | 173.5 | 172.9 |
| 27.5° | 2578.4 | 1934.1 | 694.1 | 286.6 | 244.7 | 210.1 | 184.2 | 166.9 | 156.2 | 152.3 | 151.6 |
| 30° | 2704.7 | 1937.4 | 513.3 | 258.6 | 219.4 | 184.8 | 160.9 | 145.6 | 136.3 | 132.3 | 131.0 |
| 32.5° | 2832.4 | 1909.5 | 373.7 | 233.4 | 196.1 | 162.9 | 139.6 | 127.7 | 121.0 | 117.7 | 117.7 |
| 35° | 2952.7 | 1845.0 | 291.2 | 211.4 | 173.5 | 141.6 | 123.0 | 114.4 | 110.4 | 107.0 | 107.0 |
| 37.5° | 3070.4 | 1752.6 | 247.3 | 192.1 | 152.3 | 123.7 | 108.4 | 103.1 | 99.7 | 96.4 | 96.4 |
| 40° | 3190.1 | 1636.3 | 224.7 | 174.2 | 135.0 | 109.7 | 96.4 | 91.8 | 88.4 | 85.8 | 85.1 |
| 42.5° | 3337.0 | 1501.9 | 210.1 | 157.6 | 119.7 | 97.1 | 85.1 | 79.8 | 77.1 | 74.5 | 73.1 |
| 45° | 3507.2 | 1386.3 | 198.1 | 141.0 | 107.0 | 86.4 | 73.8 | 68.5 | 64.5 | 61.2 | 60.5 |
| 47.5° | 3752.5 | 1302.5 | 182.2 | 123.0 | 95.1 | 75.1 | 63.8 | 57.8 | 51.9 | 48.5 | 47.9 |
| 50° | 4065.7 | 1233.3 | 161.6 | 107.0 | 83.1 | 63.8 | 53.2 | 45.9 | 40.6 | 37.2 | 37.2 |
| 52.5° | 4221.3 | 1142.9 | 142.9 | 93.1 | 69.8 | 53.9 | 43.2 | 34.6 | 31.9 | 28.6 | 28.6 |
| 55° | 4283.8 | 1073.8 | 124.3 | 79.1 | 57.8 | 44.5 | 33.9 | 26.6 | 24.6 | 22.6 | 21.9 |
| 57.5° | 4459.3 | 1053.8 | 108.4 | 67.2 | 47.9 | 35.2 | 25.9 | 19.9 | 18.6 | 16.0 | 16.0 |
| 60° | 4741.9 | 1063.8 | 93.7 | 57.2 | 38.6 | 27.3 | 19.3 | 15.3 | 14.0 | 11.3 | 11.3 |
| 62.5° | 5047.1 | 1051.2 | 79.1 | 49.2 | 29.9 | 19.9 | 13.3 | 11.3 | 11.3 | 6.6 | 6.0 |
| 65° | 5105.6 | 936.1 | 67.8 | 40.6 | 23.3 | 14.6 | 8.6 | 7.3 | 10.0 | 1.3 | 0.0 |
| 67.5° | 4738.6 | 726.0 | 58.5 | 31.2 | 17.3 | 11.3 | 6.6 | 3.3 | 8.6 | 0.0 | 0.0 |
| 70° | 3789.1 | 461.4 | 47.2 | 22.6 | 13.3 | 9.3 | 5.3 | 1.3 | 6.6 | 0.0 | 0.0 |
| 72.5° | 2679.4 | 267.9 | 37.2 | 16.0 | 11.3 | 7.3 | 4.0 | 0.0 | 4.0 | 0.0 | 0.0 |
| 75° | 1355.0 | 142.9 | 23.3 | 12.0 | 8.6 | 5.3 | 2.7 | 0.0 | 0.7 | 0.0 | 0.0 |
| 77.5° | 293.2 | 66.5 | 14.6 | 8.6 | 6.0 | 3.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 63.8 | 29.3 | 9.3 | 5.3 | 3.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 23.3 | 15.3 | 4.7 | 2.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 12.6 | 8.0 | 2.7 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.6 | 2.7 | 0.7 | 0.7 | 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)