

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: P321338

Luminaire Tested: **GAN-SA4D-750-U-T2R-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P321338
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-SA4D-750-U-T2R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 1200mA 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: 25265 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G3

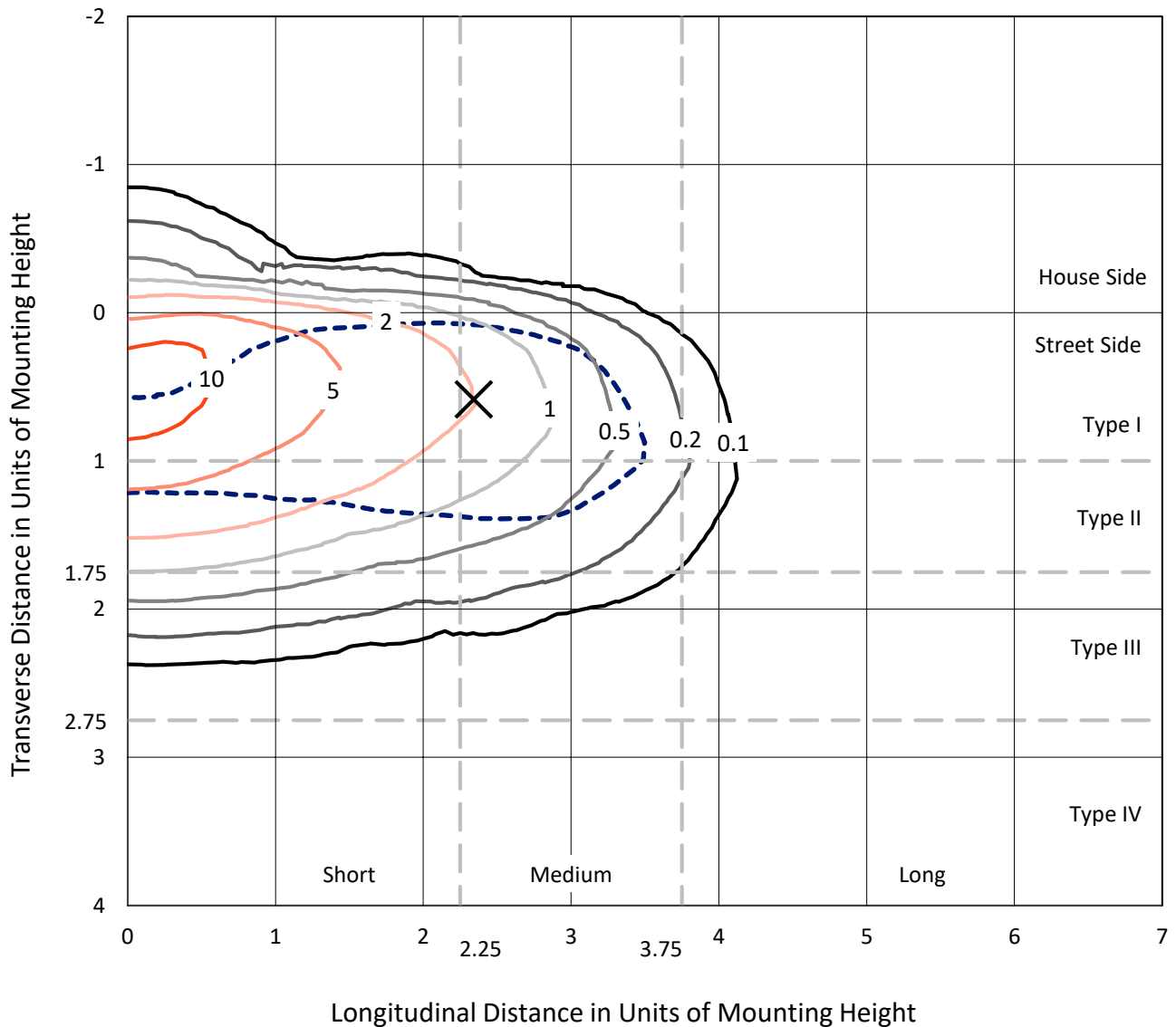
Input Watts (W): 258
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

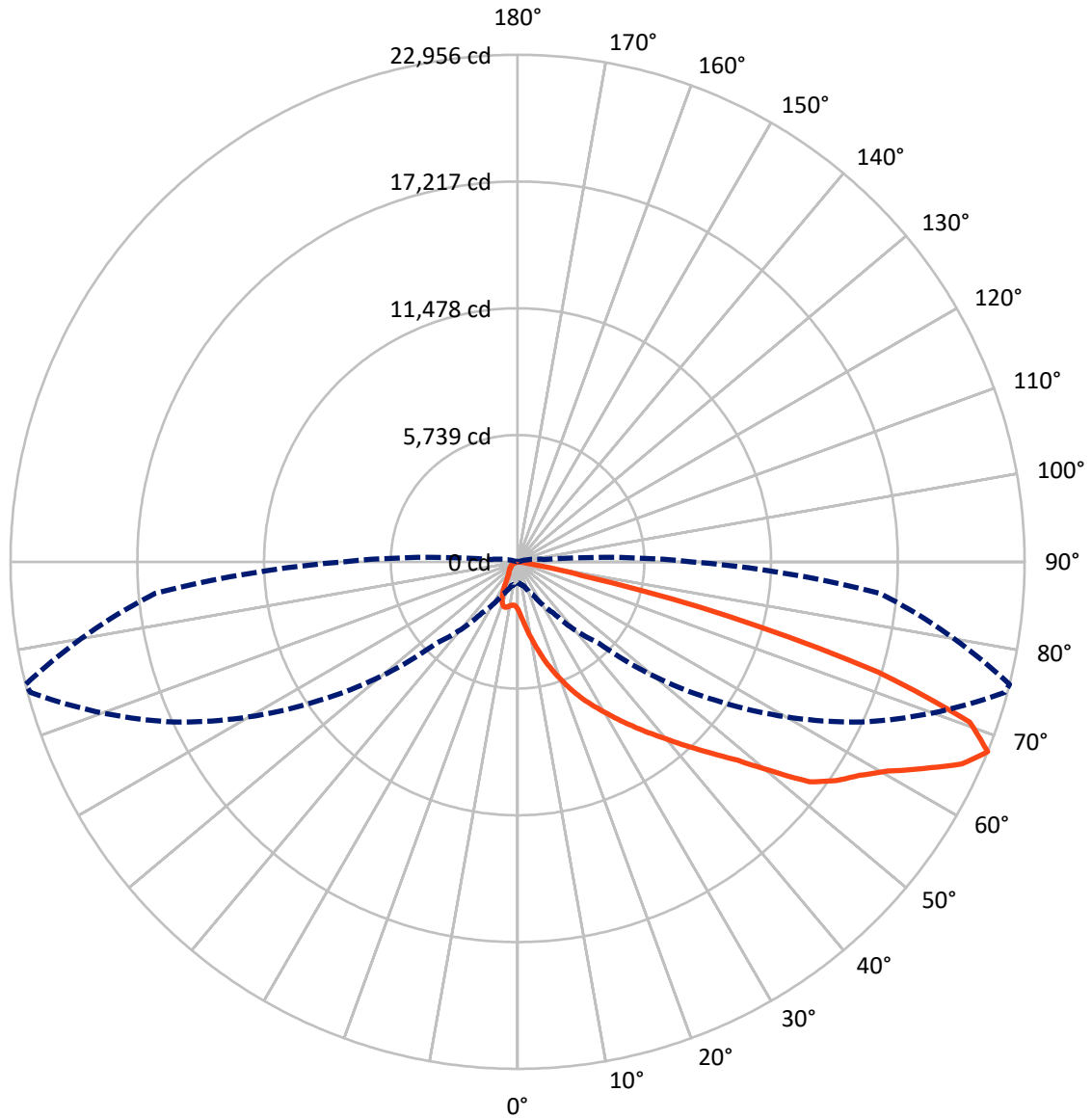
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 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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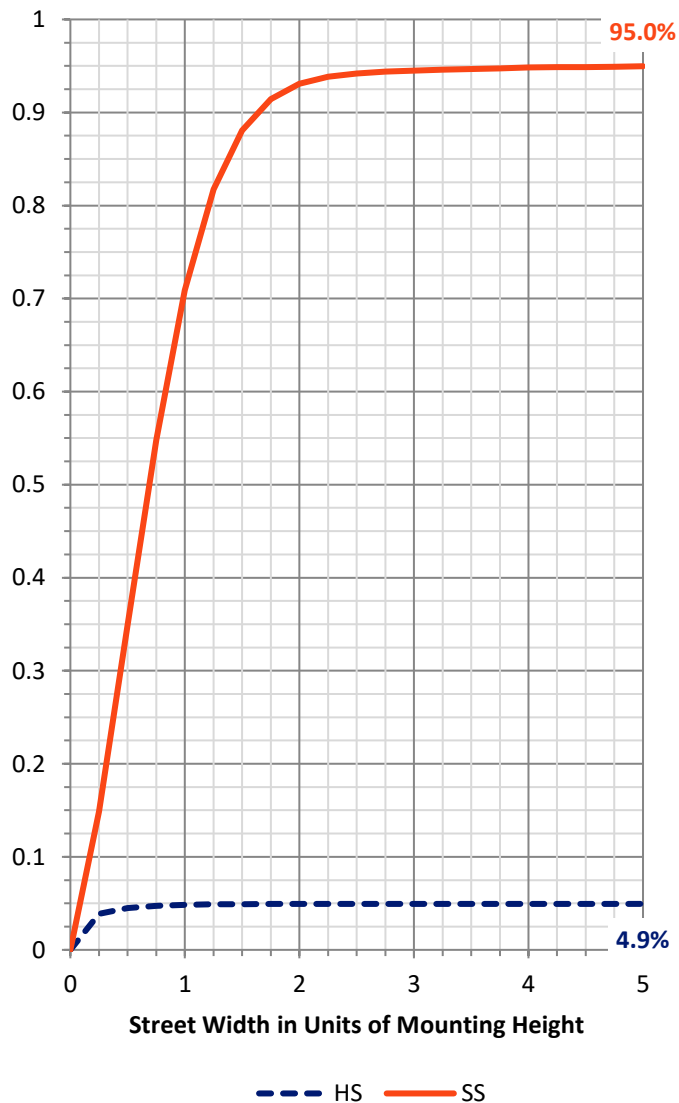
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1254.6 | 0.0 | 1254.6 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 24010.4 | 0.0 | 24010.4 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 25265.0 | 0.0 | 25265.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 266.5 | 1.1 |
| 10°-20° | 1056.5 | 4.2 |
| 20°-30° | 2149.5 | 8.5 |
| 30°-40° | 3730.9 | 14.8 |
| 40°-50° | 5271.3 | 20.9 |
| 50°-60° | 5977.9 | 23.7 |
| 60°-70° | 4958.1 | 19.6 |
| 70°-80° | 1796.0 | 7.1 |
| 80°-90° | 58.2 | 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° | 25265.0 | 100.0 |
| 0°-180° | 25265.0 | 100.0 |

Coefficient of Utilization

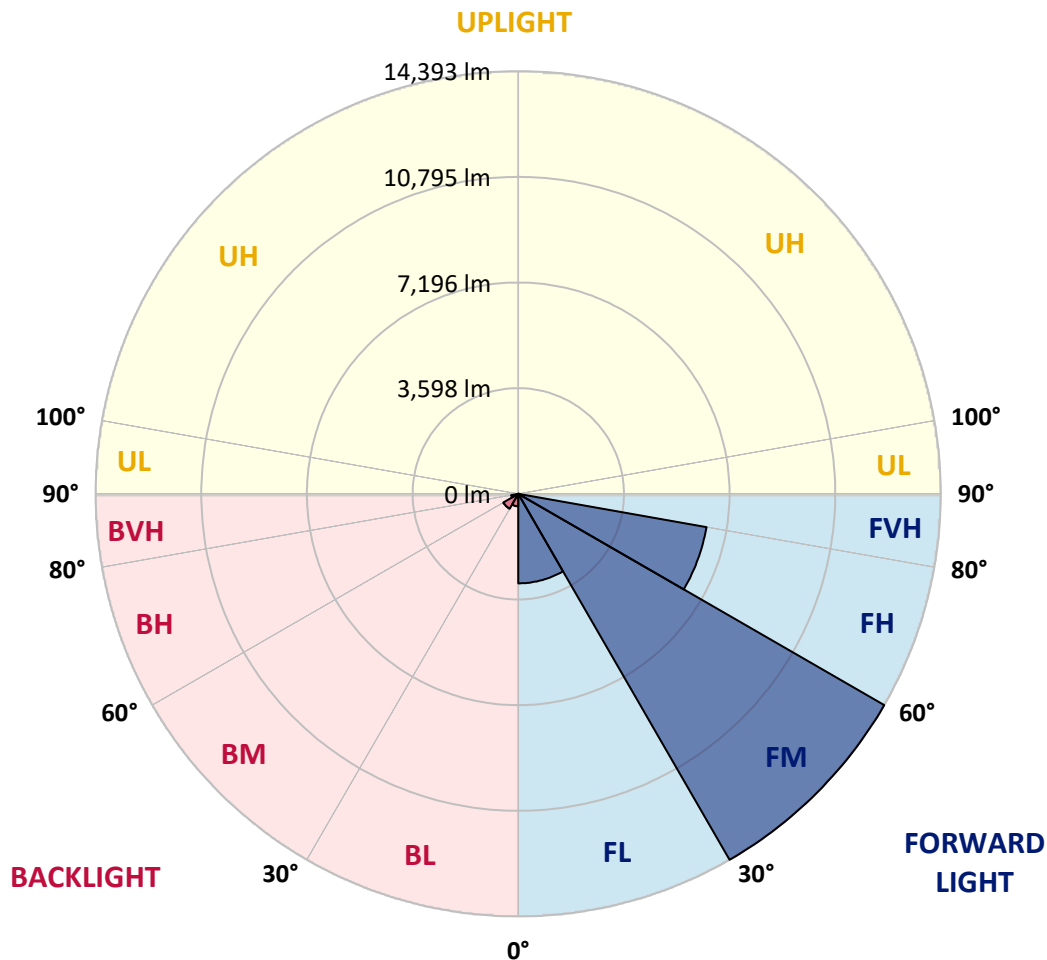


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3049.4 | 12.1 | | | |
| FM (30°-60°) | 14393.0 | 57.0 | | | |
| FH (60°-80°) | 6511.6 | 25.8 | | | G3/7500 |
| FVH (80°-90°) | 56.4 | 0.2 | | | G1/100 |
| BL (0°-30°) | 423.1 | 1.7 | B1/500 | | |
| BM (30°-60°) | 587.2 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 242.5 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.8 | 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 II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 |
| 2.5° | 3199.3 | 3127.4 | 3144.0 | 3097.5 | 3013.3 | 2840.6 | 2693.4 | 2553.9 | 2391.2 | 2385.6 | 2251.7 |
| 5° | 4314.1 | 4253.2 | 4245.4 | 4151.4 | 3998.6 | 3705.2 | 3419.6 | 3094.1 | 2731.0 | 2704.5 | 2420.0 |
| 7.5° | 5325.9 | 5277.2 | 5259.5 | 5147.7 | 4863.2 | 4577.6 | 4205.6 | 3727.4 | 3159.5 | 3110.7 | 2646.9 |
| 10° | 6103.0 | 6079.8 | 6084.2 | 6004.5 | 5761.0 | 5495.3 | 5007.1 | 4397.1 | 3645.4 | 3570.2 | 2919.2 |
| 12.5° | 6692.0 | 6697.5 | 6737.4 | 6688.7 | 6552.5 | 6355.4 | 5834.0 | 5111.1 | 4183.5 | 4080.5 | 3230.3 |
| 15° | 7124.8 | 7152.5 | 7225.6 | 7286.4 | 7276.5 | 7106.0 | 6627.8 | 5836.2 | 4754.7 | 4640.7 | 3576.8 |
| 17.5° | 7404.9 | 7435.9 | 7542.2 | 7677.2 | 7801.2 | 7761.4 | 7393.8 | 6535.9 | 5332.5 | 5200.8 | 3947.7 |
| 20° | 7650.7 | 7687.2 | 7801.2 | 7979.4 | 8210.8 | 8260.6 | 8019.3 | 7214.5 | 5909.3 | 5748.8 | 4330.7 |
| 22.5° | 8183.1 | 8182.0 | 8251.8 | 8355.8 | 8576.1 | 8704.6 | 8551.8 | 7844.4 | 6479.4 | 6312.3 | 4721.5 |
| 25° | 9146.3 | 9109.7 | 9085.4 | 9003.4 | 9052.2 | 9131.9 | 9046.6 | 8433.3 | 7052.9 | 6883.5 | 5117.8 |
| 27.5° | 10290.9 | 10313.1 | 10116.0 | 9895.7 | 9725.2 | 9643.3 | 9503.8 | 8979.1 | 7604.2 | 7418.2 | 5505.2 |
| 30° | 11498.7 | 11505.3 | 11272.9 | 10991.7 | 10616.4 | 10305.3 | 10064.0 | 9500.5 | 8171.0 | 7968.4 | 5881.6 |
| 32.5° | 12588.0 | 12544.8 | 12314.6 | 11931.5 | 11457.7 | 11107.9 | 10606.4 | 10082.8 | 8771.0 | 8575.0 | 6300.1 |
| 35° | 13451.5 | 13400.6 | 13120.5 | 12771.8 | 12280.2 | 11928.2 | 11324.9 | 10664.0 | 9402.0 | 9210.5 | 6719.7 |
| 37.5° | 14082.5 | 14022.7 | 13734.9 | 13376.2 | 12952.2 | 12747.4 | 12158.5 | 11296.1 | 10090.5 | 9884.6 | 7161.4 |
| 40° | 14301.7 | 14249.6 | 14069.2 | 13806.8 | 13465.9 | 13419.4 | 13043.0 | 12023.4 | 10840.0 | 10620.8 | 7661.7 |
| 42.5° | 14171.0 | 14120.1 | 14055.9 | 13967.4 | 13825.7 | 13869.9 | 13877.7 | 12852.6 | 11672.5 | 11456.6 | 8214.1 |
| 45° | 13653.0 | 13607.6 | 13674.0 | 13803.5 | 13979.5 | 14198.7 | 14639.3 | 13743.7 | 12602.4 | 12372.1 | 8852.9 |
| 47.5° | 12890.2 | 12857.0 | 13040.8 | 13364.0 | 13878.8 | 14483.2 | 15335.6 | 14680.3 | 13646.3 | 13432.7 | 9650.0 |
| 50° | 11805.3 | 11799.8 | 12167.3 | 12757.4 | 13548.9 | 14620.5 | 16055.2 | 15745.2 | 15096.5 | 14871.8 | 10758.1 |
| 52.5° | 10116.0 | 10127.1 | 10850.0 | 11794.3 | 12969.9 | 14527.5 | 16517.9 | 17113.5 | 16783.6 | 16550.0 | 11717.9 |
| 55° | 8507.5 | 8573.9 | 9086.5 | 10448.1 | 12082.1 | 14182.1 | 16677.4 | 17752.3 | 17714.6 | 17493.2 | 12251.5 |
| 57.5° | 6932.2 | 7052.9 | 7546.6 | 8818.6 | 10785.8 | 13386.2 | 16589.9 | 18029.0 | 18407.6 | 18238.3 | 12955.5 |
| 60° | 5225.2 | 5280.5 | 5849.5 | 7038.5 | 9121.9 | 11933.7 | 15955.6 | 18179.6 | 19355.3 | 19237.9 | 13977.3 |
| 62.5° | 3324.4 | 3462.8 | 3967.6 | 5114.5 | 7102.7 | 9916.7 | 14886.2 | 18177.4 | 20540.9 | 20605.1 | 15295.8 |
| 65° | 1751.3 | 1912.9 | 2180.8 | 3169.4 | 4880.9 | 7663.9 | 13277.7 | 18006.9 | 21995.5 | 22085.2 | 16326.4 |
| 67.5° | 944.3 | 990.8 | 1132.5 | 1645.0 | 2830.7 | 5192.0 | 10914.2 | 17165.6 | 22838.0 | 22956.4 | 16470.3 |
| 70° | 690.8 | 716.2 | 769.4 | 910.0 | 1424.7 | 3015.5 | 7964.0 | 15258.1 | 21752.0 | 21707.7 | 14633.8 |
| 72.5° | 530.3 | 570.1 | 610.0 | 666.4 | 819.2 | 1609.6 | 4958.4 | 11948.1 | 17356.0 | 17063.7 | 10938.5 |
| 75° | 418.5 | 425.1 | 481.6 | 532.5 | 614.4 | 916.6 | 2201.9 | 6958.8 | 10593.1 | 9901.2 | 5672.4 |
| 77.5° | 334.3 | 338.8 | 372.0 | 416.2 | 493.7 | 602.2 | 681.9 | 2737.7 | 3382.0 | 3017.8 | 1231.0 |
| 80° | 198.2 | 209.2 | 276.8 | 321.0 | 409.6 | 379.7 | 249.1 | 594.5 | 528.1 | 478.2 | 207.0 |
| 82.5° | 110.7 | 119.6 | 156.1 | 253.5 | 285.6 | 181.6 | 124.0 | 160.5 | 124.0 | 120.7 | 58.7 |
| 85° | 0.0 | 5.5 | 100.7 | 157.2 | 116.2 | 39.9 | 52.0 | 53.1 | 36.5 | 34.3 | 23.2 |
| 87.5° | 0.0 | 0.0 | 31.0 | 29.9 | 4.4 | 6.6 | 12.2 | 17.7 | 14.4 | 14.4 | 12.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P321338

CATALOG NUMBER: GAN-SA4D-750-U-T2R-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 | 2143.2 |
| 2.5° | 2185.3 | 2125.5 | 2012.6 | 1901.9 | 1808.9 | 1732.5 | 1663.9 | 1636.2 | 1614.0 | 1610.7 | 1593.0 |
| 5° | 2282.7 | 2162.0 | 1946.2 | 1769.0 | 1650.6 | 1566.4 | 1494.5 | 1450.2 | 1415.9 | 1402.6 | 1390.4 |
| 7.5° | 2429.9 | 2247.3 | 1937.3 | 1733.6 | 1591.9 | 1450.2 | 1317.4 | 1173.4 | 1083.8 | 1049.5 | 1029.5 |
| 10° | 2609.3 | 2360.2 | 1970.5 | 1723.6 | 1475.7 | 1176.8 | 956.5 | 773.8 | 699.6 | 675.3 | 668.6 |
| 12.5° | 2818.5 | 2500.8 | 2028.1 | 1661.6 | 1227.7 | 835.8 | 659.8 | 597.8 | 581.2 | 573.4 | 573.4 |
| 15° | 3058.7 | 2654.7 | 2069.0 | 1482.3 | 907.8 | 632.1 | 571.2 | 542.4 | 524.7 | 514.8 | 515.9 |
| 17.5° | 3304.5 | 2805.2 | 2049.1 | 1222.2 | 669.8 | 562.4 | 517.0 | 486.0 | 461.6 | 451.7 | 449.5 |
| 20° | 3552.4 | 2944.7 | 1938.4 | 910.0 | 566.8 | 510.3 | 459.4 | 425.1 | 400.7 | 390.8 | 388.6 |
| 22.5° | 3809.3 | 3063.1 | 1743.6 | 667.5 | 509.2 | 452.8 | 403.0 | 368.6 | 345.4 | 336.5 | 332.1 |
| 25° | 4059.5 | 3159.5 | 1471.2 | 540.2 | 455.0 | 398.5 | 350.9 | 318.8 | 297.8 | 288.9 | 287.8 |
| 27.5° | 4293.0 | 3220.3 | 1155.7 | 477.1 | 407.4 | 349.8 | 306.6 | 277.9 | 260.2 | 253.5 | 252.4 |
| 30° | 4503.4 | 3225.9 | 854.6 | 430.6 | 365.3 | 307.8 | 267.9 | 242.4 | 226.9 | 220.3 | 218.1 |
| 32.5° | 4715.9 | 3179.4 | 622.1 | 388.6 | 326.6 | 271.2 | 232.5 | 212.5 | 201.5 | 195.9 | 195.9 |
| 35° | 4916.3 | 3072.0 | 484.9 | 352.0 | 288.9 | 235.8 | 204.8 | 190.4 | 183.8 | 178.2 | 178.2 |
| 37.5° | 5112.2 | 2918.1 | 411.8 | 319.9 | 253.5 | 205.9 | 180.4 | 171.6 | 166.1 | 160.5 | 160.5 |
| 40° | 5311.5 | 2724.4 | 374.2 | 290.0 | 224.7 | 182.7 | 160.5 | 152.8 | 147.2 | 142.8 | 141.7 |
| 42.5° | 5556.2 | 2500.8 | 349.8 | 262.4 | 199.3 | 161.6 | 141.7 | 132.8 | 128.4 | 124.0 | 121.8 |
| 45° | 5839.6 | 2308.2 | 329.9 | 234.7 | 178.2 | 143.9 | 122.9 | 114.0 | 107.4 | 101.8 | 100.7 |
| 47.5° | 6248.1 | 2168.7 | 303.3 | 204.8 | 158.3 | 125.1 | 106.3 | 96.3 | 86.3 | 80.8 | 79.7 |
| 50° | 6769.5 | 2053.5 | 269.0 | 178.2 | 138.4 | 106.3 | 88.6 | 76.4 | 67.5 | 62.0 | 62.0 |
| 52.5° | 7028.5 | 1903.0 | 238.0 | 155.0 | 116.2 | 89.7 | 72.0 | 57.6 | 53.1 | 47.6 | 47.6 |
| 55° | 7132.6 | 1787.8 | 207.0 | 131.7 | 96.3 | 74.2 | 56.5 | 44.3 | 41.0 | 37.6 | 36.5 |
| 57.5° | 7424.8 | 1754.6 | 180.4 | 111.8 | 79.7 | 58.7 | 43.2 | 33.2 | 31.0 | 26.6 | 26.6 |
| 60° | 7895.3 | 1771.2 | 156.1 | 95.2 | 64.2 | 45.4 | 32.1 | 25.5 | 23.2 | 18.8 | 18.8 |
| 62.5° | 8403.4 | 1750.2 | 131.7 | 81.9 | 49.8 | 33.2 | 22.1 | 18.8 | 18.8 | 11.1 | 10.0 |
| 65° | 8500.9 | 1558.7 | 112.9 | 67.5 | 38.7 | 24.4 | 14.4 | 12.2 | 16.6 | 2.2 | 0.0 |
| 67.5° | 7889.8 | 1208.9 | 97.4 | 52.0 | 28.8 | 18.8 | 11.1 | 5.5 | 14.4 | 0.0 | 0.0 |
| 70° | 6308.9 | 768.3 | 78.6 | 37.6 | 22.1 | 15.5 | 8.9 | 2.2 | 11.1 | 0.0 | 0.0 |
| 72.5° | 4461.3 | 446.1 | 62.0 | 26.6 | 18.8 | 12.2 | 6.6 | 0.0 | 6.6 | 0.0 | 0.0 |
| 75° | 2256.1 | 238.0 | 38.7 | 19.9 | 14.4 | 8.9 | 4.4 | 0.0 | 1.1 | 0.0 | 0.0 |
| 77.5° | 488.2 | 110.7 | 24.4 | 14.4 | 10.0 | 5.5 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 106.3 | 48.7 | 15.5 | 8.9 | 5.5 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 38.7 | 25.5 | 7.7 | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 21.0 | 13.3 | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 11.1 | 4.4 | 1.1 | 1.1 | 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)