

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: P318217

Luminaire Tested: **GAN-SA3D-827-U-T2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P318217  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: GAN-SA3D-827-U-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17088 lumens  
Efficiency: N/A  
Efficacy: 89.5 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium  
BUG Rating: B2 - U0 - G3

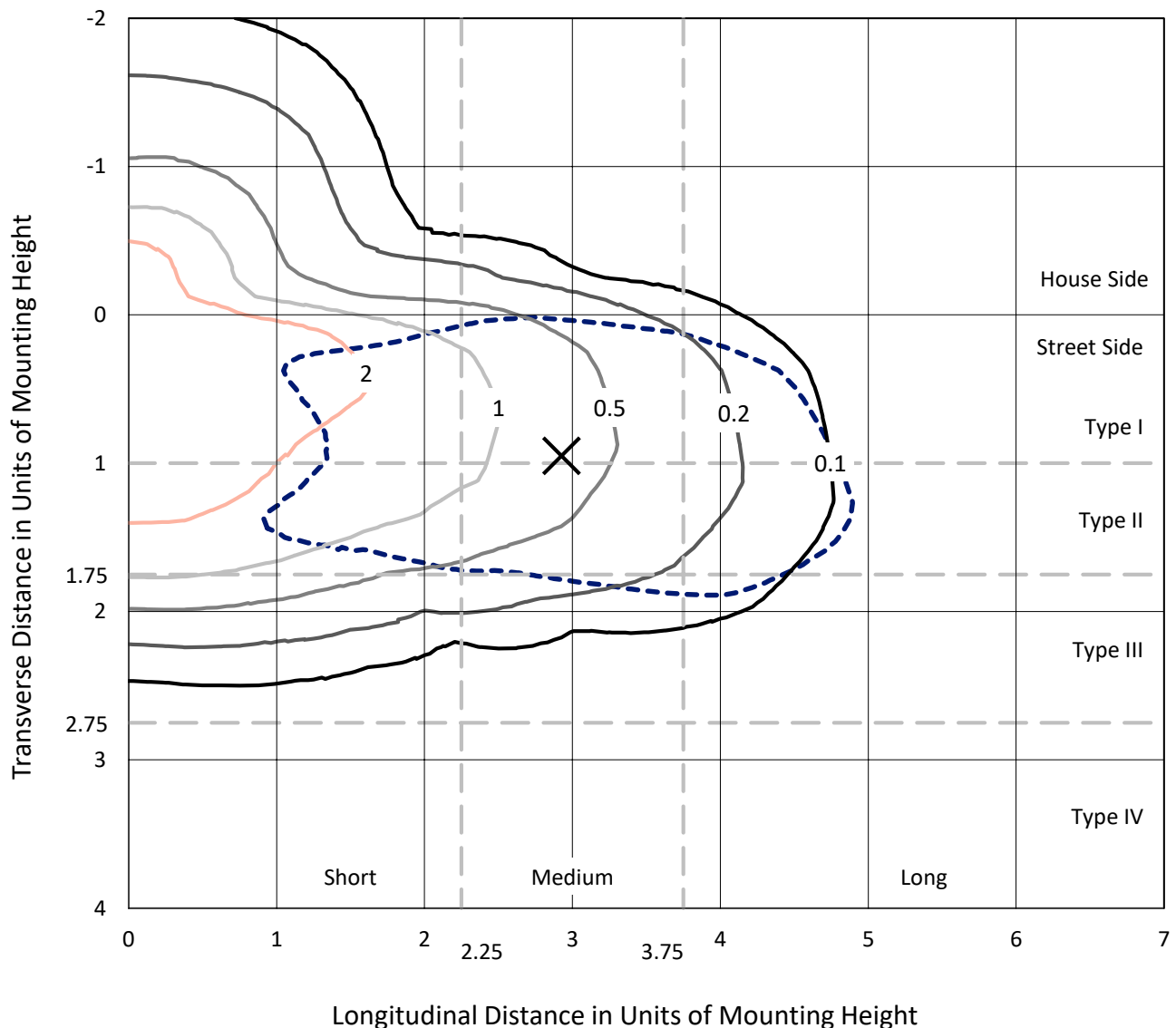
Input Watts (W): 191  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P318217  
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## Iso-Footcandle Lines of Horizontal Illumination

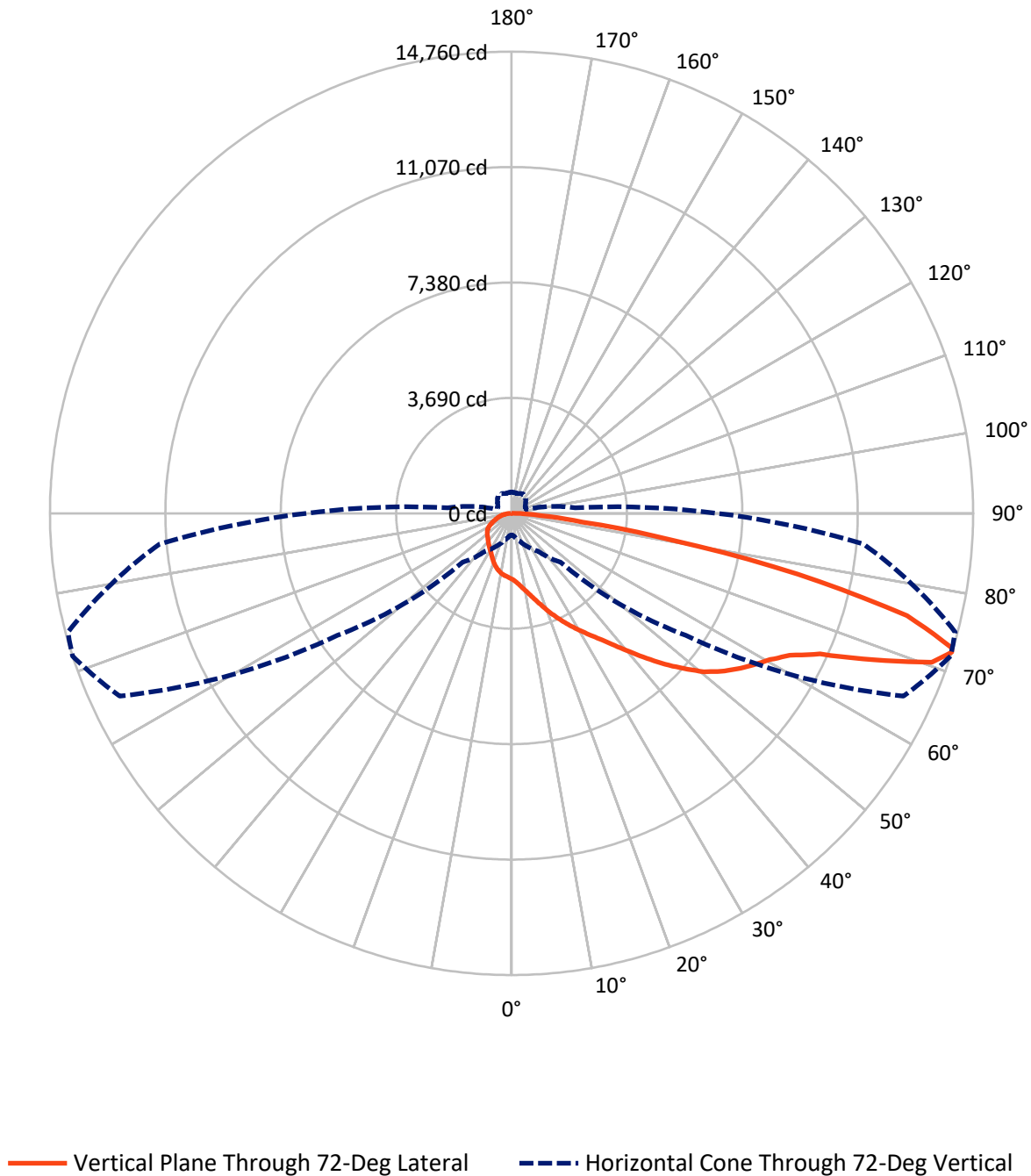
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.6 fc  
 Type III - Medium - N/A

REPORT NUMBER: P318217  
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## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3169.9   | 0.0    | 3169.9  |
|                    | % Fixture | 18.6     | 0.0    | 18.6    |
| <b>Street Side</b> | Lumens    | 13918.1  | 0.0    | 13918.1 |
|                    | % Fixture | 81.4     | 0.0    | 81.4    |
| <b>Total</b>       | Lumens    | 17088.0  | 0.0    | 17088.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 210.7   | 1.2       |
| 10°-20°   | 680.7   | 4.0       |
| 20°-30°   | 1192.9  | 7.0       |
| 30°-40°   | 1768.6  | 10.4      |
| 40°-50°   | 2586.8  | 15.1      |
| 50°-60°   | 3559.4  | 20.8      |
| 60°-70°   | 3962.6  | 23.2      |
| 70°-80°   | 2685.1  | 15.7      |
| 80°-90°   | 441.3   | 2.6       |
| 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°    | 17088.0 | 100.0     |
| 0°-180°   | 17088.0 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P318217

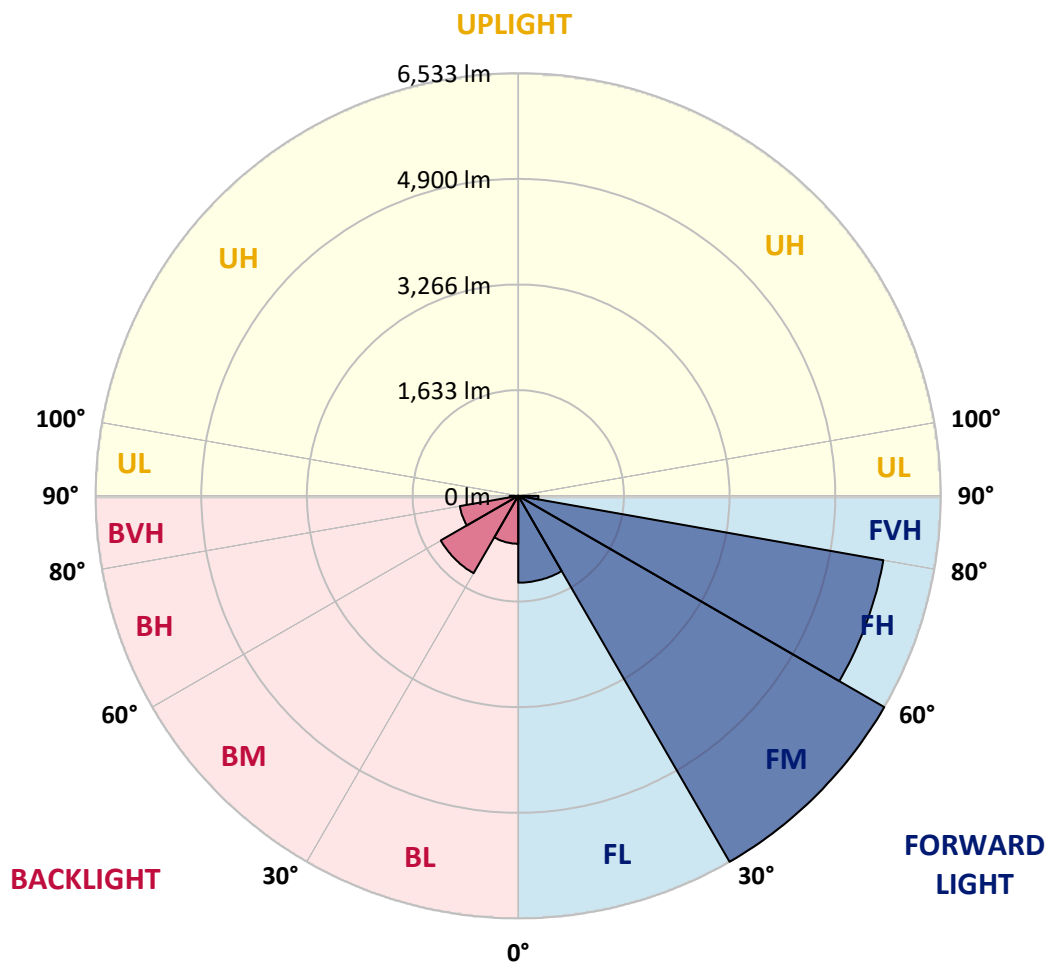
CATALOG NUMBER: GAN-SA3D-827-U-T2

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1343.2 | 7.9       |                         |      |         |
| FM   | (30°-60°)   | 6533.0 | 38.2      |                         |      |         |
| FH   | (60°-80°)   | 5730.6 | 33.5      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 311.3  | 1.8       |                         |      | G3/500  |
| BL   | (0°-30°)    | 741.0  | 4.3       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1381.8 | 8.1       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 917.1  | 5.4       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 130.0  | 0.8       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G3**

Type III Medium





REPORT NUMBER: P318217

CATALOG NUMBER: GAN-SA3D-827-U-T2

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°     | 65°     | 72°     | 75°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3  | 2102.3  | 2102.3  | 2102.3  | 2102.3  |
| 2.5°  | 2322.3 | 2318.8 | 2306.4 | 2306.4 | 2282.9 | 2262.9 | 2225.2  | 2199.9  | 2169.9  | 2159.3  | 2124.0  |
| 5°    | 2547.1 | 2548.3 | 2533.0 | 2522.4 | 2487.7 | 2445.3 | 2381.2  | 2322.9  | 2264.7  | 2241.1  | 2168.8  |
| 7.5°  | 2736.0 | 2733.6 | 2729.5 | 2720.7 | 2688.3 | 2644.8 | 2558.3  | 2471.8  | 2385.9  | 2350.6  | 2225.8  |
| 10°   | 2857.2 | 2862.5 | 2866.0 | 2870.1 | 2856.6 | 2825.4 | 2743.6  | 2638.3  | 2525.9  | 2477.7  | 2294.1  |
| 12.5° | 2918.3 | 2927.8 | 2944.2 | 2972.5 | 2994.8 | 2991.3 | 2931.9  | 2820.1  | 2686.5  | 2625.9  | 2379.4  |
| 15°   | 2954.2 | 2966.6 | 2992.5 | 3043.1 | 3106.0 | 3141.9 | 3126.0  | 3024.8  | 2876.0  | 2801.3  | 2483.5  |
| 17.5° | 2976.6 | 2986.6 | 3026.6 | 3094.3 | 3187.8 | 3283.1 | 3324.9  | 3240.2  | 3090.2  | 3004.8  | 2603.0  |
| 20°   | 2991.9 | 2999.5 | 3049.6 | 3129.0 | 3250.2 | 3402.0 | 3518.5  | 3497.3  | 3326.1  | 3215.5  | 2727.7  |
| 22.5° | 3026.0 | 3032.5 | 3080.2 | 3160.2 | 3294.3 | 3490.3 | 3705.0  | 3736.8  | 3575.0  | 3449.7  | 2861.3  |
| 25°   | 3121.3 | 3121.3 | 3161.3 | 3217.2 | 3343.2 | 3566.7 | 3862.7  | 4003.3  | 3829.2  | 3683.2  | 2984.8  |
| 27.5° | 3303.1 | 3301.4 | 3316.1 | 3335.5 | 3430.8 | 3644.4 | 4003.3  | 4238.7  | 4092.7  | 3933.3  | 3104.9  |
| 30°   | 3518.5 | 3530.3 | 3532.0 | 3522.6 | 3567.3 | 3741.5 | 4133.3  | 4487.0  | 4358.1  | 4186.3  | 3227.8  |
| 32.5° | 3795.6 | 3803.3 | 3794.4 | 3763.3 | 3756.8 | 3879.2 | 4261.0  | 4747.0  | 4645.2  | 4450.5  | 3340.2  |
| 35°   | 4147.5 | 4132.8 | 4105.1 | 4041.6 | 3981.0 | 4063.3 | 4406.9  | 5007.1  | 4967.7  | 4770.0  | 3495.0  |
| 37.5° | 4524.6 | 4525.2 | 4491.1 | 4346.9 | 4263.4 | 4298.7 | 4608.2  | 5301.9  | 5357.8  | 5150.1  | 3693.2  |
| 40°   | 4827.0 | 4842.9 | 4864.1 | 4674.7 | 4566.4 | 4615.2 | 4864.1  | 5643.7  | 5819.0  | 5600.8  | 3951.5  |
| 42.5° | 5038.3 | 5056.5 | 5116.5 | 4997.7 | 4885.3 | 4975.9 | 5165.4  | 6008.5  | 6336.8  | 6120.9  | 4254.0  |
| 45°   | 5261.9 | 5271.9 | 5314.2 | 5263.0 | 5191.2 | 5395.4 | 5504.9  | 6386.2  | 6884.6  | 6675.1  | 4592.3  |
| 47.5° | 5497.2 | 5507.8 | 5551.3 | 5517.2 | 5479.6 | 5787.3 | 5859.1  | 6742.2  | 7409.4  | 7284.1  | 4953.5  |
| 50°   | 5787.9 | 5794.9 | 5836.1 | 5774.3 | 5786.1 | 6082.6 | 6175.6  | 7068.8  | 7959.6  | 7831.3  | 5316.0  |
| 52.5° | 6184.4 | 6186.2 | 6243.3 | 6187.4 | 6132.1 | 6299.2 | 6448.0  | 7376.5  | 8390.8  | 8330.2  | 5678.4  |
| 55°   | 6495.1 | 6513.9 | 6701.0 | 6689.3 | 6657.5 | 6495.7 | 6675.7  | 7669.5  | 8775.6  | 8804.5  | 6063.2  |
| 57.5° | 6296.8 | 6370.4 | 6749.3 | 7016.4 | 7276.5 | 6984.6 | 6983.4  | 7999.6  | 9133.4  | 9269.9  | 6486.3  |
| 60°   | 5514.9 | 5614.9 | 6173.2 | 6765.7 | 7579.5 | 7835.4 | 7622.4  | 8402.6  | 9494.6  | 9731.2  | 7016.4  |
| 62.5° | 3938.6 | 4103.3 | 4860.0 | 5806.1 | 7164.1 | 8399.1 | 8922.7  | 9042.2  | 9985.9  | 10265.4 | 7705.4  |
| 65°   | 1991.1 | 2115.8 | 2750.1 | 3889.8 | 5723.7 | 8030.8 | 10336.0 | 10442.5 | 10839.7 | 11088.0 | 8766.2  |
| 67.5° | 1209.7 | 1256.8 | 1566.3 | 2163.5 | 3509.1 | 6255.6 | 10797.3 | 12776.6 | 12491.8 | 12623.6 | 10278.9 |
| 70°   | 891.4  | 926.1  | 1119.1 | 1436.8 | 2018.1 | 3670.9 | 9381.7  | 14442.3 | 14255.2 | 14240.5 | 11396.9 |
| 72°   | 694.3  | 719.6  | 890.2  | 1160.9 | 1475.6 | 2202.3 | 6799.9  | 13827.4 | 14760.0 | 14685.9 | 11294.5 |
| 72.5° | 658.4  | 680.8  | 836.1  | 1092.6 | 1394.5 | 1996.4 | 6113.8  | 13412.6 | 14723.5 | 14690.0 | 11162.1 |
| 75°   | 518.4  | 534.2  | 619.0  | 844.9  | 1091.4 | 1132.6 | 3350.2  | 10394.3 | 13061.4 | 13604.4 | 10039.5 |
| 77.5° | 428.9  | 431.3  | 476.0  | 614.9  | 850.8  | 800.8  | 1645.7  | 7211.7  | 9352.8  | 9950.0  | 7111.7  |
| 80°   | 349.5  | 352.4  | 373.6  | 431.3  | 643.7  | 592.5  | 781.4   | 4146.9  | 5236.6  | 5243.0  | 3382.0  |
| 82.5° | 278.3  | 278.9  | 302.4  | 315.4  | 462.5  | 423.6  | 447.8   | 1946.9  | 2288.2  | 2201.1  | 1215.6  |
| 85°   | 195.9  | 191.8  | 295.4  | 258.9  | 302.4  | 271.8  | 247.1   | 770.8   | 946.1   | 904.9   | 380.7   |
| 87.5° | 65.3   | 67.7   | 131.2  | 167.7  | 176.5  | 154.2  | 110.0   | 295.4   | 357.1   | 354.2   | 120.6   |
| 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: P318217

CATALOG NUMBER: GAN-SA3D-827-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 | 2102.3 |
| 2.5°  | 2112.9 | 2094.0 | 2066.4 | 2035.8 | 2011.7 | 1986.9 | 1968.7 | 1959.3 | 1948.7 | 1939.9 | 1950.5 |
| 5°    | 2135.2 | 2099.9 | 2041.1 | 1983.4 | 1941.1 | 1903.4 | 1876.3 | 1862.2 | 1849.3 | 1840.4 | 1841.6 |
| 7.5°  | 2171.7 | 2114.6 | 2015.8 | 1931.6 | 1872.8 | 1832.2 | 1804.6 | 1795.1 | 1786.9 | 1784.5 | 1787.5 |
| 10°   | 2210.5 | 2126.4 | 1982.2 | 1870.4 | 1803.4 | 1769.8 | 1757.5 | 1764.0 | 1769.8 | 1775.1 | 1781.0 |
| 12.5° | 2254.7 | 2137.0 | 1933.4 | 1798.7 | 1741.6 | 1728.7 | 1741.0 | 1769.2 | 1789.8 | 1802.2 | 1809.8 |
| 15°   | 2312.3 | 2146.4 | 1876.9 | 1726.9 | 1688.6 | 1703.4 | 1745.1 | 1794.0 | 1829.9 | 1852.8 | 1856.3 |
| 17.5° | 2365.3 | 2145.8 | 1804.6 | 1654.5 | 1645.7 | 1688.6 | 1751.6 | 1820.4 | 1868.7 | 1901.0 | 1907.5 |
| 20°   | 2420.0 | 2129.9 | 1720.4 | 1583.9 | 1602.1 | 1672.8 | 1754.5 | 1837.5 | 1895.7 | 1933.4 | 1942.2 |
| 22.5° | 2471.2 | 2102.3 | 1628.0 | 1519.8 | 1565.7 | 1651.6 | 1743.4 | 1827.5 | 1885.7 | 1916.3 | 1925.8 |
| 25°   | 2505.9 | 2054.0 | 1534.5 | 1465.6 | 1533.3 | 1625.7 | 1706.9 | 1774.5 | 1818.1 | 1833.4 | 1835.7 |
| 27.5° | 2523.5 | 1991.1 | 1446.2 | 1418.6 | 1499.8 | 1583.3 | 1639.2 | 1672.8 | 1685.1 | 1683.9 | 1681.6 |
| 30°   | 2525.9 | 1908.1 | 1370.3 | 1380.3 | 1460.9 | 1521.0 | 1547.4 | 1541.0 | 1525.1 | 1498.0 | 1500.4 |
| 32.5° | 2518.3 | 1814.6 | 1306.8 | 1343.9 | 1411.5 | 1445.1 | 1446.2 | 1415.0 | 1372.7 | 1329.7 | 1318.0 |
| 35°   | 2520.6 | 1722.8 | 1250.9 | 1302.7 | 1351.5 | 1366.2 | 1352.7 | 1306.8 | 1249.1 | 1193.8 | 1182.0 |
| 37.5° | 2546.5 | 1642.7 | 1202.6 | 1255.0 | 1285.0 | 1288.5 | 1269.1 | 1220.9 | 1178.5 | 1124.4 | 1119.7 |
| 40°   | 2608.3 | 1585.7 | 1156.7 | 1201.5 | 1218.5 | 1220.3 | 1192.6 | 1158.5 | 1162.0 | 1133.2 | 1132.6 |
| 42.5° | 2719.5 | 1561.0 | 1116.2 | 1145.6 | 1156.2 | 1159.7 | 1138.5 | 1116.7 | 1147.3 | 1128.5 | 1122.0 |
| 45°   | 2863.0 | 1566.8 | 1082.0 | 1090.9 | 1110.3 | 1126.7 | 1113.8 | 1087.3 | 1099.1 | 1017.3 | 990.2  |
| 47.5° | 3029.0 | 1604.5 | 1055.0 | 1043.8 | 1077.3 | 1108.5 | 1088.5 | 1048.5 | 1006.7 | 925.5  | 910.2  |
| 50°   | 3223.1 | 1662.8 | 1030.2 | 997.3  | 1041.4 | 1083.8 | 1063.8 | 1006.7 | 943.8  | 904.3  | 899.0  |
| 52.5° | 3425.5 | 1733.9 | 1005.5 | 946.1  | 996.1  | 1065.0 | 1055.0 | 997.3  | 919.6  | 880.8  | 873.7  |
| 55°   | 3655.0 | 1805.7 | 974.4  | 886.7  | 947.3  | 1056.1 | 1050.8 | 963.2  | 901.4  | 879.6  | 874.3  |
| 57.5° | 3940.4 | 1887.5 | 933.2  | 824.9  | 901.4  | 1024.4 | 1007.9 | 942.6  | 882.6  | 866.1  | 864.3  |
| 60°   | 4312.2 | 2008.1 | 873.7  | 759.0  | 845.5  | 975.5  | 972.0  | 912.6  | 852.6  | 840.8  | 838.4  |
| 62.5° | 4870.0 | 2207.6 | 792.0  | 693.1  | 783.1  | 892.6  | 924.9  | 872.0  | 820.8  | 820.2  | 821.4  |
| 65°   | 5734.9 | 2507.7 | 703.1  | 635.4  | 720.2  | 822.6  | 870.2  | 830.2  | 788.4  | 800.2  | 802.0  |
| 67.5° | 6737.5 | 2756.5 | 616.0  | 579.0  | 656.0  | 756.1  | 820.8  | 788.4  | 745.5  | 776.1  | 776.7  |
| 70°   | 7071.1 | 2534.1 | 539.5  | 523.1  | 589.6  | 691.9  | 767.2  | 742.5  | 699.0  | 729.6  | 726.6  |
| 72°   | 6580.4 | 2045.8 | 490.1  | 480.7  | 539.5  | 639.0  | 719.6  | 699.6  | 656.6  | 677.2  | 669.6  |
| 72.5° | 6425.7 | 1950.5 | 477.8  | 470.1  | 526.0  | 625.4  | 707.2  | 689.0  | 646.0  | 663.7  | 656.6  |
| 75°   | 5732.0 | 1693.9 | 410.7  | 412.5  | 458.9  | 559.5  | 637.8  | 631.9  | 587.8  | 589.6  | 587.2  |
| 77.5° | 4157.5 | 1242.1 | 346.0  | 357.7  | 390.7  | 491.9  | 567.8  | 564.3  | 516.0  | 507.2  | 505.4  |
| 80°   | 1929.3 | 633.7  | 281.8  | 287.1  | 321.3  | 411.3  | 484.2  | 479.5  | 440.7  | 429.5  | 423.0  |
| 82.5° | 660.7  | 301.2  | 211.8  | 215.3  | 248.9  | 331.3  | 420.1  | 417.2  | 384.8  | 363.0  | 349.5  |
| 85°   | 235.9  | 150.0  | 148.3  | 144.7  | 177.7  | 260.7  | 366.0  | 350.1  | 302.4  | 257.7  | 256.5  |
| 87.5° | 76.5   | 64.1   | 76.5   | 75.9   | 103.6  | 176.5  | 265.9  | 226.5  | 219.5  | 182.4  | 178.9  |
| 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)