

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: McGRAW-EDISON

Report Number: P456625

Luminaire Tested: **GALN-SA7D-827-U-T4FT**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P456625  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA7D-827-U-T4FT  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(7) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 39522 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

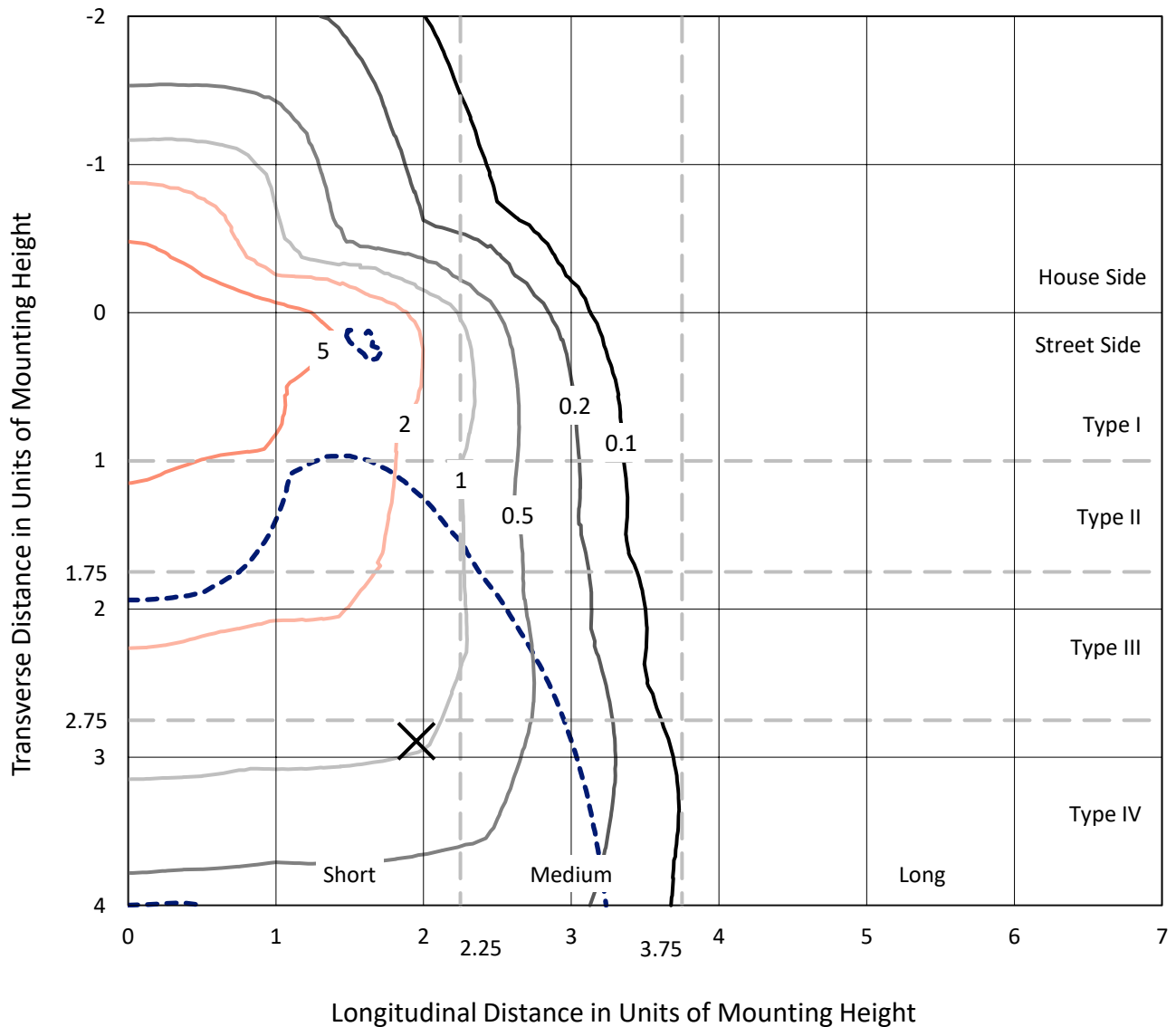
Input Watts (W): 433  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

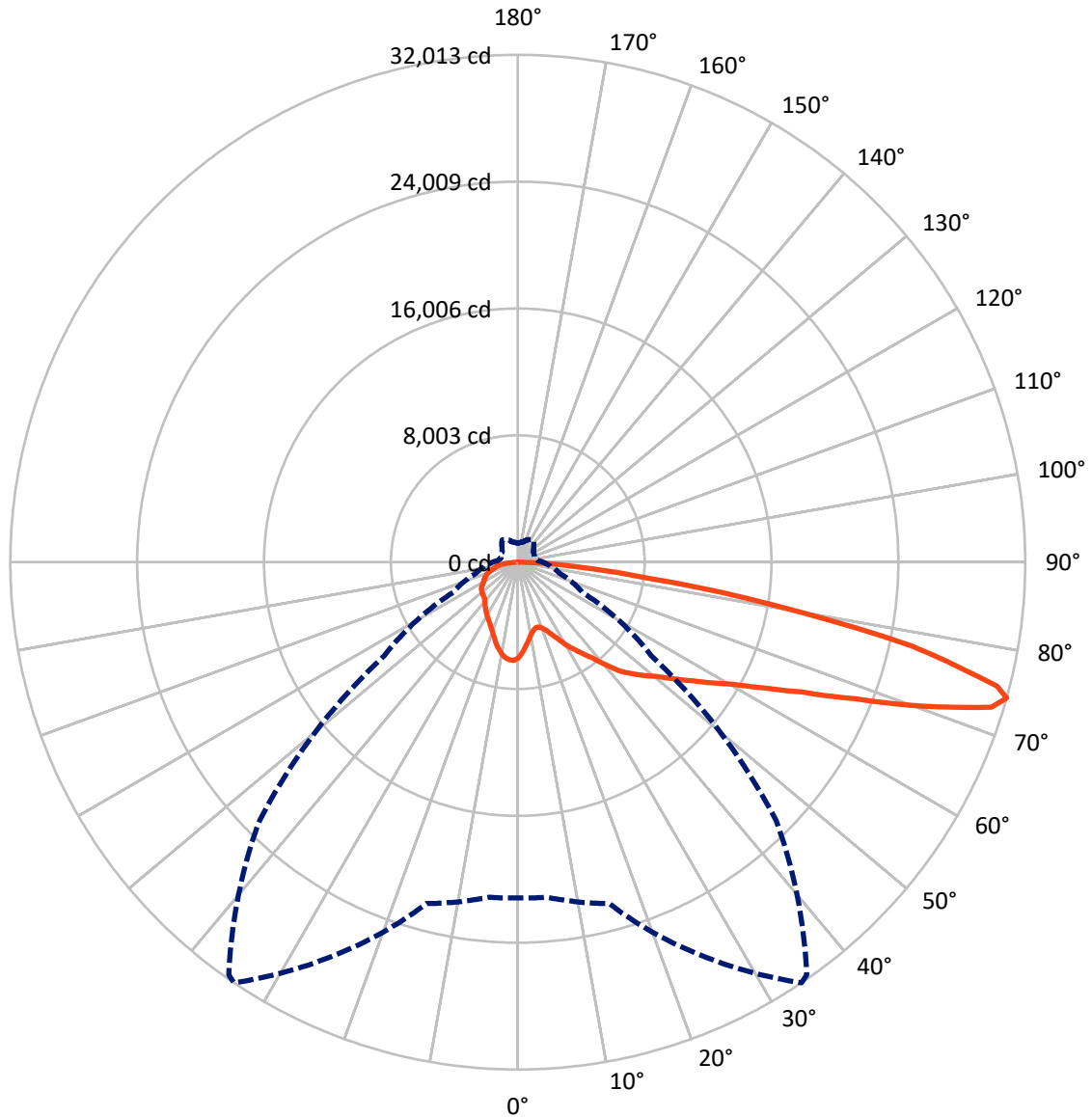
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.7 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral    - - - Horizontal Cone Through 74-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8410.6   | 0.0    | 8410.6  |
|                    | % Fixture | 21.3     | 0.0    | 21.3    |
| <b>Street Side</b> | Lumens    | 31111.4  | 0.0    | 31111.4 |
|                    | % Fixture | 78.7     | 0.0    | 78.7    |
| <b>Total</b>       | Lumens    | 39522.0  | 0.0    | 39522.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 548.8   | 1.4       |
| 10°-20°   | 1502.3  | 3.8       |
| 20°-30°   | 2476.9  | 6.3       |
| 30°-40°   | 3710.1  | 9.4       |
| 40°-50°   | 5393.4  | 13.6      |
| 50°-60°   | 7533.3  | 19.1      |
| 60°-70°   | 9431.3  | 23.9      |
| 70°-80°   | 7799.0  | 19.7      |
| 80°-90°   | 1126.9  | 2.9       |
| 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°    | 39522.0 | 100.0     |
| 0°-180°   | 39522.0 | 100.0     |

**Coefficient of Utilization**



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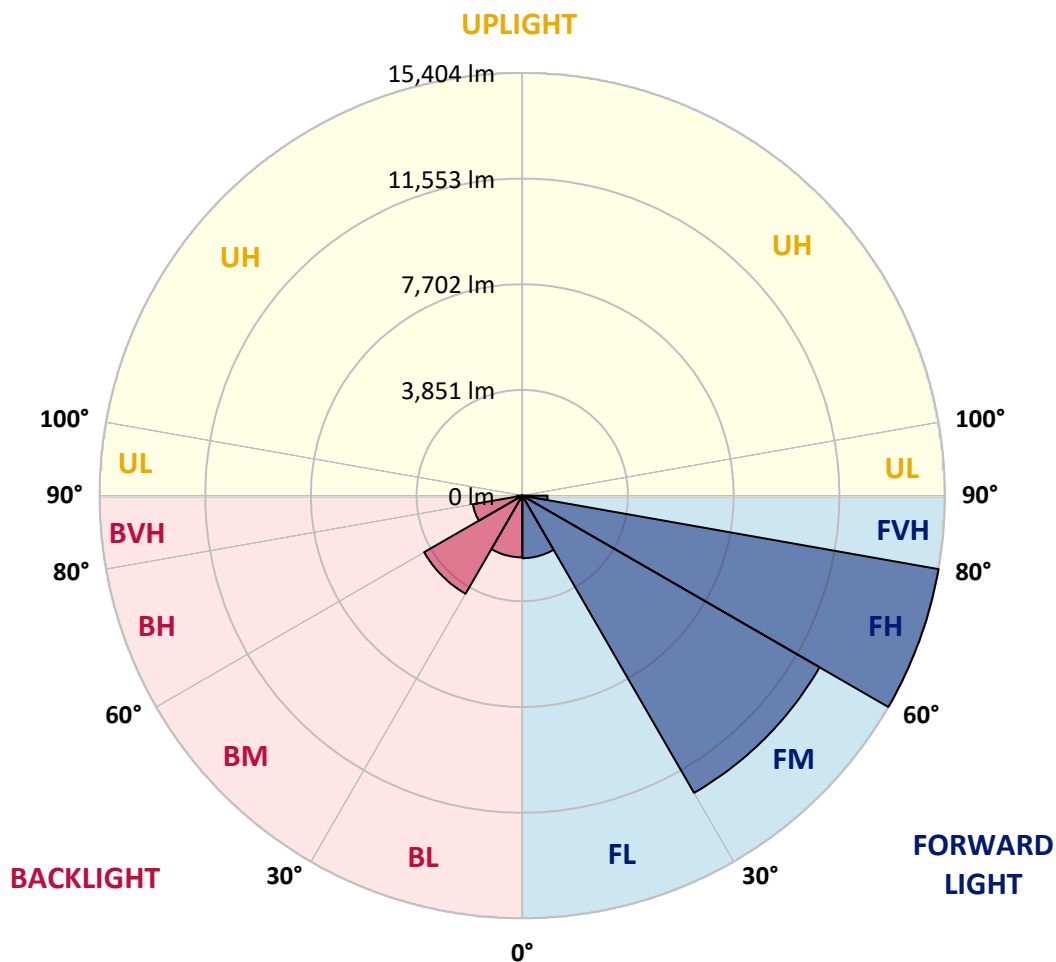
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2278.3  | 5.8       |                         |      |         |
| FM   | (30°-60°)   | 12506.4 | 31.6      |                         |      |         |
| FH   | (60°-80°)   | 15403.6 | 39.0      |                         |      | G5      |
| FVH  | (80°-90°)   | 923.2   | 2.3       |                         |      | G5      |
| BL   | (0°-30°)    | 2249.7  | 5.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 4130.5  | 10.5      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1826.7  | 4.6       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 203.7   | 0.5       |                         |      | G2/225  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 34°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  | 6034.2  |
| 2.5°  | 5576.6  | 5605.1  | 5620.4  | 5675.2  | 5688.3  | 5705.8  | 5751.8  | 5813.1  | 5891.9  | 5962.0  | 6023.3  |
| 5°    | 5112.5  | 5156.2  | 5182.5  | 5230.7  | 5324.8  | 5333.6  | 5456.2  | 5596.3  | 5756.2  | 5905.0  | 6027.7  |
| 7.5°  | 4672.4  | 4720.5  | 4742.4  | 4830.0  | 4954.8  | 4974.5  | 5154.1  | 5375.2  | 5642.3  | 5867.8  | 6056.1  |
| 10°   | 4341.8  | 4365.8  | 4414.0  | 4479.7  | 4628.6  | 4641.7  | 4876.0  | 5171.6  | 5517.5  | 5850.3  | 6104.3  |
| 12.5° | 4162.2  | 4175.4  | 4186.3  | 4256.4  | 4403.1  | 4422.8  | 4668.0  | 5003.0  | 5419.0  | 5863.4  | 6183.1  |
| 15°   | 4188.5  | 4192.9  | 4144.7  | 4157.8  | 4276.1  | 4304.5  | 4547.6  | 4891.3  | 5357.7  | 5896.3  | 6301.3  |
| 17.5° | 4409.6  | 4394.3  | 4276.1  | 4214.8  | 4298.0  | 4311.1  | 4523.5  | 4847.5  | 5329.2  | 5957.6  | 6424.0  |
| 20°   | 4757.8  | 4735.9  | 4532.2  | 4396.5  | 4444.7  | 4455.6  | 4602.3  | 4880.4  | 5357.7  | 6058.3  | 6614.4  |
| 22.5° | 5191.3  | 5182.5  | 4873.8  | 4709.6  | 4707.4  | 4707.4  | 4784.0  | 4998.6  | 5443.1  | 6196.2  | 6813.7  |
| 25°   | 5797.8  | 5751.8  | 5348.9  | 5136.5  | 5077.4  | 5073.0  | 5064.3  | 5193.5  | 5552.5  | 6342.9  | 7050.1  |
| 27.5° | 6419.6  | 6340.8  | 5981.7  | 5655.4  | 5528.5  | 5513.1  | 5456.2  | 5469.3  | 5692.7  | 6509.3  | 7319.5  |
| 30°   | 6977.9  | 6927.5  | 6590.4  | 6229.1  | 6078.0  | 6043.0  | 5885.3  | 5813.1  | 5926.9  | 6809.3  | 7748.6  |
| 32.5° | 7404.8  | 7374.2  | 7111.5  | 6783.0  | 6559.7  | 6553.1  | 6323.2  | 6264.1  | 6292.6  | 7172.8  | 8239.0  |
| 35°   | 7750.8  | 7761.7  | 7628.2  | 7343.5  | 7087.4  | 7050.1  | 6896.9  | 6822.4  | 6739.2  | 7698.2  | 8856.5  |
| 37.5° | 8223.7  | 8247.8  | 8239.0  | 7993.8  | 7680.7  | 7689.5  | 7654.4  | 7531.8  | 7310.7  | 8285.0  | 9541.8  |
| 40°   | 8744.8  | 8762.3  | 8760.1  | 8666.0  | 8501.8  | 8510.5  | 8497.4  | 8357.3  | 8026.7  | 9031.6  | 10303.7 |
| 42.5° | 9465.2  | 9382.0  | 9165.2  | 9259.3  | 9355.7  | 9397.3  | 9487.0  | 9353.5  | 8900.3  | 9828.6  | 11019.7 |
| 45°   | 10270.9 | 10113.2 | 9622.8  | 9666.6  | 10023.5 | 10102.3 | 10597.1 | 10413.2 | 9848.3  | 10743.8 | 11862.6 |
| 47.5° | 10778.8 | 10623.4 | 10209.6 | 10200.8 | 10673.8 | 10750.4 | 11626.2 | 11558.3 | 10711.0 | 11731.3 | 12891.7 |
| 50°   | 11232.1 | 11210.2 | 10743.8 | 10855.5 | 11317.5 | 11431.3 | 12747.2 | 12683.7 | 11571.4 | 12896.1 | 14012.7 |
| 52.5° | 11904.2 | 11726.9 | 11354.7 | 11584.6 | 12195.4 | 12344.3 | 13859.5 | 13673.3 | 12361.8 | 13925.1 | 15100.9 |
| 55°   | 12206.4 | 12164.8 | 12142.9 | 12342.1 | 13180.7 | 13288.0 | 14941.1 | 14514.1 | 13036.2 | 14796.6 | 15928.5 |
| 57.5° | 13014.3 | 12937.7 | 13154.4 | 13290.2 | 14341.1 | 14505.4 | 16070.8 | 15392.1 | 13627.4 | 15488.4 | 16331.4 |
| 60°   | 14060.9 | 14019.3 | 14218.5 | 14463.8 | 15637.3 | 15886.9 | 17358.3 | 16140.9 | 14102.5 | 15836.6 | 16110.2 |
| 62.5° | 15624.2 | 15619.8 | 15582.6 | 16108.1 | 17474.3 | 17704.2 | 18836.2 | 16870.0 | 14176.9 | 15576.0 | 14967.3 |
| 65°   | 17866.2 | 17787.4 | 17463.4 | 18037.0 | 19760.1 | 20029.4 | 20375.4 | 17277.2 | 13728.1 | 14238.2 | 12602.7 |
| 67.5° | 20211.2 | 20206.8 | 19944.0 | 20688.5 | 23042.2 | 23320.2 | 22299.9 | 17187.5 | 12482.3 | 11534.2 | 8950.6  |
| 70°   | 22155.4 | 22061.3 | 22396.3 | 24379.9 | 27235.0 | 27556.9 | 23983.6 | 16130.0 | 9942.5  | 7617.2  | 5318.3  |
| 72.5° | 22621.8 | 22626.2 | 23322.4 | 27226.3 | 31261.5 | 31311.9 | 24590.1 | 13073.4 | 6653.9  | 4201.6  | 2660.2  |
| 74°   | 21185.5 | 21222.7 | 22302.1 | 27368.6 | 32012.5 | 31784.8 | 23040.0 | 10275.3 | 4499.4  | 2743.4  | 1918.0  |
| 75°   | 19337.6 | 19103.3 | 20664.4 | 26420.5 | 31233.0 | 30987.8 | 21224.9 | 8245.6  | 3433.1  | 2191.7  | 1679.3  |
| 77.5° | 10338.8 | 10577.4 | 12985.9 | 19716.3 | 25374.0 | 25091.5 | 14391.5 | 3954.2  | 1854.5  | 1526.1  | 1208.6  |
| 80°   | 3680.5  | 4059.3  | 5705.8  | 10316.9 | 16267.9 | 16355.5 | 6868.4  | 1812.9  | 1304.9  | 1125.4  | 853.9   |
| 82.5° | 1502.0  | 1543.6  | 2450.0  | 4578.2  | 8260.9  | 8339.8  | 2804.7  | 1077.2  | 932.7   | 775.1   | 510.2   |
| 85°   | 586.8   | 604.3   | 1083.8  | 2058.1  | 3525.1  | 3755.0  | 969.9   | 569.3   | 573.6   | 444.5   | 260.5   |
| 87.5° | 197.1   | 223.3   | 444.5   | 685.3   | 1197.6  | 1173.6  | 282.4   | 168.6   | 205.8   | 192.7   | 81.0    |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 6034.2  | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 | 6034.2 |
| 2.5°  | 6053.9  | 6095.5 | 6124.0 | 6154.6 | 6183.1 | 6191.9 | 6185.3 | 6205.0 | 6207.2 | 6209.4 | 6211.6 |
| 5°    | 6089.0  | 6145.9 | 6200.6 | 6231.3 | 6244.4 | 6233.5 | 6196.2 | 6176.5 | 6159.0 | 6145.9 | 6150.3 |
| 7.5°  | 6137.1  | 6218.1 | 6268.5 | 6281.6 | 6246.6 | 6196.2 | 6104.3 | 6032.0 | 5986.1 | 5955.4 | 5953.2 |
| 10°   | 6211.6  | 6290.4 | 6332.0 | 6294.8 | 6198.4 | 6075.8 | 5931.3 | 5795.6 | 5692.7 | 5662.0 | 5659.8 |
| 12.5° | 6305.7  | 6395.5 | 6393.3 | 6283.8 | 6115.2 | 5896.3 | 5662.0 | 5504.4 | 5364.2 | 5294.2 | 5322.6 |
| 15°   | 6428.3  | 6496.2 | 6432.7 | 6235.7 | 5968.5 | 5668.6 | 5379.6 | 5165.0 | 5007.4 | 4932.9 | 4937.3 |
| 17.5° | 6570.7  | 6629.8 | 6461.2 | 6150.3 | 5762.7 | 5377.4 | 5042.4 | 4838.8 | 4714.0 | 4659.2 | 4654.9 |
| 20°   | 6748.0  | 6765.5 | 6461.2 | 6001.4 | 5497.8 | 5038.0 | 4718.3 | 4576.0 | 4506.0 | 4477.5 | 4486.3 |
| 22.5° | 6938.5  | 6903.5 | 6426.1 | 5791.2 | 5149.7 | 4683.3 | 4468.7 | 4405.2 | 4370.2 | 4365.8 | 4370.2 |
| 25°   | 7153.1  | 7054.5 | 6353.9 | 5506.6 | 4786.2 | 4376.8 | 4252.0 | 4262.9 | 4269.5 | 4269.5 | 4284.8 |
| 27.5° | 7415.8  | 7218.7 | 6233.5 | 5147.5 | 4361.5 | 4092.2 | 4057.1 | 4133.8 | 4168.8 | 4175.4 | 4186.3 |
| 30°   | 7761.7  | 7398.3 | 6034.2 | 4698.6 | 4000.2 | 3836.0 | 3897.3 | 4000.2 | 4039.6 | 4063.7 | 4059.3 |
| 32.5° | 8173.4  | 7595.3 | 5764.9 | 4249.8 | 3709.0 | 3656.4 | 3730.9 | 3836.0 | 3879.8 | 3892.9 | 3875.4 |
| 35°   | 8657.2  | 7818.7 | 5410.2 | 3829.4 | 3455.0 | 3485.7 | 3573.2 | 3606.1 | 3645.5 | 3645.5 | 3654.3 |
| 37.5° | 9178.3  | 7998.2 | 4976.7 | 3444.1 | 3258.0 | 3369.6 | 3433.1 | 3402.5 | 3384.9 | 3363.1 | 3374.0 |
| 40°   | 9708.2  | 8131.8 | 4414.0 | 3063.1 | 3060.9 | 3249.2 | 3266.7 | 3179.1 | 3109.1 | 3087.2 | 3076.2 |
| 42.5° | 10170.2 | 8215.0 | 3906.0 | 2767.5 | 2874.8 | 3131.0 | 3144.1 | 3004.0 | 2892.3 | 2826.6 | 2804.7 |
| 45°   | 10715.4 | 8311.3 | 3409.0 | 2522.3 | 2701.8 | 3036.8 | 3069.7 | 2881.4 | 2717.2 | 2579.2 | 2544.2 |
| 47.5° | 11462.0 | 8530.2 | 3017.1 | 2331.8 | 2577.0 | 2977.7 | 3023.7 | 2780.6 | 2563.9 | 2384.4 | 2355.9 |
| 50°   | 12304.9 | 8830.2 | 2712.8 | 2202.6 | 2480.7 | 2925.2 | 2982.1 | 2677.7 | 2421.6 | 2222.3 | 2200.4 |
| 52.5° | 13077.8 | 8992.2 | 2450.0 | 2086.6 | 2386.5 | 2828.8 | 2927.3 | 2603.3 | 2281.4 | 2060.3 | 2040.6 |
| 55°   | 13500.4 | 8729.5 | 2191.7 | 1972.7 | 2257.4 | 2704.0 | 2850.7 | 2500.4 | 2145.7 | 1974.9 | 1946.5 |
| 57.5° | 13557.3 | 8186.5 | 1957.4 | 1850.1 | 2121.6 | 2550.8 | 2708.4 | 2375.6 | 2058.1 | 1915.8 | 1891.7 |
| 60°   | 13117.2 | 7376.4 | 1775.7 | 1749.4 | 1983.7 | 2377.8 | 2548.6 | 2266.1 | 1968.3 | 1850.1 | 1826.0 |
| 62.5° | 12022.5 | 6496.2 | 1648.7 | 1657.4 | 1843.5 | 2196.1 | 2430.3 | 2161.0 | 1883.0 | 1777.9 | 1756.0 |
| 65°   | 10139.5 | 5362.1 | 1526.1 | 1563.3 | 1718.7 | 2053.7 | 2323.0 | 2073.4 | 1797.6 | 1723.1 | 1703.4 |
| 67.5° | 7043.6  | 3871.0 | 1425.4 | 1464.8 | 1600.5 | 1909.2 | 2198.2 | 1979.3 | 1701.2 | 1661.8 | 1631.2 |
| 70°   | 3899.5  | 2382.2 | 1307.1 | 1353.1 | 1477.9 | 1747.2 | 2058.1 | 1837.0 | 1561.1 | 1543.6 | 1499.8 |
| 72.5° | 2049.4  | 1517.3 | 1173.6 | 1223.9 | 1311.5 | 1539.2 | 1843.5 | 1681.5 | 1423.2 | 1348.7 | 1291.8 |
| 74°   | 1600.5  | 1243.6 | 1083.8 | 1136.3 | 1195.5 | 1416.6 | 1716.6 | 1569.9 | 1324.6 | 1237.1 | 1193.3 |
| 75°   | 1394.7  | 1107.9 | 1007.2 | 1075.0 | 1127.6 | 1333.4 | 1618.0 | 1491.0 | 1269.9 | 1186.7 | 1147.3 |
| 77.5° | 985.3   | 829.8  | 823.2  | 904.3  | 932.7  | 1169.2 | 1458.2 | 1357.5 | 1132.0 | 1044.4 | 1007.2 |
| 80°   | 691.9   | 621.8  | 652.5  | 702.8  | 742.2  | 1033.4 | 1353.1 | 1173.6 | 928.3  | 825.4  | 812.3  |
| 82.5° | 451.0   | 407.2  | 466.4  | 512.3  | 525.5  | 761.9  | 1092.6 | 891.1  | 676.6  | 549.6  | 510.2  |
| 85°   | 208.0   | 203.6  | 267.1  | 260.5  | 258.4  | 372.2  | 648.1  | 521.1  | 389.7  | 291.2  | 273.7  |
| 87.5° | 52.5    | 50.4   | 65.7   | 54.7   | 65.7   | 56.9   | 59.1   | 15.3   | 2.2    | 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)