

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: P191116

Luminaire Tested: **GLEON-AF-08-LED-E1-SL3-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191116  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24289)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-08-LED-E1-SL3-600-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27468.3 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G4

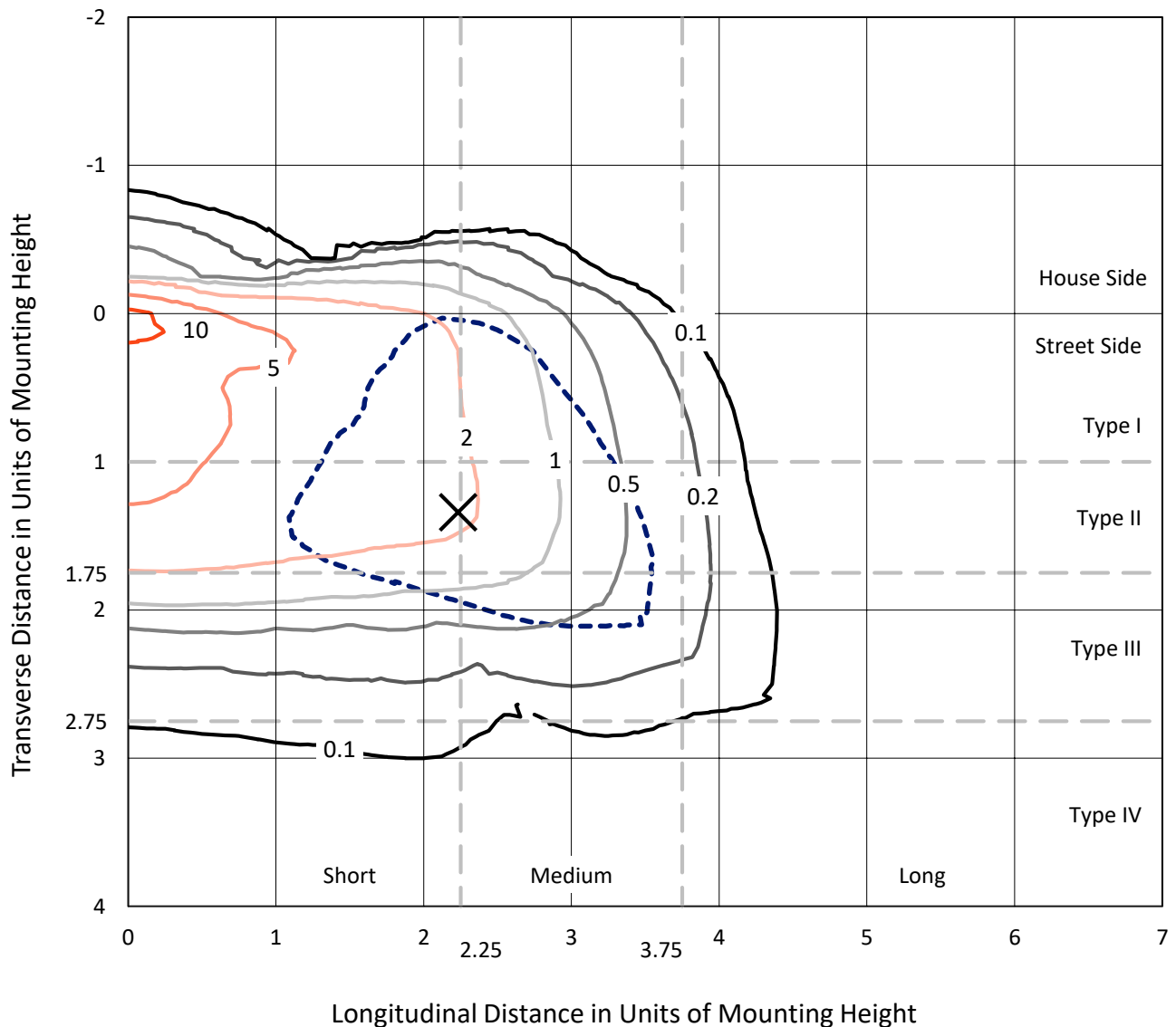
Input Watts (W): 257  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

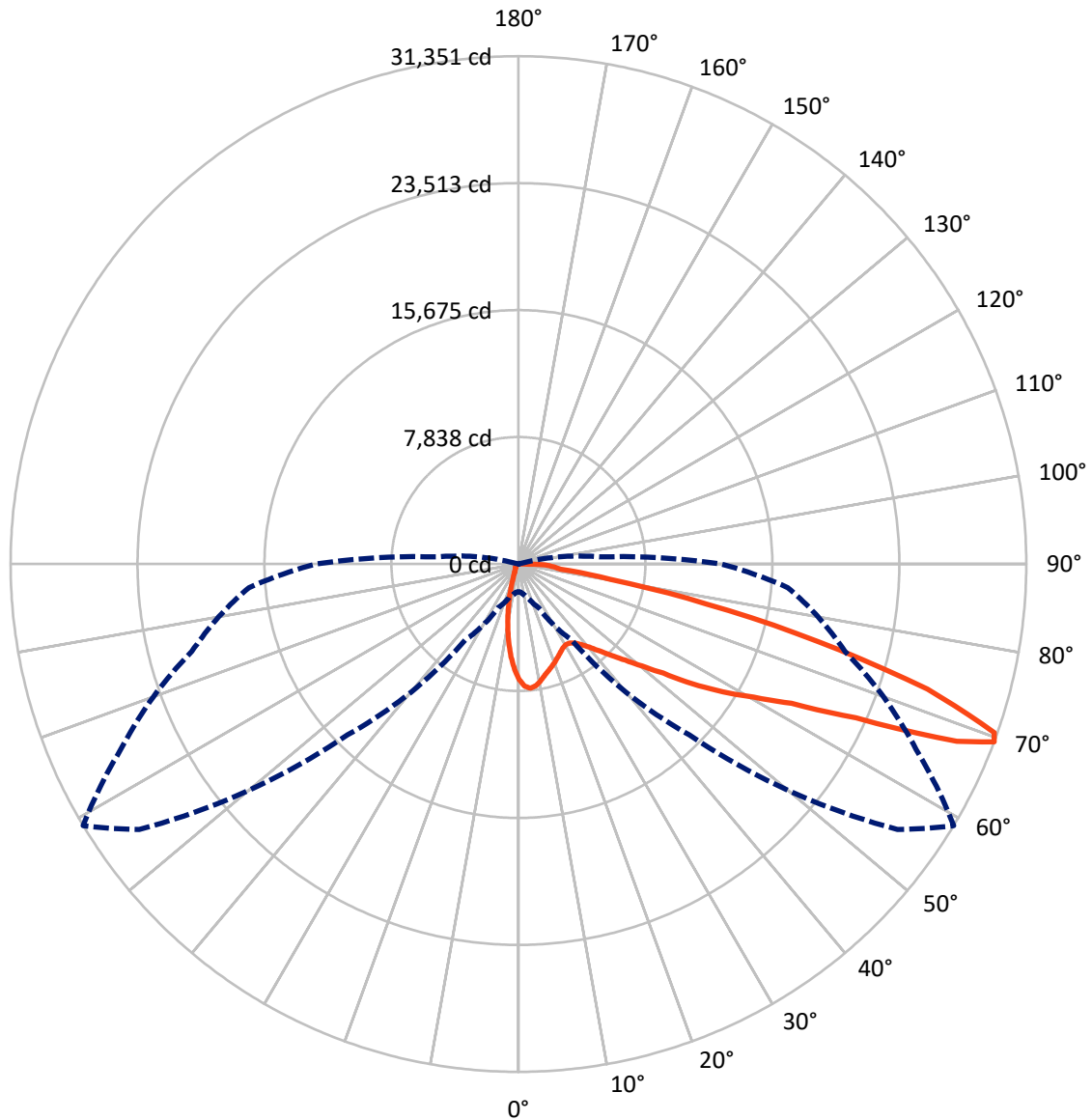


Based on 25 foot mounting height. Maximum calculated value = 11.5 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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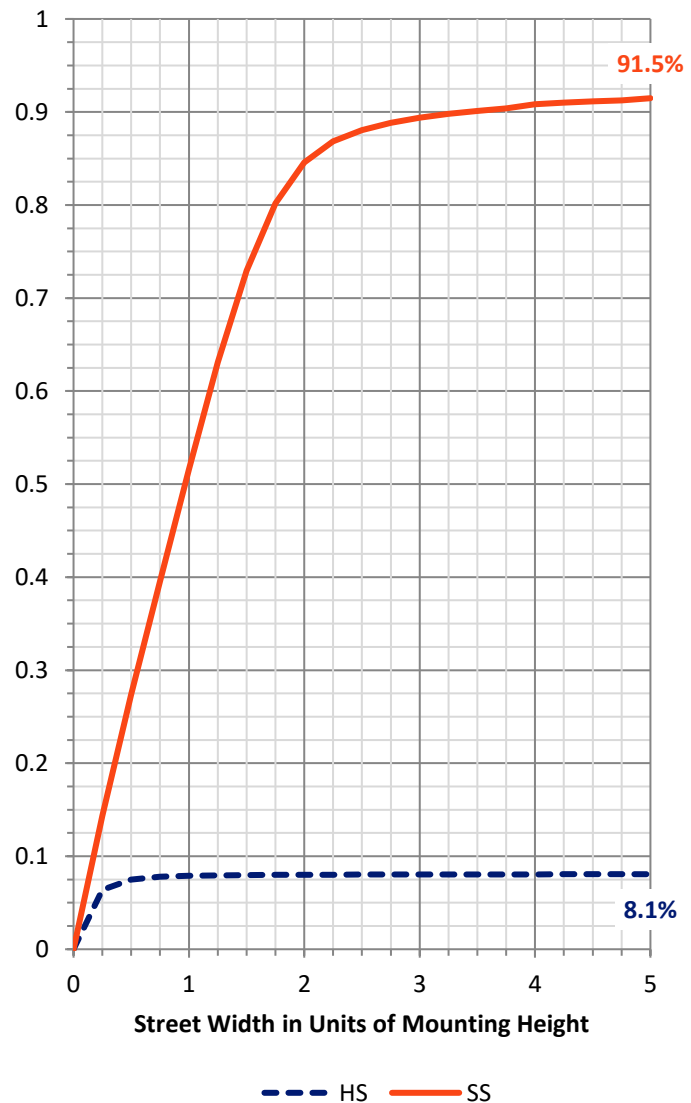
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2236.9   | 0.0    | 2236.9  |
|                    | % Fixture | 8.1      | 0.0    | 8.1     |
| <b>Street Side</b> | Lumens    | 25231.3  | 0.0    | 25231.3 |
|                    | % Fixture | 91.9     | 0.0    | 91.9    |
| <b>Total</b>       | Lumens    | 27468.3  | 0.0    | 27468.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 580.3   | 2.1       |
| 10°-20°   | 1199.1  | 4.4       |
| 20°-30°   | 1613.6  | 5.9       |
| 30°-40°   | 2342.8  | 8.5       |
| 40°-50°   | 3901.0  | 14.2      |
| 50°-60°   | 6085.5  | 22.2      |
| 60°-70°   | 7530.3  | 27.4      |
| 70°-80°   | 3816.3  | 13.9      |
| 80°-90°   | 399.3   | 1.5       |
| 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°    | 27468.3 | 100.0     |
| 0°-180°   | 27468.3 | 100.0     |



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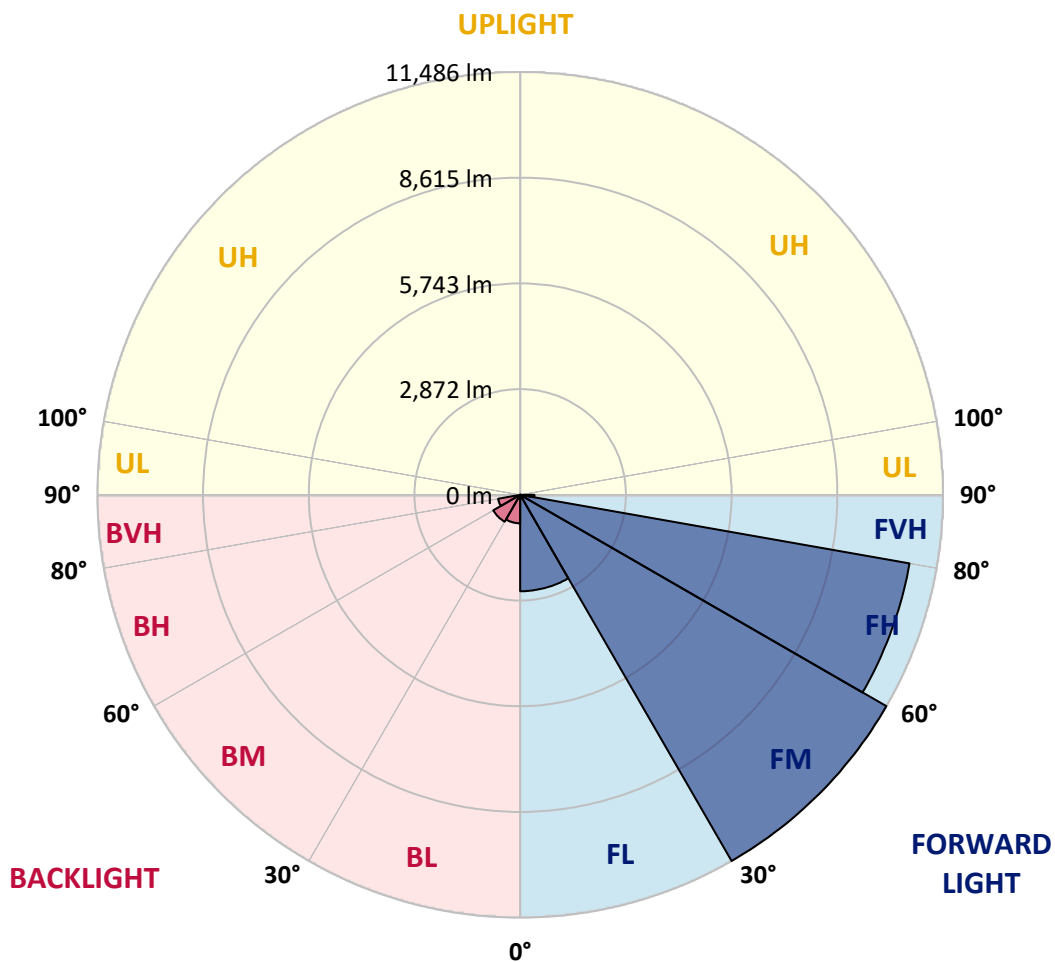
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|---------|-----------|-------------------------|------|----------|
|      |             |         |           | B                       | U    | G        |
| FL   | (0°-30°)    | 2618.8  | 9.5       |                         |      |          |
| FM   | (30°-60°)   | 11486.4 | 41.8      |                         |      |          |
| FH   | (60°-80°)   | 10739.1 | 39.1      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 387.0   | 1.4       |                         |      | G3/500   |
| BL   | (0°-30°)    | 774.3   | 2.8       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 842.9   | 3.1       | B1/1000                 |      |          |
| BH   | (60°-80°)   | 607.5   | 2.2       | B2/1000                 |      | G2/1000  |
| BVH  | (80°-90°)   | 12.3    | 0.0       |                         |      | G1/100   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |          |

**BUG Rating: B2-U0-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  | 7149.6  |
| 2.5°  | 7836.1  | 7833.0  | 7798.9  | 7783.3  | 7755.4  | 7696.4  | 7604.7  | 7556.5  | 7478.9  | 7343.8  | 7162.1  |
| 5°    | 7764.7  | 7801.9  | 7822.2  | 7823.7  | 7843.9  | 7822.2  | 7739.9  | 7699.4  | 7592.2  | 7374.9  | 7048.6  |
| 7.5°  | 7280.1  | 7294.0  | 7351.5  | 7401.3  | 7497.5  | 7589.2  | 7618.7  | 7601.6  | 7537.9  | 7304.9  | 6871.6  |
| 10°   | 6761.3  | 6775.3  | 6843.6  | 6908.9  | 7039.3  | 7180.7  | 7329.7  | 7360.8  | 7387.2  | 7205.6  | 6700.7  |
| 12.5° | 6314.0  | 6328.0  | 6397.8  | 6483.3  | 6635.5  | 6809.5  | 7040.9  | 7092.1  | 7208.6  | 7110.7  | 6564.1  |
| 15°   | 5928.7  | 5935.0  | 6003.3  | 6109.0  | 6290.6  | 6514.4  | 6776.8  | 6859.2  | 7037.8  | 7044.0  | 6444.4  |
| 17.5° | 5601.1  | 5616.5  | 5658.5  | 5759.4  | 5958.3  | 6234.8  | 6540.7  | 6658.8  | 6868.5  | 6988.1  | 6328.0  |
| 20°   | 5400.7  | 5416.2  | 5414.6  | 5470.5  | 5649.1  | 5944.3  | 6304.7  | 6446.0  | 6700.7  | 6930.6  | 6223.8  |
| 22.5° | 5361.8  | 5361.8  | 5321.4  | 5313.7  | 5419.3  | 5666.2  | 6059.2  | 6231.6  | 6550.1  | 6905.7  | 6150.9  |
| 25°   | 5500.1  | 5493.9  | 5392.9  | 5310.5  | 5315.3  | 5462.8  | 5821.6  | 6026.6  | 6422.7  | 6922.8  | 6112.0  |
| 27.5° | 5792.0  | 5784.3  | 5656.9  | 5500.1  | 5374.3  | 5372.7  | 5641.4  | 5861.9  | 6321.7  | 7003.6  | 6127.6  |
| 30°   | 6195.9  | 6192.8  | 6054.5  | 5857.3  | 5629.0  | 5419.3  | 5579.3  | 5779.7  | 6256.5  | 7149.6  | 6163.3  |
| 32.5° | 6637.0  | 6632.4  | 6528.3  | 6320.2  | 6031.3  | 5629.0  | 5644.5  | 5812.3  | 6275.1  | 7343.8  | 6250.2  |
| 35°   | 7104.6  | 7096.8  | 7051.7  | 6870.0  | 6551.6  | 6015.8  | 5858.8  | 5989.4  | 6393.1  | 7634.2  | 6421.2  |
| 37.5° | 7611.0  | 7618.7  | 7651.3  | 7477.4  | 7143.4  | 6557.8  | 6217.7  | 6306.2  | 6630.9  | 8028.7  | 6699.2  |
| 40°   | 8358.0  | 8356.5  | 8367.3  | 8139.0  | 7817.5  | 7221.1  | 6719.4  | 6747.3  | 7028.5  | 8552.2  | 7121.7  |
| 42.5° | 9714.0  | 9619.3  | 9332.0  | 8865.9  | 8542.9  | 7979.0  | 7351.5  | 7322.0  | 7514.6  | 9199.9  | 7713.5  |
| 45°   | 11536.0 | 11334.1 | 10588.5 | 9695.4  | 9282.3  | 8833.4  | 8129.7  | 8035.0  | 8157.6  | 9978.1  | 8443.4  |
| 47.5° | 13103.2 | 12893.6 | 11838.9 | 10559.0 | 10066.7 | 9644.2  | 9041.5  | 8870.6  | 8911.0  | 10849.4 | 9369.2  |
| 50°   | 13636.0 | 13533.4 | 12612.4 | 11310.8 | 10826.2 | 10664.6 | 10099.2 | 9891.1  | 9833.6  | 11857.5 | 10442.5 |
| 52.5° | 13451.2 | 13443.4 | 12829.8 | 11798.5 | 11522.0 | 11720.9 | 11430.4 | 11189.6 | 10978.4 | 12920.0 | 11534.5 |
| 55°   | 13154.4 | 13193.3 | 12918.3 | 12225.6 | 12216.3 | 12685.4 | 13250.8 | 13050.4 | 12438.5 | 14074.0 | 12475.7 |
| 57.5° | 12335.9 | 12502.1 | 12868.7 | 13033.3 | 13415.4 | 13895.4 | 14766.7 | 14884.8 | 14161.0 | 14957.8 | 13257.0 |
| 60°   | 10009.2 | 10374.2 | 11573.3 | 13149.8 | 14960.9 | 16156.9 | 16596.5 | 16697.4 | 15574.4 | 15692.5 | 14311.7 |
| 62.5° | 7104.6  | 7477.4  | 8998.0  | 11664.9 | 14984.2 | 19128.3 | 19322.4 | 18926.3 | 17130.8 | 16781.3 | 16130.5 |
| 65°   | 3771.3  | 4058.7  | 5301.2  | 8420.2  | 12991.4 | 19817.9 | 24089.4 | 22908.9 | 19877.0 | 18923.3 | 18480.5 |
| 67.5° | 1929.2  | 2016.1  | 2510.0  | 4120.8  | 8931.2  | 17602.9 | 28362.3 | 29193.4 | 24609.7 | 21048.1 | 18367.2 |
| 69°   | 1707.0  | 1758.2  | 2086.0  | 2979.1  | 5719.1  | 14909.6 | 28570.5 | 31350.8 | 27087.1 | 20871.1 | 16691.2 |
| 70°   | 1652.7  | 1697.7  | 1995.9  | 2696.4  | 4470.3  | 12503.6 | 27773.6 | 31161.3 | 27720.8 | 20196.9 | 15439.3 |
| 72.5° | 1402.6  | 1441.4  | 1777.0  | 2382.7  | 3633.0  | 6206.8  | 22561.0 | 26405.2 | 24875.3 | 16824.8 | 11175.6 |
| 75°   | 938.1   | 1065.5  | 1705.5  | 2233.6  | 3379.8  | 3525.9  | 14873.9 | 19081.7 | 17725.7 | 11348.0 | 5821.6  |
| 77.5° | 225.3   | 242.3   | 481.5   | 1777.0  | 3090.9  | 3103.4  | 7649.7  | 11862.1 | 9675.2  | 4044.6  | 1376.2  |
| 80°   | 121.1   | 116.5   | 135.1   | 352.6   | 2878.2  | 2912.3  | 3443.6  | 5757.9  | 3454.4  | 671.0   | 453.6   |
| 82.5° | 85.4    | 80.8    | 87.0    | 147.5   | 905.5   | 2652.9  | 2491.4  | 2606.4  | 1432.1  | 257.9   | 203.5   |
| 85°   | 31.1    | 29.5    | 48.2    | 133.6   | 284.3   | 1525.3  | 2559.7  | 2149.7  | 1160.2  | 118.0   | 149.1   |
| 87.5° | 10.8    | 9.3     | 18.6    | 73.0    | 87.0    | 649.3   | 1579.6  | 1624.7  | 456.6   | 71.4    | 69.9    |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 7149.6  | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 | 7149.6 |
| 2.5°  | 7085.9  | 6989.6 | 6812.5 | 6630.9 | 6463.1 | 6261.2 | 6160.2 | 6060.8 | 6018.8 | 6003.3 | 5930.4 |
| 5°    | 6880.9  | 6717.8 | 6341.9 | 5964.5 | 5616.5 | 5246.9 | 5003.0 | 4807.4 | 4692.4 | 4636.4 | 4547.9 |
| 7.5°  | 6618.4  | 6351.2 | 5781.2 | 5198.7 | 4656.7 | 4122.3 | 3726.2 | 3421.8 | 3212.2 | 3111.2 | 3019.5 |
| 10°   | 6363.7  | 6008.0 | 5197.2 | 4403.5 | 3667.2 | 2959.0 | 2412.2 | 2016.1 | 1763.0 | 1646.4 | 1571.9 |
| 12.5° | 6135.4  | 5674.0 | 4633.4 | 3628.4 | 2704.2 | 1874.8 | 1318.7 | 1003.4 | 846.5  | 792.2  | 765.8  |
| 15°   | 5931.9  | 5366.5 | 4100.6 | 2892.2 | 1831.3 | 1071.7 | 720.7  | 613.6  | 588.7  | 588.7  | 585.5  |
| 17.5° | 5739.3  | 5065.1 | 3586.5 | 2201.0 | 1149.4 | 655.5  | 548.3  | 534.3  | 534.3  | 540.5  | 540.5  |
| 20°   | 5554.4  | 4777.8 | 3089.4 | 1579.6 | 723.8  | 520.4  | 495.5  | 492.3  | 495.5  | 503.3  | 503.3  |
| 22.5° | 5396.0  | 4516.8 | 2625.0 | 1084.1 | 537.5  | 469.1  | 456.6  | 452.0  | 453.6  | 458.2  | 461.4  |
| 25°   | 5277.9  | 4296.3 | 2187.0 | 734.7  | 462.9  | 427.2  | 413.2  | 405.4  | 399.2  | 399.2  | 402.3  |
| 27.5° | 5203.3  | 4109.9 | 1763.0 | 534.3  | 416.2  | 388.3  | 366.5  | 354.1  | 340.1  | 332.4  | 335.5  |
| 30°   | 5149.0  | 3932.8 | 1365.3 | 436.5  | 372.8  | 344.8  | 316.9  | 296.7  | 276.5  | 267.2  | 270.3  |
| 32.5° | 5128.9  | 3789.9 | 1020.5 | 385.2  | 334.0  | 302.9  | 268.7  | 242.3  | 220.5  | 212.8  | 214.3  |
| 35°   | 5183.2  | 3676.6 | 747.2  | 347.9  | 302.9  | 264.0  | 225.3  | 195.7  | 178.6  | 174.0  | 175.5  |
| 37.5° | 5326.1  | 3615.9 | 559.1  | 316.9  | 275.0  | 231.4  | 187.9  | 160.0  | 149.1  | 149.1  | 150.7  |
| 40°   | 5596.4  | 3614.4 | 448.9  | 295.1  | 250.1  | 200.4  | 155.3  | 135.1  | 128.9  | 132.1  | 133.6  |
| 42.5° | 5990.9  | 3696.7 | 391.4  | 275.0  | 228.3  | 170.8  | 128.9  | 115.0  | 113.3  | 116.5  | 118.0  |
| 45°   | 6529.9  | 3847.4 | 360.4  | 257.9  | 205.0  | 142.9  | 108.7  | 99.4   | 99.4   | 104.0  | 105.7  |
| 47.5° | 7190.0  | 4068.0 | 334.0  | 240.8  | 181.8  | 119.6  | 93.2   | 87.0   | 88.5   | 93.2   | 94.7   |
| 50°   | 7985.3  | 4346.0 | 307.5  | 222.1  | 164.7  | 99.4   | 80.8   | 76.1   | 77.6   | 83.9   | 85.4   |
| 52.5° | 8890.8  | 4720.3 | 285.8  | 205.0  | 142.9  | 82.3   | 68.3   | 65.3   | 68.3   | 74.6   | 76.1   |
| 55°   | 9667.4  | 5055.8 | 259.4  | 191.1  | 115.0  | 68.3   | 56.0   | 56.0   | 59.0   | 66.8   | 68.3   |
| 57.5° | 10414.6 | 5406.9 | 236.1  | 164.7  | 90.1   | 54.3   | 46.6   | 48.2   | 52.8   | 60.6   | 62.1   |
| 60°   | 11511.2 | 6001.8 | 208.2  | 138.2  | 68.3   | 43.5   | 38.9   | 40.4   | 46.6   | 54.3   | 56.0   |
| 62.5° | 13373.4 | 6907.3 | 180.1  | 115.0  | 52.8   | 34.2   | 31.1   | 34.2   | 41.9   | 51.2   | 52.8   |
| 65°   | 15054.2 | 7275.4 | 147.5  | 96.3   | 40.4   | 26.4   | 26.4   | 31.1   | 40.4   | 49.7   | 51.2   |
| 67.5° | 14117.5 | 6124.5 | 115.0  | 76.1   | 31.1   | 20.2   | 21.8   | 29.5   | 38.9   | 49.7   | 51.2   |
| 69°   | 12485.0 | 5007.7 | 97.9   | 60.6   | 26.4   | 18.6   | 20.2   | 29.5   | 38.9   | 48.2   | 49.7   |
| 70°   | 11212.9 | 4228.0 | 87.0   | 51.2   | 23.3   | 18.6   | 20.2   | 27.9   | 38.9   | 48.2   | 49.7   |
| 72.5° | 7510.0  | 2283.3 | 69.9   | 37.2   | 21.8   | 17.1   | 17.1   | 27.9   | 37.2   | 46.6   | 48.2   |
| 75°   | 3227.6  | 630.6  | 56.0   | 26.4   | 18.6   | 15.5   | 15.5   | 26.4   | 35.7   | 45.0   | 48.2   |
| 77.5° | 590.2   | 160.0  | 45.0   | 23.3   | 18.6   | 15.5   | 14.0   | 24.9   | 34.2   | 43.5   | 45.0   |
| 80°   | 234.6   | 79.2   | 35.7   | 20.2   | 17.1   | 14.0   | 12.4   | 23.3   | 32.6   | 41.9   | 43.5   |
| 82.5° | 141.4   | 45.0   | 29.5   | 18.6   | 17.1   | 12.4   | 10.8   | 20.2   | 31.1   | 40.4   | 41.9   |
| 85°   | 115.0   | 31.1   | 23.3   | 18.6   | 15.5   | 12.4   | 9.3    | 18.6   | 27.9   | 38.9   | 40.4   |
| 87.5° | 56.0    | 21.8   | 21.8   | 17.1   | 15.5   | 12.4   | 9.3    | 17.1   | 26.4   | 37.2   | 38.9   |
| 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)