

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: P190943

Luminaire Tested: **GLEON-AF-05-LED-E1-AFL-1200-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P190943  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLEON-AF-05-LED-E1-AFL-1200-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27329.1 lumens  
Efficiency: N/A  
Efficacy: 85.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

Input Watts (W): 320  
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

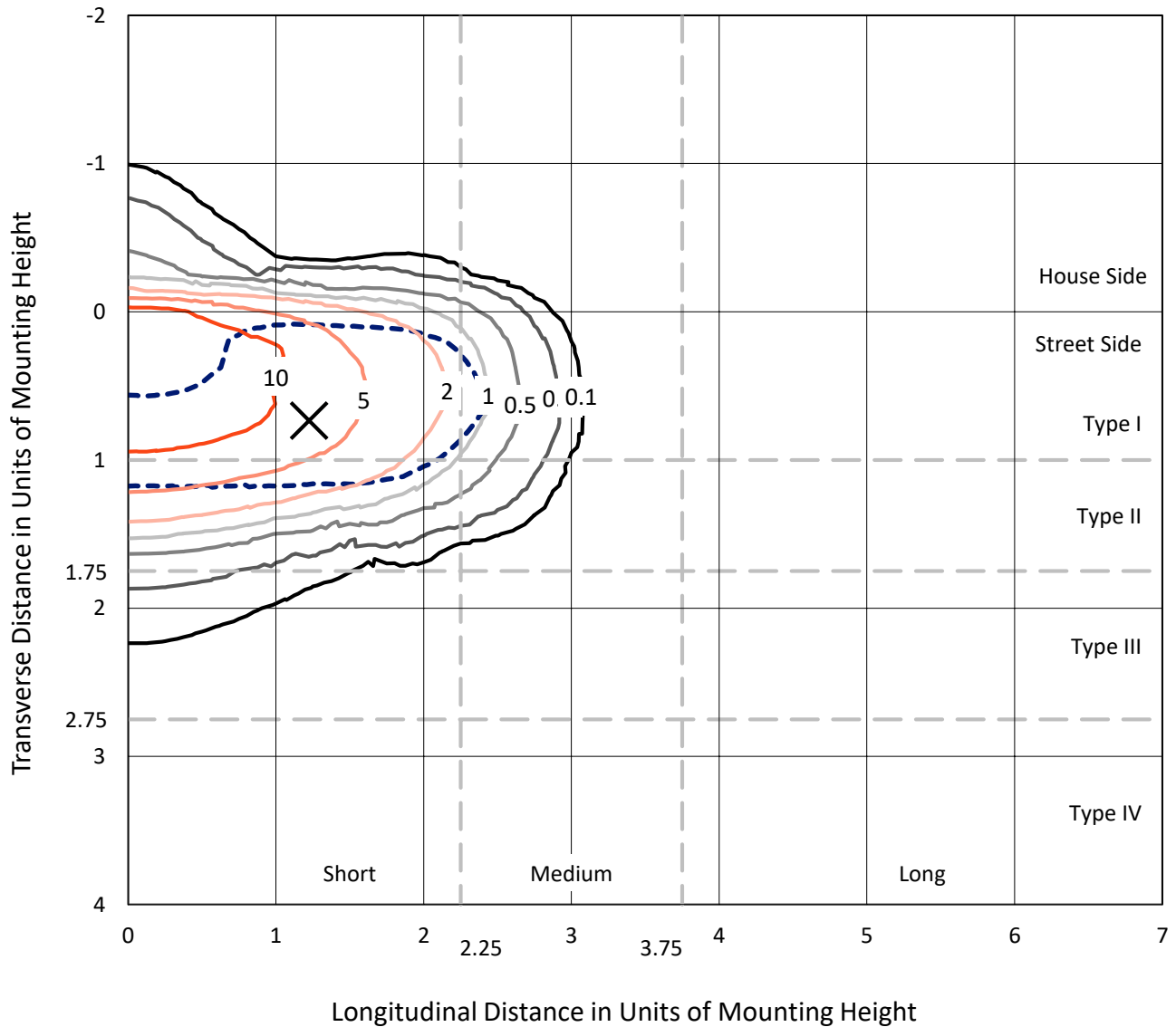


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### Iso-Footcandle Lines of Horizontal Illumination

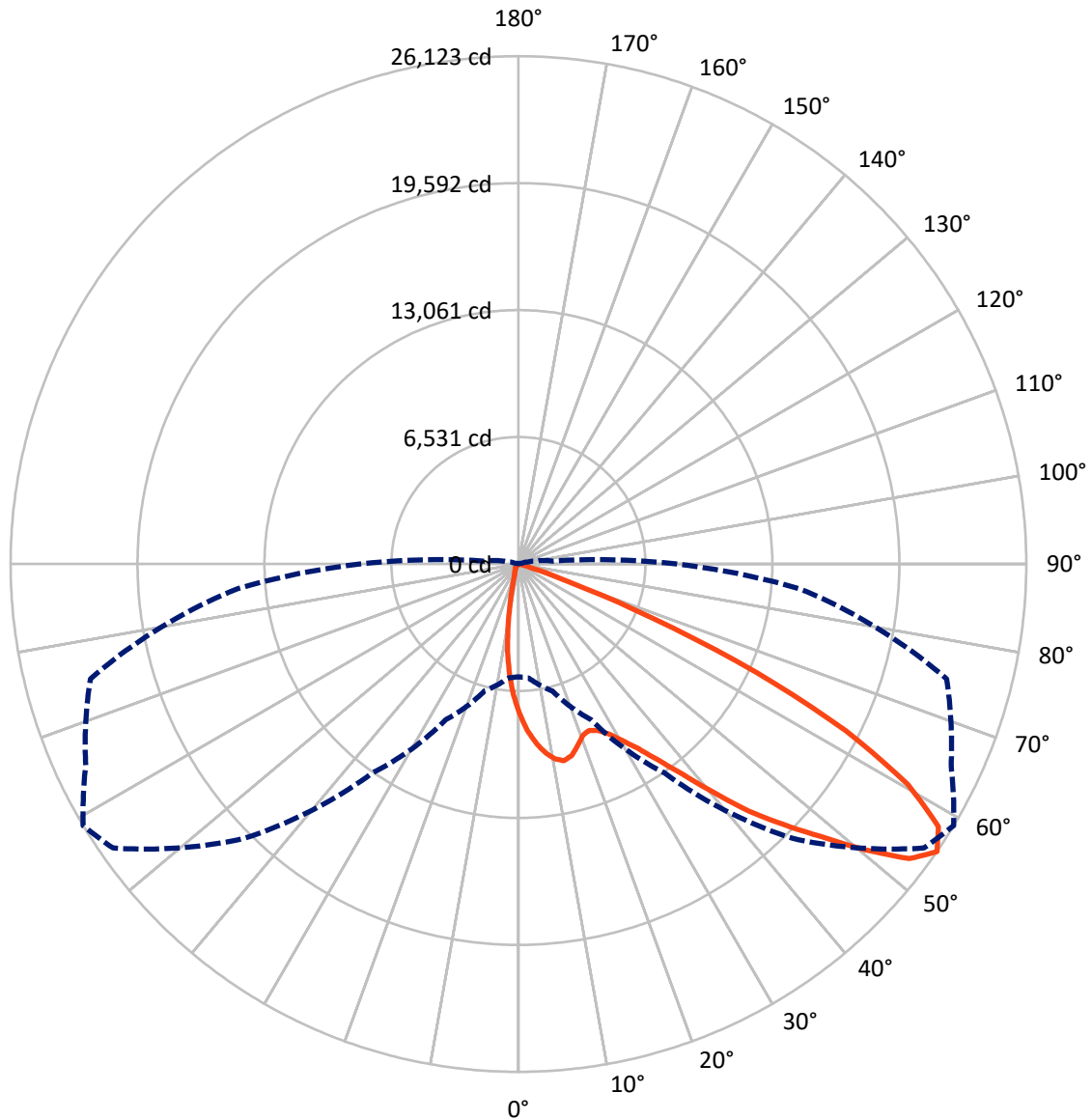
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.3 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 55-Deg Vertical

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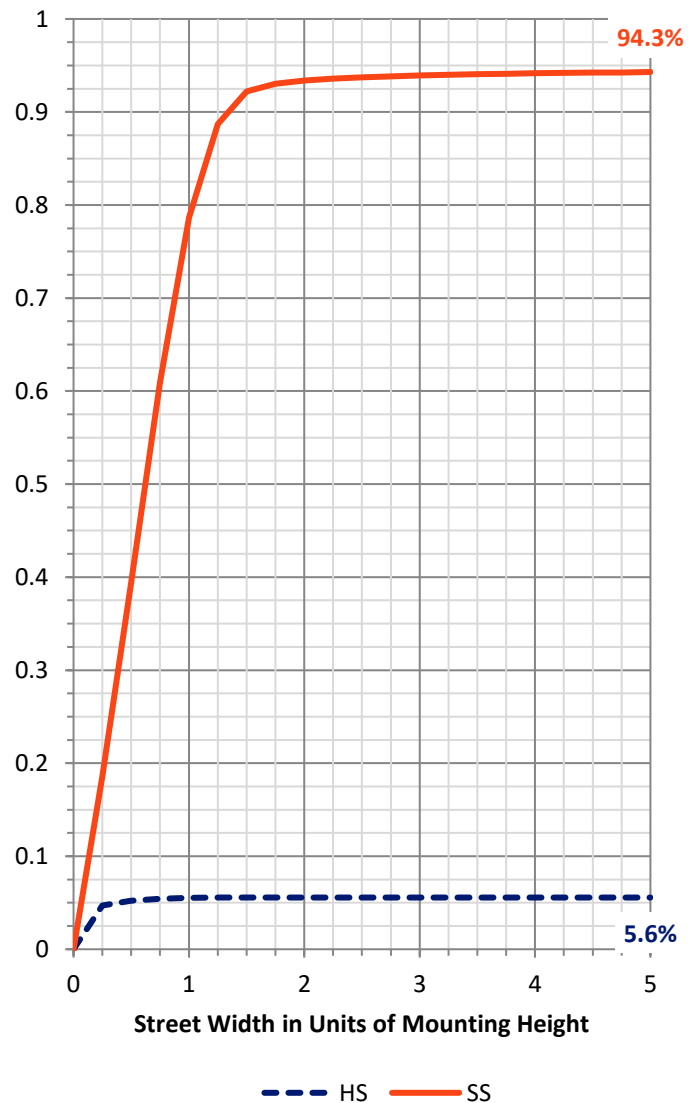
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1526.5   | 0.0    | 1526.5  |
|                    | % Fixture | 5.6      | 0.0    | 5.6     |
| <b>Street Side</b> | Lumens    | 25802.7  | 0.0    | 25802.7 |
|                    | % Fixture | 94.4     | 0.0    | 94.4    |
| <b>Total</b>       | Lumens    | 27329.1  | 0.0    | 27329.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 644.4   | 2.4       |
| 10°-20°   | 1542.8  | 5.6       |
| 20°-30°   | 2625.3  | 9.6       |
| 30°-40°   | 4514.9  | 16.5      |
| 40°-50°   | 6970.5  | 25.5      |
| 50°-60°   | 7007.6  | 25.6      |
| 60°-70°   | 3593.5  | 13.1      |
| 70°-80°   | 389.4   | 1.4       |
| 80°-90°   | 40.7    | 0.1       |
| 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°    | 27329.1 | 100.0     |
| 0°-180°   | 27329.1 | 100.0     |

**Coefficient of Utilization**



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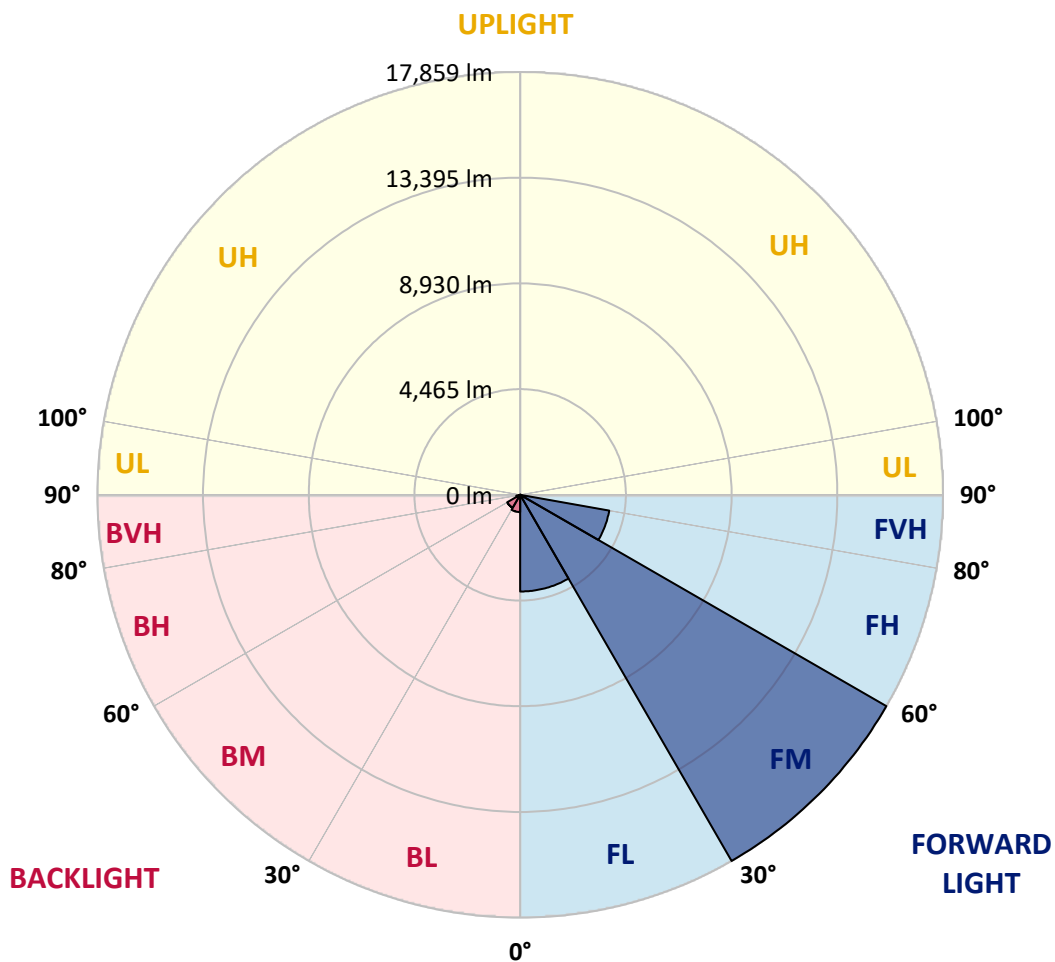
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 4083.9  | 14.9      |                         |      |         |
| FM   | (30°-60°)   | 17859.5 | 65.3      |                         |      |         |
| FH   | (60°-80°)   | 3819.4  | 14.0      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 39.9    | 0.1       |                         |      | G1/100  |
| BL   | (0°-30°)    | 728.6   | 2.7       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 633.5   | 2.3       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 163.5   | 0.6       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 0.8     | 0.0       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  | 7693.1  |
| 2.5°  | 9102.6  | 9005.9  | 8976.8  | 8957.5  | 8868.8  | 8757.5  | 8605.9  | 8535.0  | 8389.8  | 8155.9  | 7868.8  |
| 5°    | 9936.4  | 9918.7  | 9854.2  | 9818.7  | 9723.6  | 9565.5  | 9323.6  | 9207.5  | 8976.8  | 8583.3  | 8068.8  |
| 7.5°  | 9572.0  | 9683.3  | 9771.9  | 9920.4  | 10107.5 | 10100.9 | 9897.8  | 9776.8  | 9518.8  | 8999.4  | 8291.4  |
| 10°   | 8164.0  | 8254.3  | 8399.4  | 8736.5  | 9423.6  | 10030.0 | 10268.7 | 10181.6 | 9975.2  | 9381.7  | 8505.9  |
| 12.5° | 7888.2  | 7878.6  | 7904.3  | 8002.7  | 8362.4  | 9226.8  | 10205.8 | 10381.6 | 10339.7 | 9731.6  | 8709.1  |
| 15°   | 8035.0  | 8023.7  | 8020.4  | 8054.3  | 8141.5  | 8505.9  | 9733.3  | 10238.1 | 10562.3 | 10055.8 | 8881.7  |
| 17.5° | 8446.2  | 8397.8  | 8372.0  | 8344.6  | 8318.8  | 8409.2  | 9165.5  | 9836.5  | 10596.1 | 10339.7 | 9025.2  |
| 20°   | 9151.0  | 9070.4  | 8975.3  | 8820.4  | 8675.2  | 8630.1  | 8926.9  | 9423.6  | 10475.1 | 10555.8 | 9118.8  |
| 22.5° | 10036.5 | 9933.3  | 9768.8  | 9486.5  | 9191.3  | 9020.4  | 9044.6  | 9293.0  | 10294.5 | 10791.2 | 9162.4  |
| 25°   | 11031.6 | 10899.3 | 10680.0 | 10288.0 | 9854.2  | 9551.0  | 9392.9  | 9480.0  | 10212.2 | 11067.0 | 9212.3  |
| 27.5° | 12097.6 | 11950.8 | 11663.8 | 11129.9 | 10638.1 | 10228.4 | 9905.8  | 9894.5  | 10352.6 | 11428.3 | 9293.0  |
| 30°   | 13154.0 | 13131.4 | 12757.2 | 12192.8 | 11541.2 | 11042.9 | 10578.3 | 10518.7 | 10744.5 | 11928.3 | 9452.6  |
| 32.5° | 14563.5 | 14394.2 | 13936.2 | 13355.6 | 12604.1 | 12005.7 | 11455.7 | 11317.0 | 11346.1 | 12510.5 | 9699.4  |
| 35°   | 16340.9 | 16155.5 | 15510.3 | 14708.7 | 13868.5 | 13162.1 | 12554.1 | 12365.3 | 12294.3 | 13463.7 | 10115.4 |
| 37.5° | 17489.2 | 17486.0 | 17081.1 | 16265.1 | 15363.5 | 14584.5 | 13923.3 | 13702.3 | 13558.8 | 14615.2 | 10760.6 |
| 40°   | 17519.9 | 17595.7 | 17648.9 | 17640.8 | 16998.9 | 16281.2 | 15694.1 | 15421.6 | 15087.7 | 16153.8 | 11594.4 |
| 42.5° | 16579.6 | 16774.8 | 17244.1 | 18040.8 | 18421.4 | 18135.9 | 17640.8 | 17373.1 | 16876.3 | 17800.5 | 12610.5 |
| 45°   | 15308.7 | 15444.2 | 16265.1 | 17732.8 | 19192.3 | 19974.5 | 19597.2 | 19118.1 | 18463.3 | 19518.1 | 13521.7 |
| 47.5° | 14739.4 | 14763.5 | 15294.1 | 16905.4 | 19250.4 | 21480.8 | 21709.9 | 20930.9 | 19905.2 | 20901.9 | 14234.6 |
| 50°   | 13037.9 | 13081.4 | 13813.6 | 15471.6 | 18569.8 | 22192.1 | 23832.4 | 23093.7 | 21477.7 | 21968.0 | 14494.2 |
| 52.5° | 9826.8  | 9888.0  | 10817.1 | 13115.3 | 16699.0 | 21888.9 | 25351.6 | 25172.6 | 23200.1 | 22488.9 | 14508.7 |
| 55°   | 5798.0  | 5878.7  | 6765.7  | 8828.5  | 13134.7 | 19960.0 | 25464.5 | 26122.5 | 24559.7 | 22797.0 | 14486.2 |
| 57.5° | 2707.9  | 2764.3  | 3272.4  | 4548.1  | 8168.9  | 15774.8 | 23764.6 | 25471.0 | 25309.6 | 22959.8 | 14645.8 |
| 60°   | 1438.6  | 1454.7  | 1577.3  | 1969.2  | 3691.7  | 10002.6 | 20447.0 | 23000.1 | 24625.8 | 23185.6 | 14841.0 |
| 62.5° | 1100.0  | 1104.8  | 1098.3  | 1145.1  | 1551.5  | 4440.0  | 15455.5 | 18908.4 | 21872.8 | 23016.3 | 14624.9 |
| 65°   | 953.2   | 961.3   | 916.1   | 904.8   | 995.1   | 1583.7  | 9181.7  | 13478.2 | 17187.6 | 20730.9 | 13152.4 |
| 67.5° | 854.8   | 858.1   | 803.2   | 756.4   | 772.5   | 856.4   | 3622.4  | 7378.5  | 11376.6 | 15195.8 | 9533.3  |
| 70°   | 787.1   | 783.8   | 724.1   | 650.0   | 629.0   | 585.4   | 1151.5  | 2704.7  | 5436.8  | 7706.0  | 4433.6  |
| 72.5° | 696.7   | 698.4   | 669.3   | 572.5   | 522.5   | 409.7   | 533.9   | 788.7   | 1622.5  | 2099.9  | 1038.6  |
| 75°   | 617.7   | 609.7   | 574.2   | 512.9   | 430.7   | 269.3   | 264.5   | 351.6   | 500.0   | 496.7   | 224.1   |
| 77.5° | 446.7   | 438.6   | 450.0   | 420.9   | 330.6   | 174.2   | 132.3   | 169.3   | 203.3   | 196.7   | 62.9    |
| 80°   | 327.4   | 322.5   | 290.3   | 350.0   | 292.0   | 119.4   | 82.2    | 90.3    | 104.9   | 88.7    | 19.3    |
| 82.5° | 224.1   | 222.6   | 204.8   | 193.5   | 166.1   | 72.5    | 51.7    | 56.5    | 67.7    | 50.0    | 9.7     |
| 85°   | 35.5    | 40.3    | 148.3   | 117.7   | 98.4    | 32.2    | 35.5    | 38.7    | 45.1    | 27.4    | 3.3     |
| 87.5° | 0.0     | 0.0     | 69.4    | 61.3    | 19.3    | 12.9    | 21.0    | 22.6    | 22.6    | 14.5    | 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     |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 | 7693.1 |
| 2.5°  | 7722.1 | 7560.8 | 7262.4 | 6954.4 | 6668.9 | 6328.6 | 6094.7 | 5919.0 | 5715.7 | 5660.9 | 5780.3 |
| 5°    | 7775.3 | 7470.5 | 6828.6 | 6130.2 | 5473.8 | 4746.5 | 4190.0 | 3749.7 | 3351.4 | 3216.0 | 3338.5 |
| 7.5°  | 7859.1 | 7406.0 | 6359.3 | 5209.4 | 4067.5 | 2932.1 | 2154.7 | 1643.5 | 1317.7 | 1220.9 | 1272.4 |
| 10°   | 7943.0 | 7312.5 | 5815.8 | 4119.1 | 2557.9 | 1427.3 | 928.9  | 741.8  | 672.5  | 658.1  | 666.0  |
| 12.5° | 8012.4 | 7186.6 | 5152.9 | 2928.8 | 1367.7 | 764.5  | 608.0  | 577.4  | 567.7  | 567.7  | 570.9  |
| 15°   | 8054.3 | 6996.4 | 4367.5 | 1862.8 | 787.1  | 577.4  | 530.6  | 520.9  | 520.9  | 522.5  | 525.8  |
| 17.5° | 8049.5 | 6754.4 | 3507.8 | 1127.4 | 588.7  | 511.3  | 483.9  | 475.8  | 474.1  | 477.4  | 479.0  |
| 20°   | 7989.9 | 6438.4 | 2644.9 | 743.5  | 512.9  | 466.1  | 438.6  | 424.1  | 422.6  | 425.8  | 429.0  |
| 22.5° | 7876.9 | 6048.0 | 1891.8 | 572.5  | 462.9  | 422.6  | 388.7  | 375.8  | 375.8  | 379.0  | 382.3  |
| 25°   | 7739.9 | 5570.6 | 1293.4 | 485.5  | 417.7  | 375.8  | 343.5  | 332.3  | 335.4  | 343.5  | 345.1  |
| 27.5° | 7568.9 | 5033.5 | 879.0  | 416.1  | 362.8  | 329.0  | 304.8  | 296.8  | 304.8  | 316.1  | 319.4  |
| 30°   | 7422.1 | 4473.9 | 627.4  | 359.7  | 308.0  | 283.9  | 269.3  | 269.3  | 280.6  | 301.6  | 306.5  |
| 32.5° | 7309.2 | 3932.0 | 483.9  | 317.7  | 267.7  | 246.7  | 238.7  | 246.7  | 264.5  | 285.5  | 290.3  |
| 35°   | 7294.7 | 3485.3 | 409.7  | 283.9  | 238.7  | 217.7  | 214.5  | 229.0  | 246.7  | 262.9  | 266.1  |
| 37.5° | 7406.0 | 3072.4 | 369.3  | 256.5  | 212.9  | 193.5  | 190.3  | 208.1  | 225.8  | 245.1  | 250.0  |
| 40°   | 7617.3 | 2748.3 | 340.3  | 230.7  | 191.9  | 170.9  | 164.5  | 177.4  | 201.6  | 227.4  | 233.8  |
| 42.5° | 7891.5 | 2480.5 | 308.0  | 204.8  | 170.9  | 141.9  | 133.9  | 148.3  | 174.2  | 201.6  | 209.7  |
| 45°   | 8152.7 | 2249.9 | 272.5  | 175.8  | 143.5  | 109.7  | 106.5  | 125.8  | 138.7  | 166.1  | 172.6  |
| 47.5° | 8296.2 | 2046.6 | 241.9  | 143.5  | 111.3  | 88.7   | 88.7   | 93.5   | 106.5  | 138.7  | 145.2  |
| 50°   | 8247.8 | 1883.8 | 209.7  | 106.5  | 77.4   | 67.7   | 67.7   | 66.1   | 85.5   | 111.3  | 116.1  |
| 52.5° | 8151.1 | 1790.2 | 180.7  | 82.2   | 53.2   | 48.4   | 43.6   | 48.4   | 59.6   | 71.0   | 72.5   |
| 55°   | 8136.6 | 1774.1 | 151.6  | 66.1   | 37.1   | 32.2   | 24.1   | 24.1   | 24.1   | 22.6   | 19.3   |
| 57.5° | 8249.5 | 1799.9 | 127.5  | 53.2   | 27.4   | 21.0   | 12.9   | 0.0    | 0.0    | 0.0    | 0.0    |
| 60°   | 8365.6 | 1827.3 | 109.7  | 37.1   | 19.3   | 11.3   | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    |
| 62.5° | 8172.0 | 1766.0 | 92.0   | 22.6   | 14.5   | 4.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 65°   | 7178.6 | 1503.1 | 72.5   | 16.2   | 9.7    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 5106.2 | 1006.4 | 48.4   | 9.7    | 1.6    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 2330.5 | 420.9  | 30.7   | 3.3    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 498.4  | 130.6  | 21.0   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 101.6  | 95.1   | 8.1    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 32.2   | 150.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 19.3   | 108.0  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 3.3    | 16.2   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 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)