

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: P191376

Luminaire Tested: **GLEON-AF-08-LED-E1-T2**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P191376  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)  
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-T2  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 47888.4 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B4 - U0 - G5

Input Watts (W): 445  
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: 25 FT

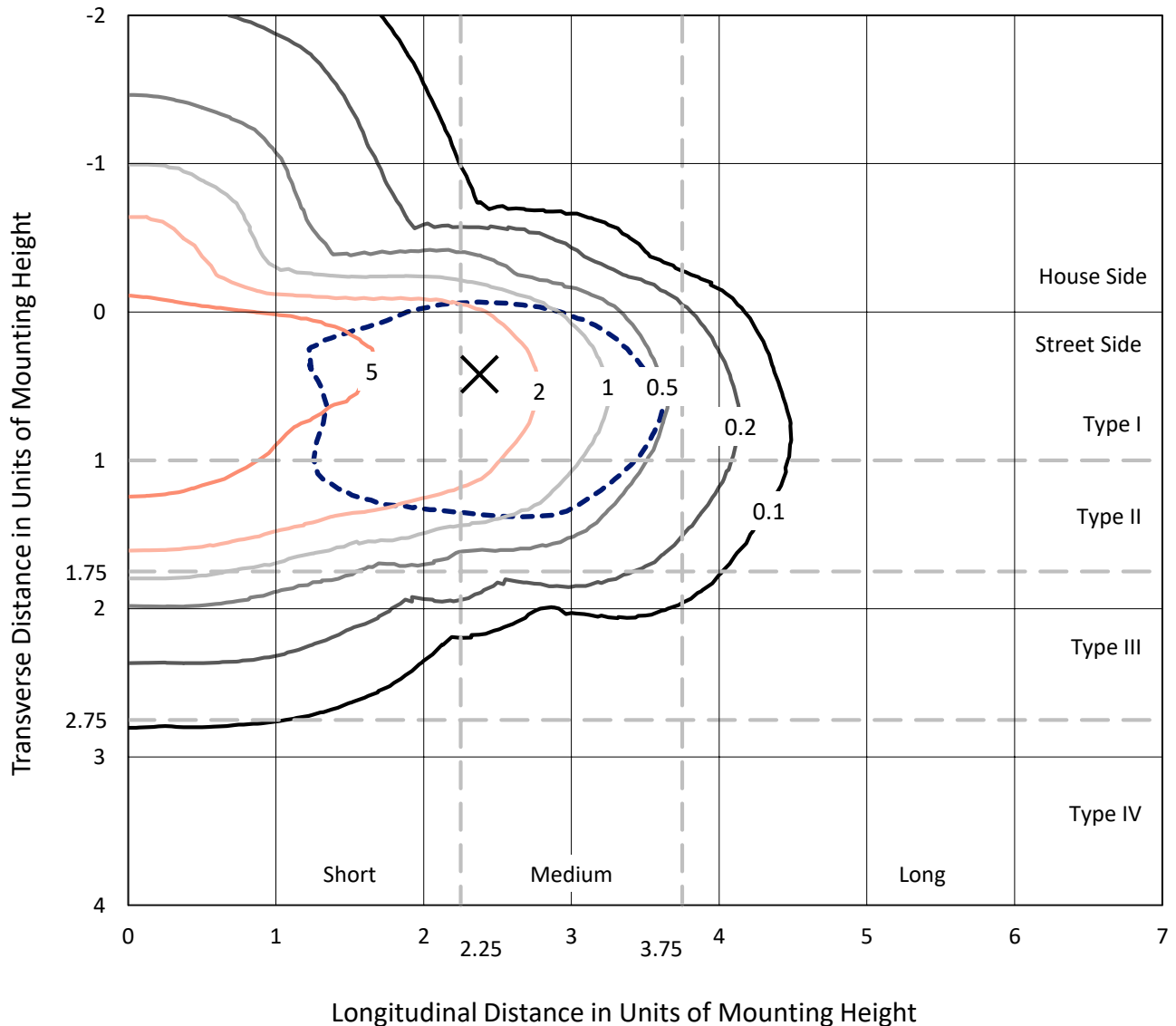


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

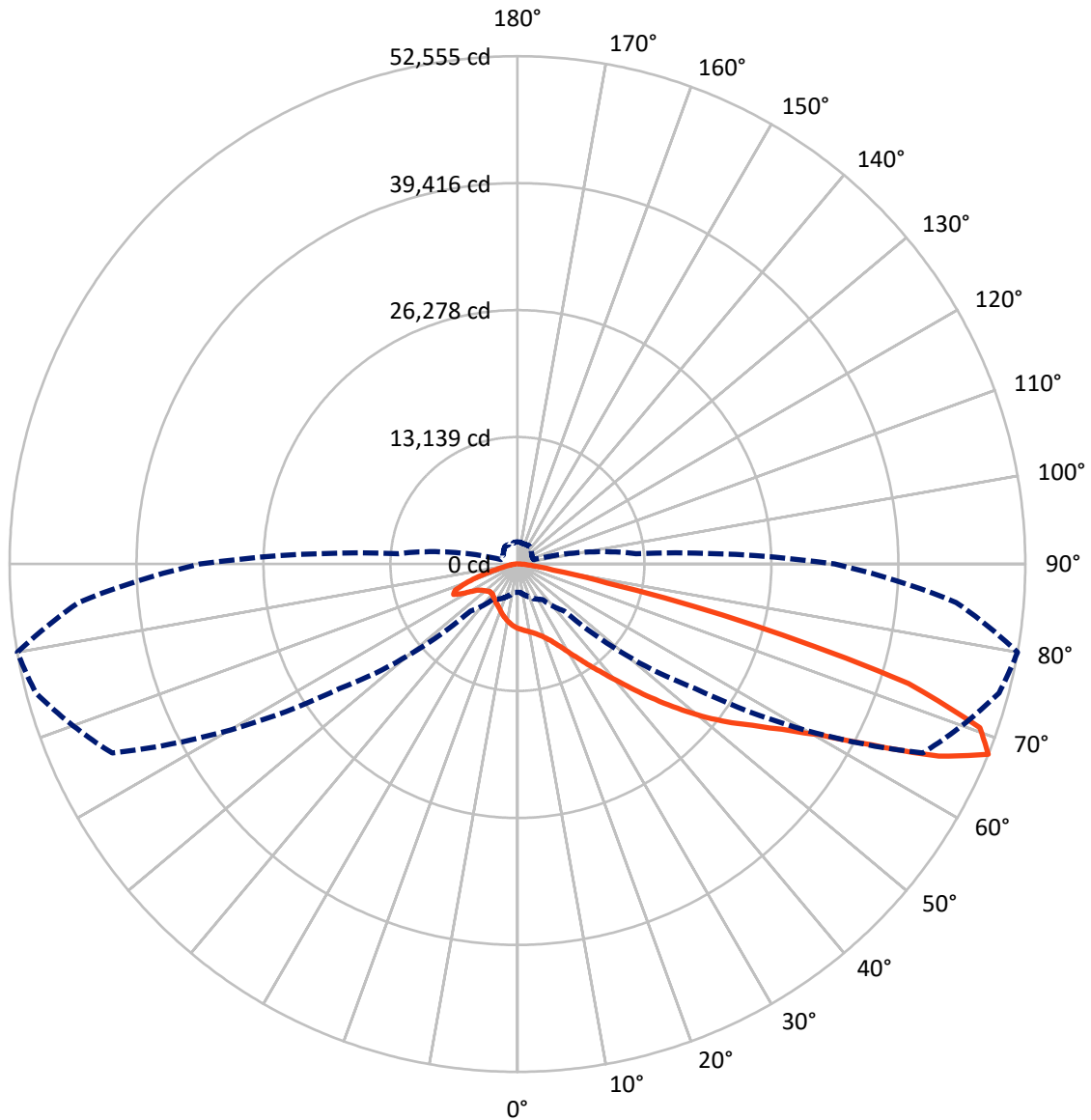


Based on 30 foot mounting height. Maximum calculated value = 9 fc  
 Type II - Medium - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 8819.2   | 0.0    | 8819.2  |
|                    | % Fixture | 18.4     | 0.0    | 18.4    |
| <b>Street Side</b> | Lumens    | 39069.2  | 0.0    | 39069.2 |
|                    | % Fixture | 81.6     | 0.0    | 81.6    |
| <b>Total</b>       | Lumens    | 47888.4  | 0.0    | 47888.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 613.7   | 1.3       |
| 10°-20°   | 1767.9  | 3.7       |
| 20°-30°   | 2926.3  | 6.1       |
| 30°-40°   | 4786.7  | 10.0      |
| 40°-50°   | 7728.6  | 16.1      |
| 50°-60°   | 11157.9 | 23.3      |
| 60°-70°   | 12313.4 | 25.7      |
| 70°-80°   | 5675.7  | 11.9      |
| 80°-90°   | 918.0   | 1.9       |
| 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°    | 47888.4 | 100.0     |
| 0°-180°   | 47888.4 | 100.0     |



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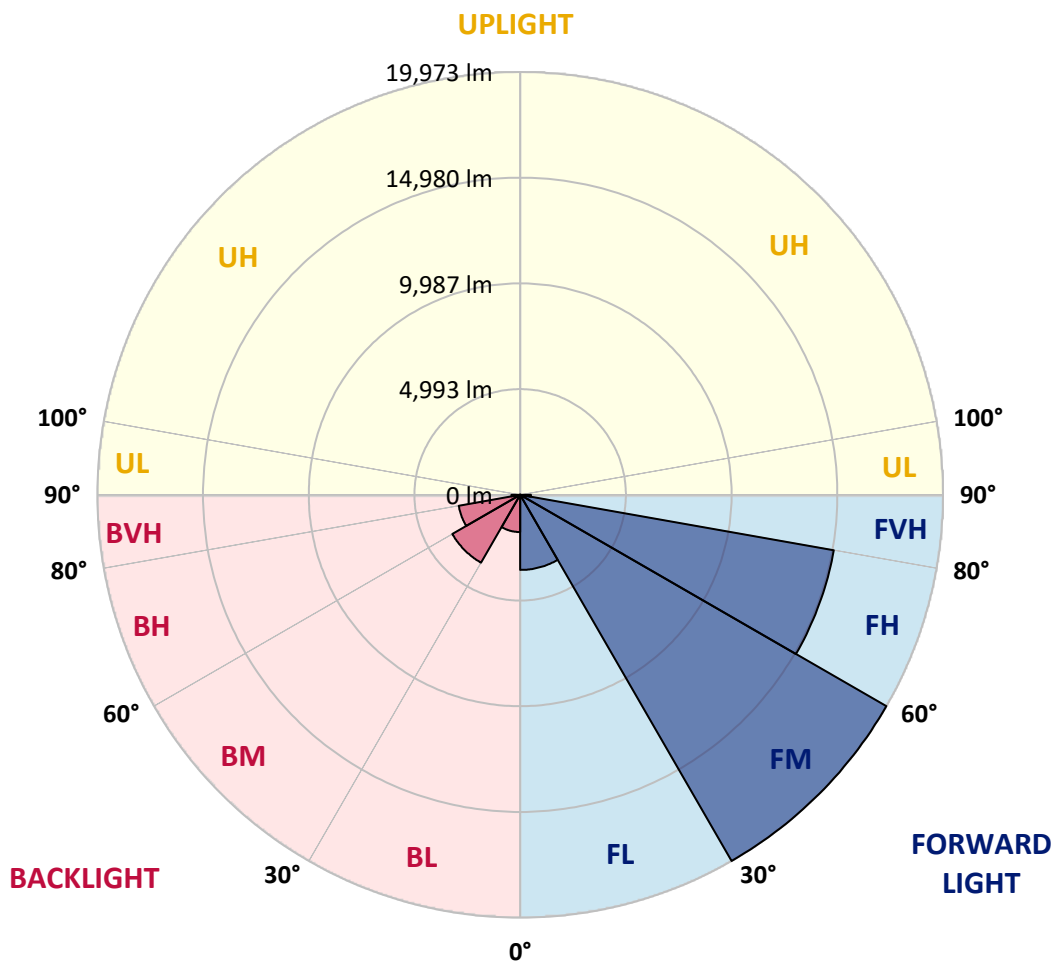
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 3548.4  | 7.4       |                         |      |         |
| FM   | (30°-60°)   | 19973.0 | 41.7      |                         |      |         |
| FH   | (60°-80°)   | 15043.0 | 31.4      |                         |      | G5      |
| FVH  | (80°-90°)   | 504.7   | 1.1       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1759.6  | 3.7       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3700.2  | 7.7       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 2946.1  | 6.2       | B4/5000                 |      | G4/5000 |
| BVH  | (80°-90°)   | 413.3   | 0.9       |                         |      | G3/500  |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B4-U0-G5**

Type II Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 65°     | 75°     | 80°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  | 6653.1  |
| 2.5°  | 7277.9  | 7235.4  | 7242.5  | 7230.7  | 7195.3  | 7134.1  | 7068.1  | 6947.8  | 6822.9  | 6756.8  | 6704.9  |
| 5°    | 7886.1  | 7874.4  | 7857.8  | 7820.0  | 7730.5  | 7603.2  | 7445.2  | 7233.1  | 7004.3  | 6884.2  | 6768.7  |
| 7.5°  | 8341.1  | 8334.1  | 8312.8  | 8289.3  | 8202.0  | 8048.8  | 7810.6  | 7508.9  | 7176.5  | 7011.4  | 6832.3  |
| 10°   | 8378.9  | 8390.7  | 8407.1  | 8470.7  | 8482.6  | 8400.1  | 8157.2  | 7791.8  | 7355.6  | 7143.5  | 6914.7  |
| 12.5° | 8058.2  | 8084.2  | 8147.8  | 8310.5  | 8482.6  | 8584.0  | 8459.0  | 8088.9  | 7565.4  | 7308.5  | 7018.6  |
| 15°   | 7633.9  | 7648.0  | 7725.8  | 7949.8  | 8258.6  | 8572.1  | 8690.1  | 8416.5  | 7836.6  | 7520.7  | 7174.2  |
| 17.5° | 7452.3  | 7459.4  | 7513.6  | 7662.1  | 7949.8  | 8397.7  | 8819.7  | 8772.5  | 8169.0  | 7784.8  | 7365.0  |
| 20°   | 7360.3  | 7376.9  | 7454.7  | 7600.8  | 7782.4  | 8173.7  | 8838.6  | 9156.8  | 8565.1  | 8114.8  | 7605.5  |
| 22.5° | 7622.1  | 7614.9  | 7643.3  | 7716.3  | 7869.6  | 8105.4  | 8824.4  | 9552.9  | 9069.6  | 8539.2  | 7919.1  |
| 25°   | 8232.7  | 8258.6  | 8209.1  | 8126.6  | 8176.1  | 8341.1  | 8899.9  | 9982.0  | 9701.5  | 9083.8  | 8329.4  |
| 27.5° | 9102.6  | 9076.6  | 9003.6  | 8810.3  | 8708.9  | 8779.7  | 9149.8  | 10444.1 | 10486.5 | 9800.5  | 8871.5  |
| 30°   | 9970.2  | 9949.0  | 9878.2  | 9642.5  | 9435.1  | 9376.1  | 9635.5  | 10974.5 | 11422.5 | 10661.0 | 9536.5  |
| 32.5° | 10870.8 | 10847.3 | 10781.2 | 10545.5 | 10295.6 | 10158.8 | 10326.2 | 11587.5 | 12525.8 | 11688.8 | 10319.1 |
| 35°   | 11981.2 | 11936.4 | 11797.4 | 11469.6 | 11224.4 | 11118.4 | 11196.2 | 12358.5 | 13798.9 | 12905.4 | 11269.2 |
| 37.5° | 13025.6 | 13094.0 | 12952.5 | 12499.8 | 12181.6 | 12143.9 | 12231.1 | 13299.1 | 15171.1 | 14265.8 | 12360.8 |
| 40°   | 14074.8 | 14086.5 | 13959.3 | 13589.1 | 13261.4 | 13200.1 | 13419.4 | 14440.2 | 16790.7 | 15892.5 | 13688.1 |
| 42.5° | 15159.2 | 15182.8 | 14968.3 | 14626.5 | 14386.0 | 14397.7 | 14647.6 | 15777.0 | 18648.5 | 17809.2 | 15215.8 |
| 45°   | 16444.1 | 16479.5 | 16243.7 | 15795.8 | 15576.6 | 16017.4 | 15913.6 | 17276.3 | 20685.4 | 19987.5 | 16969.8 |
| 47.5° | 17788.0 | 17842.2 | 17663.0 | 17243.4 | 16969.8 | 17575.7 | 17179.7 | 18938.4 | 22878.0 | 22324.0 | 18896.0 |
| 50°   | 18521.1 | 18599.0 | 18773.4 | 18742.8 | 18683.8 | 18582.4 | 18591.9 | 20720.8 | 25138.9 | 24756.9 | 20876.4 |
| 52.5° | 18127.4 | 18125.1 | 18761.6 | 19534.9 | 20360.1 | 20421.4 | 20312.9 | 22599.7 | 27251.3 | 27135.7 | 22741.2 |
| 55°   | 16326.3 | 16448.8 | 17413.1 | 18910.2 | 21164.0 | 22571.5 | 22892.1 | 24752.2 | 29326.0 | 29460.4 | 24634.4 |
| 57.5° | 13327.4 | 13428.8 | 14730.2 | 16816.6 | 20079.5 | 23849.3 | 26560.5 | 27880.7 | 31645.8 | 32273.0 | 27154.6 |
| 60°   | 9039.0  | 9161.5  | 10540.8 | 13046.8 | 17160.8 | 23137.3 | 30052.0 | 33463.5 | 34423.0 | 35849.4 | 30691.0 |
| 62.5° | 5311.7  | 5422.5  | 6547.0  | 8230.4  | 12082.6 | 19829.6 | 31584.5 | 41406.2 | 38834.1 | 41245.9 | 36085.1 |
| 65°   | 3656.6  | 3732.0  | 4279.0  | 5123.0  | 6943.1  | 13355.7 | 29684.3 | 46889.9 | 45621.6 | 47932.0 | 42339.8 |
| 67.5° | 2942.2  | 2932.8  | 3366.6  | 3941.8  | 4470.0  | 6886.5  | 22446.5 | 46269.9 | 51591.0 | 52555.2 | 45586.2 |
| 70°   | 2423.6  | 2414.2  | 2708.9  | 3185.1  | 3571.7  | 3878.2  | 12226.4 | 39046.2 | 50374.4 | 50765.8 | 42596.8 |
| 72.5° | 2027.5  | 2036.9  | 2225.5  | 2579.2  | 2930.4  | 2921.0  | 5372.9  | 27468.2 | 39628.6 | 42335.1 | 33956.2 |
| 75°   | 1711.6  | 1716.3  | 1841.3  | 2091.2  | 2378.8  | 2352.9  | 2914.0  | 14881.1 | 23035.9 | 24919.6 | 18822.9 |
| 77.5° | 1457.0  | 1461.7  | 1541.9  | 1680.9  | 1886.0  | 1876.6  | 2126.5  | 6429.1  | 9609.5  | 9491.7  | 6438.6  |
| 80°   | 1299.0  | 1299.0  | 1336.8  | 1362.7  | 1475.8  | 1433.4  | 1577.2  | 3088.4  | 4062.1  | 3751.0  | 2569.8  |
| 82.5° | 1018.4  | 1023.2  | 1254.2  | 1244.8  | 1162.3  | 1108.1  | 1108.1  | 1820.0  | 2152.5  | 1989.8  | 1504.1  |
| 85°   | 572.9   | 570.5   | 808.6   | 976.0   | 1023.2  | 780.4   | 773.2   | 1018.4  | 1171.7  | 1032.7  | 728.4   |
| 87.5° | 245.2   | 249.9   | 374.8   | 433.8   | 580.0   | 485.7   | 478.6   | 525.7   | 596.5   | 516.3   | 337.2   |
| 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°    | 6653.1  | 6653.1  | 6653.1 | 6653.1 | 6653.1 | 6653.1 | 6653.1 | 6653.1 | 6653.1 | 6653.1 | 6653.1 |
| 2.5°  | 6655.4  | 6594.1  | 6459.7 | 6292.4 | 6141.5 | 6042.5 | 5952.9 | 5823.2 | 5830.3 | 5740.7 | 5674.7 |
| 5°    | 6650.7  | 6523.5  | 6212.2 | 5842.1 | 5486.1 | 5229.1 | 5035.8 | 4861.4 | 4818.9 | 4736.4 | 4686.9 |
| 7.5°  | 6655.4  | 6448.0  | 5924.6 | 5332.8 | 4892.0 | 4566.7 | 4401.7 | 4309.7 | 4288.4 | 4260.2 | 4262.5 |
| 10°   | 6672.0  | 6379.6  | 5608.6 | 4856.7 | 4394.5 | 4180.0 | 4139.9 | 4168.2 | 4201.3 | 4210.7 | 4213.0 |
| 12.5° | 6709.6  | 6318.4  | 5262.2 | 4432.2 | 4083.3 | 4017.3 | 4085.7 | 4182.3 | 4246.0 | 4276.7 | 4274.3 |
| 15°   | 6794.5  | 6271.2  | 4929.7 | 4099.9 | 3911.3 | 3946.5 | 4073.9 | 4210.7 | 4302.6 | 4345.0 | 4347.3 |
| 17.5° | 6886.5  | 6202.8  | 4587.8 | 3845.2 | 3783.9 | 3873.5 | 4031.4 | 4191.7 | 4305.0 | 4352.1 | 4361.6 |
| 20°   | 7006.7  | 6118.0  | 4229.5 | 3654.3 | 3663.7 | 3765.1 | 3913.6 | 4073.9 | 4198.8 | 4238.9 | 4257.8 |
| 22.5° | 7164.6  | 6026.0  | 3916.0 | 3498.7 | 3526.9 | 3604.8 | 3720.3 | 3859.4 | 3967.8 | 3986.6 | 4003.2 |
| 25°   | 7376.9  | 5927.0  | 3666.1 | 3357.2 | 3369.0 | 3413.8 | 3491.5 | 3574.1 | 3649.6 | 3628.3 | 3644.8 |
| 27.5° | 7662.1  | 5842.1  | 3479.8 | 3227.5 | 3206.3 | 3215.7 | 3255.8 | 3281.7 | 3321.8 | 3262.9 | 3270.0 |
| 30°   | 7996.9  | 5750.1  | 3335.9 | 3114.4 | 3055.5 | 3038.9 | 3048.4 | 3062.5 | 3093.1 | 3013.0 | 3001.2 |
| 32.5° | 8385.9  | 5639.3  | 3201.6 | 3015.4 | 2932.8 | 2899.9 | 2904.6 | 2942.2 | 3060.2 | 3010.6 | 2984.7 |
| 35°   | 8838.6  | 5514.4  | 3060.2 | 2906.9 | 2850.4 | 2803.2 | 2798.5 | 2916.3 | 3267.6 | 3236.9 | 3213.4 |
| 37.5° | 9369.0  | 5389.4  | 2918.7 | 2784.3 | 2789.0 | 2737.1 | 2720.6 | 2855.1 | 3307.7 | 3187.4 | 3170.9 |
| 40°   | 10043.3 | 5323.4  | 2798.5 | 2654.7 | 2713.6 | 2706.5 | 2673.5 | 2741.9 | 3043.7 | 2824.4 | 2796.1 |
| 42.5° | 10877.9 | 5332.8  | 2708.9 | 2515.5 | 2624.0 | 2699.5 | 2647.6 | 2650.0 | 2758.4 | 2593.4 | 2567.4 |
| 45°   | 11908.2 | 5443.6  | 2645.2 | 2404.8 | 2522.6 | 2692.4 | 2638.1 | 2600.4 | 2609.9 | 2522.6 | 2508.5 |
| 47.5° | 13110.5 | 5672.4  | 2600.4 | 2312.8 | 2425.9 | 2666.4 | 2635.7 | 2586.2 | 2565.0 | 2517.9 | 2506.1 |
| 50°   | 14447.2 | 6004.7  | 2567.4 | 2225.5 | 2338.7 | 2624.0 | 2638.1 | 2572.1 | 2548.6 | 2529.7 | 2522.6 |
| 52.5° | 15760.4 | 6384.3  | 2517.9 | 2150.1 | 2270.3 | 2572.1 | 2645.2 | 2558.0 | 2532.0 | 2517.9 | 2510.8 |
| 55°   | 17224.4 | 6858.2  | 2442.5 | 2086.4 | 2213.8 | 2506.1 | 2645.2 | 2536.7 | 2508.5 | 2510.8 | 2508.5 |
| 57.5° | 19202.5 | 7624.5  | 2352.9 | 2032.2 | 2145.4 | 2425.9 | 2600.4 | 2513.2 | 2477.8 | 2480.1 | 2482.5 |
| 60°   | 22293.3 | 8975.3  | 2244.5 | 1978.0 | 2060.5 | 2331.6 | 2539.1 | 2461.3 | 2425.9 | 2435.3 | 2437.7 |
| 62.5° | 26838.8 | 10958.1 | 2103.0 | 1897.9 | 1970.9 | 2230.2 | 2454.3 | 2395.3 | 2359.9 | 2383.5 | 2383.5 |
| 65°   | 31563.2 | 12707.4 | 1928.5 | 1796.5 | 1876.6 | 2119.5 | 2348.2 | 2312.8 | 2277.4 | 2331.6 | 2329.3 |
| 67.5° | 32834.1 | 12316.0 | 1754.1 | 1685.7 | 1782.3 | 1996.9 | 2220.8 | 2202.0 | 2183.1 | 2277.4 | 2272.7 |
| 70°   | 29168.0 | 9887.7  | 1593.8 | 1572.5 | 1678.6 | 1864.8 | 2084.1 | 2084.1 | 2072.3 | 2143.1 | 2126.5 |
| 72.5° | 22222.6 | 7011.4  | 1440.5 | 1452.3 | 1560.7 | 1721.0 | 1935.5 | 1952.1 | 1933.2 | 1968.6 | 1954.4 |
| 75°   | 11896.3 | 4012.6  | 1287.3 | 1320.2 | 1414.5 | 1574.8 | 1770.5 | 1787.1 | 1775.2 | 1772.9 | 1779.9 |
| 77.5° | 3953.7  | 1961.5  | 1126.9 | 1178.7 | 1261.3 | 1423.9 | 1598.5 | 1624.3 | 1596.1 | 1591.4 | 1589.1 |
| 80°   | 1761.1  | 1233.1  | 950.1  | 1018.4 | 1091.6 | 1251.9 | 1416.9 | 1438.2 | 1407.5 | 1449.9 | 1395.7 |
| 82.5° | 1131.6  | 811.0   | 761.5  | 837.0  | 907.7  | 1079.7 | 1235.4 | 1240.1 | 1211.8 | 1407.5 | 1200.0 |
| 85°   | 549.3   | 502.2   | 572.9  | 641.3  | 702.6  | 848.7  | 1023.2 | 1025.5 | 954.8  | 869.9  | 839.3  |
| 87.5° | 273.4   | 292.4   | 382.0  | 443.2  | 473.8  | 582.4  | 745.0  | 730.9  | 700.2  | 636.6  | 587.1  |
| 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)