

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: P299918

Luminaire Tested: **GLNA-AF-08-LED-E1-SL3-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299918  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-08-LED-E1-SL3-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37152.8 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G5

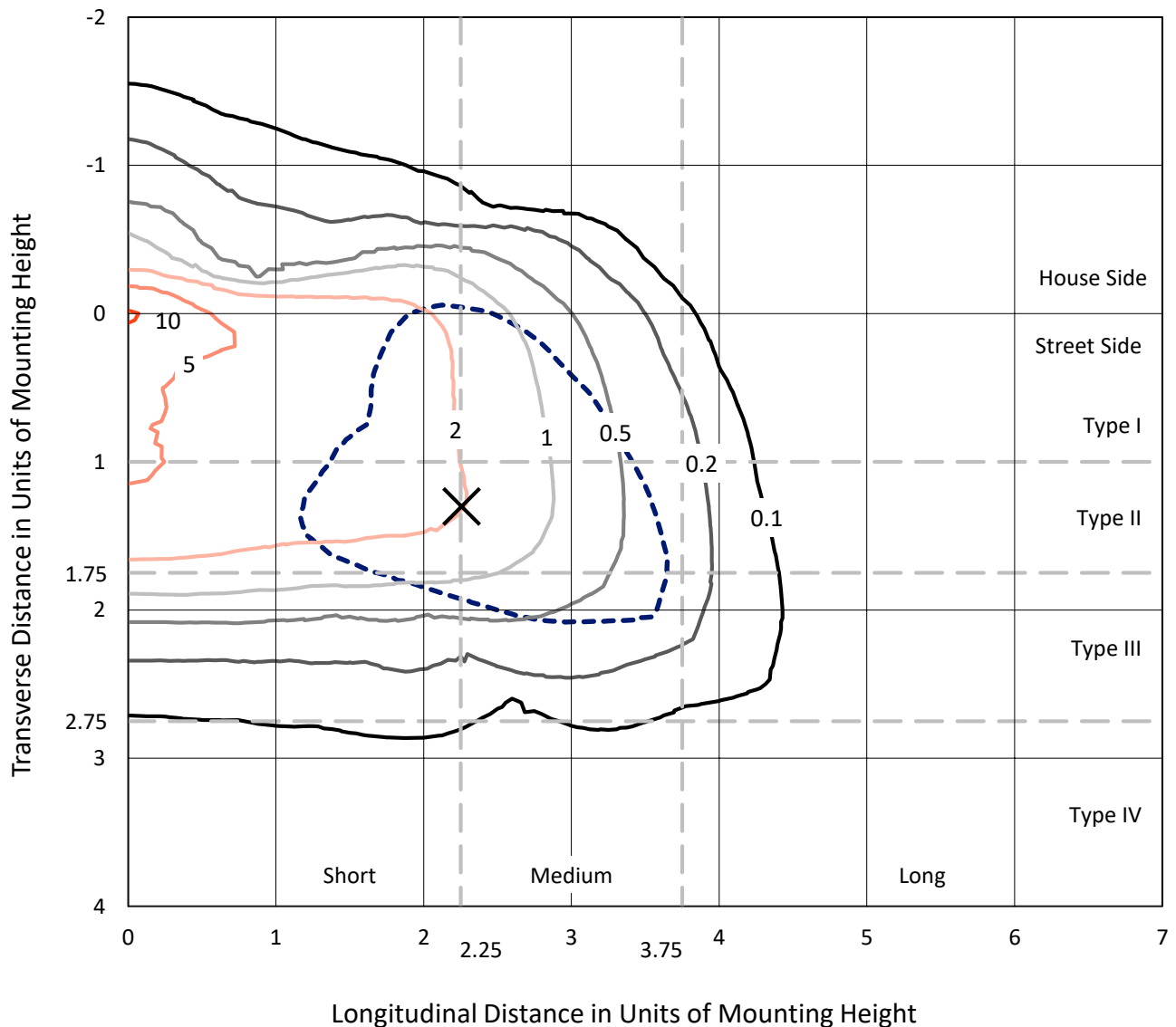
Input Watts (W): 334  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

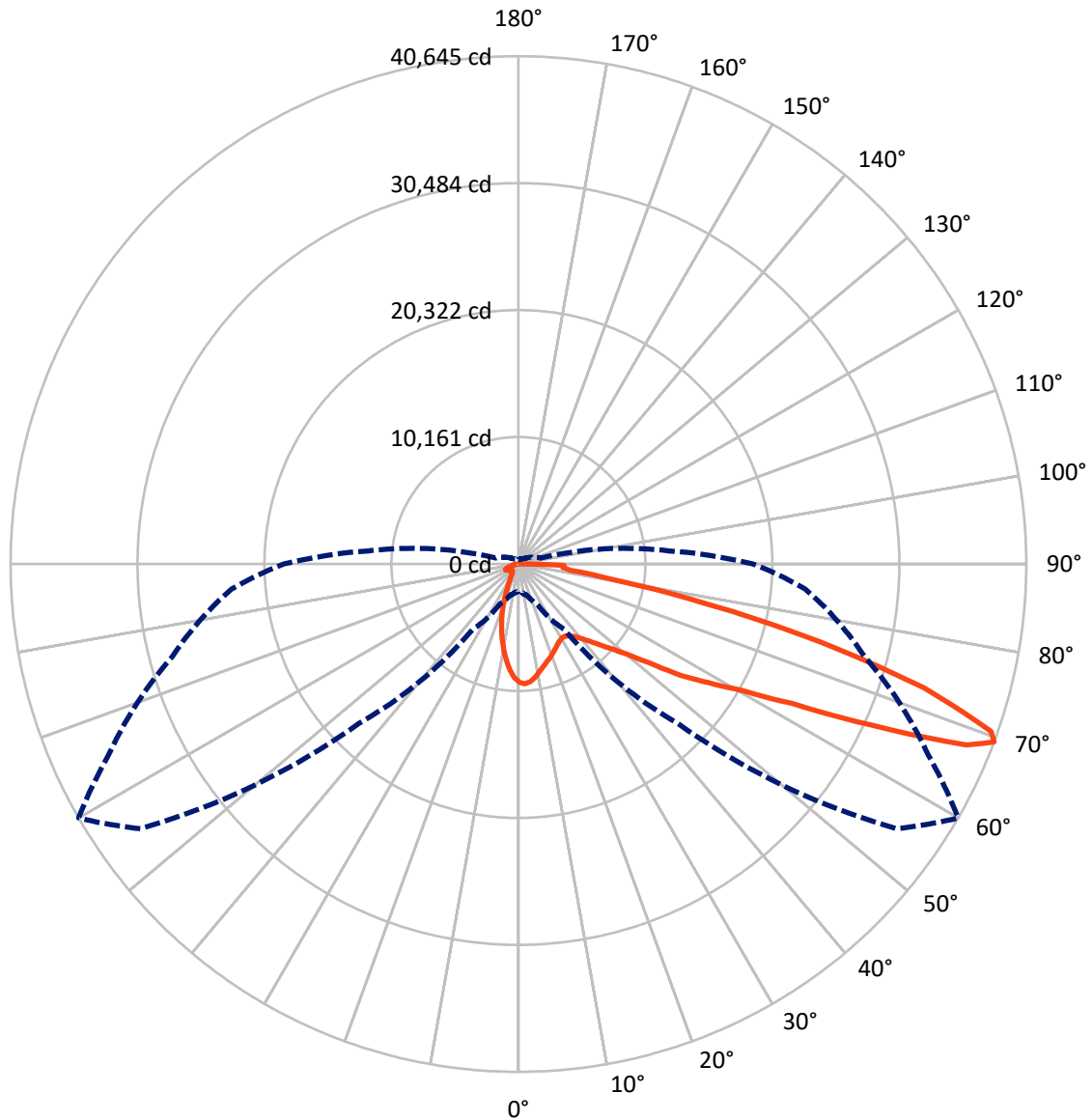
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.5 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5285.7   | 0.0    | 5285.7  |
|                    | % Fixture | 14.2     | 0.0    | 14.2    |
| <b>Street Side</b> | Lumens    | 31867.1  | 0.0    | 31867.1 |
|                    | % Fixture | 85.8     | 0.0    | 85.8    |
| <b>Total</b>       | Lumens    | 37152.8  | 0.0    | 37152.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 800.5   | 2.2       |
| 10°-20°   | 1705.5  | 4.6       |
| 20°-30°   | 2173.1  | 5.8       |
| 30°-40°   | 2987.4  | 8.0       |
| 40°-50°   | 4847.4  | 13.0      |
| 50°-60°   | 7773.9  | 20.9      |
| 60°-70°   | 10346.5 | 27.8      |
| 70°-80°   | 5586.3  | 15.0      |
| 80°-90°   | 932.1   | 2.5       |
| 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°    | 37152.8 | 100.0     |
| 0°-180°   | 37152.8 | 100.0     |

**Coefficient of Utilization**



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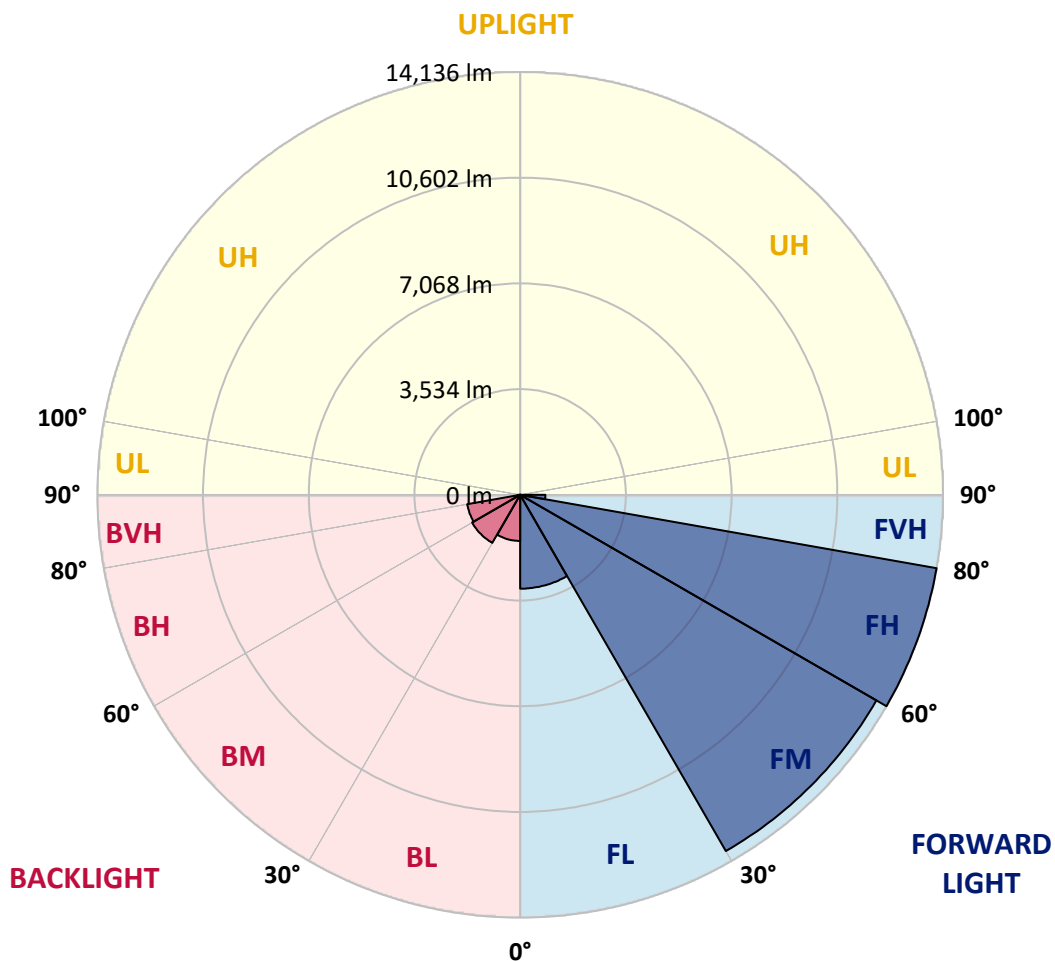
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3137.0  | 8.4       |                         |      |         |
| FM (30°-60°)   | 13751.8 | 37.0      |                         |      |         |
| FH (60°-80°)   | 14135.9 | 38.0      |                         |      | G5      |
| FVH (80°-90°)  | 842.4   | 2.3       |                         |      | G5      |
| BL (0°-30°)    | 1542.0  | 4.2       | B3/2500                 |      |         |
| BM (30°-60°)   | 1857.0  | 5.0       | B2/2500                 |      |         |
| BH (60°-80°)   | 1797.0  | 4.8       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 89.8    | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

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

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 60°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  | 9467.1  |
| 2.5°  | 9660.9  | 9682.5  | 9673.5  | 9668.1  | 9684.2  | 9659.1  | 9607.1  | 9590.9  | 9565.8  | 9506.6  | 9406.1  |
| 5°    | 9298.4  | 9363.0  | 9359.4  | 9407.9  | 9488.6  | 9510.2  | 9486.8  | 9490.4  | 9443.8  | 9370.2  | 9203.3  |
| 7.5°  | 8672.0  | 8699.0  | 8713.3  | 8819.2  | 8966.4  | 9084.8  | 9185.3  | 9217.6  | 9196.1  | 9133.3  | 8917.9  |
| 10°   | 8025.9  | 8047.5  | 8081.6  | 8205.4  | 8392.1  | 8555.4  | 8745.6  | 8855.1  | 8901.8  | 8891.0  | 8650.5  |
| 12.5° | 7471.4  | 7492.9  | 7537.8  | 7677.8  | 7900.3  | 8101.3  | 8377.7  | 8514.1  | 8625.4  | 8691.8  | 8433.3  |
| 15°   | 6974.2  | 7020.9  | 7064.0  | 7225.5  | 7475.0  | 7738.8  | 8051.1  | 8223.4  | 8395.6  | 8544.6  | 8241.3  |
| 17.5° | 6586.6  | 6633.2  | 6658.4  | 6805.5  | 7071.2  | 7394.2  | 7760.3  | 7963.1  | 8178.5  | 8422.6  | 8051.1  |
| 20°   | 6362.2  | 6383.8  | 6373.0  | 6455.6  | 6694.3  | 7037.1  | 7471.4  | 7706.5  | 7966.7  | 8307.7  | 7860.8  |
| 22.5° | 6299.4  | 6301.2  | 6261.7  | 6252.8  | 6407.1  | 6696.1  | 7162.7  | 7448.0  | 7767.5  | 8232.3  | 7697.5  |
| 25°   | 6452.0  | 6446.6  | 6338.9  | 6251.0  | 6267.1  | 6435.8  | 6864.8  | 7196.8  | 7600.6  | 8216.2  | 7571.9  |
| 27.5° | 6791.2  | 6807.3  | 6647.6  | 6482.5  | 6319.2  | 6313.8  | 6638.6  | 6988.6  | 7464.2  | 8289.8  | 7518.0  |
| 30°   | 7266.8  | 7293.7  | 7123.2  | 6913.2  | 6606.3  | 6353.3  | 6550.7  | 6864.8  | 7379.8  | 8442.3  | 7509.1  |
| 32.5° | 7787.2  | 7816.0  | 7686.7  | 7466.0  | 7064.0  | 6597.3  | 6611.7  | 6875.5  | 7376.3  | 8655.9  | 7570.1  |
| 35°   | 8341.8  | 8374.1  | 8307.7  | 8121.1  | 7674.2  | 7047.8  | 6845.0  | 7049.6  | 7492.9  | 8982.5  | 7733.4  |
| 37.5° | 8961.0  | 9011.2  | 9029.2  | 8851.5  | 8374.1  | 7641.9  | 7227.3  | 7379.8  | 7756.7  | 9436.6  | 8033.1  |
| 40°   | 9852.9  | 9922.9  | 9917.6  | 9662.7  | 9176.3  | 8444.1  | 7817.7  | 7857.2  | 8167.7  | 10043.2 | 8512.3  |
| 42.5° | 11561.5 | 11575.9 | 11129.0 | 10574.4 | 10059.3 | 9287.6  | 8514.1  | 8481.8  | 8734.8  | 10811.3 | 9217.6  |
| 45°   | 13734.9 | 13675.7 | 12681.4 | 11610.0 | 10981.8 | 10256.8 | 9420.4  | 9262.5  | 9454.5  | 11748.2 | 10100.6 |
| 47.5° | 15538.6 | 15402.2 | 14145.9 | 12667.0 | 11958.1 | 11310.3 | 10484.7 | 10208.3 | 10314.2 | 12810.6 | 11242.1 |
| 50°   | 16164.9 | 16062.6 | 15021.7 | 13546.5 | 12882.4 | 12595.3 | 11794.8 | 11403.6 | 11432.3 | 14077.7 | 12579.1 |
| 52.5° | 16030.3 | 16016.0 | 15321.4 | 14126.1 | 13747.5 | 13944.9 | 13650.6 | 13121.1 | 12841.1 | 15484.7 | 14022.1 |
| 55°   | 15712.7 | 15743.2 | 15491.9 | 14801.0 | 14736.3 | 15247.8 | 16075.2 | 15684.0 | 14813.5 | 16904.4 | 15513.5 |
| 57.5° | 14608.9 | 14687.9 | 15240.7 | 15649.9 | 16328.3 | 17089.2 | 18027.8 | 17916.6 | 16936.7 | 18438.8 | 17286.6 |
| 60°   | 11769.7 | 11952.8 | 13435.2 | 15484.7 | 17966.8 | 20346.6 | 20766.6 | 20508.1 | 19126.2 | 20343.0 | 19628.7 |
| 62.5° | 8246.7  | 8436.9  | 10199.3 | 13406.5 | 17697.6 | 24025.8 | 25662.5 | 24548.0 | 22270.5 | 23148.1 | 22660.0 |
| 65°   | 4415.0  | 4506.5  | 5852.5  | 9302.0  | 14940.9 | 24784.9 | 32818.0 | 31122.0 | 27249.1 | 26606.5 | 25253.3 |
| 67.5° | 2435.4  | 2485.7  | 3000.8  | 4696.8  | 9569.4  | 21825.4 | 37376.6 | 38658.0 | 33471.3 | 28909.2 | 24781.3 |
| 69°   | 2202.1  | 2248.8  | 2586.2  | 3557.1  | 6403.5  | 18045.8 | 36931.5 | 40644.8 | 36199.3 | 28681.2 | 23036.9 |
| 70°   | 2153.6  | 2196.7  | 2500.0  | 3278.9  | 5183.1  | 14874.5 | 35440.1 | 40136.9 | 36848.9 | 27864.6 | 21515.0 |
| 72.5° | 1938.3  | 1984.9  | 2279.3  | 2945.1  | 4429.3  | 7415.7  | 28072.8 | 33936.1 | 33455.2 | 24160.4 | 16319.3 |
| 75°   | 1807.3  | 1850.3  | 2349.3  | 2884.1  | 4240.9  | 4693.2  | 18507.0 | 25011.1 | 24592.9 | 16900.8 | 8799.5  |
| 77.5° | 773.5   | 769.9   | 1089.4  | 2440.8  | 4303.7  | 4544.2  | 9944.5  | 15624.7 | 14255.4 | 7223.7  | 2526.9  |
| 80°   | 516.9   | 507.9   | 516.9   | 717.9   | 3946.6  | 4569.3  | 5210.0  | 7930.8  | 5990.7  | 1841.4  | 1245.5  |
| 82.5° | 445.1   | 437.9   | 454.1   | 437.9   | 1387.3  | 5215.4  | 4429.3  | 4217.6  | 2848.2  | 1046.3  | 617.4   |
| 85°   | 299.7   | 287.2   | 391.2   | 393.0   | 655.1   | 4633.9  | 4989.3  | 3562.5  | 2304.4  | 621.0   | 305.1   |
| 87.5° | 143.6   | 140.0   | 227.9   | 278.2   | 384.1   | 1882.6  | 5597.7  | 3650.4  | 2324.1  | 317.7   | 145.4   |
| 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°    | 9467.1  | 9467.1  | 9467.1 | 9467.1 | 9467.1 | 9467.1 | 9467.1 | 9467.1 | 9467.1 | 9467.1 | 9467.1 |
| 2.5°  | 9375.6  | 9302.0  | 9230.2 | 9144.0 | 9054.3 | 8953.8 | 8903.5 | 8853.3 | 8840.7 | 8826.4 | 8776.1 |
| 5°    | 9117.1  | 9013.0  | 8833.6 | 8636.1 | 8427.9 | 8225.1 | 8070.8 | 7973.9 | 7900.3 | 7862.6 | 7796.2 |
| 7.5°  | 8783.3  | 8630.8  | 8316.7 | 7975.7 | 7625.7 | 7306.3 | 7029.9 | 6855.8 | 6690.7 | 6613.5 | 6525.6 |
| 10°   | 8465.6  | 8237.7  | 7749.5 | 7247.0 | 6744.5 | 6261.7 | 5807.7 | 5486.4 | 5201.1 | 5041.3 | 4928.3 |
| 12.5° | 8192.8  | 7880.6  | 7204.0 | 6523.8 | 5834.6 | 5147.2 | 4467.0 | 3932.2 | 3485.3 | 3250.2 | 3130.0 |
| 15°   | 7927.2  | 7550.3  | 6685.3 | 5822.0 | 4937.2 | 4002.2 | 3108.4 | 2501.8 | 2132.1 | 1984.9 | 1934.7 |
| 17.5° | 7686.7  | 7204.0  | 6164.8 | 5114.9 | 4011.2 | 2880.5 | 2089.0 | 1755.2 | 1613.4 | 1565.0 | 1548.8 |
| 20°   | 7426.5  | 6854.0  | 5624.6 | 4375.5 | 3045.6 | 2013.7 | 1631.4 | 1484.2 | 1426.8 | 1412.4 | 1405.3 |
| 22.5° | 7175.2  | 6509.4  | 5107.7 | 3584.0 | 2187.7 | 1554.2 | 1401.7 | 1340.6 | 1331.7 | 1344.2 | 1344.2 |
| 25°   | 6961.7  | 6200.7  | 4549.6 | 2756.7 | 1606.3 | 1308.3 | 1254.5 | 1240.1 | 1274.2 | 1320.9 | 1329.9 |
| 27.5° | 6801.9  | 5947.7  | 3955.5 | 2035.2 | 1279.6 | 1137.8 | 1136.1 | 1159.4 | 1243.7 | 1333.5 | 1351.4 |
| 30°   | 6692.5  | 5707.2  | 3320.2 | 1468.1 | 1073.2 | 1001.4 | 1030.2 | 1080.4 | 1204.2 | 1331.7 | 1365.8 |
| 32.5° | 6636.8  | 5529.5  | 2658.0 | 1136.1 | 918.9  | 879.4  | 927.9  | 988.9  | 1110.9 | 1229.4 | 1274.2 |
| 35°   | 6679.9  | 5398.5  | 2033.4 | 947.6  | 811.2  | 780.7  | 830.9  | 890.2  | 962.0  | 1012.2 | 1046.3 |
| 37.5° | 6841.4  | 5346.4  | 1534.5 | 848.9  | 737.6  | 708.9  | 748.4  | 782.5  | 811.2  | 825.6  | 841.7  |
| 40°   | 7189.6  | 5402.1  | 1229.4 | 798.6  | 696.3  | 660.5  | 676.6  | 689.2  | 707.1  | 721.5  | 728.7  |
| 42.5° | 7702.9  | 5569.0  | 1102.0 | 778.9  | 674.8  | 622.8  | 619.2  | 624.6  | 647.9  | 674.8  | 680.2  |
| 45°   | 8420.8  | 5863.3  | 1093.0 | 791.5  | 664.0  | 592.3  | 576.1  | 583.3  | 619.2  | 660.5  | 667.6  |
| 47.5° | 9337.9  | 6312.0  | 1164.8 | 829.2  | 673.0  | 576.1  | 549.2  | 558.2  | 603.0  | 658.7  | 667.6  |
| 50°   | 10448.8 | 6938.3  | 1285.0 | 884.8  | 712.5  | 579.7  | 540.2  | 545.6  | 592.3  | 653.3  | 662.2  |
| 52.5° | 11760.7 | 7826.7  | 1416.0 | 938.6  | 753.8  | 603.0  | 547.4  | 534.8  | 577.9  | 631.7  | 642.5  |
| 55°   | 13219.8 | 8966.4  | 1550.6 | 987.1  | 775.3  | 631.7  | 561.7  | 520.5  | 551.0  | 595.8  | 604.8  |
| 57.5° | 15010.9 | 10560.1 | 1783.9 | 1033.8 | 789.7  | 651.5  | 576.1  | 506.1  | 516.9  | 549.2  | 556.4  |
| 60°   | 17435.6 | 12814.2 | 2194.9 | 1110.9 | 822.0  | 658.7  | 574.3  | 493.5  | 482.8  | 500.7  | 504.3  |
| 62.5° | 20341.2 | 15262.2 | 2537.7 | 1207.8 | 875.8  | 664.0  | 563.5  | 484.6  | 454.1  | 454.1  | 457.7  |
| 65°   | 22065.9 | 15917.3 | 2347.5 | 1288.6 | 920.7  | 658.7  | 551.0  | 475.6  | 432.5  | 412.8  | 414.6  |
| 67.5° | 20603.2 | 13998.7 | 2011.9 | 1304.8 | 918.9  | 633.5  | 531.2  | 459.4  | 411.0  | 380.5  | 378.7  |
| 69°   | 18770.9 | 12078.4 | 1861.1 | 1261.7 | 875.8  | 601.2  | 506.1  | 441.5  | 394.8  | 362.5  | 360.7  |
| 70°   | 17293.8 | 10906.4 | 1762.4 | 1215.0 | 829.2  | 577.9  | 486.4  | 425.3  | 382.3  | 351.8  | 348.2  |
| 72.5° | 12573.7 | 7146.5  | 1505.8 | 1044.5 | 683.8  | 484.6  | 420.0  | 373.3  | 341.0  | 323.0  | 319.5  |
| 75°   | 6283.3  | 3408.2  | 1222.2 | 847.1  | 524.1  | 387.7  | 344.6  | 312.3  | 296.1  | 292.5  | 290.7  |
| 77.5° | 2063.9  | 1561.4  | 874.0  | 631.7  | 389.5  | 303.3  | 278.2  | 254.8  | 251.3  | 262.0  | 258.4  |
| 80°   | 1134.3  | 908.1   | 554.6  | 418.2  | 265.6  | 222.5  | 219.0  | 206.4  | 211.8  | 229.7  | 226.1  |
| 82.5° | 577.9   | 472.0   | 342.8  | 251.3  | 179.5  | 159.7  | 174.1  | 166.9  | 174.1  | 190.2  | 188.4  |
| 85°   | 285.4   | 258.4   | 217.2  | 152.6  | 118.5  | 102.3  | 123.8  | 129.2  | 132.8  | 145.4  | 145.4  |
| 87.5° | 165.1   | 152.6   | 114.9  | 71.8   | 59.2   | 53.8   | 71.8   | 70.0   | 82.6   | 89.7   | 87.9   |
| 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)