

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: P300404

Luminaire Tested: **GLNA-AF-09-LED-E1-T4FT-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300404  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-09-LED-E1-T4FT-7027-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(9) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37449.7 lumens  
Efficiency: N/A  
Efficacy: 100.1 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 374  
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

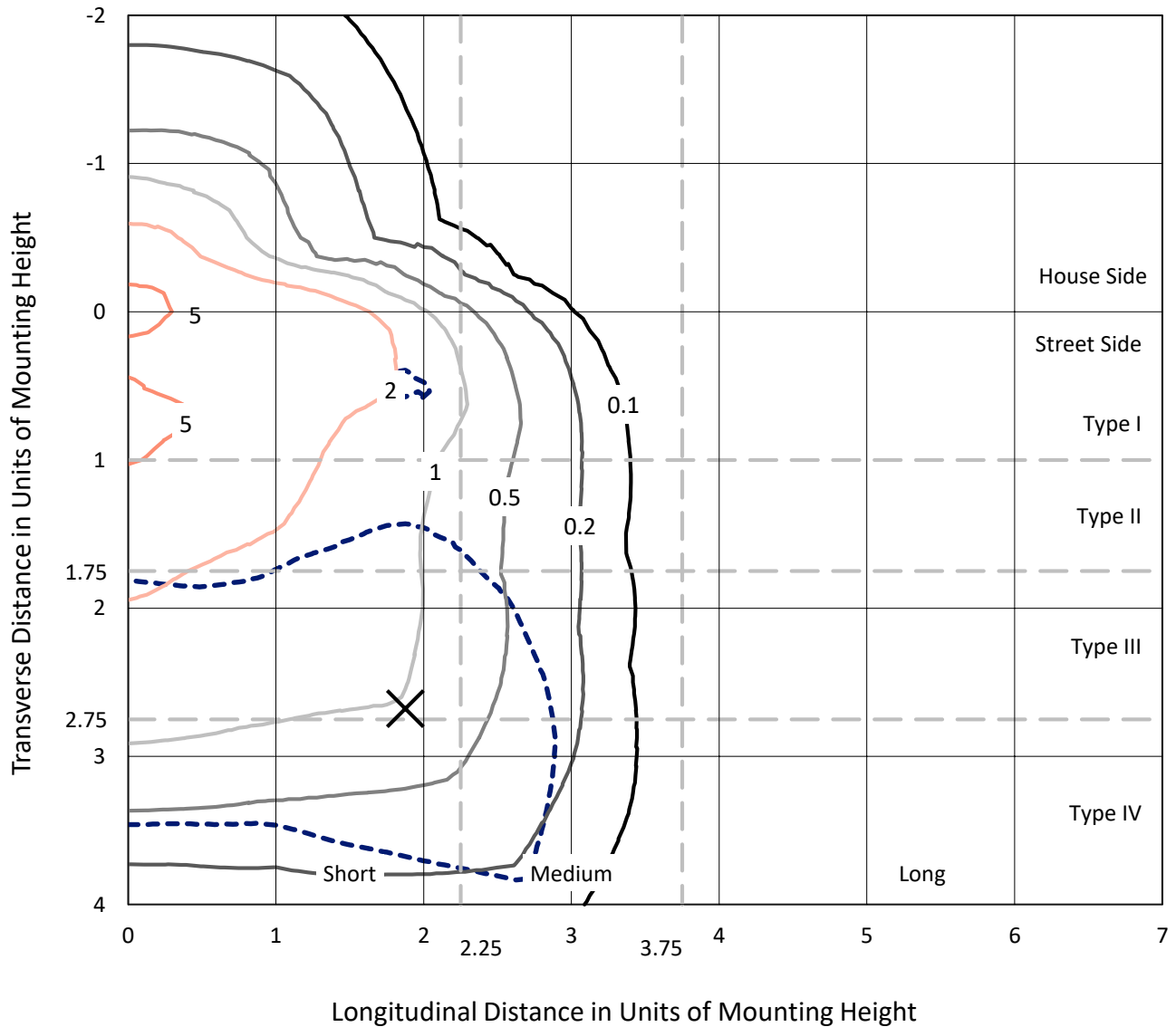


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### Iso-Footcandle Lines of Horizontal Illumination

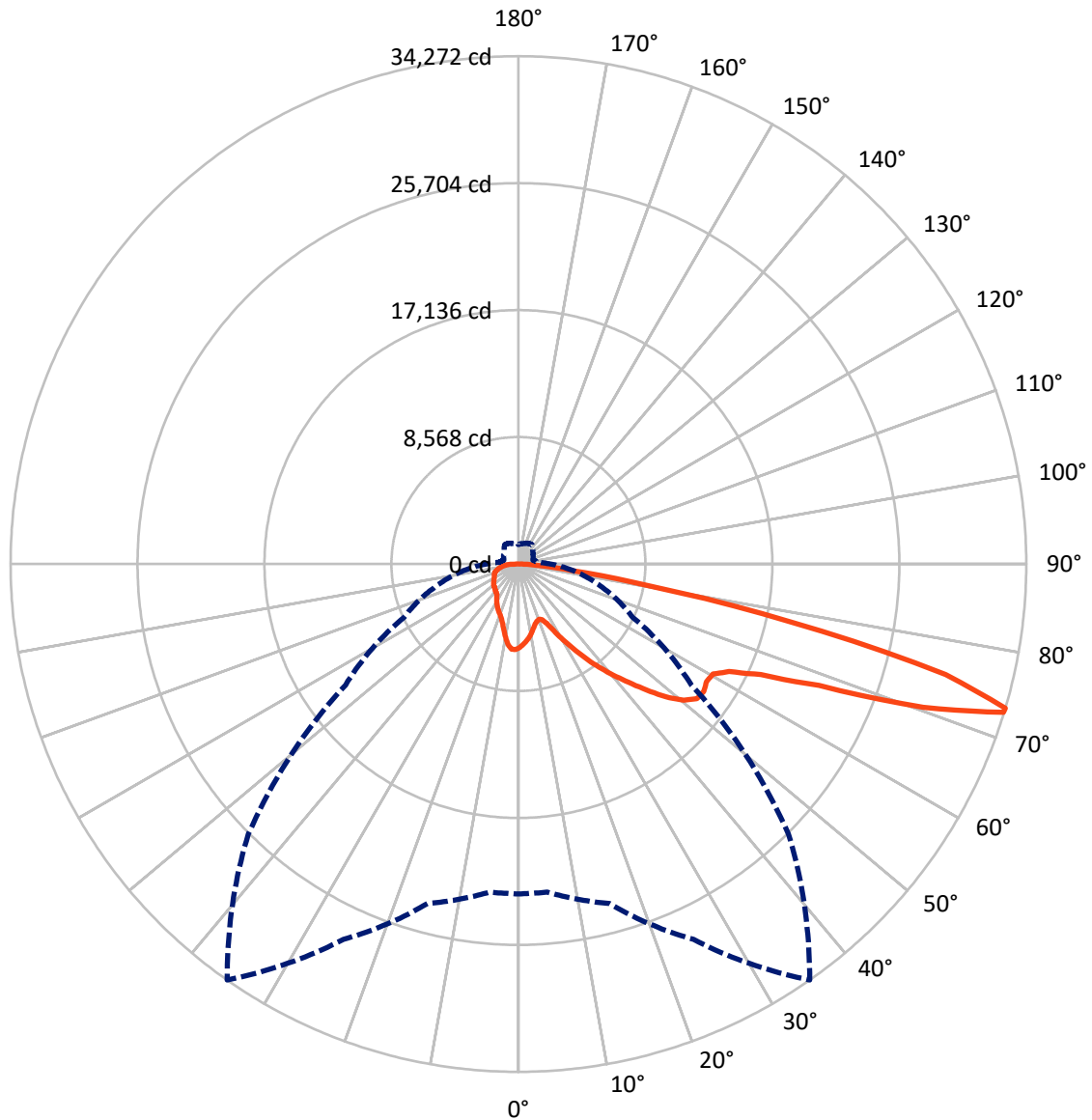
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.3 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 7142.7   | 0.0    | 7142.7  |
|                    | % Fixture | 19.1     | 0.0    | 19.1    |
| <b>Street Side</b> | Lumens    | 30307.0  | 0.0    | 30307.0 |
|                    | % Fixture | 80.9     | 0.0    | 80.9    |
| <b>Total</b>       | Lumens    | 37449.7  | 0.0    | 37449.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 511.7   | 1.4       |
| 10°-20°   | 1277.1  | 3.4       |
| 20°-30°   | 2064.6  | 5.5       |
| 30°-40°   | 3462.1  | 9.2       |
| 40°-50°   | 5336.7  | 14.3      |
| 50°-60°   | 7159.8  | 19.1      |
| 60°-70°   | 9538.3  | 25.5      |
| 70°-80°   | 7274.8  | 19.4      |
| 80°-90°   | 824.6   | 2.2       |
| 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°    | 37449.7 | 100.0     |
| 0°-180°   | 37449.7 | 100.0     |

**Coefficient of Utilization**



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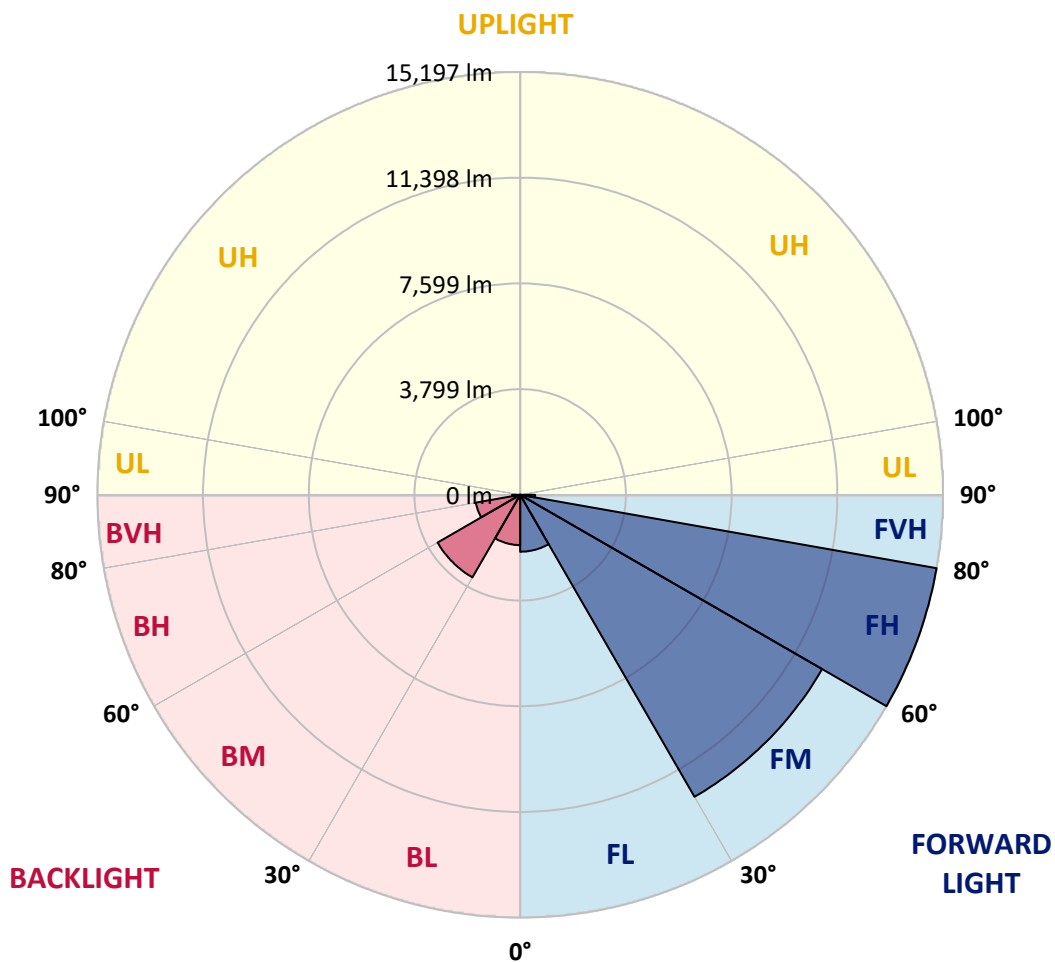
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2046.0  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 12530.9 | 33.5      |                         |      |         |
| FH   | (60°-80°)   | 15197.1 | 40.6      |                         |      | G5      |
| FVH  | (80°-90°)   | 533.0   | 1.4       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1807.4  | 4.8       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 3427.7  | 9.2       | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1616.0  | 4.3       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 291.6   | 0.8       |                         |      | G3/500  |
| 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°     | 35°     | 45°     | 55°     | 65°     | 75°     | 85°     | 90°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  | 5652.3  |
| 2.5°  | 5429.3  | 5440.1  | 5427.5  | 5443.7  | 5470.7  | 5499.5  | 5519.2  | 5548.0  | 5580.4  | 5625.3  | 5636.1  |
| 5°    | 5173.9  | 5190.1  | 5190.1  | 5218.9  | 5271.1  | 5317.8  | 5361.0  | 5407.7  | 5476.1  | 5553.4  | 5584.0  |
| 7.5°  | 4893.4  | 4902.4  | 4918.6  | 4961.7  | 5037.3  | 5103.8  | 5165.0  | 5240.5  | 5334.0  | 5436.5  | 5490.5  |
| 10°   | 4555.3  | 4567.9  | 4593.1  | 4654.2  | 4756.7  | 4848.4  | 4936.6  | 5040.9  | 5159.6  | 5287.2  | 5355.6  |
| 12.5° | 4316.1  | 4312.5  | 4323.3  | 4368.3  | 4458.2  | 4569.7  | 4697.4  | 4830.5  | 4976.1  | 5125.4  | 5208.1  |
| 15°   | 4235.2  | 4215.4  | 4174.0  | 4163.3  | 4211.8  | 4323.3  | 4470.8  | 4634.4  | 4808.9  | 4988.7  | 5091.2  |
| 17.5° | 4285.5  | 4251.4  | 4138.1  | 4055.4  | 4048.2  | 4132.7  | 4289.1  | 4472.6  | 4674.0  | 4893.4  | 5021.1  |
| 20°   | 4602.1  | 4521.1  | 4242.4  | 4050.0  | 3983.4  | 4024.8  | 4161.5  | 4355.7  | 4593.1  | 4884.4  | 5048.1  |
| 22.5° | 5359.2  | 5240.5  | 4648.8  | 4290.9  | 4066.1  | 4015.8  | 4118.3  | 4325.1  | 4602.1  | 4995.9  | 5204.5  |
| 25°   | 6461.6  | 6292.5  | 5346.6  | 4891.6  | 4427.6  | 4159.7  | 4183.0  | 4395.2  | 4729.7  | 5254.9  | 5506.6  |
| 27.5° | 7332.0  | 7222.3  | 6258.4  | 5738.6  | 5085.8  | 4548.1  | 4393.4  | 4571.5  | 4990.5  | 5679.3  | 5936.5  |
| 30°   | 7849.9  | 7783.4  | 7233.1  | 6699.0  | 5925.7  | 5166.8  | 4796.3  | 4902.4  | 5398.7  | 6267.4  | 6479.6  |
| 32.5° | 8450.6  | 8411.0  | 8141.3  | 7650.3  | 6832.1  | 5979.6  | 5434.7  | 5396.9  | 5945.5  | 6974.1  | 7071.2  |
| 35°   | 9072.8  | 9060.3  | 8902.0  | 8549.5  | 7805.0  | 7051.5  | 6281.8  | 6026.4  | 6540.7  | 7707.9  | 7646.7  |
| 37.5° | 9651.9  | 9630.3  | 9538.6  | 9333.6  | 8822.9  | 8202.4  | 7145.0  | 6672.0  | 7182.7  | 8409.2  | 8137.7  |
| 40°   | 10718.4 | 10549.3 | 10234.6 | 10079.9 | 9851.5  | 9171.8  | 7830.2  | 7274.5  | 7848.1  | 9078.2  | 8562.1  |
| 42.5° | 12018.6 | 11743.4 | 11157.2 | 10945.0 | 10912.6 | 9936.1  | 8297.7  | 7858.9  | 8518.9  | 9741.8  | 8979.3  |
| 45°   | 13041.9 | 12782.9 | 12277.6 | 12009.6 | 12128.3 | 10628.4 | 8767.1  | 8483.0  | 9209.5  | 10437.8 | 9409.1  |
| 47.5° | 14133.5 | 13727.1 | 13058.1 | 13139.0 | 13398.0 | 11283.1 | 9245.5  | 9153.8  | 9966.6  | 11216.5 | 9943.3  |
| 50°   | 14173.1 | 13861.9 | 13568.8 | 14052.6 | 14455.4 | 11885.5 | 9844.3  | 9856.9  | 10892.8 | 12196.6 | 10653.6 |
| 52.5° | 13351.2 | 13284.7 | 13750.4 | 14511.2 | 15092.0 | 12362.1 | 10525.9 | 10583.5 | 12077.9 | 13322.4 | 11434.1 |
| 55°   | 13063.5 | 12987.9 | 13525.6 | 14351.1 | 15178.4 | 12755.9 | 11265.1 | 11369.4 | 13511.3 | 14509.4 | 12194.8 |
| 57.5° | 13764.8 | 13597.6 | 13633.5 | 14275.6 | 14967.9 | 13187.5 | 12070.7 | 12281.2 | 15068.7 | 15547.0 | 12684.0 |
| 60°   | 15725.1 | 15367.2 | 14687.4 | 14671.2 | 15081.2 | 13835.0 | 13002.3 | 13259.5 | 16687.2 | 16043.4 | 12493.4 |
| 62.5° | 18474.8 | 18116.9 | 16843.7 | 16014.6 | 15953.5 | 14903.2 | 14146.1 | 14214.4 | 17622.4 | 15370.8 | 11329.8 |
| 65°   | 21451.1 | 21131.0 | 19708.5 | 18537.7 | 17973.0 | 16672.8 | 15475.1 | 14640.6 | 17316.6 | 13520.2 | 9294.0  |
| 67.5° | 25064.1 | 24720.6 | 23497.7 | 22416.8 | 21873.7 | 19528.6 | 16408.4 | 14232.4 | 15376.2 | 10473.8 | 6681.0  |
| 70°   | 27590.8 | 27240.1 | 26758.1 | 27634.0 | 28963.0 | 23648.7 | 16528.9 | 12572.5 | 11484.5 | 6961.5  | 4021.2  |
| 72.5° | 24294.4 | 24130.7 | 25010.1 | 28698.6 | 34234.0 | 26148.5 | 14941.0 | 9153.8  | 6670.2  | 3695.7  | 2327.1  |
| 73°   | 22258.6 | 22222.6 | 23722.5 | 27952.3 | 34271.8 | 25763.6 | 14245.0 | 8508.1  | 5720.7  | 3269.5  | 2127.5  |
| 75°   | 10051.2 | 10340.7 | 13628.1 | 21350.4 | 29775.8 | 21229.9 | 10026.0 | 4880.8  | 3231.7  | 2258.8  | 1606.0  |
| 77.5° | 2415.2  | 2515.9  | 4264.0  | 10139.3 | 18803.9 | 12651.6 | 4542.7  | 2413.4  | 2066.3  | 1595.2  | 1172.5  |
| 80°   | 1028.7  | 1062.8  | 1641.9  | 3746.0  | 8853.4  | 5094.8  | 2093.3  | 1616.7  | 1429.7  | 1113.2  | 821.9   |
| 82.5° | 571.9   | 607.9   | 931.6   | 1699.5  | 3573.4  | 1737.2  | 1276.9  | 1125.8  | 940.6   | 670.8   | 534.1   |
| 85°   | 323.7   | 343.5   | 544.9   | 949.5   | 1514.2  | 697.8   | 764.3   | 748.1   | 530.5   | 345.3   | 262.6   |
| 87.5° | 152.9   | 165.5   | 262.6   | 440.6   | 593.5   | 273.4   | 388.5   | 428.0   | 332.7   | 210.4   | 136.7   |
| 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):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 | 5652.3 |
| 2.5°  | 5648.7 | 5681.1 | 5718.9 | 5738.6 | 5756.6 | 5778.2 | 5799.8 | 5799.8 | 5803.4 | 5805.2 |
| 5°    | 5609.2 | 5675.7 | 5735.0 | 5760.2 | 5765.6 | 5765.6 | 5760.2 | 5731.4 | 5706.3 | 5717.1 |
| 7.5°  | 5526.4 | 5623.5 | 5673.9 | 5664.9 | 5596.6 | 5517.4 | 5450.9 | 5370.0 | 5328.6 | 5321.4 |
| 10°   | 5407.7 | 5519.2 | 5528.2 | 5438.3 | 5269.3 | 5100.2 | 4959.9 | 4823.3 | 4758.5 | 4742.3 |
| 12.5° | 5276.5 | 5379.0 | 5321.4 | 5136.2 | 4864.6 | 4618.2 | 4440.2 | 4301.7 | 4240.6 | 4224.4 |
| 15°   | 5170.4 | 5240.5 | 5094.8 | 4803.5 | 4461.8 | 4201.0 | 4053.6 | 3951.0 | 3907.9 | 3895.3 |
| 17.5° | 5114.6 | 5129.0 | 4862.8 | 4469.0 | 4105.7 | 3888.1 | 3796.4 | 3747.8 | 3731.6 | 3722.7 |
| 20°   | 5141.6 | 5040.9 | 4641.6 | 4157.9 | 3814.4 | 3661.5 | 3639.9 | 3627.3 | 3623.7 | 3618.3 |
| 22.5° | 5276.5 | 5013.9 | 4438.4 | 3862.9 | 3559.0 | 3492.5 | 3510.4 | 3508.6 | 3505.0 | 3501.5 |
| 25°   | 5517.4 | 5037.3 | 4240.6 | 3582.4 | 3345.0 | 3330.6 | 3363.0 | 3363.0 | 3348.6 | 3348.6 |
| 27.5° | 5835.8 | 5085.8 | 4019.4 | 3316.2 | 3150.8 | 3152.6 | 3177.7 | 3170.5 | 3154.4 | 3143.6 |
| 30°   | 6224.2 | 5116.4 | 3760.4 | 3077.0 | 2969.1 | 2961.9 | 2969.1 | 2938.6 | 2890.0 | 2886.4 |
| 32.5° | 6621.6 | 5078.6 | 3460.1 | 2864.8 | 2776.7 | 2760.5 | 2755.1 | 2712.0 | 2656.2 | 2640.0 |
| 35°   | 6981.3 | 4940.2 | 3154.4 | 2695.8 | 2593.3 | 2557.3 | 2582.5 | 2568.1 | 2517.7 | 2505.1 |
| 37.5° | 7243.9 | 4683.0 | 2879.2 | 2546.5 | 2462.0 | 2453.0 | 2469.2 | 2474.6 | 2415.2 | 2402.6 |
| 40°   | 7420.1 | 4334.1 | 2643.6 | 2420.6 | 2436.8 | 2402.6 | 2348.7 | 2310.9 | 2292.9 | 2287.5 |
| 42.5° | 7562.2 | 3970.8 | 2445.8 | 2361.3 | 2442.2 | 2343.3 | 2226.4 | 2165.3 | 2197.6 | 2212.0 |
| 45°   | 7725.9 | 3616.5 | 2280.3 | 2287.5 | 2415.2 | 2275.0 | 2141.9 | 2082.5 | 2095.1 | 2098.7 |
| 47.5° | 7950.7 | 3184.9 | 2102.3 | 2168.8 | 2325.3 | 2228.2 | 2089.7 | 2005.2 | 1945.9 | 1918.9 |
| 50°   | 8261.8 | 2674.2 | 1917.1 | 2035.8 | 2237.2 | 2194.0 | 2008.8 | 1918.9 | 1809.2 | 1784.0 |
| 52.5° | 8477.6 | 2197.6 | 1764.2 | 1924.3 | 2158.1 | 2125.7 | 1944.1 | 1827.2 | 1712.1 | 1690.5 |
| 55°   | 8360.7 | 1825.4 | 1631.1 | 1800.2 | 2053.8 | 2041.2 | 1890.1 | 1733.6 | 1643.7 | 1625.7 |
| 57.5° | 7776.2 | 1589.8 | 1528.6 | 1683.3 | 1926.1 | 1969.2 | 1818.2 | 1654.5 | 1589.8 | 1577.2 |
| 60°   | 6661.2 | 1442.3 | 1463.9 | 1604.2 | 1821.8 | 1897.3 | 1746.2 | 1611.4 | 1568.2 | 1559.2 |
| 62.5° | 5168.6 | 1343.4 | 1415.3 | 1546.6 | 1740.8 | 1846.9 | 1706.7 | 1606.0 | 1589.8 | 1579.0 |
| 65°   | 3702.9 | 1264.3 | 1363.2 | 1489.1 | 1667.1 | 1800.2 | 1692.3 | 1598.8 | 1602.4 | 1593.4 |
| 67.5° | 2515.9 | 1194.1 | 1300.2 | 1424.3 | 1595.2 | 1758.8 | 1672.5 | 1573.6 | 1618.5 | 1607.8 |
| 70°   | 1760.6 | 1125.8 | 1226.5 | 1341.6 | 1505.2 | 1701.3 | 1636.5 | 1535.8 | 1532.2 | 1489.1 |
| 72.5° | 1374.0 | 1035.9 | 1125.8 | 1226.5 | 1390.1 | 1620.3 | 1564.6 | 1451.3 | 1391.9 | 1347.0 |
| 73°   | 1311.0 | 1014.3 | 1100.6 | 1201.3 | 1365.0 | 1600.6 | 1544.8 | 1427.9 | 1361.4 | 1320.0 |
| 75°   | 1084.4 | 920.8  | 999.9  | 1089.8 | 1257.1 | 1507.0 | 1447.7 | 1321.8 | 1237.3 | 1212.1 |
| 77.5° | 852.4  | 787.7  | 863.2  | 944.2  | 1107.8 | 1370.4 | 1303.8 | 1183.3 | 1136.6 | 1115.0 |
| 80°   | 631.2  | 652.8  | 719.4  | 791.3  | 960.3  | 1224.7 | 1165.4 | 1044.9 | 1253.5 | 1201.3 |
| 82.5° | 444.2  | 494.6  | 555.7  | 620.4  | 805.7  | 1082.6 | 1010.7 | 886.6  | 917.2  | 762.5  |
| 85°   | 262.6  | 323.7  | 381.3  | 437.0  | 580.9  | 897.4  | 834.4  | 706.8  | 579.1  | 552.1  |
| 87.5° | 152.9  | 179.8  | 196.0  | 253.6  | 399.2  | 676.2  | 588.1  | 523.3  | 300.3  | 203.2  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)