

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: P301855

Luminaire Tested: **GLNA-AF-10-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301855  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-10-LED-E1-SL4-7030-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(10) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

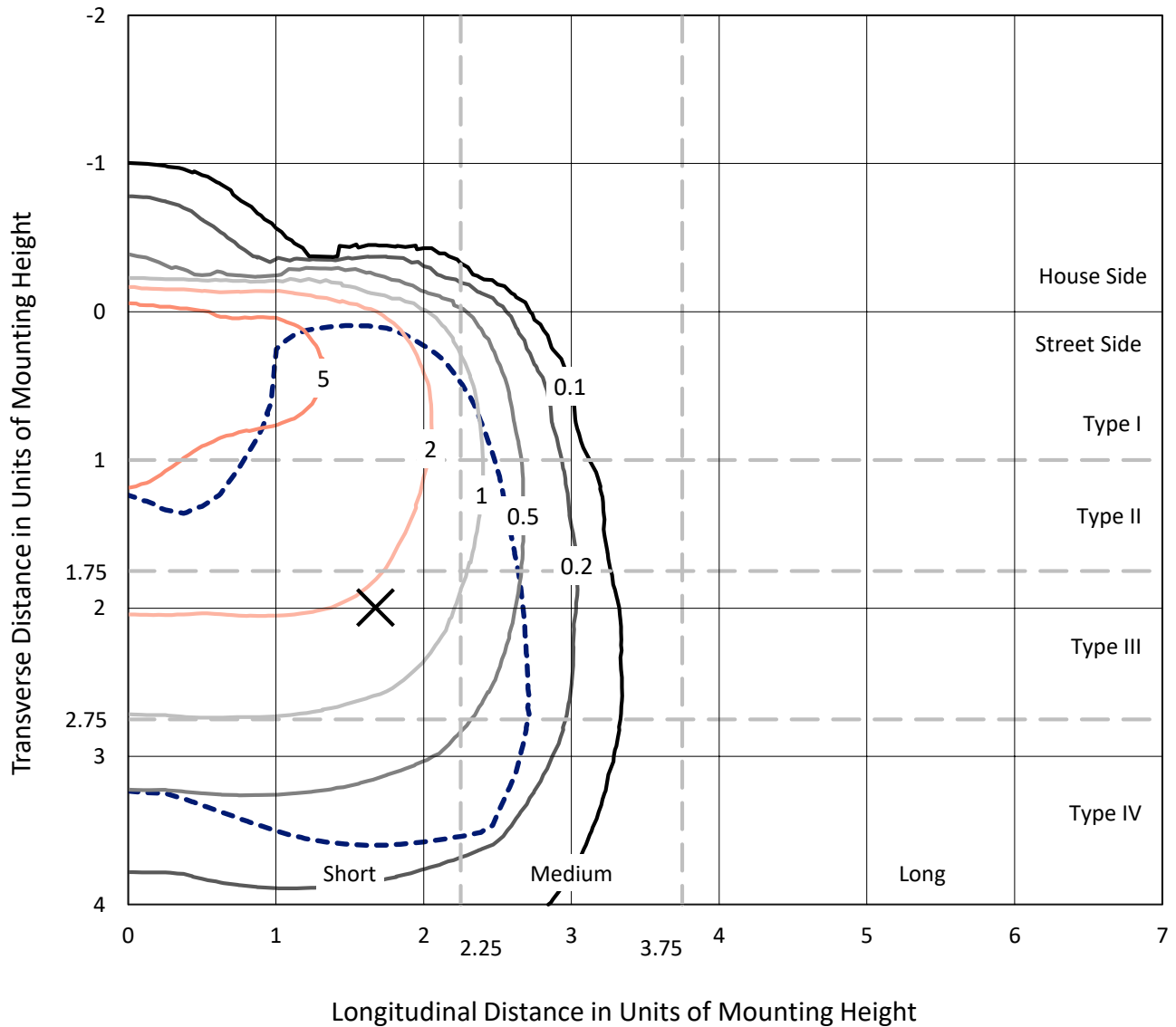
Lumens per Lamp: N/A  
Luminaire Lumens: 42025 lumens  
Efficiency: N/A  
Efficacy: 75.3 lumens/watt  
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 558  
Input Voltage (V): NR  
Input Current (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

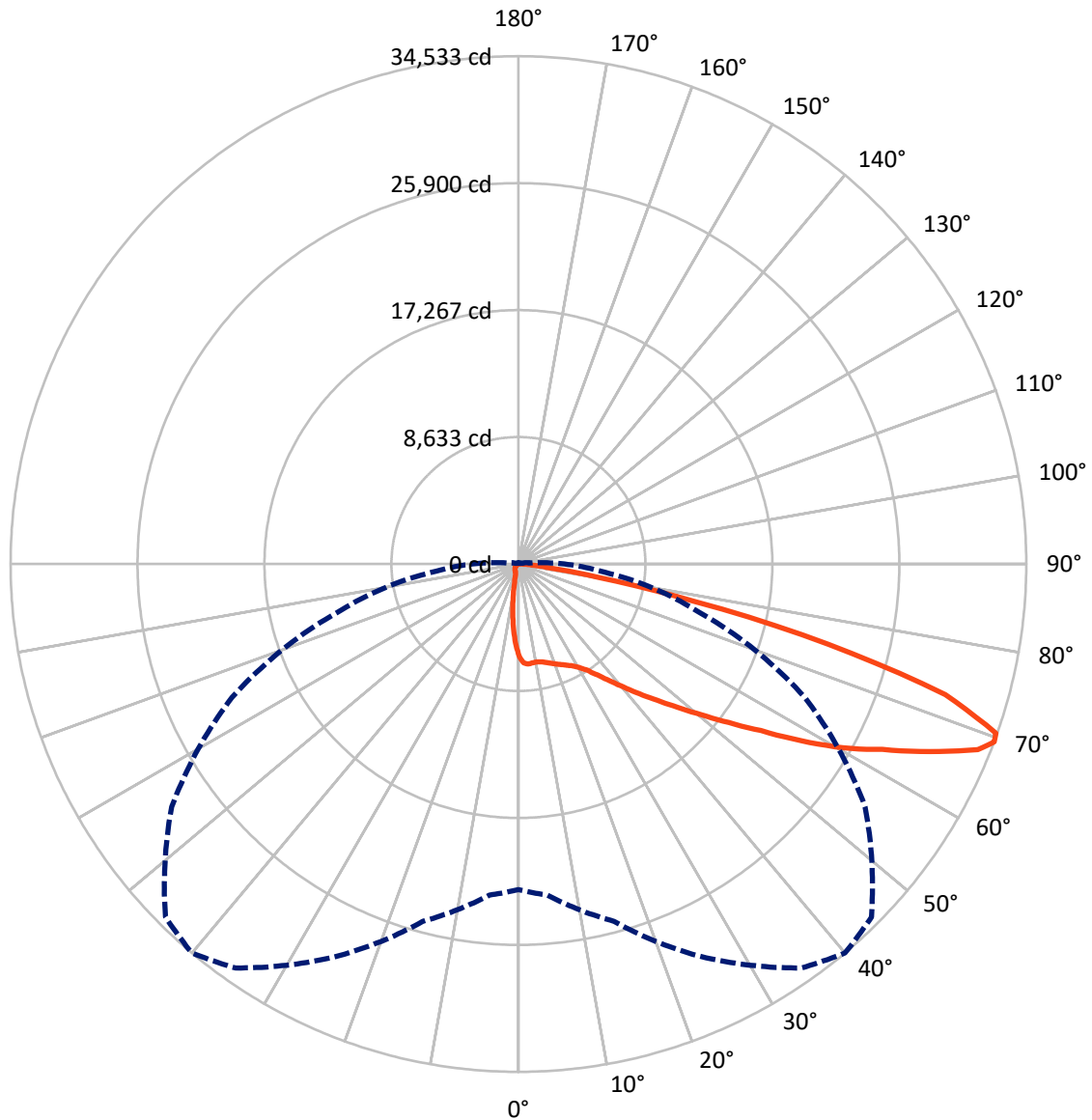
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4-7030-HSS

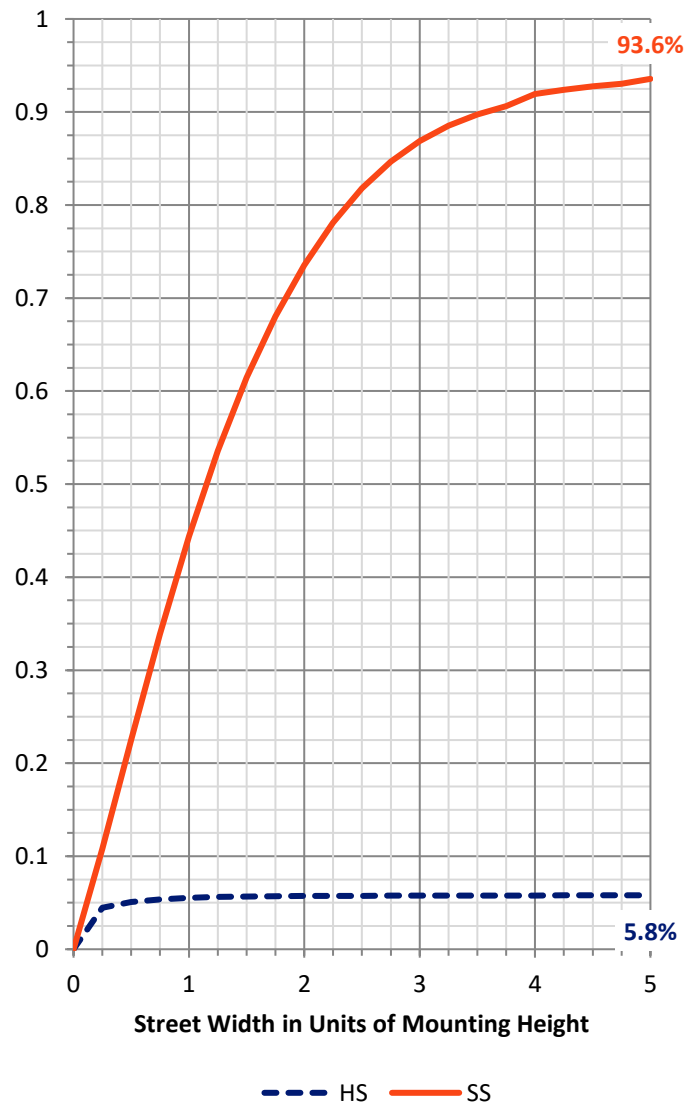
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2458.7   | 0.0    | 2458.7  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 39566.3  | 0.0    | 39566.3 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 42025.0  | 0.0    | 42025.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 509.1   | 1.2       |
| 10°-20°   | 1251.9  | 3.0       |
| 20°-30°   | 2108.7  | 5.0       |
| 30°-40°   | 3452.0  | 8.2       |
| 40°-50°   | 5977.0  | 14.2      |
| 50°-60°   | 9414.3  | 22.4      |
| 60°-70°   | 12294.8 | 29.3      |
| 70°-80°   | 6332.3  | 15.1      |
| 80°-90°   | 685.0   | 1.6       |
| 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°    | 42025.0 | 100.0     |
| 0°-180°   | 42025.0 | 100.0     |



REPORT NUMBER: P301855

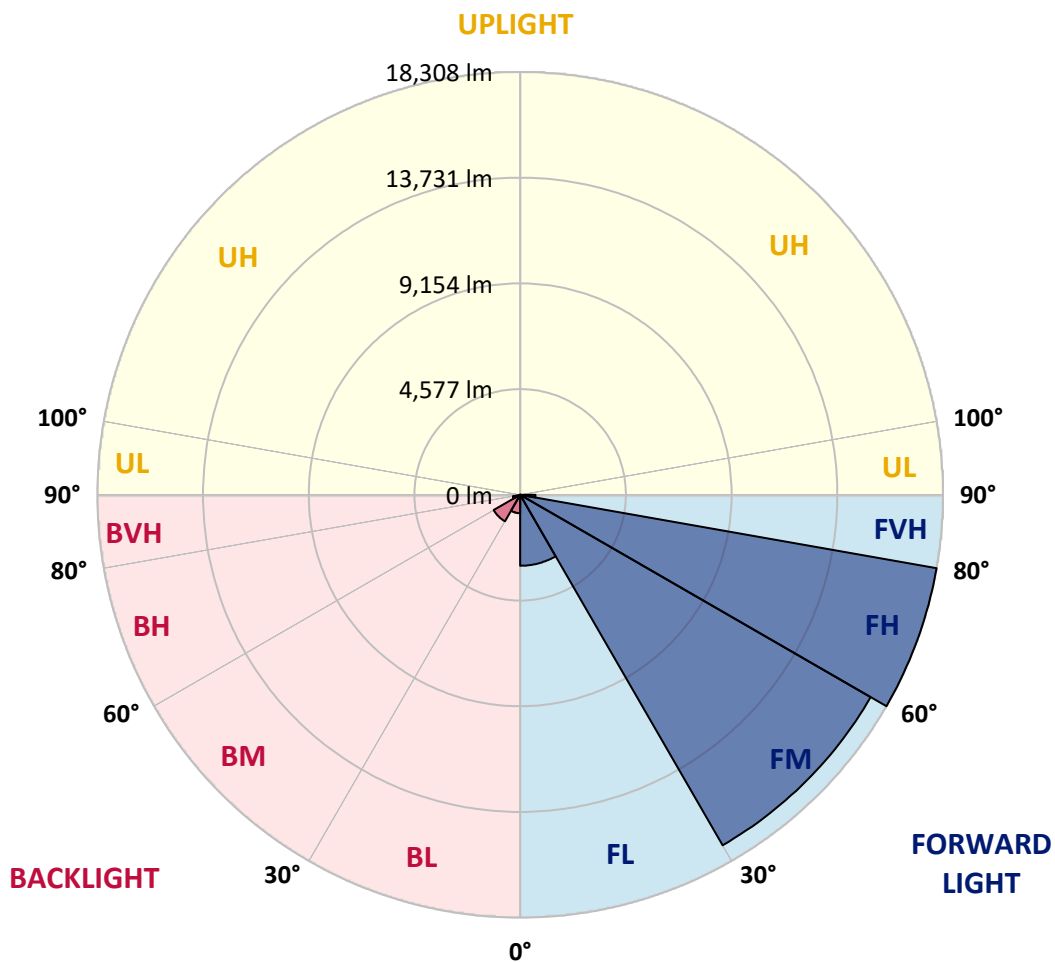
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 3073.2  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 17521.8 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 18307.8 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 663.5   | 1.6       |                         |      | G4/750 |
| BL   | (0°-30°)    | 796.4   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1321.5  | 3.1       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 319.2   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 21.5    | 0.1       |                         |      | G1/100 |
| UL   | (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |        |
| UH   | (100°-180°) | 0.0     | 0.0       |                         | U0/0 |        |

**BUG Rating: B2-U0-G5**

Type IV Short





REPORT NUMBER: P301855

CATALOG NUMBER: GLNA-AF-10-LED-E1-SL4-7030-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  | 6278.8  |
| 2.5°  | 6894.1  | 6856.6  | 6834.1  | 6804.1  | 6766.5  | 6734.0  | 6721.5  | 6629.0  | 6541.4  | 6421.3  | 6283.8  |
| 5°    | 7021.7  | 7009.2  | 6969.2  | 6929.1  | 6884.1  | 6834.1  | 6806.6  | 6696.5  | 6571.4  | 6396.3  | 6156.2  |
| 7.5°  | 7034.2  | 7019.2  | 6969.2  | 6914.1  | 6851.6  | 6791.6  | 6744.0  | 6634.0  | 6518.9  | 6341.3  | 6048.6  |
| 10°   | 7014.2  | 6996.7  | 6959.2  | 6899.1  | 6821.6  | 6764.0  | 6716.5  | 6611.5  | 6513.9  | 6353.8  | 6028.6  |
| 12.5° | 6991.7  | 6974.2  | 6956.7  | 6926.6  | 6859.1  | 6819.1  | 6779.1  | 6679.0  | 6591.4  | 6456.4  | 6101.2  |
| 15°   | 7014.2  | 7004.2  | 7024.2  | 7011.7  | 6974.2  | 6939.2  | 6899.1  | 6809.1  | 6729.0  | 6616.5  | 6233.7  |
| 17.5° | 7109.3  | 7109.3  | 7171.8  | 7179.3  | 7144.3  | 7094.2  | 7036.7  | 6946.7  | 6879.1  | 6784.1  | 6391.3  |
| 20°   | 7331.9  | 7324.4  | 7404.4  | 7419.4  | 7334.4  | 7256.8  | 7171.8  | 7061.7  | 7009.2  | 6949.2  | 6546.4  |
| 22.5° | 7714.6  | 7679.6  | 7727.1  | 7712.1  | 7544.5  | 7424.4  | 7319.4  | 7184.3  | 7156.8  | 7129.3  | 6719.0  |
| 25°   | 8212.4  | 8192.4  | 8224.9  | 8077.3  | 7782.2  | 7619.6  | 7494.5  | 7341.9  | 7341.9  | 7369.4  | 6914.1  |
| 27.5° | 8935.3  | 8860.3  | 8750.2  | 8490.1  | 8047.3  | 7839.7  | 7704.6  | 7542.0  | 7584.5  | 7687.1  | 7171.8  |
| 30°   | 9675.8  | 9593.2  | 9340.6  | 8940.3  | 8370.0  | 8152.4  | 7994.8  | 7824.7  | 7924.7  | 8112.4  | 7517.0  |
| 32.5° | 10406.2 | 10313.7 | 9956.0  | 9450.7  | 8832.8  | 8615.2  | 8462.6  | 8275.0  | 8442.6  | 8757.7  | 8022.3  |
| 35°   | 11114.2 | 11031.6 | 10618.9 | 10023.5 | 9448.2  | 9268.0  | 9128.0  | 8965.4  | 9180.5  | 9620.8  | 8735.2  |
| 37.5° | 11909.6 | 11819.6 | 11316.8 | 10671.4 | 10196.1 | 10066.0 | 9963.5  | 9800.9  | 10176.1 | 10821.5 | 9728.3  |
| 40°   | 12887.7 | 12735.1 | 12057.2 | 11414.3 | 11061.6 | 10999.1 | 10929.0 | 10906.5 | 11489.4 | 12382.4 | 11051.6 |
| 42.5° | 14008.4 | 13758.2 | 12832.7 | 12197.3 | 12012.2 | 12057.2 | 12039.7 | 12139.8 | 13132.9 | 14323.6 | 12662.6 |
| 45°   | 15129.1 | 14806.4 | 13695.7 | 13032.8 | 13057.8 | 13215.4 | 13313.0 | 13713.2 | 15191.6 | 16549.9 | 14396.1 |
| 47.5° | 16079.6 | 15761.9 | 14523.7 | 13935.8 | 14236.0 | 14546.2 | 14811.4 | 15569.3 | 17307.9 | 18741.2 | 15744.4 |
| 50°   | 16892.6 | 16592.4 | 15401.7 | 14928.9 | 15604.3 | 16104.6 | 16534.9 | 17658.1 | 19584.2 | 20409.7 | 16690.0 |
| 52.5° | 17558.0 | 17357.9 | 16312.3 | 16067.1 | 17167.8 | 17900.7 | 18531.1 | 19876.9 | 21600.4 | 21765.5 | 17425.4 |
| 55°   | 18205.9 | 18063.3 | 17290.3 | 17420.4 | 19003.9 | 20002.0 | 20799.9 | 22230.8 | 23336.5 | 22896.2 | 18130.8 |
| 57.5° | 18951.3 | 18821.3 | 18406.0 | 19136.5 | 21417.8 | 22673.6 | 23544.1 | 24317.1 | 24864.9 | 24051.9 | 18796.2 |
| 60°   | 19711.8 | 19636.8 | 19646.8 | 21042.6 | 24189.5 | 25395.2 | 25875.5 | 26075.6 | 26365.8 | 25140.0 | 18833.8 |
| 62.5° | 20437.2 | 20579.8 | 21065.1 | 23163.9 | 26843.6 | 27769.1 | 28011.8 | 28209.4 | 27869.2 | 25312.6 | 17400.4 |
| 65°   | 21665.5 | 21898.1 | 23056.3 | 26003.1 | 29762.8 | 30753.4 | 31003.6 | 30325.6 | 28106.8 | 23081.3 | 14153.5 |
| 67.5° | 22265.8 | 22691.1 | 24757.3 | 28649.6 | 32594.5 | 33695.2 | 33602.6 | 30463.2 | 25222.6 | 17600.5 | 9082.9  |
| 69°   | 22140.7 | 22593.5 | 25150.0 | 29460.1 | 33535.1 | 34533.2 | 33945.3 | 28779.7 | 21487.9 | 12750.1 | 5575.8  |
| 70°   | 21645.5 | 22103.2 | 24947.4 | 29430.1 | 33655.1 | 34445.6 | 33309.9 | 26701.0 | 18168.4 | 9323.1  | 3487.1  |
| 72.5° | 18075.8 | 18471.1 | 22148.3 | 26600.9 | 31003.6 | 30360.7 | 27866.7 | 18498.6 | 8852.8  | 2539.0  | 785.5   |
| 75°   | 11126.7 | 11346.8 | 15892.0 | 20039.5 | 23416.5 | 21765.5 | 18566.1 | 9203.0  | 2639.1  | 717.9   | 435.3   |
| 77.5° | 5878.5  | 5978.6  | 8700.2  | 11812.1 | 14843.9 | 12282.3 | 9515.7  | 3589.6  | 1215.7  | 450.3   | 315.2   |
| 80°   | 3474.6  | 3549.6  | 4685.3  | 5400.7  | 6423.8  | 5365.7  | 3804.8  | 2203.8  | 870.5   | 282.7   | 280.2   |
| 82.5° | 1988.7  | 2036.2  | 3397.0  | 3001.8  | 2531.5  | 2161.3  | 1893.6  | 2088.7  | 522.8   | 190.1   | 290.2   |
| 85°   | 730.4   | 740.4   | 1911.1  | 2283.9  | 1505.9  | 895.5   | 940.6   | 1731.0  | 140.1   | 120.1   | 227.6   |
| 87.5° | 340.2   | 332.7   | 983.1   | 1398.3  | 880.5   | 567.8   | 732.9   | 380.2   | 55.0    | 77.5    | 62.5    |
| 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°    | 6278.8  | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 | 6278.8 |
| 2.5°  | 6203.7  | 6111.2 | 5943.6 | 5771.0 | 5595.8 | 5460.8 | 5328.2 | 5223.1 | 5188.1 | 5123.1 | 5128.1 |
| 5°    | 6013.6  | 5843.5 | 5493.3 | 5138.1 | 4767.9 | 4462.7 | 4175.0 | 3942.4 | 3829.8 | 3714.7 | 3714.7 |
| 7.5°  | 5848.5  | 5600.9 | 5053.0 | 4475.2 | 3877.3 | 3374.5 | 2921.7 | 2581.5 | 2393.9 | 2243.8 | 2241.3 |
| 10°   | 5786.0  | 5450.8 | 4685.3 | 3857.3 | 3024.3 | 2338.9 | 1801.1 | 1455.9 | 1278.3 | 1163.2 | 1158.2 |
| 12.5° | 5813.5  | 5398.2 | 4402.6 | 3287.0 | 2241.3 | 1503.4 | 1043.1 | 820.5  | 745.4  | 710.4  | 710.4  |
| 15°   | 5893.5  | 5383.2 | 4120.0 | 2729.1 | 1583.4 | 940.6  | 692.9  | 632.9  | 627.9  | 627.9  | 627.9  |
| 17.5° | 5991.1  | 5388.2 | 3829.8 | 2186.3 | 1078.1 | 672.9  | 597.9  | 590.4  | 595.4  | 595.4  | 595.4  |
| 20°   | 6091.1  | 5390.7 | 3517.1 | 1683.5 | 760.5  | 585.4  | 562.8  | 560.3  | 565.3  | 565.3  | 567.8  |
| 22.5° | 6213.7  | 5403.2 | 3204.4 | 1258.3 | 627.9  | 552.8  | 535.3  | 535.3  | 537.8  | 537.8  | 535.3  |
| 25°   | 6353.8  | 5428.2 | 2879.2 | 933.1  | 572.8  | 530.3  | 515.3  | 512.8  | 515.3  | 512.8  | 510.3  |
| 27.5° | 6528.9  | 5463.3 | 2516.5 | 730.4  | 547.8  | 507.8  | 495.3  | 495.3  | 492.8  | 490.3  | 487.8  |
| 30°   | 6749.0  | 5503.3 | 2108.8 | 620.4  | 522.8  | 487.8  | 475.3  | 472.8  | 470.3  | 465.3  | 465.3  |
| 32.5° | 7084.2  | 5590.8 | 1706.0 | 562.8  | 495.3  | 460.3  | 450.3  | 450.3  | 445.3  | 440.3  | 437.8  |
| 35°   | 7599.5  | 5763.4 | 1345.8 | 527.8  | 465.3  | 430.3  | 417.7  | 417.7  | 412.7  | 410.2  | 407.7  |
| 37.5° | 8312.5  | 6026.1 | 1045.6 | 495.3  | 435.3  | 397.7  | 385.2  | 382.7  | 377.7  | 372.7  | 370.2  |
| 40°   | 9260.5  | 6351.3 | 823.0  | 465.3  | 405.2  | 365.2  | 355.2  | 350.2  | 340.2  | 332.7  | 332.7  |
| 42.5° | 10451.3 | 6721.5 | 667.9  | 432.8  | 370.2  | 335.2  | 327.7  | 320.2  | 302.7  | 295.2  | 292.7  |
| 45°   | 11697.0 | 7054.2 | 565.3  | 395.2  | 335.2  | 305.2  | 300.2  | 287.7  | 265.2  | 257.7  | 257.7  |
| 47.5° | 12595.0 | 7131.8 | 497.8  | 360.2  | 302.7  | 272.7  | 270.2  | 247.6  | 227.6  | 222.6  | 220.1  |
| 50°   | 13155.4 | 6979.2 | 442.8  | 325.2  | 272.7  | 242.6  | 235.1  | 207.6  | 195.1  | 190.1  | 187.6  |
| 52.5° | 13533.1 | 6706.5 | 397.7  | 295.2  | 245.1  | 215.1  | 197.6  | 177.6  | 167.6  | 162.6  | 162.6  |
| 55°   | 13835.8 | 6321.3 | 352.7  | 267.7  | 222.6  | 192.6  | 167.6  | 152.6  | 142.6  | 137.6  | 137.6  |
| 57.5° | 13920.8 | 5798.5 | 307.7  | 245.1  | 200.1  | 170.1  | 142.6  | 132.6  | 120.1  | 117.6  | 117.6  |
| 60°   | 13303.0 | 4855.4 | 272.7  | 217.6  | 180.1  | 147.6  | 125.1  | 112.6  | 100.1  | 97.6   | 95.1   |
| 62.5° | 11674.5 | 3757.2 | 240.1  | 192.6  | 157.6  | 127.6  | 107.6  | 92.6   | 82.5   | 82.5   | 82.5   |
| 65°   | 8905.3  | 2519.0 | 210.1  | 167.6  | 137.6  | 107.6  | 92.6   | 75.0   | 70.0   | 70.0   | 72.5   |
| 67.5° | 5330.7  | 1370.8 | 180.1  | 142.6  | 117.6  | 90.1   | 77.5   | 65.0   | 62.5   | 65.0   | 65.0   |
| 69°   | 3124.4  | 805.5  | 162.6  | 127.6  | 102.6  | 80.0   | 67.5   | 57.5   | 62.5   | 65.0   | 65.0   |
| 70°   | 1928.7  | 542.8  | 150.1  | 115.1  | 92.6   | 72.5   | 62.5   | 55.0   | 60.0   | 62.5   | 62.5   |
| 72.5° | 537.8   | 280.2  | 120.1  | 90.1   | 75.0   | 60.0   | 50.0   | 50.0   | 57.5   | 60.0   | 60.0   |
| 75°   | 350.2   | 207.6  | 92.6   | 67.5   | 57.5   | 47.5   | 42.5   | 47.5   | 55.0   | 57.5   | 57.5   |
| 77.5° | 290.2   | 170.1  | 75.0   | 55.0   | 47.5   | 45.0   | 40.0   | 42.5   | 50.0   | 52.5   | 52.5   |
| 80°   | 265.2   | 120.1  | 60.0   | 50.0   | 42.5   | 40.0   | 37.5   | 35.0   | 45.0   | 47.5   | 47.5   |
| 82.5° | 252.7   | 95.1   | 52.5   | 45.0   | 40.0   | 35.0   | 32.5   | 35.0   | 40.0   | 42.5   | 45.0   |
| 85°   | 157.6   | 62.5   | 47.5   | 42.5   | 35.0   | 32.5   | 32.5   | 32.5   | 37.5   | 40.0   | 40.0   |
| 87.5° | 57.5    | 50.0   | 42.5   | 35.0   | 30.0   | 30.0   | 30.0   | 30.0   | 32.5   | 37.5   | 37.5   |
| 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)