

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: P192956

Luminaire Tested: **GLEON-AF-08-LED-E1-SL4-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P192956  
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: GLEON-AF-08-LED-E1-SL4-7030-HSS  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(8) 70 CRI, 3000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV  
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 37446.4 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5

Input Watts (W): 445  
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

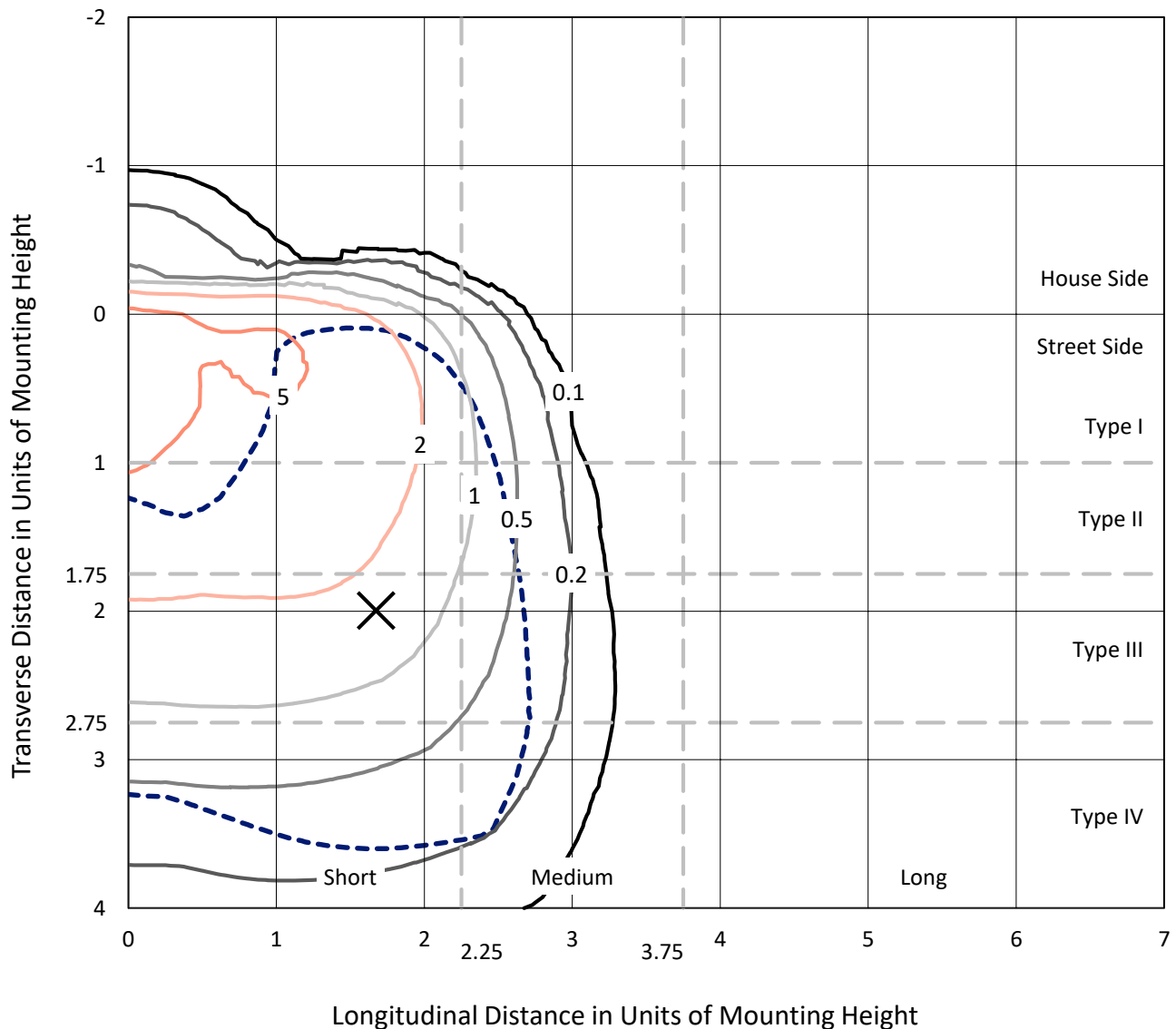


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## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd

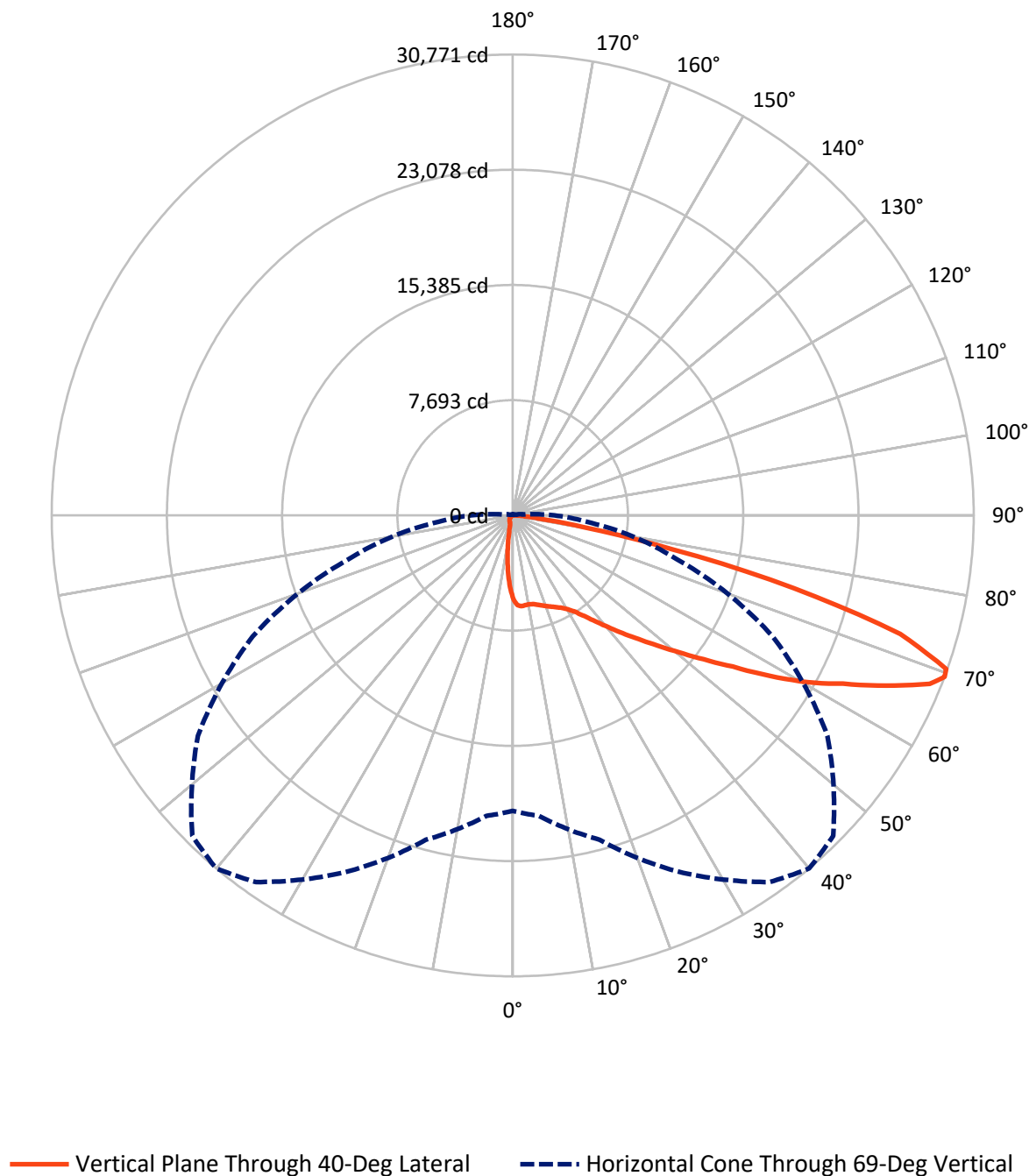


Based on 30 foot mounting height. Maximum calculated value = 6.8 fc  
Type IV - Short - Semi-Cutoff

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## Luminous Intensity Polar Plot



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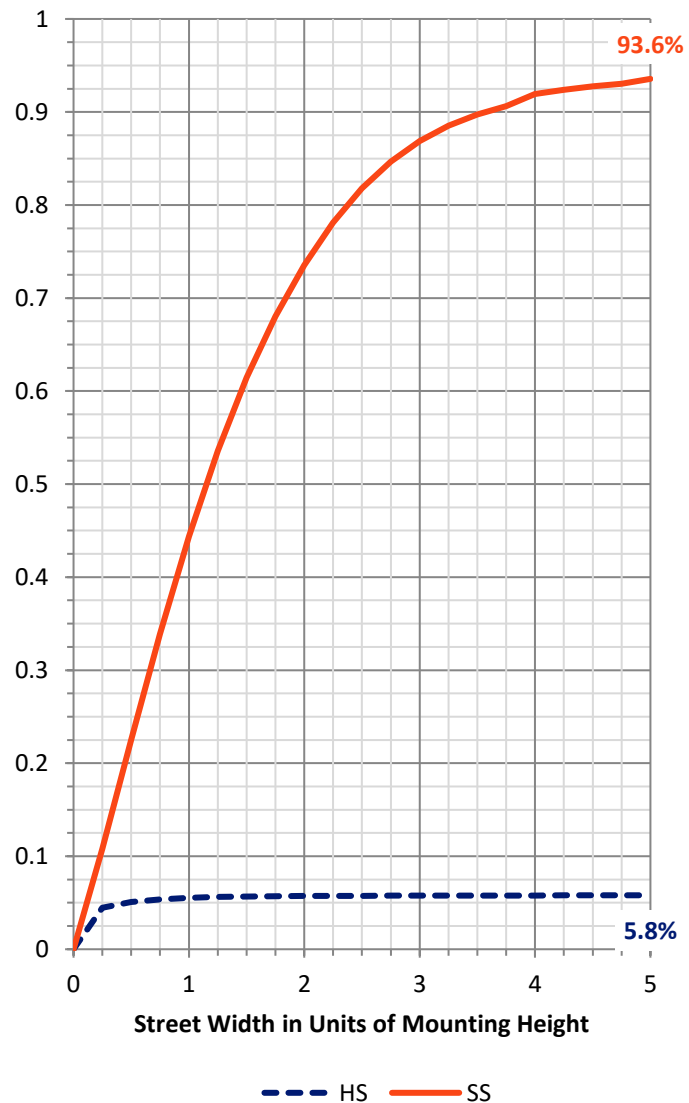
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2190.8   | 0.0    | 2190.8  |
|                    | % Fixture | 5.9      | 0.0    | 5.9     |
| <b>Street Side</b> | Lumens    | 35255.6  | 0.0    | 35255.6 |
|                    | % Fixture | 94.1     | 0.0    | 94.1    |
| <b>Total</b>       | Lumens    | 37446.4  | 0.0    | 37446.4 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 453.6   | 1.2       |
| 10°-20°   | 1115.5  | 3.0       |
| 20°-30°   | 1878.9  | 5.0       |
| 30°-40°   | 3075.9  | 8.2       |
| 40°-50°   | 5325.8  | 14.2      |
| 50°-60°   | 8388.7  | 22.4      |
| 60°-70°   | 10955.2 | 29.3      |
| 70°-80°   | 5642.4  | 15.1      |
| 80°-90°   | 610.3   | 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°    | 37446.4 | 100.0     |
| 0°-180°   | 37446.4 | 100.0     |

**Coefficient of Utilization**



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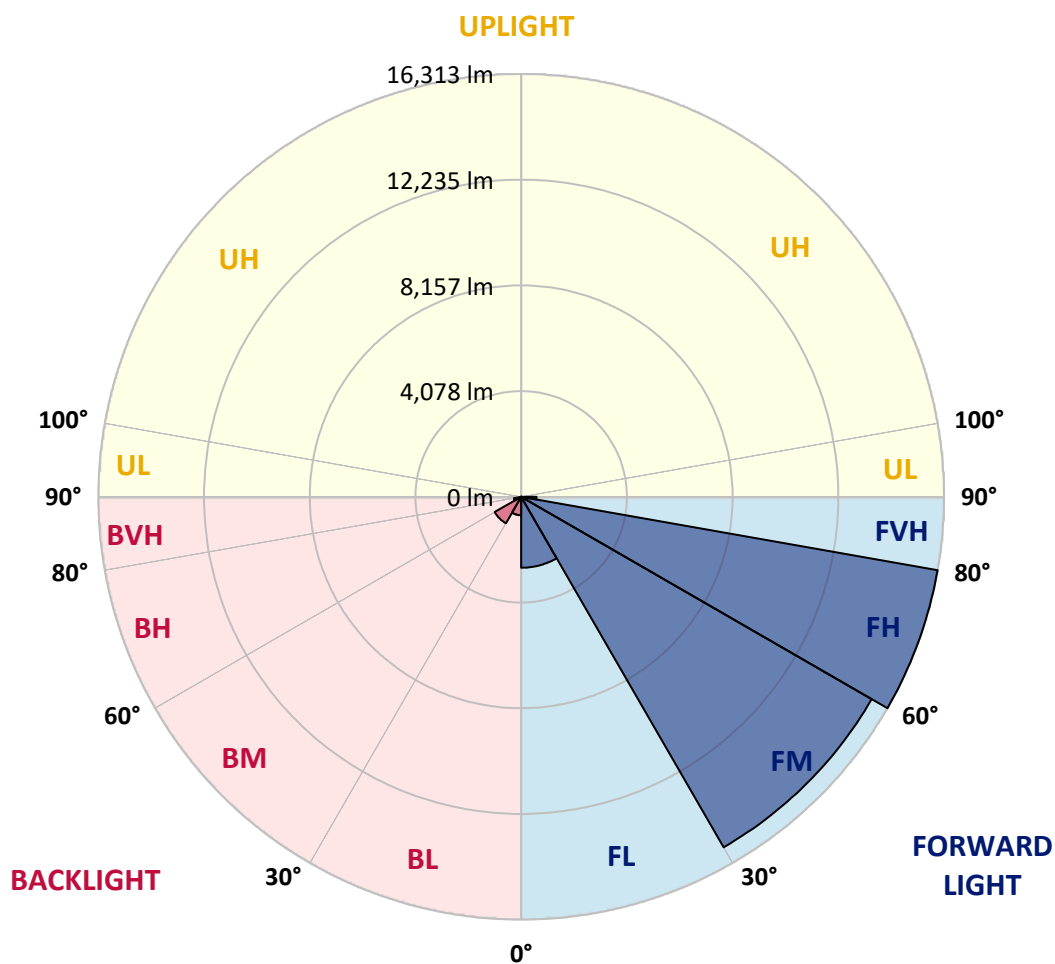
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |        |
|------|-------------|---------|-----------|-------------------------|------|--------|
|      |             |         |           | B                       | U    | G      |
| FL   | (0°-30°)    | 2738.4  | 7.3       |                         |      |        |
| FM   | (30°-60°)   | 15612.8 | 41.7      |                         |      |        |
| FH   | (60°-80°)   | 16313.2 | 43.6      |                         |      | G5     |
| FVH  | (80°-90°)   | 591.2   | 1.6       |                         |      | G4/750 |
| BL   | (0°-30°)    | 709.7   | 1.9       | B2/1000                 |      |        |
| BM   | (30°-60°)   | 1177.5  | 3.1       | B2/2500                 |      |        |
| BH   | (60°-80°)   | 284.5   | 0.8       | B1/500                  |      | G1/500 |
| BVH  | (80°-90°)   | 19.2    | 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



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  | 5594.7  |
| 2.5°  | 6143.0  | 6109.6  | 6089.6  | 6062.8  | 6029.4  | 6000.4  | 5989.3  | 5906.8  | 5828.8  | 5721.7  | 5599.1  |
| 5°    | 6256.7  | 6245.6  | 6209.9  | 6174.2  | 6134.2  | 6089.6  | 6065.0  | 5966.9  | 5855.4  | 5699.4  | 5485.5  |
| 7.5°  | 6267.8  | 6254.4  | 6209.9  | 6160.8  | 6105.1  | 6051.7  | 6009.3  | 5911.3  | 5808.7  | 5650.5  | 5389.6  |
| 10°   | 6249.9  | 6234.5  | 6201.0  | 6147.5  | 6078.4  | 6027.1  | 5984.7  | 5891.2  | 5804.2  | 5661.6  | 5371.8  |
| 12.5° | 6230.0  | 6214.3  | 6198.8  | 6171.9  | 6111.9  | 6076.1  | 6040.5  | 5951.4  | 5873.3  | 5752.9  | 5436.4  |
| 15°   | 6249.9  | 6241.1  | 6258.9  | 6247.8  | 6214.3  | 6183.1  | 6147.5  | 6067.2  | 5995.9  | 5895.6  | 5554.5  |
| 17.5° | 6334.8  | 6334.8  | 6390.5  | 6397.1  | 6365.9  | 6321.3  | 6270.1  | 6189.9  | 6129.7  | 6045.0  | 5695.0  |
| 20°   | 6533.0  | 6526.4  | 6597.7  | 6611.1  | 6535.4  | 6466.2  | 6390.5  | 6292.3  | 6245.6  | 6192.0  | 5833.2  |
| 22.5° | 6874.1  | 6842.9  | 6885.3  | 6871.9  | 6722.5  | 6615.5  | 6521.9  | 6401.6  | 6377.0  | 6352.6  | 5987.0  |
| 25°   | 7317.6  | 7299.8  | 7328.8  | 7197.4  | 6934.2  | 6789.4  | 6677.9  | 6542.0  | 6542.0  | 6566.5  | 6160.8  |
| 27.5° | 7961.8  | 7895.0  | 7796.8  | 7565.1  | 7170.5  | 6985.6  | 6865.2  | 6720.3  | 6758.2  | 6849.6  | 6390.5  |
| 30°   | 8621.6  | 8548.0  | 8323.0  | 7966.3  | 7458.1  | 7264.2  | 7123.7  | 6972.2  | 7061.3  | 7228.5  | 6698.0  |
| 32.5° | 9272.5  | 9190.1  | 8871.3  | 8421.0  | 7870.5  | 7676.5  | 7540.5  | 7373.4  | 7522.7  | 7803.7  | 7148.3  |
| 35°   | 9903.3  | 9829.7  | 9462.0  | 8931.4  | 8418.8  | 8258.3  | 8133.5  | 7988.6  | 8180.2  | 8572.6  | 7783.5  |
| 37.5° | 10612.1 | 10531.8 | 10083.9 | 9508.8  | 9085.2  | 8969.3  | 8878.0  | 8733.1  | 9067.4  | 9642.4  | 8668.4  |
| 40°   | 11483.5 | 11347.6 | 10743.6 | 10170.7 | 9856.5  | 9800.8  | 9738.3  | 9718.3  | 10237.6 | 11033.3 | 9847.5  |
| 42.5° | 12482.3 | 12259.3 | 11434.5 | 10868.4 | 10703.5 | 10743.6 | 10727.9 | 10817.1 | 11702.0 | 12763.0 | 11282.9 |
| 45°   | 13480.7 | 13193.2 | 12203.6 | 11612.8 | 11635.1 | 11775.6 | 11862.5 | 12219.1 | 13536.4 | 14746.8 | 12827.7 |
| 47.5° | 14327.7 | 14044.6 | 12941.3 | 12417.6 | 12685.0 | 12961.4 | 13197.7 | 13873.0 | 15422.2 | 16699.4 | 14029.1 |
| 50°   | 15052.2 | 14784.6 | 13723.7 | 13302.5 | 13904.3 | 14350.0 | 14733.4 | 15734.2 | 17450.6 | 18186.1 | 14871.6 |
| 52.5° | 15645.1 | 15466.7 | 14535.1 | 14316.6 | 15297.4 | 15950.4 | 16512.2 | 17711.4 | 19247.1 | 19394.2 | 15527.0 |
| 55°   | 16222.4 | 16095.3 | 15406.5 | 15522.5 | 16933.4 | 17822.8 | 18533.7 | 19808.8 | 20794.0 | 20401.7 | 16155.5 |
| 57.5° | 16886.6 | 16770.6 | 16400.7 | 17051.5 | 19084.4 | 20203.2 | 20979.0 | 21667.8 | 22155.8 | 21431.4 | 16748.4 |
| 60°   | 17564.2 | 17497.4 | 17506.3 | 18750.0 | 21554.0 | 22628.3 | 23056.3 | 23234.6 | 23493.3 | 22401.1 | 16781.7 |
| 62.5° | 18210.6 | 18337.6 | 18770.0 | 20640.1 | 23918.9 | 24743.7 | 24959.8 | 25135.9 | 24832.9 | 22554.8 | 15504.7 |
| 65°   | 19305.0 | 19512.3 | 20544.3 | 23170.1 | 26520.2 | 27402.9 | 27625.7 | 27021.7 | 25044.6 | 20566.6 | 12611.5 |
| 67.5° | 19840.0 | 20218.9 | 22060.0 | 25528.3 | 29043.3 | 30024.1 | 29941.6 | 27144.3 | 22474.6 | 15683.0 | 8093.4  |
| 69°   | 19728.5 | 20132.0 | 22409.9 | 26250.4 | 29881.5 | 30770.8 | 30247.0 | 25644.1 | 19146.8 | 11361.0 | 4968.3  |
| 70°   | 19287.2 | 19695.1 | 22229.5 | 26223.8 | 29988.4 | 30692.8 | 29680.9 | 23792.0 | 16189.0 | 8307.3  | 3107.3  |
| 72.5° | 16106.5 | 16458.6 | 19735.2 | 23702.7 | 27625.7 | 27052.9 | 24830.6 | 16483.2 | 7888.3  | 2262.4  | 700.0   |
| 75°   | 9914.4  | 10110.6 | 14160.5 | 17856.2 | 20865.2 | 19394.2 | 16543.4 | 8200.4  | 2351.6  | 639.7   | 387.9   |
| 77.5° | 5238.1  | 5327.3  | 7752.3  | 10525.2 | 13226.6 | 10944.2 | 8478.9  | 3198.6  | 1083.3  | 401.2   | 280.8   |
| 80°   | 3096.0  | 3162.9  | 4174.8  | 4812.4  | 5724.0  | 4781.0  | 3390.2  | 1963.7  | 775.6   | 251.9   | 249.6   |
| 82.5° | 1772.0  | 1814.4  | 3026.9  | 2674.7  | 2255.6  | 1925.8  | 1687.3  | 1861.2  | 465.9   | 169.4   | 258.5   |
| 85°   | 650.8   | 659.8   | 1703.0  | 2035.1  | 1341.8  | 797.9   | 838.1   | 1542.4  | 124.8   | 107.0   | 202.7   |
| 87.5° | 303.0   | 296.4   | 875.9   | 1246.0  | 784.6   | 506.0   | 653.1   | 338.8   | 49.0    | 69.1    | 55.7    |
| 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):**

|       | 90°     | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5594.7  | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 | 5594.7 |
| 2.5°  | 5527.9  | 5445.4 | 5296.1 | 5142.2 | 4986.1 | 4865.9 | 4747.7 | 4654.1 | 4622.9 | 4565.0 | 4569.3 |
| 5°    | 5358.4  | 5206.9 | 4894.9 | 4578.3 | 4248.4 | 3976.5 | 3720.2 | 3512.8 | 3412.5 | 3310.0 | 3310.0 |
| 7.5°  | 5211.3  | 4990.6 | 4502.5 | 3987.6 | 3454.9 | 3006.9 | 2603.4 | 2300.2 | 2133.1 | 1999.3 | 1997.2 |
| 10°   | 5155.6  | 4856.9 | 4174.8 | 3437.1 | 2694.8 | 2084.1 | 1604.8 | 1297.2 | 1139.0 | 1036.5 | 1032.0 |
| 12.5° | 5180.1  | 4810.1 | 3923.0 | 2928.8 | 1997.2 | 1339.6 | 929.5  | 731.1  | 664.2  | 633.0  | 633.0  |
| 15°   | 5251.4  | 4796.7 | 3671.1 | 2431.8 | 1411.0 | 838.1  | 617.5  | 563.9  | 559.5  | 559.5  | 559.5  |
| 17.5° | 5338.4  | 4801.2 | 3412.5 | 1948.1 | 960.7  | 599.7  | 532.7  | 526.1  | 530.5  | 530.5  | 530.5  |
| 20°   | 5427.6  | 4803.4 | 3133.9 | 1500.1 | 677.6  | 521.6  | 501.5  | 499.4  | 503.8  | 503.8  | 506.0  |
| 22.5° | 5536.7  | 4814.5 | 2855.3 | 1121.2 | 559.5  | 492.6  | 477.0  | 477.0  | 479.2  | 479.2  | 477.0  |
| 25°   | 5661.6  | 4836.8 | 2565.5 | 831.4  | 510.5  | 472.5  | 459.2  | 456.9  | 459.2  | 456.9  | 454.7  |
| 27.5° | 5817.6  | 4868.0 | 2242.3 | 650.8  | 488.2  | 452.5  | 441.3  | 441.3  | 439.1  | 436.9  | 434.7  |
| 30°   | 6013.7  | 4903.7 | 1879.0 | 552.8  | 465.9  | 434.7  | 423.5  | 421.3  | 419.0  | 414.6  | 414.6  |
| 32.5° | 6312.5  | 4981.6 | 1520.2 | 501.5  | 441.3  | 410.2  | 401.2  | 401.2  | 396.7  | 392.3  | 390.0  |
| 35°   | 6771.6  | 5135.5 | 1199.2 | 470.4  | 414.6  | 383.4  | 372.2  | 372.2  | 367.7  | 365.6  | 363.3  |
| 37.5° | 7406.8  | 5369.5 | 931.7  | 441.3  | 387.9  | 354.4  | 343.3  | 341.0  | 336.5  | 332.1  | 329.9  |
| 40°   | 8251.6  | 5659.3 | 733.3  | 414.6  | 361.1  | 325.4  | 316.6  | 312.1  | 303.0  | 296.4  | 296.4  |
| 42.5° | 9312.6  | 5989.3 | 595.1  | 385.5  | 329.9  | 298.8  | 291.9  | 285.2  | 269.7  | 263.0  | 260.8  |
| 45°   | 10422.6 | 6285.6 | 503.8  | 352.2  | 298.8  | 271.9  | 267.4  | 256.3  | 236.2  | 229.6  | 229.6  |
| 47.5° | 11222.8 | 6354.7 | 443.6  | 321.0  | 269.7  | 243.0  | 240.7  | 220.7  | 202.7  | 198.5  | 196.1  |
| 50°   | 11722.1 | 6218.8 | 394.5  | 289.7  | 243.0  | 216.3  | 209.6  | 184.9  | 173.8  | 169.4  | 167.1  |
| 52.5° | 12058.7 | 5975.8 | 354.4  | 263.0  | 218.4  | 191.6  | 176.1  | 158.2  | 149.3  | 144.9  | 144.9  |
| 55°   | 12328.4 | 5632.6 | 314.2  | 238.5  | 198.5  | 171.6  | 149.3  | 135.9  | 127.1  | 122.6  | 122.6  |
| 57.5° | 12404.2 | 5166.8 | 274.1  | 218.4  | 178.3  | 151.6  | 127.1  | 118.1  | 107.0  | 104.8  | 104.8  |
| 60°   | 11853.6 | 4326.4 | 243.0  | 193.9  | 160.5  | 131.5  | 111.5  | 100.3  | 89.1   | 87.0   | 84.6   |
| 62.5° | 10402.6 | 3347.9 | 213.9  | 171.6  | 140.4  | 113.6  | 95.8   | 82.5   | 73.5   | 73.5   | 73.5   |
| 65°   | 7935.1  | 2244.5 | 187.3  | 149.3  | 122.6  | 95.8   | 82.5   | 66.8   | 62.4   | 62.4   | 64.7   |
| 67.5° | 4749.9  | 1221.5 | 160.5  | 127.1  | 104.8  | 80.2   | 69.1   | 57.9   | 55.7   | 57.9   | 57.9   |
| 69°   | 2783.9  | 717.8  | 144.9  | 113.6  | 91.3   | 71.3   | 60.2   | 51.3   | 55.7   | 57.9   | 57.9   |
| 70°   | 1718.5  | 483.7  | 133.8  | 102.4  | 82.5   | 64.7   | 55.7   | 49.0   | 53.5   | 55.7   | 55.7   |
| 72.5° | 479.2   | 249.6  | 107.0  | 80.2   | 66.8   | 53.5   | 44.6   | 44.6   | 51.3   | 53.5   | 53.5   |
| 75°   | 312.1   | 184.9  | 82.5   | 60.2   | 51.3   | 42.4   | 37.9   | 42.4   | 49.0   | 51.3   | 51.3   |
| 77.5° | 258.5   | 151.6  | 66.8   | 49.0   | 42.4   | 40.1   | 35.6   | 37.9   | 44.6   | 46.8   | 46.8   |
| 80°   | 236.2   | 107.0  | 53.5   | 44.6   | 37.9   | 35.6   | 33.5   | 31.2   | 40.1   | 42.4   | 42.4   |
| 82.5° | 225.1   | 84.6   | 46.8   | 40.1   | 35.6   | 31.2   | 29.0   | 31.2   | 35.6   | 37.9   | 40.1   |
| 85°   | 140.4   | 55.7   | 42.4   | 37.9   | 31.2   | 29.0   | 29.0   | 29.0   | 33.5   | 35.6   | 35.6   |
| 87.5° | 51.3    | 44.6   | 37.9   | 31.2   | 26.8   | 26.8   | 26.8   | 26.8   | 29.0   | 33.5   | 33.5   |
| 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)