

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: P299660

Luminaire Tested: **GLNA-AF-05-LED-E1-5MQ-7030-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299660  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-5MQ-7030-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24339.3 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B5 - U0 - G3

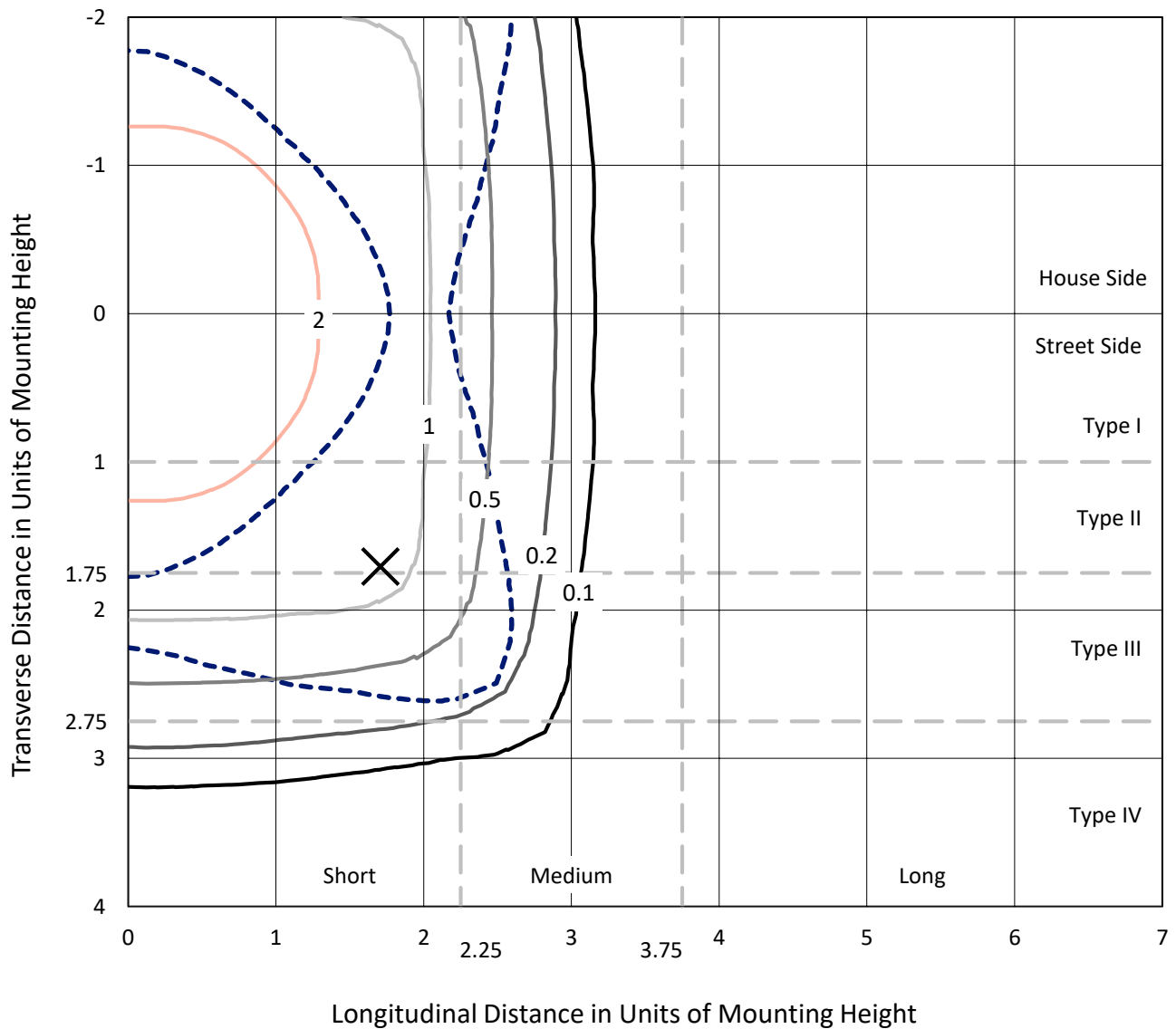
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

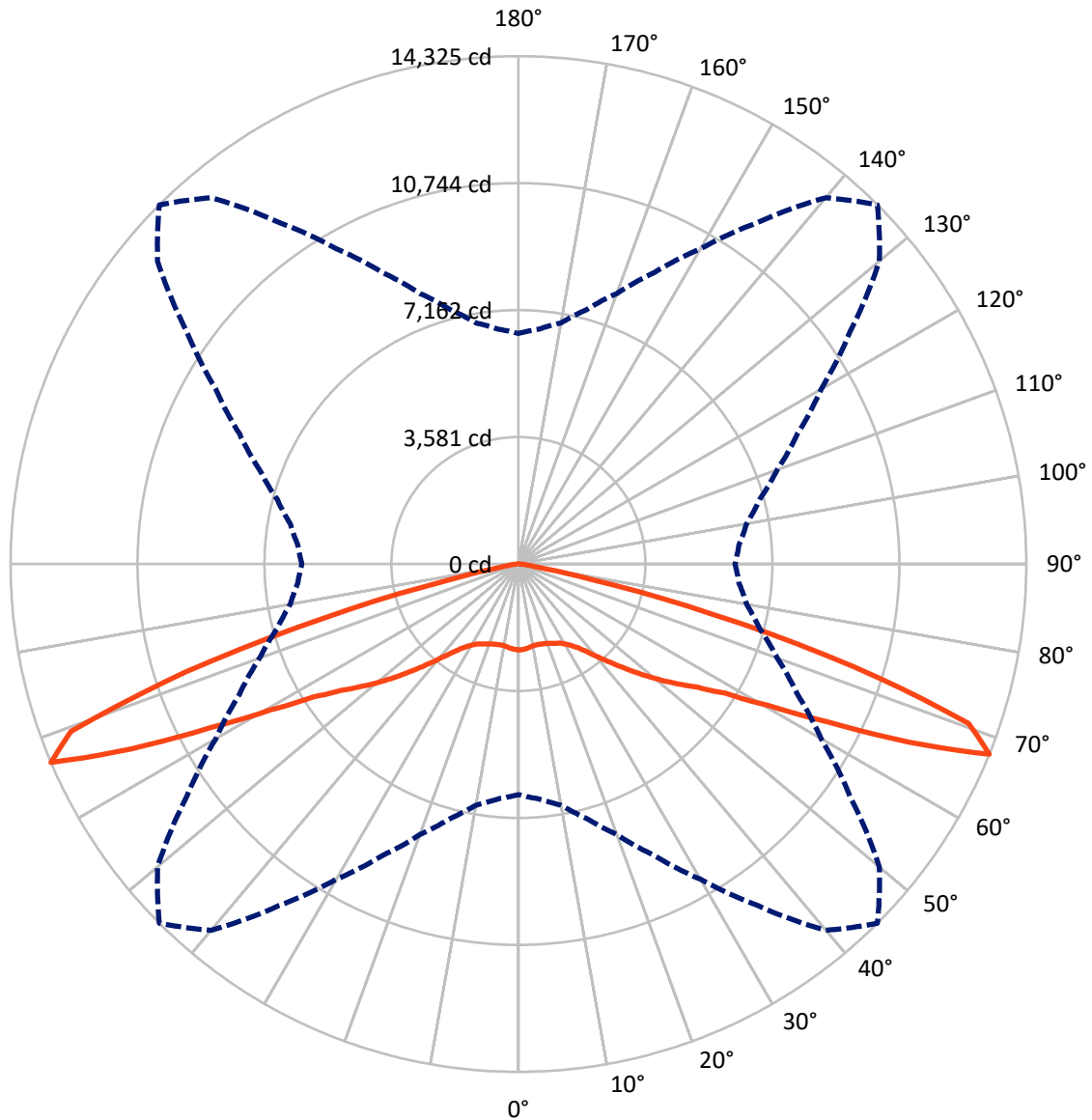


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 12169.7  | 0.0    | 12169.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 12169.7  | 0.0    | 12169.7 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 24339.3  | 0.0    | 24339.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 227.0   | 0.9       |
| 10°-20°   | 658.8   | 2.7       |
| 20°-30°   | 1119.9  | 4.6       |
| 30°-40°   | 1830.7  | 7.5       |
| 40°-50°   | 3268.1  | 13.4      |
| 50°-60°   | 5510.0  | 22.6      |
| 60°-70°   | 8550.8  | 35.1      |
| 70°-80°   | 3004.4  | 12.3      |
| 80°-90°   | 169.8   | 0.7       |
| 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°    | 24339.3 | 100.0     |
| 0°-180°   | 24339.3 | 100.0     |



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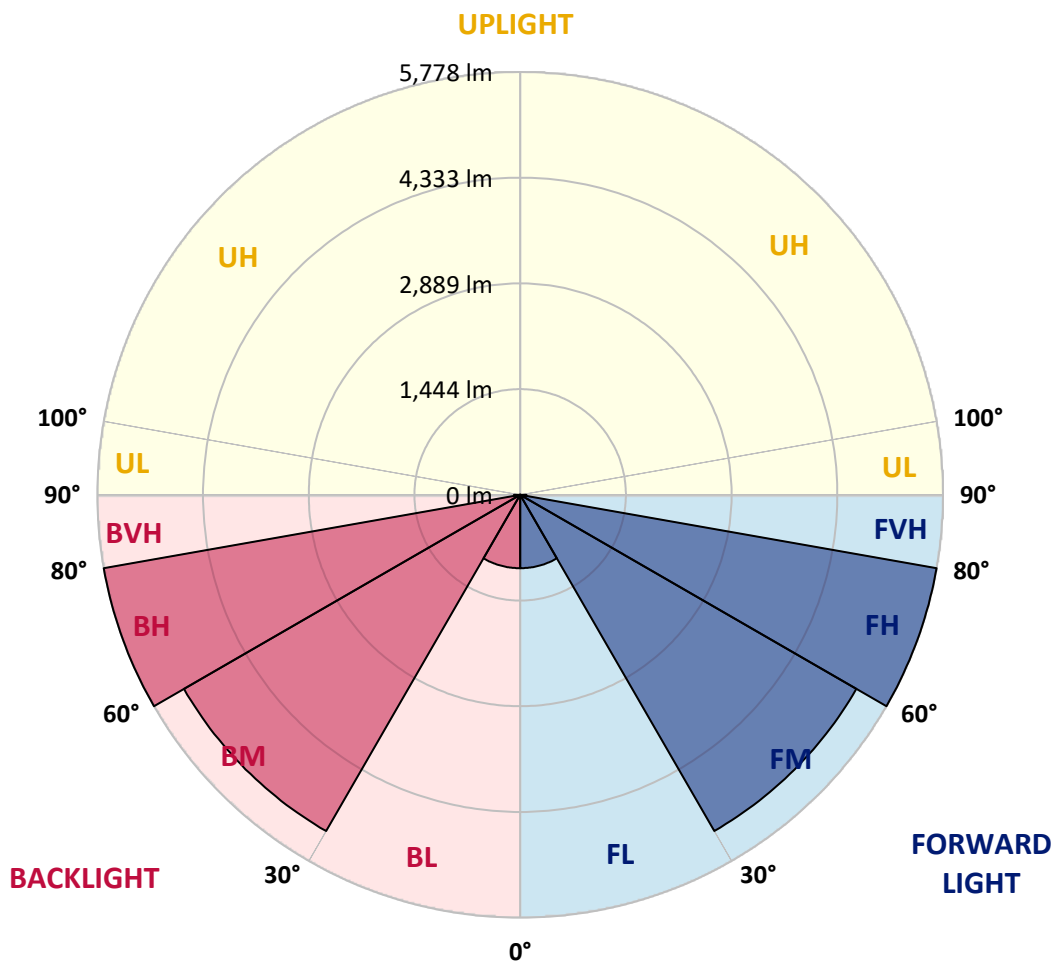
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1002.8 | 4.1       |                         |      |         |
| FM   | (30°-60°)   | 5304.4 | 21.8      |                         |      |         |
| FH   | (60°-80°)   | 5777.6 | 23.7      |                         |      | G3/7500 |
| FVH  | (80°-90°)   | 84.9   | 0.3       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1002.8 | 4.1       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 5304.4 | 21.8      | B4/8500                 |      |         |
| BH   | (60°-80°)   | 5777.6 | 23.7      | B5                      |      | G3/7500 |
| BVH  | (80°-90°)   | 84.9   | 0.3       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°     | 35°     | 40°     | 45°     | 50°     |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0°    | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5  | 2425.5  | 2425.5  | 2425.5  | 2425.5  |
| 2.5°  | 2416.6 | 2418.8 | 2418.8 | 2418.8 | 2417.7 | 2417.7 | 2415.4  | 2417.7  | 2416.6  | 2413.2  | 2414.3  |
| 5°    | 2396.4 | 2398.7 | 2398.7 | 2397.5 | 2400.9 | 2399.8 | 2396.4  | 2398.7  | 2397.5  | 2395.3  | 2396.4  |
| 7.5°  | 2367.3 | 2370.7 | 2370.7 | 2369.5 | 2372.9 | 2371.8 | 2369.5  | 2370.7  | 2370.7  | 2367.3  | 2367.3  |
| 10°   | 2334.9 | 2337.1 | 2337.1 | 2336.0 | 2341.6 | 2341.6 | 2340.4  | 2343.8  | 2344.9  | 2341.6  | 2339.3  |
| 12.5° | 2304.6 | 2308.0 | 2308.0 | 2312.5 | 2318.1 | 2320.3 | 2325.9  | 2330.4  | 2334.9  | 2333.7  | 2329.3  |
| 15°   | 2286.7 | 2289.0 | 2293.4 | 2299.0 | 2308.0 | 2315.8 | 2324.8  | 2334.9  | 2343.8  | 2346.0  | 2339.3  |
| 17.5° | 2275.5 | 2278.9 | 2285.6 | 2293.4 | 2305.7 | 2319.2 | 2332.6  | 2346.0  | 2358.4  | 2362.8  | 2355.0  |
| 20°   | 2272.2 | 2274.4 | 2281.1 | 2294.6 | 2311.3 | 2331.5 | 2350.5  | 2366.2  | 2383.0  | 2388.6  | 2383.0  |
| 22.5° | 2278.9 | 2283.4 | 2291.2 | 2306.9 | 2329.3 | 2355.0 | 2377.4  | 2398.7  | 2419.9  | 2430.0  | 2422.2  |
| 25°   | 2309.1 | 2313.6 | 2323.7 | 2343.8 | 2368.4 | 2395.3 | 2421.0  | 2445.7  | 2464.7  | 2474.8  | 2469.2  |
| 27.5° | 2365.1 | 2370.7 | 2383.0 | 2403.1 | 2430.0 | 2459.1 | 2487.1  | 2507.2  | 2522.9  | 2526.3  | 2519.5  |
| 30°   | 2449.0 | 2461.3 | 2475.9 | 2498.3 | 2529.6 | 2554.2 | 2582.2  | 2600.1  | 2619.2  | 2619.2  | 2613.6  |
| 32.5° | 2580.0 | 2592.3 | 2608.0 | 2629.2 | 2653.9 | 2680.7 | 2705.3  | 2721.0  | 2741.2  | 2742.3  | 2728.8  |
| 35°   | 2775.9 | 2781.5 | 2794.9 | 2808.3 | 2830.7 | 2854.2 | 2875.5  | 2885.5  | 2902.3  | 2903.5  | 2891.1  |
| 37.5° | 3034.4 | 3035.5 | 3044.5 | 3049.0 | 3069.1 | 3094.9 | 3115.0  | 3121.7  | 3137.4  | 3135.1  | 3122.8  |
| 40°   | 3335.5 | 3341.1 | 3344.5 | 3351.2 | 3372.4 | 3397.1 | 3418.3  | 3421.7  | 3438.5  | 3435.1  | 3419.4  |
| 42.5° | 3683.6 | 3685.8 | 3704.9 | 3714.9 | 3735.1 | 3747.4 | 3774.3  | 3777.6  | 3797.8  | 3788.8  | 3770.9  |
| 45°   | 4074.2 | 4094.4 | 4112.3 | 4132.4 | 4153.7 | 4168.3 | 4189.5  | 4185.0  | 4198.5  | 4185.0  | 4175.0  |
| 47.5° | 4485.0 | 4499.6 | 4539.9 | 4571.2 | 4605.9 | 4618.2 | 4648.4  | 4635.0  | 4648.4  | 4629.4  | 4626.0  |
| 50°   | 4937.2 | 4963.0 | 4997.7 | 5033.5 | 5070.4 | 5090.6 | 5129.7  | 5112.9  | 5130.9  | 5112.9  | 5102.9  |
| 52.5° | 5382.7 | 5389.4 | 5465.5 | 5518.1 | 5569.6 | 5593.1 | 5616.6  | 5608.8  | 5609.9  | 5608.8  | 5598.7  |
| 55°   | 5805.8 | 5821.5 | 5897.6 | 5969.2 | 6058.7 | 6124.8 | 6165.1  | 6160.6  | 6150.5  | 6140.5  | 6123.7  |
| 57.5° | 6282.6 | 6298.3 | 6385.6 | 6474.0 | 6575.9 | 6669.9 | 6751.6  | 6835.5  | 6868.0  | 6877.0  | 6840.0  |
| 60°   | 6927.3 | 6926.2 | 7042.6 | 7150.1 | 7295.6 | 7435.5 | 7614.6  | 7797.0  | 8006.3  | 8103.7  | 7975.0  |
| 62.5° | 7583.2 | 7610.1 | 7778.0 | 7968.3 | 8268.2 | 8560.4 | 8890.6  | 9215.2  | 9546.5  | 9816.2  | 9529.7  |
| 65°   | 7504.9 | 7607.9 | 7857.5 | 8288.4 | 8842.4 | 9500.6 | 10212.5 | 10965.7 | 11646.3 | 12114.1 | 11589.2 |
| 67.5° | 6504.2 | 6650.9 | 6904.9 | 7428.8 | 8121.6 | 9070.8 | 10266.2 | 11756.0 | 13487.5 | 14324.7 | 13287.2 |
| 70°   | 4714.5 | 4880.1 | 5146.5 | 5658.0 | 6344.2 | 7246.3 | 8544.7  | 10333.3 | 12625.7 | 13469.6 | 12326.8 |
| 72.5° | 2346.0 | 2435.6 | 2600.1 | 2925.8 | 3445.2 | 4177.2 | 5354.7  | 7073.9  | 9102.1  | 9876.7  | 8832.4  |
| 75°   | 796.9  | 838.4  | 866.3  | 972.7  | 1137.2 | 1424.9 | 2010.3  | 3092.6  | 4717.8  | 5655.8  | 4650.7  |
| 77.5° | 460.0  | 461.1  | 480.2  | 499.2  | 527.2  | 558.5  | 636.9   | 836.1   | 1446.1  | 2053.9  | 1496.5  |
| 80°   | 297.7  | 296.6  | 312.3  | 326.8  | 345.9  | 361.5  | 366.0   | 387.3   | 446.6   | 529.4   | 473.5   |
| 82.5° | 154.5  | 173.5  | 208.2  | 227.2  | 263.0  | 269.8  | 260.8   | 253.0   | 267.5   | 277.6   | 284.3   |
| 85°   | 85.1   | 73.9   | 110.8  | 143.3  | 158.9  | 161.2  | 161.2   | 152.2   | 157.8   | 154.5   | 167.9   |
| 87.5° | 39.2   | 35.8   | 43.7   | 70.5   | 75.0   | 63.8   | 67.2    | 59.3    | 42.5    | 41.4    | 47.0    |
| 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):**

|       | 55°     | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2425.5  | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5 | 2425.5 |
| 2.5°  | 2414.3  | 2415.4 | 2415.4 | 2418.8 | 2419.9 | 2422.2 | 2424.4 | 2425.5 |
| 5°    | 2395.3  | 2398.7 | 2396.4 | 2399.8 | 2399.8 | 2402.0 | 2402.0 | 2403.1 |
| 7.5°  | 2367.3  | 2370.7 | 2370.7 | 2370.7 | 2369.5 | 2372.9 | 2372.9 | 2372.9 |
| 10°   | 2338.2  | 2340.4 | 2339.3 | 2337.1 | 2334.9 | 2338.2 | 2337.1 | 2336.0 |
| 12.5° | 2329.3  | 2323.7 | 2319.2 | 2316.9 | 2312.5 | 2313.6 | 2310.2 | 2310.2 |
| 15°   | 2334.9  | 2324.8 | 2316.9 | 2313.6 | 2309.1 | 2306.9 | 2304.6 | 2305.7 |
| 17.5° | 2349.4  | 2337.1 | 2327.0 | 2321.4 | 2315.8 | 2312.5 | 2308.0 | 2309.1 |
| 20°   | 2375.1  | 2360.6 | 2346.0 | 2334.9 | 2324.8 | 2319.2 | 2315.8 | 2314.7 |
| 22.5° | 2413.2  | 2391.9 | 2370.7 | 2353.9 | 2340.4 | 2332.6 | 2329.3 | 2327.0 |
| 25°   | 2456.9  | 2433.3 | 2408.7 | 2389.7 | 2376.3 | 2366.2 | 2359.5 | 2359.5 |
| 27.5° | 2511.7  | 2492.7 | 2470.3 | 2447.9 | 2435.6 | 2425.5 | 2421.0 | 2418.8 |
| 30°   | 2603.5  | 2585.6 | 2567.7 | 2546.4 | 2530.7 | 2520.7 | 2512.8 | 2506.1 |
| 32.5° | 2721.0  | 2706.5 | 2691.9 | 2676.2 | 2661.7 | 2648.3 | 2635.9 | 2630.3 |
| 35°   | 2886.7  | 2875.5 | 2865.4 | 2847.5 | 2841.9 | 2834.1 | 2827.3 | 2821.7 |
| 37.5° | 3115.0  | 3110.5 | 3110.5 | 3091.5 | 3087.0 | 3083.7 | 3076.9 | 3078.1 |
| 40°   | 3415.0  | 3419.4 | 3413.9 | 3407.1 | 3403.8 | 3394.8 | 3394.8 | 3402.7 |
| 42.5° | 3769.8  | 3773.1 | 3785.5 | 3774.3 | 3786.6 | 3775.4 | 3768.7 | 3774.3 |
| 45°   | 4181.7  | 4194.0 | 4218.6 | 4207.4 | 4215.3 | 4196.2 | 4172.7 | 4173.9 |
| 47.5° | 4644.0  | 4655.2 | 4665.2 | 4657.4 | 4658.5 | 4627.2 | 4595.8 | 4588.0 |
| 50°   | 5124.1  | 5128.6 | 5134.2 | 5123.0 | 5125.3 | 5090.6 | 5054.7 | 5055.9 |
| 52.5° | 5598.7  | 5620.0 | 5642.4 | 5612.1 | 5605.4 | 5566.3 | 5515.9 | 5495.7 |
| 55°   | 6141.6  | 6171.8 | 6146.1 | 6093.4 | 6040.8 | 5988.2 | 5922.2 | 5911.0 |
| 57.5° | 6810.9  | 6759.4 | 6678.8 | 6579.2 | 6506.5 | 6432.6 | 6365.4 | 6337.5 |
| 60°   | 7742.2  | 7548.5 | 7403.0 | 7255.3 | 7162.4 | 7071.7 | 6983.3 | 6969.9 |
| 62.5° | 9058.5  | 8723.8 | 8433.9 | 8128.3 | 7878.7 | 7684.0 | 7528.4 | 7484.7 |
| 65°   | 10708.3 | 9917.0 | 9230.8 | 8590.6 | 8034.3 | 7614.6 | 7350.4 | 7234.0 |
| 67.5° | 11417.9 | 9855.4 | 8679.0 | 7770.2 | 7042.6 | 6534.4 | 6249.0 | 6106.9 |
| 70°   | 10033.4 | 8173.1 | 6893.7 | 5983.8 | 5321.1 | 4779.4 | 4520.8 | 4368.6 |
| 72.5° | 6902.7  | 5199.1 | 4111.2 | 3355.6 | 2826.2 | 2372.9 | 2193.8 | 2180.4 |
| 75°   | 3099.3  | 2052.8 | 1414.8 | 1090.2 | 917.8  | 798.1  | 761.1  | 733.1  |
| 77.5° | 867.5   | 641.4  | 572.0  | 535.0  | 499.2  | 457.8  | 442.1  | 445.5  |
| 80°   | 422.0   | 398.5  | 382.8  | 359.3  | 326.8  | 292.1  | 276.5  | 283.2  |
| 82.5° | 279.8   | 276.5  | 286.5  | 269.8  | 222.7  | 189.2  | 158.9  | 145.5  |
| 85°   | 170.1   | 172.4  | 175.7  | 176.8  | 150.0  | 105.2  | 71.6   | 80.6   |
| 87.5° | 67.2    | 77.2   | 83.9   | 87.3   | 81.7   | 50.4   | 40.3   | 41.4   |
| 90°   | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)