

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: P299840

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299840  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)  
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-E1-5WQ-7030  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV  
w/Spill Control OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30205.3 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

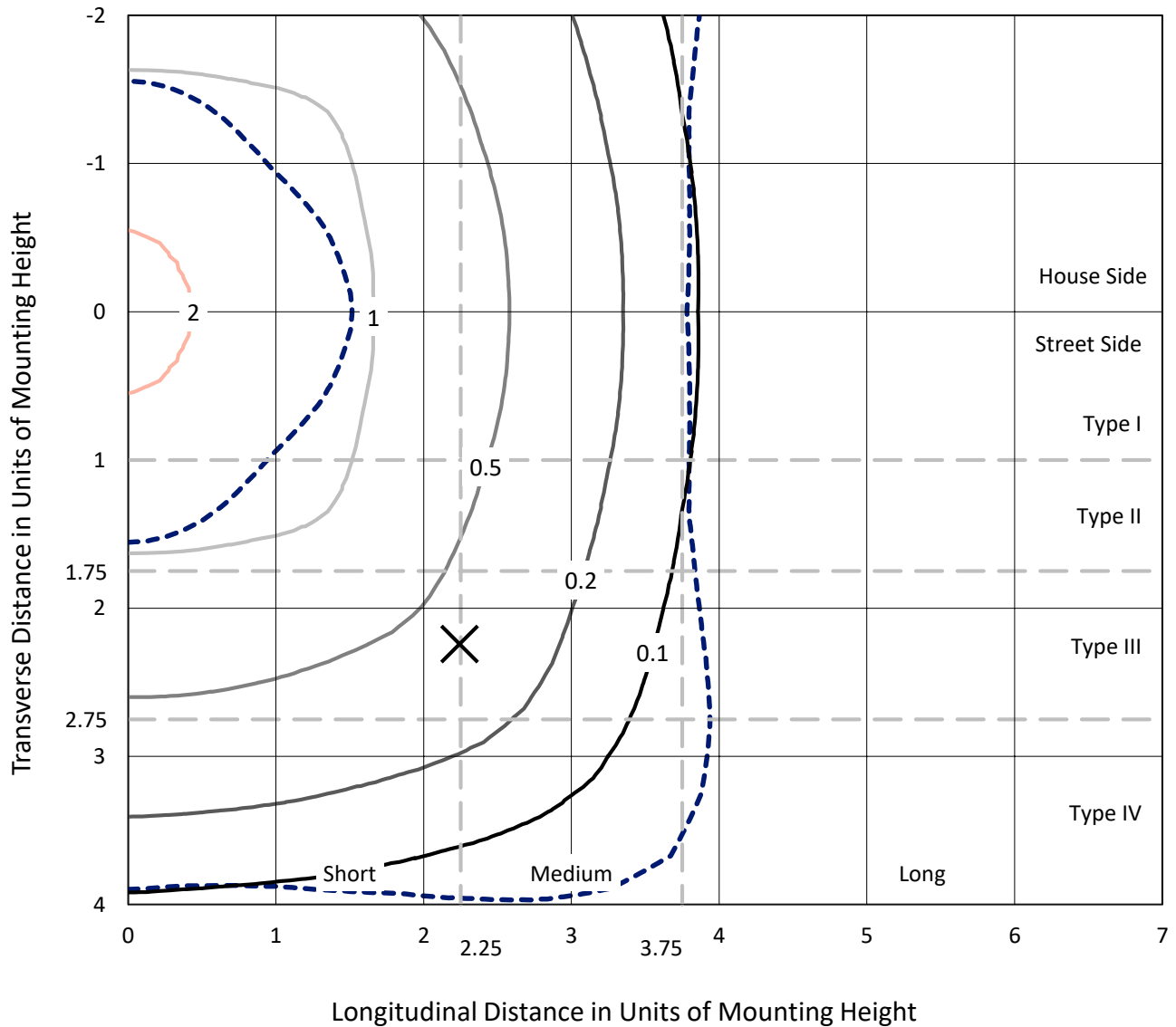
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

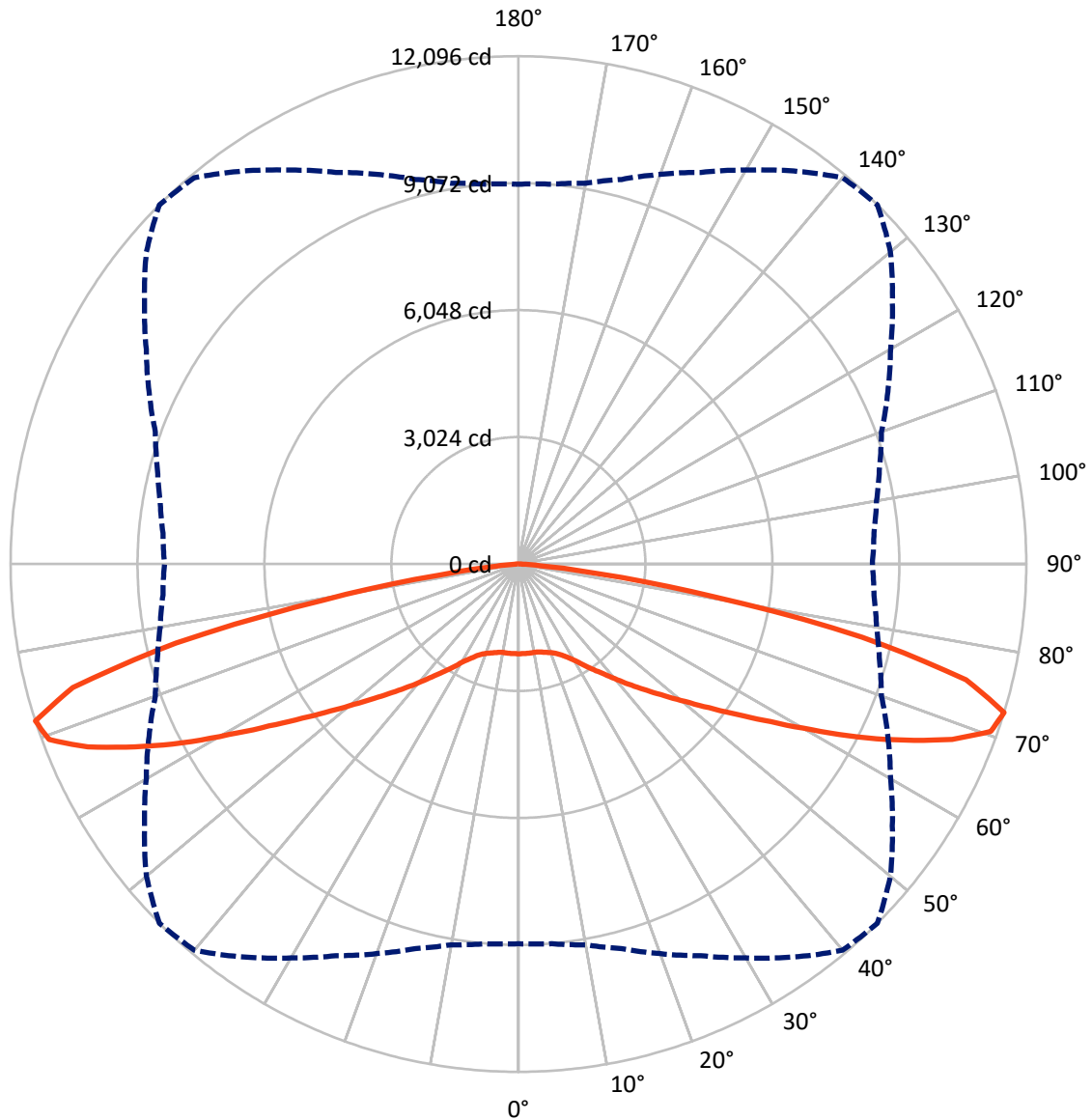
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 2.4 fc  
 Type V - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 72.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 15102.6  | 0.0    | 15102.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 15102.6  | 0.0    | 15102.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 30205.3  | 0.0    | 30205.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 204.3   | 0.7       |
| 10°-20°   | 620.3   | 2.1       |
| 20°-30°   | 1133.6  | 3.8       |
| 30°-40°   | 1954.5  | 6.5       |
| 40°-50°   | 3341.2  | 11.1      |
| 50°-60°   | 5415.7  | 17.9      |
| 60°-70°   | 8984.4  | 29.7      |
| 70°-80°   | 7913.2  | 26.2      |
| 80°-90°   | 638.0   | 2.1       |
| 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°    | 30205.3 | 100.0     |
| 0°-180°   | 30205.3 | 100.0     |

**Coefficient of Utilization**



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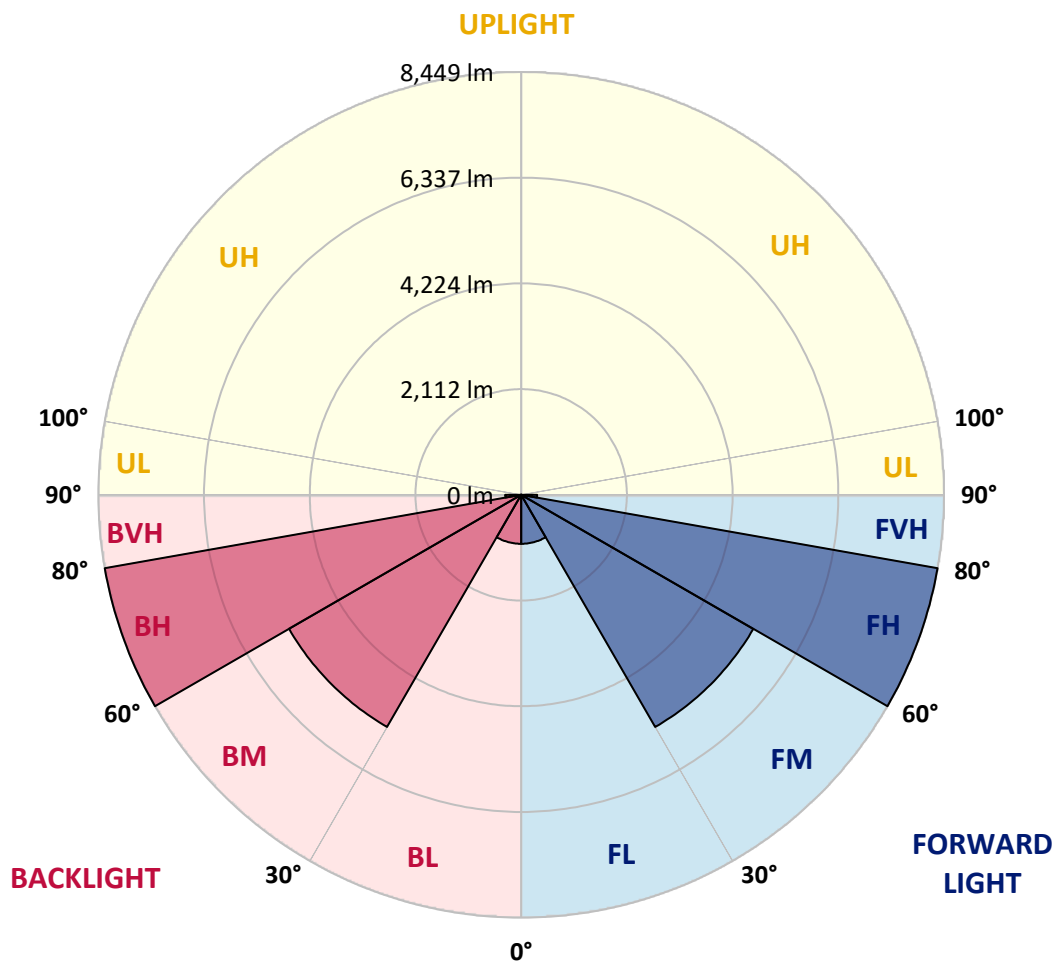
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 979.1  | 3.2       |                         |      |          |
| FM   | (30°-60°)   | 5355.7 | 17.7      |                         |      |          |
| FH   | (60°-80°)   | 8448.8 | 28.0      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 319.0  | 1.1       |                         |      | G3/500   |
| BL   | (0°-30°)    | 979.1  | 3.2       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 5355.7 | 17.7      | B4/8500                 |      |          |
| BH   | (60°-80°)   | 8448.8 | 28.0      | B5                      |      | G4/12000 |
| BVH  | (80°-90°)   | 319.0  | 1.1       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B5-U0-G4**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°     | 15°     | 20°     | 25°     | 30°     | 35°     | 40°     | 45°     | 50°     |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2139.0 | 2139.0 | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0  |
| 2.5°  | 2139.0 | 2140.4 | 2141.8  | 2140.4  | 2140.4  | 2139.0  | 2137.6  | 2139.0  | 2137.6  | 2134.8  | 2136.2  |
| 5°    | 2145.9 | 2148.7 | 2148.7  | 2145.9  | 2147.3  | 2145.9  | 2143.2  | 2144.5  | 2141.8  | 2137.6  | 2137.6  |
| 7.5°  | 2154.2 | 2155.6 | 2155.6  | 2152.9  | 2154.2  | 2151.5  | 2148.7  | 2147.3  | 2144.5  | 2139.0  | 2134.8  |
| 10°   | 2166.7 | 2168.1 | 2166.7  | 2163.9  | 2163.9  | 2159.8  | 2152.9  | 2150.1  | 2144.5  | 2136.2  | 2132.1  |
| 12.5° | 2180.6 | 2181.9 | 2180.6  | 2177.8  | 2176.4  | 2169.5  | 2163.9  | 2159.8  | 2155.6  | 2148.7  | 2141.8  |
| 15°   | 2200.0 | 2202.7 | 2200.0  | 2194.4  | 2190.3  | 2184.7  | 2181.9  | 2183.3  | 2184.7  | 2179.2  | 2172.2  |
| 17.5° | 2236.0 | 2237.4 | 2233.2  | 2220.7  | 2215.2  | 2209.7  | 2209.7  | 2212.4  | 2216.6  | 2213.8  | 2206.9  |
| 20°   | 2302.5 | 2298.3 | 2288.6  | 2273.4  | 2266.5  | 2256.8  | 2255.4  | 2256.8  | 2256.8  | 2255.4  | 2249.8  |
| 22.5° | 2385.6 | 2382.8 | 2370.4  | 2351.0  | 2341.3  | 2335.7  | 2327.4  | 2320.5  | 2319.1  | 2314.9  | 2309.4  |
| 25°   | 2485.3 | 2484.0 | 2468.7  | 2452.1  | 2445.2  | 2438.2  | 2431.3  | 2421.6  | 2413.3  | 2403.6  | 2398.1  |
| 27.5° | 2612.8 | 2607.3 | 2585.1  | 2576.8  | 2567.1  | 2562.9  | 2553.2  | 2542.1  | 2535.2  | 2522.7  | 2515.8  |
| 30°   | 2752.7 | 2752.7 | 2734.7  | 2731.9  | 2731.9  | 2722.2  | 2711.2  | 2691.8  | 2679.3  | 2666.8  | 2662.7  |
| 32.5° | 2892.6 | 2894.0 | 2876.0  | 2881.6  | 2885.7  | 2892.6  | 2895.4  | 2888.5  | 2880.2  | 2878.8  | 2870.5  |
| 35°   | 3094.9 | 3089.4 | 3071.4  | 3075.5  | 3074.1  | 3072.7  | 3072.7  | 3088.0  | 3090.7  | 3093.5  | 3076.9  |
| 37.5° | 3345.7 | 3345.7 | 3327.6  | 3327.6  | 3319.3  | 3311.0  | 3299.9  | 3309.6  | 3324.9  | 3329.0  | 3317.9  |
| 40°   | 3632.4 | 3642.1 | 3620.0  | 3618.6  | 3621.3  | 3595.0  | 3582.5  | 3597.8  | 3607.5  | 3624.1  | 3611.6  |
| 42.5° | 3970.5 | 3963.5 | 3941.4  | 3938.6  | 3923.3  | 3915.0  | 3904.0  | 3916.4  | 3931.7  | 3942.7  | 3946.9  |
| 45°   | 4294.6 | 4289.1 | 4264.1  | 4264.1  | 4248.9  | 4242.0  | 4247.5  | 4268.3  | 4275.2  | 4290.5  | 4305.7  |
| 47.5° | 4614.6 | 4607.7 | 4591.1  | 4598.0  | 4599.4  | 4611.9  | 4629.9  | 4649.3  | 4668.7  | 4689.5  | 4696.4  |
| 50°   | 4941.6 | 4943.0 | 4925.0  | 4941.6  | 4962.4  | 4997.0  | 5045.5  | 5077.4  | 5117.5  | 5143.9  | 5152.2  |
| 52.5° | 5239.4 | 5245.0 | 5264.4  | 5303.2  | 5344.7  | 5412.6  | 5495.7  | 5573.3  | 5639.8  | 5684.1  | 5681.4  |
| 55°   | 5596.9 | 5605.2 | 5652.3  | 5718.8  | 5786.7  | 5889.2  | 6012.5  | 6149.6  | 6260.5  | 6324.2  | 6284.0  |
| 57.5° | 6054.0 | 6072.0 | 6124.7  | 6214.7  | 6315.9  | 6448.9  | 6617.9  | 6824.3  | 6996.1  | 7082.0  | 7016.9  |
| 60°   | 6681.6 | 6692.7 | 6756.4  | 6856.2  | 6978.1  | 7142.9  | 7368.7  | 7645.8  | 7888.3  | 8001.9  | 7927.0  |
| 62.5° | 7508.7 | 7529.4 | 7580.7  | 7681.8  | 7806.5  | 7993.5  | 8269.2  | 8615.6  | 8917.6  | 9075.5  | 8906.5  |
| 65°   | 8496.4 | 8562.9 | 8605.9  | 8708.4  | 8824.8  | 9022.9  | 9311.0  | 9682.3  | 10006.5 | 10110.4 | 9915.0  |
| 67.5° | 9474.5 | 9532.7 | 9607.5  | 9725.3  | 9843.0  | 10066.0 | 10333.4 | 10693.6 | 11049.7 | 11143.9 | 10840.5 |
| 70°   | 9902.6 | 9935.8 | 10052.2 | 10212.9 | 10438.7 | 10701.9 | 11010.9 | 11415.4 | 11855.9 | 11933.5 | 11548.4 |
| 72.5° | 9045.0 | 9078.3 | 9208.5  | 9481.4  | 9874.9  | 10293.2 | 10832.2 | 11426.5 | 12008.3 | 12095.6 | 11565.0 |
| 75°   | 6840.9 | 6786.9 | 6979.5  | 7341.0  | 7871.6  | 8454.9  | 9208.5  | 10060.5 | 10901.4 | 11010.9 | 10377.8 |
| 77.5° | 3535.4 | 3528.5 | 3674.0  | 4122.8  | 4756.0  | 5419.5  | 6249.4  | 7212.2  | 8035.1  | 8367.6  | 7852.2  |
| 80°   | 996.1  | 1007.2 | 1076.4  | 1299.5  | 1669.4  | 2148.7  | 2797.0  | 3698.9  | 4372.2  | 4715.8  | 4427.6  |
| 82.5° | 390.7  | 421.2  | 447.5   | 489.0   | 537.5   | 608.2   | 811.8   | 1208.0  | 1620.9  | 1936.7  | 1586.2  |
| 85°   | 139.9  | 149.6  | 212.0   | 250.8   | 254.9   | 268.8   | 306.2   | 357.4   | 430.8   | 514.0   | 422.5   |
| 87.5° | 52.6   | 58.2   | 67.9    | 112.2   | 110.8   | 101.1   | 123.3   | 128.8   | 97.0    | 88.7    | 109.4   |
| 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):**

|       | 55°     | 60°     | 65°     | 70°     | 75°    | 80°    | 85°    | 90°    |
|-------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0°    | 2139.0  | 2139.0  | 2139.0  | 2139.0  | 2139.0 | 2139.0 | 2139.0 | 2139.0 |
| 2.5°  | 2133.5  | 2134.8  | 2134.8  | 2136.2  | 2137.6 | 2137.6 | 2140.4 | 2140.4 |
| 5°    | 2134.8  | 2134.8  | 2132.1  | 2133.5  | 2132.1 | 2132.1 | 2133.5 | 2133.5 |
| 7.5°  | 2132.1  | 2130.7  | 2127.9  | 2126.5  | 2123.8 | 2123.8 | 2123.8 | 2123.8 |
| 10°   | 2127.9  | 2126.5  | 2123.8  | 2122.4  | 2121.0 | 2121.0 | 2121.0 | 2121.0 |
| 12.5° | 2139.0  | 2134.8  | 2132.1  | 2130.7  | 2130.7 | 2130.7 | 2130.7 | 2130.7 |
| 15°   | 2168.1  | 2158.4  | 2151.5  | 2151.5  | 2152.9 | 2155.6 | 2155.6 | 2158.4 |
| 17.5° | 2204.1  | 2193.0  | 2186.1  | 2180.6  | 2183.3 | 2187.5 | 2190.3 | 2193.0 |
| 20°   | 2247.1  | 2241.5  | 2231.8  | 2226.3  | 2226.3 | 2231.8 | 2234.6 | 2236.0 |
| 22.5° | 2306.6  | 2302.5  | 2298.3  | 2291.4  | 2291.4 | 2294.2 | 2299.7 | 2299.7 |
| 25°   | 2395.3  | 2392.5  | 2389.8  | 2384.2  | 2382.8 | 2382.8 | 2385.6 | 2388.4 |
| 27.5° | 2506.1  | 2507.5  | 2504.7  | 2503.4  | 2499.2 | 2497.8 | 2502.0 | 2500.6 |
| 30°   | 2654.4  | 2661.3  | 2668.2  | 2662.7  | 2655.7 | 2651.6 | 2647.4 | 2641.9 |
| 32.5° | 2855.2  | 2846.9  | 2841.4  | 2831.7  | 2819.2 | 2808.1 | 2799.8 | 2790.1 |
| 35°   | 3045.0  | 3031.2  | 3025.6  | 3033.9  | 3032.6 | 3025.6 | 3015.9 | 3007.6 |
| 37.5° | 3277.8  | 3275.0  | 3277.8  | 3293.0  | 3290.2 | 3297.2 | 3277.8 | 3276.4 |
| 40°   | 3571.5  | 3574.2  | 3593.6  | 3611.6  | 3621.3 | 3631.0 | 3620.0 | 3608.9 |
| 42.5° | 3912.3  | 3910.9  | 3917.8  | 3942.7  | 3959.4 | 3970.5 | 3946.9 | 3944.1 |
| 45°   | 4272.5  | 4262.8  | 4268.3  | 4289.1  | 4305.7 | 4318.2 | 4291.9 | 4291.9 |
| 47.5° | 4668.7  | 4652.0  | 4634.0  | 4657.6  | 4667.3 | 4675.6 | 4654.8 | 4647.9 |
| 50°   | 5110.6  | 5076.0  | 5037.2  | 5046.9  | 5046.9 | 5044.1 | 5017.8 | 5016.4 |
| 52.5° | 5617.6  | 5553.9  | 5483.3  | 5456.9  | 5441.7 | 5425.1 | 5379.4 | 5357.2 |
| 55°   | 6200.9  | 6105.3  | 5994.5  | 5926.6  | 5890.6 | 5844.8 | 5768.7 | 5747.9 |
| 57.5° | 6882.5  | 6732.9  | 6541.7  | 6458.6  | 6378.2 | 6303.4 | 6218.9 | 6195.3 |
| 60°   | 7690.2  | 7469.9  | 7216.4  | 7062.6  | 6975.3 | 6903.3 | 6816.0 | 6811.8 |
| 62.5° | 8590.6  | 8242.9  | 7956.1  | 7817.6  | 7753.9 | 7690.2 | 7607.0 | 7618.1 |
| 65°   | 9506.4  | 9143.4  | 8874.6  | 8762.4  | 8702.9 | 8650.2 | 8567.1 | 8579.6 |
| 67.5° | 10409.6 | 10075.7 | 9780.7  | 9665.7  | 9599.2 | 9532.7 | 9457.9 | 9470.3 |
| 70°   | 11058.0 | 10643.7 | 10311.3 | 10056.4 | 9897.0 | 9716.9 | 9600.6 | 9571.5 |
| 72.5° | 10872.3 | 10233.7 | 9705.9  | 9200.2  | 8903.7 | 8662.7 | 8499.2 | 8428.6 |
| 75°   | 9409.4  | 8536.6  | 7857.8  | 7237.1  | 6888.0 | 6604.0 | 6397.6 | 6268.8 |
| 77.5° | 6987.8  | 6006.9  | 5204.8  | 4490.0  | 3924.7 | 3545.1 | 3277.8 | 3104.6 |
| 80°   | 3825.0  | 2909.3  | 2126.5  | 1494.8  | 1098.6 | 913.0  | 806.3  | 755.0  |
| 82.5° | 1191.4  | 768.9   | 566.6   | 489.0   | 454.4  | 435.0  | 403.1  | 351.9  |
| 85°   | 379.6   | 332.5   | 308.9   | 295.1   | 281.2  | 245.2  | 169.0  | 153.8  |
| 87.5° | 146.8   | 151.0   | 149.6   | 141.3   | 144.1  | 103.9  | 83.1   | 73.4   |
| 90°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)