

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: P300737

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-7060-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300737
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-03-LED-E1-AFL-7060-600-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8902.9 lumens
Efficiency: N/A
Efficacy: 92.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 96
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

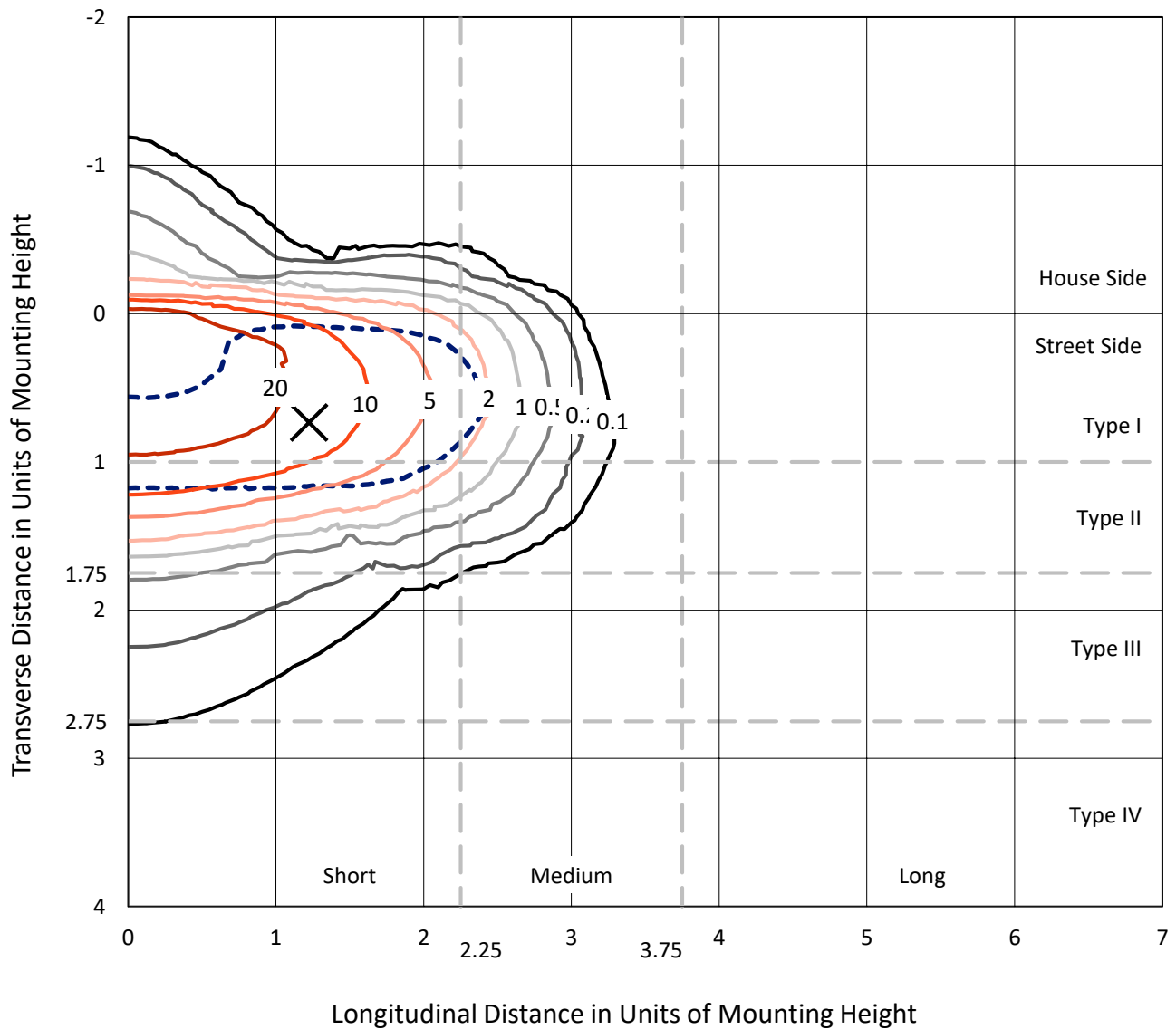


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

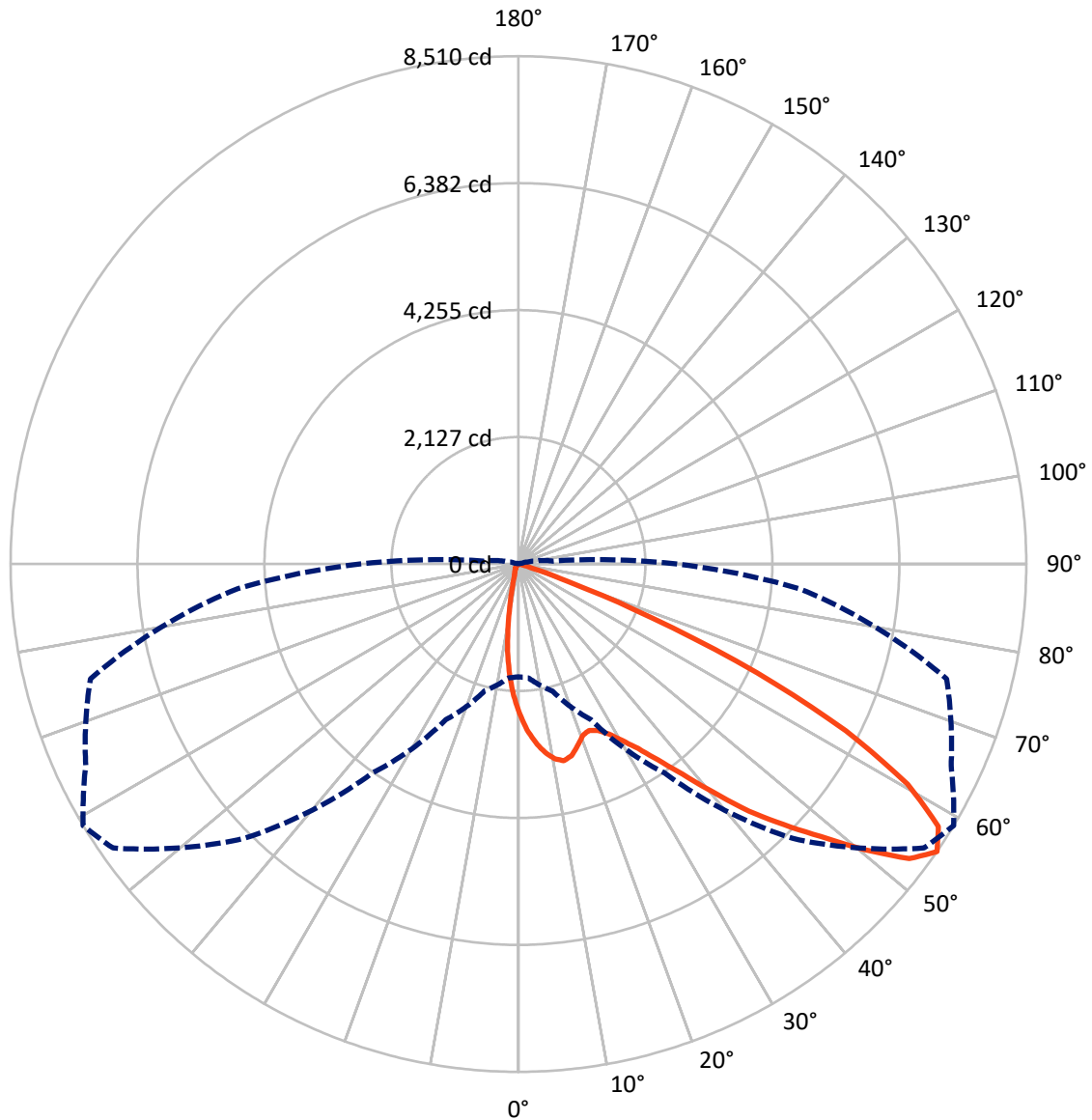


Based on 10 foot mounting height. Maximum calculated value = 31.2 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 497.3 | 0.0 | 497.3 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 8405.6 | 0.0 | 8405.6 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 8902.9 | 0.0 | 8902.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 209.9 | 2.4 |
| 10°-20° | 502.6 | 5.6 |
| 20°-30° | 855.2 | 9.6 |
| 30°-40° | 1470.8 | 16.5 |
| 40°-50° | 2270.8 | 25.5 |
| 50°-60° | 2282.8 | 25.6 |
| 60°-70° | 1170.6 | 13.1 |
| 70°-80° | 126.9 | 1.4 |
| 80°-90° | 13.3 | 0.1 |
| 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° | 8902.9 | 100.0 |
| 0°-180° | 8902.9 | 100.0 |



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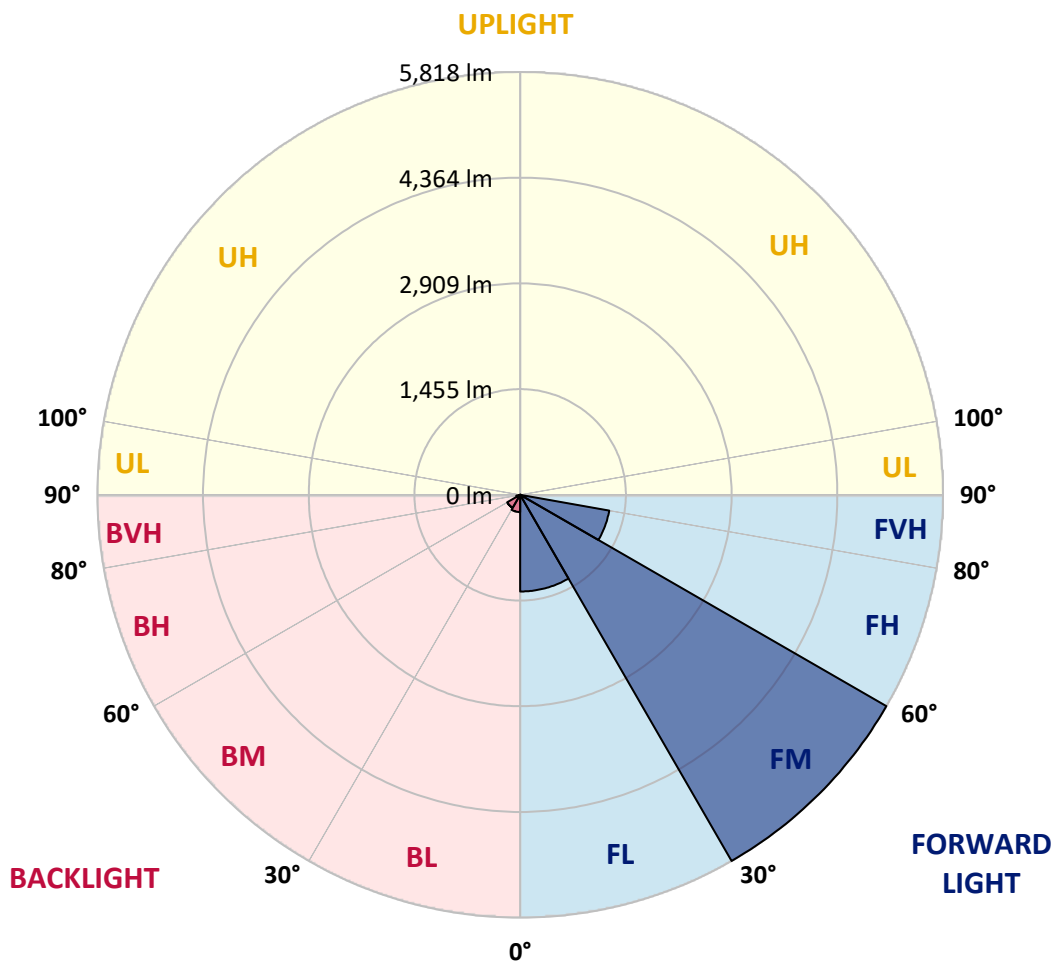
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1330.4 | 14.9 | | | |
| FM | (30°-60°) | 5818.0 | 65.3 | | | |
| FH | (60°-80°) | 1244.2 | 14.0 | | | G1/1800 |
| FVH | (80°-90°) | 13.0 | 0.1 | | | G1/100 |
| BL | (0°-30°) | 237.4 | 2.7 | B1/500 | | |
| BM | (30°-60°) | 206.4 | 2.3 | B0/220 | | |
| BH | (60°-80°) | 53.3 | 0.6 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.3 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 |
| 2.5° | 2965.3 | 2933.8 | 2924.4 | 2918.0 | 2889.1 | 2852.9 | 2803.5 | 2780.4 | 2733.1 | 2656.9 | 2563.4 |
| 5° | 3237.0 | 3231.2 | 3210.2 | 3198.6 | 3167.6 | 3116.1 | 3037.3 | 2999.5 | 2924.4 | 2796.2 | 2628.6 |
| 7.5° | 3118.2 | 3154.5 | 3183.4 | 3231.7 | 3292.7 | 3290.6 | 3224.4 | 3184.9 | 3100.9 | 2931.7 | 2701.1 |
| 10° | 2659.6 | 2689.0 | 2736.3 | 2846.1 | 3069.9 | 3267.4 | 3345.2 | 3316.8 | 3249.6 | 3056.2 | 2770.9 |
| 12.5° | 2569.7 | 2566.6 | 2575.0 | 2607.0 | 2724.2 | 3005.8 | 3324.7 | 3382.0 | 3368.3 | 3170.2 | 2837.1 |
| 15° | 2617.5 | 2613.8 | 2612.8 | 2623.8 | 2652.2 | 2770.9 | 3170.8 | 3335.2 | 3440.8 | 3275.8 | 2893.4 |
| 17.5° | 2751.5 | 2735.7 | 2727.3 | 2718.4 | 2710.0 | 2739.4 | 2985.8 | 3204.4 | 3451.8 | 3368.3 | 2940.1 |
| 20° | 2981.1 | 2954.8 | 2923.8 | 2873.4 | 2826.1 | 2811.4 | 2908.1 | 3069.9 | 3412.4 | 3438.7 | 2970.6 |
| 22.5° | 3269.5 | 3235.9 | 3182.3 | 3090.4 | 2994.2 | 2938.5 | 2946.4 | 3027.3 | 3353.6 | 3515.4 | 2984.8 |
| 25° | 3593.7 | 3550.6 | 3479.2 | 3351.5 | 3210.2 | 3111.4 | 3059.9 | 3088.3 | 3326.8 | 3605.3 | 3001.1 |
| 27.5° | 3941.0 | 3893.2 | 3799.7 | 3625.8 | 3465.5 | 3332.1 | 3227.0 | 3223.3 | 3372.5 | 3723.0 | 3027.3 |
| 30° | 4285.1 | 4277.8 | 4155.9 | 3972.0 | 3759.7 | 3597.4 | 3446.1 | 3426.6 | 3500.2 | 3885.8 | 3079.3 |
| 32.5° | 4744.3 | 4689.2 | 4539.9 | 4350.8 | 4106.0 | 3911.0 | 3731.9 | 3686.7 | 3696.2 | 4075.5 | 3159.7 |
| 35° | 5323.3 | 5262.9 | 5052.7 | 4791.6 | 4517.9 | 4287.8 | 4089.7 | 4028.2 | 4005.1 | 4386.0 | 3295.3 |
| 37.5° | 5697.4 | 5696.3 | 5564.5 | 5298.6 | 5004.9 | 4751.2 | 4535.7 | 4463.8 | 4417.0 | 4761.1 | 3505.4 |
| 40° | 5707.4 | 5732.1 | 5749.4 | 5746.8 | 5537.7 | 5303.9 | 5112.6 | 5023.8 | 4915.1 | 5262.4 | 3777.1 |
| 42.5° | 5401.1 | 5464.6 | 5617.5 | 5877.1 | 6001.1 | 5908.1 | 5746.8 | 5659.6 | 5497.7 | 5798.8 | 4108.1 |
| 45° | 4987.1 | 5031.2 | 5298.6 | 5776.7 | 6252.2 | 6507.0 | 6384.1 | 6228.0 | 6014.7 | 6358.3 | 4404.9 |
| 47.5° | 4801.6 | 4809.5 | 4982.3 | 5507.2 | 6271.1 | 6997.7 | 7072.3 | 6818.6 | 6484.4 | 6809.1 | 4637.1 |
| 50° | 4247.3 | 4261.5 | 4500.0 | 5040.1 | 6049.4 | 7229.4 | 7763.8 | 7523.1 | 6996.7 | 7156.4 | 4721.7 |
| 52.5° | 3201.2 | 3221.2 | 3523.8 | 4272.5 | 5439.9 | 7130.7 | 8258.7 | 8200.4 | 7557.8 | 7326.1 | 4726.5 |
| 55° | 1888.8 | 1915.1 | 2204.0 | 2876.0 | 4278.8 | 6502.3 | 8295.5 | 8509.8 | 8000.7 | 7426.5 | 4719.1 |
| 57.5° | 882.1 | 900.5 | 1066.0 | 1481.6 | 2661.1 | 5138.9 | 7741.7 | 8297.6 | 8245.0 | 7479.5 | 4771.1 |
| 60° | 468.7 | 473.9 | 513.8 | 641.5 | 1202.6 | 3258.5 | 6661.0 | 7492.7 | 8022.3 | 7553.1 | 4834.7 |
| 62.5° | 358.3 | 359.9 | 357.8 | 373.0 | 505.4 | 1446.4 | 5034.9 | 6159.7 | 7125.4 | 7497.9 | 4764.3 |
| 65° | 310.5 | 313.1 | 298.4 | 294.7 | 324.2 | 515.9 | 2991.1 | 4390.7 | 5599.1 | 6753.4 | 4284.6 |
| 67.5° | 278.5 | 279.5 | 261.6 | 246.4 | 251.7 | 279.0 | 1180.0 | 2403.7 | 3706.1 | 4950.3 | 3105.6 |
| 70° | 256.4 | 255.3 | 235.9 | 211.7 | 204.9 | 190.7 | 375.1 | 881.1 | 1771.1 | 2510.3 | 1444.3 |
| 72.5° | 227.0 | 227.5 | 218.0 | 186.5 | 170.2 | 133.5 | 173.9 | 256.9 | 528.5 | 684.1 | 338.4 |
| 75° | 201.2 | 198.6 | 187.0 | 167.1 | 140.3 | 87.7 | 86.2 | 114.5 | 162.9 | 161.8 | 73.0 |
| 77.5° | 145.5 | 142.9 | 146.6 | 137.1 | 107.7 | 56.7 | 43.1 | 55.2 | 66.2 | 64.1 | 20.5 |
| 80° | 106.7 | 105.1 | 94.6 | 114.0 | 95.1 | 38.9 | 26.8 | 29.4 | 34.2 | 28.9 | 6.3 |
| 82.5° | 73.0 | 72.5 | 66.7 | 63.0 | 54.1 | 23.6 | 16.8 | 18.4 | 22.1 | 16.3 | 3.2 |
| 85° | 11.6 | 13.1 | 48.3 | 38.4 | 32.0 | 10.5 | 11.6 | 12.6 | 14.7 | 8.9 | 1.1 |
| 87.5° | 0.0 | 0.0 | 22.6 | 20.0 | 6.3 | 4.2 | 6.8 | 7.4 | 7.4 | 4.7 | 0.0 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 | 2506.1 |
| 2.5° | 2515.6 | 2463.1 | 2365.9 | 2265.5 | 2172.5 | 2061.7 | 1985.5 | 1928.2 | 1862.0 | 1844.1 | 1883.0 |
| 5° | 2532.9 | 2433.6 | 2224.5 | 1997.0 | 1783.2 | 1546.2 | 1365.0 | 1221.5 | 1091.8 | 1047.6 | 1087.6 |
| 7.5° | 2560.3 | 2412.6 | 2071.6 | 1697.0 | 1325.0 | 955.2 | 701.9 | 535.4 | 429.2 | 397.7 | 414.5 |
| 10° | 2587.6 | 2382.1 | 1894.6 | 1341.9 | 833.3 | 465.0 | 302.6 | 241.7 | 219.1 | 214.4 | 217.0 |
| 12.5° | 2610.2 | 2341.2 | 1678.6 | 954.1 | 445.5 | 249.0 | 198.1 | 188.1 | 184.9 | 184.9 | 186.0 |
| 15° | 2623.8 | 2279.2 | 1422.8 | 606.8 | 256.4 | 188.1 | 172.9 | 169.7 | 169.7 | 170.2 | 171.3 |
| 17.5° | 2622.2 | 2200.4 | 1142.7 | 367.3 | 191.8 | 166.6 | 157.6 | 155.0 | 154.5 | 155.5 | 156.0 |
| 20° | 2602.8 | 2097.4 | 861.6 | 242.2 | 167.1 | 151.8 | 142.9 | 138.2 | 137.7 | 138.7 | 139.8 |
| 22.5° | 2566.0 | 1970.2 | 616.3 | 186.5 | 150.8 | 137.7 | 126.6 | 122.4 | 122.4 | 123.5 | 124.5 |
| 25° | 2521.4 | 1814.7 | 421.4 | 158.1 | 136.1 | 122.4 | 111.9 | 108.2 | 109.3 | 111.9 | 112.4 |
| 27.5° | 2465.7 | 1639.8 | 286.3 | 135.6 | 118.2 | 107.2 | 99.3 | 96.7 | 99.3 | 103.0 | 104.0 |
| 30° | 2417.9 | 1457.4 | 204.4 | 117.2 | 100.4 | 92.5 | 87.7 | 87.7 | 91.4 | 98.2 | 99.8 |
| 32.5° | 2381.1 | 1280.9 | 157.6 | 103.5 | 87.2 | 80.4 | 77.8 | 80.4 | 86.2 | 93.0 | 94.6 |
| 35° | 2376.4 | 1135.4 | 133.5 | 92.5 | 77.8 | 70.9 | 69.9 | 74.6 | 80.4 | 85.6 | 86.7 |
| 37.5° | 2412.6 | 1000.9 | 120.3 | 83.5 | 69.4 | 63.0 | 62.0 | 67.8 | 73.6 | 79.9 | 81.4 |
| 40° | 2481.4 | 895.3 | 110.9 | 75.1 | 62.5 | 55.7 | 53.6 | 57.8 | 65.7 | 74.1 | 76.2 |
| 42.5° | 2570.8 | 808.1 | 100.4 | 66.7 | 55.7 | 46.2 | 43.6 | 48.3 | 56.7 | 65.7 | 68.3 |
| 45° | 2655.9 | 732.9 | 88.8 | 57.3 | 46.8 | 35.7 | 34.7 | 41.0 | 45.2 | 54.1 | 56.2 |
| 47.5° | 2702.6 | 666.7 | 78.8 | 46.8 | 36.3 | 28.9 | 28.9 | 30.5 | 34.7 | 45.2 | 47.3 |
| 50° | 2686.9 | 613.7 | 68.3 | 34.7 | 25.2 | 22.1 | 22.1 | 21.5 | 27.8 | 36.3 | 37.8 |
| 52.5° | 2655.3 | 583.2 | 58.8 | 26.8 | 17.3 | 15.8 | 14.2 | 15.8 | 19.4 | 23.1 | 23.6 |
| 55° | 2650.6 | 577.9 | 49.4 | 21.5 | 12.1 | 10.5 | 7.9 | 7.9 | 7.9 | 7.4 | 6.3 |
| 57.5° | 2687.4 | 586.3 | 41.5 | 17.3 | 8.9 | 6.8 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 2725.2 | 595.3 | 35.7 | 12.1 | 6.3 | 3.7 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 2662.2 | 575.3 | 29.9 | 7.4 | 4.7 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 2338.5 | 489.7 | 23.6 | 5.3 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1663.4 | 327.8 | 15.8 | 3.2 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 759.2 | 137.1 | 10.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 162.3 | 42.6 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 33.1 | 31.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 10.5 | 48.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 6.3 | 35.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 1.1 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)