

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: P300679

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-7030-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300679
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-04-LED-E1-AFL-7030-800-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13954.3 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 171
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

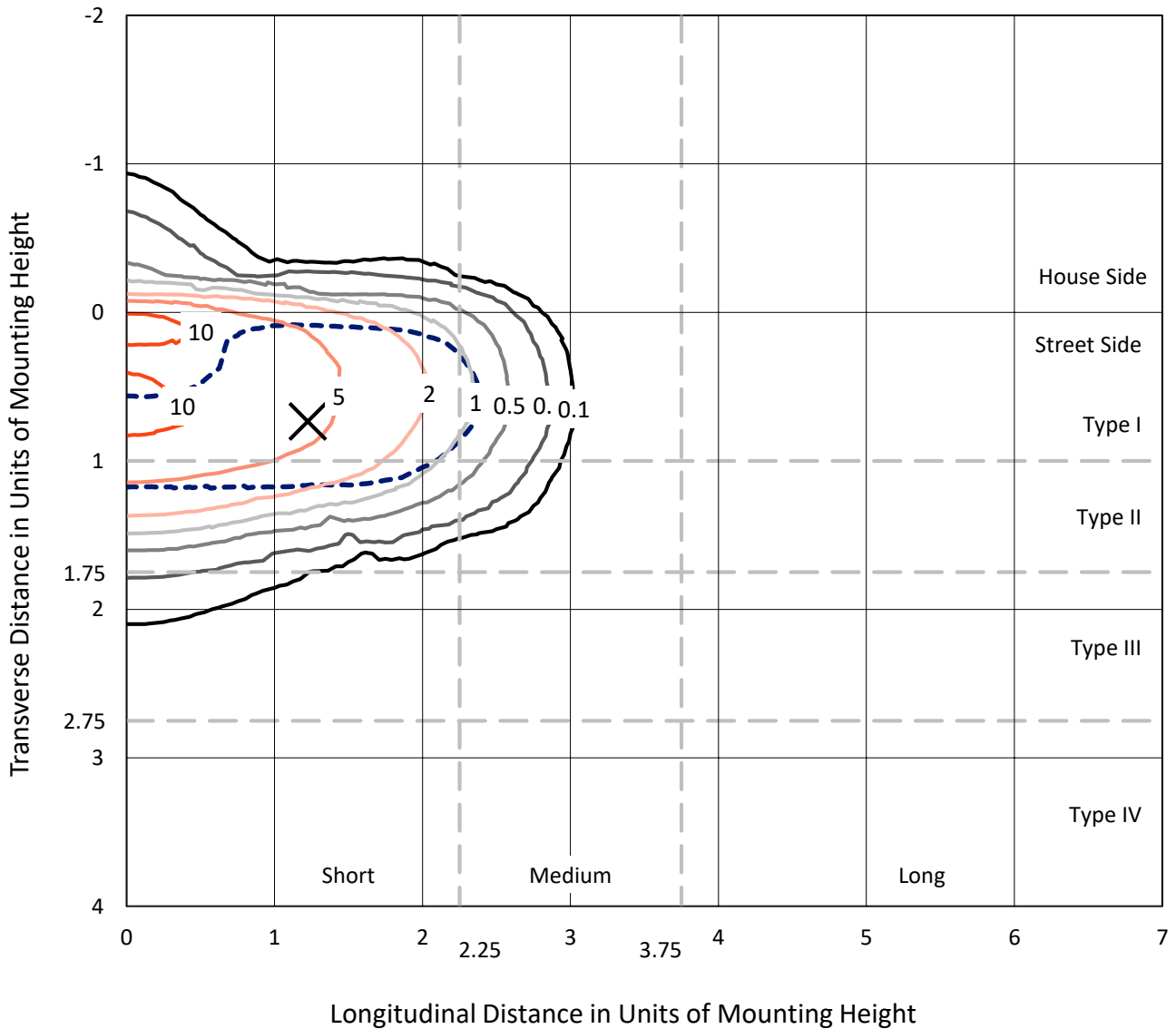


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

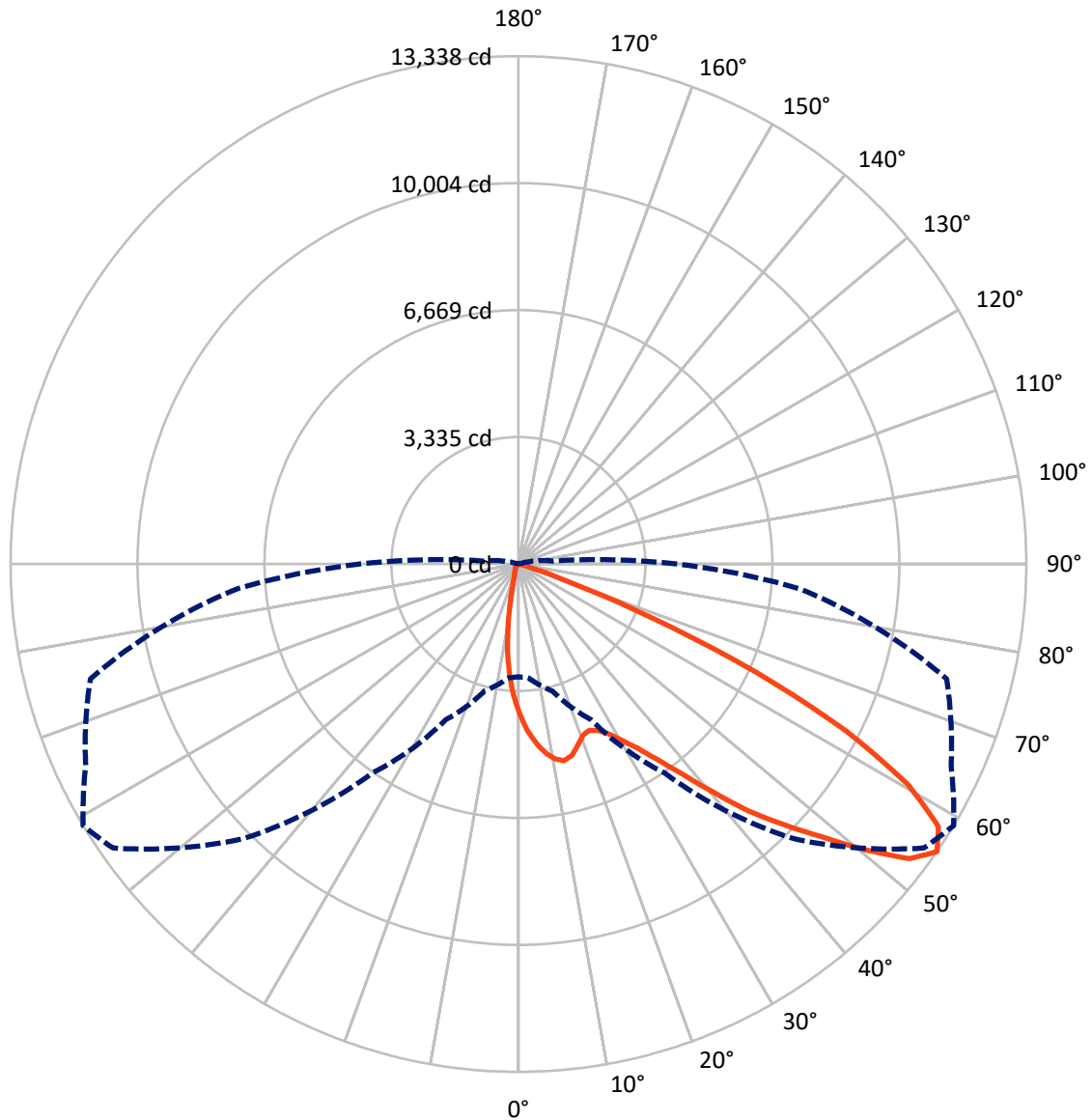


Based on 20 foot mounting height. Maximum calculated value = 12.2 fc
 Type II - Short - Full Cutoff

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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 | 779.4 | 0.0 | 779.4 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 13174.9 | 0.0 | 13174.9 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 13954.3 | 0.0 | 13954.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 329.0 | 2.4 |
| 10°-20° | 787.8 | 5.6 |
| 20°-30° | 1340.5 | 9.6 |
| 30°-40° | 2305.3 | 16.5 |
| 40°-50° | 3559.2 | 25.5 |
| 50°-60° | 3578.1 | 25.6 |
| 60°-70° | 1834.9 | 13.1 |
| 70°-80° | 198.9 | 1.4 |
| 80°-90° | 20.8 | 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° | 13954.3 | 100.0 |
| 0°-180° | 13954.3 | 100.0 |

Coefficient of Utilization



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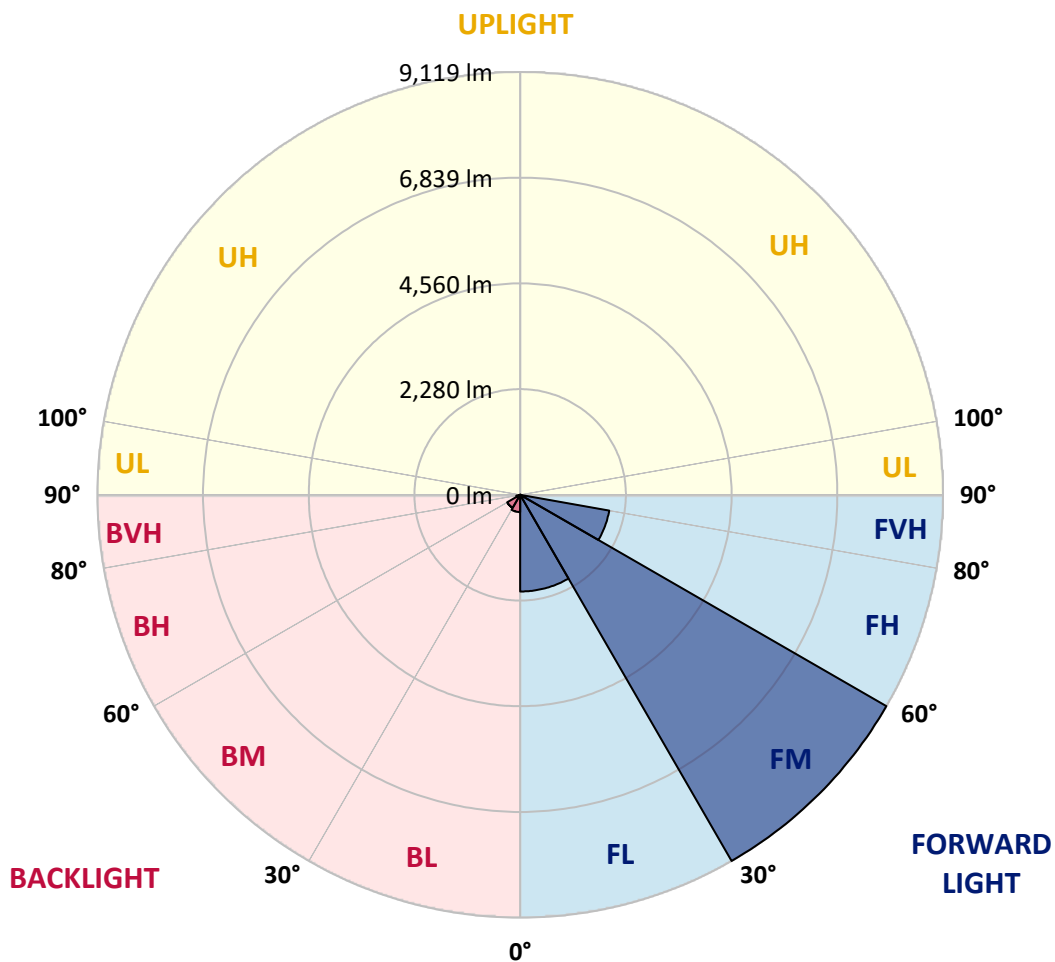
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2085.2 | 14.9 | | | |
| FM (30°-60°) | 9119.1 | 65.3 | | | |
| FH (60°-80°) | 1950.2 | 14.0 | | | G2/5000 |
| FVH (80°-90°) | 20.4 | 0.1 | | | G1/100 |
| BL (0°-30°) | 372.0 | 2.7 | B1/500 | | |
| BM (30°-60°) | 323.5 | 2.3 | B1/1000 | | |
| BH (60°-80°) | 83.5 | 0.6 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.4 | 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-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0° | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 |
| 2.5° | 4647.8 | 4598.4 | 4583.6 | 4573.7 | 4528.4 | 4471.6 | 4394.2 | 4357.9 | 4283.8 | 4164.4 | 4017.8 |
| 5° | 5073.6 | 5064.5 | 5031.6 | 5013.4 | 4964.9 | 4884.2 | 4760.6 | 4701.3 | 4583.6 | 4382.7 | 4120.0 |
| 7.5° | 4887.5 | 4944.3 | 4989.6 | 5065.3 | 5160.9 | 5157.6 | 5053.8 | 4992.0 | 4860.3 | 4595.1 | 4233.6 |
| 10° | 4168.5 | 4214.7 | 4288.8 | 4460.9 | 4811.7 | 5121.3 | 5243.2 | 5198.7 | 5093.3 | 4790.3 | 4343.1 |
| 12.5° | 4027.7 | 4022.8 | 4036.0 | 4086.2 | 4269.8 | 4711.2 | 5211.1 | 5300.8 | 5279.4 | 4969.0 | 4446.9 |
| 15° | 4102.7 | 4096.9 | 4095.2 | 4112.5 | 4157.0 | 4343.1 | 4969.8 | 5227.6 | 5393.1 | 5134.5 | 4535.0 |
| 17.5° | 4312.7 | 4287.9 | 4274.8 | 4260.8 | 4247.6 | 4293.7 | 4679.9 | 5022.5 | 5410.4 | 5279.4 | 4608.3 |
| 20° | 4672.5 | 4631.3 | 4582.8 | 4503.7 | 4429.6 | 4406.5 | 4558.1 | 4811.7 | 5348.6 | 5389.8 | 4656.1 |
| 22.5° | 5124.6 | 5071.9 | 4987.9 | 4843.8 | 4693.1 | 4605.8 | 4618.2 | 4745.0 | 5256.4 | 5510.0 | 4678.3 |
| 25° | 5632.7 | 5565.2 | 5453.2 | 5253.1 | 5031.6 | 4876.7 | 4796.0 | 4840.5 | 5214.4 | 5650.8 | 4703.8 |
| 27.5° | 6177.0 | 6102.1 | 5955.5 | 5683.0 | 5431.8 | 5222.6 | 5057.9 | 5052.2 | 5286.0 | 5835.3 | 4745.0 |
| 30° | 6716.4 | 6704.9 | 6513.9 | 6225.6 | 5892.9 | 5638.5 | 5401.3 | 5370.8 | 5486.1 | 6090.6 | 4826.5 |
| 32.5° | 7436.2 | 7349.7 | 7115.8 | 6819.4 | 6435.6 | 6130.1 | 5849.3 | 5778.5 | 5793.3 | 6387.9 | 4952.5 |
| 35° | 8343.7 | 8249.0 | 7919.6 | 7510.3 | 7081.2 | 6720.6 | 6410.1 | 6313.8 | 6277.5 | 6874.6 | 5165.0 |
| 37.5° | 8930.0 | 8928.4 | 8721.7 | 8305.0 | 7844.6 | 7446.9 | 7109.2 | 6996.4 | 6923.1 | 7462.5 | 5494.4 |
| 40° | 8945.6 | 8984.4 | 9011.5 | 9007.4 | 8679.7 | 8313.2 | 8013.4 | 7874.3 | 7703.8 | 8248.1 | 5920.1 |
| 42.5° | 8465.5 | 8565.2 | 8804.8 | 9211.6 | 9406.0 | 9260.2 | 9007.4 | 8870.7 | 8617.1 | 9088.9 | 6438.9 |
| 45° | 7816.6 | 7885.8 | 8305.0 | 9054.3 | 9799.6 | 10199.0 | 10006.3 | 9761.7 | 9427.4 | 9966.0 | 6904.2 |
| 47.5° | 7525.9 | 7538.3 | 7809.2 | 8631.9 | 9829.3 | 10968.2 | 11085.1 | 10687.3 | 10163.6 | 10672.5 | 7268.2 |
| 50° | 6657.1 | 6679.4 | 7053.3 | 7899.8 | 9481.7 | 11331.3 | 12168.8 | 11791.7 | 10966.5 | 11216.9 | 7400.8 |
| 52.5° | 5017.6 | 5048.9 | 5523.2 | 6696.7 | 8526.5 | 11176.5 | 12944.5 | 12853.1 | 11846.0 | 11482.8 | 7408.2 |
| 55° | 2960.5 | 3001.6 | 3454.6 | 4507.8 | 6706.6 | 10191.6 | 13002.2 | 13338.2 | 12540.2 | 11640.1 | 7396.6 |
| 57.5° | 1382.7 | 1411.5 | 1670.9 | 2322.3 | 4171.0 | 8054.6 | 12134.2 | 13005.5 | 12923.1 | 11723.3 | 7478.2 |
| 60° | 734.6 | 742.8 | 805.4 | 1005.5 | 1885.0 | 5107.3 | 10440.3 | 11743.9 | 12574.0 | 11838.6 | 7577.8 |
| 62.5° | 561.6 | 564.1 | 560.8 | 584.7 | 792.2 | 2267.1 | 7891.6 | 9654.7 | 11168.3 | 11752.1 | 7467.5 |
| 65° | 486.7 | 490.8 | 467.7 | 462.0 | 508.1 | 808.7 | 4688.2 | 6882.0 | 8776.0 | 10585.2 | 6715.6 |
| 67.5° | 436.5 | 438.1 | 410.1 | 386.2 | 394.5 | 437.3 | 1849.6 | 3767.5 | 5808.9 | 7759.0 | 4867.7 |
| 70° | 401.9 | 400.2 | 369.8 | 331.9 | 321.2 | 298.9 | 588.0 | 1381.0 | 2776.0 | 3934.7 | 2263.8 |
| 72.5° | 355.8 | 356.6 | 341.8 | 292.3 | 266.8 | 209.2 | 272.6 | 402.7 | 828.4 | 1072.2 | 530.3 |
| 75° | 315.4 | 311.3 | 293.2 | 261.9 | 219.9 | 137.5 | 135.1 | 179.5 | 255.3 | 253.6 | 114.5 |
| 77.5° | 228.1 | 224.0 | 229.8 | 214.9 | 168.8 | 88.9 | 67.5 | 86.5 | 103.8 | 100.5 | 32.1 |
| 80° | 167.2 | 164.7 | 148.2 | 178.7 | 149.1 | 60.9 | 42.0 | 46.1 | 53.5 | 45.3 | 9.9 |
| 82.5° | 114.5 | 113.6 | 104.6 | 98.8 | 84.8 | 37.1 | 26.4 | 28.8 | 34.6 | 25.5 | 4.9 |
| 85° | 18.1 | 20.6 | 75.8 | 60.1 | 50.2 | 16.5 | 18.1 | 19.8 | 23.1 | 14.0 | 1.6 |
| 87.5° | 0.0 | 0.0 | 35.4 | 31.3 | 9.9 | 6.6 | 10.7 | 11.5 | 11.5 | 7.4 | 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° | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 | 3928.1 |
| 2.5° | 3942.9 | 3860.6 | 3708.2 | 3550.9 | 3405.2 | 3231.4 | 3112.0 | 3022.2 | 2918.5 | 2890.5 | 2951.4 |
| 5° | 3970.1 | 3814.4 | 3486.7 | 3130.1 | 2794.9 | 2423.6 | 2139.4 | 1914.6 | 1711.2 | 1642.1 | 1704.6 |
| 7.5° | 4012.9 | 3781.5 | 3247.0 | 2659.9 | 2076.9 | 1497.1 | 1100.2 | 839.1 | 672.8 | 623.4 | 649.7 |
| 10° | 4055.7 | 3733.7 | 2969.5 | 2103.2 | 1306.1 | 728.8 | 474.3 | 378.8 | 343.4 | 336.0 | 340.1 |
| 12.5° | 4091.1 | 3669.5 | 2631.1 | 1495.5 | 698.3 | 390.3 | 310.5 | 294.8 | 289.9 | 289.9 | 291.5 |
| 15° | 4112.5 | 3572.3 | 2230.0 | 951.1 | 401.9 | 294.8 | 270.9 | 266.0 | 266.0 | 266.8 | 268.5 |
| 17.5° | 4110.1 | 3448.8 | 1791.1 | 575.6 | 300.6 | 261.0 | 247.0 | 242.9 | 242.1 | 243.8 | 244.6 |
| 20° | 4079.6 | 3287.4 | 1350.5 | 379.6 | 261.9 | 238.0 | 224.0 | 216.6 | 215.8 | 217.4 | 219.1 |
| 22.5° | 4022.0 | 3088.1 | 966.0 | 292.3 | 236.3 | 215.8 | 198.5 | 191.9 | 191.9 | 193.5 | 195.2 |
| 25° | 3952.0 | 2844.4 | 660.4 | 247.9 | 213.3 | 191.9 | 175.4 | 169.6 | 171.3 | 175.4 | 176.2 |
| 27.5° | 3864.7 | 2570.1 | 448.8 | 212.5 | 185.3 | 168.0 | 155.6 | 151.5 | 155.6 | 161.4 | 163.1 |
| 30° | 3789.7 | 2284.4 | 320.3 | 183.6 | 157.3 | 144.9 | 137.5 | 137.5 | 143.3 | 154.0 | 156.5 |
| 32.5° | 3732.1 | 2007.7 | 247.0 | 162.2 | 136.7 | 126.0 | 121.9 | 126.0 | 135.1 | 145.8 | 148.2 |
| 35° | 3724.7 | 1779.6 | 209.2 | 144.9 | 121.9 | 111.2 | 109.5 | 116.9 | 126.0 | 134.2 | 135.9 |
| 37.5° | 3781.5 | 1568.8 | 188.6 | 130.9 | 108.7 | 98.8 | 97.2 | 106.2 | 115.3 | 125.2 | 127.6 |
| 40° | 3889.4 | 1403.2 | 173.8 | 117.8 | 98.0 | 87.3 | 84.0 | 90.6 | 102.9 | 116.1 | 119.4 |
| 42.5° | 4029.4 | 1266.5 | 157.3 | 104.6 | 87.3 | 72.5 | 68.4 | 75.8 | 88.9 | 102.9 | 107.1 |
| 45° | 4162.8 | 1148.8 | 139.2 | 89.8 | 73.3 | 56.0 | 54.4 | 64.2 | 70.8 | 84.8 | 88.1 |
| 47.5° | 4236.1 | 1045.0 | 123.5 | 73.3 | 56.8 | 45.3 | 45.3 | 47.8 | 54.4 | 70.8 | 74.1 |
| 50° | 4211.4 | 961.8 | 107.1 | 54.4 | 39.5 | 34.6 | 34.6 | 33.8 | 43.6 | 56.8 | 59.3 |
| 52.5° | 4162.0 | 914.1 | 92.2 | 42.0 | 27.2 | 24.7 | 22.2 | 24.7 | 30.5 | 36.2 | 37.1 |
| 55° | 4154.5 | 905.8 | 77.4 | 33.8 | 18.9 | 16.5 | 12.4 | 12.4 | 12.4 | 11.5 | 9.9 |
| 57.5° | 4212.2 | 919.0 | 65.1 | 27.2 | 14.0 | 10.7 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 4271.5 | 933.0 | 56.0 | 18.9 | 9.9 | 5.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 4172.7 | 901.7 | 46.9 | 11.5 | 7.4 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 3665.4 | 767.5 | 37.1 | 8.2 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 2607.2 | 513.9 | 24.7 | 4.9 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 1190.0 | 214.9 | 15.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 254.5 | 66.7 | 10.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 51.9 | 48.6 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 16.5 | 76.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 9.9 | 55.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 1.6 | 8.2 | 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)