

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: P300641

Luminaire Tested: **GLNA-AF-08-LED-E1-RW-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24166)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-RW-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Rectangular
Wide Type I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39260.8 lumens
Efficiency: N/A
Efficacy: 117.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

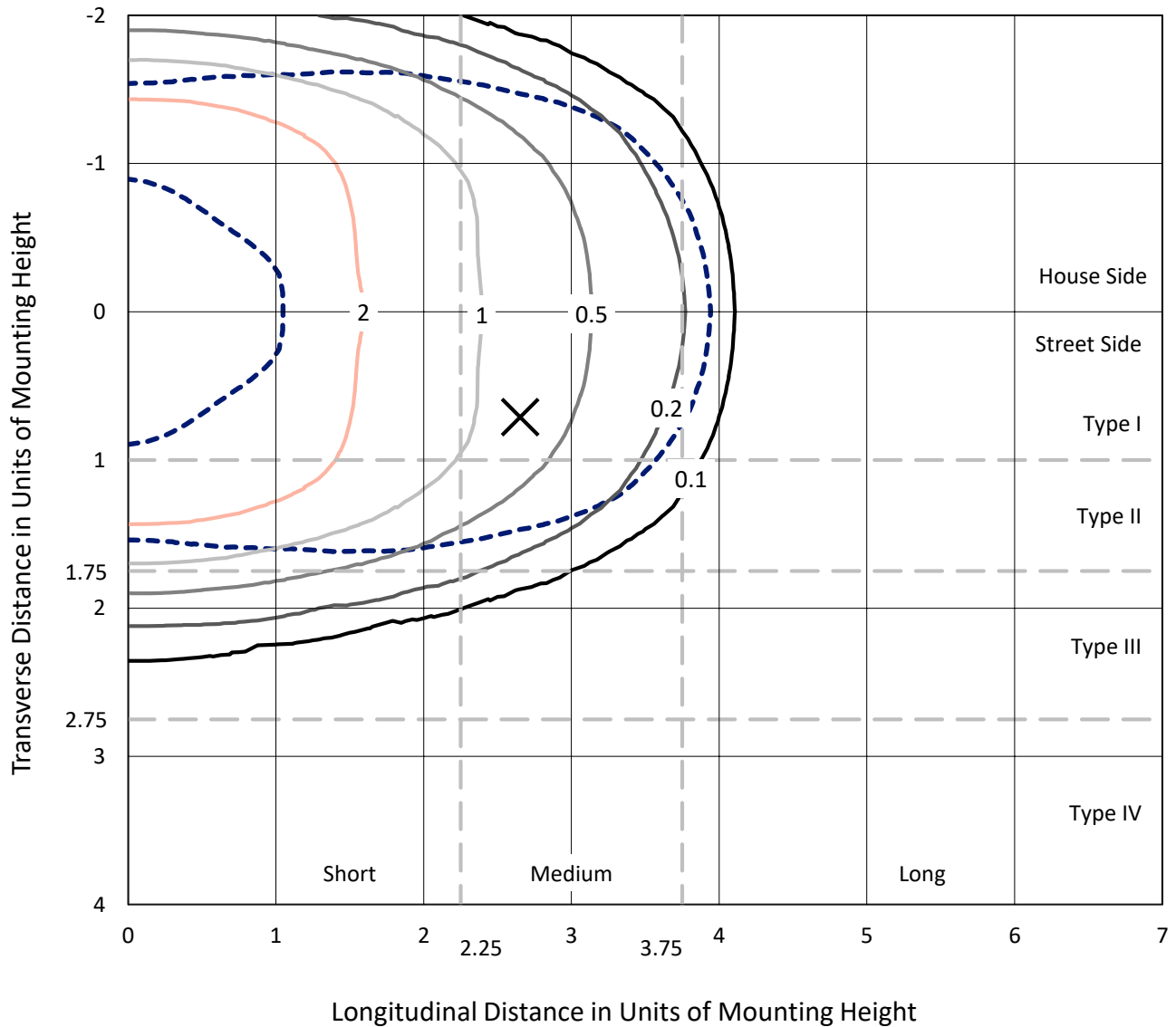
Input Watts (W): 334
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

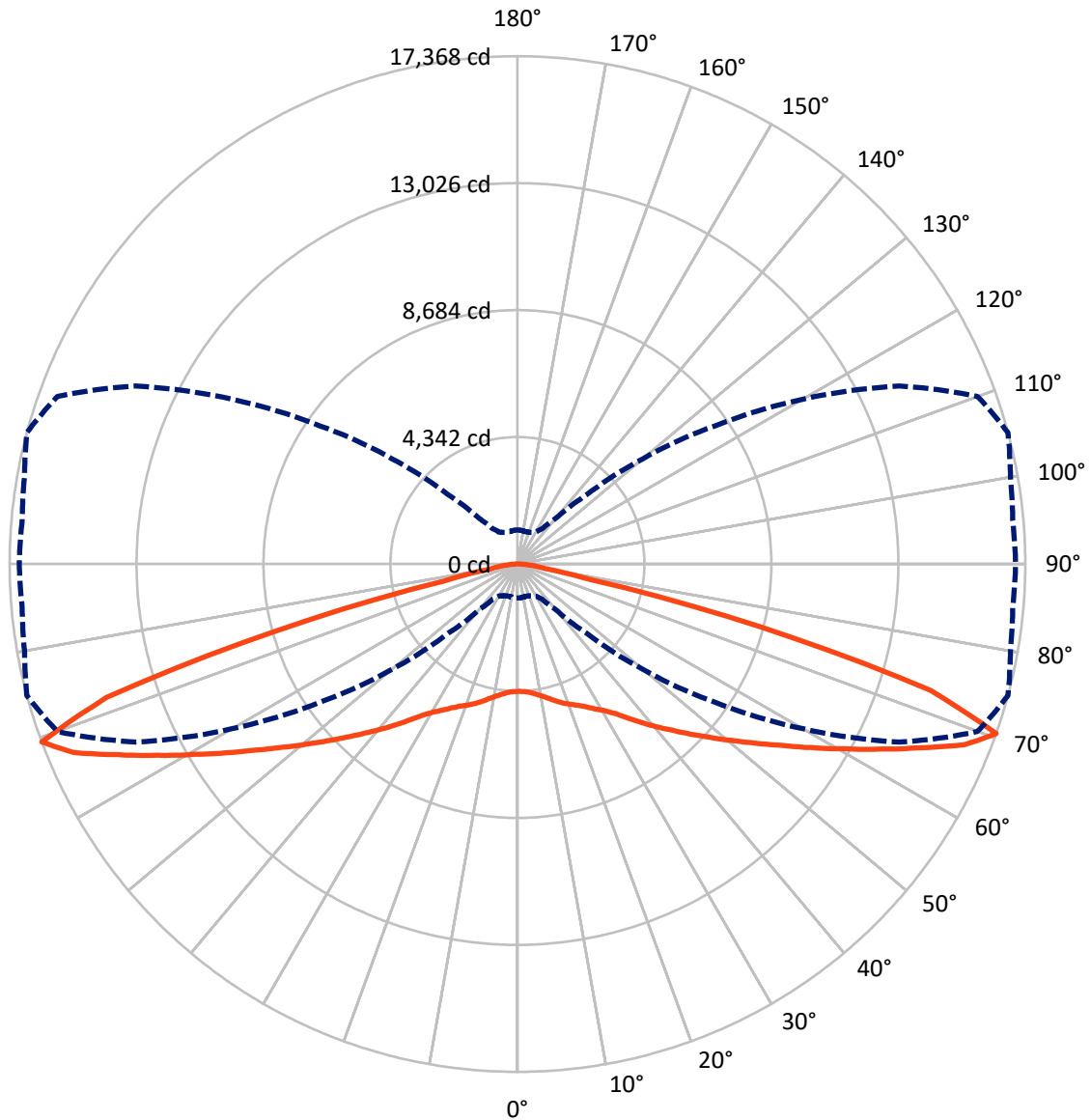
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 19630.4 | 0.0 | 19630.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 19630.4 | 0.0 | 19630.4 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 39260.8 | 0.0 | 39260.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 417.7 | 1.1 |
| 10°-20° | 1297.8 | 3.3 |
| 20°-30° | 2442.6 | 6.2 |
| 30°-40° | 4325.4 | 11.0 |
| 40°-50° | 7233.4 | 18.4 |
| 50°-60° | 10079.8 | 25.7 |
| 60°-70° | 9347.4 | 23.8 |
| 70°-80° | 3725.2 | 9.5 |
| 80°-90° | 391.6 | 1.0 |
| 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° | 39260.8 | 100.0 |
| 0°-180° | 39260.8 | 100.0 |



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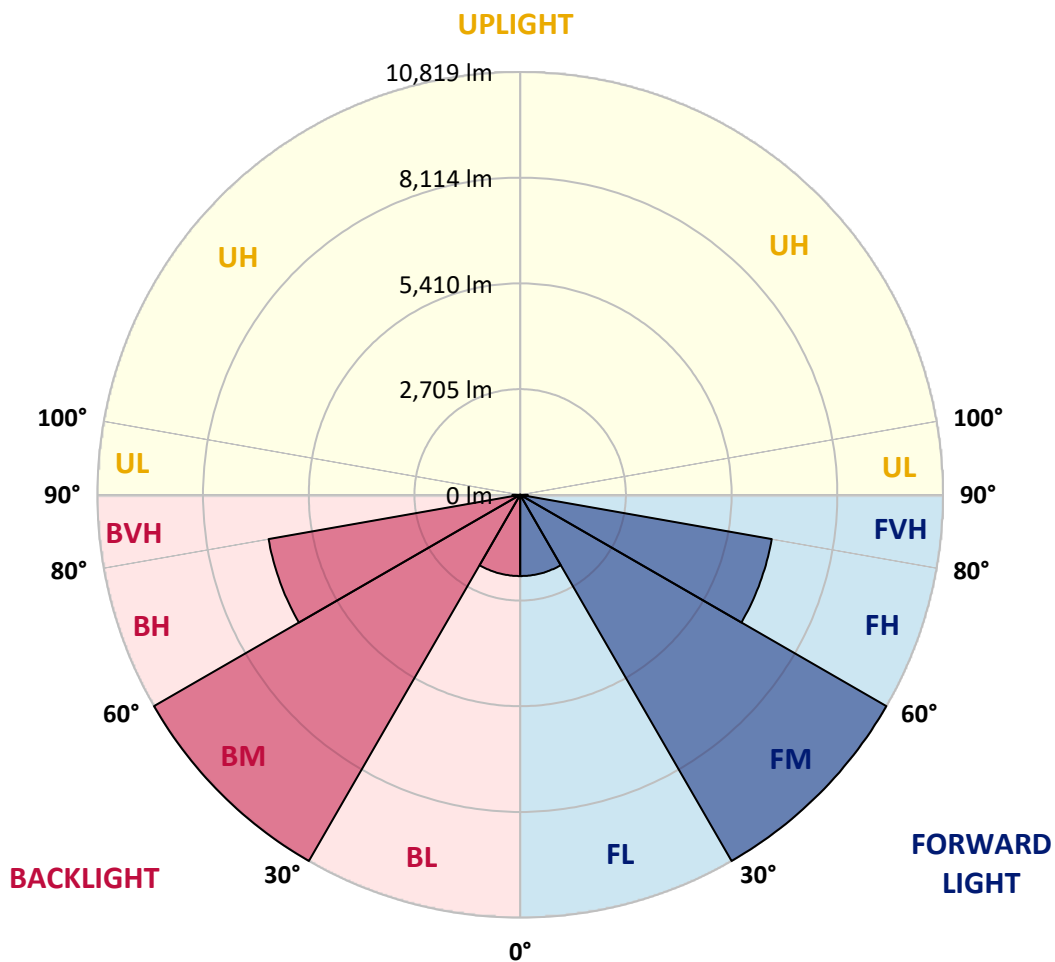
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2079.0 | 5.3 | | | |
| FM | (30°-60°) | 10819.3 | 27.6 | | | |
| FH | (60°-80°) | 6536.3 | 16.6 | | | G3/7500 |
| FVH | (80°-90°) | 195.8 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 2079.0 | 5.3 | B3/2500 | | |
| BM | (30°-60°) | 10819.3 | 27.6 | B5 | | |
| BH | (60°-80°) | 6536.3 | 16.6 | B5 | | G5 |
| BVH | (80°-90°) | 195.8 | 0.5 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 |
| 2.5° | 4347.5 | 4343.8 | 4347.5 | 4345.7 | 4349.4 | 4349.4 | 4353.1 | 4360.5 | 4360.5 | 4366.1 | 4364.2 |
| 5° | 4304.8 | 4303.0 | 4308.5 | 4314.1 | 4319.7 | 4330.8 | 4341.9 | 4358.6 | 4371.6 | 4380.9 | 4390.2 |
| 7.5° | 4221.3 | 4221.3 | 4228.8 | 4241.7 | 4254.7 | 4278.9 | 4304.8 | 4338.2 | 4371.6 | 4399.5 | 4423.6 |
| 10° | 4152.7 | 4156.4 | 4165.7 | 4187.9 | 4210.2 | 4247.3 | 4282.6 | 4330.8 | 4377.2 | 4423.6 | 4460.7 |
| 12.5° | 4111.9 | 4117.4 | 4134.1 | 4167.5 | 4204.6 | 4254.7 | 4308.5 | 4369.8 | 4421.7 | 4477.4 | 4514.5 |
| 15° | 4124.8 | 4128.6 | 4152.7 | 4193.5 | 4241.7 | 4304.8 | 4377.2 | 4449.6 | 4510.8 | 4570.2 | 4620.3 |
| 17.5° | 4197.2 | 4202.8 | 4230.6 | 4277.0 | 4327.1 | 4401.3 | 4479.3 | 4560.9 | 4637.0 | 4703.8 | 4765.0 |
| 20° | 4327.1 | 4332.7 | 4367.9 | 4418.0 | 4477.4 | 4553.5 | 4631.4 | 4716.8 | 4802.1 | 4872.6 | 4941.3 |
| 22.5° | 4510.8 | 4520.1 | 4553.5 | 4603.6 | 4670.4 | 4752.0 | 4844.8 | 4935.7 | 5017.4 | 5082.3 | 5143.5 |
| 25° | 4752.0 | 4772.4 | 4804.0 | 4859.6 | 4930.1 | 5004.4 | 5104.6 | 5197.3 | 5275.3 | 5336.5 | 5381.0 |
| 27.5° | 5093.4 | 5121.3 | 5145.4 | 5199.2 | 5267.9 | 5338.4 | 5438.6 | 5520.2 | 5594.4 | 5653.8 | 5687.2 |
| 30° | 5546.2 | 5574.0 | 5598.1 | 5650.1 | 5713.2 | 5780.0 | 5874.6 | 5947.0 | 5993.4 | 6039.8 | 6037.9 |
| 32.5° | 6095.4 | 6125.1 | 6134.4 | 6190.1 | 6255.0 | 6327.4 | 6412.7 | 6453.5 | 6490.7 | 6496.2 | 6462.8 |
| 35° | 6709.6 | 6724.4 | 6761.6 | 6835.8 | 6910.0 | 6969.4 | 7051.0 | 7071.4 | 7071.4 | 7043.6 | 6969.4 |
| 37.5° | 7383.2 | 7392.4 | 7444.4 | 7527.9 | 7604.0 | 7665.2 | 7720.9 | 7761.7 | 7741.3 | 7681.9 | 7557.6 |
| 40° | 8121.7 | 8138.4 | 8212.6 | 8286.8 | 8372.2 | 8429.7 | 8489.1 | 8496.5 | 8476.1 | 8388.9 | 8220.0 |
| 42.5° | 8826.8 | 8841.6 | 8915.8 | 9032.7 | 9144.1 | 9223.8 | 9279.5 | 9290.6 | 9225.7 | 9145.9 | 8936.2 |
| 45° | 9433.5 | 9472.5 | 9569.0 | 9706.3 | 9867.7 | 9980.9 | 10057.0 | 10088.5 | 10031.0 | 9927.1 | 9684.0 |
| 47.5° | 9914.1 | 9953.1 | 10090.4 | 10253.7 | 10454.1 | 10637.8 | 10763.9 | 10830.7 | 10815.9 | 10738.0 | 10472.6 |
| 50° | 10266.7 | 10303.8 | 10452.2 | 10652.6 | 10886.4 | 11114.6 | 11329.9 | 11489.5 | 11545.1 | 11509.9 | 11266.8 |
| 52.5° | 10307.5 | 10368.7 | 10543.1 | 10812.2 | 11116.5 | 11428.2 | 11734.4 | 12005.3 | 12189.0 | 12216.8 | 12036.8 |
| 55° | 9737.8 | 9799.1 | 10040.3 | 10439.2 | 10892.0 | 11400.4 | 11890.2 | 12346.7 | 12708.5 | 12894.1 | 12799.5 |
| 57.5° | 8394.4 | 8503.9 | 8758.1 | 9225.7 | 9891.8 | 10652.6 | 11433.8 | 12244.7 | 12981.3 | 13473.0 | 13567.7 |
| 60° | 6433.1 | 6563.0 | 6819.1 | 7316.4 | 8058.6 | 8965.9 | 10008.7 | 11207.4 | 12508.1 | 13614.0 | 14274.6 |
| 62.5° | 4126.7 | 4249.2 | 4518.2 | 4950.6 | 5555.5 | 6538.9 | 7657.8 | 9081.0 | 10828.9 | 12574.9 | 14148.4 |
| 65° | 2120.9 | 2187.7 | 2328.7 | 2590.3 | 3061.6 | 3796.4 | 4800.3 | 6219.7 | 8218.2 | 10372.4 | 12647.3 |
| 67.5° | 1343.4 | 1356.4 | 1387.9 | 1425.0 | 1545.7 | 1799.9 | 2267.5 | 3152.5 | 4796.6 | 7043.6 | 9706.3 |
| 70° | 1161.6 | 1161.6 | 1146.7 | 1141.2 | 1156.0 | 1191.3 | 1263.6 | 1469.6 | 2024.4 | 3343.7 | 5598.1 |
| 72.5° | 1063.2 | 1052.1 | 1026.1 | 1005.7 | 1002.0 | 1002.0 | 1016.8 | 1048.4 | 1137.4 | 1362.0 | 2191.4 |
| 75° | 979.7 | 948.2 | 912.9 | 888.8 | 879.5 | 870.2 | 868.4 | 874.0 | 892.5 | 927.8 | 1046.5 |
| 77.5° | 877.7 | 836.8 | 796.0 | 771.9 | 760.8 | 747.8 | 736.6 | 723.7 | 714.4 | 725.5 | 777.5 |
| 80° | 755.2 | 708.8 | 677.3 | 662.4 | 651.3 | 632.7 | 608.6 | 586.3 | 565.9 | 562.2 | 593.8 |
| 82.5° | 608.6 | 554.8 | 556.7 | 562.2 | 541.8 | 515.8 | 489.9 | 465.7 | 430.5 | 411.9 | 430.5 |
| 85° | 491.7 | 463.9 | 450.9 | 486.1 | 456.5 | 417.5 | 376.7 | 334.0 | 278.3 | 233.8 | 254.2 |
| 87.5° | 191.1 | 191.1 | 285.8 | 439.8 | 395.2 | 322.9 | 276.5 | 235.7 | 146.6 | 113.2 | 115.0 |
| 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° | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 | 4354.9 |
| 2.5° | 4362.4 | 4366.1 | 4364.2 | 4362.4 | 4362.4 | 4360.5 | 4362.4 | 4362.4 |
| 5° | 4395.8 | 4405.0 | 4405.0 | 4408.7 | 4408.7 | 4410.6 | 4412.5 | 4410.6 |
| 7.5° | 4445.9 | 4462.6 | 4473.7 | 4486.7 | 4488.5 | 4490.4 | 4494.1 | 4490.4 |
| 10° | 4496.0 | 4529.4 | 4553.5 | 4577.6 | 4588.7 | 4592.4 | 4596.2 | 4596.2 |
| 12.5° | 4559.0 | 4605.4 | 4648.1 | 4690.8 | 4711.2 | 4722.3 | 4722.3 | 4729.8 |
| 15° | 4663.0 | 4709.3 | 4759.4 | 4817.0 | 4852.2 | 4870.8 | 4876.3 | 4876.3 |
| 17.5° | 4809.5 | 4850.4 | 4893.0 | 4948.7 | 4993.2 | 5017.4 | 5022.9 | 5021.1 |
| 20° | 4980.2 | 5019.2 | 5043.3 | 5078.6 | 5117.6 | 5145.4 | 5152.8 | 5152.8 |
| 22.5° | 5175.1 | 5197.3 | 5201.1 | 5212.2 | 5243.7 | 5280.8 | 5297.5 | 5301.3 |
| 25° | 5390.3 | 5395.9 | 5381.0 | 5381.0 | 5401.5 | 5436.7 | 5453.4 | 5455.3 |
| 27.5° | 5668.7 | 5640.8 | 5603.7 | 5590.7 | 5603.7 | 5644.5 | 5664.9 | 5672.4 |
| 30° | 6015.6 | 5948.8 | 5863.5 | 5817.1 | 5809.7 | 5863.5 | 5900.6 | 5906.2 |
| 32.5° | 6412.7 | 6316.2 | 6203.0 | 6108.4 | 6084.3 | 6117.7 | 6162.2 | 6160.4 |
| 35° | 6884.0 | 6769.0 | 6631.7 | 6511.1 | 6455.4 | 6488.8 | 6551.9 | 6559.3 |
| 37.5° | 7427.7 | 7277.4 | 7119.7 | 6967.5 | 6880.3 | 6889.6 | 6956.4 | 6978.7 |
| 40° | 8034.5 | 7839.6 | 7641.1 | 7437.0 | 7312.7 | 7288.5 | 7370.2 | 7383.2 |
| 42.5° | 8683.9 | 8433.4 | 8182.9 | 7930.5 | 7771.0 | 7733.9 | 7828.5 | 7822.9 |
| 45° | 9376.0 | 9056.9 | 8763.7 | 8485.3 | 8296.1 | 8240.4 | 8318.4 | 8318.4 |
| 47.5° | 10120.1 | 9726.7 | 9377.9 | 9062.4 | 8856.5 | 8776.7 | 8850.9 | 8856.5 |
| 50° | 10908.7 | 10491.2 | 10081.1 | 9730.4 | 9483.6 | 9381.6 | 9478.1 | 9492.9 |
| 52.5° | 11693.6 | 11287.2 | 10873.4 | 10472.6 | 10173.9 | 10049.6 | 10160.9 | 10209.1 |
| 55° | 12489.6 | 12090.6 | 11695.4 | 11303.9 | 10949.5 | 10802.9 | 10921.7 | 10982.9 |
| 57.5° | 13330.1 | 12960.9 | 12584.2 | 12189.0 | 11847.6 | 11619.3 | 11745.5 | 11827.2 |
| 60° | 14315.4 | 14000.0 | 13608.5 | 13172.4 | 12827.3 | 12595.4 | 12667.7 | 12740.1 |
| 62.5° | 15094.8 | 15217.2 | 14885.1 | 14380.4 | 13936.9 | 13640.0 | 13710.5 | 13786.6 |
| 65° | 14718.1 | 15974.3 | 16269.3 | 15759.0 | 15144.9 | 14682.8 | 14653.1 | 14692.1 |
| 67.5° | 12302.2 | 14742.2 | 16521.7 | 17007.8 | 16493.8 | 15851.8 | 15733.1 | 15790.6 |
| 70° | 8229.3 | 11268.6 | 14408.2 | 16746.2 | 17367.8 | 17119.1 | 17002.2 | 17037.5 |
| 72.5° | 3952.3 | 6563.0 | 9774.9 | 12883.0 | 14775.6 | 15644.0 | 15922.3 | 16057.8 |
| 75° | 1445.5 | 2605.2 | 4711.2 | 7099.3 | 8570.7 | 9921.5 | 10802.9 | 11162.9 |
| 77.5° | 872.1 | 1052.1 | 1504.8 | 2265.6 | 2566.2 | 2872.4 | 2753.6 | 2813.0 |
| 80° | 645.7 | 729.2 | 825.7 | 927.8 | 961.2 | 961.2 | 924.1 | 894.4 |
| 82.5° | 452.7 | 506.6 | 552.9 | 608.6 | 623.5 | 595.6 | 489.9 | 389.7 |
| 85° | 291.3 | 315.4 | 335.9 | 371.1 | 361.8 | 345.1 | 231.9 | 206.0 |
| 87.5° | 133.6 | 152.2 | 159.6 | 176.3 | 168.9 | 161.4 | 115.0 | 96.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)