

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: P300571

Luminaire Tested: **GLNA-AF-07-LED-E1-RW-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300571
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-07-LED-E1-RW-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Rectangular Wide Type I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37265.2 lumens
Efficiency: N/A
Efficacy: 95.3 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

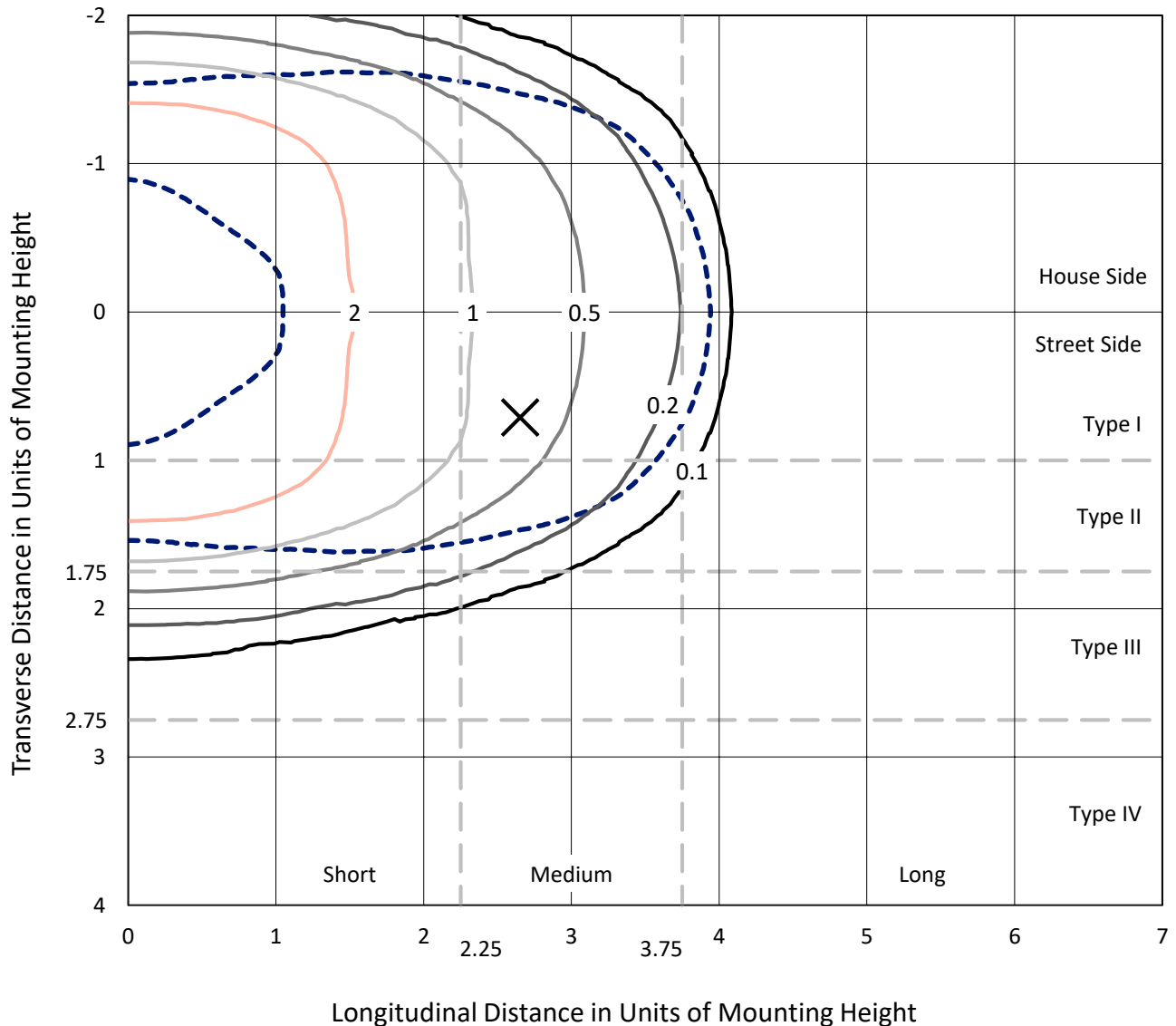
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

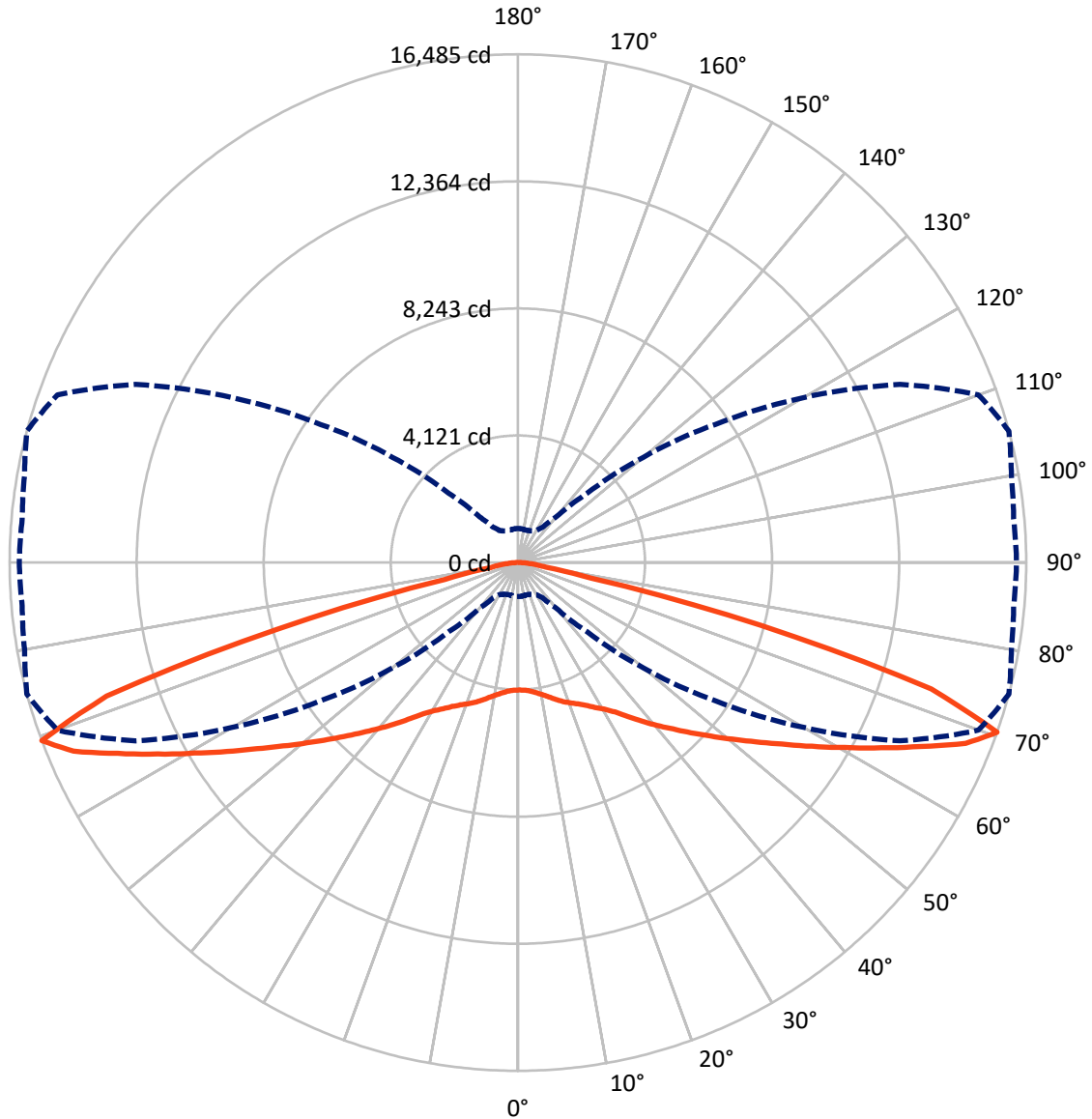
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.6 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 | 18632.6 | 0.0 | 18632.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 18632.6 | 0.0 | 18632.6 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 37265.2 | 0.0 | 37265.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 396.4 | 1.1 |
| 10°-20° | 1231.8 | 3.3 |
| 20°-30° | 2318.4 | 6.2 |
| 30°-40° | 4105.5 | 11.0 |
| 40°-50° | 6865.7 | 18.4 |
| 50°-60° | 9567.4 | 25.7 |
| 60°-70° | 8872.3 | 23.8 |
| 70°-80° | 3535.9 | 9.5 |
| 80°-90° | 371.7 | 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° | 37265.2 | 100.0 |
| 0°-180° | 37265.2 | 100.0 |



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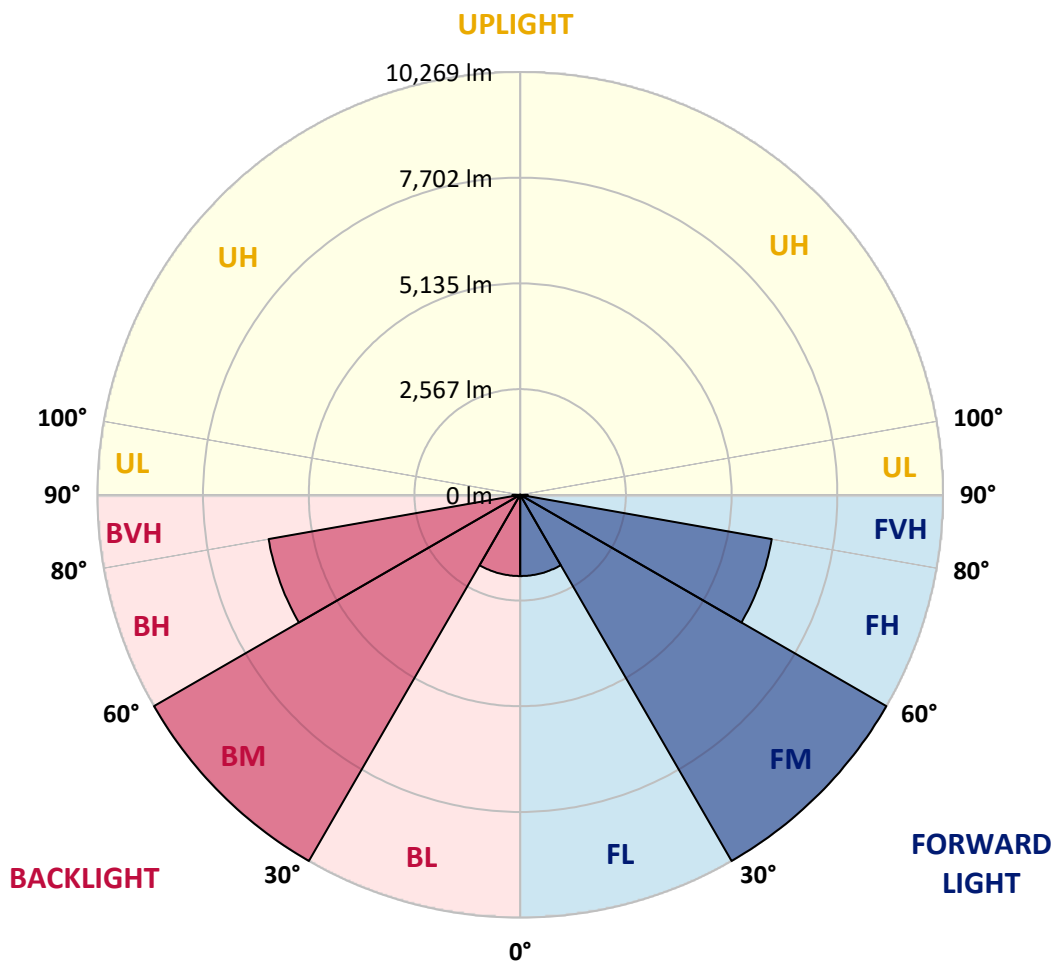
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1973.3 | 5.3 | | | |
| FM | (30°-60°) | 10269.4 | 27.6 | | | |
| FH | (60°-80°) | 6204.1 | 16.6 | | | G3/7500 |
| FVH | (80°-90°) | 185.8 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 1973.3 | 5.3 | B3/2500 | | |
| BM | (30°-60°) | 10269.4 | 27.6 | B5 | | |
| BH | (60°-80°) | 6204.1 | 16.6 | B5 | | G5 |
| BVH | (80°-90°) | 185.8 | 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° | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 |
| 2.5° | 4126.5 | 4123.0 | 4126.5 | 4124.8 | 4128.3 | 4128.3 | 4131.8 | 4138.9 | 4138.9 | 4144.1 | 4142.4 |
| 5° | 4086.0 | 4084.3 | 4089.5 | 4094.8 | 4100.1 | 4110.7 | 4121.3 | 4137.1 | 4149.4 | 4158.2 | 4167.0 |
| 7.5° | 4006.8 | 4006.8 | 4013.8 | 4026.1 | 4038.5 | 4061.4 | 4086.0 | 4117.7 | 4149.4 | 4175.8 | 4198.7 |
| 10° | 3941.6 | 3945.1 | 3953.9 | 3975.1 | 3996.2 | 4031.4 | 4064.9 | 4110.7 | 4154.7 | 4198.7 | 4234.0 |
| 12.5° | 3902.9 | 3908.1 | 3924.0 | 3955.7 | 3990.9 | 4038.5 | 4089.5 | 4147.7 | 4197.0 | 4249.8 | 4285.0 |
| 15° | 3915.2 | 3918.7 | 3941.6 | 3980.4 | 4026.1 | 4086.0 | 4154.7 | 4223.4 | 4281.5 | 4337.9 | 4385.4 |
| 17.5° | 3983.9 | 3989.2 | 4015.6 | 4059.6 | 4107.2 | 4177.6 | 4251.6 | 4329.1 | 4401.3 | 4464.7 | 4522.8 |
| 20° | 4107.2 | 4112.4 | 4145.9 | 4193.5 | 4249.8 | 4322.0 | 4396.0 | 4477.0 | 4558.0 | 4625.0 | 4690.1 |
| 22.5° | 4281.5 | 4290.3 | 4322.0 | 4369.6 | 4433.0 | 4510.5 | 4598.5 | 4684.8 | 4762.3 | 4824.0 | 4882.1 |
| 25° | 4510.5 | 4529.9 | 4559.8 | 4612.6 | 4679.6 | 4750.0 | 4845.1 | 4933.2 | 5007.1 | 5065.3 | 5107.5 |
| 27.5° | 4834.5 | 4861.0 | 4883.9 | 4934.9 | 5000.1 | 5067.0 | 5162.1 | 5239.6 | 5310.1 | 5366.4 | 5398.1 |
| 30° | 5264.3 | 5290.7 | 5313.6 | 5362.9 | 5422.8 | 5486.2 | 5576.0 | 5644.7 | 5688.7 | 5732.8 | 5731.0 |
| 32.5° | 5785.6 | 5813.8 | 5822.6 | 5875.4 | 5937.1 | 6005.8 | 6086.8 | 6125.5 | 6160.7 | 6166.0 | 6134.3 |
| 35° | 6368.6 | 6382.7 | 6417.9 | 6488.3 | 6558.8 | 6615.1 | 6692.6 | 6712.0 | 6712.0 | 6685.6 | 6615.1 |
| 37.5° | 7007.9 | 7016.7 | 7066.0 | 7145.3 | 7217.5 | 7275.6 | 7328.4 | 7367.2 | 7347.8 | 7291.4 | 7173.4 |
| 40° | 7708.9 | 7724.7 | 7795.2 | 7865.6 | 7946.6 | 8001.2 | 8057.6 | 8064.6 | 8045.2 | 7962.5 | 7802.2 |
| 42.5° | 8378.1 | 8392.2 | 8462.7 | 8573.6 | 8679.3 | 8755.0 | 8807.9 | 8818.4 | 8756.8 | 8681.0 | 8482.0 |
| 45° | 8954.0 | 8991.0 | 9082.6 | 9212.9 | 9366.2 | 9473.6 | 9545.8 | 9575.7 | 9521.1 | 9422.5 | 9191.8 |
| 47.5° | 9410.2 | 9447.2 | 9577.5 | 9732.5 | 9922.7 | 10097.1 | 10216.8 | 10280.2 | 10266.1 | 10192.2 | 9940.3 |
| 50° | 9744.8 | 9780.0 | 9920.9 | 10111.2 | 10333.1 | 10549.7 | 10754.0 | 10905.5 | 10958.3 | 10924.8 | 10694.1 |
| 52.5° | 9783.6 | 9841.7 | 10007.2 | 10262.6 | 10551.5 | 10847.3 | 11137.9 | 11395.1 | 11569.4 | 11595.9 | 11425.0 |
| 55° | 9242.9 | 9301.0 | 9530.0 | 9908.6 | 10338.4 | 10820.9 | 11285.9 | 11719.1 | 12062.6 | 12238.7 | 12148.9 |
| 57.5° | 7967.8 | 8071.7 | 8313.0 | 8756.8 | 9389.1 | 10111.2 | 10852.6 | 11622.3 | 12321.5 | 12788.2 | 12878.0 |
| 60° | 6106.1 | 6229.4 | 6472.5 | 6944.5 | 7649.0 | 8510.2 | 9500.0 | 10637.8 | 11872.4 | 12922.1 | 13549.1 |
| 62.5° | 3917.0 | 4033.2 | 4288.6 | 4698.9 | 5273.1 | 6206.5 | 7268.5 | 8619.4 | 10278.5 | 11935.8 | 13429.3 |
| 65° | 2013.1 | 2076.5 | 2210.3 | 2458.7 | 2906.0 | 3603.5 | 4556.3 | 5903.6 | 7800.4 | 9845.2 | 12004.5 |
| 67.5° | 1275.1 | 1287.5 | 1317.4 | 1352.6 | 1467.1 | 1708.4 | 2152.2 | 2992.3 | 4552.8 | 6685.6 | 9212.9 |
| 70° | 1102.5 | 1102.5 | 1088.4 | 1083.1 | 1097.2 | 1130.7 | 1199.4 | 1394.9 | 1921.5 | 3173.7 | 5313.6 |
| 72.5° | 1009.2 | 998.6 | 974.0 | 954.6 | 951.1 | 951.1 | 965.1 | 995.1 | 1079.6 | 1292.7 | 2080.0 |
| 75° | 929.9 | 900.0 | 866.5 | 843.6 | 834.8 | 826.0 | 824.3 | 829.5 | 847.1 | 880.6 | 993.3 |
| 77.5° | 833.1 | 794.3 | 755.6 | 732.7 | 722.1 | 709.8 | 699.2 | 686.9 | 678.1 | 688.6 | 738.0 |
| 80° | 716.8 | 672.8 | 642.8 | 628.8 | 618.2 | 600.6 | 577.7 | 556.5 | 537.2 | 533.6 | 563.6 |
| 82.5° | 577.7 | 526.6 | 528.4 | 533.6 | 514.3 | 489.6 | 465.0 | 442.1 | 408.6 | 391.0 | 408.6 |
| 85° | 466.7 | 440.3 | 428.0 | 461.4 | 433.3 | 396.3 | 357.5 | 317.0 | 264.2 | 221.9 | 241.3 |
| 87.5° | 181.4 | 181.4 | 271.2 | 417.4 | 375.1 | 306.5 | 262.4 | 223.7 | 139.1 | 107.4 | 109.2 |
| 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° | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 | 4133.6 |
| 2.5° | 4140.6 | 4144.1 | 4142.4 | 4140.6 | 4140.6 | 4138.9 | 4140.6 | 4140.6 |
| 5° | 4172.3 | 4181.1 | 4181.1 | 4184.7 | 4184.7 | 4186.4 | 4188.2 | 4186.4 |
| 7.5° | 4219.9 | 4235.7 | 4246.3 | 4258.6 | 4260.4 | 4262.1 | 4265.7 | 4262.1 |
| 10° | 4267.4 | 4299.1 | 4322.0 | 4344.9 | 4355.5 | 4359.0 | 4362.5 | 4362.5 |
| 12.5° | 4327.3 | 4371.3 | 4411.9 | 4452.4 | 4471.7 | 4482.3 | 4482.3 | 4489.3 |
| 15° | 4425.9 | 4470.0 | 4517.5 | 4572.1 | 4605.6 | 4623.2 | 4628.5 | 4628.5 |
| 17.5° | 4565.1 | 4603.8 | 4644.3 | 4697.2 | 4739.4 | 4762.3 | 4767.6 | 4765.9 |
| 20° | 4727.1 | 4764.1 | 4787.0 | 4820.5 | 4857.4 | 4883.9 | 4890.9 | 4890.9 |
| 22.5° | 4912.0 | 4933.2 | 4936.7 | 4947.3 | 4977.2 | 5012.4 | 5028.3 | 5031.8 |
| 25° | 5116.3 | 5121.6 | 5107.5 | 5107.5 | 5126.9 | 5160.4 | 5176.2 | 5178.0 |
| 27.5° | 5380.5 | 5354.1 | 5318.9 | 5306.6 | 5318.9 | 5357.6 | 5377.0 | 5384.0 |
| 30° | 5709.9 | 5646.5 | 5565.5 | 5521.4 | 5514.4 | 5565.5 | 5600.7 | 5606.0 |
| 32.5° | 6086.8 | 5995.2 | 5887.8 | 5797.9 | 5775.0 | 5806.7 | 5849.0 | 5847.2 |
| 35° | 6534.1 | 6424.9 | 6294.6 | 6180.1 | 6127.3 | 6159.0 | 6218.9 | 6225.9 |
| 37.5° | 7050.2 | 6907.5 | 6757.8 | 6613.4 | 6530.6 | 6539.4 | 6602.8 | 6623.9 |
| 40° | 7626.1 | 7441.1 | 7252.7 | 7059.0 | 6941.0 | 6918.1 | 6995.6 | 7007.9 |
| 42.5° | 8242.5 | 8004.7 | 7767.0 | 7527.4 | 7376.0 | 7340.8 | 7430.6 | 7425.3 |
| 45° | 8899.4 | 8596.5 | 8318.2 | 8054.1 | 7874.4 | 7821.6 | 7895.5 | 7895.5 |
| 47.5° | 9605.7 | 9232.3 | 8901.2 | 8601.8 | 8406.3 | 8330.6 | 8401.0 | 8406.3 |
| 50° | 10354.2 | 9957.9 | 9568.7 | 9235.8 | 9001.6 | 8904.7 | 8996.3 | 9010.4 |
| 52.5° | 11099.2 | 10713.5 | 10320.7 | 9940.3 | 9656.8 | 9538.8 | 9644.4 | 9690.2 |
| 55° | 11854.8 | 11476.1 | 11101.0 | 10729.3 | 10393.0 | 10253.8 | 10366.5 | 10424.7 |
| 57.5° | 12652.6 | 12302.1 | 11944.6 | 11569.4 | 11245.4 | 11028.8 | 11148.5 | 11226.0 |
| 60° | 13587.8 | 13288.4 | 12916.8 | 12502.9 | 12175.3 | 11955.2 | 12023.8 | 12092.5 |
| 62.5° | 14327.5 | 14443.8 | 14128.5 | 13649.4 | 13228.5 | 12946.7 | 13013.6 | 13085.9 |
| 65° | 13970.0 | 15162.3 | 15442.4 | 14958.0 | 14375.1 | 13936.5 | 13908.3 | 13945.3 |
| 67.5° | 11676.9 | 13992.9 | 15681.9 | 16143.3 | 15655.5 | 15046.1 | 14933.4 | 14988.0 |
| 70° | 7811.0 | 10695.9 | 13675.9 | 15895.0 | 16485.0 | 16249.0 | 16138.0 | 16171.5 |
| 72.5° | 3751.4 | 6229.4 | 9278.1 | 12228.1 | 14024.6 | 14848.8 | 15113.0 | 15241.6 |
| 75° | 1372.0 | 2472.8 | 4471.7 | 6738.4 | 8135.1 | 9417.2 | 10253.8 | 10595.5 |
| 77.5° | 827.8 | 998.6 | 1428.3 | 2150.4 | 2435.8 | 2726.4 | 2613.6 | 2670.0 |
| 80° | 612.9 | 692.2 | 783.7 | 880.6 | 912.3 | 912.3 | 877.1 | 848.9 |
| 82.5° | 429.7 | 480.8 | 524.8 | 577.7 | 591.8 | 565.4 | 465.0 | 369.9 |
| 85° | 276.5 | 299.4 | 318.8 | 352.2 | 343.4 | 327.6 | 220.2 | 195.5 |
| 87.5° | 126.8 | 144.4 | 151.5 | 167.3 | 160.3 | 153.2 | 109.2 | 91.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)