

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: P459459

Luminaire Tested: **GALN-SA9A-735-U-T2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P459459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9A-735-U-T2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38840 lumens
Efficiency: N/A
Efficacy: 141.8 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G5

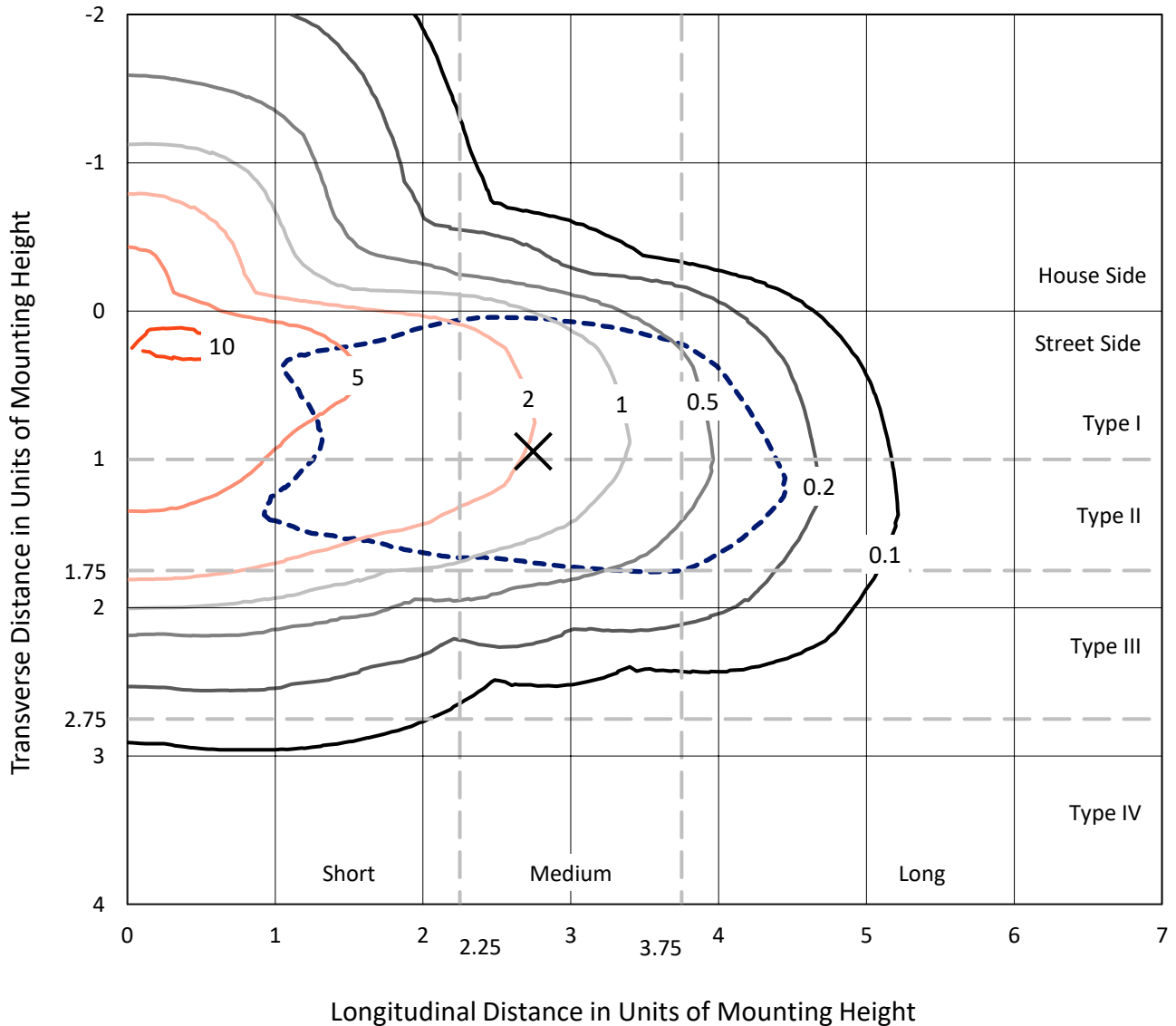
Input Watts (W): 274
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

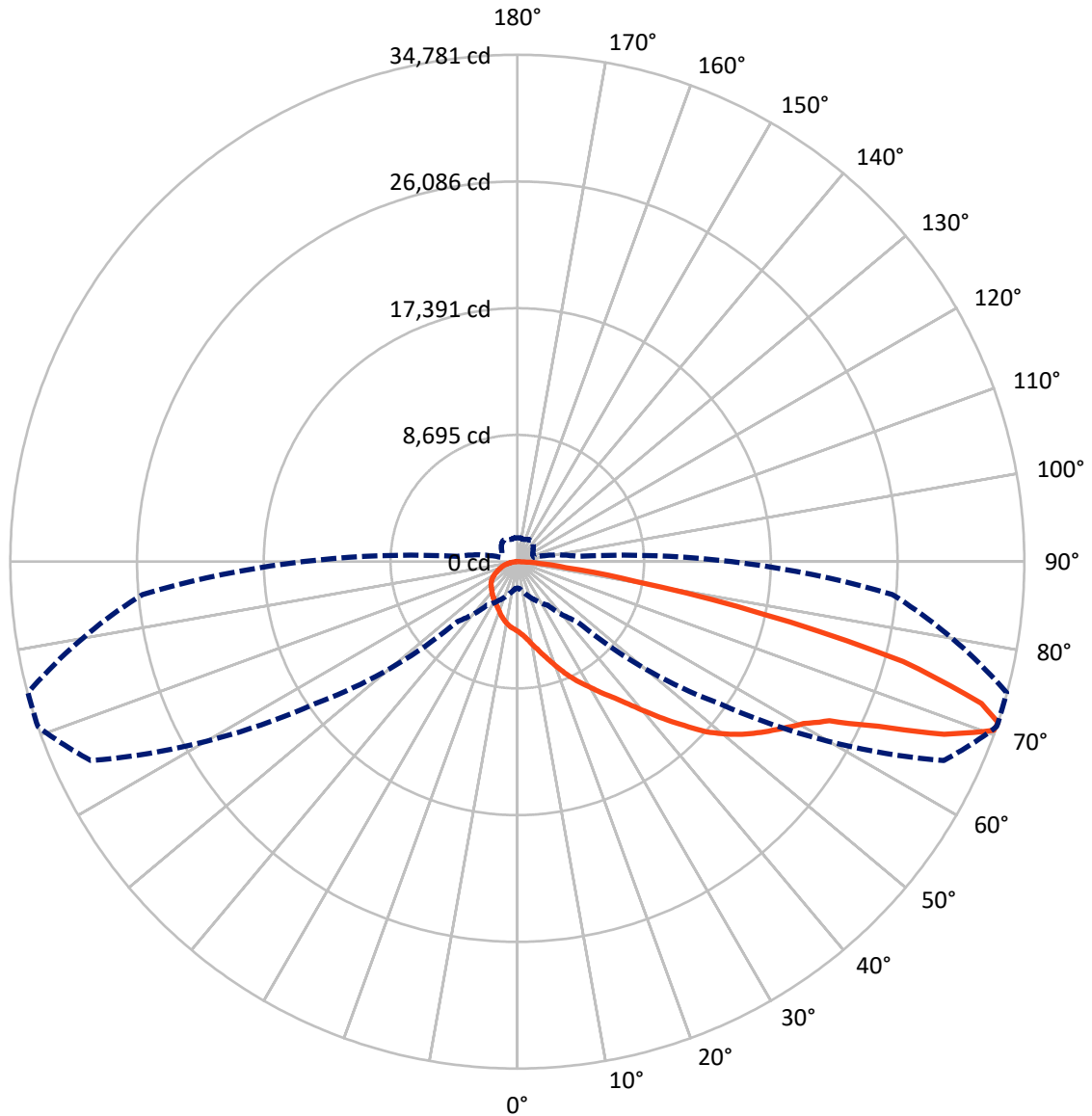
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 71-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6985.3 | 0.0 | 6985.3 |
| | % Fixture | 18.0 | 0.0 | 18.0 |
| Street Side | Lumens | 31854.7 | 0.0 | 31854.7 |
| | % Fixture | 82.0 | 0.0 | 82.0 |
| Total | Lumens | 38840.0 | 0.0 | 38840.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 478.6 | 1.2 |
| 10°-20° | 1555.0 | 4.0 |
| 20°-30° | 2717.5 | 7.0 |
| 30°-40° | 4041.9 | 10.4 |
| 40°-50° | 5955.3 | 15.3 |
| 50°-60° | 8337.5 | 21.5 |
| 60°-70° | 9325.2 | 24.0 |
| 70°-80° | 5696.2 | 14.7 |
| 80°-90° | 732.8 | 1.9 |
| 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° | 38840.0 | 100.0 |
| 0°-180° | 38840.0 | 100.0 |

Coefficient of Utilization



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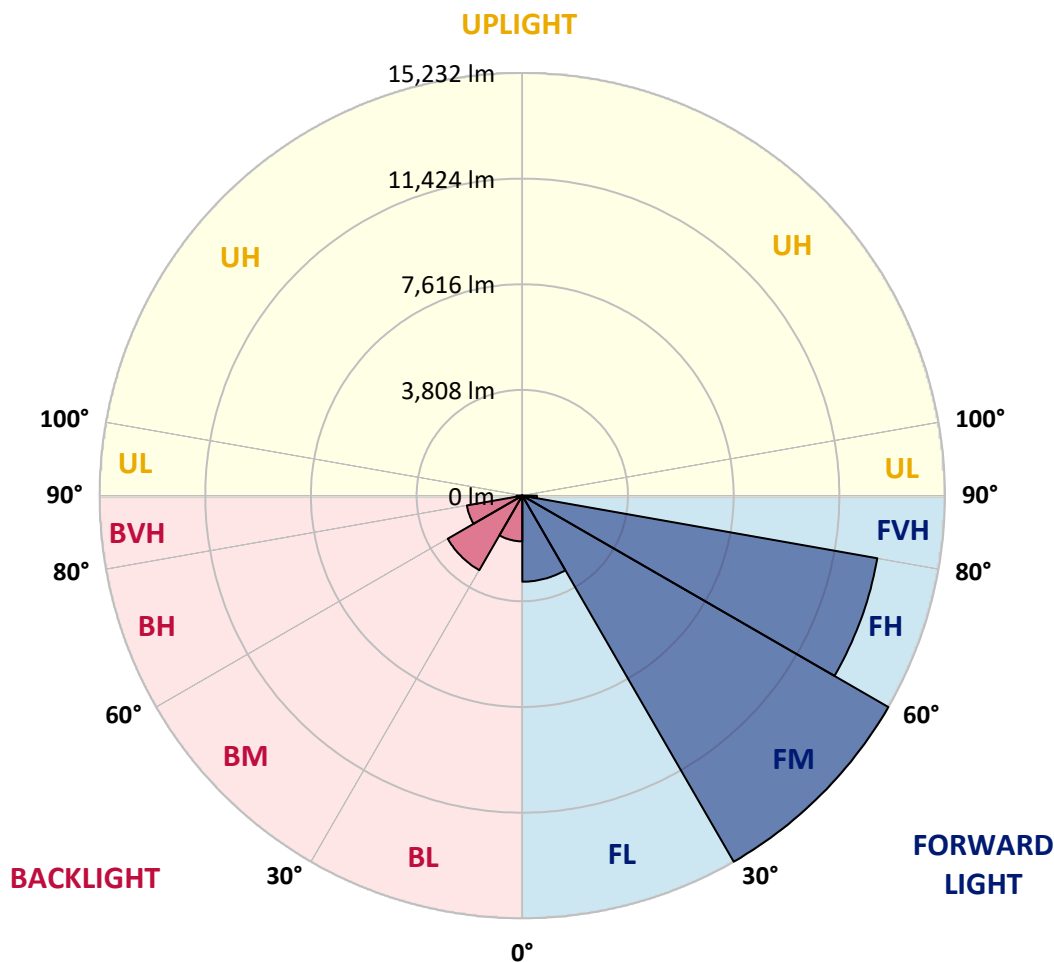
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3103.3 | 8.0 | | | |
| FM | (30°-60°) | 15232.3 | 39.2 | | | |
| FH | (60°-80°) | 12991.9 | 33.4 | | | G5 |
| FVH | (80°-90°) | 527.2 | 1.4 | | | G4/750 |
| BL | (0°-30°) | 1647.8 | 4.2 | B3/2500 | | |
| BM | (30°-60°) | 3102.4 | 8.0 | B3/5000 | | |
| BH | (60°-80°) | 2029.5 | 5.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 205.5 | 0.5 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 71° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 |
| 2.5° | 5292.0 | 5266.4 | 5268.5 | 5232.2 | 5185.3 | 5134.0 | 5061.4 | 4997.4 | 4946.2 | 4916.3 | 4828.8 |
| 5° | 5864.1 | 5838.5 | 5806.5 | 5727.5 | 5693.3 | 5567.4 | 5407.3 | 5262.1 | 5151.1 | 5089.2 | 4914.1 |
| 7.5° | 6327.3 | 6320.9 | 6312.4 | 6267.6 | 6180.0 | 6005.0 | 5868.4 | 5616.5 | 5452.1 | 5334.7 | 5035.8 |
| 10° | 6613.4 | 6624.1 | 6630.5 | 6639.0 | 6602.7 | 6510.9 | 6323.1 | 6005.0 | 5795.8 | 5646.4 | 5193.8 |
| 12.5° | 6758.5 | 6769.2 | 6805.5 | 6884.5 | 6933.6 | 6922.9 | 6769.2 | 6457.5 | 6169.4 | 5973.0 | 5362.4 |
| 15° | 6848.2 | 6865.3 | 6929.3 | 7033.9 | 7198.3 | 7302.9 | 7228.2 | 6940.0 | 6624.1 | 6391.4 | 5563.1 |
| 17.5° | 6946.4 | 6965.6 | 7036.1 | 7185.5 | 7401.1 | 7627.4 | 7708.5 | 7460.9 | 7117.2 | 6839.7 | 5787.2 |
| 20° | 7001.9 | 7027.5 | 7127.9 | 7324.2 | 7576.1 | 7904.9 | 8173.9 | 8043.6 | 7667.9 | 7360.5 | 6045.5 |
| 22.5° | 7091.6 | 7112.9 | 7198.3 | 7407.5 | 7708.5 | 8120.5 | 8639.2 | 8611.5 | 8280.6 | 7883.5 | 6329.5 |
| 25° | 7334.9 | 7369.1 | 7411.8 | 7537.7 | 7828.0 | 8340.4 | 9025.6 | 9217.7 | 8874.1 | 8430.0 | 6589.9 |
| 27.5° | 7793.9 | 7821.6 | 7819.5 | 7836.6 | 8001.0 | 8530.4 | 9360.8 | 9817.6 | 9463.2 | 8982.9 | 6841.8 |
| 30° | 8316.9 | 8327.6 | 8336.1 | 8297.7 | 8334.0 | 8724.6 | 9668.2 | 10411.1 | 10056.7 | 9550.8 | 7061.7 |
| 32.5° | 8953.0 | 8974.4 | 8901.8 | 8803.6 | 8773.7 | 9012.8 | 9922.2 | 11004.5 | 10759.0 | 10127.1 | 7279.4 |
| 35° | 9704.5 | 9760.0 | 9612.7 | 9439.8 | 9318.1 | 9427.0 | 10263.8 | 11610.8 | 11478.4 | 10863.6 | 7567.6 |
| 37.5° | 10562.6 | 10630.9 | 10494.3 | 10154.9 | 9982.0 | 10011.9 | 10709.9 | 12360.1 | 12387.8 | 11702.6 | 7996.7 |
| 40° | 11265.0 | 11354.6 | 11358.9 | 10878.6 | 10616.0 | 10650.1 | 11275.6 | 13167.0 | 13485.1 | 12740.0 | 8502.6 |
| 42.5° | 11728.2 | 11815.7 | 11907.5 | 11625.7 | 11350.3 | 11544.6 | 11935.3 | 14042.2 | 14718.9 | 13999.5 | 9209.2 |
| 45° | 12236.3 | 12315.2 | 12366.5 | 12238.4 | 12084.7 | 12588.5 | 12731.5 | 14973.0 | 16033.9 | 15406.3 | 9982.0 |
| 47.5° | 12825.4 | 12913.0 | 12962.1 | 12840.4 | 12782.7 | 13504.3 | 13589.7 | 15841.8 | 17438.6 | 16772.5 | 10835.9 |
| 50° | 13611.0 | 13677.2 | 13651.6 | 13574.7 | 13561.9 | 14206.6 | 14413.7 | 16655.1 | 18597.7 | 18243.4 | 11721.8 |
| 52.5° | 14588.7 | 14667.7 | 14695.5 | 14586.6 | 14537.5 | 14708.3 | 15077.6 | 17395.9 | 19652.3 | 19507.1 | 12667.5 |
| 55° | 15180.0 | 15306.0 | 15728.7 | 15899.4 | 16016.9 | 15357.2 | 15792.7 | 18213.5 | 20598.0 | 20839.2 | 13683.6 |
| 57.5° | 14422.2 | 14584.5 | 15530.1 | 16384.0 | 17487.7 | 16979.6 | 16806.7 | 19067.4 | 21543.7 | 22130.7 | 14900.4 |
| 60° | 12573.5 | 12609.8 | 13828.8 | 15402.1 | 17622.2 | 19065.2 | 18922.2 | 20425.1 | 22568.3 | 23432.9 | 16503.6 |
| 62.5° | 8722.5 | 8799.3 | 10240.3 | 12750.7 | 15961.3 | 19816.7 | 22521.4 | 22769.0 | 24037.0 | 25381.9 | 18853.9 |
| 65° | 4497.9 | 4397.5 | 5710.4 | 8013.8 | 12033.5 | 18032.0 | 25437.4 | 27079.0 | 27222.0 | 28430.3 | 22162.7 |
| 67.5° | 2768.7 | 2813.6 | 3428.4 | 4679.3 | 7115.0 | 13105.1 | 25132.1 | 32345.4 | 31591.8 | 32172.5 | 25234.6 |
| 70° | 2079.2 | 2134.7 | 2557.4 | 3202.1 | 4337.8 | 7492.9 | 20211.6 | 33621.9 | 34674.4 | 34524.9 | 26169.6 |
| 71° | 1808.1 | 1865.8 | 2305.5 | 2913.9 | 3644.0 | 5783.0 | 17028.7 | 32285.6 | 34781.1 | 34755.5 | 25817.4 |
| 72.5° | 1541.3 | 1577.6 | 1921.3 | 2467.7 | 3071.9 | 4053.8 | 12793.4 | 28955.4 | 33297.5 | 34149.2 | 24560.0 |
| 75° | 1210.4 | 1238.1 | 1391.8 | 1882.8 | 2418.6 | 2489.1 | 6865.3 | 21708.0 | 27348.0 | 28970.4 | 20446.4 |
| 77.5° | 986.2 | 1005.5 | 1084.4 | 1398.2 | 1865.8 | 1763.3 | 3601.3 | 14129.8 | 17133.3 | 18766.4 | 12044.1 |
| 80° | 783.4 | 804.8 | 851.8 | 947.8 | 1398.2 | 1257.4 | 1718.5 | 7159.9 | 8276.3 | 8259.3 | 4807.4 |
| 82.5° | 608.4 | 614.8 | 670.3 | 695.9 | 956.4 | 892.3 | 930.7 | 3031.3 | 3357.9 | 3468.9 | 1735.5 |
| 85° | 384.3 | 403.5 | 593.5 | 533.7 | 572.1 | 523.0 | 459.0 | 1204.0 | 1483.6 | 1462.3 | 693.8 |
| 87.5° | 117.4 | 123.8 | 200.7 | 226.3 | 254.0 | 228.4 | 168.6 | 354.4 | 433.3 | 469.6 | 172.9 |
| 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° | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 | 4766.8 |
| 2.5° | 4794.6 | 4771.1 | 4687.9 | 4619.5 | 4555.5 | 4485.1 | 4425.3 | 4408.2 | 4393.3 | 4386.9 | 4384.7 |
| 5° | 4839.4 | 4769.0 | 4604.6 | 4470.1 | 4363.4 | 4265.2 | 4203.3 | 4175.5 | 4147.8 | 4147.8 | 4156.3 |
| 7.5° | 4903.5 | 4775.4 | 4521.4 | 4320.7 | 4186.2 | 4094.4 | 4049.6 | 4045.3 | 4051.7 | 4058.1 | 4060.2 |
| 10° | 4973.9 | 4771.1 | 4399.7 | 4149.9 | 4030.4 | 3987.7 | 3989.8 | 4026.1 | 4060.2 | 4085.9 | 4090.1 |
| 12.5° | 5042.2 | 4745.5 | 4256.6 | 3989.8 | 3913.0 | 3921.5 | 3981.3 | 4062.4 | 4128.6 | 4164.9 | 4167.0 |
| 15° | 5119.1 | 4704.9 | 4083.7 | 3838.2 | 3812.6 | 3878.8 | 3989.8 | 4113.6 | 4213.9 | 4273.7 | 4280.1 |
| 17.5° | 5183.1 | 4636.6 | 3902.3 | 3690.9 | 3723.0 | 3844.6 | 3998.3 | 4158.4 | 4280.1 | 4354.8 | 4367.7 |
| 20° | 5255.7 | 4549.1 | 3714.4 | 3550.0 | 3641.8 | 3806.2 | 3981.3 | 4154.2 | 4280.1 | 4352.7 | 4369.8 |
| 22.5° | 5313.3 | 4425.3 | 3535.1 | 3434.8 | 3569.3 | 3759.3 | 3923.6 | 4062.4 | 4164.9 | 4203.3 | 4228.9 |
| 25° | 5336.8 | 4269.5 | 3366.5 | 3340.8 | 3511.6 | 3682.4 | 3793.4 | 3872.4 | 3904.4 | 3900.1 | 3910.8 |
| 27.5° | 5324.0 | 4090.1 | 3221.3 | 3266.1 | 3439.0 | 3562.9 | 3618.4 | 3612.0 | 3554.3 | 3501.0 | 3526.6 |
| 30° | 5270.6 | 3876.7 | 3099.6 | 3189.3 | 3345.1 | 3413.4 | 3404.9 | 3321.6 | 3212.8 | 3112.4 | 3118.8 |
| 32.5° | 5174.6 | 3646.1 | 2986.5 | 3101.8 | 3212.8 | 3242.6 | 3185.0 | 3076.1 | 2920.3 | 2790.1 | 2770.9 |
| 35° | 5093.5 | 3426.2 | 2886.1 | 3001.4 | 3080.4 | 3065.5 | 3010.0 | 2869.1 | 2728.2 | 2612.9 | 2593.7 |
| 37.5° | 5080.6 | 3238.4 | 2790.1 | 2888.3 | 2933.1 | 2911.8 | 2843.5 | 2723.9 | 2672.7 | 2585.2 | 2574.5 |
| 40° | 5149.0 | 3106.0 | 2691.9 | 2768.7 | 2790.1 | 2773.0 | 2698.3 | 2630.0 | 2676.9 | 2655.6 | 2655.6 |
| 42.5° | 5334.7 | 3035.6 | 2604.4 | 2649.2 | 2666.3 | 2679.1 | 2625.7 | 2568.1 | 2625.7 | 2527.5 | 2495.5 |
| 45° | 5629.3 | 3037.7 | 2525.4 | 2531.8 | 2583.0 | 2627.8 | 2591.6 | 2506.2 | 2476.3 | 2279.9 | 2241.5 |
| 47.5° | 6062.6 | 3110.3 | 2461.3 | 2420.8 | 2512.6 | 2587.3 | 2536.1 | 2412.2 | 2279.9 | 2149.7 | 2126.2 |
| 50° | 6568.6 | 3240.5 | 2403.7 | 2305.5 | 2418.6 | 2536.1 | 2497.6 | 2352.5 | 2215.8 | 2136.9 | 2121.9 |
| 52.5° | 7130.0 | 3404.9 | 2333.3 | 2177.4 | 2303.4 | 2512.6 | 2506.2 | 2343.9 | 2156.1 | 2102.7 | 2089.9 |
| 55° | 7823.8 | 3567.1 | 2245.7 | 2028.0 | 2200.9 | 2493.4 | 2482.7 | 2273.5 | 2143.3 | 2104.8 | 2100.6 |
| 57.5° | 8630.7 | 3801.9 | 2119.8 | 1876.4 | 2083.5 | 2414.4 | 2390.9 | 2230.8 | 2100.6 | 2072.8 | 2070.7 |
| 60° | 9930.7 | 4167.0 | 1940.5 | 1737.7 | 1963.9 | 2275.6 | 2305.5 | 2158.2 | 2032.3 | 2025.9 | 2023.7 |
| 62.5° | 11640.7 | 4679.3 | 1754.7 | 1594.6 | 1825.2 | 2096.3 | 2181.7 | 2060.0 | 1959.7 | 1991.7 | 1996.0 |
| 65° | 14001.7 | 5110.5 | 1562.6 | 1473.0 | 1671.5 | 1923.4 | 2064.3 | 1968.2 | 1878.6 | 1940.5 | 1940.5 |
| 67.5° | 15540.8 | 5119.1 | 1387.6 | 1347.0 | 1515.7 | 1778.2 | 1940.5 | 1859.3 | 1774.0 | 1878.6 | 1882.8 |
| 70° | 15220.6 | 4485.1 | 1242.4 | 1214.7 | 1364.1 | 1622.4 | 1803.8 | 1739.8 | 1641.6 | 1735.5 | 1701.4 |
| 71° | 14704.0 | 4132.8 | 1184.8 | 1163.4 | 1304.3 | 1547.7 | 1739.8 | 1686.4 | 1588.2 | 1650.1 | 1630.9 |
| 72.5° | 13880.0 | 3588.5 | 1090.8 | 1095.1 | 1214.7 | 1453.7 | 1650.1 | 1594.6 | 1496.4 | 1530.6 | 1524.2 |
| 75° | 11732.5 | 3133.8 | 932.9 | 952.1 | 1043.9 | 1293.6 | 1470.8 | 1428.1 | 1327.8 | 1327.8 | 1321.4 |
| 77.5° | 7334.9 | 2190.2 | 774.9 | 785.6 | 885.9 | 1107.9 | 1263.8 | 1227.5 | 1131.4 | 1099.4 | 1090.8 |
| 80° | 2736.7 | 1131.4 | 606.3 | 619.1 | 681.0 | 873.1 | 1046.0 | 1011.9 | 913.7 | 877.4 | 843.2 |
| 82.5° | 1035.3 | 567.8 | 446.2 | 435.5 | 501.7 | 666.0 | 819.7 | 779.2 | 702.3 | 614.8 | 589.2 |
| 85° | 390.7 | 281.8 | 273.2 | 264.7 | 294.6 | 394.9 | 508.1 | 499.5 | 418.4 | 356.5 | 350.1 |
| 87.5° | 102.5 | 91.8 | 106.7 | 79.0 | 83.3 | 74.7 | 76.9 | 32.0 | 14.9 | 6.4 | 4.3 |
| 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)