

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: P302925

Luminaire Tested: **GLNA-AF-08-LED-E1-T4W-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302925
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
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-T4W-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30082.9 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

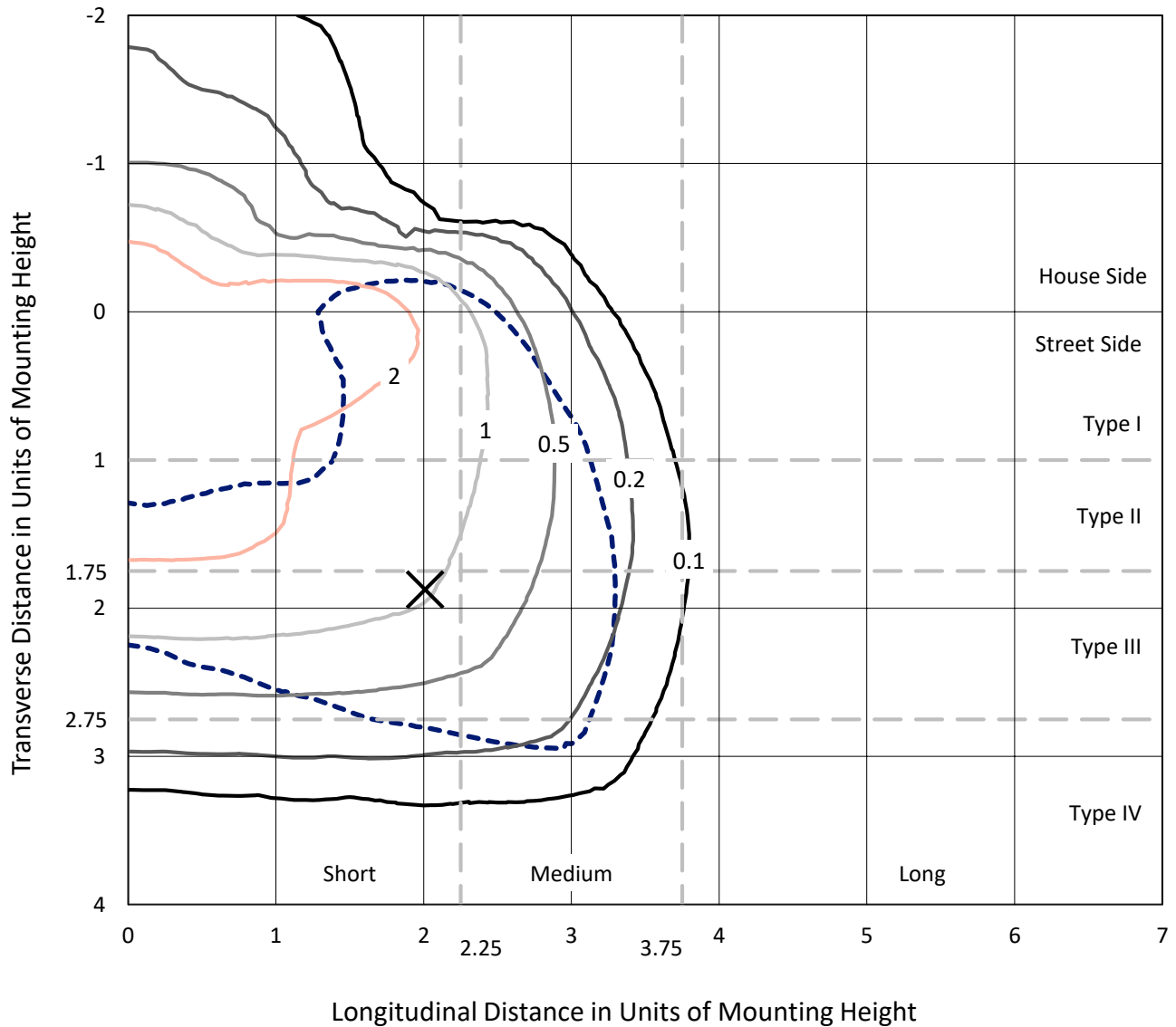
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

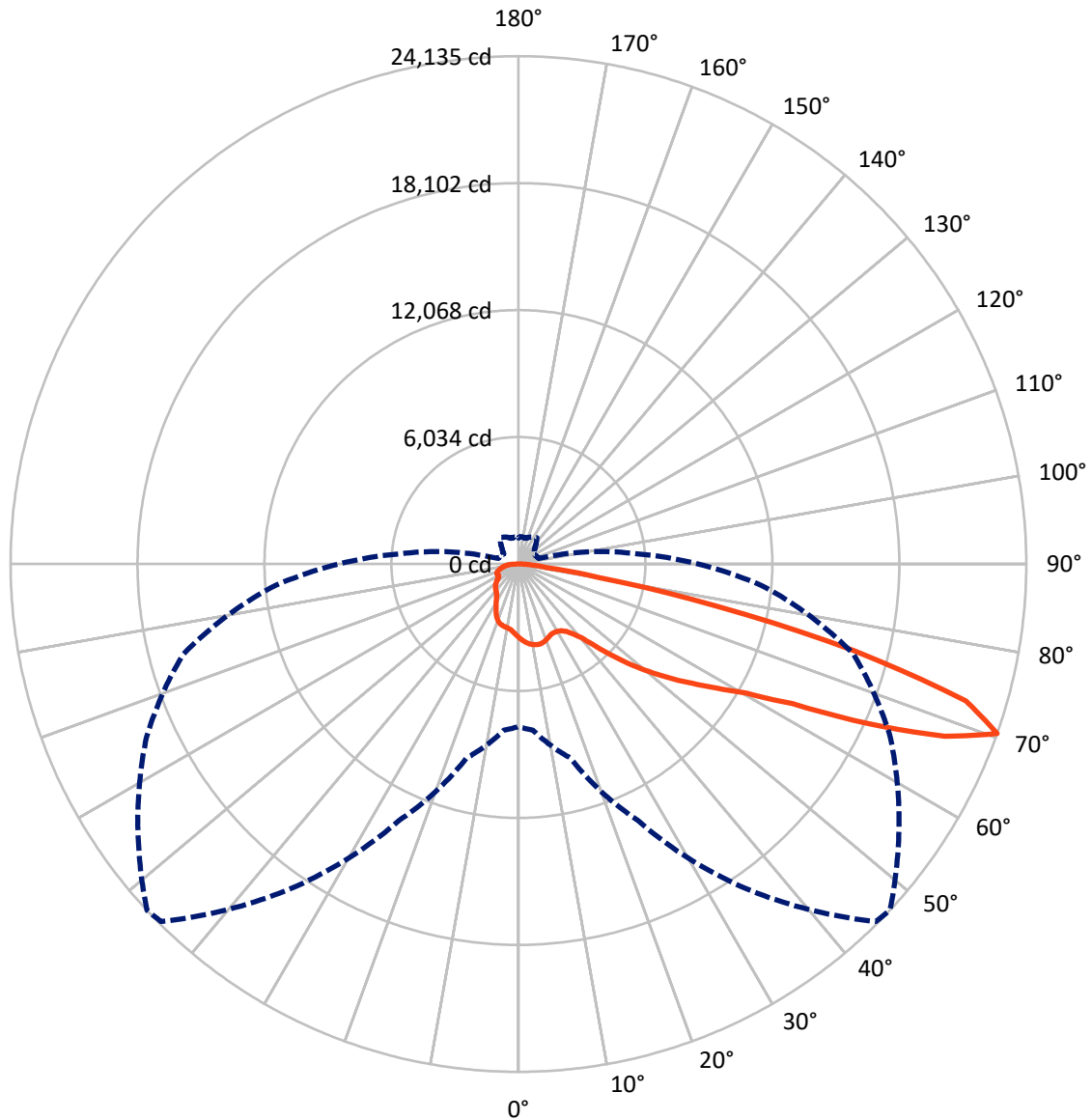
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6275.9 | 0.0 | 6275.9 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 23807.0 | 0.0 | 23807.0 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 30082.9 | 0.0 | 30082.9 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 334.4 | 1.1 |
| 10°-20° | 981.2 | 3.3 |
| 20°-30° | 1449.0 | 4.8 |
| 30°-40° | 2106.1 | 7.0 |
| 40°-50° | 3790.1 | 12.6 |
| 50°-60° | 6566.0 | 21.8 |
| 60°-70° | 9371.7 | 31.2 |
| 70°-80° | 4810.9 | 16.0 |
| 80°-90° | 673.5 | 2.2 |
| 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° | 30082.9 | 100.0 |
| 0°-180° | 30082.9 | 100.0 |



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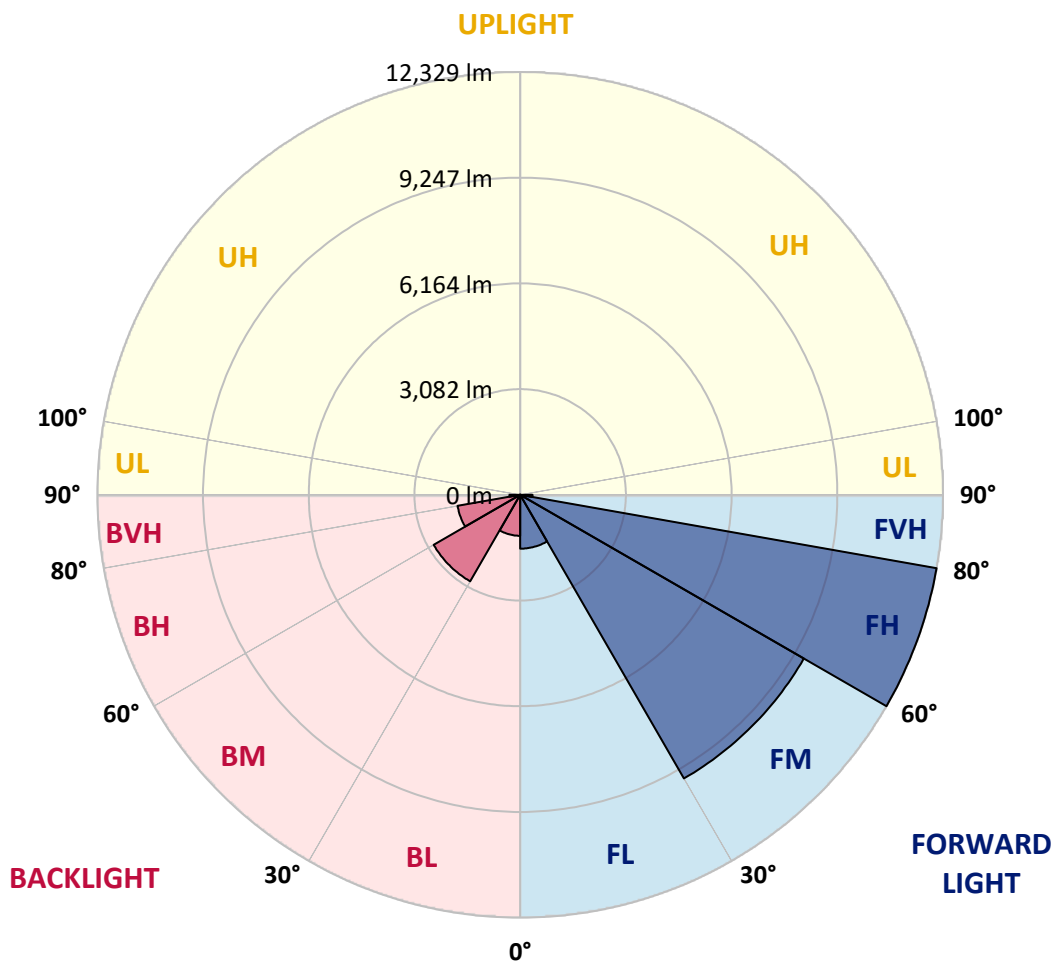
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1569.7 | 5.2 | | | |
| FM | (30°-60°) | 9549.2 | 31.7 | | | |
| FH | (60°-80°) | 12328.8 | 41.0 | | | G5 |
| FVH | (80°-90°) | 359.4 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1195.0 | 4.0 | B3/2500 | | |
| BM | (30°-60°) | 2913.1 | 9.7 | B3/5000 | | |
| BH | (60°-80°) | 1853.7 | 6.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 314.1 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 |
| 2.5° | 3695.6 | 3688.3 | 3685.4 | 3679.6 | 3672.3 | 3635.3 | 3628.0 | 3601.8 | 3565.3 | 3526.9 | 3487.6 |
| 5° | 3938.6 | 3937.2 | 3920.6 | 3891.5 | 3844.8 | 3764.1 | 3745.2 | 3681.0 | 3594.5 | 3510.9 | 3427.8 |
| 7.5° | 4152.0 | 4138.9 | 4108.3 | 4049.5 | 3967.8 | 3857.9 | 3831.7 | 3742.3 | 3623.7 | 3509.4 | 3396.7 |
| 10° | 4308.5 | 4301.2 | 4234.2 | 4153.5 | 4046.5 | 3925.0 | 3894.4 | 3794.8 | 3664.5 | 3519.6 | 3379.2 |
| 12.5° | 4398.0 | 4383.4 | 4305.6 | 4209.4 | 4082.0 | 3963.4 | 3932.3 | 3831.7 | 3685.4 | 3519.6 | 3354.4 |
| 15° | 4392.1 | 4381.9 | 4304.2 | 4198.7 | 4070.4 | 3966.3 | 3938.6 | 3837.5 | 3681.0 | 3505.1 | 3322.3 |
| 17.5° | 4275.0 | 4279.4 | 4213.8 | 4109.7 | 4004.3 | 3925.0 | 3900.2 | 3806.9 | 3651.4 | 3475.9 | 3284.4 |
| 20° | 4070.4 | 4090.8 | 4046.5 | 3954.7 | 3895.9 | 3841.9 | 3825.9 | 3746.6 | 3606.2 | 3433.6 | 3243.1 |
| 22.5° | 3865.2 | 3884.2 | 3866.7 | 3788.9 | 3780.2 | 3748.1 | 3739.3 | 3682.5 | 3566.8 | 3407.4 | 3218.3 |
| 25° | 3714.6 | 3732.1 | 3729.1 | 3661.6 | 3688.3 | 3686.8 | 3679.6 | 3651.4 | 3558.0 | 3407.4 | 3222.7 |
| 27.5° | 3673.7 | 3679.6 | 3673.7 | 3612.0 | 3648.5 | 3678.1 | 3672.3 | 3667.4 | 3584.3 | 3449.6 | 3278.5 |
| 30° | 3814.2 | 3805.5 | 3759.8 | 3635.3 | 3669.4 | 3710.2 | 3704.3 | 3707.3 | 3663.0 | 3561.0 | 3403.0 |
| 32.5° | 4374.6 | 4334.8 | 4191.4 | 3841.9 | 3752.5 | 3774.3 | 3777.3 | 3825.9 | 3833.2 | 3732.1 | 3596.0 |
| 35° | 5213.1 | 5169.4 | 4983.2 | 4395.1 | 4011.5 | 3935.7 | 3935.7 | 4008.6 | 4052.4 | 3978.0 | 3895.9 |
| 37.5° | 6101.7 | 6053.0 | 5953.9 | 5162.1 | 4555.9 | 4215.2 | 4207.9 | 4259.0 | 4321.7 | 4339.6 | 4360.1 |
| 40° | 7111.2 | 7060.2 | 7087.9 | 6022.4 | 5315.7 | 4699.3 | 4595.3 | 4558.9 | 4728.5 | 4841.3 | 5005.6 |
| 42.5° | 8216.5 | 8192.7 | 8202.9 | 6981.0 | 6180.4 | 5424.1 | 5276.3 | 5087.2 | 5292.3 | 5492.6 | 5836.7 |
| 45° | 9239.2 | 9259.7 | 9249.4 | 8007.1 | 7143.8 | 6307.7 | 6151.2 | 5785.2 | 5986.0 | 6329.6 | 6890.5 |
| 47.5° | 10135.1 | 10050.0 | 10181.7 | 9127.9 | 8222.4 | 7297.4 | 7103.9 | 6614.0 | 6817.1 | 7241.5 | 8189.8 |
| 50° | 11222.4 | 11210.7 | 11017.8 | 10624.1 | 9526.0 | 8290.9 | 8037.7 | 7469.9 | 7785.9 | 8376.0 | 9827.9 |
| 52.5° | 12365.6 | 12153.2 | 11976.3 | 11787.2 | 10909.4 | 9309.7 | 8999.1 | 8323.0 | 8924.8 | 9666.5 | 11824.2 |
| 55° | 12599.5 | 12504.7 | 12723.9 | 13041.8 | 12242.7 | 10367.9 | 10006.3 | 9392.8 | 10207.0 | 11142.2 | 14126.2 |
| 57.5° | 13100.1 | 13098.6 | 13552.6 | 14118.9 | 13615.3 | 11490.2 | 11125.7 | 10685.3 | 11648.2 | 12832.3 | 16570.2 |
| 60° | 13438.4 | 13533.2 | 14376.5 | 15475.5 | 14963.2 | 12787.1 | 12451.7 | 12176.6 | 13287.7 | 14721.6 | 18847.4 |
| 62.5° | 13615.3 | 13744.1 | 14894.7 | 16025.8 | 16868.6 | 14945.7 | 14610.8 | 14214.2 | 15456.6 | 16794.2 | 20179.2 |
| 65° | 12879.4 | 13132.2 | 14814.0 | 16501.6 | 18537.3 | 18444.9 | 18294.3 | 17597.7 | 18168.4 | 18431.8 | 19698.0 |
| 67.5° | 10841.8 | 11100.9 | 13059.3 | 16057.8 | 19728.7 | 21820.2 | 21852.3 | 20662.4 | 19837.0 | 18572.3 | 16561.4 |
| 70° | 7724.6 | 7927.8 | 9548.4 | 13463.2 | 18821.2 | 24025.5 | 24135.4 | 22074.4 | 19504.6 | 16470.5 | 11570.9 |
| 72.5° | 3667.4 | 3791.8 | 5325.9 | 8762.4 | 14935.5 | 22013.2 | 22225.6 | 20271.6 | 16584.7 | 12194.1 | 6312.1 |
| 75° | 1347.9 | 1385.8 | 1799.9 | 3727.7 | 8662.8 | 16233.8 | 16484.1 | 14531.6 | 10994.0 | 6071.0 | 2404.6 |
| 77.5° | 807.9 | 832.6 | 1010.1 | 1573.4 | 3407.4 | 9279.1 | 9649.0 | 7903.0 | 4804.8 | 2259.7 | 1182.6 |
| 80° | 564.8 | 582.3 | 724.2 | 978.9 | 1609.9 | 3536.2 | 3865.2 | 3225.6 | 1914.1 | 1430.0 | 860.3 |
| 82.5° | 382.1 | 390.8 | 509.4 | 661.5 | 1069.8 | 1262.8 | 1362.5 | 1434.4 | 1291.0 | 1064.0 | 545.9 |
| 85° | 250.3 | 259.1 | 345.6 | 436.0 | 680.5 | 652.8 | 667.4 | 844.3 | 942.5 | 722.8 | 302.8 |
| 87.5° | 143.4 | 149.2 | 208.0 | 232.8 | 333.9 | 276.6 | 279.5 | 444.8 | 603.2 | 487.5 | 184.2 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 | 3490.5 |
| 2.5° | 3477.4 | 3458.4 | 3416.1 | 3389.4 | 3364.6 | 3358.8 | 3348.5 | 3347.1 | 3345.6 | 3345.6 | 3341.3 |
| 5° | 3399.6 | 3367.5 | 3301.9 | 3264.9 | 3234.3 | 3231.4 | 3229.9 | 3237.2 | 3240.2 | 3243.1 | 3238.7 |
| 7.5° | 3350.0 | 3306.3 | 3224.1 | 3171.6 | 3135.2 | 3125.9 | 3141.0 | 3174.5 | 3196.4 | 3205.2 | 3200.8 |
| 10° | 3319.4 | 3264.9 | 3170.2 | 3112.8 | 3082.2 | 3077.8 | 3096.8 | 3136.6 | 3181.8 | 3199.3 | 3197.9 |
| 12.5° | 3284.4 | 3222.7 | 3121.5 | 3061.8 | 3044.3 | 3053.0 | 3077.8 | 3114.3 | 3161.4 | 3189.1 | 3190.6 |
| 15° | 3248.9 | 3177.4 | 3073.4 | 3020.9 | 3013.6 | 3025.3 | 3048.6 | 3076.3 | 3112.8 | 3141.0 | 3143.9 |
| 17.5° | 3206.6 | 3131.8 | 3028.2 | 2973.8 | 2968.0 | 2973.8 | 2975.2 | 2989.8 | 3013.6 | 3039.9 | 3047.2 |
| 20° | 3161.4 | 3085.1 | 2976.7 | 2922.7 | 2896.5 | 2873.2 | 2846.4 | 2849.3 | 2856.6 | 2883.4 | 2889.2 |
| 22.5° | 3128.8 | 3053.0 | 2937.3 | 2862.5 | 2792.5 | 2722.0 | 2669.5 | 2662.2 | 2665.1 | 2687.0 | 2694.3 |
| 25° | 3131.8 | 3051.6 | 2927.1 | 2798.3 | 2644.7 | 2531.9 | 2461.5 | 2449.8 | 2448.3 | 2464.4 | 2475.1 |
| 27.5° | 3189.1 | 3108.4 | 2965.0 | 2732.2 | 2483.8 | 2316.6 | 2242.2 | 2233.5 | 2221.8 | 2226.2 | 2237.9 |
| 30° | 3316.5 | 3241.6 | 3057.4 | 2665.1 | 2309.3 | 2106.1 | 2028.4 | 2019.6 | 2003.6 | 1996.3 | 2005.0 |
| 32.5° | 3524.0 | 3462.8 | 3192.0 | 2600.5 | 2135.3 | 1925.8 | 1847.1 | 1828.1 | 1817.9 | 1809.2 | 1816.4 |
| 35° | 3869.6 | 3843.4 | 3371.9 | 2530.5 | 1981.7 | 1786.8 | 1715.3 | 1686.2 | 1671.6 | 1687.6 | 1699.3 |
| 37.5° | 4411.1 | 4425.7 | 3607.6 | 2420.6 | 1863.1 | 1694.9 | 1634.7 | 1601.1 | 1579.2 | 1592.4 | 1605.5 |
| 40° | 5178.1 | 5188.3 | 3868.2 | 2265.6 | 1760.5 | 1640.5 | 1576.3 | 1545.7 | 1514.6 | 1491.3 | 1489.8 |
| 42.5° | 6184.8 | 6081.2 | 4124.3 | 2097.4 | 1641.9 | 1607.0 | 1535.5 | 1497.1 | 1450.4 | 1385.8 | 1372.7 |
| 45° | 7379.0 | 7015.0 | 4318.7 | 1903.9 | 1508.8 | 1566.1 | 1489.8 | 1437.3 | 1363.9 | 1293.9 | 1286.6 |
| 47.5° | 8755.1 | 8017.3 | 4414.0 | 1703.7 | 1384.3 | 1505.8 | 1434.4 | 1350.8 | 1258.4 | 1223.4 | 1219.1 |
| 50° | 10435.0 | 9207.2 | 4459.2 | 1508.8 | 1276.4 | 1427.1 | 1353.7 | 1255.5 | 1178.2 | 1170.9 | 1166.6 |
| 52.5° | 12348.2 | 10638.6 | 4474.3 | 1349.3 | 1187.0 | 1324.5 | 1288.1 | 1192.8 | 1131.1 | 1137.4 | 1137.4 |
| 55° | 14350.3 | 12116.8 | 4275.0 | 1233.6 | 1104.8 | 1219.1 | 1243.9 | 1168.0 | 1116.5 | 1140.3 | 1149.1 |
| 57.5° | 16188.1 | 13426.7 | 3648.5 | 1144.7 | 1027.6 | 1138.9 | 1227.8 | 1191.4 | 1156.4 | 1251.1 | 1257.0 |
| 60° | 17599.2 | 14200.6 | 2724.9 | 1064.0 | 970.2 | 1110.7 | 1270.6 | 1280.8 | 1289.5 | 1516.1 | 1547.2 |
| 62.5° | 17894.7 | 13943.4 | 1873.3 | 1001.3 | 944.0 | 1134.5 | 1347.9 | 1349.3 | 1339.1 | 1497.1 | 1516.1 |
| 65° | 16538.1 | 12314.1 | 1362.5 | 965.8 | 922.1 | 1176.8 | 1414.0 | 1382.9 | 1315.8 | 1435.9 | 1400.4 |
| 67.5° | 13133.6 | 9277.6 | 1134.5 | 939.6 | 890.0 | 1173.9 | 1484.0 | 1414.0 | 1302.7 | 1406.7 | 1349.3 |
| 70° | 8525.2 | 5609.7 | 1010.1 | 917.7 | 851.6 | 1118.0 | 1524.8 | 1411.1 | 1264.3 | 1308.5 | 1240.9 |
| 72.5° | 4159.3 | 2508.6 | 926.5 | 885.6 | 812.2 | 1040.7 | 1523.3 | 1384.3 | 1224.9 | 1222.0 | 1185.5 |
| 75° | 1627.4 | 1149.1 | 850.1 | 837.0 | 745.1 | 952.7 | 1482.5 | 1346.4 | 1178.2 | 1131.1 | 1118.0 |
| 77.5° | 952.7 | 819.5 | 753.9 | 765.6 | 664.5 | 864.7 | 1422.7 | 1280.8 | 1113.6 | 1058.2 | 1043.6 |
| 80° | 693.6 | 613.4 | 642.6 | 661.5 | 567.7 | 777.2 | 1342.0 | 1200.1 | 1042.1 | 1069.8 | 1049.4 |
| 82.5° | 444.8 | 395.2 | 521.1 | 540.0 | 472.9 | 687.8 | 1254.1 | 1115.0 | 941.0 | 854.5 | 834.1 |
| 85° | 227.0 | 250.3 | 387.9 | 411.2 | 364.6 | 564.8 | 1147.6 | 1002.8 | 826.8 | 711.1 | 722.8 |
| 87.5° | 127.4 | 171.1 | 247.4 | 276.6 | 257.6 | 434.5 | 930.8 | 826.8 | 674.7 | 548.8 | 483.2 |
| 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)