

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: STREETWORKS

Report Number: P299191

Luminaire Tested: **GAA-AF-07-LED-U-T3-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24140)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-07-LED-U-T3-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29457.3 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

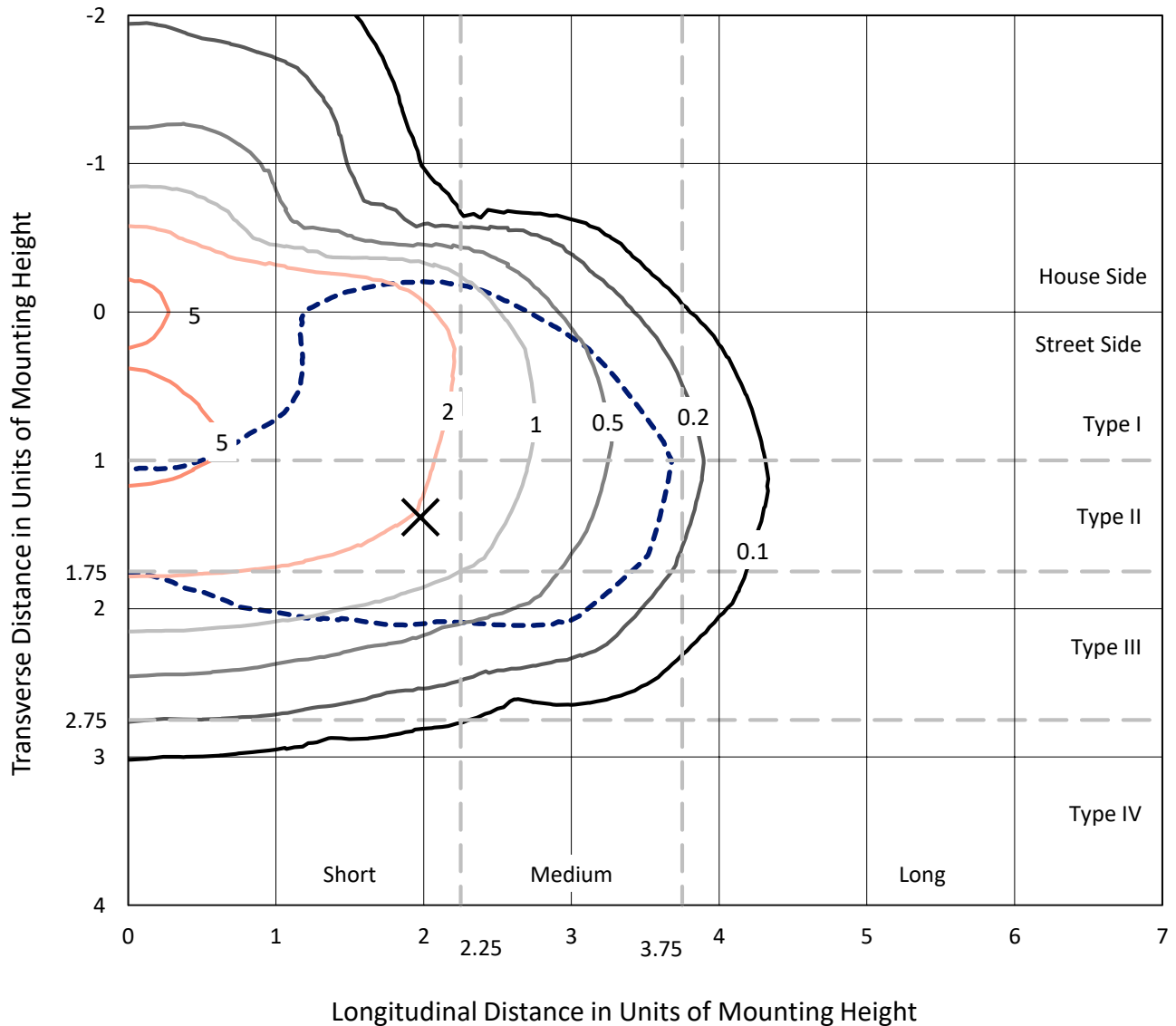
Input Watts (W): 295
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

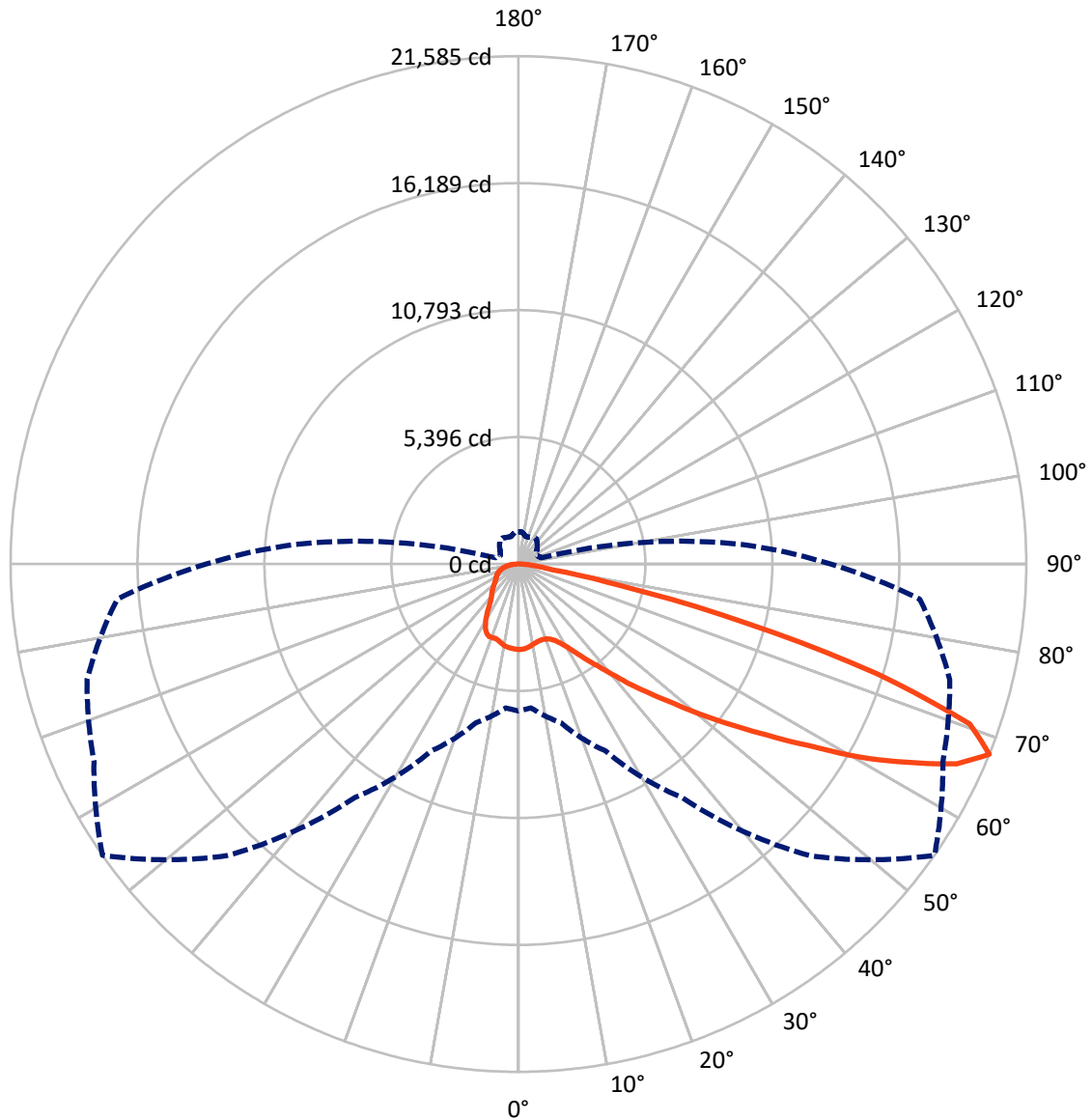
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6363.4 | 0.0 | 6363.4 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 23093.9 | 0.0 | 23093.9 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 29457.3 | 0.0 | 29457.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 339.0 | 1.2 |
| 10°-20° | 960.2 | 3.3 |
| 20°-30° | 1608.5 | 5.5 |
| 30°-40° | 2645.1 | 9.0 |
| 40°-50° | 4452.5 | 15.1 |
| 50°-60° | 7007.9 | 23.8 |
| 60°-70° | 8363.2 | 28.4 |
| 70°-80° | 3591.3 | 12.2 |
| 80°-90° | 489.6 | 1.7 |
| 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° | 29457.3 | 100.0 |
| 0°-180° | 29457.3 | 100.0 |



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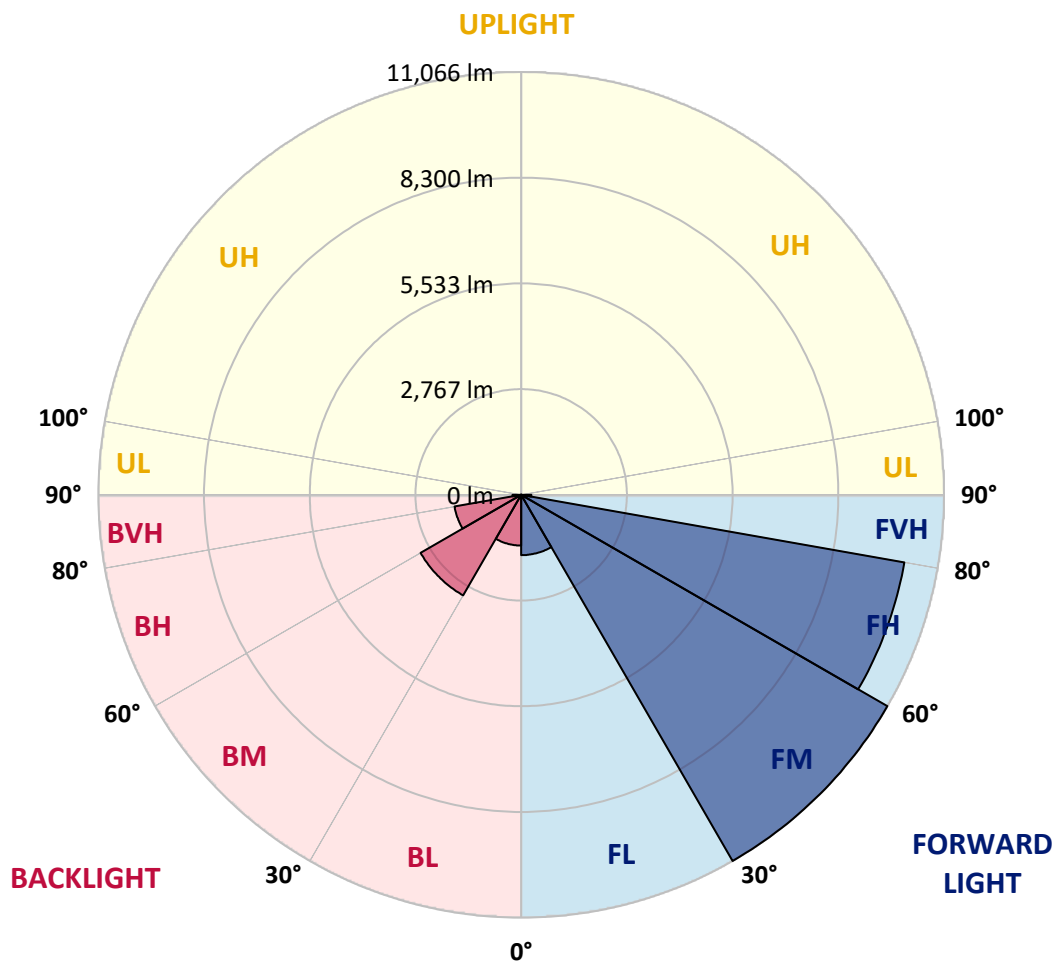
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1579.0 | 5.4 | | | |
| FM | (30°-60°) | 11066.3 | 37.6 | | | |
| FH | (60°-80°) | 10183.5 | 34.6 | | | G4/12000 |
| FVH | (80°-90°) | 265.0 | 0.9 | | | G3/500 |
| BL | (0°-30°) | 1328.8 | 4.5 | B3/2500 | | |
| BM | (30°-60°) | 3039.1 | 10.3 | B3/5000 | | |
| BH | (60°-80°) | 1770.9 | 6.0 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 224.6 | 0.8 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 |
| 2.5° | 3601.1 | 3602.5 | 3605.4 | 3616.8 | 3626.7 | 3623.9 | 3625.3 | 3619.6 | 3618.2 | 3609.6 | 3618.2 |
| 5° | 3555.6 | 3559.8 | 3561.3 | 3579.8 | 3591.1 | 3594.0 | 3589.7 | 3582.6 | 3574.1 | 3565.5 | 3569.8 |
| 7.5° | 3451.7 | 3463.1 | 3464.5 | 3490.1 | 3508.6 | 3532.8 | 3534.2 | 3535.7 | 3531.4 | 3525.7 | 3534.2 |
| 10° | 3386.3 | 3389.1 | 3387.7 | 3406.2 | 3420.4 | 3447.4 | 3463.1 | 3490.1 | 3501.5 | 3504.4 | 3510.0 |
| 12.5° | 3382.0 | 3379.2 | 3374.9 | 3374.9 | 3370.6 | 3382.0 | 3410.5 | 3448.9 | 3475.9 | 3484.4 | 3491.6 |
| 15° | 3427.5 | 3426.1 | 3411.9 | 3390.5 | 3363.5 | 3355.0 | 3379.2 | 3421.8 | 3457.4 | 3475.9 | 3483.0 |
| 17.5° | 3530.0 | 3521.4 | 3498.7 | 3450.3 | 3392.0 | 3369.2 | 3372.0 | 3407.6 | 3448.9 | 3473.1 | 3480.2 |
| 20° | 3717.8 | 3717.8 | 3669.4 | 3578.3 | 3474.5 | 3420.4 | 3394.8 | 3416.1 | 3456.0 | 3488.7 | 3498.7 |
| 22.5° | 4042.2 | 4045.0 | 3963.9 | 3814.5 | 3639.5 | 3524.3 | 3460.3 | 3456.0 | 3502.9 | 3539.9 | 3551.3 |
| 25° | 4501.7 | 4490.4 | 4376.5 | 4163.1 | 3897.1 | 3706.4 | 3595.4 | 3569.8 | 3609.6 | 3650.9 | 3665.1 |
| 27.5° | 5036.7 | 4995.5 | 4860.3 | 4602.8 | 4258.4 | 3979.6 | 3808.8 | 3767.6 | 3806.0 | 3852.9 | 3867.2 |
| 30° | 5566.0 | 5523.3 | 5362.5 | 5080.8 | 4698.1 | 4345.2 | 4100.5 | 4033.6 | 4087.7 | 4154.6 | 4163.1 |
| 32.5° | 6095.3 | 6095.3 | 5916.0 | 5587.3 | 5170.5 | 4782.0 | 4488.9 | 4409.3 | 4498.9 | 4580.0 | 4598.5 |
| 35° | 6728.4 | 6731.3 | 6557.7 | 6162.2 | 5714.0 | 5302.8 | 4979.8 | 4921.5 | 5056.6 | 5113.5 | 5157.7 |
| 37.5° | 7506.7 | 7522.3 | 7299.0 | 6820.9 | 6330.0 | 5897.5 | 5513.4 | 5433.7 | 5568.8 | 5723.9 | 5866.2 |
| 40° | 8347.6 | 8367.5 | 8121.3 | 7532.3 | 7041.4 | 6589.0 | 6173.5 | 6029.8 | 6254.6 | 6550.6 | 6734.1 |
| 42.5° | 9150.0 | 9252.5 | 9014.9 | 8408.8 | 7880.9 | 7412.8 | 6991.6 | 6782.5 | 7064.2 | 7511.0 | 7670.3 |
| 45° | 10309.6 | 10383.6 | 9969.6 | 9420.4 | 8923.8 | 8400.2 | 7842.5 | 7621.9 | 8016.1 | 8579.5 | 8612.2 |
| 47.5° | 11082.2 | 11026.7 | 10816.1 | 10474.7 | 10160.2 | 9670.8 | 8831.3 | 8589.4 | 9113.0 | 9776.1 | 9592.5 |
| 50° | 11493.4 | 11510.5 | 11482.0 | 11501.9 | 11513.3 | 11206.0 | 10043.6 | 9712.0 | 10336.6 | 11137.7 | 10715.1 |
| 52.5° | 11877.5 | 11763.7 | 11857.6 | 12324.3 | 12887.7 | 12773.9 | 11362.5 | 11016.7 | 11648.5 | 12648.7 | 11901.7 |
| 55° | 11869.0 | 11695.4 | 12001.3 | 12825.1 | 14047.3 | 14178.2 | 12843.6 | 12445.2 | 13035.7 | 14269.3 | 13159.5 |
| 57.5° | 11449.3 | 11457.8 | 11928.8 | 13007.2 | 14855.5 | 15498.6 | 14562.4 | 13964.8 | 14506.9 | 15911.2 | 14307.7 |
| 60° | 10871.6 | 10949.9 | 11628.6 | 12977.4 | 15502.8 | 16581.3 | 16671.0 | 15602.4 | 15948.2 | 17403.7 | 15258.1 |
| 62.5° | 9939.7 | 10022.2 | 10958.4 | 12667.2 | 15404.7 | 17624.2 | 18577.5 | 17460.6 | 17454.9 | 18308.6 | 15537.0 |
| 65° | 8469.9 | 8445.7 | 9428.9 | 11507.6 | 14580.9 | 18395.4 | 20471.3 | 19067.0 | 18590.3 | 18322.8 | 14976.4 |
| 67.5° | 6246.1 | 6138.0 | 6981.7 | 8764.5 | 12119.4 | 17531.8 | 21585.3 | 19903.6 | 18977.3 | 17117.7 | 13263.4 |
| 70° | 3241.1 | 3133.0 | 3816.0 | 5117.8 | 7970.5 | 13683.1 | 20351.7 | 19471.0 | 18122.2 | 14348.9 | 10390.7 |
| 72.5° | 1385.8 | 1367.3 | 1644.8 | 2245.2 | 3855.8 | 7892.3 | 15958.1 | 16853.1 | 15549.8 | 10690.9 | 7143.9 |
| 75° | 931.9 | 926.2 | 1030.1 | 1223.6 | 1734.4 | 3202.7 | 9986.6 | 11962.9 | 11376.7 | 6628.8 | 4018.0 |
| 77.5° | 731.3 | 724.2 | 785.4 | 879.3 | 1124.0 | 1263.4 | 4432.0 | 6422.5 | 5944.5 | 2885.4 | 1758.6 |
| 80° | 572.0 | 566.3 | 604.7 | 655.9 | 808.2 | 796.8 | 1458.4 | 2555.4 | 1977.7 | 1105.5 | 855.1 |
| 82.5° | 451.0 | 451.0 | 482.3 | 483.8 | 573.4 | 543.5 | 761.2 | 1125.4 | 987.4 | 644.5 | 523.6 |
| 85° | 412.6 | 412.6 | 445.3 | 361.4 | 374.2 | 342.9 | 472.4 | 667.3 | 626.0 | 264.6 | 227.6 |
| 87.5° | 207.7 | 202.0 | 374.2 | 320.1 | 203.5 | 182.1 | 230.5 | 323.0 | 347.2 | 146.5 | 113.8 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 | 3632.4 |
| 2.5° | 3615.3 | 3613.9 | 3616.8 | 3618.2 | 3629.6 | 3645.2 | 3652.3 | 3662.3 | 3668.0 | 3665.1 |
| 5° | 3572.7 | 3575.5 | 3586.9 | 3595.4 | 3615.3 | 3640.9 | 3655.2 | 3666.6 | 3676.5 | 3672.2 |
| 7.5° | 3537.1 | 3544.2 | 3561.3 | 3568.4 | 3579.8 | 3586.9 | 3585.5 | 3589.7 | 3598.3 | 3588.3 |
| 10° | 3517.2 | 3525.7 | 3538.5 | 3528.5 | 3501.5 | 3463.1 | 3427.5 | 3409.0 | 3414.7 | 3407.6 |
| 12.5° | 3497.2 | 3508.6 | 3498.7 | 3451.7 | 3376.3 | 3326.5 | 3299.5 | 3302.3 | 3315.1 | 3318.0 |
| 15° | 3485.9 | 3490.1 | 3447.4 | 3359.2 | 3282.4 | 3275.3 | 3289.5 | 3286.7 | 3288.1 | 3288.1 |
| 17.5° | 3485.9 | 3474.5 | 3394.8 | 3306.6 | 3273.9 | 3261.1 | 3217.0 | 3161.5 | 3137.3 | 3128.7 |
| 20° | 3504.4 | 3474.5 | 3377.7 | 3319.4 | 3248.3 | 3138.7 | 3022.0 | 2919.6 | 2874.1 | 2861.3 |
| 22.5° | 3559.8 | 3508.6 | 3426.1 | 3325.1 | 3123.0 | 2939.5 | 2754.5 | 2632.2 | 2549.7 | 2535.4 |
| 25° | 3672.2 | 3615.3 | 3521.4 | 3249.7 | 2923.9 | 2662.1 | 2451.5 | 2314.9 | 2232.4 | 2221.0 |
| 27.5° | 3868.6 | 3831.6 | 3572.7 | 3083.2 | 2659.2 | 2378.9 | 2184.0 | 2078.7 | 2017.5 | 2013.3 |
| 30° | 4164.5 | 4146.0 | 3547.0 | 2837.1 | 2333.4 | 2104.3 | 2010.4 | 1949.2 | 1903.7 | 1902.3 |
| 32.5° | 4636.9 | 4487.5 | 3463.1 | 2536.9 | 2036.0 | 1909.4 | 1871.0 | 1834.0 | 1798.4 | 1798.4 |
| 35° | 5244.4 | 4763.5 | 3303.7 | 2215.3 | 1855.3 | 1801.3 | 1752.9 | 1694.6 | 1647.6 | 1644.8 |
| 37.5° | 5958.7 | 4934.3 | 3017.8 | 1956.4 | 1770.0 | 1728.7 | 1657.6 | 1570.8 | 1488.2 | 1474.0 |
| 40° | 6680.1 | 4985.5 | 2615.1 | 1797.0 | 1715.9 | 1656.1 | 1569.3 | 1466.9 | 1387.2 | 1383.0 |
| 42.5° | 7341.7 | 4887.3 | 2188.3 | 1687.4 | 1661.8 | 1582.2 | 1491.1 | 1400.0 | 1337.4 | 1336.0 |
| 45° | 7896.5 | 4632.6 | 1829.7 | 1583.6 | 1604.9 | 1515.3 | 1434.2 | 1360.2 | 1311.8 | 1301.9 |
| 47.5° | 8418.7 | 4272.7 | 1577.9 | 1474.0 | 1548.0 | 1478.3 | 1410.0 | 1340.3 | 1293.3 | 1286.2 |
| 50° | 9024.8 | 3884.2 | 1401.5 | 1367.3 | 1498.2 | 1465.5 | 1429.9 | 1357.4 | 1279.1 | 1270.6 |
| 52.5° | 9759.0 | 3548.5 | 1263.4 | 1273.4 | 1459.8 | 1482.6 | 1481.1 | 1405.7 | 1269.1 | 1257.8 |
| 55° | 10578.5 | 3175.7 | 1159.6 | 1196.6 | 1444.1 | 1513.9 | 1493.9 | 1451.3 | 1277.7 | 1260.6 |
| 57.5° | 11385.3 | 2740.3 | 1087.0 | 1138.2 | 1421.4 | 1511.0 | 1432.8 | 1371.6 | 1297.6 | 1273.4 |
| 60° | 11989.9 | 2155.5 | 1031.5 | 1087.0 | 1371.6 | 1464.1 | 1365.9 | 1284.8 | 1293.3 | 1274.8 |
| 62.5° | 12029.8 | 1666.1 | 964.7 | 1042.9 | 1296.2 | 1417.1 | 1321.8 | 1246.4 | 1311.8 | 1294.7 |
| 65° | 11322.6 | 1259.2 | 900.6 | 990.3 | 1215.1 | 1387.2 | 1279.1 | 1225.0 | 1350.2 | 1331.7 |
| 67.5° | 9532.8 | 1013.0 | 846.6 | 936.2 | 1134.0 | 1324.6 | 1240.7 | 1205.1 | 1384.4 | 1351.7 |
| 70° | 6882.1 | 863.6 | 793.9 | 870.8 | 1061.4 | 1253.5 | 1206.5 | 1169.5 | 1291.9 | 1240.7 |
| 72.5° | 4237.1 | 748.4 | 734.2 | 784.0 | 1005.9 | 1179.5 | 1155.3 | 1102.7 | 1163.9 | 1122.6 |
| 75° | 2115.7 | 648.8 | 667.3 | 698.6 | 927.7 | 1095.6 | 1069.9 | 1017.3 | 1025.8 | 1017.3 |
| 77.5° | 1013.0 | 554.9 | 589.0 | 613.2 | 826.6 | 1000.2 | 973.2 | 919.1 | 909.2 | 910.6 |
| 80° | 641.7 | 463.8 | 496.6 | 513.6 | 738.4 | 889.3 | 862.2 | 808.2 | 922.0 | 855.1 |
| 82.5° | 401.2 | 377.0 | 385.6 | 416.9 | 643.1 | 774.0 | 738.4 | 690.1 | 830.9 | 657.3 |
| 85° | 222.0 | 263.2 | 274.6 | 301.6 | 495.1 | 647.4 | 611.8 | 550.6 | 493.7 | 485.2 |
| 87.5° | 132.3 | 156.5 | 160.8 | 180.7 | 332.9 | 468.1 | 414.0 | 392.7 | 325.8 | 324.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)