

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: P300451

Luminaire Tested: **GLNA-AF-07-LED-E1-AFL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300451
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)
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-AFL-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24638.3 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 226
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

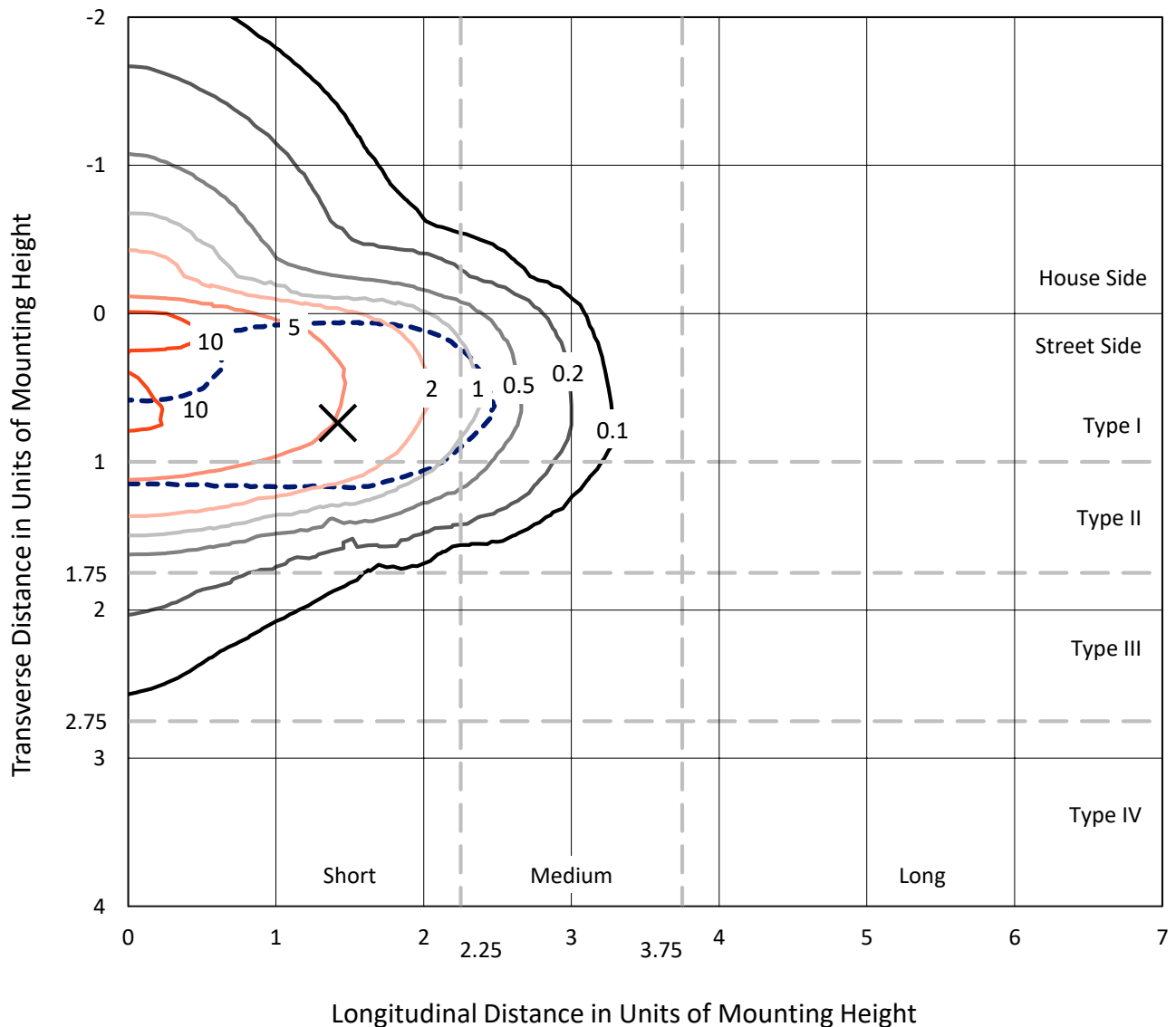


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Iso-Footcandle Lines of Horizontal Illumination

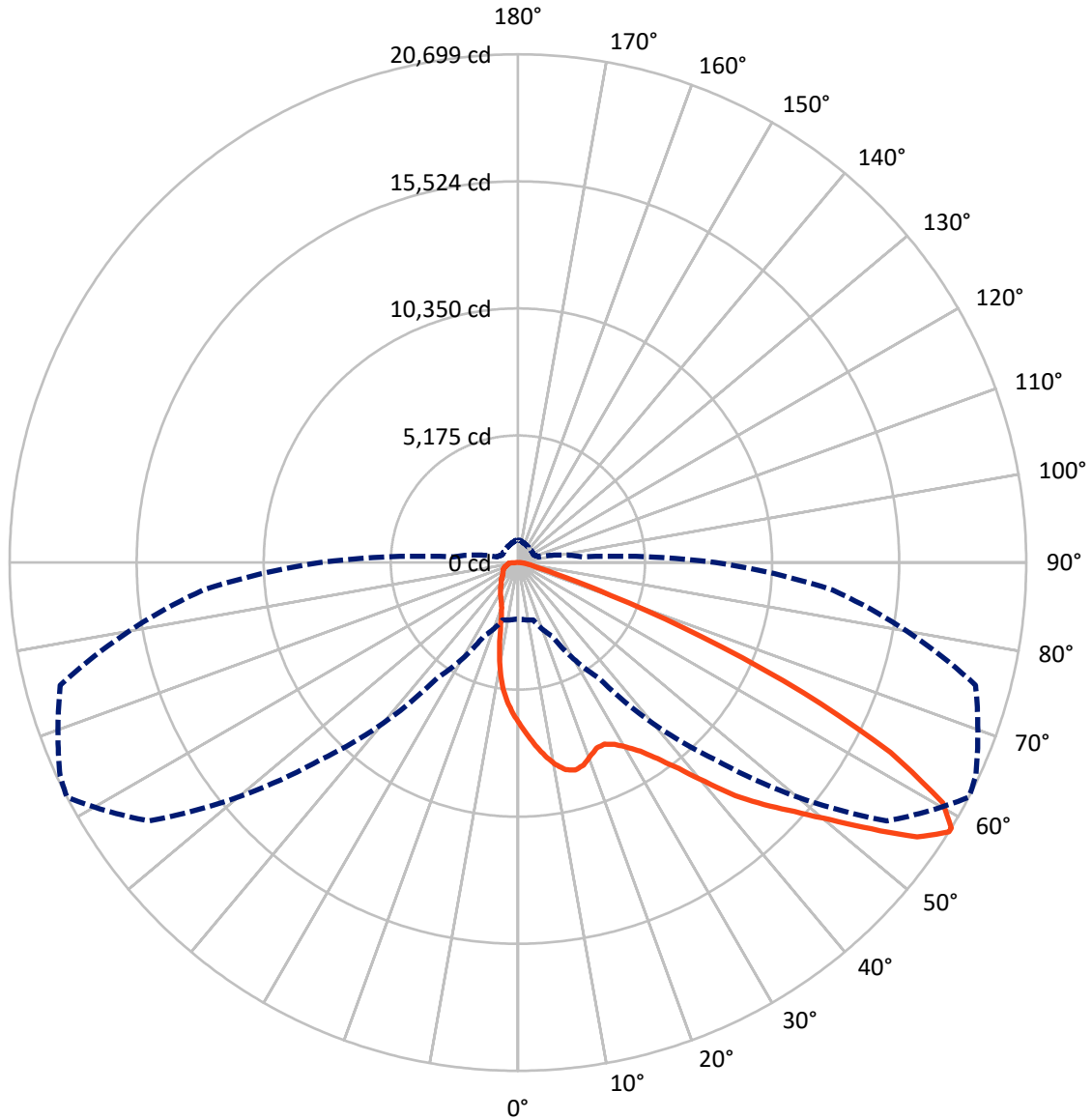
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3757.4 | 0.0 | 3757.4 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 20880.8 | 0.0 | 20880.8 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 24638.3 | 0.0 | 24638.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 585.3 | 2.4 |
| 10°-20° | 1496.2 | 6.1 |
| 20°-30° | 2418.6 | 9.8 |
| 30°-40° | 3839.5 | 15.6 |
| 40°-50° | 5618.0 | 22.8 |
| 50°-60° | 5876.0 | 23.8 |
| 60°-70° | 3471.5 | 14.1 |
| 70°-80° | 978.0 | 4.0 |
| 80°-90° | 355.0 | 1.4 |
| 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° | 24638.3 | 100.0 |
| 0°-180° | 24638.3 | 100.0 |

Coefficient of Utilization



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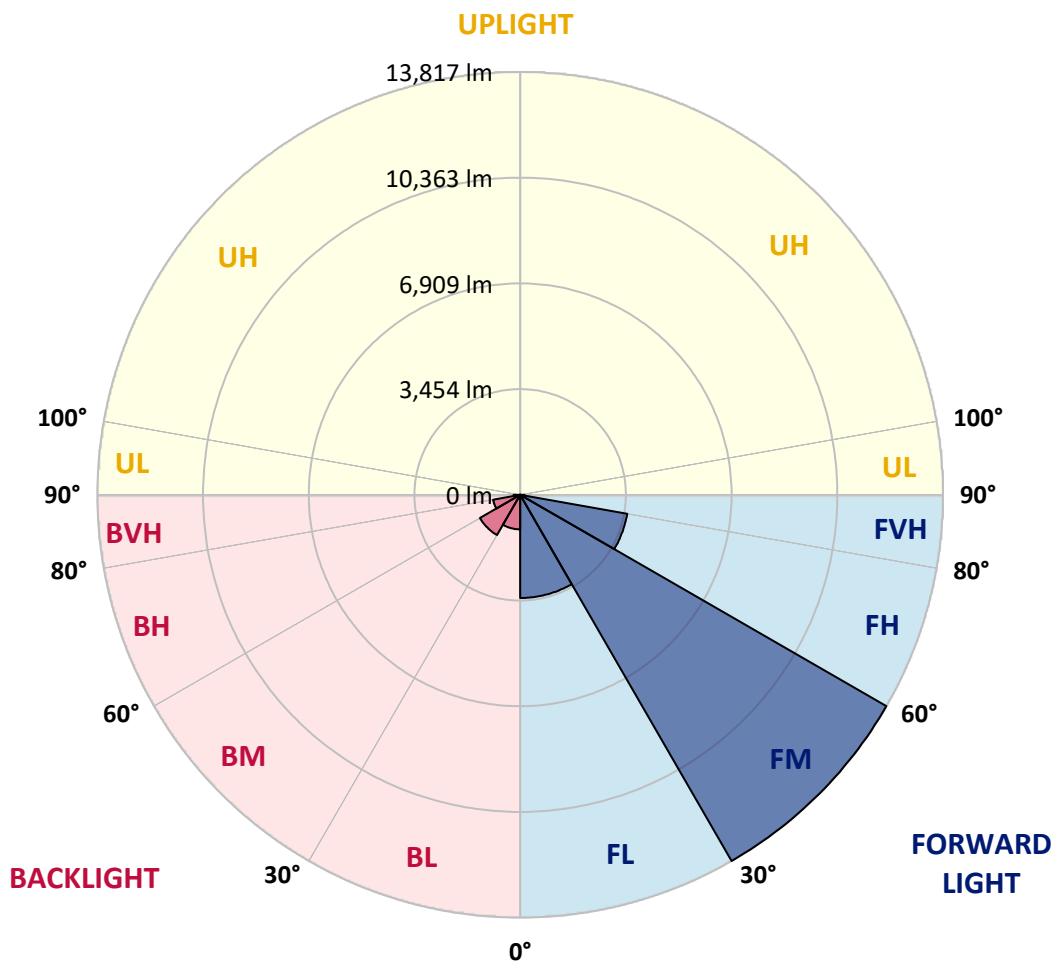
CATALOG NUMBER: GLNA-AF-07-LED-E1-AFL-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3370.8 | 13.7 | | | |
| FM (30°-60°) | 13817.0 | 56.1 | | | |
| FH (60°-80°) | 3552.9 | 14.4 | | | G2/5000 |
| FVH (80°-90°) | 140.1 | 0.6 | | | G2/225 |
| BL (0°-30°) | 1129.3 | 4.6 | B3/2500 | | |
| BM (30°-60°) | 1516.6 | 6.2 | B2/2500 | | |
| BH (60°-80°) | 896.6 | 3.6 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 215.0 | 0.9 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 |
| 2.5° | 7478.6 | 7418.3 | 7380.0 | 7346.3 | 7302.3 | 7208.3 | 7081.8 | 7001.8 | 6961.2 | 6823.1 | 6659.5 |
| 5° | 8211.8 | 8158.5 | 8119.0 | 8073.8 | 7994.9 | 7847.5 | 7643.4 | 7480.9 | 7400.9 | 7124.7 | 6797.6 |
| 7.5° | 8040.1 | 8062.2 | 8130.6 | 8250.1 | 8352.2 | 8332.5 | 8150.4 | 7943.8 | 7838.3 | 7454.2 | 6957.7 |
| 10° | 7005.2 | 7043.5 | 7161.9 | 7441.5 | 7894.0 | 8358.0 | 8499.6 | 8356.9 | 8250.1 | 7780.3 | 7122.4 |
| 12.5° | 6797.6 | 6796.4 | 6805.7 | 6879.9 | 7149.1 | 7802.3 | 8511.2 | 8655.0 | 8591.2 | 8091.2 | 7290.7 |
| 15° | 6882.3 | 6884.6 | 6877.6 | 6909.0 | 6992.5 | 7251.2 | 8156.2 | 8769.9 | 8815.2 | 8404.4 | 7464.7 |
| 17.5° | 7105.0 | 7099.2 | 7072.5 | 7072.5 | 7102.7 | 7203.6 | 7738.5 | 8663.2 | 8872.0 | 8681.7 | 7617.8 |
| 20° | 7478.6 | 7451.9 | 7381.2 | 7316.2 | 7283.7 | 7338.2 | 7566.8 | 8417.2 | 8773.4 | 8924.2 | 7744.3 |
| 22.5° | 7931.1 | 7910.2 | 7795.3 | 7656.1 | 7543.6 | 7542.4 | 7655.0 | 8202.6 | 8602.8 | 9152.8 | 7851.0 |
| 25° | 8515.8 | 8482.2 | 8311.6 | 8088.9 | 7891.6 | 7816.2 | 7847.5 | 8192.1 | 8510.0 | 9401.0 | 7946.2 |
| 27.5° | 9202.7 | 9141.2 | 8939.3 | 8617.9 | 8327.9 | 8175.9 | 8130.6 | 8381.2 | 8594.7 | 9708.5 | 8078.4 |
| 30° | 10035.7 | 9964.9 | 9706.2 | 9287.3 | 8877.8 | 8628.4 | 8532.1 | 8716.5 | 8875.5 | 10083.2 | 8290.7 |
| 32.5° | 10983.6 | 10881.5 | 10582.1 | 10120.4 | 9582.0 | 9201.5 | 9044.9 | 9159.7 | 9286.2 | 10534.6 | 8556.4 |
| 35° | 12293.4 | 12171.6 | 11738.8 | 11101.9 | 10494.0 | 9970.7 | 9720.1 | 9803.6 | 9926.6 | 11207.5 | 8940.5 |
| 37.5° | 13186.8 | 13132.2 | 12844.5 | 12245.8 | 11584.5 | 10982.4 | 10594.9 | 10643.6 | 10713.2 | 12048.6 | 9432.4 |
| 40° | 13178.6 | 13200.7 | 13206.5 | 13212.3 | 12762.1 | 12185.5 | 11769.0 | 11718.0 | 11704.0 | 12972.1 | 9991.6 |
| 42.5° | 12518.5 | 12609.0 | 12901.4 | 13494.2 | 13768.0 | 13503.5 | 13121.8 | 12974.4 | 12901.4 | 14060.4 | 10584.4 |
| 45° | 11508.0 | 11556.7 | 12104.3 | 13262.2 | 14283.1 | 14808.7 | 14519.8 | 14055.7 | 13923.5 | 15060.5 | 11076.4 |
| 47.5° | 10987.0 | 11040.4 | 11385.0 | 12647.3 | 14277.3 | 15863.3 | 16030.4 | 15146.3 | 14909.6 | 15930.6 | 11501.0 |
| 50° | 9746.8 | 9858.2 | 10292.1 | 11577.6 | 13756.4 | 16348.3 | 17609.4 | 16445.7 | 15956.1 | 16777.6 | 11926.8 |
| 52.5° | 7469.3 | 7641.0 | 8127.2 | 9818.7 | 12435.0 | 16108.1 | 18872.9 | 18021.3 | 17329.8 | 17654.7 | 12292.3 |
| 55° | 4711.5 | 4839.2 | 5247.6 | 6934.5 | 9947.5 | 14858.6 | 19352.0 | 19725.6 | 19110.7 | 18485.4 | 12609.0 |
| 57.5° | 2561.7 | 2618.6 | 2771.7 | 3828.6 | 6470.4 | 12096.2 | 18653.6 | 20695.5 | 20440.3 | 19190.8 | 12848.0 |
| 58° | 2292.5 | 2330.8 | 2426.0 | 3318.2 | 5738.3 | 11340.9 | 18343.8 | 20699.0 | 20571.4 | 19294.0 | 12866.5 |
| 60° | 1700.8 | 1681.1 | 1596.4 | 1893.4 | 3194.0 | 7834.8 | 16471.3 | 19870.6 | 20245.4 | 19420.5 | 12776.1 |
| 62.5° | 1494.3 | 1446.8 | 1273.9 | 1254.2 | 1553.5 | 3609.4 | 12603.2 | 17021.2 | 17906.4 | 18698.8 | 12226.1 |
| 65° | 1403.8 | 1352.8 | 1130.0 | 1058.1 | 1120.7 | 1526.8 | 7424.1 | 12765.6 | 13875.9 | 16510.7 | 10820.0 |
| 67.5° | 1336.5 | 1270.4 | 1038.4 | 939.8 | 944.4 | 1009.4 | 2975.9 | 8040.1 | 9289.7 | 12535.9 | 8416.0 |
| 70° | 1271.6 | 1199.6 | 960.6 | 846.9 | 820.3 | 798.2 | 1183.4 | 4024.7 | 5158.2 | 7918.3 | 5365.9 |
| 72.5° | 1202.0 | 1131.2 | 892.2 | 773.8 | 721.6 | 648.5 | 772.7 | 1646.3 | 2299.5 | 3746.3 | 2434.1 |
| 75° | 1101.0 | 1037.2 | 823.7 | 708.9 | 634.6 | 537.2 | 583.6 | 859.7 | 1031.4 | 1492.0 | 1173.0 |
| 77.5° | 976.9 | 924.7 | 747.2 | 655.5 | 562.7 | 436.2 | 449.0 | 596.3 | 661.3 | 853.9 | 697.3 |
| 80° | 701.9 | 720.5 | 664.8 | 589.4 | 501.2 | 353.9 | 344.6 | 435.1 | 469.9 | 548.8 | 453.6 |
| 82.5° | 493.1 | 503.5 | 549.9 | 481.5 | 414.2 | 278.4 | 254.1 | 306.3 | 327.2 | 360.8 | 244.8 |
| 85° | 339.9 | 328.3 | 377.1 | 335.3 | 299.3 | 185.6 | 174.0 | 207.7 | 220.4 | 223.9 | 126.5 |
| 87.5° | 204.2 | 204.2 | 218.1 | 179.8 | 161.3 | 96.3 | 94.0 | 118.3 | 126.5 | 120.7 | 69.6 |
| 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° | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 | 6544.7 |
| 2.5° | 6562.1 | 6479.7 | 6304.5 | 6164.1 | 5986.6 | 5802.1 | 5698.9 | 5588.7 | 5513.2 | 5458.7 | 5545.7 |
| 5° | 6611.9 | 6443.7 | 6081.7 | 5738.3 | 5358.9 | 4964.5 | 4665.1 | 4386.7 | 4192.9 | 4072.3 | 4186.0 |
| 7.5° | 6690.8 | 6432.1 | 5855.5 | 5268.4 | 4587.4 | 3930.7 | 3343.7 | 2975.9 | 2761.3 | 2655.7 | 2721.8 |
| 10° | 6781.3 | 6413.5 | 5589.8 | 4631.5 | 3656.9 | 2829.7 | 2391.2 | 2242.7 | 2193.9 | 2174.2 | 2183.5 |
| 12.5° | 6856.7 | 6374.1 | 5263.8 | 3861.1 | 2746.2 | 2234.5 | 2108.1 | 2104.6 | 2115.0 | 2117.4 | 2120.8 |
| 15° | 6910.1 | 6316.1 | 4780.0 | 3058.3 | 2196.2 | 2036.1 | 2029.2 | 2050.1 | 2069.8 | 2077.9 | 2082.5 |
| 17.5° | 6946.1 | 6196.6 | 4233.5 | 2417.8 | 1967.7 | 1939.8 | 1956.1 | 1982.8 | 2003.7 | 2009.5 | 2014.1 |
| 20° | 6942.6 | 6021.4 | 3582.7 | 2016.4 | 1843.5 | 1843.5 | 1871.4 | 1892.3 | 1893.4 | 1886.5 | 1890.0 |
| 22.5° | 6906.6 | 5781.2 | 2951.5 | 1802.9 | 1733.3 | 1753.1 | 1780.9 | 1761.2 | 1680.0 | 1626.6 | 1630.1 |
| 25° | 6846.3 | 5494.7 | 2410.9 | 1667.2 | 1631.2 | 1666.0 | 1657.9 | 1509.4 | 1393.4 | 1341.2 | 1341.2 |
| 27.5° | 6792.9 | 5155.9 | 1995.5 | 1548.9 | 1529.1 | 1572.1 | 1428.2 | 1293.6 | 1244.9 | 1220.5 | 1212.4 |
| 30° | 6754.6 | 4790.4 | 1718.2 | 1435.2 | 1432.8 | 1401.5 | 1239.1 | 1202.0 | 1193.8 | 1174.1 | 1167.2 |
| 32.5° | 6763.9 | 4420.3 | 1540.7 | 1335.4 | 1343.5 | 1199.6 | 1148.6 | 1156.7 | 1149.8 | 1128.9 | 1119.6 |
| 35° | 6840.5 | 4068.8 | 1424.7 | 1244.9 | 1220.5 | 1083.6 | 1095.2 | 1110.3 | 1108.0 | 1079.0 | 1069.7 |
| 37.5° | 6977.4 | 3735.8 | 1348.1 | 1169.5 | 1065.1 | 1025.6 | 1044.2 | 1067.4 | 1061.6 | 1041.9 | 1034.9 |
| 40° | 7121.3 | 3422.6 | 1285.5 | 1110.3 | 973.4 | 986.2 | 1002.4 | 1015.2 | 1021.0 | 1026.8 | 1022.1 |
| 42.5° | 7261.7 | 3095.4 | 1208.9 | 1050.0 | 935.1 | 949.0 | 956.0 | 968.8 | 1000.1 | 1022.1 | 1021.0 |
| 45° | 7345.2 | 2787.9 | 1130.0 | 964.1 | 905.0 | 913.1 | 908.4 | 934.0 | 972.2 | 1008.2 | 1009.4 |
| 47.5° | 7438.0 | 2548.9 | 1067.4 | 885.2 | 875.9 | 881.7 | 867.8 | 893.3 | 928.2 | 972.2 | 976.9 |
| 50° | 7550.5 | 2406.2 | 1017.5 | 822.6 | 836.5 | 836.5 | 833.0 | 856.2 | 905.0 | 956.0 | 965.3 |
| 52.5° | 7678.2 | 2378.4 | 975.7 | 777.3 | 797.1 | 795.9 | 799.4 | 834.2 | 887.5 | 937.4 | 945.6 |
| 55° | 7833.6 | 2453.8 | 930.5 | 743.7 | 758.8 | 763.4 | 775.0 | 814.5 | 859.7 | 916.6 | 920.0 |
| 57.5° | 8014.6 | 2607.0 | 894.5 | 717.0 | 724.0 | 739.0 | 757.6 | 793.6 | 842.3 | 905.0 | 908.4 |
| 58° | 8044.8 | 2639.4 | 888.7 | 714.7 | 717.0 | 734.4 | 755.3 | 790.1 | 838.8 | 907.3 | 910.8 |
| 60° | 8045.9 | 2747.3 | 875.9 | 704.2 | 690.3 | 719.3 | 742.5 | 777.3 | 833.0 | 915.4 | 923.5 |
| 62.5° | 7760.5 | 2746.2 | 866.7 | 689.2 | 662.5 | 698.4 | 725.1 | 765.7 | 827.2 | 935.1 | 951.4 |
| 65° | 6833.5 | 2495.6 | 822.6 | 666.0 | 640.4 | 679.9 | 710.0 | 757.6 | 843.5 | 1021.0 | 1031.4 |
| 67.5° | 5345.0 | 2045.4 | 740.2 | 633.5 | 611.4 | 661.3 | 700.8 | 756.4 | 860.9 | 1040.7 | 1047.7 |
| 70° | 3533.9 | 1530.3 | 649.7 | 596.3 | 581.3 | 639.3 | 705.4 | 795.9 | 841.1 | 998.9 | 980.4 |
| 72.5° | 1834.3 | 1074.3 | 576.6 | 549.9 | 546.5 | 619.5 | 772.7 | 791.3 | 821.4 | 939.8 | 916.6 |
| 75° | 963.0 | 746.0 | 512.8 | 498.9 | 504.7 | 614.9 | 911.9 | 770.4 | 795.9 | 899.1 | 943.2 |
| 77.5° | 589.4 | 602.1 | 458.3 | 452.5 | 464.1 | 601.0 | 910.8 | 743.7 | 758.8 | 827.2 | 875.9 |
| 80° | 394.5 | 488.4 | 416.5 | 417.7 | 425.8 | 549.9 | 817.9 | 701.9 | 713.5 | 782.0 | 831.9 |
| 82.5° | 249.4 | 288.9 | 378.2 | 397.9 | 387.5 | 453.6 | 695.0 | 639.3 | 655.5 | 894.5 | 945.6 |
| 85° | 126.5 | 181.0 | 328.3 | 382.9 | 349.2 | 317.9 | 563.9 | 560.4 | 568.5 | 645.1 | 674.1 |
| 87.5° | 58.0 | 99.8 | 256.4 | 334.1 | 263.4 | 198.4 | 409.5 | 415.3 | 447.8 | 458.3 | 458.3 |
| 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)