

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: P457857

Luminaire Tested: **GALN-SA9B-727-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P457857
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA9B-727-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 42228 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

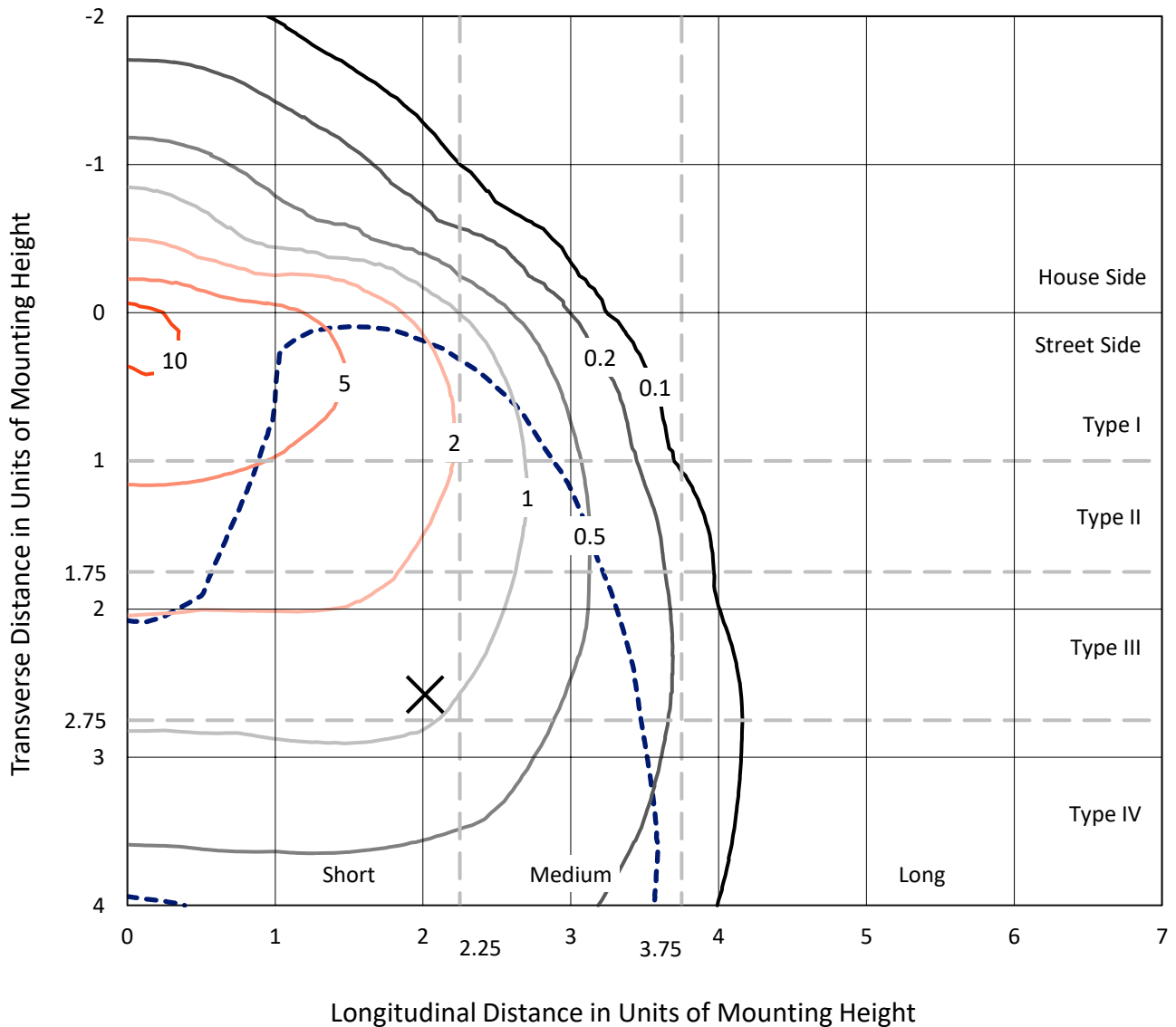
Input Watts (W): 364
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

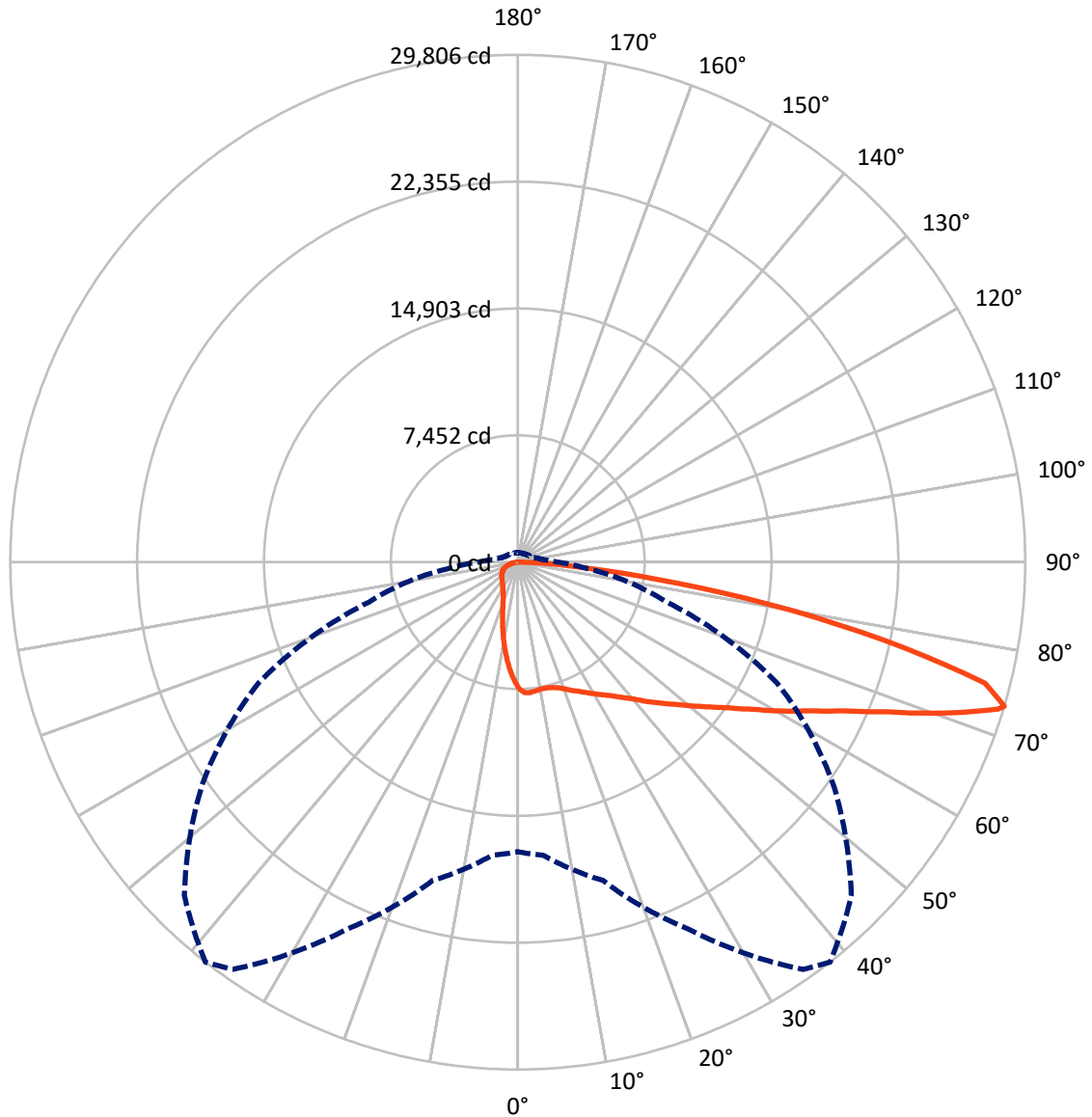
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5676.7 | 0.0 | 5676.7 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 36551.3 | 0.0 | 36551.3 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 42228.0 | 0.0 | 42228.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 647.6 | 1.5 |
| 10°-20° | 1660.6 | 3.9 |
| 20°-30° | 2585.9 | 6.1 |
| 30°-40° | 3792.9 | 9.0 |
| 40°-50° | 5626.3 | 13.3 |
| 50°-60° | 7971.3 | 18.9 |
| 60°-70° | 10111.9 | 23.9 |
| 70°-80° | 8417.4 | 19.9 |
| 80°-90° | 1414.2 | 3.3 |
| 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° | 42228.0 | 100.0 |
| 0°-180° | 42228.0 | 100.0 |

Coefficient of Utilization



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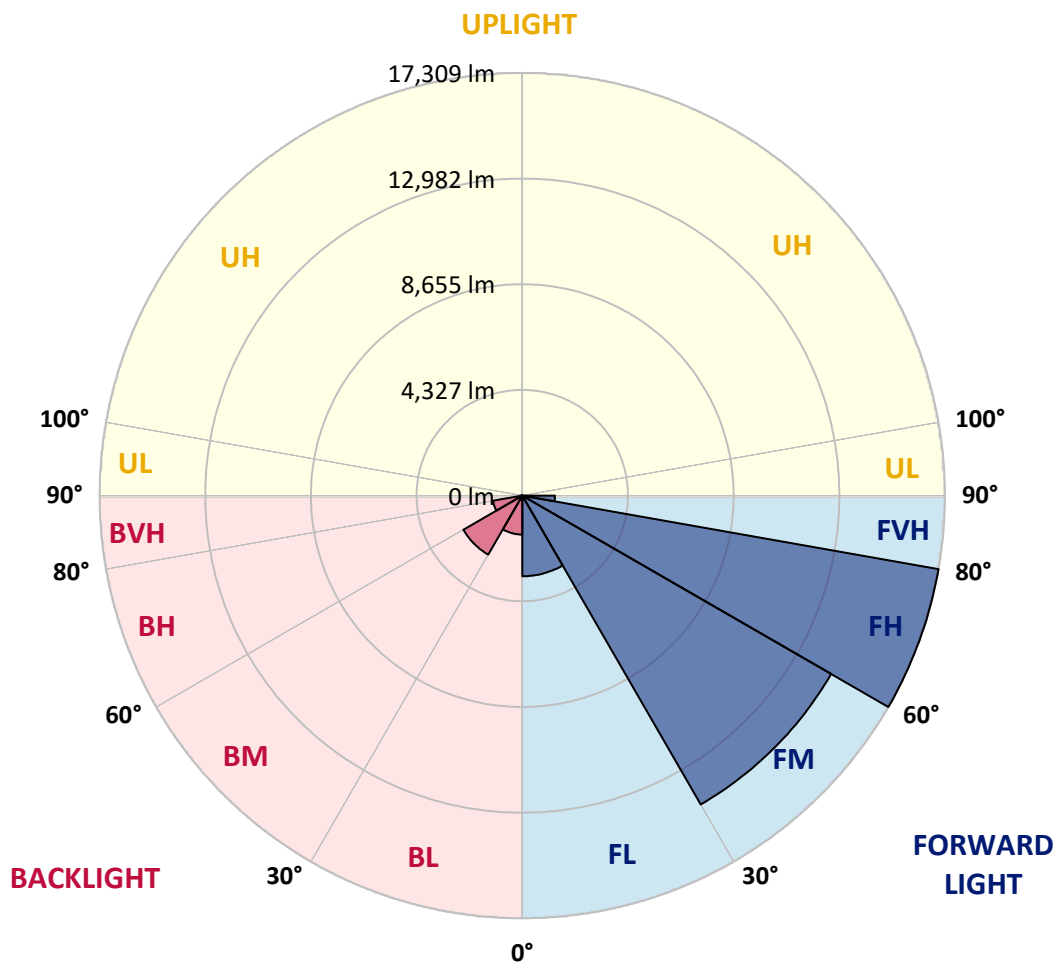
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 3301.1 | 7.8 | | | |
| FM (30°-60°) | 14603.6 | 34.6 | | | |
| FH (60°-80°) | 17309.1 | 41.0 | | | G5 |
| FVH (80°-90°) | 1337.5 | 3.2 | | | G5 |
| BL (0°-30°) | 1592.9 | 3.8 | B3/2500 | | |
| BM (30°-60°) | 2786.9 | 6.6 | B3/5000 | | |
| BH (60°-80°) | 1220.1 | 2.9 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 76.7 | 0.2 | | | G1/100 |
| 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° | 38° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 |
| 2.5° | 7716.8 | 7755.0 | 7735.9 | 7709.7 | 7693.0 | 7676.3 | 7652.4 | 7583.3 | 7528.4 | 7468.8 | 7375.8 |
| 5° | 7774.1 | 7797.9 | 7781.2 | 7747.8 | 7709.7 | 7693.0 | 7647.7 | 7557.1 | 7468.8 | 7368.7 | 7230.4 |
| 7.5° | 7740.7 | 7750.2 | 7731.1 | 7690.6 | 7657.2 | 7626.2 | 7573.7 | 7473.6 | 7366.3 | 7244.7 | 7063.4 |
| 10° | 7621.4 | 7657.2 | 7657.2 | 7623.8 | 7590.4 | 7573.7 | 7521.3 | 7425.9 | 7328.1 | 7189.8 | 6975.2 |
| 12.5° | 7523.7 | 7561.8 | 7592.8 | 7583.3 | 7580.9 | 7580.9 | 7540.4 | 7468.8 | 7354.4 | 7223.2 | 6968.0 |
| 15° | 7456.9 | 7502.2 | 7569.0 | 7607.1 | 7631.0 | 7638.1 | 7621.4 | 7559.4 | 7442.6 | 7290.0 | 6996.7 |
| 17.5° | 7442.6 | 7497.4 | 7619.1 | 7702.5 | 7764.5 | 7762.1 | 7757.4 | 7671.5 | 7542.7 | 7385.4 | 7032.4 |
| 20° | 7507.0 | 7578.5 | 7747.8 | 7879.0 | 7969.6 | 7952.9 | 7926.7 | 7814.6 | 7664.4 | 7487.9 | 7065.8 |
| 22.5° | 7700.1 | 7774.1 | 7960.1 | 8103.1 | 8191.4 | 8191.4 | 8112.7 | 7964.8 | 7805.1 | 7607.1 | 7111.1 |
| 25° | 7976.8 | 8057.8 | 8255.8 | 8401.2 | 8441.8 | 8410.8 | 8332.1 | 8153.2 | 7969.6 | 7778.8 | 7206.5 |
| 27.5° | 8315.4 | 8413.2 | 8596.8 | 8718.4 | 8706.5 | 8682.6 | 8601.5 | 8372.6 | 8189.0 | 8014.9 | 7368.7 |
| 30° | 8737.5 | 8809.0 | 8999.8 | 9028.4 | 8985.5 | 8980.7 | 8866.2 | 8637.3 | 8465.6 | 8332.1 | 7600.0 |
| 32.5° | 9135.7 | 9200.1 | 9352.7 | 9364.6 | 9288.3 | 9297.9 | 9190.6 | 8980.7 | 8882.9 | 8835.2 | 7988.7 |
| 35° | 9557.8 | 9591.2 | 9722.3 | 9708.0 | 9658.0 | 9650.8 | 9607.9 | 9407.6 | 9438.6 | 9524.4 | 8539.5 |
| 37.5° | 9910.7 | 9977.5 | 10051.4 | 10063.4 | 10061.0 | 10084.8 | 10113.4 | 10018.0 | 10196.9 | 10466.4 | 9262.1 |
| 40° | 10235.1 | 10292.3 | 10402.0 | 10440.1 | 10533.1 | 10580.8 | 10678.6 | 10681.0 | 11093.5 | 11537.1 | 10151.6 |
| 42.5° | 10454.4 | 10552.2 | 10757.3 | 10826.5 | 11053.0 | 11196.1 | 11341.5 | 11496.5 | 12095.1 | 12665.0 | 11200.8 |
| 45° | 10645.2 | 10774.0 | 11115.0 | 11329.6 | 11637.2 | 11811.3 | 12119.0 | 12443.3 | 13304.1 | 14050.5 | 12266.8 |
| 47.5° | 10933.8 | 11048.2 | 11439.3 | 11818.5 | 12283.5 | 12483.8 | 12944.1 | 13428.1 | 14553.7 | 15371.7 | 13287.4 |
| 50° | 11334.4 | 11403.5 | 11801.8 | 12419.4 | 13013.2 | 13270.8 | 13878.8 | 14577.6 | 15889.1 | 16676.1 | 14184.1 |
| 52.5° | 11847.1 | 11875.7 | 12192.9 | 13015.6 | 13797.8 | 14117.3 | 14923.3 | 15738.9 | 17057.6 | 17808.8 | 14894.7 |
| 55° | 12452.8 | 12405.1 | 12653.1 | 13647.5 | 14694.4 | 15111.7 | 15977.4 | 16914.5 | 18371.6 | 18724.5 | 15412.2 |
| 57.5° | 13051.4 | 12977.4 | 13175.4 | 14415.4 | 15800.9 | 16304.1 | 17312.8 | 18126.0 | 19544.8 | 19580.6 | 15774.7 |
| 60° | 13685.7 | 13630.8 | 13866.9 | 15316.8 | 17157.8 | 17754.0 | 18686.4 | 19382.7 | 20680.0 | 20176.8 | 15831.9 |
| 62.5° | 14336.7 | 14248.5 | 14584.7 | 16330.3 | 18686.4 | 19227.7 | 20131.5 | 20718.1 | 21793.6 | 20398.6 | 15281.0 |
| 65° | 14968.6 | 14928.1 | 15448.0 | 17534.6 | 20427.2 | 21042.4 | 21920.0 | 22318.2 | 22685.5 | 20064.7 | 13914.6 |
| 67.5° | 15641.1 | 15722.2 | 16552.1 | 19141.8 | 22697.4 | 23470.0 | 24416.8 | 24042.4 | 22940.6 | 18483.7 | 11718.3 |
| 70° | 16666.5 | 16719.0 | 18002.0 | 21247.5 | 25623.4 | 26555.8 | 27013.7 | 24655.2 | 21710.1 | 15481.4 | 8809.0 |
| 72.5° | 17107.7 | 17339.0 | 19296.8 | 23458.1 | 28947.6 | 29517.6 | 27886.5 | 23288.8 | 18085.4 | 10516.4 | 4628.7 |
| 73° | 17009.9 | 17286.6 | 19356.5 | 23794.4 | 29207.6 | 29806.1 | 27700.5 | 22585.3 | 16812.0 | 9057.0 | 3968.1 |
| 75° | 15791.4 | 16132.4 | 18581.4 | 23513.0 | 28702.0 | 28344.3 | 24710.1 | 19249.1 | 11360.6 | 4118.3 | 1807.6 |
| 77.5° | 12460.0 | 12557.7 | 14723.0 | 18986.8 | 22602.0 | 21939.1 | 18493.2 | 12030.7 | 4640.6 | 1531.0 | 1025.4 |
| 80° | 6250.3 | 6610.3 | 8298.7 | 10876.5 | 15114.1 | 14897.1 | 11673.0 | 5689.8 | 1934.0 | 899.0 | 679.6 |
| 82.5° | 3007.1 | 3262.2 | 4042.0 | 5303.5 | 8351.2 | 8153.2 | 5780.5 | 3109.6 | 1228.1 | 524.6 | 400.6 |
| 85° | 1936.4 | 2127.1 | 2573.1 | 2530.1 | 3433.9 | 3278.9 | 2596.9 | 2353.7 | 727.3 | 274.2 | 279.0 |
| 87.5° | 1278.2 | 1399.8 | 1678.8 | 1342.6 | 1249.6 | 1130.3 | 1147.0 | 1325.9 | 143.1 | 104.9 | 38.2 |
| 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° | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 | 7418.7 |
| 2.5° | 7337.7 | 7306.7 | 7204.1 | 7104.0 | 7008.6 | 6918.0 | 6858.3 | 6779.6 | 6727.2 | 6741.5 | 6763.0 |
| 5° | 7154.0 | 7084.9 | 6903.7 | 6727.2 | 6560.3 | 6362.3 | 6202.6 | 6073.8 | 5976.0 | 5940.2 | 5933.1 |
| 7.5° | 6960.9 | 6844.0 | 6584.1 | 6281.3 | 5997.5 | 5751.9 | 5468.1 | 5327.4 | 5162.8 | 5105.6 | 5086.5 |
| 10° | 6844.0 | 6686.6 | 6321.8 | 5899.7 | 5472.8 | 5065.1 | 4757.4 | 4507.0 | 4280.5 | 4237.6 | 4216.1 |
| 12.5° | 6810.7 | 6603.2 | 6111.9 | 5568.2 | 5000.7 | 4499.9 | 4044.4 | 3715.3 | 3495.9 | 3445.9 | 3371.9 |
| 15° | 6791.6 | 6534.0 | 5916.4 | 5234.4 | 4514.2 | 3903.7 | 3424.4 | 3040.5 | 2840.2 | 2706.6 | 2709.0 |
| 17.5° | 6774.9 | 6455.3 | 5697.0 | 4869.5 | 4094.5 | 3391.0 | 2861.6 | 2515.8 | 2332.2 | 2260.7 | 2253.5 |
| 20° | 6751.0 | 6362.3 | 5444.2 | 4485.6 | 3615.2 | 2923.6 | 2444.3 | 2186.8 | 2062.7 | 2003.1 | 2000.7 |
| 22.5° | 6741.5 | 6271.7 | 5196.2 | 4094.5 | 3190.7 | 2563.5 | 2167.7 | 1986.4 | 1907.7 | 1867.2 | 1867.2 |
| 25° | 6765.3 | 6207.3 | 4936.3 | 3722.5 | 2813.9 | 2255.9 | 1976.9 | 1852.9 | 1807.6 | 1786.1 | 1779.0 |
| 27.5° | 6839.3 | 6178.7 | 4678.7 | 3350.5 | 2468.1 | 2046.1 | 1848.1 | 1762.3 | 1728.9 | 1712.2 | 1714.6 |
| 30° | 6980.0 | 6176.3 | 4426.0 | 2983.2 | 2210.6 | 1886.3 | 1745.6 | 1686.0 | 1659.7 | 1650.2 | 1647.8 |
| 32.5° | 7206.5 | 6228.8 | 4178.0 | 2680.4 | 1993.6 | 1752.7 | 1650.2 | 1607.3 | 1595.4 | 1588.2 | 1585.8 |
| 35° | 7590.4 | 6376.6 | 3932.3 | 2403.8 | 1826.7 | 1633.5 | 1559.6 | 1538.1 | 1521.4 | 1528.6 | 1531.0 |
| 37.5° | 8107.9 | 6631.8 | 3698.6 | 2186.8 | 1700.3 | 1545.3 | 1483.3 | 1464.2 | 1454.7 | 1461.8 | 1469.0 |
| 40° | 8801.9 | 6999.0 | 3503.1 | 2012.7 | 1609.7 | 1471.3 | 1416.5 | 1399.8 | 1390.3 | 1402.2 | 1404.6 |
| 42.5° | 9567.3 | 7423.5 | 3340.9 | 1876.7 | 1535.7 | 1409.3 | 1356.9 | 1337.8 | 1330.7 | 1337.8 | 1340.2 |
| 45° | 10354.3 | 7917.1 | 3257.5 | 1779.0 | 1473.7 | 1364.0 | 1309.2 | 1287.7 | 1271.0 | 1266.3 | 1273.4 |
| 47.5° | 11129.3 | 8346.4 | 3255.1 | 1719.4 | 1423.7 | 1323.5 | 1263.9 | 1240.0 | 1218.6 | 1206.6 | 1204.3 |
| 50° | 11761.2 | 8687.4 | 3312.3 | 1693.1 | 1380.7 | 1278.2 | 1218.6 | 1194.7 | 1166.1 | 1142.3 | 1147.0 |
| 52.5° | 12238.2 | 8909.2 | 3338.6 | 1681.2 | 1356.9 | 1230.5 | 1170.9 | 1149.4 | 1116.0 | 1085.0 | 1085.0 |
| 55° | 12545.8 | 8961.6 | 3274.2 | 1669.3 | 1337.8 | 1180.4 | 1116.0 | 1097.0 | 1063.6 | 1032.6 | 1032.6 |
| 57.5° | 12650.7 | 8799.5 | 3042.9 | 1640.7 | 1318.7 | 1137.5 | 1061.2 | 1044.5 | 1018.3 | 987.3 | 982.5 |
| 60° | 12407.5 | 8251.0 | 2637.5 | 1554.8 | 1280.6 | 1092.2 | 1001.6 | 994.4 | 984.9 | 958.6 | 956.3 |
| 62.5° | 11470.3 | 7087.3 | 2196.3 | 1442.7 | 1216.2 | 1044.5 | 946.7 | 958.6 | 965.8 | 951.5 | 949.1 |
| 65° | 9910.7 | 5754.2 | 1876.7 | 1287.7 | 1130.3 | 977.7 | 887.1 | 918.1 | 937.2 | 937.2 | 932.4 |
| 67.5° | 8038.8 | 4418.8 | 1581.0 | 1154.2 | 1023.0 | 887.1 | 820.3 | 844.2 | 858.5 | 853.7 | 865.6 |
| 70° | 5713.7 | 2992.8 | 1287.7 | 1001.6 | 887.1 | 784.6 | 734.5 | 734.5 | 724.9 | 720.2 | 720.2 |
| 72.5° | 2771.0 | 1709.8 | 1044.5 | 837.0 | 755.9 | 670.1 | 629.6 | 612.9 | 593.8 | 591.4 | 579.5 |
| 73° | 2315.5 | 1533.4 | 996.8 | 806.0 | 724.9 | 653.4 | 608.1 | 581.9 | 569.9 | 560.4 | 558.0 |
| 75° | 1409.3 | 1163.7 | 832.3 | 679.6 | 617.6 | 562.8 | 522.2 | 498.4 | 486.5 | 479.3 | 476.9 |
| 77.5° | 927.6 | 868.0 | 646.2 | 519.9 | 472.2 | 438.8 | 422.1 | 398.2 | 391.1 | 381.5 | 381.5 |
| 80° | 691.6 | 662.9 | 462.6 | 367.2 | 338.6 | 310.0 | 305.2 | 300.5 | 281.4 | 269.5 | 264.7 |
| 82.5° | 445.9 | 472.2 | 314.8 | 245.6 | 214.6 | 190.8 | 193.2 | 200.3 | 181.2 | 164.5 | 159.8 |
| 85° | 317.2 | 341.0 | 190.8 | 112.1 | 90.6 | 78.7 | 88.2 | 78.7 | 81.1 | 64.4 | 52.5 |
| 87.5° | 52.5 | 90.6 | 33.4 | 14.3 | 7.2 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)