

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: P191787

Luminaire Tested: **GLEON-AF-09-LED-E1-AFL-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191787
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: GLEON-AF-09-LED-E1-AFL-7050-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 5000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 59888 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 575
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

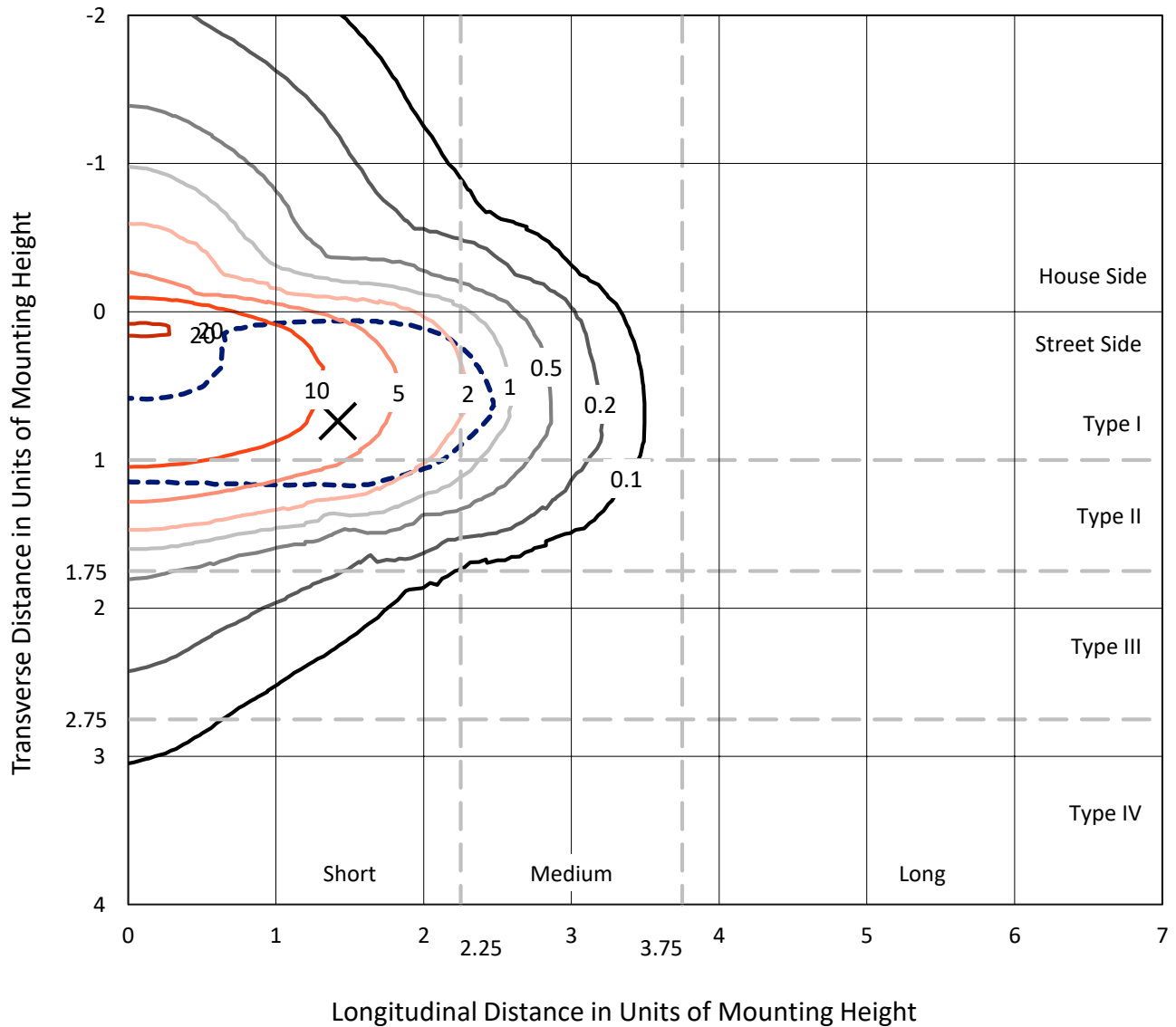


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Iso-Footcandle Lines of Horizontal Illumination

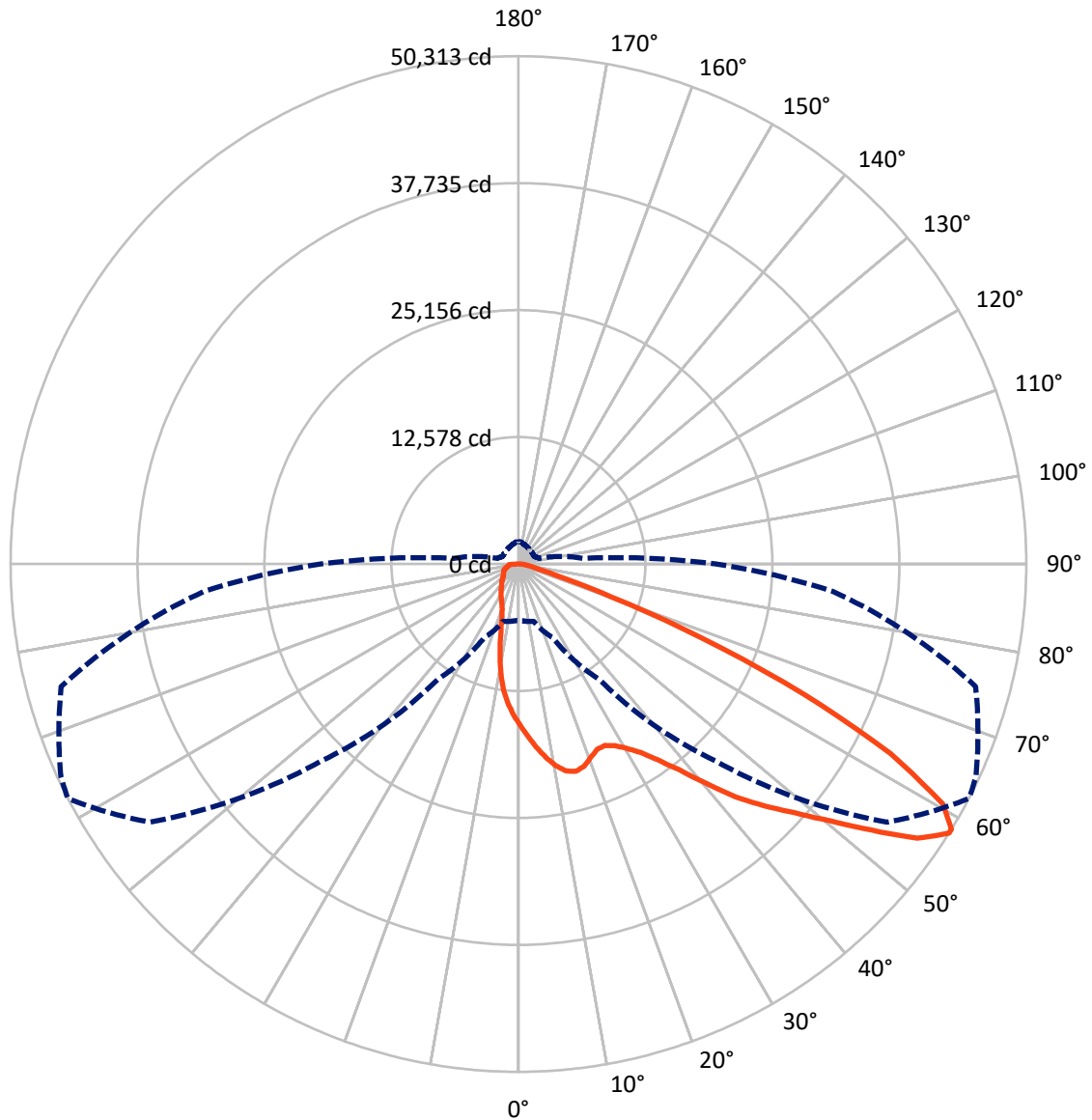
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 21.5 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 | 9133.2 | 0.0 | 9133.2 |
| | % Fixture | 15.3 | 0.0 | 15.3 |
| Street Side | Lumens | 50754.8 | 0.0 | 50754.8 |
| | % Fixture | 84.7 | 0.0 | 84.7 |
| Total | Lumens | 59888.0 | 0.0 | 59888.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1422.7 | 2.4 |
| 10°-20° | 3636.7 | 6.1 |
| 20°-30° | 5878.9 | 9.8 |
| 30°-40° | 9332.7 | 15.6 |
| 40°-50° | 13655.7 | 22.8 |
| 50°-60° | 14282.8 | 23.8 |
| 60°-70° | 8438.3 | 14.1 |
| 70°-80° | 2377.1 | 4.0 |
| 80°-90° | 863.0 | 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° | 59888.0 | 100.0 |
| 0°-180° | 59888.0 | 100.0 |



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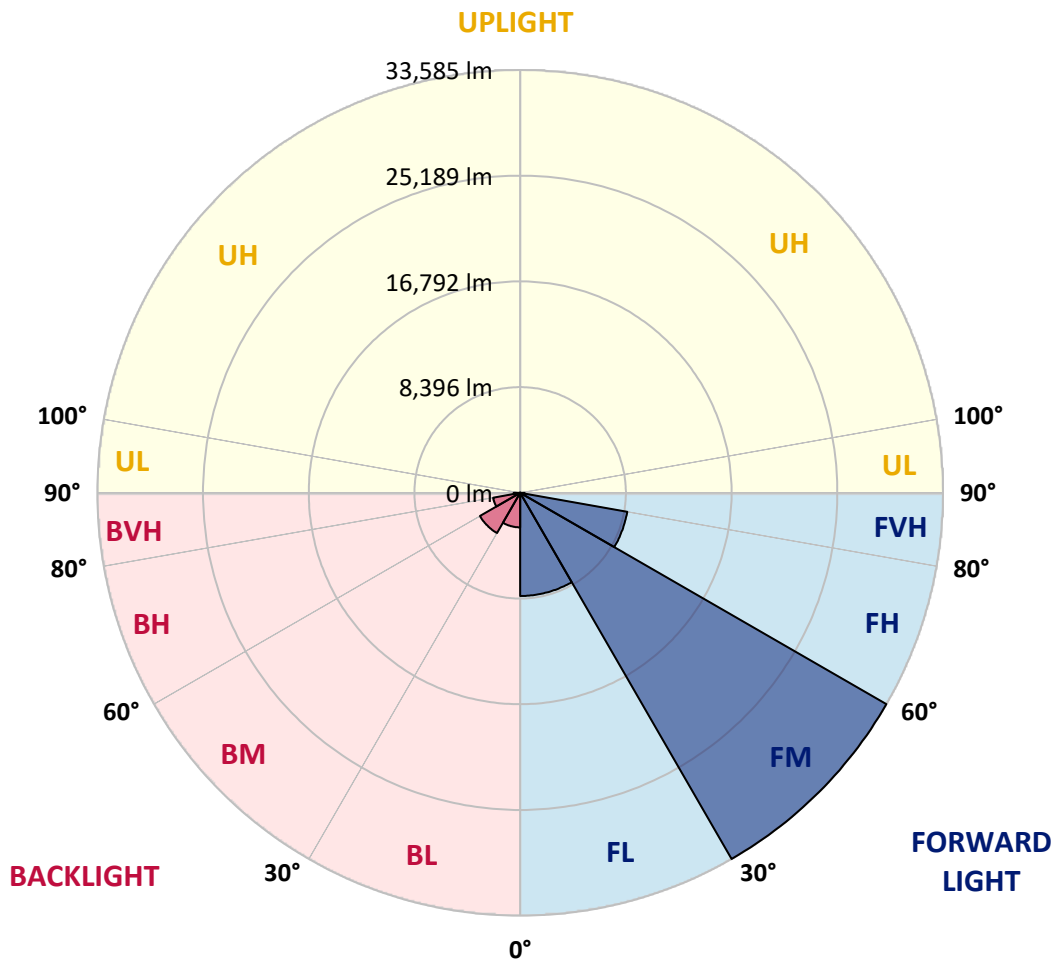
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 8193.4 | 13.7 | | | |
| FM | (30°-60°) | 33584.9 | 56.1 | | | |
| FH | (60°-80°) | 8636.1 | 14.4 | | | G4/12000 |
| FVH | (80°-90°) | 340.5 | 0.6 | | | G3/500 |
| BL | (0°-30°) | 2745.0 | 4.6 | B4/5000 | | |
| BM | (30°-60°) | 3686.4 | 6.2 | B3/5000 | | |
| BH | (60°-80°) | 2179.3 | 3.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 522.5 | 0.9 | | | G4/750 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 |
| 2.5° | 18178.2 | 18031.5 | 17938.5 | 17856.7 | 17749.5 | 17521.1 | 17213.7 | 17019.1 | 16920.4 | 16584.8 | 16187.2 |
| 5° | 19960.5 | 19830.7 | 19734.9 | 19624.9 | 19433.1 | 19075.0 | 18578.6 | 18183.8 | 17989.2 | 17318.1 | 16522.8 |
| 7.5° | 19543.1 | 19596.7 | 19763.1 | 20053.5 | 20301.7 | 20253.8 | 19811.0 | 19309.0 | 19052.4 | 18119.0 | 16912.0 |
| 10° | 17027.6 | 17120.7 | 17408.3 | 18087.9 | 19187.8 | 20315.8 | 20659.8 | 20313.0 | 20053.5 | 18911.4 | 17312.4 |
| 12.5° | 16522.8 | 16520.0 | 16542.5 | 16723.0 | 17377.3 | 18965.0 | 20688.1 | 21037.7 | 20882.6 | 19667.2 | 17721.3 |
| 15° | 16728.7 | 16734.3 | 16717.4 | 16793.5 | 16996.6 | 17625.5 | 19825.1 | 21316.9 | 21426.9 | 20428.6 | 18144.3 |
| 17.5° | 17270.1 | 17256.0 | 17191.2 | 17191.2 | 17264.5 | 17509.8 | 18809.9 | 21057.5 | 21565.1 | 21102.6 | 18516.6 |
| 20° | 18178.2 | 18113.3 | 17941.3 | 17783.4 | 17704.4 | 17837.0 | 18392.5 | 20459.6 | 21325.4 | 21692.0 | 18824.0 |
| 22.5° | 19278.0 | 19227.3 | 18948.1 | 18609.7 | 18336.1 | 18333.3 | 18606.8 | 19937.9 | 20910.8 | 22247.6 | 19083.4 |
| 25° | 20699.3 | 20617.5 | 20203.0 | 19661.5 | 19182.1 | 18998.8 | 19075.0 | 19912.5 | 20685.2 | 22851.0 | 19314.7 |
| 27.5° | 22368.8 | 22219.3 | 21728.7 | 20947.5 | 20242.5 | 19873.0 | 19763.1 | 20372.2 | 20891.1 | 23598.4 | 19636.2 |
| 30° | 24393.6 | 24221.6 | 23592.7 | 22574.7 | 21579.2 | 20972.9 | 20738.8 | 21187.2 | 21573.6 | 24509.2 | 20152.2 |
| 32.5° | 26697.6 | 26449.5 | 25721.9 | 24599.5 | 23291.0 | 22366.0 | 21985.3 | 22264.5 | 22571.9 | 25606.3 | 20798.0 |
| 35° | 29881.5 | 29585.4 | 28533.5 | 26985.3 | 25507.6 | 24235.7 | 23626.6 | 23829.6 | 24128.5 | 27241.9 | 21731.5 |
| 37.5° | 32052.9 | 31920.4 | 31221.0 | 29765.9 | 28158.4 | 26694.8 | 25752.9 | 25871.3 | 26040.5 | 29286.5 | 22927.2 |
| 40° | 32033.2 | 32086.8 | 32100.9 | 32115.0 | 31020.8 | 29619.2 | 28606.8 | 28482.7 | 28448.9 | 31531.2 | 24286.5 |
| 42.5° | 30428.6 | 30648.5 | 31359.2 | 32800.3 | 33465.8 | 32822.8 | 31895.0 | 31536.9 | 31359.2 | 34176.5 | 25727.5 |
| 45° | 27972.3 | 28090.7 | 29421.8 | 32236.2 | 34717.9 | 35995.4 | 35293.2 | 34165.2 | 33843.7 | 36607.4 | 26923.2 |
| 47.5° | 26706.1 | 26835.8 | 27673.4 | 30741.6 | 34703.8 | 38558.8 | 38964.9 | 36816.0 | 36240.7 | 38722.4 | 27955.4 |
| 50° | 23691.4 | 23962.2 | 25016.9 | 28141.5 | 33437.6 | 39737.6 | 42803.1 | 39974.5 | 38784.5 | 40781.1 | 28990.3 |
| 52.5° | 18155.6 | 18573.0 | 19754.6 | 23866.3 | 30225.5 | 39153.9 | 45874.1 | 43804.2 | 42123.4 | 42913.0 | 29878.7 |
| 55° | 11452.3 | 11762.5 | 12755.2 | 16855.6 | 24179.3 | 36116.7 | 47038.8 | 47946.9 | 46452.2 | 44932.2 | 30648.5 |
| 57.5° | 6226.7 | 6364.9 | 6737.2 | 9306.2 | 15727.5 | 29402.1 | 45341.1 | 50304.4 | 49684.0 | 46646.8 | 31229.5 |
| 58° | 5572.5 | 5665.5 | 5896.8 | 8065.4 | 13948.1 | 27566.2 | 44588.2 | 50312.9 | 50002.7 | 46897.8 | 31274.6 |
| 60° | 4134.2 | 4086.3 | 3880.4 | 4602.4 | 7763.7 | 19043.9 | 40036.6 | 48299.4 | 49210.3 | 47205.2 | 31054.6 |
| 62.5° | 3632.3 | 3516.6 | 3096.4 | 3048.5 | 3776.1 | 8773.2 | 30634.4 | 41373.3 | 43525.0 | 45451.1 | 29717.9 |
| 65° | 3412.3 | 3288.2 | 2746.8 | 2571.9 | 2724.2 | 3711.2 | 18045.6 | 31029.3 | 33728.1 | 40132.4 | 26300.0 |
| 67.5° | 3248.7 | 3088.0 | 2524.0 | 2284.3 | 2295.5 | 2453.5 | 7233.5 | 19543.1 | 22580.3 | 30470.9 | 20456.8 |
| 70° | 3090.8 | 2916.0 | 2335.0 | 2058.7 | 1993.8 | 1940.2 | 2876.5 | 9782.8 | 12538.0 | 19247.0 | 13042.8 |
| 72.5° | 2921.6 | 2749.6 | 2168.6 | 1881.0 | 1754.1 | 1576.4 | 1878.2 | 4001.7 | 5589.4 | 9106.0 | 5916.5 |
| 75° | 2676.2 | 2521.1 | 2002.3 | 1723.1 | 1542.6 | 1305.7 | 1418.5 | 2089.7 | 2507.0 | 3626.6 | 2851.1 |
| 77.5° | 2374.5 | 2247.6 | 1816.1 | 1593.3 | 1367.7 | 1060.3 | 1091.4 | 1449.5 | 1607.4 | 2075.6 | 1694.9 |
| 80° | 1706.1 | 1751.3 | 1615.9 | 1432.6 | 1218.3 | 860.1 | 837.6 | 1057.5 | 1142.1 | 1333.9 | 1102.6 |
| 82.5° | 1198.5 | 1223.9 | 1336.7 | 1170.3 | 1006.8 | 676.8 | 617.6 | 744.5 | 795.3 | 877.0 | 595.0 |
| 85° | 826.3 | 798.1 | 916.5 | 815.0 | 727.6 | 451.2 | 423.0 | 504.8 | 535.8 | 544.3 | 307.4 |
| 87.5° | 496.3 | 496.3 | 530.2 | 437.1 | 392.0 | 234.1 | 228.4 | 287.6 | 307.4 | 293.3 | 169.2 |
| 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° | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 | 15908.0 |
| 2.5° | 15950.3 | 15750.1 | 15324.3 | 14983.0 | 14551.6 | 14103.2 | 13852.2 | 13584.3 | 13401.0 | 13268.4 | 13479.9 |
| 5° | 16071.6 | 15662.7 | 14782.8 | 13948.1 | 13025.9 | 12067.1 | 11339.5 | 10662.7 | 10191.7 | 9898.5 | 10174.8 |
| 7.5° | 16263.4 | 15634.5 | 14232.9 | 12805.9 | 11150.6 | 9554.4 | 8127.4 | 7233.5 | 6711.8 | 6455.1 | 6615.9 |
| 10° | 16483.3 | 15589.4 | 13587.1 | 11257.7 | 8888.9 | 6878.2 | 5812.2 | 5451.2 | 5332.8 | 5284.8 | 5307.4 |
| 12.5° | 16666.6 | 15493.5 | 12794.7 | 9385.2 | 6675.1 | 5431.5 | 5124.1 | 5115.6 | 5141.0 | 5146.6 | 5155.1 |
| 15° | 16796.4 | 15352.5 | 11618.7 | 7433.7 | 5338.4 | 4949.2 | 4932.3 | 4983.1 | 5031.0 | 5050.7 | 5062.0 |
| 17.5° | 16883.8 | 15062.0 | 10290.4 | 5877.0 | 4782.8 | 4715.2 | 4754.6 | 4819.5 | 4870.3 | 4884.4 | 4895.6 |
| 20° | 16875.3 | 14636.2 | 8708.4 | 4901.3 | 4481.1 | 4481.1 | 4548.8 | 4599.5 | 4602.4 | 4585.4 | 4593.9 |
| 22.5° | 16787.9 | 14052.4 | 7174.3 | 4382.4 | 4213.2 | 4261.1 | 4328.8 | 4280.9 | 4083.5 | 3953.7 | 3962.2 |
| 25° | 16641.2 | 13355.9 | 5860.1 | 4052.4 | 3965.0 | 4049.6 | 4029.9 | 3668.9 | 3386.9 | 3260.0 | 3260.0 |
| 27.5° | 16511.5 | 12532.4 | 4850.5 | 3764.8 | 3716.9 | 3821.2 | 3471.5 | 3144.4 | 3025.9 | 2966.7 | 2947.0 |
| 30° | 16418.5 | 11644.1 | 4176.5 | 3488.4 | 3482.8 | 3406.6 | 3011.8 | 2921.6 | 2901.9 | 2853.9 | 2837.0 |
| 32.5° | 16441.0 | 10744.5 | 3745.1 | 3245.9 | 3265.6 | 2916.0 | 2791.9 | 2811.6 | 2794.7 | 2743.9 | 2721.4 |
| 35° | 16627.1 | 9890.0 | 3463.0 | 3025.9 | 2966.7 | 2633.9 | 2662.1 | 2698.8 | 2693.2 | 2622.7 | 2600.1 |
| 37.5° | 16959.9 | 9080.6 | 3276.9 | 2842.6 | 2588.8 | 2492.9 | 2538.1 | 2594.5 | 2580.4 | 2532.4 | 2515.5 |
| 40° | 17309.6 | 8319.2 | 3124.6 | 2698.8 | 2366.0 | 2397.1 | 2436.5 | 2467.6 | 2481.7 | 2495.8 | 2484.5 |
| 42.5° | 17650.8 | 7524.0 | 2938.5 | 2552.2 | 2273.0 | 2306.8 | 2323.7 | 2354.8 | 2430.9 | 2484.5 | 2481.7 |
| 45° | 17853.9 | 6776.6 | 2746.8 | 2343.5 | 2199.7 | 2219.4 | 2208.1 | 2270.2 | 2363.2 | 2450.6 | 2453.5 |
| 47.5° | 18079.5 | 6195.7 | 2594.5 | 2151.7 | 2129.2 | 2143.3 | 2109.4 | 2171.5 | 2256.1 | 2363.2 | 2374.5 |
| 50° | 18353.0 | 5848.8 | 2473.2 | 1999.4 | 2033.3 | 2033.3 | 2024.8 | 2081.2 | 2199.7 | 2323.7 | 2346.3 |
| 52.5° | 18663.2 | 5781.1 | 2371.7 | 1889.4 | 1937.4 | 1934.6 | 1943.0 | 2027.6 | 2157.4 | 2278.6 | 2298.4 |
| 55° | 19041.1 | 5964.5 | 2261.7 | 1807.7 | 1844.3 | 1855.6 | 1883.8 | 1979.7 | 2089.7 | 2227.9 | 2236.3 |
| 57.5° | 19481.1 | 6336.7 | 2174.3 | 1742.8 | 1759.7 | 1796.4 | 1841.5 | 1928.9 | 2047.4 | 2199.7 | 2208.1 |
| 58° | 19554.4 | 6415.7 | 2160.2 | 1737.2 | 1742.8 | 1785.1 | 1835.9 | 1920.5 | 2038.9 | 2205.3 | 2213.8 |
| 60° | 19557.2 | 6677.9 | 2129.2 | 1711.8 | 1677.9 | 1748.4 | 1804.8 | 1889.4 | 2024.8 | 2225.0 | 2244.8 |
| 62.5° | 18863.5 | 6675.1 | 2106.6 | 1675.1 | 1610.3 | 1697.7 | 1762.5 | 1861.2 | 2010.7 | 2273.0 | 2312.5 |
| 65° | 16610.2 | 6066.0 | 1999.4 | 1618.7 | 1556.7 | 1652.6 | 1725.9 | 1841.5 | 2050.2 | 2481.7 | 2507.0 |
| 67.5° | 12992.1 | 4971.8 | 1799.2 | 1539.8 | 1486.2 | 1607.4 | 1703.3 | 1838.7 | 2092.5 | 2529.6 | 2546.5 |
| 70° | 8589.9 | 3719.7 | 1579.2 | 1449.5 | 1412.9 | 1553.9 | 1714.6 | 1934.6 | 2044.6 | 2428.1 | 2383.0 |
| 72.5° | 4458.5 | 2611.4 | 1401.6 | 1336.7 | 1328.3 | 1505.9 | 1878.2 | 1923.3 | 1996.6 | 2284.3 | 2227.9 |
| 75° | 2340.7 | 1813.3 | 1246.5 | 1212.6 | 1226.7 | 1494.6 | 2216.6 | 1872.5 | 1934.6 | 2185.6 | 2292.7 |
| 77.5° | 1432.6 | 1463.6 | 1113.9 | 1099.8 | 1128.0 | 1460.8 | 2213.8 | 1807.7 | 1844.3 | 2010.7 | 2129.2 |
| 80° | 958.8 | 1187.3 | 1012.4 | 1015.2 | 1035.0 | 1336.7 | 1988.2 | 1706.1 | 1734.3 | 1900.7 | 2022.0 |
| 82.5° | 606.3 | 702.2 | 919.3 | 967.3 | 941.9 | 1102.6 | 1689.2 | 1553.9 | 1593.3 | 2174.3 | 2298.4 |
| 85° | 307.4 | 439.9 | 798.1 | 930.6 | 848.8 | 772.7 | 1370.6 | 1362.1 | 1381.8 | 1568.0 | 1638.5 |
| 87.5° | 141.0 | 242.5 | 623.2 | 812.2 | 640.2 | 482.2 | 995.5 | 1009.6 | 1088.5 | 1113.9 | 1113.9 |
| 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)