

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: P322029

Luminaire Tested: **GLEON-SA5A-827-U-T2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P322029
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-13)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA5A-827-U-T2-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12180 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

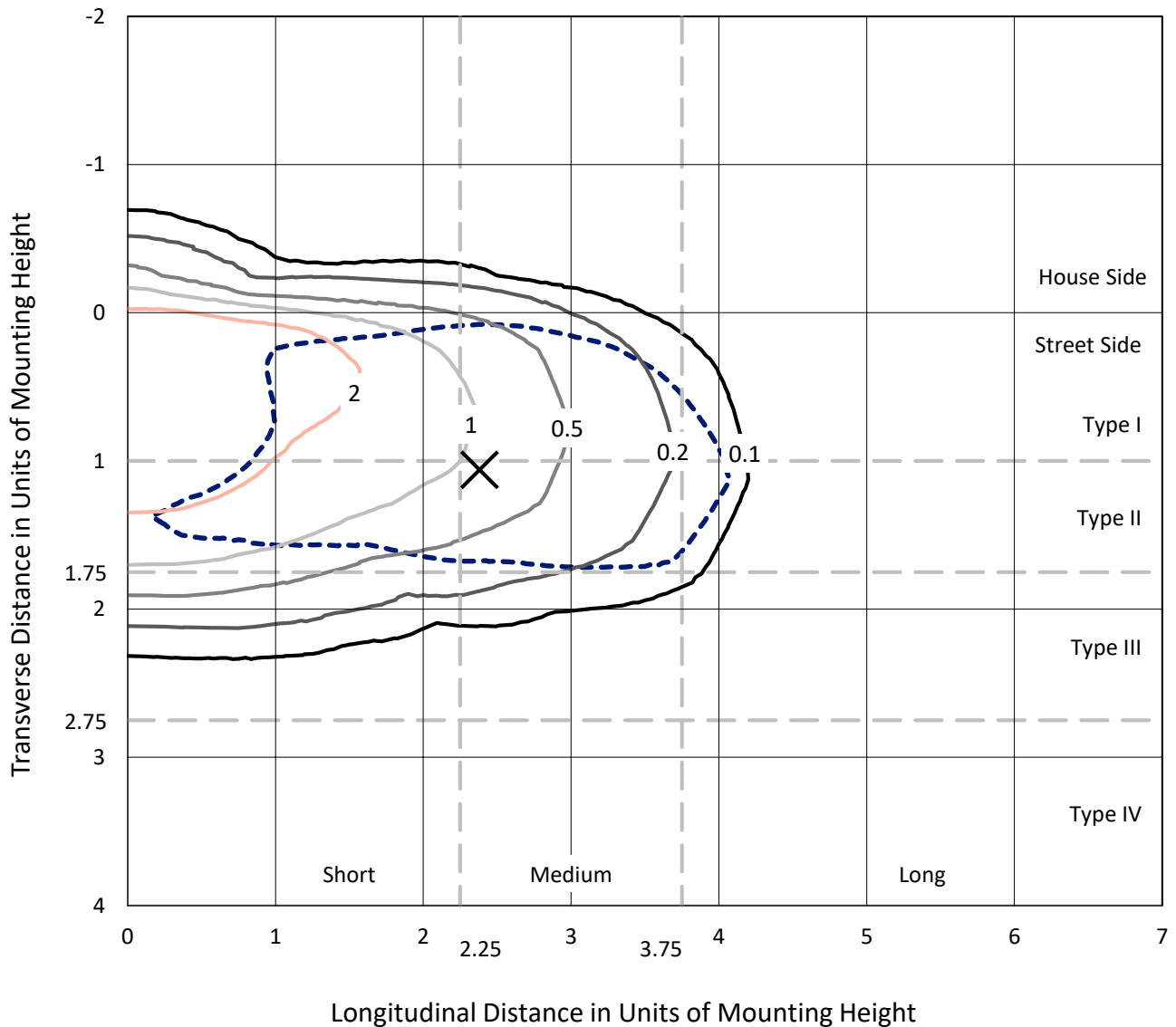
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

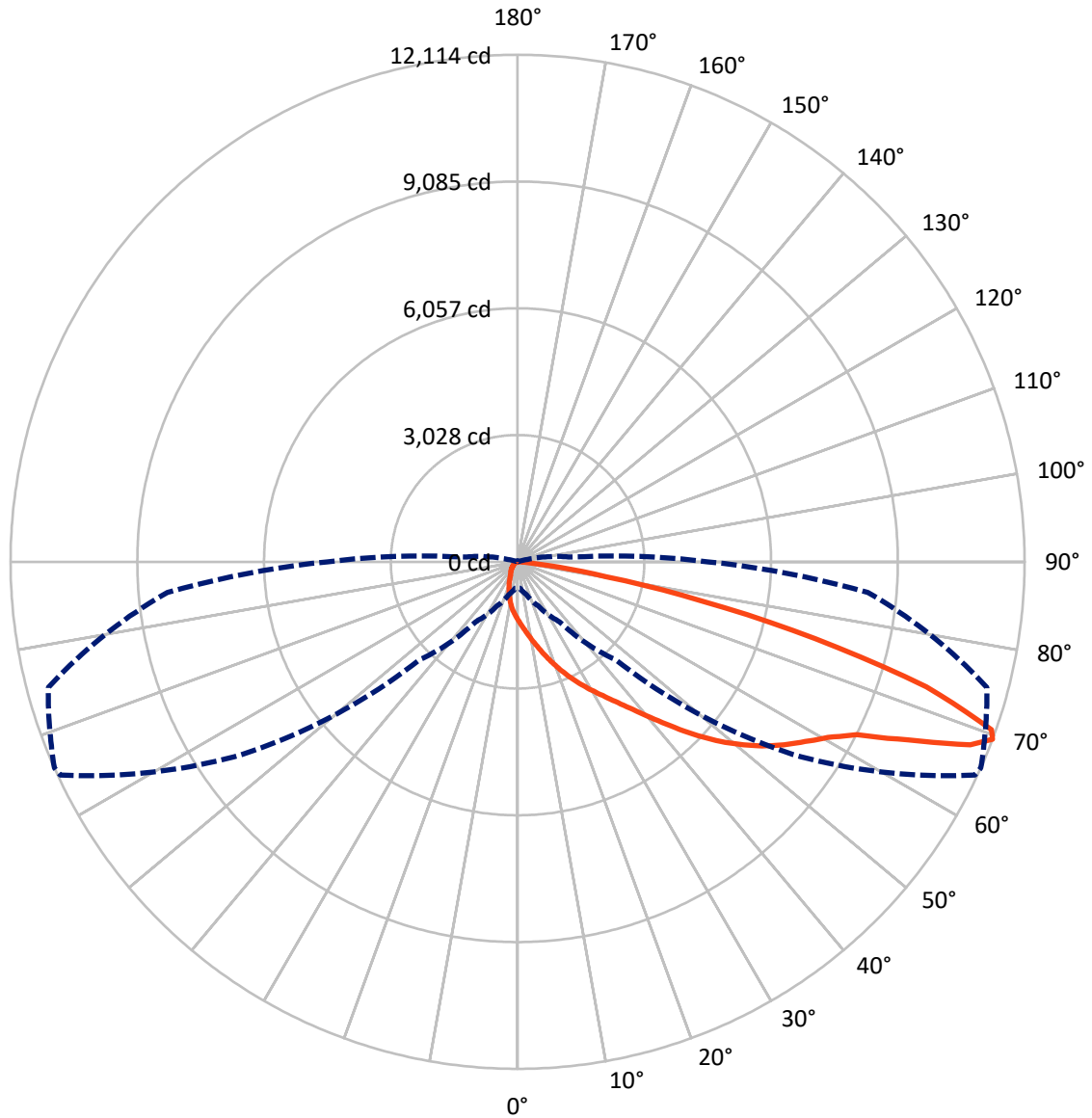
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 730.6 | 0.0 | 730.6 |
| | % Fixture | 6.0 | 0.0 | 6.0 |
| Street Side | Lumens | 11449.4 | 0.0 | 11449.4 |
| | % Fixture | 94.0 | 0.0 | 94.0 |
| Total | Lumens | 12180.0 | 0.0 | 12180.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 134.0 | 1.1 |
| 10°-20° | 398.8 | 3.3 |
| 20°-30° | 694.4 | 5.7 |
| 30°-40° | 1218.3 | 10.0 |
| 40°-50° | 2039.3 | 16.7 |
| 50°-60° | 2997.6 | 24.6 |
| 60°-70° | 3077.8 | 25.3 |
| 70°-80° | 1519.4 | 12.5 |
| 80°-90° | 100.5 | 0.8 |
| 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° | 12180.0 | 100.0 |
| 0°-180° | 12180.0 | 100.0 |

Coefficient of Utilization

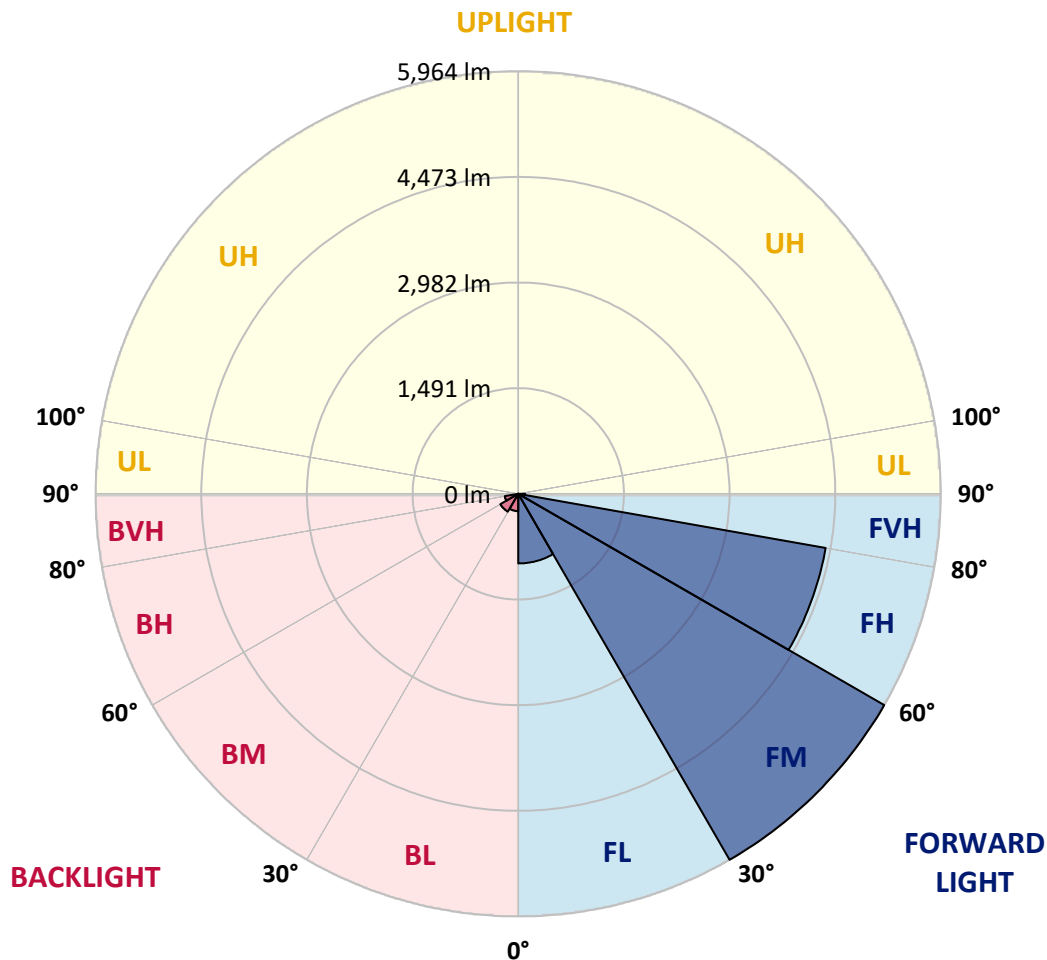


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 982.8 | 8.1 | | | |
| FM (30°-60°) | 5963.9 | 49.0 | | | |
| FH (60°-80°) | 4404.6 | 36.2 | | | G2/5000 |
| FVH (80°-90°) | 98.0 | 0.8 | | | G1/100 |
| BL (0°-30°) | 244.4 | 2.0 | B1/500 | | |
| BM (30°-60°) | 291.3 | 2.4 | B1/1000 | | |
| BH (60°-80°) | 192.5 | 1.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.4 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2
 Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
| 0° | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 |
| 2.5° | 1631.4 | 1624.5 | 1621.6 | 1608.9 | 1586.9 | 1570.1 | 1537.7 | 1500.1 | 1493.1 | 1456.7 | 1412.2 |
| 5° | 1843.2 | 1837.4 | 1833.3 | 1815.4 | 1792.8 | 1750.6 | 1691.6 | 1621.6 | 1608.3 | 1538.9 | 1449.8 |
| 7.5° | 1990.7 | 2001.1 | 2001.1 | 1989.5 | 1961.2 | 1929.3 | 1857.0 | 1761.6 | 1744.8 | 1638.4 | 1500.1 |
| 10° | 2076.9 | 2089.6 | 2099.4 | 2109.3 | 2105.2 | 2092.5 | 2024.2 | 1916.6 | 1896.4 | 1755.2 | 1558.5 |
| 12.5° | 2085.0 | 2097.7 | 2125.5 | 2166.5 | 2206.5 | 2235.4 | 2192.6 | 2088.4 | 2065.3 | 1890.6 | 1627.9 |
| 15° | 2039.8 | 2053.2 | 2096.0 | 2175.8 | 2272.4 | 2356.9 | 2370.8 | 2278.8 | 2255.1 | 2052.0 | 1714.7 |
| 17.5° | 1961.2 | 1969.8 | 2031.2 | 2141.7 | 2293.2 | 2448.3 | 2532.2 | 2483.0 | 2461.0 | 2236.5 | 1811.3 |
| 20° | 1902.7 | 1909.1 | 1962.9 | 2081.5 | 2280.5 | 2505.6 | 2684.9 | 2699.9 | 2676.8 | 2434.4 | 1916.0 |
| 22.5° | 2002.8 | 2014.4 | 2016.1 | 2072.2 | 2245.8 | 2533.9 | 2819.1 | 2913.4 | 2896.0 | 2644.4 | 2019.0 |
| 25° | 2276.5 | 2289.8 | 2245.8 | 2211.1 | 2275.3 | 2546.6 | 2934.2 | 3132.1 | 3118.2 | 2870.6 | 2122.6 |
| 27.5° | 2638.0 | 2651.9 | 2595.2 | 2491.7 | 2429.8 | 2594.6 | 3036.6 | 3354.2 | 3353.7 | 3110.1 | 2234.2 |
| 30° | 2993.2 | 3007.1 | 2949.3 | 2845.7 | 2703.4 | 2730.6 | 3125.1 | 3586.8 | 3590.3 | 3357.1 | 2352.8 |
| 32.5° | 3365.8 | 3383.2 | 3323.6 | 3190.5 | 3041.8 | 2965.5 | 3249.5 | 3820.5 | 3840.2 | 3643.5 | 2486.5 |
| 35° | 3789.3 | 3791.6 | 3707.7 | 3568.3 | 3397.0 | 3279.6 | 3449.1 | 4082.6 | 4129.4 | 3998.1 | 2656.0 |
| 37.5° | 4204.7 | 4221.4 | 4152.6 | 3932.7 | 3775.4 | 3642.3 | 3745.9 | 4410.0 | 4476.6 | 4431.4 | 2877.5 |
| 40° | 4512.4 | 4547.7 | 4537.9 | 4300.7 | 4151.4 | 4056.6 | 4114.4 | 4799.4 | 4883.8 | 4935.9 | 3157.0 |
| 42.5° | 4705.6 | 4732.3 | 4777.4 | 4634.5 | 4499.1 | 4514.7 | 4549.4 | 5252.9 | 5357.1 | 5510.9 | 3478.0 |
| 45° | 4927.2 | 4939.9 | 4977.5 | 4914.5 | 4823.1 | 4980.4 | 5011.1 | 5763.7 | 5873.1 | 6129.4 | 3834.4 |
| 47.5° | 5198.0 | 5228.0 | 5238.5 | 5180.6 | 5139.0 | 5392.3 | 5456.0 | 6228.3 | 6381.6 | 6791.8 | 4211.6 |
| 50° | 5542.8 | 5550.9 | 5568.8 | 5531.2 | 5489.5 | 5746.4 | 5855.2 | 6716.0 | 6855.4 | 7456.5 | 4583.6 |
| 52.5° | 5880.0 | 5909.0 | 5971.4 | 5947.7 | 5930.9 | 6047.8 | 6210.9 | 7155.7 | 7311.3 | 8010.7 | 4955.0 |
| 55° | 5977.2 | 6002.1 | 6217.9 | 6365.4 | 6501.9 | 6419.2 | 6551.1 | 7549.6 | 7718.0 | 8505.9 | 5312.5 |
| 57.5° | 5589.0 | 5639.4 | 6013.1 | 6397.2 | 6963.6 | 6996.6 | 7018.5 | 7954.0 | 8105.0 | 8885.4 | 5684.5 |
| 60° | 4607.9 | 4617.7 | 5230.9 | 5889.9 | 6887.2 | 7500.5 | 7701.2 | 8388.5 | 8515.2 | 9238.9 | 6130.0 |
| 62.5° | 2930.8 | 3030.8 | 3703.7 | 4633.9 | 6079.6 | 7427.6 | 8526.7 | 9045.7 | 9091.9 | 9662.9 | 6768.6 |
| 65° | 1396.0 | 1460.8 | 1945.5 | 2863.1 | 4403.7 | 6494.4 | 9096.6 | 10234.5 | 10255.3 | 10503.5 | 7621.9 |
| 67.5° | 772.9 | 804.1 | 1035.0 | 1541.2 | 2574.4 | 4592.8 | 8866.3 | 11642.6 | 11662.3 | 11362.0 | 8370.5 |
| 69° | 604.5 | 631.2 | 812.8 | 1161.7 | 1745.4 | 3301.0 | 8023.4 | 12055.1 | 12113.5 | 11607.9 | 8397.2 |
| 70° | 513.1 | 539.2 | 700.0 | 981.2 | 1403.5 | 2550.7 | 7141.8 | 11952.7 | 12014.6 | 11584.8 | 8198.7 |
| 72.5° | 314.1 | 329.2 | 466.3 | 690.7 | 940.7 | 1283.1 | 4404.2 | 10108.4 | 10213.1 | 10626.8 | 7046.3 |
| 75° | 211.7 | 219.8 | 291.6 | 476.7 | 672.8 | 660.7 | 2288.0 | 7125.0 | 7351.8 | 8266.4 | 5204.3 |
| 77.5° | 151.6 | 159.1 | 195.5 | 308.3 | 471.5 | 436.2 | 1036.1 | 4428.0 | 4476.6 | 4957.9 | 2838.2 |
| 80° | 86.2 | 93.1 | 138.3 | 183.4 | 319.9 | 291.0 | 411.9 | 2115.1 | 2139.4 | 2126.0 | 947.6 |
| 82.5° | 45.1 | 50.9 | 75.8 | 120.9 | 205.4 | 190.3 | 171.2 | 708.1 | 711.6 | 591.8 | 207.7 |
| 85° | 8.7 | 10.4 | 37.6 | 82.7 | 105.9 | 82.7 | 70.0 | 166.0 | 169.5 | 149.8 | 51.5 |
| 87.5° | 0.0 | 0.6 | 15.0 | 18.5 | 20.8 | 21.4 | 22.6 | 32.4 | 34.7 | 46.9 | 13.9 |
| 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° | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 | 1386.1 |
| 2.5° | 1392.5 | 1371.7 | 1331.7 | 1285.5 | 1249.6 | 1214.3 | 1186.5 | 1157.6 | 1147.2 | 1142.0 | 1141.4 |
| 5° | 1406.4 | 1362.4 | 1277.9 | 1191.2 | 1120.0 | 1052.9 | 1004.9 | 959.2 | 937.8 | 927.9 | 923.9 |
| 7.5° | 1429.5 | 1358.9 | 1223.0 | 1090.5 | 988.1 | 904.2 | 837.7 | 787.9 | 763.1 | 752.6 | 748.6 |
| 10° | 1456.7 | 1354.3 | 1158.8 | 984.1 | 853.3 | 766.5 | 700.6 | 651.4 | 624.2 | 612.6 | 606.9 |
| 12.5° | 1488.5 | 1346.2 | 1084.7 | 876.5 | 738.2 | 651.4 | 571.6 | 510.8 | 479.6 | 466.3 | 459.9 |
| 15° | 1527.9 | 1338.1 | 1007.2 | 775.2 | 636.9 | 531.1 | 443.7 | 402.6 | 396.3 | 394.0 | 394.5 |
| 17.5° | 1566.6 | 1325.4 | 922.7 | 675.1 | 530.5 | 414.8 | 370.2 | 367.9 | 369.1 | 369.1 | 369.1 |
| 20° | 1601.3 | 1296.5 | 830.7 | 589.5 | 429.3 | 350.0 | 340.7 | 336.7 | 333.8 | 331.5 | 328.6 |
| 22.5° | 1628.5 | 1257.7 | 742.2 | 504.5 | 350.6 | 320.5 | 306.0 | 293.3 | 282.9 | 276.0 | 272.5 |
| 25° | 1647.0 | 1206.2 | 661.2 | 422.9 | 315.3 | 291.6 | 265.5 | 244.1 | 227.9 | 218.1 | 214.1 |
| 27.5° | 1660.9 | 1150.7 | 588.9 | 354.1 | 291.0 | 258.0 | 223.9 | 198.4 | 181.7 | 173.0 | 169.5 |
| 30° | 1670.8 | 1087.6 | 525.3 | 311.2 | 263.8 | 222.7 | 186.3 | 161.4 | 149.3 | 144.6 | 142.3 |
| 32.5° | 1680.0 | 1017.6 | 465.1 | 291.0 | 238.3 | 190.3 | 156.2 | 137.1 | 129.6 | 123.8 | 122.1 |
| 35° | 1703.1 | 952.8 | 407.9 | 269.6 | 212.3 | 162.6 | 134.2 | 120.3 | 112.8 | 109.3 | 108.2 |
| 37.5° | 1758.1 | 904.8 | 352.9 | 247.6 | 186.3 | 140.6 | 117.4 | 107.6 | 100.7 | 97.2 | 96.0 |
| 40° | 1846.6 | 880.5 | 306.6 | 223.9 | 160.8 | 123.8 | 106.4 | 97.2 | 89.7 | 84.5 | 83.3 |
| 42.5° | 1976.8 | 884.0 | 274.2 | 200.2 | 140.6 | 110.5 | 96.0 | 85.0 | 76.9 | 72.3 | 71.2 |
| 45° | 2134.7 | 909.4 | 251.7 | 177.0 | 123.8 | 100.1 | 84.5 | 72.9 | 65.4 | 61.3 | 60.2 |
| 47.5° | 2306.0 | 950.5 | 233.1 | 156.2 | 110.5 | 90.2 | 72.9 | 60.7 | 54.4 | 50.9 | 50.3 |
| 50° | 2486.5 | 990.4 | 214.1 | 136.0 | 98.9 | 80.4 | 61.3 | 50.3 | 45.1 | 42.2 | 41.1 |
| 52.5° | 2669.3 | 1036.7 | 196.7 | 117.4 | 89.1 | 68.8 | 50.9 | 41.1 | 37.0 | 34.7 | 33.6 |
| 55° | 2866.0 | 1071.4 | 179.9 | 103.0 | 79.3 | 58.4 | 42.2 | 34.1 | 30.7 | 27.8 | 27.2 |
| 57.5° | 3097.4 | 1125.2 | 162.6 | 89.1 | 67.7 | 48.6 | 34.7 | 27.2 | 24.3 | 21.4 | 20.8 |
| 60° | 3409.8 | 1188.3 | 144.1 | 78.7 | 55.5 | 39.9 | 28.3 | 22.0 | 18.5 | 16.2 | 15.6 |
| 62.5° | 3821.7 | 1258.3 | 120.9 | 68.8 | 45.1 | 32.4 | 22.6 | 17.4 | 13.3 | 10.4 | 10.4 |
| 65° | 4344.1 | 1372.2 | 98.9 | 57.9 | 37.0 | 26.6 | 17.4 | 12.7 | 7.5 | 4.6 | 4.6 |
| 67.5° | 4649.0 | 1391.9 | 79.8 | 47.4 | 30.1 | 22.6 | 14.5 | 8.7 | 2.3 | 0.6 | 0.0 |
| 69° | 4551.2 | 1277.9 | 67.7 | 40.5 | 26.0 | 21.4 | 13.3 | 6.4 | 1.2 | 0.0 | 0.0 |
| 70° | 4367.2 | 1168.6 | 59.6 | 35.9 | 23.7 | 20.2 | 12.7 | 4.6 | 1.2 | 0.0 | 0.0 |
| 72.5° | 3608.8 | 831.9 | 45.1 | 26.6 | 17.4 | 17.9 | 11.6 | 2.9 | 1.2 | 0.0 | 0.0 |
| 75° | 2628.8 | 505.6 | 32.4 | 18.5 | 11.0 | 13.3 | 8.1 | 1.2 | 0.6 | 0.0 | 0.0 |
| 77.5° | 1462.5 | 238.3 | 20.2 | 10.4 | 6.9 | 8.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 475.0 | 64.8 | 9.3 | 5.8 | 4.0 | 4.6 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 87.9 | 18.5 | 5.2 | 2.9 | 1.2 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 19.1 | 7.5 | 2.9 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 6.4 | 2.3 | 0.6 | 0.0 | 0.0 | 0.0 | 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)