

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: P299582

Luminaire Tested: **GAA-AF-02-LED-U-SL2-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-02-LED-U-SL2-7030-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI
3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II w/Spill
Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8863 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

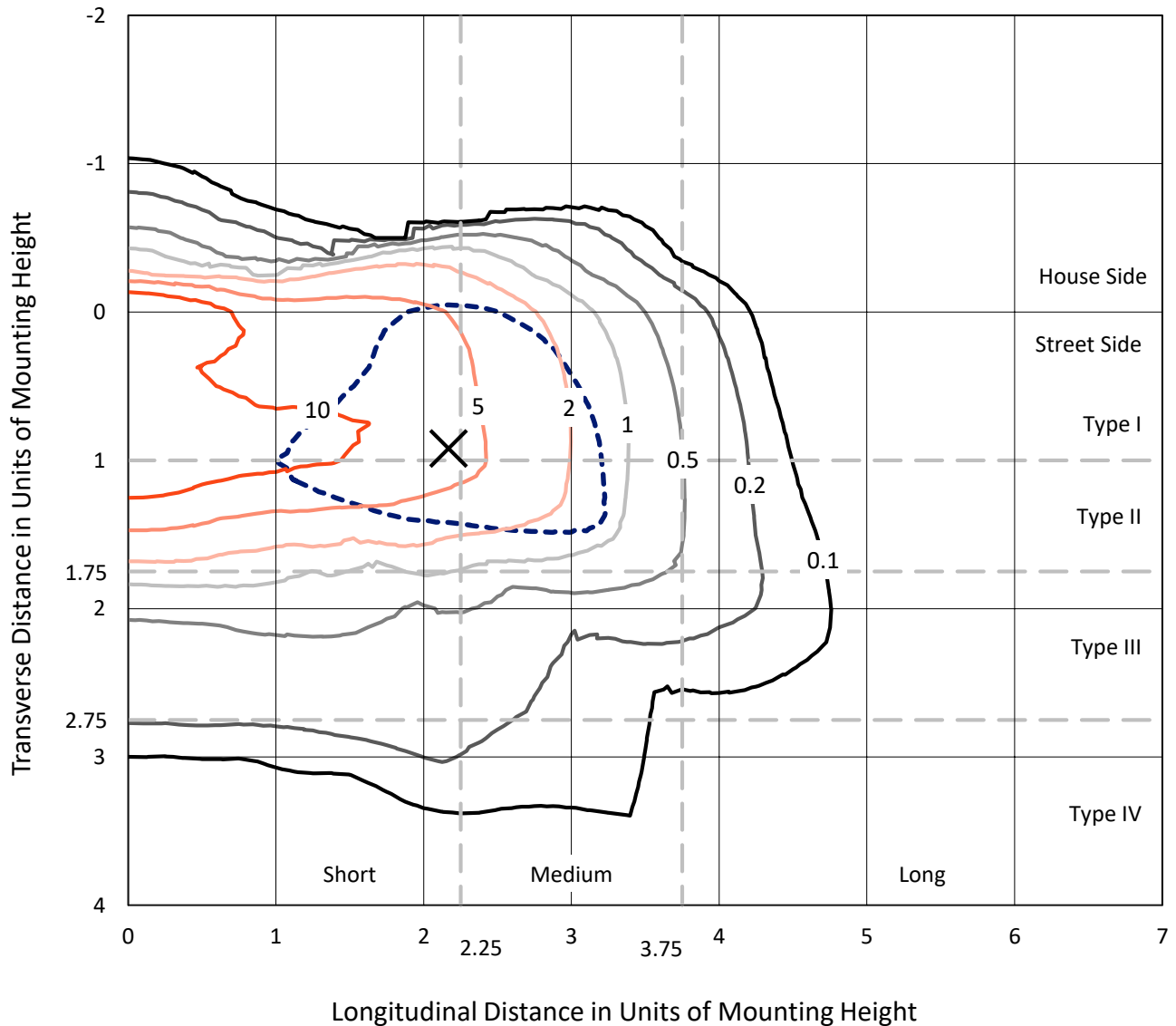
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

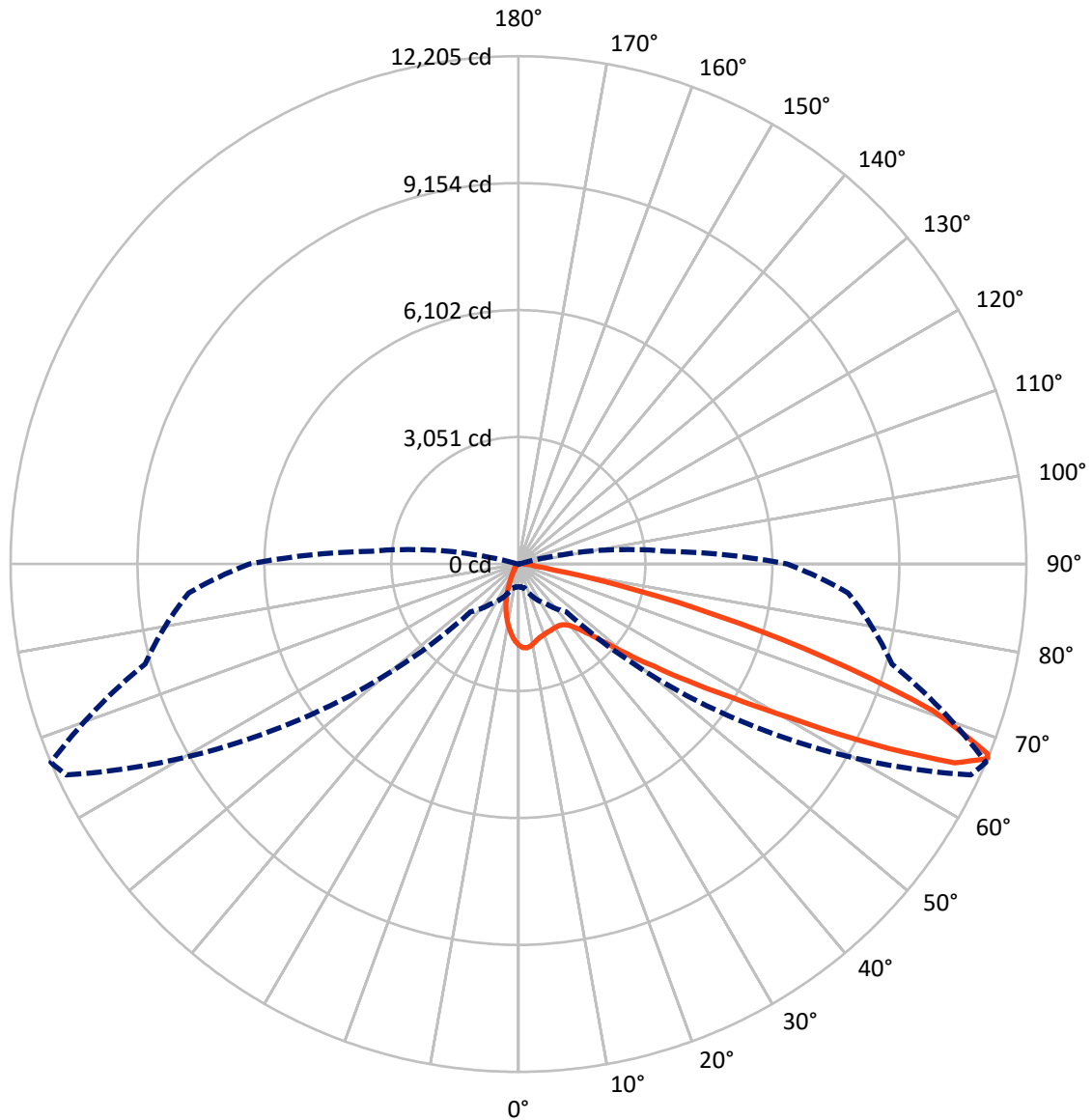
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 19.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 920.3 | 0.0 | 920.3 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 7942.8 | 0.0 | 7942.8 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 8863.0 | 0.0 | 8863.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 159.0 | 1.8 |
| 10°-20° | 338.5 | 3.8 |
| 20°-30° | 492.2 | 5.6 |
| 30°-40° | 767.8 | 8.7 |
| 40°-50° | 1360.1 | 15.3 |
| 50°-60° | 2152.2 | 24.3 |
| 60°-70° | 2465.1 | 27.8 |
| 70°-80° | 1022.5 | 11.5 |
| 80°-90° | 105.6 | 1.2 |
| 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° | 8863.0 | 100.0 |
| 0°-180° | 8863.0 | 100.0 |



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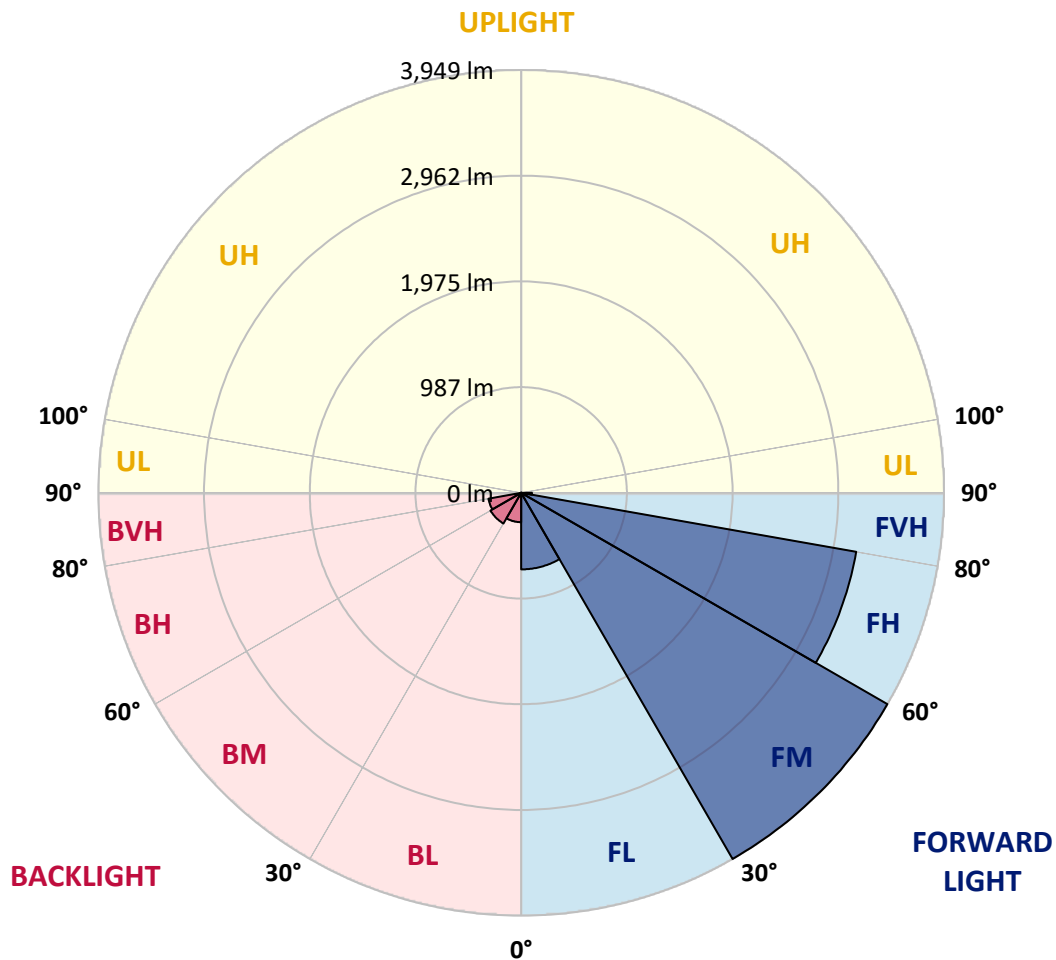
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 715.1 | 8.1 | | | |
| FM | (30°-60°) | 3949.4 | 44.6 | | | |
| FH | (60°-80°) | 3177.4 | 35.9 | | | G2/5000 |
| FVH | (80°-90°) | 100.9 | 1.1 | | | G2/225 |
| BL | (0°-30°) | 274.6 | 3.1 | B1/500 | | |
| BM | (30°-60°) | 330.7 | 3.7 | B1/1000 | | |
| BH | (60°-80°) | 310.2 | 3.5 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 4.8 | 0.1 | | | 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 Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| 0° | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 |
| 2.5° | 2020.8 | 2024.9 | 2024.4 | 2027.5 | 2034.7 | 2035.3 | 2028.0 | 2014.1 | 2011.0 | 1992.9 | 1961.3 |
| 5° | 1863.6 | 1875.5 | 1882.8 | 1912.2 | 1945.3 | 1985.1 | 2015.1 | 2026.0 | 2024.4 | 2011.5 | 1963.9 |
| 7.5° | 1684.2 | 1696.1 | 1704.4 | 1739.0 | 1783.0 | 1851.2 | 1929.3 | 1993.4 | 1999.1 | 2013.0 | 1961.9 |
| 10° | 1564.8 | 1566.9 | 1578.3 | 1611.4 | 1657.4 | 1727.2 | 1820.2 | 1932.4 | 1949.4 | 2000.6 | 1956.7 |
| 12.5° | 1466.6 | 1468.2 | 1483.2 | 1518.8 | 1567.9 | 1638.2 | 1735.9 | 1865.7 | 1892.1 | 1985.1 | 1955.7 |
| 15° | 1396.8 | 1402.5 | 1415.9 | 1453.2 | 1505.4 | 1575.2 | 1675.5 | 1816.6 | 1848.1 | 1979.4 | 1965.0 |
| 17.5° | 1373.6 | 1379.8 | 1383.9 | 1410.8 | 1458.3 | 1526.6 | 1629.5 | 1784.5 | 1820.2 | 1982.5 | 1983.0 |
| 20° | 1397.9 | 1402.5 | 1393.2 | 1399.9 | 1429.4 | 1490.4 | 1590.7 | 1757.1 | 1799.5 | 1986.2 | 2006.3 |
| 22.5° | 1488.3 | 1490.4 | 1465.1 | 1435.6 | 1430.4 | 1464.0 | 1560.2 | 1735.4 | 1780.9 | 1996.0 | 2033.7 |
| 25° | 1643.4 | 1639.8 | 1598.4 | 1534.8 | 1474.9 | 1459.4 | 1542.1 | 1722.0 | 1771.6 | 2006.3 | 2062.1 |
| 27.5° | 1830.5 | 1835.7 | 1778.9 | 1686.3 | 1572.1 | 1490.4 | 1539.5 | 1716.3 | 1767.5 | 2013.6 | 2087.0 |
| 30° | 2058.0 | 2065.2 | 2000.1 | 1883.8 | 1719.9 | 1566.9 | 1563.3 | 1715.3 | 1764.9 | 2008.9 | 2089.0 |
| 32.5° | 2290.1 | 2298.9 | 2247.7 | 2127.8 | 1917.4 | 1695.1 | 1617.0 | 1726.6 | 1770.1 | 1992.9 | 2077.1 |
| 35° | 2533.1 | 2545.5 | 2511.4 | 2408.5 | 2185.2 | 1880.2 | 1711.6 | 1761.3 | 1794.4 | 1991.3 | 2065.2 |
| 37.5° | 2868.6 | 2880.0 | 2815.9 | 2706.8 | 2509.3 | 2128.3 | 1863.6 | 1826.4 | 1851.7 | 2016.1 | 2068.3 |
| 40° | 3369.5 | 3368.0 | 3202.6 | 3035.6 | 2865.5 | 2443.7 | 2077.1 | 1944.3 | 1957.2 | 2091.1 | 2106.6 |
| 42.5° | 3915.4 | 3912.9 | 3668.3 | 3414.5 | 3261.0 | 2831.9 | 2357.8 | 2148.0 | 2139.2 | 2229.1 | 2205.9 |
| 45° | 4336.2 | 4335.7 | 4136.2 | 3850.3 | 3737.1 | 3277.5 | 2720.7 | 2431.3 | 2417.8 | 2453.5 | 2388.9 |
| 47.5° | 4515.6 | 4518.7 | 4418.4 | 4217.3 | 4264.9 | 3880.3 | 3178.3 | 2841.7 | 2821.6 | 2807.1 | 2708.9 |
| 50° | 4376.0 | 4382.3 | 4390.5 | 4351.2 | 4652.1 | 4690.4 | 3791.9 | 3420.2 | 3410.4 | 3345.8 | 3192.2 |
| 52.5° | 3920.1 | 3951.6 | 4048.8 | 4173.4 | 4786.5 | 5467.9 | 4753.9 | 4138.8 | 4086.0 | 4017.3 | 3848.2 |
| 55° | 3151.9 | 3186.5 | 3371.1 | 3673.5 | 4586.4 | 5978.6 | 6102.2 | 5065.2 | 4977.3 | 4772.0 | 4528.0 |
| 57.5° | 2085.9 | 2139.7 | 2407.5 | 2792.1 | 4005.4 | 6060.8 | 7447.3 | 6350.8 | 6044.8 | 5482.9 | 5207.8 |
| 60° | 1149.2 | 1200.9 | 1491.4 | 1839.9 | 2892.9 | 5654.5 | 8352.0 | 8024.7 | 7484.0 | 6277.4 | 6033.4 |
| 62.5° | 707.7 | 735.6 | 950.2 | 1274.3 | 1734.9 | 4462.9 | 8539.1 | 10128.2 | 9502.2 | 7300.5 | 7030.6 |
| 65° | 563.5 | 575.4 | 680.3 | 1041.7 | 1243.8 | 2654.6 | 7934.8 | 11731.8 | 11523.0 | 8539.1 | 7923.4 |
| 67° | 546.9 | 551.6 | 601.2 | 894.3 | 1172.5 | 1627.4 | 6647.6 | 11992.9 | 12204.9 | 9288.7 | 7951.3 |
| 67.5° | 550.6 | 555.7 | 602.8 | 853.5 | 1170.4 | 1495.6 | 6204.0 | 11890.0 | 12157.8 | 9348.1 | 7827.8 |
| 70° | 530.9 | 546.9 | 690.1 | 853.0 | 1113.0 | 1242.8 | 3715.4 | 10301.9 | 10580.6 | 8685.9 | 6641.9 |
| 72.5° | 188.2 | 189.2 | 298.3 | 690.1 | 1210.2 | 1256.2 | 1865.7 | 7552.2 | 7758.5 | 6644.5 | 4788.6 |
| 75° | 111.7 | 95.1 | 99.3 | 196.4 | 1156.4 | 1220.0 | 1076.3 | 4825.8 | 4902.8 | 3807.4 | 2425.0 |
| 77.5° | 77.0 | 67.2 | 69.3 | 86.8 | 440.4 | 1203.0 | 855.0 | 2516.6 | 2434.4 | 1335.3 | 516.4 |
| 80° | 43.9 | 38.8 | 41.4 | 76.0 | 160.3 | 1122.3 | 806.5 | 1020.5 | 870.0 | 226.4 | 142.7 |
| 82.5° | 23.3 | 19.6 | 23.8 | 62.6 | 111.7 | 699.4 | 808.0 | 493.2 | 390.8 | 76.5 | 97.2 |
| 85° | 8.3 | 6.7 | 11.4 | 42.9 | 74.4 | 214.5 | 749.1 | 414.6 | 325.7 | 37.2 | 73.9 |
| 87.5° | 1.6 | 1.6 | 4.7 | 17.6 | 30.0 | 65.7 | 443.0 | 246.1 | 164.9 | 22.2 | 50.7 |
| 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° | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 | 1954.6 |
| 2.5° | 1948.4 | 1926.2 | 1896.2 | 1859.5 | 1816.1 | 1777.8 | 1749.4 | 1719.9 | 1713.7 | 1703.4 | 1701.8 |
| 5° | 1935.5 | 1897.2 | 1822.8 | 1737.5 | 1646.5 | 1564.3 | 1497.6 | 1438.2 | 1411.8 | 1389.1 | 1386.5 |
| 7.5° | 1916.4 | 1859.0 | 1732.3 | 1594.8 | 1452.7 | 1323.4 | 1213.8 | 1136.3 | 1064.9 | 1030.8 | 1025.6 |
| 10° | 1894.1 | 1811.9 | 1630.5 | 1439.7 | 1243.3 | 1060.8 | 898.0 | 761.5 | 678.8 | 629.7 | 623.5 |
| 12.5° | 1873.5 | 1765.9 | 1526.6 | 1279.0 | 1017.9 | 773.9 | 564.5 | 434.2 | 347.4 | 312.2 | 308.1 |
| 15° | 1863.6 | 1728.7 | 1429.4 | 1114.6 | 782.2 | 492.7 | 308.6 | 238.8 | 210.4 | 202.1 | 201.6 |
| 17.5° | 1862.6 | 1697.2 | 1334.3 | 944.5 | 548.0 | 286.4 | 201.1 | 183.5 | 177.8 | 175.8 | 175.8 |
| 20° | 1862.1 | 1667.2 | 1239.1 | 768.2 | 347.9 | 190.8 | 167.5 | 163.4 | 159.2 | 156.6 | 156.6 |
| 22.5° | 1867.8 | 1640.3 | 1139.9 | 588.3 | 219.2 | 154.6 | 147.3 | 143.2 | 138.0 | 134.4 | 133.9 |
| 25° | 1873.5 | 1619.6 | 1038.6 | 418.7 | 158.7 | 134.4 | 127.2 | 121.5 | 114.2 | 109.6 | 109.1 |
| 27.5° | 1874.5 | 1593.8 | 930.0 | 280.2 | 132.9 | 117.3 | 108.0 | 99.3 | 91.0 | 86.3 | 85.8 |
| 30° | 1859.0 | 1550.4 | 809.6 | 189.2 | 117.3 | 101.8 | 89.4 | 80.1 | 72.4 | 68.8 | 68.8 |
| 32.5° | 1828.5 | 1496.6 | 677.2 | 142.7 | 104.4 | 87.4 | 73.9 | 65.1 | 60.0 | 58.4 | 57.9 |
| 35° | 1801.1 | 1438.7 | 541.3 | 121.0 | 93.6 | 73.9 | 60.5 | 54.8 | 51.7 | 51.2 | 50.7 |
| 37.5° | 1785.1 | 1392.2 | 413.6 | 109.6 | 83.2 | 62.0 | 51.2 | 47.0 | 45.5 | 44.5 | 45.0 |
| 40° | 1797.5 | 1353.4 | 305.5 | 100.3 | 72.9 | 51.7 | 43.4 | 41.4 | 39.8 | 39.3 | 39.3 |
| 42.5° | 1851.7 | 1346.7 | 226.9 | 92.0 | 63.1 | 42.9 | 37.7 | 36.2 | 35.2 | 34.6 | 35.2 |
| 45° | 1994.4 | 1388.0 | 176.3 | 84.3 | 53.2 | 36.2 | 32.1 | 31.5 | 31.0 | 31.0 | 31.0 |
| 47.5° | 2209.0 | 1473.3 | 146.8 | 75.5 | 44.5 | 31.0 | 27.9 | 27.4 | 26.9 | 27.4 | 27.4 |
| 50° | 2572.4 | 1629.5 | 131.3 | 66.7 | 36.7 | 26.4 | 23.8 | 23.8 | 23.8 | 23.8 | 24.3 |
| 52.5° | 3125.0 | 1936.5 | 121.0 | 57.9 | 30.0 | 22.2 | 20.2 | 20.2 | 20.7 | 20.7 | 21.2 |
| 55° | 3740.7 | 2343.9 | 111.7 | 49.1 | 25.3 | 18.6 | 16.5 | 17.1 | 17.6 | 18.1 | 18.1 |
| 57.5° | 4408.6 | 2795.2 | 103.9 | 40.3 | 21.7 | 15.0 | 14.0 | 14.5 | 15.0 | 16.0 | 16.0 |
| 60° | 5214.6 | 3283.7 | 92.5 | 31.5 | 18.1 | 11.9 | 10.9 | 11.9 | 13.4 | 14.5 | 15.0 |
| 62.5° | 6099.6 | 3756.2 | 78.1 | 24.8 | 15.0 | 9.3 | 8.8 | 10.9 | 12.9 | 14.0 | 14.5 |
| 65° | 6704.4 | 3904.6 | 60.0 | 20.2 | 11.4 | 6.7 | 7.2 | 9.8 | 12.4 | 14.0 | 14.0 |
| 67° | 6459.4 | 3540.1 | 49.1 | 17.1 | 9.3 | 5.2 | 6.7 | 9.8 | 12.4 | 13.4 | 14.0 |
| 67.5° | 6289.3 | 3397.4 | 47.0 | 16.5 | 8.8 | 5.2 | 6.7 | 9.8 | 12.4 | 14.0 | 14.0 |
| 70° | 5117.4 | 2552.2 | 39.3 | 12.4 | 7.2 | 4.7 | 5.7 | 9.3 | 11.9 | 13.4 | 13.4 |
| 72.5° | 3555.6 | 1573.6 | 35.2 | 8.8 | 6.2 | 4.1 | 5.2 | 8.8 | 11.4 | 12.9 | 13.4 |
| 75° | 1690.5 | 569.7 | 30.0 | 6.7 | 5.7 | 3.6 | 4.7 | 8.8 | 11.4 | 12.9 | 12.9 |
| 77.5° | 344.8 | 132.3 | 24.3 | 5.7 | 4.7 | 3.6 | 4.1 | 8.3 | 10.9 | 12.4 | 12.4 |
| 80° | 113.2 | 51.2 | 18.1 | 5.2 | 4.7 | 3.6 | 4.1 | 7.8 | 10.9 | 11.9 | 12.4 |
| 82.5° | 81.7 | 25.8 | 11.9 | 5.2 | 4.7 | 3.6 | 3.6 | 7.8 | 10.3 | 11.9 | 11.9 |
| 85° | 62.6 | 18.1 | 7.8 | 5.2 | 4.7 | 3.6 | 3.6 | 7.2 | 9.8 | 11.4 | 11.4 |
| 87.5° | 41.4 | 7.2 | 6.2 | 5.2 | 4.7 | 3.6 | 3.6 | 7.2 | 9.3 | 10.9 | 11.4 |
| 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)