

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: P299161

Luminaire Tested: **GAA-AF-02-LED-U-SL2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8345.2 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

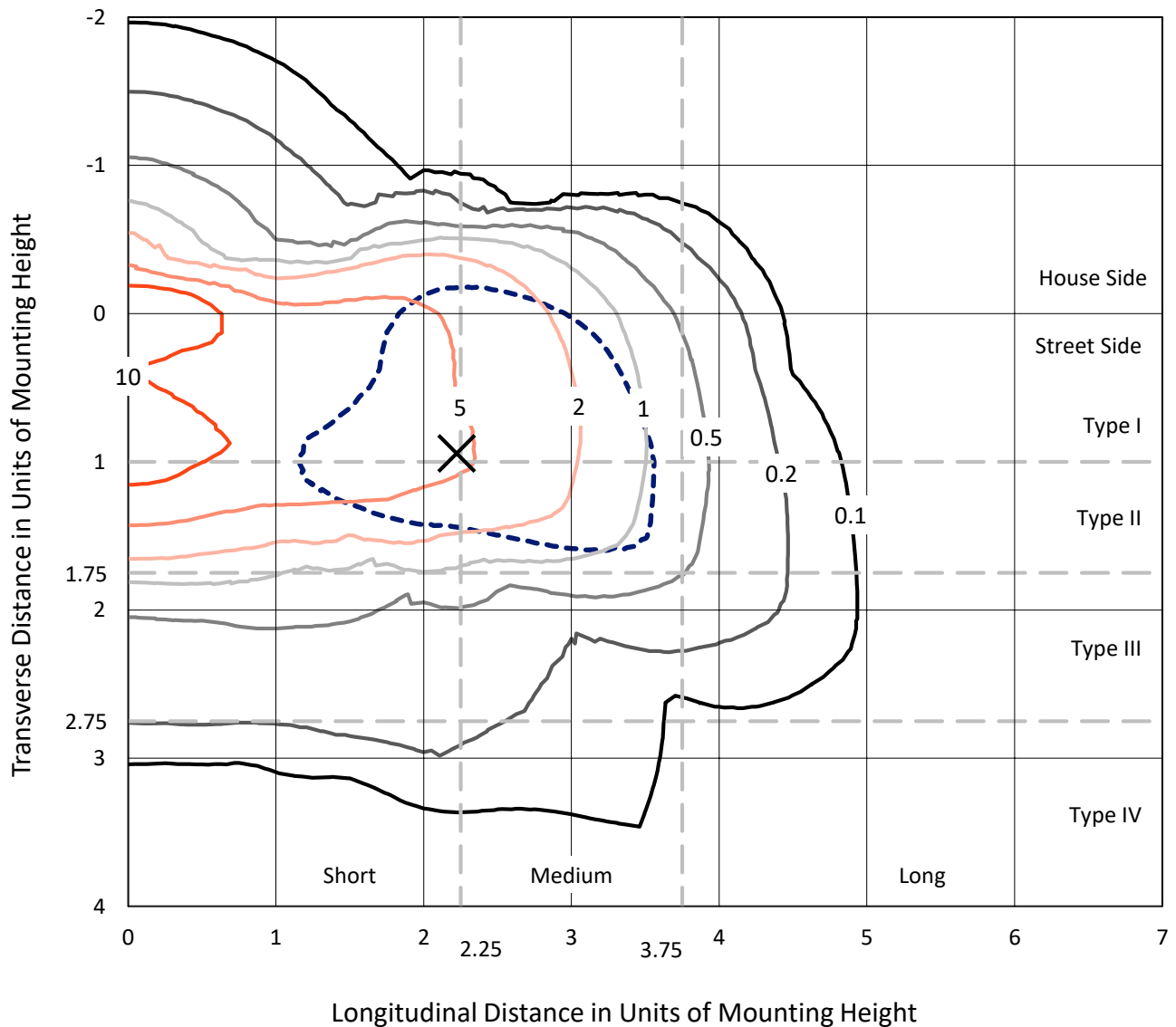
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

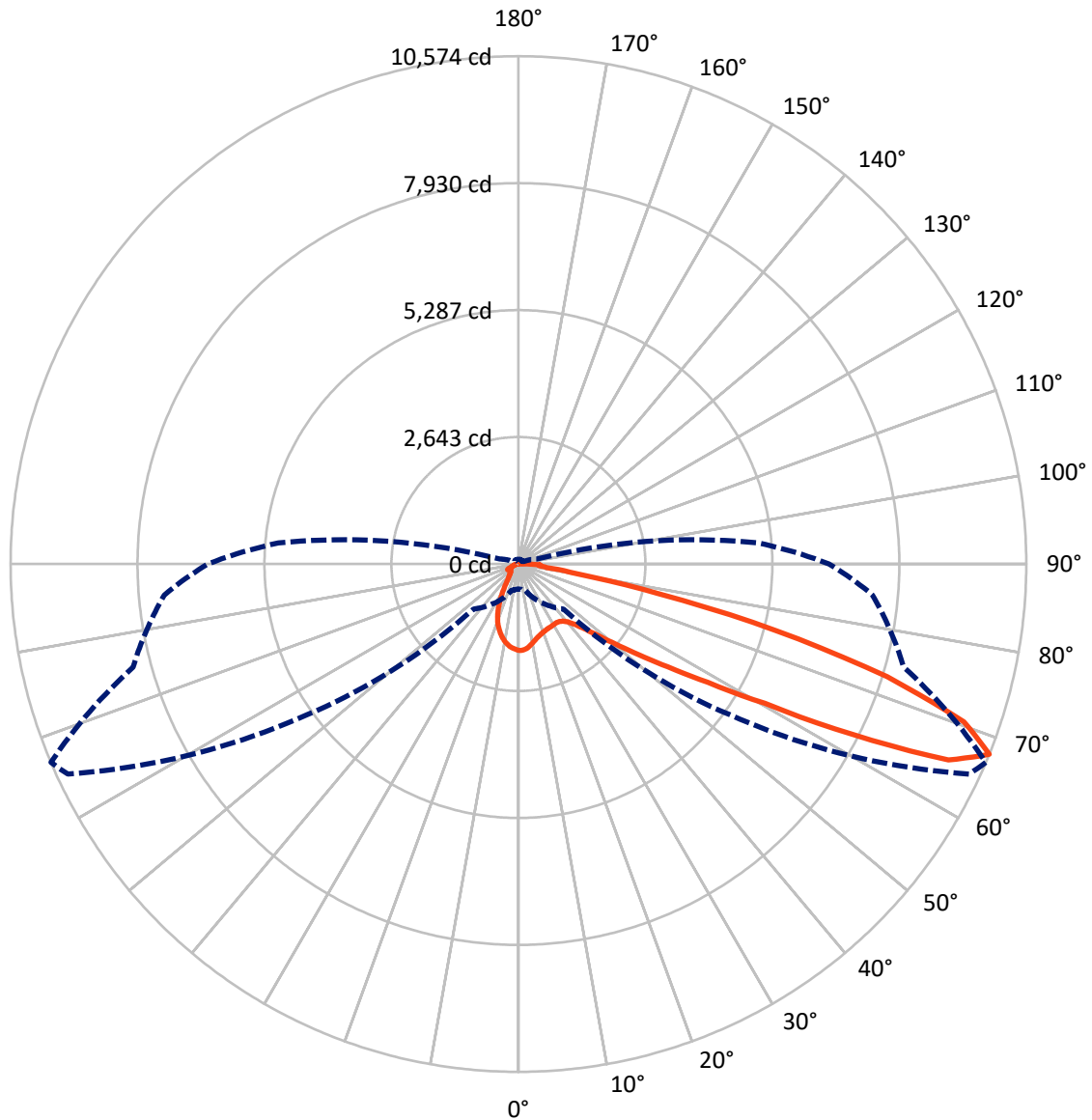
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1382.7 | 0.0 | 1382.7 |
| | % Fixture | 16.6 | 0.0 | 16.6 |
| Street Side | Lumens | 6962.5 | 0.0 | 6962.5 |
| | % Fixture | 83.4 | 0.0 | 83.4 |
| Total | Lumens | 8345.2 | 0.0 | 8345.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 153.6 | 1.8 |
| 10°-20° | 355.3 | 4.3 |
| 20°-30° | 481.7 | 5.8 |
| 30°-40° | 684.7 | 8.2 |
| 40°-50° | 1145.6 | 13.7 |
| 50°-60° | 1812.3 | 21.7 |
| 60°-70° | 2308.7 | 27.7 |
| 70°-80° | 1209.3 | 14.5 |
| 80°-90° | 193.9 | 2.3 |
| 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° | 8345.2 | 100.0 |
| 0°-180° | 8345.2 | 100.0 |

Coefficient of Utilization



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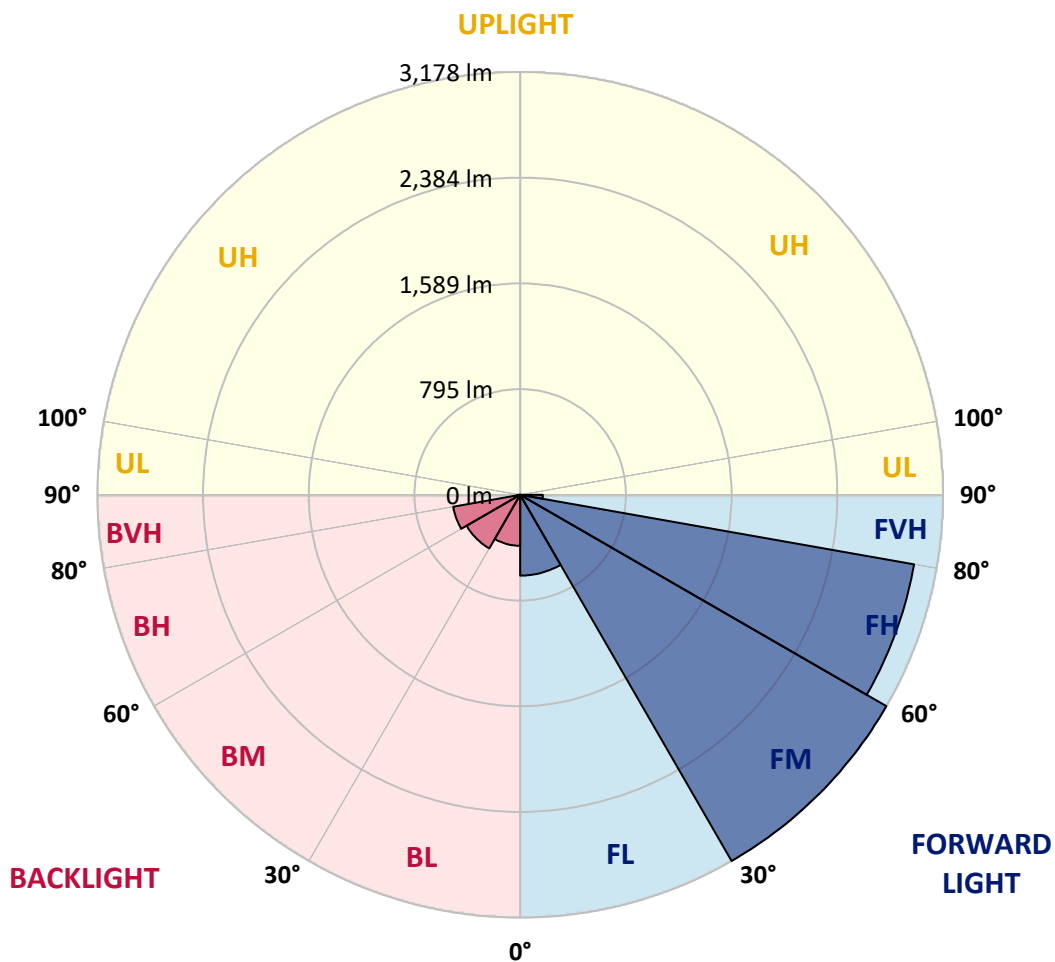
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 607.3 | 7.3 | | | |
| FM (30°-60°) | 3178.0 | 38.1 | | | |
| FH (60°-80°) | 3006.6 | 36.0 | | | G2/5000 |
| FVH (80°-90°) | 170.5 | 2.0 | | | G2/225 |
| BL (0°-30°) | 383.2 | 4.6 | B1/500 | | |
| BM (30°-60°) | 464.6 | 5.6 | B1/1000 | | |
| BH (60°-80°) | 511.4 | 6.1 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 23.4 | 0.3 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| 0° | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 |
| 2.5° | 1726.0 | 1728.8 | 1737.9 | 1743.7 | 1769.6 | 1780.7 | 1788.5 | 1796.3 | 1797.6 | 1801.3 | 1797.6 |
| 5° | 1544.9 | 1551.1 | 1567.9 | 1586.9 | 1637.1 | 1676.6 | 1718.1 | 1761.3 | 1769.2 | 1797.2 | 1805.0 |
| 7.5° | 1404.6 | 1402.9 | 1416.9 | 1439.5 | 1491.0 | 1545.7 | 1618.5 | 1704.6 | 1721.4 | 1784.4 | 1814.8 |
| 10° | 1302.1 | 1300.8 | 1315.7 | 1339.1 | 1388.1 | 1439.9 | 1522.2 | 1639.9 | 1663.8 | 1764.2 | 1824.3 |
| 12.5° | 1226.4 | 1226.8 | 1241.6 | 1267.5 | 1317.3 | 1369.6 | 1453.1 | 1577.4 | 1607.8 | 1740.8 | 1834.2 |
| 15° | 1176.2 | 1179.4 | 1191.4 | 1219.0 | 1267.5 | 1319.8 | 1401.7 | 1530.5 | 1564.6 | 1722.3 | 1845.3 |
| 17.5° | 1159.3 | 1164.6 | 1168.7 | 1188.9 | 1230.5 | 1282.7 | 1363.0 | 1495.9 | 1532.1 | 1709.5 | 1855.2 |
| 20° | 1174.9 | 1181.1 | 1173.3 | 1180.3 | 1206.6 | 1252.7 | 1332.5 | 1468.8 | 1505.8 | 1695.1 | 1856.4 |
| 22.5° | 1242.0 | 1247.8 | 1224.7 | 1204.5 | 1202.9 | 1230.9 | 1307.4 | 1447.4 | 1485.6 | 1684.4 | 1856.8 |
| 25° | 1360.1 | 1363.8 | 1325.1 | 1278.2 | 1232.5 | 1223.1 | 1289.7 | 1432.5 | 1473.3 | 1674.9 | 1849.0 |
| 27.5° | 1505.0 | 1507.8 | 1463.4 | 1394.3 | 1302.5 | 1241.6 | 1283.6 | 1423.9 | 1466.3 | 1666.7 | 1835.8 |
| 30° | 1681.1 | 1694.7 | 1635.0 | 1547.8 | 1414.0 | 1296.3 | 1295.9 | 1419.4 | 1458.5 | 1652.7 | 1809.9 |
| 32.5° | 1861.4 | 1867.1 | 1826.0 | 1737.5 | 1564.2 | 1392.6 | 1330.5 | 1422.7 | 1456.4 | 1635.8 | 1777.0 |
| 35° | 2044.1 | 2051.5 | 2024.7 | 1953.5 | 1769.6 | 1533.8 | 1398.0 | 1442.0 | 1469.2 | 1630.1 | 1753.9 |
| 37.5° | 2280.7 | 2290.6 | 2253.5 | 2171.2 | 2019.4 | 1725.1 | 1510.3 | 1490.6 | 1508.3 | 1646.5 | 1746.9 |
| 40° | 2654.8 | 2650.3 | 2542.0 | 2419.4 | 2292.6 | 1970.0 | 1670.8 | 1572.9 | 1583.2 | 1699.6 | 1768.3 |
| 42.5° | 3090.2 | 3079.1 | 2892.6 | 2700.0 | 2593.1 | 2266.3 | 1883.2 | 1715.7 | 1713.6 | 1804.1 | 1843.7 |
| 45° | 3437.5 | 3428.5 | 3260.6 | 3023.1 | 2937.5 | 2603.8 | 2157.7 | 1928.4 | 1913.2 | 1970.0 | 1982.8 |
| 47.5° | 3625.6 | 3626.0 | 3529.3 | 3335.5 | 3333.4 | 3032.6 | 2510.3 | 2236.3 | 2209.9 | 2236.7 | 2223.1 |
| 50° | 3559.7 | 3568.4 | 3558.1 | 3496.4 | 3694.7 | 3594.7 | 2970.8 | 2665.5 | 2612.4 | 2638.7 | 2586.5 |
| 52.5° | 3241.2 | 3252.3 | 3313.2 | 3407.9 | 3846.6 | 4274.2 | 3647.4 | 3198.8 | 3137.1 | 3127.6 | 3069.6 |
| 55° | 2676.6 | 2690.2 | 2814.5 | 3071.7 | 3720.2 | 4730.5 | 4714.9 | 3878.7 | 3780.3 | 3691.0 | 3666.3 |
| 57.5° | 1844.9 | 1867.5 | 2067.5 | 2449.4 | 3311.6 | 4868.4 | 5986.1 | 4847.8 | 4647.8 | 4335.9 | 4341.6 |
| 60° | 1039.9 | 1066.3 | 1302.1 | 1649.0 | 2486.9 | 4718.6 | 6953.2 | 6315.8 | 5893.5 | 5091.0 | 5133.8 |
| 62.5° | 661.3 | 689.7 | 868.7 | 1145.7 | 1492.2 | 3912.0 | 7349.5 | 8356.5 | 7820.3 | 6021.9 | 6063.9 |
| 65° | 535.4 | 547.7 | 632.1 | 945.7 | 1083.6 | 2356.8 | 7048.7 | 10037.6 | 9837.6 | 7203.4 | 7007.5 |
| 67.5° | 522.6 | 526.8 | 570.4 | 793.8 | 1039.1 | 1324.7 | 5622.3 | 10352.0 | 10573.9 | 8306.7 | 7400.5 |
| 70° | 516.5 | 530.9 | 642.8 | 757.6 | 995.1 | 1117.3 | 3378.7 | 9490.3 | 9840.5 | 8595.2 | 6877.5 |
| 72.5° | 250.6 | 249.8 | 323.5 | 685.2 | 1121.0 | 1158.9 | 1735.8 | 7678.7 | 8030.2 | 7446.6 | 5651.5 |
| 75° | 202.1 | 184.8 | 176.5 | 251.0 | 1077.8 | 1196.7 | 1106.2 | 5283.6 | 5538.0 | 4992.7 | 3474.1 |
| 77.5° | 191.8 | 171.2 | 156.8 | 157.2 | 455.6 | 1269.2 | 937.1 | 2924.3 | 2998.4 | 2255.2 | 951.9 |
| 80° | 158.9 | 139.9 | 129.6 | 146.1 | 220.6 | 1208.7 | 1013.2 | 1323.5 | 1214.4 | 553.9 | 316.9 |
| 82.5° | 110.3 | 100.4 | 97.5 | 122.6 | 176.5 | 861.3 | 1178.2 | 711.1 | 596.3 | 277.4 | 195.5 |
| 85° | 70.4 | 60.1 | 66.7 | 89.3 | 137.5 | 397.5 | 1213.6 | 554.3 | 440.7 | 176.1 | 110.3 |
| 87.5° | 32.5 | 26.3 | 32.9 | 49.4 | 89.7 | 137.0 | 1154.8 | 622.6 | 453.9 | 93.0 | 69.5 |
| 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° | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 | 1800.0 |
| 2.5° | 1800.9 | 1793.0 | 1786.9 | 1775.3 | 1762.6 | 1750.2 | 1739.1 | 1725.1 | 1721.0 | 1717.3 | 1723.1 |
| 5° | 1806.6 | 1798.8 | 1776.2 | 1740.8 | 1701.7 | 1665.1 | 1628.4 | 1597.1 | 1577.8 | 1567.1 | 1573.3 |
| 7.5° | 1815.3 | 1804.1 | 1757.2 | 1692.2 | 1621.8 | 1557.6 | 1491.4 | 1438.3 | 1399.2 | 1380.7 | 1386.0 |
| 10° | 1823.1 | 1801.7 | 1725.1 | 1627.6 | 1524.7 | 1429.2 | 1324.7 | 1238.3 | 1174.1 | 1140.3 | 1148.6 |
| 12.5° | 1826.4 | 1792.2 | 1680.3 | 1546.9 | 1405.8 | 1265.9 | 1112.0 | 982.7 | 890.6 | 856.8 | 849.8 |
| 15° | 1829.7 | 1781.5 | 1630.9 | 1455.2 | 1262.2 | 1064.2 | 848.6 | 693.8 | 617.3 | 600.4 | 596.7 |
| 17.5° | 1830.5 | 1763.0 | 1574.9 | 1355.6 | 1093.8 | 824.3 | 580.3 | 481.9 | 482.3 | 509.5 | 512.8 |
| 20° | 1821.8 | 1735.4 | 1507.0 | 1231.7 | 892.2 | 570.0 | 398.4 | 381.5 | 443.6 | 511.5 | 519.8 |
| 22.5° | 1802.1 | 1698.8 | 1430.1 | 1087.3 | 661.3 | 375.3 | 308.2 | 326.8 | 407.0 | 490.1 | 499.6 |
| 25° | 1777.0 | 1654.4 | 1339.1 | 919.8 | 437.9 | 268.3 | 258.4 | 281.1 | 335.4 | 391.0 | 396.3 |
| 27.5° | 1742.8 | 1601.7 | 1237.1 | 728.0 | 284.4 | 221.0 | 227.6 | 242.8 | 265.0 | 289.7 | 292.2 |
| 30° | 1698.8 | 1538.7 | 1128.0 | 530.9 | 214.8 | 198.8 | 208.2 | 216.5 | 225.9 | 239.9 | 241.2 |
| 32.5° | 1648.2 | 1478.2 | 1016.1 | 366.7 | 190.5 | 187.2 | 194.7 | 198.8 | 206.2 | 214.8 | 215.6 |
| 35° | 1605.8 | 1420.6 | 900.0 | 259.3 | 180.3 | 178.6 | 183.5 | 185.2 | 192.2 | 201.6 | 202.5 |
| 37.5° | 1581.5 | 1373.7 | 780.3 | 209.1 | 173.3 | 170.8 | 173.7 | 173.7 | 183.5 | 197.5 | 199.6 |
| 40° | 1583.2 | 1347.8 | 660.5 | 188.9 | 167.5 | 164.2 | 164.6 | 164.6 | 177.4 | 192.6 | 193.8 |
| 42.5° | 1628.0 | 1354.3 | 554.3 | 181.1 | 163.0 | 159.3 | 157.2 | 158.4 | 169.1 | 179.0 | 179.8 |
| 45° | 1733.4 | 1400.8 | 454.7 | 176.1 | 158.4 | 157.2 | 152.7 | 152.3 | 156.4 | 160.9 | 160.9 |
| 47.5° | 1906.2 | 1492.6 | 387.2 | 172.8 | 154.7 | 154.3 | 149.0 | 143.6 | 143.2 | 144.9 | 144.9 |
| 50° | 2187.3 | 1650.6 | 342.0 | 169.1 | 152.3 | 149.0 | 142.8 | 134.6 | 131.7 | 132.9 | 132.9 |
| 52.5° | 2608.7 | 1932.5 | 324.7 | 164.2 | 146.9 | 141.6 | 134.6 | 126.3 | 123.9 | 124.3 | 124.3 |
| 55° | 3161.4 | 2365.5 | 322.2 | 158.4 | 141.2 | 132.5 | 126.8 | 120.6 | 117.7 | 118.5 | 118.5 |
| 57.5° | 3836.7 | 2964.3 | 366.3 | 149.4 | 133.3 | 123.5 | 120.2 | 116.1 | 114.0 | 115.2 | 114.8 |
| 60° | 4657.7 | 3747.8 | 543.2 | 139.9 | 125.5 | 115.2 | 115.2 | 111.9 | 110.3 | 111.5 | 111.1 |
| 62.5° | 5603.4 | 4647.8 | 763.8 | 132.9 | 117.3 | 108.6 | 110.3 | 108.6 | 107.0 | 107.8 | 107.4 |
| 65° | 6442.1 | 5234.3 | 715.2 | 127.6 | 109.1 | 102.5 | 105.4 | 104.5 | 103.3 | 104.1 | 103.7 |
| 67.5° | 6466.4 | 5017.0 | 401.7 | 121.8 | 101.2 | 96.3 | 100.4 | 100.0 | 99.2 | 100.0 | 99.6 |
| 70° | 5770.9 | 4236.3 | 226.3 | 111.1 | 93.0 | 88.9 | 94.7 | 94.2 | 93.4 | 95.1 | 94.7 |
| 72.5° | 4623.5 | 3074.1 | 165.4 | 97.9 | 84.8 | 81.1 | 87.7 | 87.2 | 87.2 | 89.7 | 88.5 |
| 75° | 2660.5 | 1581.9 | 132.1 | 84.0 | 76.1 | 73.3 | 79.0 | 79.4 | 80.2 | 83.5 | 81.1 |
| 77.5° | 758.4 | 493.0 | 107.8 | 71.2 | 65.4 | 64.2 | 70.0 | 70.8 | 71.2 | 74.9 | 71.6 |
| 80° | 281.9 | 227.2 | 88.9 | 59.7 | 53.5 | 53.9 | 59.3 | 60.5 | 60.9 | 64.6 | 60.5 |
| 82.5° | 179.8 | 149.8 | 72.0 | 46.1 | 42.0 | 41.6 | 48.1 | 49.8 | 49.8 | 50.2 | 47.7 |
| 85° | 104.9 | 89.7 | 54.3 | 33.3 | 29.6 | 28.4 | 35.8 | 38.7 | 37.4 | 36.6 | 35.0 |
| 87.5° | 70.4 | 61.7 | 33.3 | 18.5 | 16.0 | 15.2 | 21.0 | 23.0 | 22.2 | 21.0 | 19.8 |
| 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)