

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: P192050

Luminaire Tested: **GLEON-AF-02-LED-E1-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24294)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-02-LED-E1-SL4-7050
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K, 1050mA 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: 11572 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

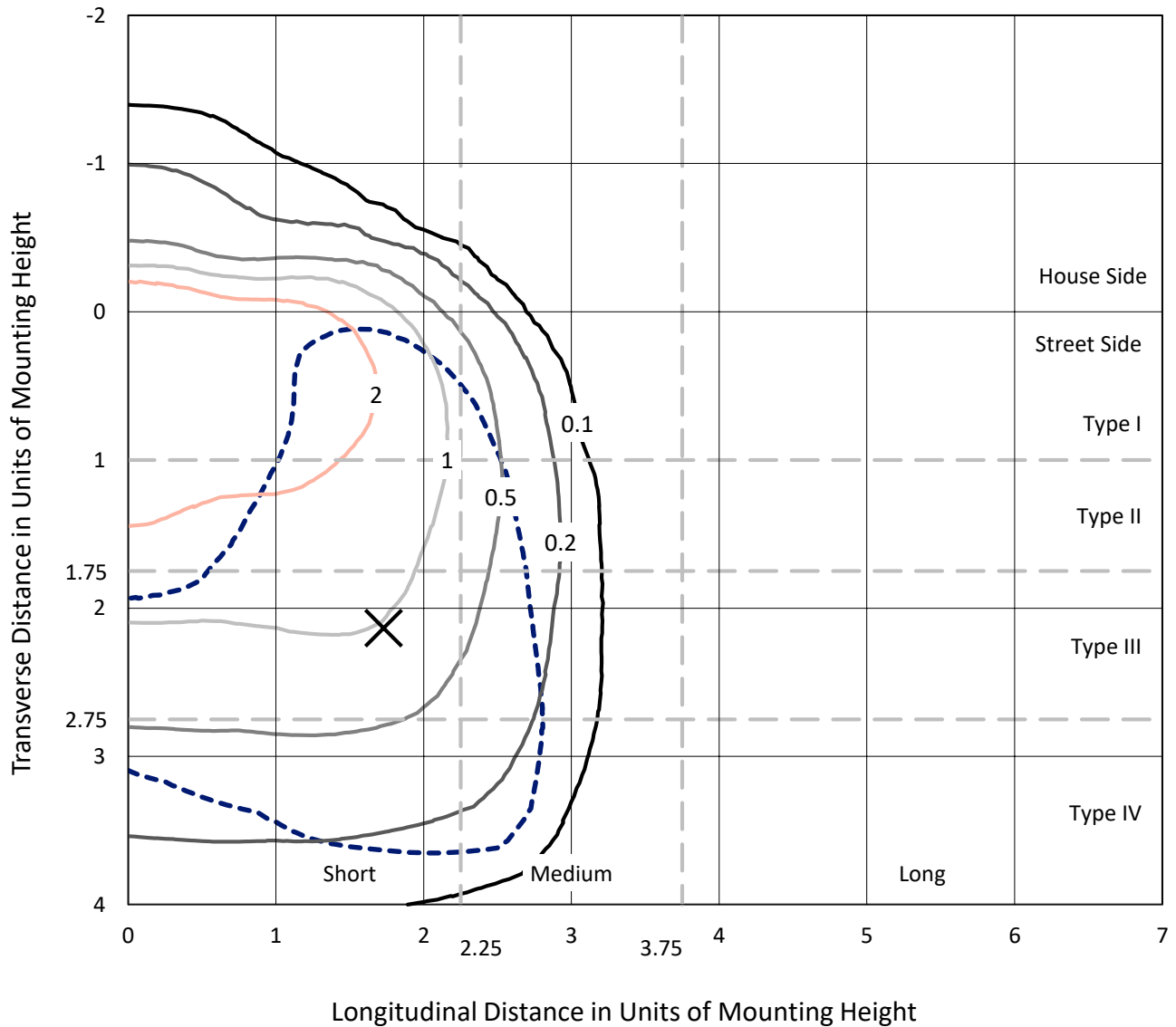
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

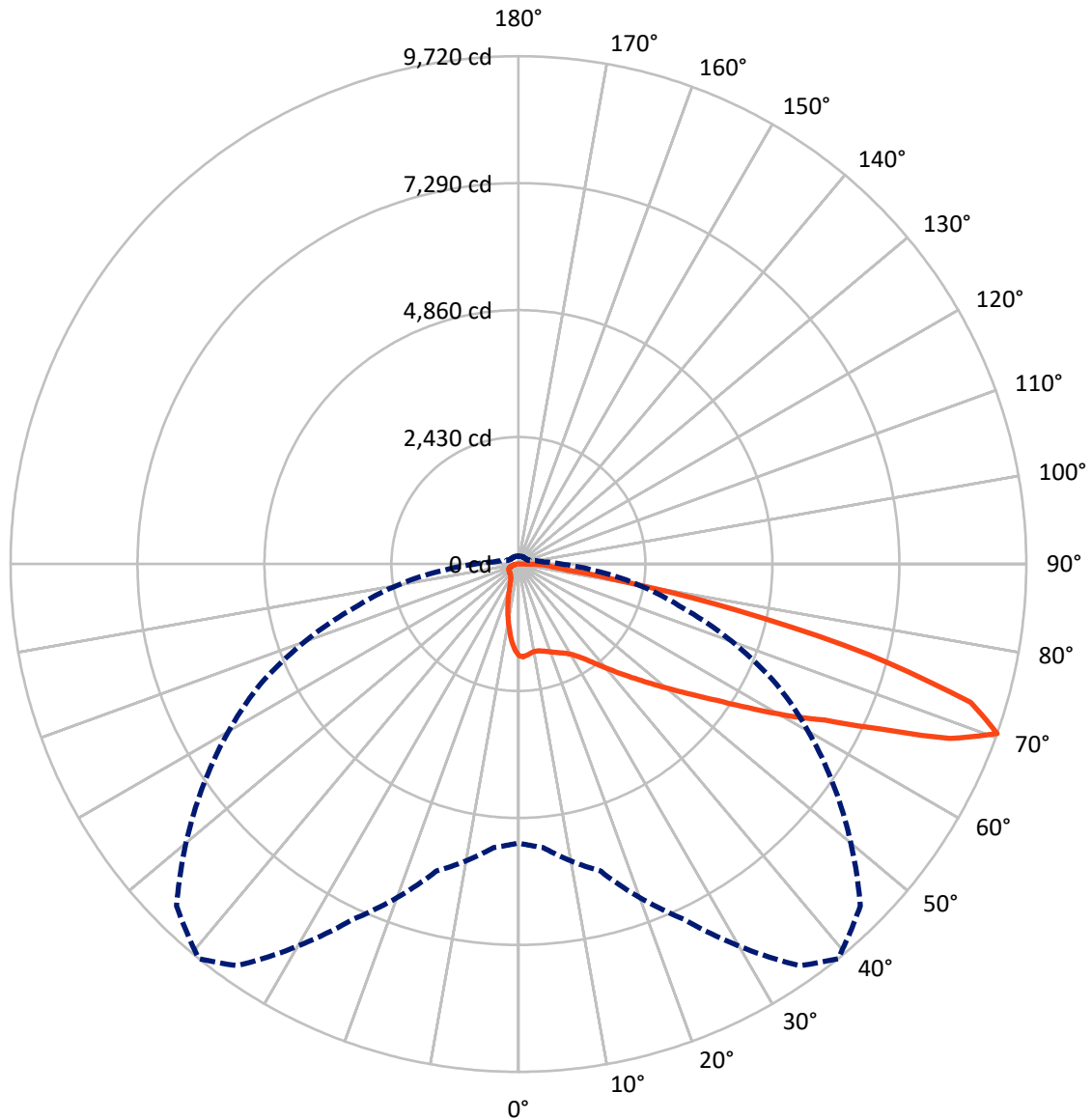
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 39-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1316.1 | 0.0 | 1316.1 |
| | % Fixture | 11.4 | 0.0 | 11.4 |
| Street Side | Lumens | 10255.9 | 0.0 | 10255.9 |
| | % Fixture | 88.6 | 0.0 | 88.6 |
| Total | Lumens | 11572.0 | 0.0 | 11572.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 150.8 | 1.3 |
| 10°-20° | 376.9 | 3.3 |
| 20°-30° | 586.8 | 5.1 |
| 30°-40° | 914.1 | 7.9 |
| 40°-50° | 1534.6 | 13.3 |
| 50°-60° | 2437.9 | 21.1 |
| 60°-70° | 3251.9 | 28.1 |
| 70°-80° | 1963.7 | 17.0 |
| 80°-90° | 355.4 | 3.1 |
| 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° | 11572.0 | 100.0 |
| 0°-180° | 11572.0 | 100.0 |

Coefficient of Utilization



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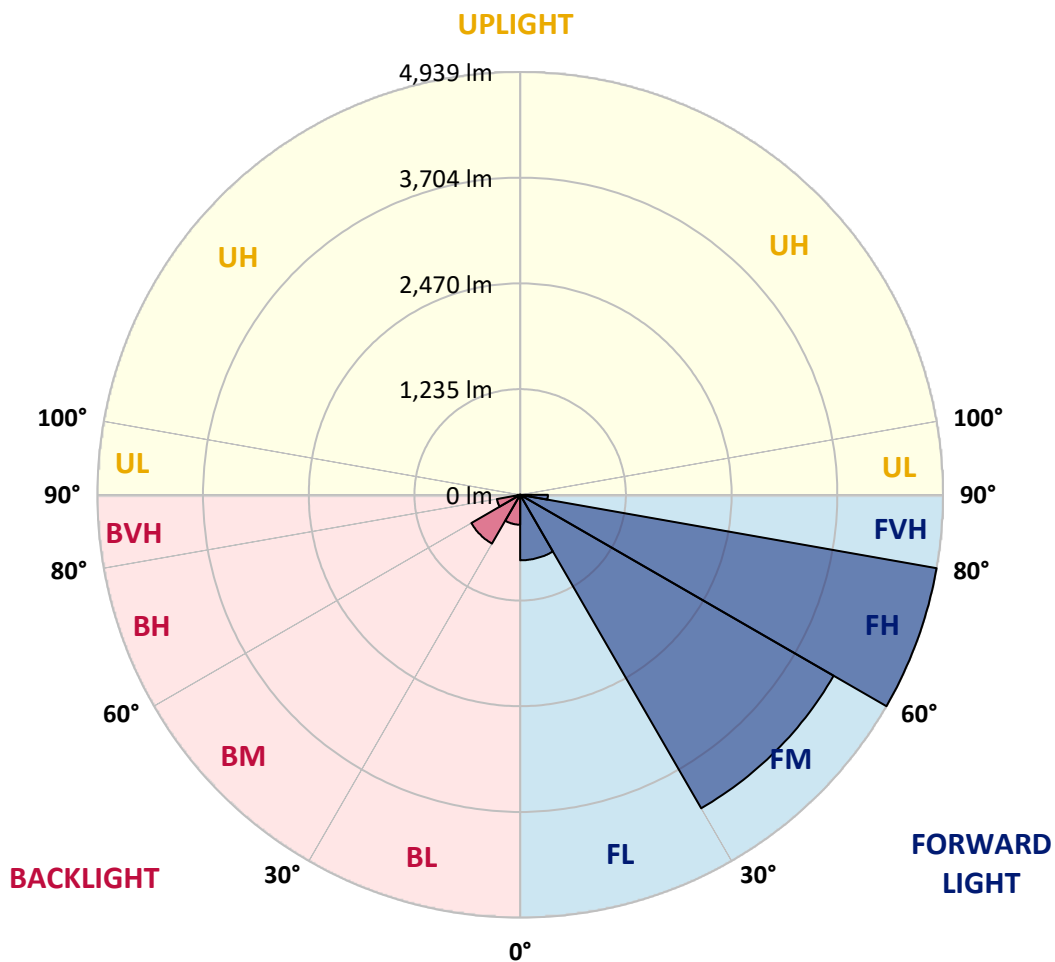
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 765.3 | 6.6 | | | |
| FM | (30°-60°) | 4228.0 | 36.5 | | | |
| FH | (60°-80°) | 4939.3 | 42.7 | | | G2/5000 |
| FVH | (80°-90°) | 323.4 | 2.8 | | | G3/500 |
| BL | (0°-30°) | 349.1 | 3.0 | B1/500 | | |
| BM | (30°-60°) | 658.6 | 5.7 | B1/1000 | | |
| BH | (60°-80°) | 276.3 | 2.4 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 32.0 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 39° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 |
| 2.5° | 1790.9 | 1790.3 | 1785.6 | 1782.1 | 1779.2 | 1778.0 | 1780.3 | 1771.5 | 1763.9 | 1754.5 | 1744.5 |
| 5° | 1777.4 | 1776.8 | 1769.2 | 1762.1 | 1755.0 | 1752.7 | 1752.1 | 1736.2 | 1726.8 | 1712.7 | 1693.9 |
| 7.5° | 1762.7 | 1759.8 | 1749.7 | 1738.0 | 1725.6 | 1719.7 | 1713.9 | 1693.3 | 1682.7 | 1668.6 | 1646.8 |
| 10° | 1747.4 | 1743.9 | 1734.5 | 1722.7 | 1710.9 | 1702.1 | 1692.1 | 1672.1 | 1660.9 | 1650.3 | 1625.0 |
| 12.5° | 1731.5 | 1728.6 | 1726.2 | 1720.9 | 1712.7 | 1705.0 | 1697.4 | 1680.3 | 1668.6 | 1656.2 | 1626.8 |
| 15° | 1729.2 | 1728.0 | 1733.3 | 1736.8 | 1732.1 | 1727.4 | 1719.2 | 1704.4 | 1692.1 | 1679.7 | 1641.5 |
| 17.5° | 1748.0 | 1747.4 | 1760.9 | 1770.3 | 1768.0 | 1759.8 | 1748.6 | 1732.1 | 1722.1 | 1711.5 | 1663.8 |
| 20° | 1789.2 | 1792.1 | 1808.6 | 1820.9 | 1809.2 | 1797.4 | 1779.2 | 1756.2 | 1750.9 | 1746.2 | 1686.8 |
| 22.5° | 1866.8 | 1869.8 | 1881.5 | 1886.2 | 1855.7 | 1838.6 | 1813.3 | 1783.9 | 1780.3 | 1783.9 | 1714.4 |
| 25° | 1988.0 | 1985.1 | 1983.3 | 1965.7 | 1909.8 | 1883.3 | 1850.9 | 1820.4 | 1822.1 | 1838.0 | 1753.3 |
| 27.5° | 2148.6 | 2132.8 | 2108.1 | 2055.1 | 1966.3 | 1936.8 | 1897.4 | 1869.2 | 1880.4 | 1911.0 | 1811.5 |
| 30° | 2315.2 | 2297.5 | 2240.4 | 2153.9 | 2040.4 | 2008.0 | 1963.9 | 1932.1 | 1961.6 | 2009.8 | 1889.2 |
| 32.5° | 2469.3 | 2466.9 | 2383.4 | 2272.2 | 2142.8 | 2114.5 | 2070.4 | 2034.5 | 2082.2 | 2155.7 | 2005.7 |
| 35° | 2637.6 | 2642.9 | 2542.8 | 2409.3 | 2281.0 | 2251.6 | 2219.8 | 2192.8 | 2256.3 | 2357.5 | 2174.5 |
| 37.5° | 2817.6 | 2828.2 | 2709.9 | 2559.3 | 2438.7 | 2426.3 | 2407.5 | 2395.8 | 2494.0 | 2634.0 | 2410.5 |
| 40° | 3058.2 | 3047.6 | 2883.5 | 2728.8 | 2632.3 | 2631.7 | 2625.8 | 2639.9 | 2803.5 | 2995.3 | 2713.5 |
| 42.5° | 3315.9 | 3284.8 | 3067.6 | 2910.6 | 2844.7 | 2864.7 | 2876.4 | 2934.1 | 3175.9 | 3434.2 | 3082.9 |
| 45° | 3593.6 | 3523.6 | 3258.9 | 3103.0 | 3080.6 | 3123.0 | 3163.0 | 3288.3 | 3614.2 | 3933.7 | 3487.7 |
| 47.5° | 3815.4 | 3747.8 | 3456.5 | 3304.8 | 3353.6 | 3417.7 | 3494.8 | 3693.1 | 4104.9 | 4449.7 | 3887.2 |
| 50° | 3990.2 | 3946.1 | 3656.0 | 3540.1 | 3654.2 | 3753.1 | 3879.0 | 4151.4 | 4615.6 | 4952.1 | 4257.3 |
| 52.5° | 4159.6 | 4126.7 | 3857.2 | 3781.3 | 4007.2 | 4143.7 | 4314.9 | 4643.2 | 5139.2 | 5446.3 | 4568.5 |
| 55° | 4312.6 | 4289.1 | 4073.7 | 4082.0 | 4422.6 | 4600.3 | 4815.6 | 5203.4 | 5709.9 | 5887.0 | 4832.1 |
| 57.5° | 4485.0 | 4455.0 | 4320.8 | 4459.1 | 4956.2 | 5186.9 | 5466.9 | 5832.9 | 6245.3 | 6278.9 | 5032.7 |
| 60° | 4658.5 | 4632.7 | 4595.0 | 4894.5 | 5634.0 | 5876.4 | 6141.8 | 6443.0 | 6788.4 | 6583.0 | 5021.0 |
| 62.5° | 4809.2 | 4812.1 | 4878.6 | 5351.6 | 6297.7 | 6578.3 | 6901.9 | 7199.6 | 7279.6 | 6636.0 | 4649.7 |
| 65° | 5064.5 | 5111.0 | 5309.3 | 5998.8 | 7232.0 | 7607.3 | 8004.5 | 7956.8 | 7415.5 | 6141.2 | 3853.7 |
| 67.5° | 5368.1 | 5449.9 | 5851.7 | 6861.3 | 8412.8 | 8911.1 | 9064.7 | 8128.0 | 6871.3 | 4992.1 | 2747.0 |
| 70° | 5337.5 | 5449.9 | 6085.9 | 7504.4 | 9385.9 | 9720.1 | 9254.1 | 7356.1 | 5456.3 | 3261.2 | 1459.1 |
| 72.5° | 4739.7 | 4900.4 | 5608.7 | 7209.6 | 9079.4 | 9050.0 | 8033.9 | 5484.0 | 3241.8 | 1309.7 | 570.1 |
| 75° | 3612.5 | 3774.8 | 4384.4 | 5695.8 | 7176.1 | 6929.0 | 5700.5 | 3029.4 | 1230.2 | 520.1 | 359.5 |
| 77.5° | 2078.0 | 2204.0 | 2674.6 | 3493.0 | 4552.6 | 4299.1 | 3173.0 | 1347.3 | 598.9 | 362.4 | 280.6 |
| 80° | 1160.2 | 1230.2 | 1516.2 | 1772.1 | 2231.0 | 2045.1 | 1419.7 | 837.2 | 447.1 | 263.0 | 216.5 |
| 82.5° | 917.2 | 979.6 | 1226.1 | 1117.9 | 1019.0 | 940.2 | 815.5 | 745.4 | 357.1 | 165.9 | 129.4 |
| 85° | 801.3 | 860.8 | 1037.8 | 880.2 | 696.0 | 638.4 | 662.5 | 733.7 | 277.7 | 100.0 | 110.6 |
| 87.5° | 742.5 | 821.9 | 924.9 | 678.4 | 541.9 | 480.1 | 611.3 | 804.3 | 89.4 | 62.4 | 44.7 |
| 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° | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 | 1756.8 |
| 2.5° | 1735.6 | 1726.2 | 1710.9 | 1697.4 | 1676.2 | 1665.0 | 1652.7 | 1643.8 | 1636.8 | 1630.9 | 1640.3 |
| 5° | 1682.1 | 1664.4 | 1632.1 | 1597.4 | 1556.2 | 1523.8 | 1496.8 | 1471.5 | 1453.8 | 1442.0 | 1450.3 |
| 7.5° | 1631.5 | 1602.7 | 1552.1 | 1489.1 | 1418.5 | 1358.5 | 1309.1 | 1265.5 | 1235.5 | 1216.1 | 1223.8 |
| 10° | 1602.7 | 1566.8 | 1488.5 | 1389.7 | 1285.5 | 1192.0 | 1114.3 | 1047.3 | 1000.8 | 974.3 | 978.4 |
| 12.5° | 1595.6 | 1549.1 | 1440.9 | 1305.0 | 1162.6 | 1032.6 | 923.1 | 830.2 | 764.9 | 730.7 | 731.9 |
| 15° | 1600.9 | 1541.5 | 1396.2 | 1223.8 | 1043.7 | 879.6 | 743.1 | 630.1 | 554.2 | 515.4 | 514.8 |
| 17.5° | 1609.7 | 1535.6 | 1349.1 | 1136.1 | 923.1 | 732.5 | 580.1 | 469.5 | 402.4 | 371.2 | 368.9 |
| 20° | 1619.1 | 1526.2 | 1296.1 | 1041.4 | 797.8 | 596.0 | 454.2 | 367.7 | 325.4 | 308.3 | 307.1 |
| 22.5° | 1632.7 | 1517.9 | 1241.4 | 941.4 | 674.8 | 485.4 | 373.6 | 315.4 | 293.0 | 284.2 | 283.0 |
| 25° | 1654.4 | 1513.8 | 1183.2 | 837.2 | 564.2 | 406.0 | 325.4 | 289.5 | 276.5 | 270.6 | 270.1 |
| 27.5° | 1690.9 | 1519.7 | 1128.5 | 736.0 | 474.2 | 352.4 | 298.3 | 276.5 | 267.1 | 261.8 | 261.2 |
| 30° | 1738.0 | 1537.9 | 1070.8 | 640.1 | 404.2 | 315.9 | 281.8 | 267.7 | 260.1 | 254.8 | 254.8 |
| 32.5° | 1816.2 | 1568.5 | 1010.2 | 557.2 | 354.2 | 290.6 | 269.5 | 260.1 | 253.6 | 249.5 | 248.9 |
| 35° | 1931.5 | 1626.2 | 953.7 | 488.3 | 318.3 | 272.4 | 258.9 | 251.8 | 247.1 | 244.8 | 244.8 |
| 37.5° | 2099.2 | 1717.4 | 903.7 | 438.9 | 296.5 | 260.1 | 248.9 | 243.6 | 240.6 | 240.6 | 240.6 |
| 40° | 2324.6 | 1843.3 | 863.1 | 406.0 | 284.2 | 251.2 | 241.2 | 237.1 | 235.3 | 235.9 | 235.9 |
| 42.5° | 2602.9 | 2006.9 | 836.0 | 383.0 | 278.3 | 245.9 | 235.9 | 232.4 | 230.6 | 230.0 | 230.6 |
| 45° | 2920.0 | 2192.8 | 833.1 | 366.0 | 272.4 | 242.4 | 232.4 | 228.9 | 225.3 | 223.0 | 223.0 |
| 47.5° | 3228.3 | 2381.6 | 857.2 | 360.1 | 265.9 | 238.3 | 229.5 | 225.9 | 220.6 | 215.3 | 215.3 |
| 50° | 3500.7 | 2542.3 | 889.6 | 362.4 | 263.6 | 232.4 | 224.7 | 223.0 | 214.7 | 208.9 | 208.3 |
| 52.5° | 3717.2 | 2665.8 | 916.1 | 369.5 | 265.9 | 228.3 | 218.9 | 219.5 | 210.6 | 204.2 | 203.6 |
| 55° | 3890.7 | 2747.0 | 909.0 | 376.5 | 271.2 | 225.9 | 213.6 | 214.7 | 207.7 | 201.2 | 201.2 |
| 57.5° | 3966.6 | 2717.0 | 830.7 | 370.7 | 275.3 | 226.5 | 209.5 | 214.2 | 208.3 | 202.4 | 202.4 |
| 60° | 3803.7 | 2450.5 | 684.2 | 344.8 | 270.1 | 224.7 | 207.7 | 216.5 | 215.9 | 210.0 | 209.5 |
| 62.5° | 3310.6 | 1973.3 | 530.7 | 306.5 | 251.8 | 215.9 | 203.0 | 215.9 | 222.4 | 220.6 | 220.0 |
| 65° | 2551.7 | 1405.6 | 405.4 | 265.3 | 227.1 | 201.2 | 190.6 | 202.4 | 211.2 | 213.6 | 213.0 |
| 67.5° | 1656.2 | 861.3 | 312.4 | 226.5 | 199.5 | 184.2 | 174.7 | 180.0 | 181.8 | 181.8 | 180.6 |
| 70° | 814.3 | 463.6 | 248.9 | 190.6 | 171.2 | 165.9 | 160.6 | 157.7 | 154.7 | 152.4 | 152.4 |
| 72.5° | 401.8 | 303.0 | 204.7 | 161.2 | 147.7 | 145.3 | 144.1 | 140.6 | 138.3 | 135.3 | 134.1 |
| 75° | 297.1 | 246.5 | 174.2 | 135.9 | 127.1 | 124.7 | 127.1 | 124.1 | 123.6 | 121.2 | 120.0 |
| 77.5° | 244.2 | 210.0 | 150.0 | 116.5 | 108.8 | 104.7 | 108.3 | 108.8 | 109.4 | 105.9 | 104.7 |
| 80° | 198.3 | 177.7 | 125.3 | 96.5 | 89.4 | 86.5 | 88.8 | 93.5 | 94.7 | 89.4 | 87.1 |
| 82.5° | 143.0 | 145.3 | 101.2 | 75.3 | 69.4 | 67.1 | 71.8 | 77.7 | 78.8 | 71.2 | 69.4 |
| 85° | 120.0 | 121.2 | 77.7 | 53.5 | 47.7 | 44.1 | 51.8 | 57.7 | 61.8 | 54.1 | 52.4 |
| 87.5° | 50.0 | 71.2 | 44.7 | 30.0 | 26.5 | 22.9 | 27.7 | 30.6 | 37.1 | 34.1 | 33.5 |
| 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)