

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: P300299

Luminaire Tested: **GLNA-AF-01-LED-E1-AFL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300299
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: GLNA-AF-01-LED-E1-AFL-7050
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6372 lumens
Efficiency: N/A
Efficacy: 108.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

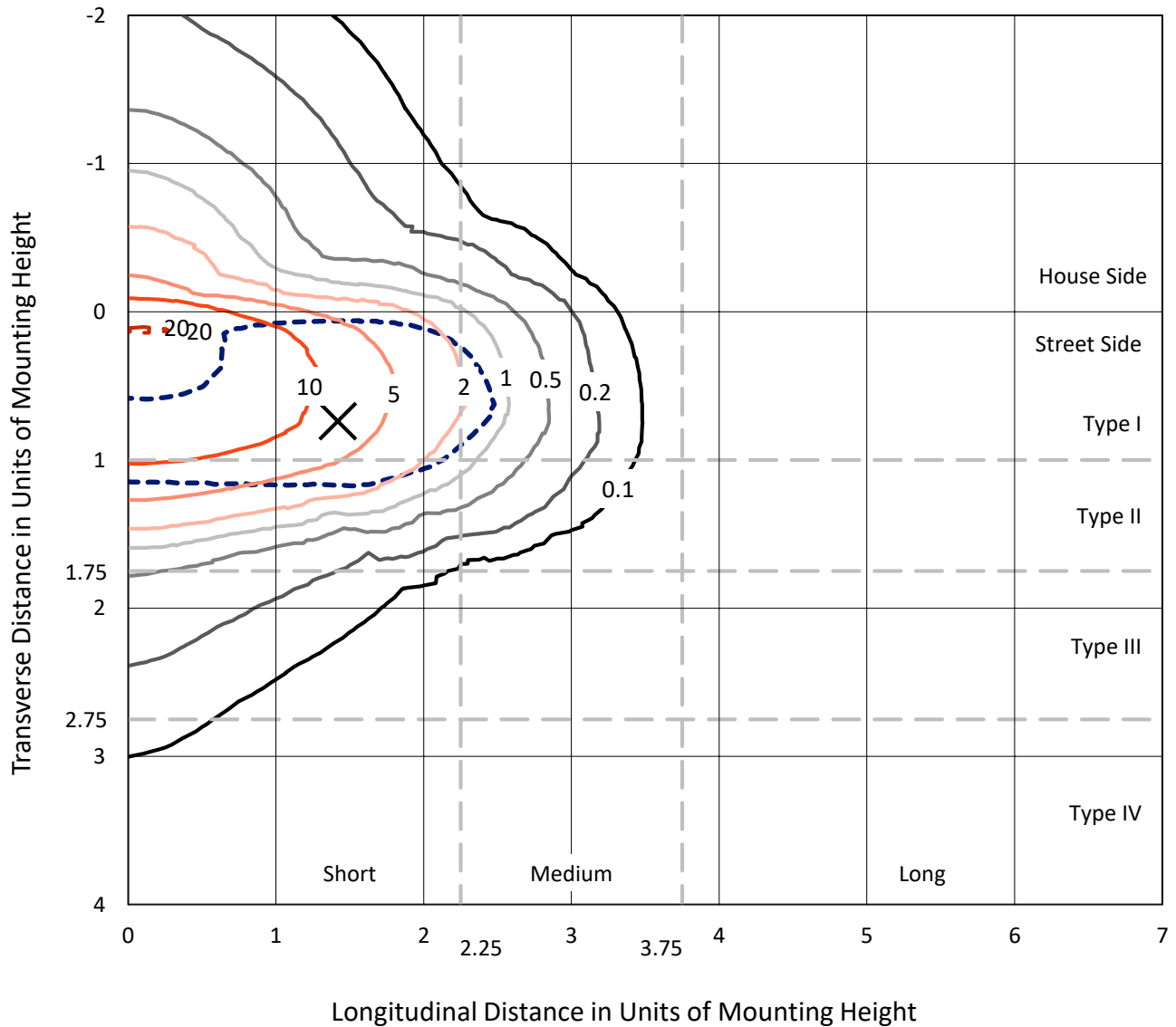
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

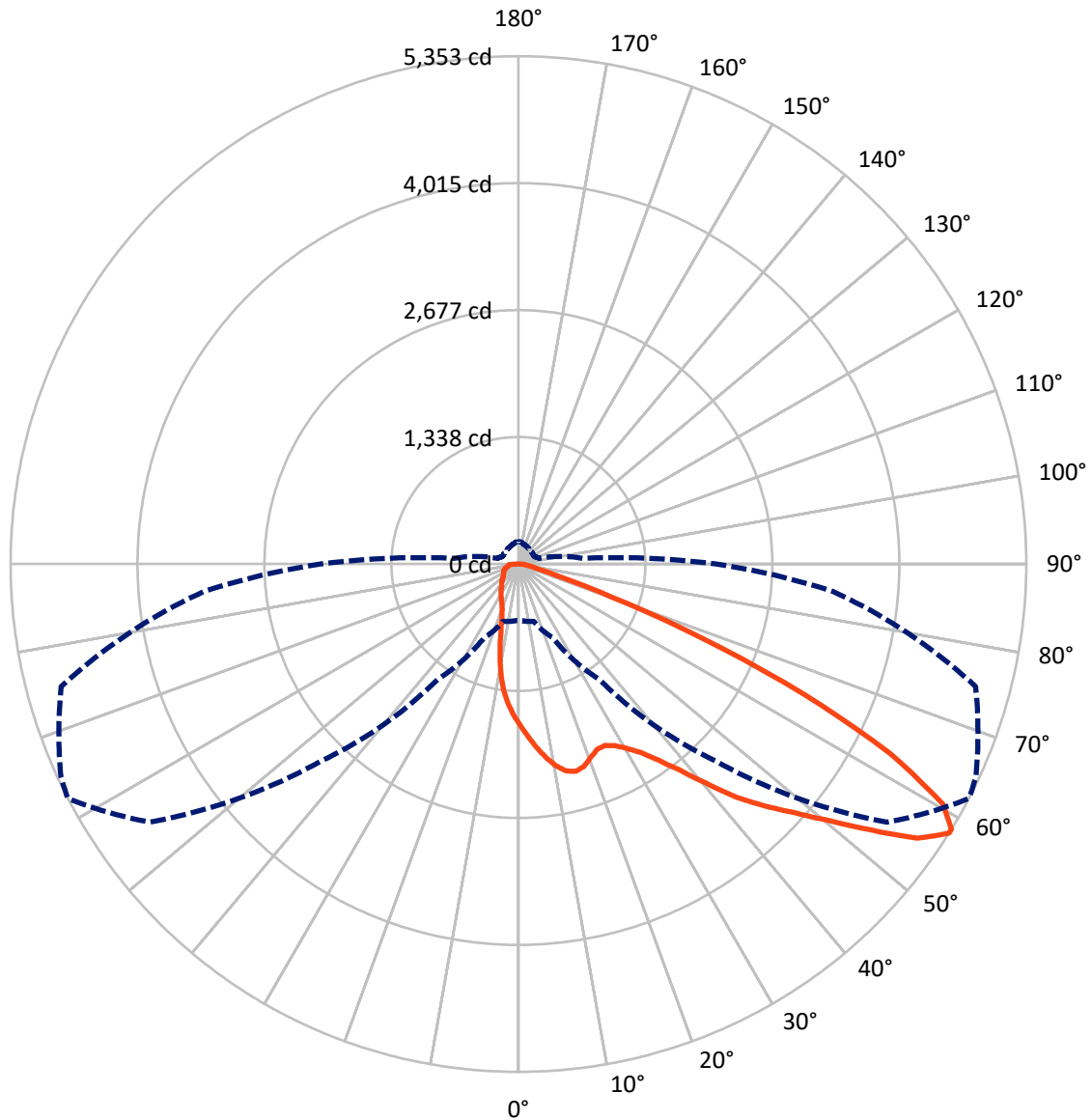
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 20.6 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 | 971.7 | 0.0 | 971.7 |
| | % Fixture | 15.2 | 0.0 | 15.2 |
| Street Side | Lumens | 5400.3 | 0.0 | 5400.3 |
| | % Fixture | 84.8 | 0.0 | 84.8 |
| Total | Lumens | 6372.0 | 0.0 | 6372.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 151.4 | 2.4 |
| 10°-20° | 386.9 | 6.1 |
| 20°-30° | 625.5 | 9.8 |
| 30°-40° | 993.0 | 15.6 |
| 40°-50° | 1453.0 | 22.8 |
| 50°-60° | 1519.7 | 23.8 |
| 60°-70° | 897.8 | 14.1 |
| 70°-80° | 252.9 | 4.0 |
| 80°-90° | 91.8 | 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° | 6372.0 | 100.0 |
| 0°-180° | 6372.0 | 100.0 |



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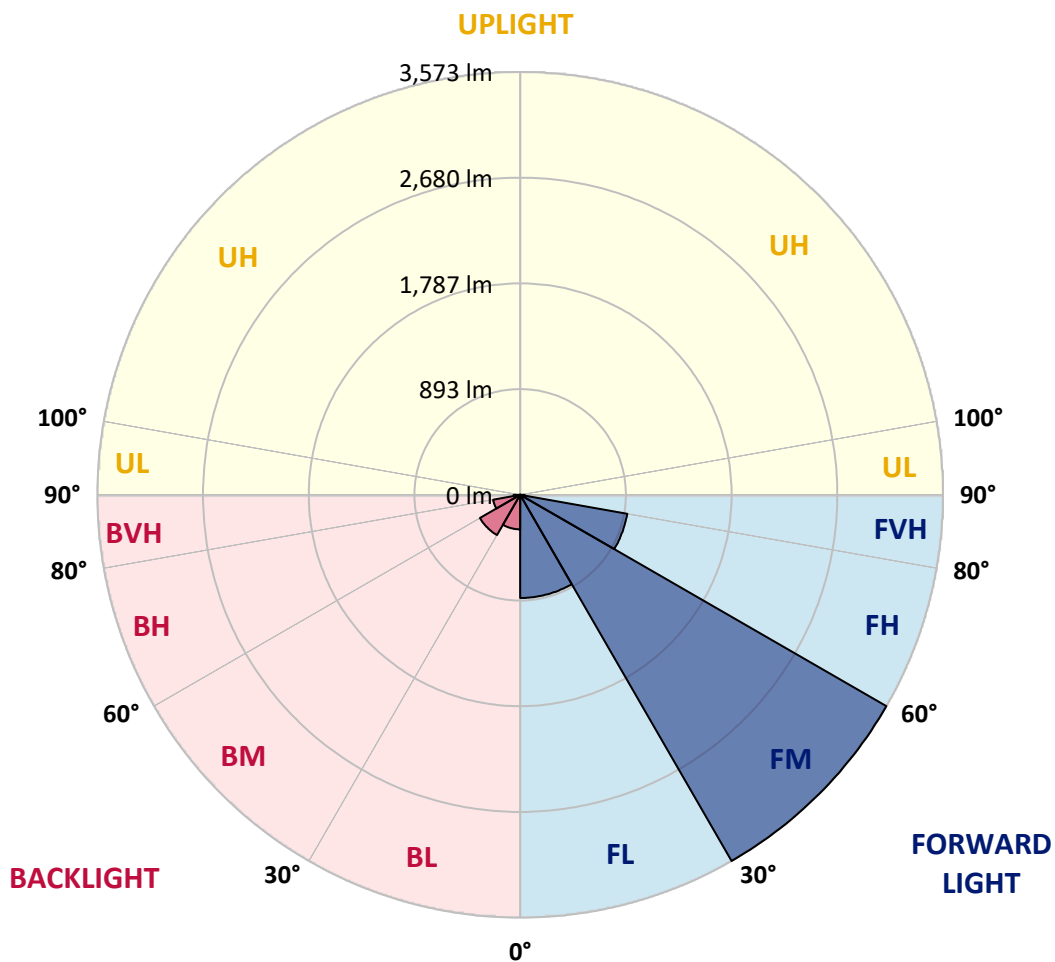
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 871.8 | 13.7 | | | |
| FM | (30°-60°) | 3573.4 | 56.1 | | | |
| FH | (60°-80°) | 918.9 | 14.4 | | | G1/1800 |
| FVH | (80°-90°) | 36.2 | 0.6 | | | G1/100 |
| BL | (0°-30°) | 292.1 | 4.6 | B1/500 | | |
| BM | (30°-60°) | 392.2 | 6.2 | B1/1000 | | |
| BH | (60°-80°) | 231.8 | 3.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 55.6 | 0.9 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 |
| 2.5° | 1934.2 | 1918.5 | 1908.6 | 1899.9 | 1888.5 | 1864.2 | 1831.5 | 1810.8 | 1800.3 | 1764.6 | 1722.3 |
| 5° | 2123.8 | 2110.0 | 2099.8 | 2088.1 | 2067.7 | 2029.6 | 1976.8 | 1934.8 | 1914.0 | 1842.6 | 1758.0 |
| 7.5° | 2079.4 | 2085.1 | 2102.8 | 2133.7 | 2160.1 | 2155.0 | 2107.9 | 2054.5 | 2027.2 | 1927.9 | 1799.4 |
| 10° | 1811.7 | 1821.6 | 1852.2 | 1924.5 | 2041.6 | 2161.6 | 2198.2 | 2161.3 | 2133.7 | 2012.2 | 1842.0 |
| 12.5° | 1758.0 | 1757.7 | 1760.1 | 1779.3 | 1848.9 | 2017.9 | 2201.2 | 2238.4 | 2221.9 | 2092.6 | 1885.5 |
| 15° | 1779.9 | 1780.5 | 1778.7 | 1786.8 | 1808.4 | 1875.3 | 2109.4 | 2268.1 | 2279.8 | 2173.6 | 1930.6 |
| 17.5° | 1837.5 | 1836.0 | 1829.1 | 1829.1 | 1836.9 | 1863.0 | 2001.4 | 2240.5 | 2294.5 | 2245.3 | 1970.2 |
| 20° | 1934.2 | 1927.3 | 1908.9 | 1892.1 | 1883.7 | 1897.8 | 1957.0 | 2176.9 | 2269.0 | 2308.0 | 2002.9 |
| 22.5° | 2051.2 | 2045.8 | 2016.1 | 1980.1 | 1951.0 | 1950.7 | 1979.8 | 2121.4 | 2224.9 | 2367.1 | 2030.5 |
| 25° | 2202.4 | 2193.7 | 2149.6 | 2092.0 | 2041.0 | 2021.5 | 2029.6 | 2118.7 | 2200.9 | 2431.3 | 2055.1 |
| 27.5° | 2380.0 | 2364.1 | 2311.9 | 2228.8 | 2153.8 | 2114.5 | 2102.8 | 2167.6 | 2222.8 | 2510.9 | 2089.3 |
| 30° | 2595.5 | 2577.2 | 2510.3 | 2401.9 | 2296.0 | 2231.5 | 2206.6 | 2254.3 | 2295.4 | 2607.8 | 2144.2 |
| 32.5° | 2840.6 | 2814.2 | 2736.8 | 2617.4 | 2478.2 | 2379.7 | 2339.2 | 2368.9 | 2401.6 | 2724.5 | 2212.9 |
| 35° | 3179.4 | 3147.9 | 3036.0 | 2871.2 | 2714.0 | 2578.7 | 2513.9 | 2535.5 | 2567.3 | 2898.5 | 2312.2 |
| 37.5° | 3410.4 | 3396.3 | 3321.9 | 3167.1 | 2996.0 | 2840.3 | 2740.1 | 2752.7 | 2770.7 | 3116.1 | 2439.4 |
| 40° | 3408.3 | 3414.0 | 3415.5 | 3417.0 | 3300.6 | 3151.5 | 3043.8 | 3030.6 | 3026.9 | 3354.9 | 2584.1 |
| 42.5° | 3237.6 | 3261.0 | 3336.6 | 3489.9 | 3560.7 | 3492.3 | 3393.6 | 3355.5 | 3336.6 | 3636.4 | 2737.4 |
| 45° | 2976.2 | 2988.8 | 3130.5 | 3429.9 | 3694.0 | 3829.9 | 3755.2 | 3635.2 | 3601.0 | 3895.0 | 2864.6 |
| 47.5° | 2841.5 | 2855.3 | 2944.4 | 3270.9 | 3692.5 | 4102.6 | 4145.9 | 3917.2 | 3856.0 | 4120.0 | 2974.4 |
| 50° | 2520.8 | 2549.6 | 2661.8 | 2994.2 | 3557.7 | 4228.1 | 4554.2 | 4253.3 | 4126.6 | 4339.1 | 3084.6 |
| 52.5° | 1931.8 | 1976.2 | 2101.9 | 2539.4 | 3216.0 | 4166.0 | 4881.0 | 4660.7 | 4481.9 | 4565.9 | 3179.1 |
| 55° | 1218.5 | 1251.5 | 1357.1 | 1793.4 | 2572.7 | 3842.8 | 5004.9 | 5101.5 | 4942.5 | 4780.8 | 3261.0 |
| 57.5° | 662.5 | 677.2 | 716.8 | 990.2 | 1673.4 | 3128.4 | 4824.3 | 5352.4 | 5286.4 | 4963.2 | 3322.8 |
| 58° | 592.9 | 602.8 | 627.4 | 858.2 | 1484.1 | 2933.0 | 4744.2 | 5353.3 | 5320.3 | 4989.9 | 3327.6 |
| 60° | 439.9 | 434.8 | 412.9 | 489.7 | 826.1 | 2026.3 | 4259.9 | 5139.0 | 5236.0 | 5022.6 | 3304.2 |
| 62.5° | 386.5 | 374.2 | 329.5 | 324.4 | 401.8 | 933.5 | 3259.5 | 4402.1 | 4631.0 | 4836.0 | 3162.0 |
| 65° | 363.1 | 349.9 | 292.3 | 273.6 | 289.9 | 394.9 | 1920.0 | 3301.5 | 3588.7 | 4270.1 | 2798.3 |
| 67.5° | 345.7 | 328.6 | 268.5 | 243.0 | 244.2 | 261.0 | 769.6 | 2079.4 | 2402.5 | 3242.1 | 2176.6 |
| 70° | 328.9 | 310.3 | 248.4 | 219.0 | 212.1 | 206.4 | 306.1 | 1040.9 | 1334.0 | 2047.9 | 1387.8 |
| 72.5° | 310.9 | 292.6 | 230.7 | 200.1 | 186.6 | 167.7 | 199.8 | 425.8 | 594.7 | 968.9 | 629.5 |
| 75° | 284.8 | 268.2 | 213.0 | 183.3 | 164.1 | 138.9 | 150.9 | 222.3 | 266.7 | 385.9 | 303.4 |
| 77.5° | 252.6 | 239.1 | 193.2 | 169.5 | 145.5 | 112.8 | 116.1 | 154.2 | 171.0 | 220.8 | 180.3 |
| 80° | 181.5 | 186.3 | 171.9 | 152.4 | 129.6 | 91.5 | 89.1 | 112.5 | 121.5 | 141.9 | 117.3 |
| 82.5° | 127.5 | 130.2 | 142.2 | 124.5 | 107.1 | 72.0 | 65.7 | 79.2 | 84.6 | 93.3 | 63.3 |
| 85° | 87.9 | 84.9 | 97.5 | 86.7 | 77.4 | 48.0 | 45.0 | 53.7 | 57.0 | 57.9 | 32.7 |
| 87.5° | 52.8 | 52.8 | 56.4 | 46.5 | 41.7 | 24.9 | 24.3 | 30.6 | 32.7 | 31.2 | 18.0 |
| 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° | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 | 1692.6 |
| 2.5° | 1697.1 | 1675.8 | 1630.5 | 1594.2 | 1548.3 | 1500.6 | 1473.9 | 1445.4 | 1425.9 | 1411.8 | 1434.3 |
| 5° | 1710.0 | 1666.5 | 1572.9 | 1484.1 | 1386.0 | 1283.9 | 1206.5 | 1134.5 | 1084.4 | 1053.2 | 1082.6 |
| 7.5° | 1730.4 | 1663.5 | 1514.4 | 1362.5 | 1186.4 | 1016.6 | 864.8 | 769.6 | 714.1 | 686.8 | 703.9 |
| 10° | 1753.8 | 1658.7 | 1445.7 | 1197.8 | 945.8 | 731.8 | 618.4 | 580.0 | 567.4 | 562.3 | 564.7 |
| 12.5° | 1773.3 | 1648.5 | 1361.3 | 998.6 | 710.2 | 577.9 | 545.2 | 544.3 | 547.0 | 547.6 | 548.5 |
| 15° | 1787.1 | 1633.5 | 1236.2 | 790.9 | 568.0 | 526.6 | 524.8 | 530.2 | 535.3 | 537.4 | 538.6 |
| 17.5° | 1796.4 | 1602.6 | 1094.9 | 625.3 | 508.9 | 501.7 | 505.9 | 512.8 | 518.2 | 519.7 | 520.9 |
| 20° | 1795.5 | 1557.3 | 926.6 | 521.5 | 476.8 | 476.8 | 484.0 | 489.4 | 489.7 | 487.9 | 488.8 |
| 22.5° | 1786.2 | 1495.2 | 763.3 | 466.3 | 448.3 | 453.4 | 460.6 | 455.5 | 434.5 | 420.7 | 421.6 |
| 25° | 1770.6 | 1421.1 | 623.5 | 431.2 | 421.9 | 430.9 | 428.8 | 390.4 | 360.4 | 346.9 | 346.9 |
| 27.5° | 1756.8 | 1333.4 | 516.1 | 400.6 | 395.5 | 406.6 | 369.4 | 334.6 | 322.0 | 315.7 | 313.6 |
| 30° | 1746.9 | 1238.9 | 444.4 | 371.2 | 370.6 | 362.5 | 320.5 | 310.9 | 308.8 | 303.7 | 301.9 |
| 32.5° | 1749.3 | 1143.2 | 398.5 | 345.4 | 347.5 | 310.3 | 297.1 | 299.2 | 297.4 | 292.0 | 289.6 |
| 35° | 1769.1 | 1052.3 | 368.5 | 322.0 | 315.7 | 280.3 | 283.3 | 287.2 | 286.6 | 279.1 | 276.7 |
| 37.5° | 1804.5 | 966.2 | 348.7 | 302.5 | 275.5 | 265.2 | 270.0 | 276.1 | 274.5 | 269.4 | 267.6 |
| 40° | 1841.7 | 885.2 | 332.5 | 287.2 | 251.7 | 255.0 | 259.2 | 262.5 | 264.0 | 265.5 | 264.3 |
| 42.5° | 1878.0 | 800.5 | 312.7 | 271.5 | 241.8 | 245.4 | 247.2 | 250.5 | 258.6 | 264.3 | 264.0 |
| 45° | 1899.6 | 721.0 | 292.3 | 249.3 | 234.0 | 236.1 | 234.9 | 241.5 | 251.4 | 260.7 | 261.0 |
| 47.5° | 1923.6 | 659.2 | 276.1 | 228.9 | 226.5 | 228.0 | 224.4 | 231.0 | 240.0 | 251.4 | 252.6 |
| 50° | 1952.8 | 622.3 | 263.1 | 212.7 | 216.3 | 216.3 | 215.4 | 221.4 | 234.0 | 247.2 | 249.6 |
| 52.5° | 1985.8 | 615.1 | 252.3 | 201.0 | 206.1 | 205.8 | 206.7 | 215.7 | 229.5 | 242.4 | 244.5 |
| 55° | 2026.0 | 634.6 | 240.6 | 192.3 | 196.2 | 197.4 | 200.4 | 210.6 | 222.3 | 237.0 | 237.9 |
| 57.5° | 2072.8 | 674.2 | 231.3 | 185.4 | 187.2 | 191.1 | 195.9 | 205.2 | 217.8 | 234.0 | 234.9 |
| 58° | 2080.6 | 682.6 | 229.8 | 184.8 | 185.4 | 189.9 | 195.3 | 204.3 | 216.9 | 234.6 | 235.5 |
| 60° | 2080.9 | 710.5 | 226.5 | 182.1 | 178.5 | 186.0 | 192.0 | 201.0 | 215.4 | 236.7 | 238.8 |
| 62.5° | 2007.1 | 710.2 | 224.1 | 178.2 | 171.3 | 180.6 | 187.5 | 198.0 | 213.9 | 241.8 | 246.0 |
| 65° | 1767.3 | 645.4 | 212.7 | 172.2 | 165.6 | 175.8 | 183.6 | 195.9 | 218.1 | 264.0 | 266.7 |
| 67.5° | 1382.4 | 529.0 | 191.4 | 163.8 | 158.1 | 171.0 | 181.2 | 195.6 | 222.6 | 269.1 | 270.9 |
| 70° | 914.0 | 395.8 | 168.0 | 154.2 | 150.3 | 165.3 | 182.4 | 205.8 | 217.5 | 258.3 | 253.5 |
| 72.5° | 474.4 | 277.9 | 149.1 | 142.2 | 141.3 | 160.2 | 199.8 | 204.6 | 212.4 | 243.0 | 237.0 |
| 75° | 249.0 | 192.9 | 132.6 | 129.0 | 130.5 | 159.0 | 235.8 | 199.2 | 205.8 | 232.5 | 243.9 |
| 77.5° | 152.4 | 155.7 | 118.5 | 117.0 | 120.0 | 155.4 | 235.5 | 192.3 | 196.2 | 213.9 | 226.5 |
| 80° | 102.0 | 126.3 | 107.7 | 108.0 | 110.1 | 142.2 | 211.5 | 181.5 | 184.5 | 202.2 | 215.1 |
| 82.5° | 64.5 | 74.7 | 97.8 | 102.9 | 100.2 | 117.3 | 179.7 | 165.3 | 169.5 | 231.3 | 244.5 |
| 85° | 32.7 | 46.8 | 84.9 | 99.0 | 90.3 | 82.2 | 145.8 | 144.9 | 147.0 | 166.8 | 174.3 |
| 87.5° | 15.0 | 25.8 | 66.3 | 86.4 | 68.1 | 51.3 | 105.9 | 107.4 | 115.8 | 118.5 | 118.5 |
| 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)