

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: P192290

Luminaire Tested: **GLEON-AF-02-LED-E1-T3R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P192290
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P40129)
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-T3R-7050
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12453 lumens
Efficiency: N/A
Efficacy: 110.2 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

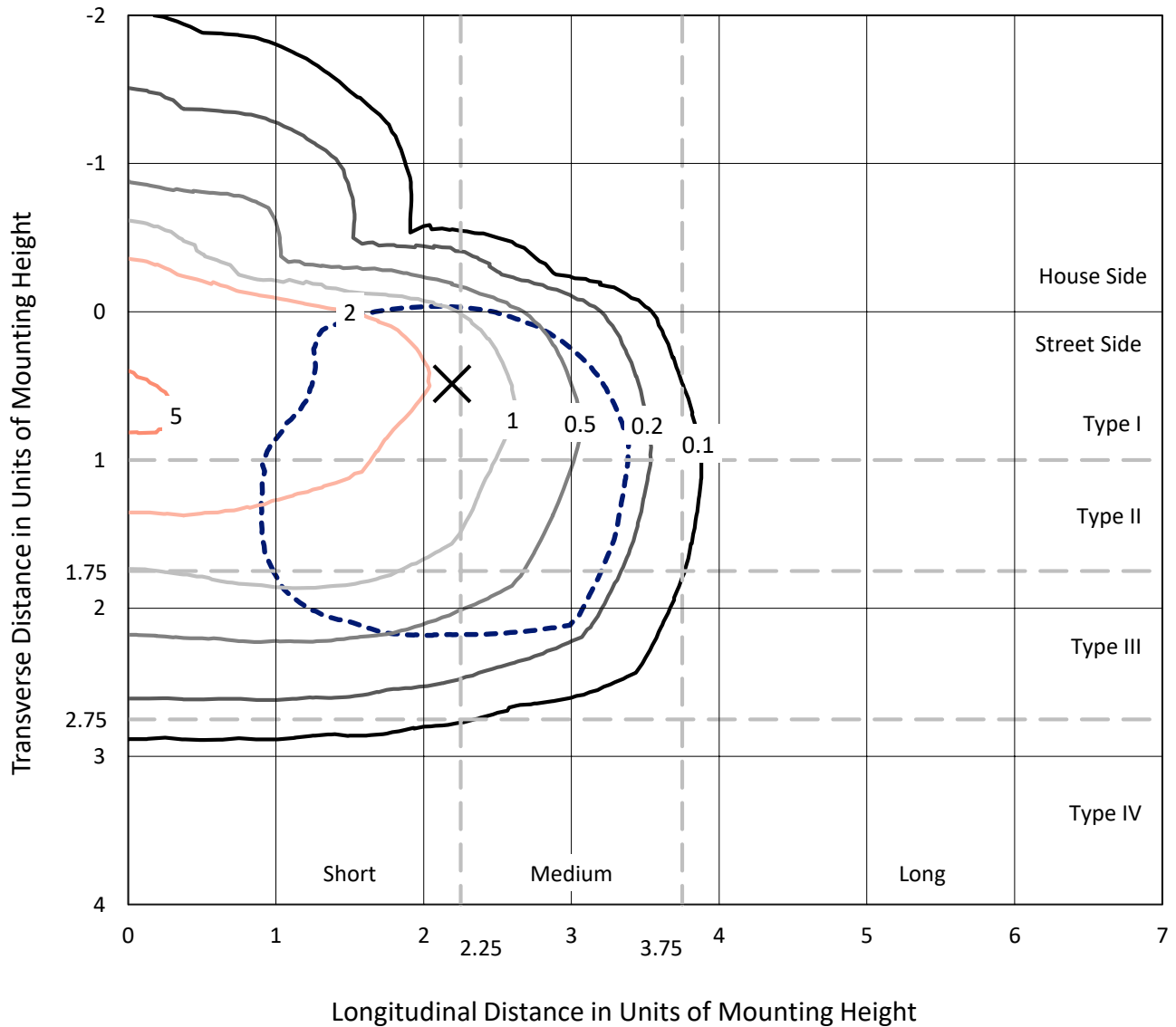
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

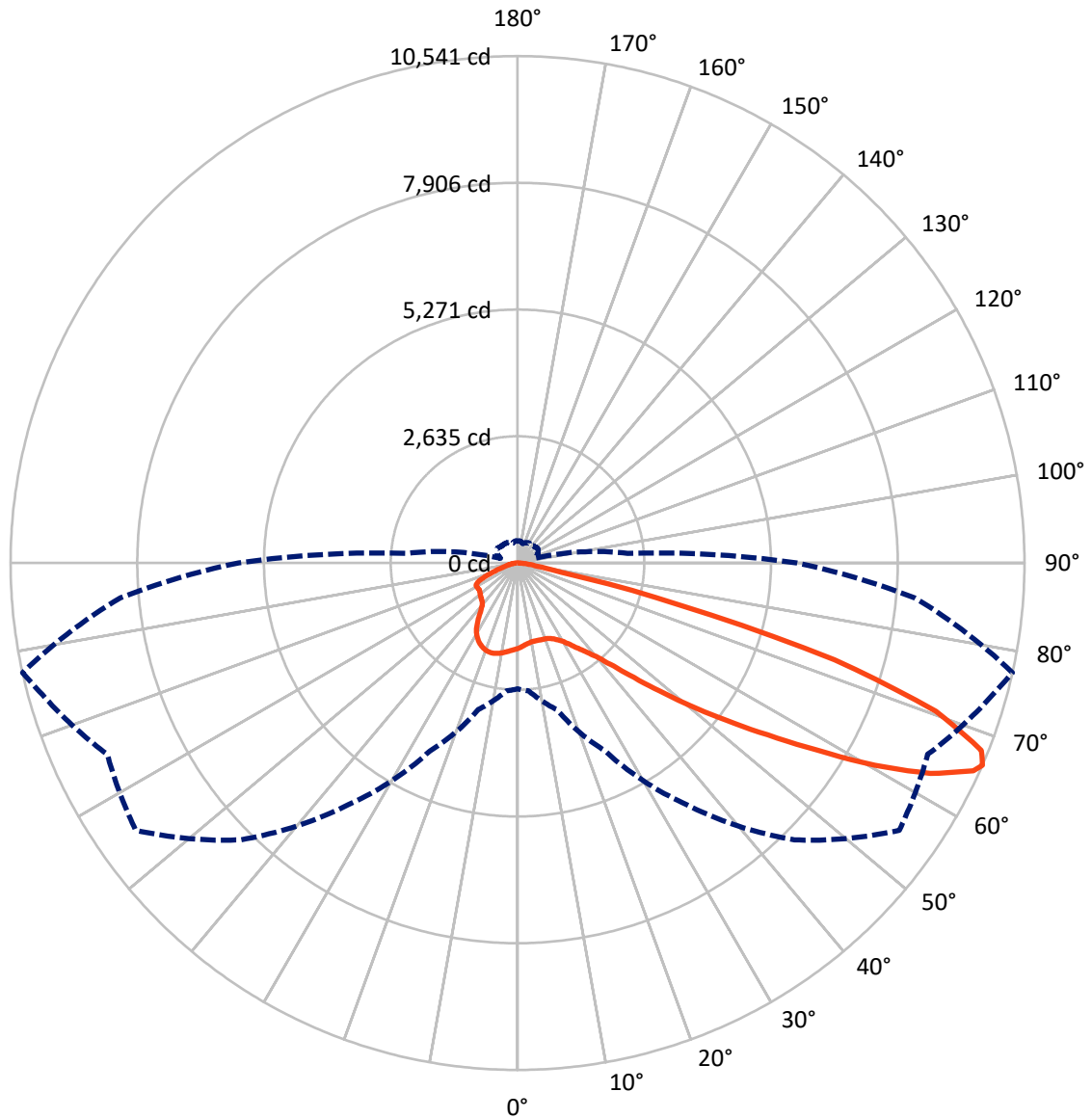
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.5 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2127.5 | 0.0 | 2127.5 |
| | % Fixture | 17.1 | 0.0 | 17.1 |
| Street Side | Lumens | 10325.5 | 0.0 | 10325.5 |
| | % Fixture | 82.9 | 0.0 | 82.9 |
| Total | Lumens | 12453.0 | 0.0 | 12453.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 158.5 | 1.3 |
| 10°-20° | 447.3 | 3.6 |
| 20°-30° | 763.4 | 6.1 |
| 30°-40° | 1222.0 | 9.8 |
| 40°-50° | 1887.9 | 15.2 |
| 50°-60° | 2677.7 | 21.5 |
| 60°-70° | 3582.0 | 28.8 |
| 70°-80° | 1555.6 | 12.5 |
| 80°-90° | 158.6 | 1.3 |
| 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° | 12453.0 | 100.0 |
| 0°-180° | 12453.0 | 100.0 |



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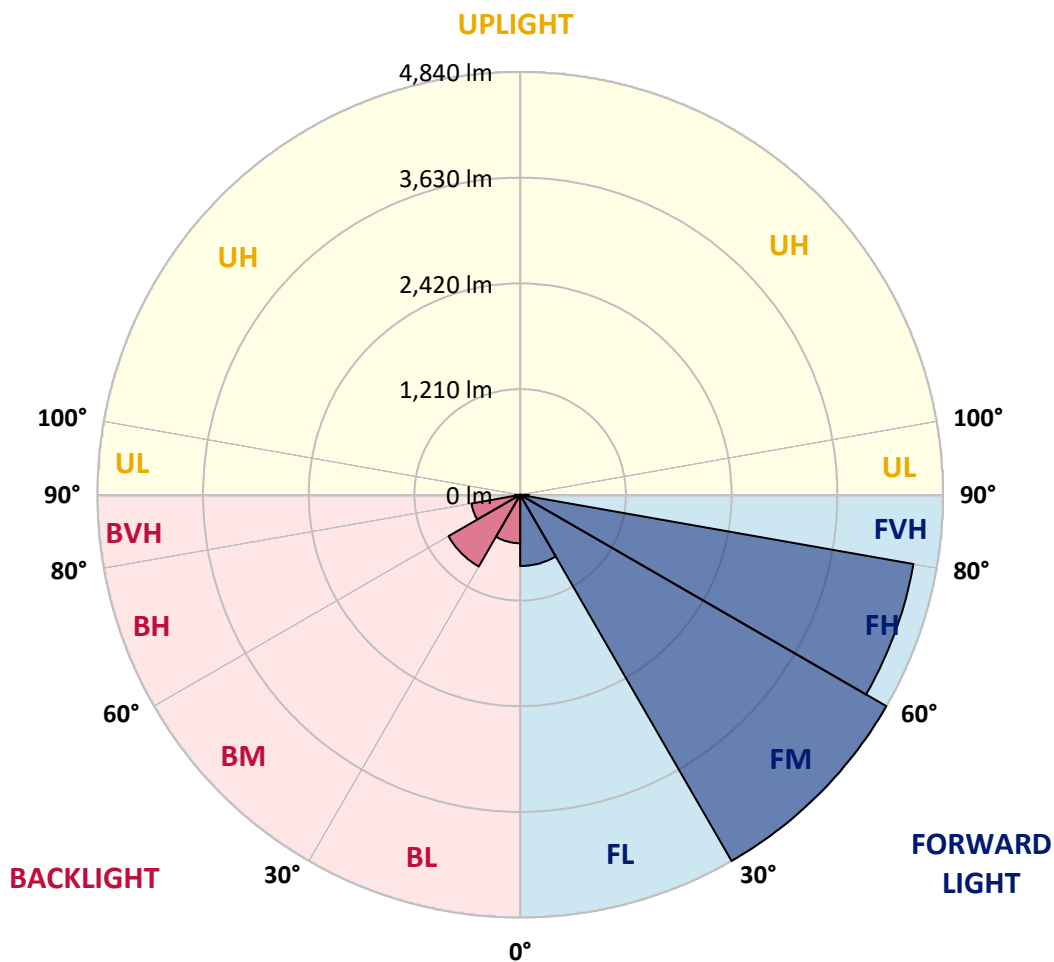
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 815.1 | 6.5 | | | |
| FM | (30°-60°) | 4839.9 | 38.9 | | | |
| FH | (60°-80°) | 4571.0 | 36.7 | | | G2/5000 |
| FVH | (80°-90°) | 99.5 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 554.1 | 4.4 | B2/1000 | | |
| BM | (30°-60°) | 947.7 | 7.6 | B1/1000 | | |
| BH | (60°-80°) | 566.6 | 4.5 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 59.1 | 0.5 | | | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77.5° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|--------|---------|---------|--------|
| 0° | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 |
| 2.5° | 1569.8 | 1580.4 | 1589.3 | 1597.5 | 1614.0 | 1641.0 | 1672.2 | 1697.5 | 1734.0 | 1741.1 | 1760.5 |
| 5° | 1425.7 | 1425.7 | 1432.8 | 1445.1 | 1467.5 | 1508.1 | 1550.4 | 1606.9 | 1686.4 | 1705.2 | 1757.0 |
| 7.5° | 1355.7 | 1356.3 | 1360.4 | 1371.0 | 1390.4 | 1427.5 | 1473.9 | 1540.4 | 1648.1 | 1679.3 | 1767.6 |
| 10° | 1381.6 | 1375.7 | 1366.9 | 1361.6 | 1364.5 | 1386.3 | 1430.4 | 1504.5 | 1624.6 | 1664.6 | 1791.1 |
| 12.5° | 1526.3 | 1515.1 | 1484.5 | 1443.9 | 1405.1 | 1389.2 | 1415.1 | 1487.5 | 1614.6 | 1661.1 | 1822.3 |
| 15° | 1762.8 | 1758.1 | 1701.1 | 1616.9 | 1522.8 | 1443.9 | 1426.3 | 1481.0 | 1615.7 | 1665.2 | 1859.3 |
| 17.5° | 2059.4 | 2052.9 | 1977.6 | 1855.2 | 1701.7 | 1548.1 | 1465.7 | 1486.3 | 1619.9 | 1672.2 | 1895.2 |
| 20° | 2358.9 | 2338.9 | 2257.7 | 2111.8 | 1914.7 | 1689.9 | 1531.0 | 1499.8 | 1625.2 | 1679.9 | 1932.9 |
| 22.5° | 2582.5 | 2566.0 | 2493.0 | 2351.2 | 2124.1 | 1854.0 | 1618.7 | 1523.4 | 1642.2 | 1702.2 | 1979.4 |
| 25° | 2779.0 | 2780.2 | 2707.8 | 2570.7 | 2335.9 | 2028.2 | 1731.7 | 1586.3 | 1685.8 | 1748.1 | 2042.9 |
| 27.5° | 3022.0 | 3007.9 | 2940.2 | 2804.3 | 2545.4 | 2204.1 | 1868.2 | 1672.8 | 1750.5 | 1813.4 | 2126.5 |
| 30° | 3312.7 | 3302.7 | 3224.4 | 3070.3 | 2777.8 | 2393.0 | 2024.1 | 1773.4 | 1834.0 | 1899.4 | 2235.9 |
| 32.5° | 3654.5 | 3649.8 | 3568.6 | 3370.4 | 3046.1 | 2615.4 | 2207.1 | 1906.4 | 1958.8 | 2026.4 | 2393.0 |
| 35° | 4055.8 | 4056.4 | 3960.5 | 3722.2 | 3339.8 | 2874.3 | 2414.8 | 2077.6 | 2110.6 | 2181.2 | 2580.1 |
| 37.5° | 4303.0 | 4333.0 | 4297.1 | 4054.1 | 3672.2 | 3163.8 | 2684.3 | 2304.8 | 2283.6 | 2354.8 | 2780.8 |
| 40° | 4355.9 | 4392.4 | 4506.0 | 4382.4 | 4044.1 | 3482.7 | 2923.2 | 2523.1 | 2496.6 | 2583.7 | 3039.1 |
| 42.5° | 4281.8 | 4332.4 | 4572.4 | 4659.5 | 4438.9 | 3875.8 | 3244.4 | 2847.3 | 2813.7 | 2930.8 | 3360.3 |
| 45° | 4237.7 | 4275.3 | 4553.0 | 4803.7 | 4781.3 | 4320.0 | 3653.4 | 3254.4 | 3242.1 | 3395.7 | 3731.0 |
| 47.5° | 4161.2 | 4195.3 | 4462.4 | 4837.2 | 4982.6 | 4727.2 | 4144.7 | 3752.2 | 3776.3 | 3977.6 | 4149.4 |
| 50° | 4202.3 | 4216.5 | 4361.2 | 4751.9 | 5040.8 | 5025.5 | 4693.7 | 4328.9 | 4411.2 | 4662.5 | 4623.1 |
| 52.5° | 4196.5 | 4232.9 | 4349.4 | 4611.9 | 5048.5 | 5209.7 | 5234.4 | 4972.0 | 5145.6 | 5433.9 | 5148.5 |
| 55° | 3392.7 | 3459.8 | 4211.2 | 4576.6 | 5075.5 | 5390.3 | 5715.7 | 5649.8 | 5973.4 | 6309.4 | 5741.6 |
| 57.5° | 3239.7 | 3282.1 | 3698.7 | 4650.7 | 5219.1 | 5735.1 | 6251.2 | 6395.9 | 6937.2 | 7327.3 | 6464.2 |
| 60° | 3209.7 | 3262.1 | 3693.4 | 4741.3 | 5510.4 | 6297.0 | 7044.9 | 7299.1 | 8109.9 | 8537.1 | 7302.0 |
| 62.5° | 3116.2 | 3172.6 | 3658.7 | 4729.6 | 5924.0 | 7074.3 | 8061.1 | 8259.4 | 9222.0 | 9637.4 | 8002.8 |
| 65° | 2819.6 | 2872.6 | 3375.6 | 4539.5 | 6202.9 | 7904.0 | 9263.8 | 9139.6 | 10099.9 | 10412.3 | 8352.3 |
| 66° | 2616.6 | 2668.4 | 3152.6 | 4315.9 | 6138.2 | 8139.3 | 9689.8 | 9412.0 | 10296.4 | 10541.2 | 8284.1 |
| 67.5° | 2245.3 | 2285.9 | 2719.6 | 3815.2 | 5794.0 | 8205.2 | 10048.1 | 9616.8 | 10317.0 | 10403.5 | 7894.0 |
| 70° | 1418.6 | 1430.4 | 1767.6 | 2633.7 | 4385.9 | 7116.1 | 9502.6 | 9108.4 | 9466.2 | 9232.0 | 6617.7 |
| 72.5° | 615.5 | 611.3 | 848.5 | 1339.8 | 2483.0 | 4774.9 | 7686.8 | 7515.6 | 7425.6 | 6891.3 | 4632.5 |
| 75° | 342.4 | 347.2 | 440.7 | 621.9 | 1009.1 | 2345.4 | 5028.5 | 4811.9 | 4062.9 | 3466.8 | 2100.6 |
| 77.5° | 274.8 | 281.3 | 365.4 | 441.3 | 453.1 | 817.9 | 2353.0 | 1914.7 | 1152.7 | 925.0 | 583.7 |
| 80° | 217.1 | 228.9 | 318.9 | 343.6 | 305.4 | 337.2 | 760.2 | 607.8 | 456.0 | 418.4 | 302.4 |
| 82.5° | 171.8 | 180.1 | 273.6 | 260.1 | 213.6 | 227.1 | 364.2 | 354.8 | 296.6 | 270.1 | 174.8 |
| 85° | 123.6 | 138.9 | 224.8 | 195.9 | 140.0 | 153.0 | 241.8 | 231.8 | 170.0 | 138.9 | 77.1 |
| 87.5° | 50.6 | 65.9 | 158.9 | 130.0 | 78.3 | 71.2 | 120.6 | 113.6 | 80.6 | 58.8 | 38.2 |
| 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° | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 | 1774.6 |
| 2.5° | 1772.8 | 1787.0 | 1805.2 | 1816.4 | 1822.3 | 1826.4 | 1832.9 | 1832.3 | 1834.0 | 1834.6 | 1837.0 |
| 5° | 1784.6 | 1808.2 | 1834.6 | 1841.7 | 1841.7 | 1835.2 | 1828.7 | 1818.2 | 1814.0 | 1812.9 | 1814.0 |
| 7.5° | 1815.2 | 1841.1 | 1864.0 | 1855.8 | 1838.2 | 1812.3 | 1778.7 | 1749.3 | 1733.4 | 1728.1 | 1727.0 |
| 10° | 1854.0 | 1885.2 | 1894.6 | 1863.5 | 1811.7 | 1749.3 | 1682.8 | 1634.6 | 1606.9 | 1599.3 | 1596.9 |
| 12.5° | 1901.1 | 1930.5 | 1917.6 | 1851.7 | 1755.8 | 1655.2 | 1563.4 | 1486.3 | 1428.6 | 1410.4 | 1409.2 |
| 15° | 1952.9 | 1975.8 | 1930.5 | 1815.2 | 1672.2 | 1524.0 | 1360.4 | 1227.4 | 1155.6 | 1132.7 | 1130.9 |
| 17.5° | 2001.1 | 2012.9 | 1922.9 | 1751.7 | 1549.3 | 1309.2 | 1092.1 | 989.7 | 965.0 | 970.9 | 972.0 |
| 20° | 2042.3 | 2042.3 | 1897.0 | 1660.5 | 1355.7 | 1026.2 | 889.1 | 887.3 | 905.0 | 922.6 | 926.1 |
| 22.5° | 2087.6 | 2060.6 | 1851.7 | 1531.6 | 1081.5 | 839.6 | 819.6 | 836.1 | 856.1 | 875.5 | 878.5 |
| 25° | 2143.5 | 2075.3 | 1788.7 | 1336.3 | 850.2 | 762.6 | 770.2 | 783.7 | 793.8 | 806.1 | 807.9 |
| 27.5° | 2205.9 | 2094.1 | 1705.8 | 1067.4 | 737.9 | 714.3 | 720.2 | 724.9 | 723.7 | 728.4 | 729.6 |
| 30° | 2280.6 | 2115.9 | 1592.2 | 834.3 | 691.4 | 673.1 | 662.5 | 658.4 | 658.4 | 666.1 | 669.0 |
| 32.5° | 2380.7 | 2148.2 | 1429.2 | 714.9 | 669.0 | 643.7 | 609.6 | 594.3 | 600.2 | 626.1 | 631.9 |
| 35° | 2490.7 | 2183.0 | 1208.6 | 674.3 | 664.3 | 630.2 | 577.2 | 549.0 | 549.6 | 573.7 | 581.3 |
| 37.5° | 2610.7 | 2227.1 | 966.7 | 666.7 | 674.9 | 630.8 | 560.2 | 521.3 | 505.4 | 505.4 | 508.4 |
| 40° | 2764.3 | 2272.4 | 782.6 | 672.0 | 697.3 | 637.8 | 551.3 | 499.6 | 454.8 | 456.0 | 458.4 |
| 42.5° | 2964.4 | 2311.2 | 683.7 | 683.1 | 724.3 | 647.2 | 550.7 | 470.7 | 431.9 | 458.4 | 482.5 |
| 45° | 3186.8 | 2330.6 | 640.2 | 693.1 | 746.1 | 653.1 | 541.3 | 466.0 | 434.8 | 513.7 | 559.6 |
| 47.5° | 3442.7 | 2319.5 | 616.1 | 696.7 | 751.4 | 653.1 | 530.7 | 477.2 | 455.4 | 594.9 | 648.4 |
| 50° | 3723.4 | 2287.1 | 592.5 | 689.6 | 749.6 | 651.9 | 540.7 | 488.4 | 463.1 | 609.0 | 646.1 |
| 52.5° | 4053.5 | 2260.0 | 567.8 | 674.3 | 737.3 | 645.5 | 552.5 | 483.7 | 438.9 | 553.7 | 579.6 |
| 55° | 4430.1 | 2267.7 | 540.2 | 652.5 | 717.8 | 633.1 | 548.4 | 464.8 | 413.6 | 487.8 | 503.7 |
| 57.5° | 4911.4 | 2358.9 | 507.2 | 624.9 | 691.4 | 612.5 | 533.7 | 456.0 | 406.0 | 442.5 | 451.9 |
| 60° | 5448.6 | 2517.8 | 466.0 | 597.2 | 658.4 | 579.6 | 522.5 | 460.1 | 409.5 | 438.9 | 443.7 |
| 62.5° | 5842.8 | 2610.1 | 430.7 | 556.6 | 613.7 | 543.1 | 508.4 | 465.4 | 418.9 | 451.3 | 450.1 |
| 65° | 5949.9 | 2458.3 | 386.6 | 497.2 | 553.1 | 504.8 | 490.7 | 471.3 | 423.1 | 461.3 | 456.0 |
| 66° | 5799.8 | 2294.8 | 367.2 | 469.5 | 522.5 | 486.0 | 481.9 | 470.7 | 421.3 | 462.5 | 453.7 |
| 67.5° | 5435.6 | 1959.4 | 333.6 | 428.9 | 473.7 | 457.8 | 467.8 | 465.4 | 416.6 | 461.3 | 448.9 |
| 70° | 4433.0 | 1336.8 | 285.4 | 357.2 | 394.2 | 403.1 | 440.7 | 446.6 | 401.3 | 440.7 | 413.6 |
| 72.5° | 3097.3 | 814.3 | 252.4 | 277.1 | 318.9 | 343.6 | 403.6 | 420.7 | 380.7 | 384.8 | 358.9 |
| 75° | 1496.9 | 432.5 | 228.9 | 214.8 | 247.7 | 287.1 | 358.9 | 385.4 | 348.3 | 321.9 | 312.4 |
| 77.5° | 466.6 | 264.2 | 194.2 | 173.0 | 194.2 | 231.8 | 300.1 | 337.7 | 310.1 | 269.5 | 266.0 |
| 80° | 250.7 | 194.2 | 149.5 | 138.9 | 153.6 | 181.8 | 235.9 | 281.8 | 266.5 | 241.8 | 215.9 |
| 82.5° | 165.3 | 125.9 | 110.6 | 107.7 | 117.1 | 138.9 | 175.3 | 233.6 | 233.6 | 207.1 | 150.6 |
| 85° | 85.3 | 77.1 | 75.9 | 75.9 | 81.8 | 92.4 | 119.4 | 180.1 | 191.8 | 109.4 | 90.6 |
| 87.5° | 42.4 | 44.1 | 41.2 | 43.0 | 45.9 | 45.3 | 57.1 | 90.6 | 108.3 | 66.5 | 55.3 |
| 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)