

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: P265837

Luminaire Tested: **ARCH-M-AF48-130-D-U-T3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-130-D-U-T3-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14030.3 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

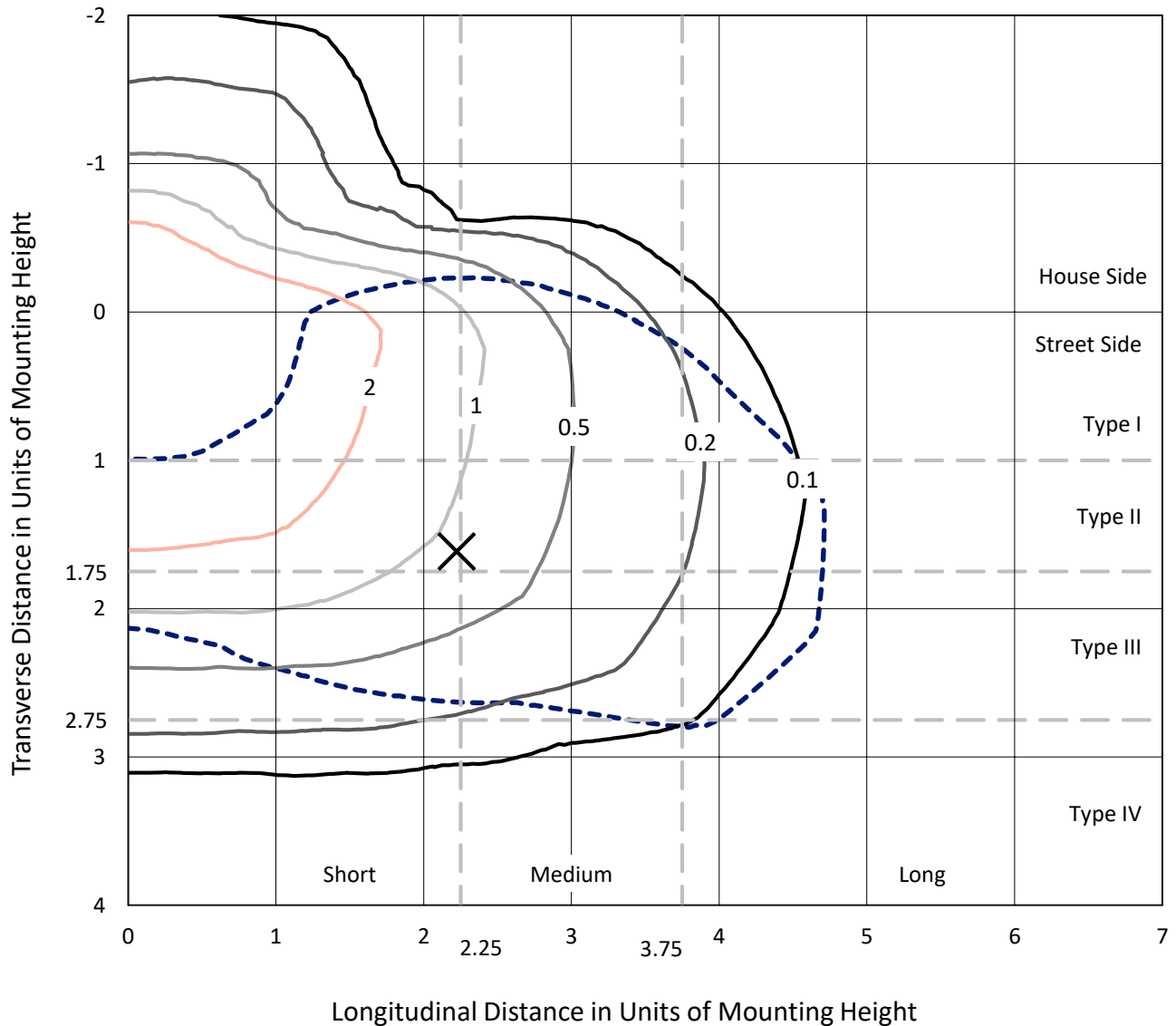
Input Watts (W): 131
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

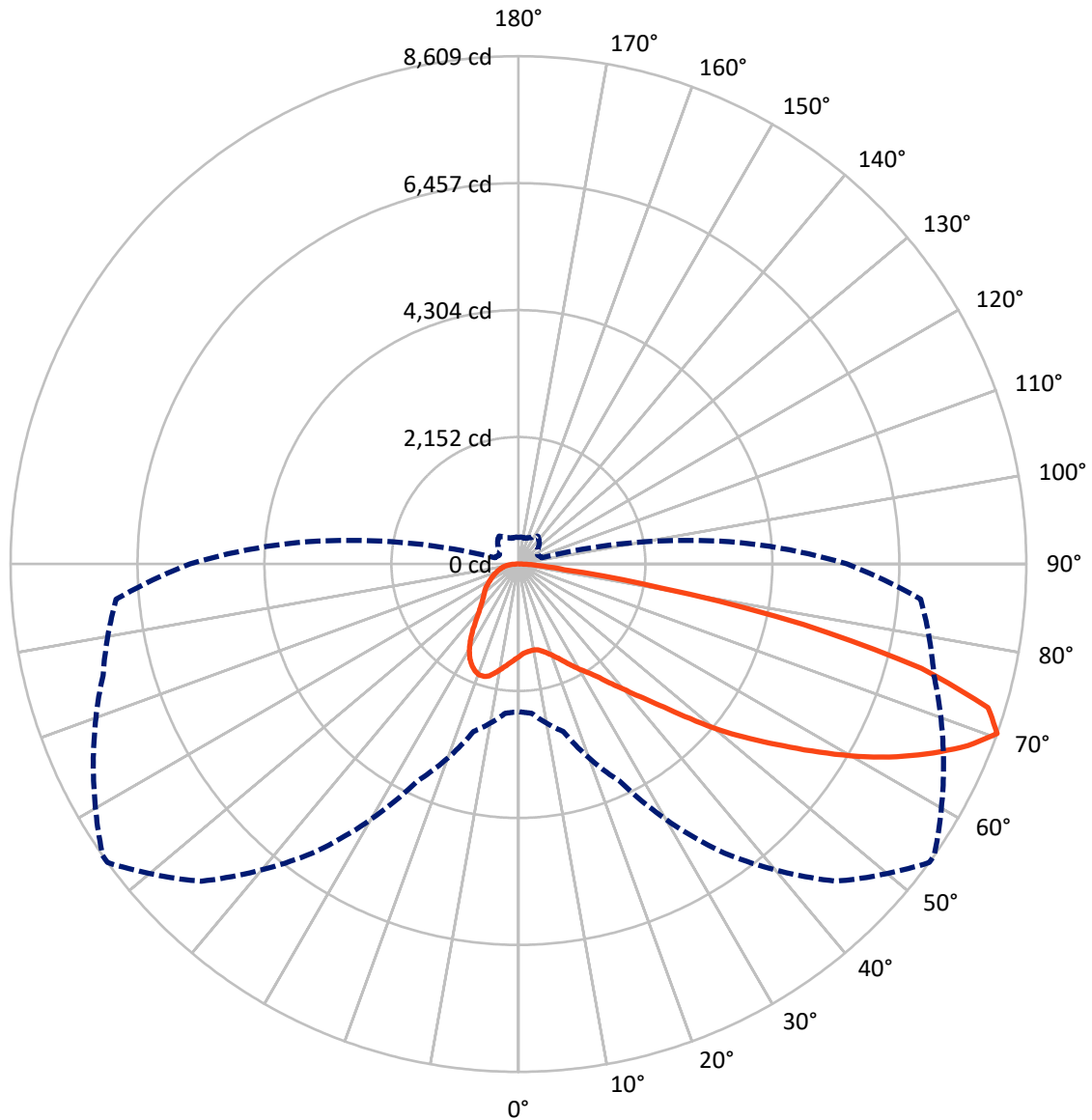
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.6 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3182.0 | 0.0 | 3182.0 |
| | % Fixture | 22.7 | 0.0 | 22.7 |
| Street Side | Lumens | 10848.3 | 0.0 | 10848.3 |
| | % Fixture | 77.3 | 0.0 | 77.3 |
| Total | Lumens | 14030.3 | 0.0 | 14030.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 154.0 | 1.1 |
| 10°-20° | 492.2 | 3.5 |
| 20°-30° | 855.2 | 6.1 |
| 30°-40° | 1249.7 | 8.9 |
| 40°-50° | 1961.4 | 14.0 |
| 50°-60° | 3016.1 | 21.5 |
| 60°-70° | 3685.0 | 26.3 |
| 70°-80° | 2284.7 | 16.3 |
| 80°-90° | 331.9 | 2.4 |
| 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° | 14030.3 | 100.0 |
| 0°-180° | 14030.3 | 100.0 |



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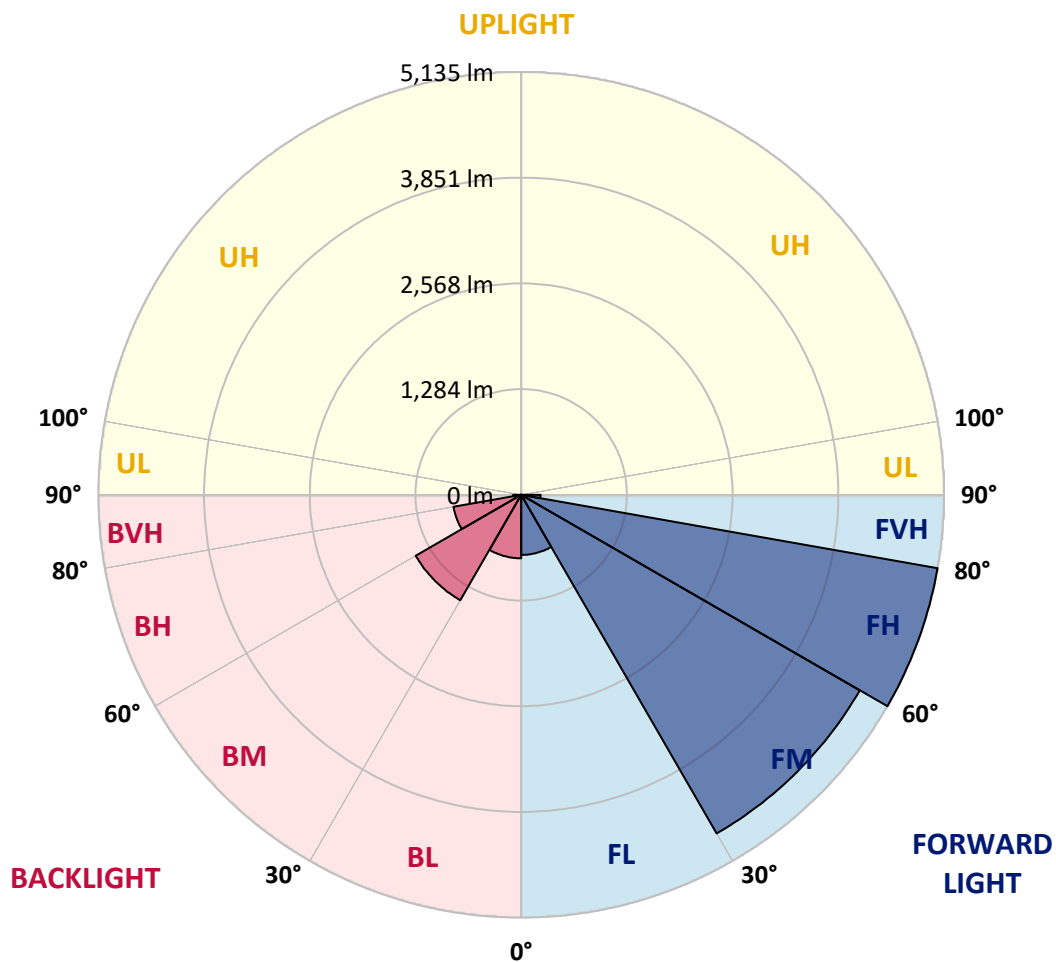
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 730.0 | 5.2 | | | |
| FM | (30°-60°) | 4748.6 | 33.8 | | | |
| FH | (60°-80°) | 5135.3 | 36.6 | | | G3/7500 |
| FVH | (80°-90°) | 234.4 | 1.7 | | | G3/500 |
| BL | (0°-30°) | 771.4 | 5.5 | B2/1000 | | |
| BM | (30°-60°) | 1478.6 | 10.5 | B2/2500 | | |
| BH | (60°-80°) | 834.4 | 5.9 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 97.5 | 0.7 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 |
| 2.5° | 1508.1 | 1503.0 | 1503.0 | 1510.6 | 1513.1 | 1520.9 | 1520.9 | 1523.4 | 1531.3 | 1543.9 | 1559.5 |
| 5° | 1461.8 | 1459.2 | 1461.8 | 1472.1 | 1477.3 | 1492.7 | 1497.7 | 1500.3 | 1515.8 | 1536.3 | 1559.5 |
| 7.5° | 1415.5 | 1413.0 | 1418.2 | 1433.5 | 1449.0 | 1472.1 | 1484.9 | 1487.6 | 1510.6 | 1538.8 | 1569.7 |
| 10° | 1400.2 | 1397.6 | 1405.3 | 1418.2 | 1433.5 | 1459.2 | 1479.8 | 1482.4 | 1515.8 | 1549.1 | 1592.9 |
| 12.5° | 1420.7 | 1418.2 | 1425.8 | 1438.6 | 1454.0 | 1472.1 | 1495.1 | 1497.7 | 1541.4 | 1585.1 | 1631.3 |
| 15° | 1472.1 | 1472.1 | 1474.7 | 1482.4 | 1497.7 | 1513.1 | 1533.8 | 1536.3 | 1582.5 | 1633.9 | 1680.2 |
| 17.5° | 1551.7 | 1546.6 | 1546.6 | 1543.9 | 1554.2 | 1562.1 | 1587.7 | 1590.3 | 1639.0 | 1685.3 | 1731.6 |
| 20° | 1649.4 | 1646.8 | 1636.5 | 1623.6 | 1621.1 | 1626.2 | 1652.0 | 1654.5 | 1703.2 | 1741.9 | 1785.6 |
| 22.5° | 1767.5 | 1770.1 | 1746.9 | 1718.6 | 1705.9 | 1713.5 | 1736.8 | 1739.3 | 1775.2 | 1808.6 | 1847.2 |
| 25° | 1924.2 | 1916.5 | 1883.1 | 1842.1 | 1816.4 | 1816.4 | 1839.5 | 1839.5 | 1872.8 | 1893.4 | 1919.0 |
| 27.5° | 2073.3 | 2057.8 | 2026.9 | 1967.8 | 1926.9 | 1934.5 | 1957.6 | 1957.6 | 1988.5 | 1996.2 | 2009.0 |
| 30° | 2235.2 | 2219.7 | 2181.2 | 2106.6 | 2052.6 | 2047.5 | 2075.9 | 2073.3 | 2114.3 | 2111.7 | 2101.6 |
| 32.5° | 2432.9 | 2425.2 | 2360.9 | 2266.0 | 2194.0 | 2176.1 | 2201.7 | 2204.4 | 2230.0 | 2222.2 | 2188.9 |
| 35° | 2710.4 | 2707.9 | 2648.7 | 2481.7 | 2386.6 | 2353.3 | 2368.7 | 2368.7 | 2386.6 | 2366.1 | 2309.6 |
| 37.5° | 3059.7 | 3064.8 | 3013.5 | 2766.9 | 2633.3 | 2576.8 | 2579.4 | 2576.8 | 2581.9 | 2558.8 | 2499.8 |
| 40° | 3409.2 | 3422.1 | 3419.5 | 3121.4 | 2951.9 | 2854.3 | 2818.3 | 2813.1 | 2826.0 | 2815.6 | 2759.1 |
| 42.5° | 3869.0 | 3899.8 | 3827.9 | 3558.1 | 3368.0 | 3203.6 | 3106.0 | 3093.1 | 3121.4 | 3134.2 | 3080.3 |
| 45° | 4346.9 | 4336.6 | 4223.6 | 4028.3 | 3856.2 | 3645.5 | 3460.5 | 3440.0 | 3460.5 | 3499.1 | 3442.6 |
| 47.5° | 4596.1 | 4588.4 | 4560.1 | 4462.5 | 4436.8 | 4195.4 | 3915.3 | 3897.2 | 3858.8 | 3912.7 | 3846.0 |
| 50° | 5007.2 | 5014.9 | 4899.3 | 4888.9 | 4996.8 | 4863.2 | 4429.2 | 4388.0 | 4318.6 | 4362.3 | 4305.8 |
| 52.5° | 5305.1 | 5271.8 | 5199.7 | 5289.7 | 5626.3 | 5554.3 | 4912.1 | 4894.1 | 4829.8 | 4819.5 | 4793.9 |
| 55° | 5425.9 | 5425.9 | 5438.7 | 5646.8 | 6127.2 | 6032.2 | 5436.2 | 5454.1 | 5366.8 | 5294.9 | 5328.2 |
| 57.5° | 5461.9 | 5477.2 | 5587.7 | 5932.0 | 6715.5 | 6404.6 | 6014.2 | 6039.9 | 5914.0 | 5770.2 | 5875.5 |
| 60° | 5284.5 | 5330.8 | 5595.5 | 6093.8 | 7046.9 | 6800.3 | 6623.1 | 6630.7 | 6448.4 | 6237.7 | 6422.7 |
| 62.5° | 4829.8 | 4886.4 | 5359.1 | 6160.7 | 6993.0 | 7206.3 | 7198.6 | 7216.5 | 6967.3 | 6705.3 | 6936.5 |
| 65° | 4272.3 | 4328.9 | 4832.4 | 5973.1 | 6952.0 | 7496.5 | 7725.2 | 7774.0 | 7452.9 | 7100.9 | 7257.6 |
| 67.5° | 3452.8 | 3527.4 | 4005.3 | 5341.1 | 6751.5 | 7735.5 | 8218.5 | 8269.8 | 7828.0 | 7306.5 | 7229.4 |
| 70° | 2502.3 | 2538.3 | 2939.1 | 4059.1 | 5934.6 | 7604.4 | 8608.9 | 8606.4 | 7951.3 | 7291.1 | 6843.9 |
| 72.5° | 1204.8 | 1233.2 | 1579.9 | 2520.3 | 4244.1 | 6453.6 | 8326.4 | 8375.2 | 7781.7 | 7067.5 | 5962.8 |
| 75° | 495.9 | 524.2 | 639.8 | 1063.7 | 2227.3 | 4264.7 | 7057.3 | 7172.8 | 7067.5 | 6343.0 | 4665.4 |
| 77.5° | 308.3 | 318.5 | 375.1 | 549.9 | 1017.3 | 1991.1 | 4940.3 | 5097.1 | 5600.7 | 5081.6 | 3080.3 |
| 80° | 231.3 | 238.9 | 280.0 | 385.4 | 642.3 | 734.8 | 2453.5 | 2651.3 | 3393.7 | 2915.9 | 1395.0 |
| 82.5° | 192.6 | 195.2 | 223.5 | 280.0 | 436.8 | 421.3 | 786.1 | 876.0 | 1582.5 | 1112.5 | 480.5 |
| 85° | 179.8 | 185.1 | 200.4 | 200.4 | 277.4 | 264.6 | 326.3 | 341.6 | 459.8 | 380.3 | 166.9 |
| 87.5° | 92.4 | 87.3 | 177.2 | 156.8 | 143.9 | 128.5 | 138.7 | 148.9 | 172.1 | 182.4 | 74.5 |
| 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° | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 | 1569.7 |
| 2.5° | 1564.6 | 1572.3 | 1585.1 | 1597.9 | 1613.4 | 1631.3 | 1641.7 | 1654.5 | 1664.7 | 1659.6 | 1657.1 |
| 5° | 1572.3 | 1585.1 | 1613.4 | 1639.0 | 1669.9 | 1705.9 | 1729.0 | 1754.7 | 1775.2 | 1780.4 | 1772.6 |
| 7.5° | 1585.1 | 1608.2 | 1646.8 | 1693.0 | 1734.1 | 1780.4 | 1816.4 | 1852.3 | 1877.9 | 1883.1 | 1883.1 |
| 10° | 1616.0 | 1641.7 | 1693.0 | 1754.7 | 1803.4 | 1852.3 | 1893.4 | 1921.7 | 1944.8 | 1955.2 | 1955.2 |
| 12.5° | 1659.6 | 1690.4 | 1752.1 | 1826.7 | 1880.5 | 1926.9 | 1950.0 | 1962.7 | 1973.0 | 1983.3 | 1986.0 |
| 15° | 1711.0 | 1744.4 | 1818.9 | 1898.6 | 1955.2 | 1978.2 | 1978.2 | 1975.6 | 1975.6 | 1980.8 | 1986.0 |
| 17.5° | 1762.4 | 1798.3 | 1875.4 | 1960.2 | 1996.2 | 1983.3 | 1965.3 | 1957.6 | 1952.5 | 1950.0 | 1957.6 |
| 20° | 1816.4 | 1852.3 | 1929.4 | 2009.0 | 1998.8 | 1944.8 | 1919.0 | 1901.2 | 1885.7 | 1877.9 | 1888.2 |
| 22.5° | 1875.4 | 1908.8 | 1988.5 | 2042.4 | 1965.3 | 1883.1 | 1834.2 | 1806.0 | 1780.4 | 1765.0 | 1775.2 |
| 25° | 1944.8 | 1978.2 | 2055.2 | 2052.6 | 1906.3 | 1790.6 | 1713.5 | 1667.3 | 1639.0 | 1623.6 | 1623.6 |
| 27.5° | 2026.9 | 2055.2 | 2129.7 | 2026.9 | 1824.1 | 1667.3 | 1554.2 | 1510.6 | 1503.0 | 1490.1 | 1490.1 |
| 30° | 2111.7 | 2134.9 | 2199.1 | 1967.8 | 1711.0 | 1505.5 | 1382.1 | 1361.7 | 1364.2 | 1351.3 | 1353.8 |
| 32.5° | 2199.1 | 2222.2 | 2240.3 | 1880.5 | 1564.6 | 1323.1 | 1240.9 | 1225.5 | 1223.0 | 1212.6 | 1202.3 |
| 35° | 2322.5 | 2355.8 | 2245.4 | 1762.4 | 1387.3 | 1171.5 | 1112.5 | 1097.0 | 1081.6 | 1045.5 | 1045.5 |
| 37.5° | 2510.0 | 2545.9 | 2232.5 | 1616.0 | 1204.8 | 1053.4 | 999.4 | 978.9 | 953.1 | 917.2 | 904.4 |
| 40° | 2766.9 | 2766.9 | 2204.4 | 1451.5 | 1058.5 | 958.2 | 906.8 | 881.1 | 852.9 | 817.0 | 809.3 |
| 42.5° | 3070.0 | 2998.2 | 2160.7 | 1284.5 | 950.5 | 894.1 | 847.8 | 819.6 | 786.1 | 745.1 | 739.9 |
| 45° | 3424.6 | 3229.3 | 2098.9 | 1135.5 | 870.8 | 855.5 | 827.2 | 778.4 | 721.9 | 678.2 | 670.6 |
| 47.5° | 3768.7 | 3437.5 | 2039.8 | 1030.1 | 804.2 | 840.0 | 817.0 | 734.8 | 657.6 | 596.0 | 588.3 |
| 50° | 4146.4 | 3622.3 | 1970.5 | 942.9 | 752.7 | 829.9 | 804.2 | 670.6 | 585.8 | 542.0 | 536.9 |
| 52.5° | 4524.1 | 3809.9 | 1896.1 | 850.3 | 709.0 | 809.3 | 773.4 | 624.3 | 583.2 | 524.2 | 516.3 |
| 55° | 4922.4 | 4028.3 | 1808.6 | 747.6 | 657.6 | 768.1 | 732.2 | 621.6 | 601.1 | 524.2 | 506.1 |
| 57.5° | 5310.3 | 4269.9 | 1667.3 | 647.4 | 601.1 | 706.4 | 716.8 | 606.3 | 562.6 | 519.0 | 498.4 |
| 60° | 5739.4 | 4526.6 | 1433.5 | 562.6 | 552.4 | 655.1 | 696.2 | 572.8 | 519.0 | 503.5 | 493.3 |
| 62.5° | 6083.6 | 4758.0 | 1120.1 | 503.5 | 511.2 | 614.0 | 670.6 | 552.4 | 501.0 | 488.0 | 485.5 |
| 65° | 6232.6 | 4763.1 | 804.2 | 452.1 | 470.2 | 575.5 | 644.9 | 534.3 | 485.5 | 480.5 | 477.9 |
| 67.5° | 6075.9 | 4501.0 | 565.3 | 403.3 | 426.4 | 539.5 | 611.4 | 516.3 | 470.2 | 472.7 | 467.6 |
| 70° | 5569.8 | 3948.7 | 413.6 | 357.0 | 385.4 | 501.0 | 575.5 | 493.3 | 452.1 | 457.2 | 449.6 |
| 72.5° | 4660.2 | 3077.8 | 331.5 | 318.5 | 352.0 | 459.8 | 539.5 | 467.6 | 423.9 | 426.4 | 411.1 |
| 75° | 3442.6 | 2039.8 | 277.4 | 285.1 | 313.4 | 421.3 | 493.3 | 434.2 | 393.1 | 382.8 | 372.4 |
| 77.5° | 2047.5 | 1048.2 | 228.7 | 249.2 | 280.0 | 375.1 | 441.8 | 393.1 | 359.7 | 341.6 | 334.0 |
| 80° | 845.2 | 423.9 | 187.6 | 210.7 | 244.1 | 334.0 | 390.6 | 344.3 | 321.1 | 303.2 | 292.8 |
| 82.5° | 336.5 | 208.0 | 148.9 | 172.1 | 205.5 | 290.3 | 341.6 | 303.2 | 280.0 | 267.2 | 238.9 |
| 85° | 128.5 | 102.8 | 100.3 | 120.7 | 154.1 | 223.5 | 282.5 | 254.3 | 236.3 | 202.9 | 195.2 |
| 87.5° | 51.5 | 46.3 | 46.3 | 59.1 | 87.3 | 141.4 | 202.9 | 177.2 | 185.1 | 146.5 | 148.9 |
| 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)