

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: P198657

Luminaire Tested: **XNV2-AF-02-LED-U-5NQ-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24130)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-5NQ-1200
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V
NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13912.1 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

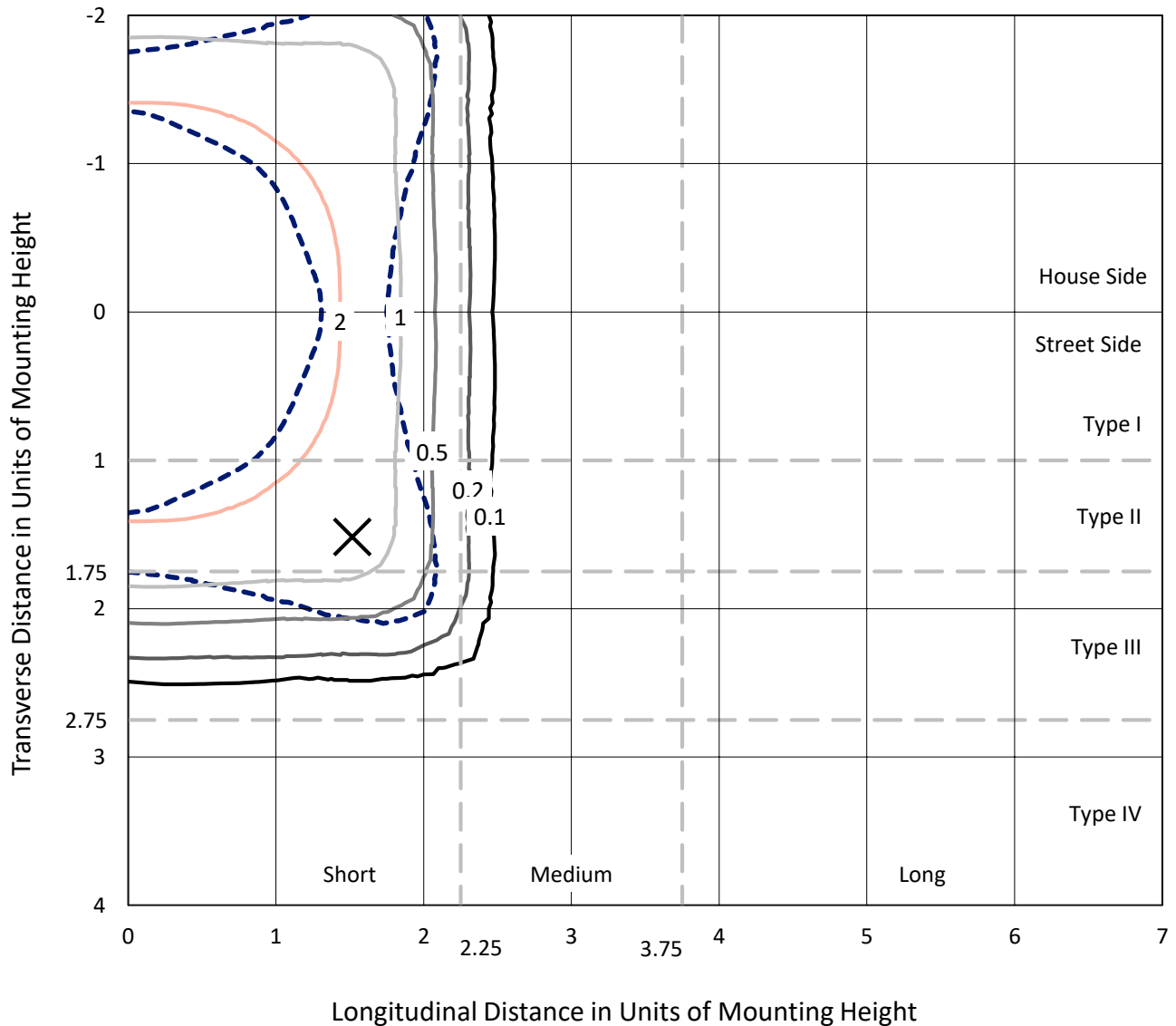
Input Watts (W): 128
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

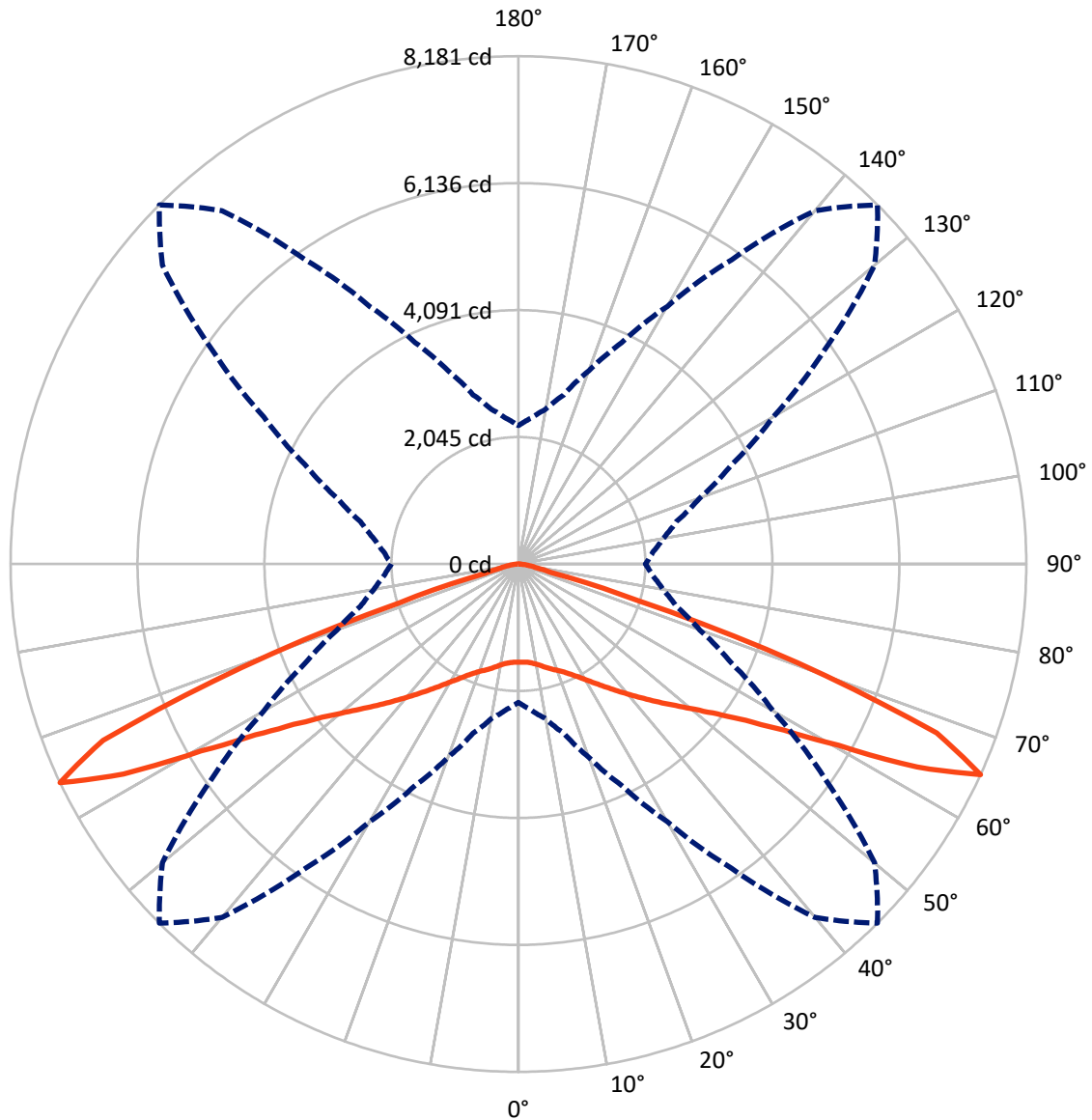
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6956.1 | 0.0 | 6956.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6956.1 | 0.0 | 6956.1 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 13912.1 | 0.0 | 13912.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 154.1 | 1.1 |
| 10°-20° | 493.9 | 3.6 |
| 20°-30° | 921.4 | 6.6 |
| 30°-40° | 1553.6 | 11.2 |
| 40°-50° | 2523.5 | 18.1 |
| 50°-60° | 3953.8 | 28.4 |
| 60°-70° | 3732.2 | 26.8 |
| 70°-80° | 503.0 | 3.6 |
| 80°-90° | 76.6 | 0.6 |
| 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° | 13912.1 | 100.0 |
| 0°-180° | 13912.1 | 100.0 |

Coefficient of Utilization



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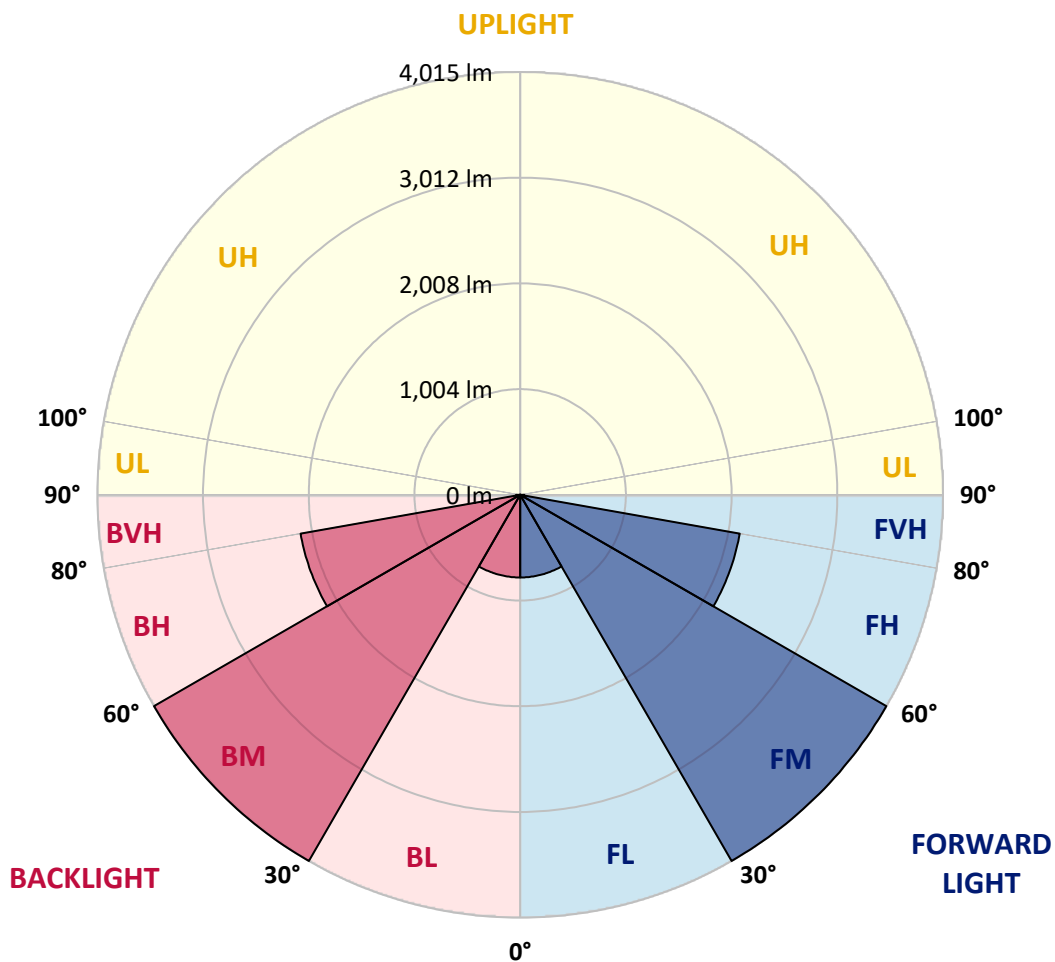
CATALOG NUMBER: XNV2-AF-02-LED-U-5NQ-1200

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 784.7 | 5.6 | | | |
| FM | (30°-60°) | 4015.5 | 28.9 | | | |
| FH | (60°-80°) | 2117.6 | 15.2 | | | G2/5000 |
| FVH | (80°-90°) | 38.3 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 784.7 | 5.6 | B2/1000 | | |
| BM | (30°-60°) | 4015.5 | 28.9 | B3/5000 | | |
| BH | (60°-80°) | 2117.6 | 15.2 | B3/2500 | | G2/5000 |
| BVH | (80°-90°) | 38.3 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 |
| 2.5° | 1595.5 | 1595.5 | 1598.1 | 1597.2 | 1593.8 | 1591.2 | 1588.5 | 1585.1 | 1583.3 | 1581.6 | 1580.8 |
| 5° | 1604.2 | 1604.2 | 1606.7 | 1605.9 | 1603.3 | 1599.8 | 1598.1 | 1595.5 | 1592.9 | 1591.2 | 1592.0 |
| 7.5° | 1625.8 | 1626.7 | 1627.5 | 1626.7 | 1624.0 | 1621.5 | 1618.0 | 1617.2 | 1613.7 | 1611.0 | 1612.8 |
| 10° | 1658.7 | 1658.7 | 1659.6 | 1660.5 | 1658.7 | 1652.7 | 1652.7 | 1650.9 | 1647.5 | 1644.0 | 1644.9 |
| 12.5° | 1695.1 | 1695.1 | 1696.1 | 1696.1 | 1696.1 | 1692.6 | 1693.4 | 1692.6 | 1688.2 | 1686.4 | 1688.2 |
| 15° | 1730.7 | 1731.5 | 1731.5 | 1733.3 | 1733.3 | 1734.1 | 1737.6 | 1737.6 | 1735.8 | 1735.0 | 1735.0 |
| 17.5° | 1772.3 | 1774.0 | 1774.9 | 1777.5 | 1778.4 | 1780.0 | 1783.5 | 1784.4 | 1785.3 | 1782.7 | 1783.5 |
| 20° | 1827.7 | 1828.6 | 1831.2 | 1832.1 | 1835.6 | 1835.6 | 1837.3 | 1836.4 | 1834.7 | 1831.2 | 1831.2 |
| 22.5° | 1890.1 | 1891.8 | 1897.1 | 1897.1 | 1901.5 | 1898.8 | 1899.7 | 1897.1 | 1892.8 | 1891.0 | 1889.3 |
| 25° | 1971.6 | 1974.2 | 1978.6 | 1976.9 | 1978.6 | 1974.2 | 1974.2 | 1974.2 | 1971.6 | 1969.0 | 1968.2 |
| 27.5° | 2074.7 | 2070.5 | 2074.7 | 2071.3 | 2070.5 | 2067.0 | 2067.8 | 2066.1 | 2063.5 | 2062.6 | 2059.1 |
| 30° | 2182.2 | 2177.0 | 2179.6 | 2180.5 | 2178.8 | 2177.9 | 2174.4 | 2171.8 | 2167.4 | 2168.3 | 2165.7 |
| 32.5° | 2305.2 | 2300.1 | 2302.7 | 2303.6 | 2301.8 | 2303.6 | 2302.7 | 2296.6 | 2291.4 | 2294.9 | 2294.9 |
| 35° | 2451.7 | 2448.2 | 2455.2 | 2457.8 | 2452.6 | 2450.0 | 2446.5 | 2439.6 | 2431.8 | 2437.0 | 2437.9 |
| 37.5° | 2627.7 | 2623.4 | 2628.6 | 2635.4 | 2625.9 | 2620.7 | 2606.9 | 2596.5 | 2591.2 | 2593.9 | 2597.4 |
| 40° | 2810.6 | 2811.4 | 2826.1 | 2827.8 | 2817.4 | 2811.4 | 2797.6 | 2781.9 | 2767.2 | 2767.2 | 2771.5 |
| 42.5° | 3002.9 | 3005.5 | 3022.8 | 3029.0 | 3025.5 | 3014.2 | 2995.1 | 2976.1 | 2956.9 | 2960.4 | 2965.6 |
| 45° | 3220.5 | 3217.0 | 3235.2 | 3249.9 | 3247.4 | 3243.9 | 3225.7 | 3191.0 | 3173.6 | 3172.8 | 3181.5 |
| 47.5° | 3449.2 | 3456.1 | 3475.3 | 3500.3 | 3499.5 | 3490.8 | 3467.4 | 3435.4 | 3403.3 | 3405.9 | 3416.3 |
| 50° | 3716.2 | 3725.7 | 3757.8 | 3782.9 | 3786.4 | 3783.8 | 3756.1 | 3718.7 | 3673.7 | 3676.3 | 3690.2 |
| 52.5° | 3955.3 | 3969.3 | 4006.5 | 4058.5 | 4090.6 | 4105.3 | 4087.1 | 4052.4 | 4006.5 | 4009.0 | 4023.8 |
| 55° | 4172.0 | 4193.7 | 4249.1 | 4320.2 | 4384.4 | 4444.1 | 4471.0 | 4470.1 | 4436.3 | 4444.1 | 4463.2 |
| 57.5° | 4308.1 | 4338.4 | 4422.5 | 4536.9 | 4664.2 | 4784.8 | 4888.7 | 4986.7 | 5008.4 | 5049.1 | 5049.1 |
| 60° | 4125.3 | 4196.2 | 4308.1 | 4504.0 | 4754.4 | 5024.8 | 5317.7 | 5602.8 | 5786.5 | 5931.3 | 5853.3 |
| 62.5° | 3444.9 | 3549.7 | 3706.7 | 3964.9 | 4354.9 | 4837.6 | 5426.0 | 6089.0 | 6780.6 | 7203.5 | 6893.3 |
| 65° | 2229.0 | 2360.8 | 2531.5 | 2821.8 | 3313.1 | 3934.6 | 4791.7 | 5983.3 | 7430.6 | 8181.2 | 7487.8 |
| 67.5° | 883.1 | 972.4 | 1076.3 | 1282.7 | 1709.0 | 2319.1 | 3281.1 | 4750.9 | 6561.3 | 7269.4 | 6492.1 |
| 70° | 422.1 | 436.8 | 456.7 | 500.9 | 607.5 | 819.8 | 1318.2 | 2340.8 | 4023.8 | 4770.0 | 3927.6 |
| 72.5° | 305.0 | 307.7 | 317.2 | 331.9 | 363.1 | 406.4 | 494.0 | 715.9 | 1387.5 | 2017.6 | 1389.3 |
| 75° | 231.4 | 234.9 | 240.1 | 247.9 | 264.3 | 285.1 | 318.0 | 381.4 | 475.0 | 547.7 | 474.0 |
| 77.5° | 175.9 | 179.4 | 183.7 | 191.5 | 200.2 | 214.9 | 227.1 | 252.2 | 292.1 | 307.7 | 306.0 |
| 80° | 128.3 | 134.3 | 141.3 | 148.2 | 154.3 | 161.2 | 162.0 | 174.2 | 196.7 | 211.4 | 207.1 |
| 82.5° | 81.4 | 86.6 | 104.9 | 112.6 | 113.5 | 115.3 | 114.4 | 115.3 | 127.4 | 137.8 | 134.3 |
| 85° | 52.0 | 55.4 | 65.0 | 73.7 | 71.9 | 75.4 | 75.4 | 73.7 | 68.4 | 58.9 | 70.2 |
| 87.5° | 26.0 | 26.9 | 31.2 | 39.0 | 37.2 | 32.9 | 32.0 | 32.0 | 23.4 | 19.9 | 21.7 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 | 1582.5 |
| 2.5° | 1578.1 | 1579.8 | 1577.3 | 1577.3 | 1576.5 | 1578.1 | 1575.5 | 1575.5 |
| 5° | 1590.3 | 1592.9 | 1592.0 | 1592.0 | 1593.8 | 1595.5 | 1594.6 | 1593.8 |
| 7.5° | 1612.0 | 1613.7 | 1615.4 | 1616.3 | 1618.0 | 1617.2 | 1618.9 | 1618.0 |
| 10° | 1644.9 | 1643.2 | 1645.7 | 1643.2 | 1644.0 | 1642.2 | 1643.2 | 1643.2 |
| 12.5° | 1686.4 | 1683.9 | 1682.1 | 1680.4 | 1680.4 | 1676.9 | 1676.9 | 1677.8 |
| 15° | 1734.1 | 1729.8 | 1726.3 | 1724.6 | 1722.9 | 1722.9 | 1720.3 | 1722.0 |
| 17.5° | 1781.0 | 1776.7 | 1770.5 | 1770.5 | 1768.0 | 1766.2 | 1764.5 | 1768.8 |
| 20° | 1830.4 | 1826.0 | 1822.6 | 1821.7 | 1816.5 | 1814.7 | 1815.6 | 1820.9 |
| 22.5° | 1887.5 | 1885.0 | 1885.0 | 1883.3 | 1879.8 | 1877.1 | 1877.1 | 1883.3 |
| 25° | 1964.7 | 1959.5 | 1960.4 | 1961.2 | 1959.5 | 1959.5 | 1957.7 | 1962.1 |
| 27.5° | 2059.1 | 2054.8 | 2057.4 | 2059.1 | 2057.4 | 2060.0 | 2057.4 | 2060.8 |
| 30° | 2170.1 | 2167.4 | 2170.1 | 2172.6 | 2168.3 | 2168.3 | 2166.6 | 2169.2 |
| 32.5° | 2302.7 | 2299.2 | 2300.9 | 2300.9 | 2294.9 | 2289.7 | 2282.7 | 2287.9 |
| 35° | 2448.2 | 2443.9 | 2447.4 | 2450.0 | 2443.1 | 2437.9 | 2427.5 | 2431.8 |
| 37.5° | 2608.6 | 2610.4 | 2614.7 | 2625.9 | 2624.2 | 2615.5 | 2607.7 | 2611.2 |
| 40° | 2788.0 | 2796.6 | 2815.7 | 2823.5 | 2821.8 | 2813.1 | 2802.7 | 2804.4 |
| 42.5° | 2990.8 | 3002.1 | 3022.0 | 3035.0 | 3029.0 | 3016.8 | 3003.8 | 3009.0 |
| 45° | 3211.8 | 3229.1 | 3255.1 | 3268.1 | 3260.3 | 3247.4 | 3229.1 | 3238.7 |
| 47.5° | 3445.8 | 3480.4 | 3515.1 | 3532.5 | 3529.8 | 3511.6 | 3488.3 | 3490.8 |
| 50° | 3725.7 | 3771.6 | 3815.8 | 3833.2 | 3820.1 | 3792.4 | 3759.4 | 3758.6 |
| 52.5° | 4074.1 | 4123.5 | 4159.9 | 4155.5 | 4123.5 | 4080.1 | 4042.9 | 4041.2 |
| 55° | 4509.2 | 4525.6 | 4520.4 | 4483.2 | 4426.8 | 4359.2 | 4311.5 | 4303.8 |
| 57.5° | 5035.2 | 4979.7 | 4898.3 | 4785.6 | 4659.0 | 4530.9 | 4444.1 | 4412.1 |
| 60° | 5678.2 | 5427.8 | 5136.5 | 4829.8 | 4549.9 | 4340.2 | 4207.5 | 4127.0 |
| 62.5° | 6209.5 | 5484.1 | 4833.2 | 4300.3 | 3864.4 | 3605.2 | 3424.1 | 3312.3 |
| 65° | 6027.5 | 4737.9 | 3795.0 | 3107.8 | 2632.0 | 2364.2 | 2172.6 | 2045.3 |
| 67.5° | 4656.5 | 3165.8 | 2203.0 | 1527.1 | 1157.9 | 980.2 | 856.2 | 775.6 |
| 70° | 2347.8 | 1214.1 | 735.8 | 519.1 | 443.8 | 412.6 | 391.7 | 379.6 |
| 72.5° | 689.0 | 460.2 | 382.2 | 338.0 | 311.1 | 292.1 | 279.9 | 273.8 |
| 75° | 381.4 | 311.1 | 274.8 | 249.6 | 232.2 | 219.2 | 211.4 | 206.2 |
| 77.5° | 262.6 | 226.2 | 208.0 | 191.5 | 177.7 | 168.2 | 162.0 | 156.8 |
| 80° | 183.7 | 165.5 | 157.7 | 149.0 | 138.7 | 130.8 | 122.2 | 118.8 |
| 82.5° | 122.2 | 114.4 | 112.6 | 105.8 | 99.6 | 91.0 | 75.4 | 70.2 |
| 85° | 71.9 | 71.1 | 71.1 | 68.4 | 64.1 | 56.4 | 45.1 | 45.1 |
| 87.5° | 25.2 | 26.0 | 26.9 | 28.6 | 27.7 | 23.4 | 19.0 | 18.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)