

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: P190831

Luminaire Tested: **GAN-AF-03-LED-U-5NQ-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P190831
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-03-LED-U-5NQ-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V NARROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12634.4 lumens
Efficiency: N/A
Efficacy: 131.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

Input Watts (W): 96
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

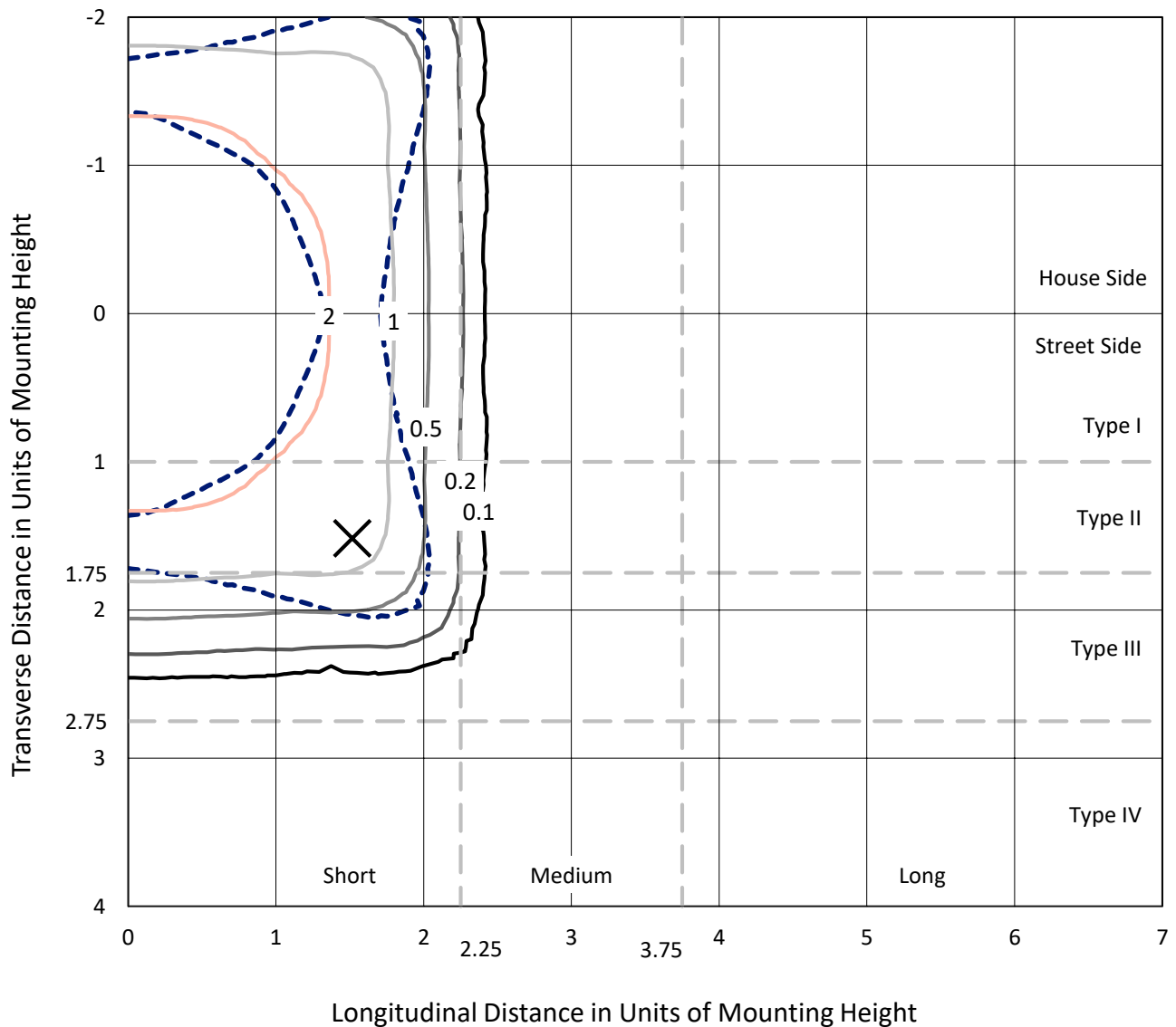


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Iso-Footcandle Lines of Horizontal Illumination

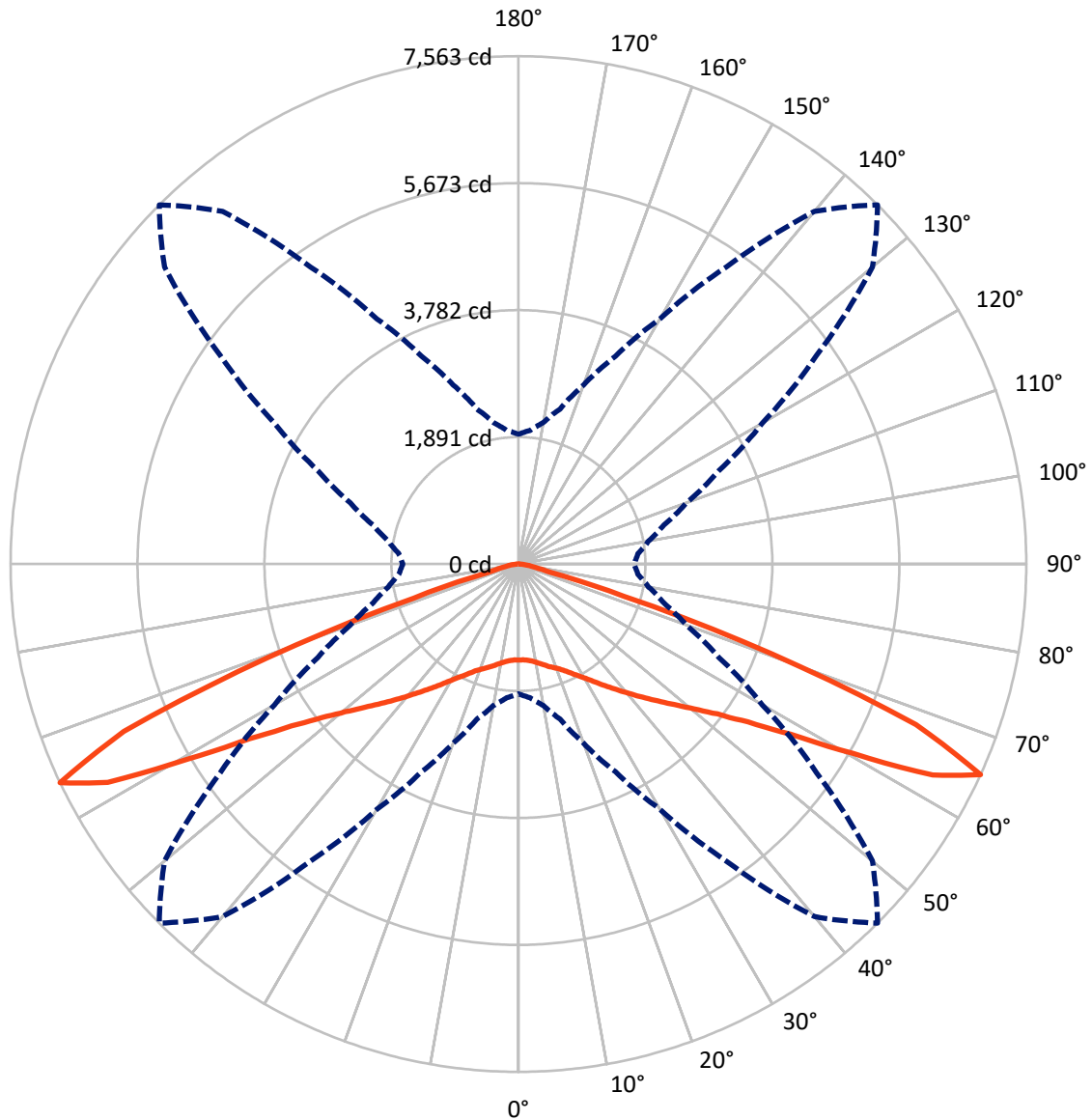
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.6 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 | 6317.2 | 0.0 | 6317.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6317.2 | 0.0 | 6317.2 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 12634.4 | 0.0 | 12634.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 139.3 | 1.1 |
| 10°-20° | 446.9 | 3.5 |
| 20°-30° | 835.6 | 6.6 |
| 30°-40° | 1413.2 | 11.2 |
| 40°-50° | 2310.8 | 18.3 |
| 50°-60° | 3674.5 | 29.1 |
| 60°-70° | 3321.5 | 26.3 |
| 70°-80° | 420.3 | 3.3 |
| 80°-90° | 72.3 | 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° | 12634.4 | 100.0 |
| 0°-180° | 12634.4 | 100.0 |



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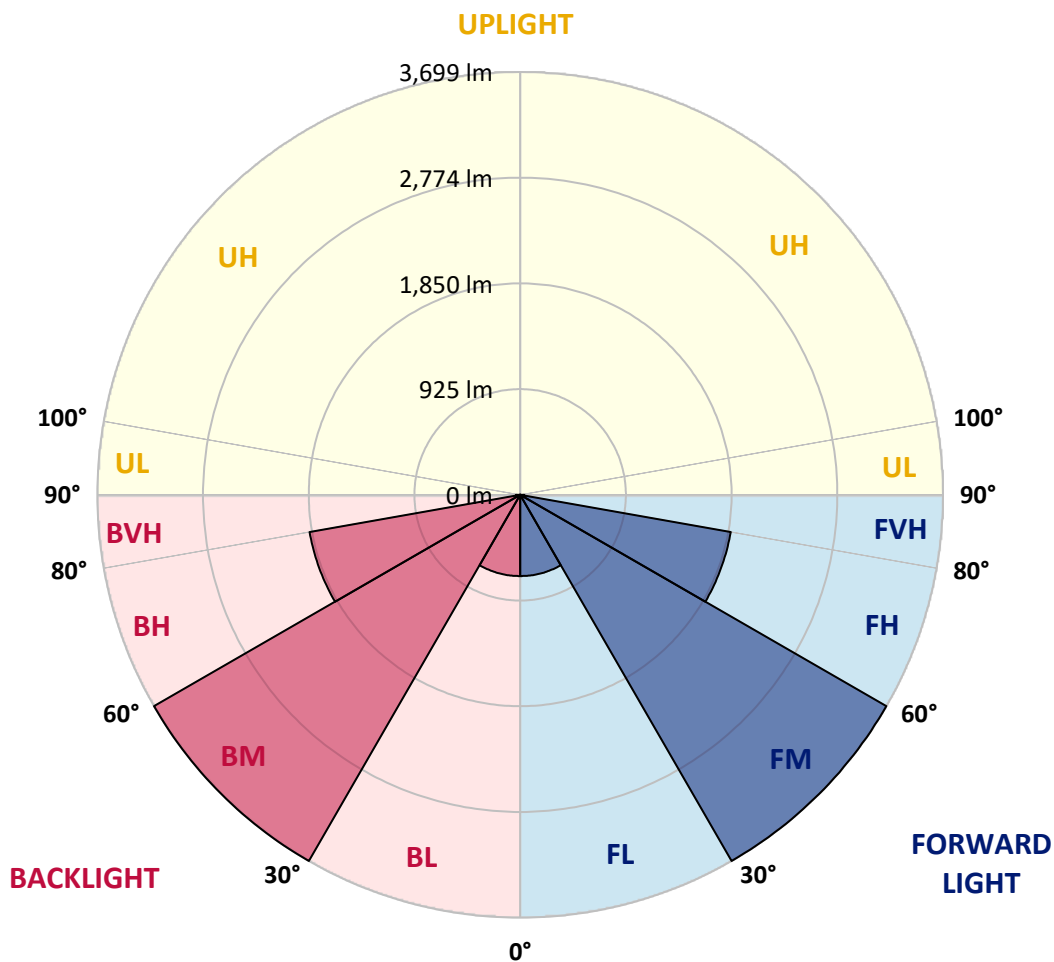
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 710.9 | 5.6 | | | |
| FM | (30°-60°) | 3699.2 | 29.3 | | | |
| FH | (60°-80°) | 1870.9 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 36.1 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 710.9 | 5.6 | B2/1000 | | |
| BM | (30°-60°) | 3699.2 | 29.3 | B3/5000 | | |
| BH | (60°-80°) | 1870.9 | 14.8 | B3/2500 | | G2/5000 |
| BVH | (80°-90°) | 36.1 | 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° | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 |
| 2.5° | 1430.8 | 1431.9 | 1433.2 | 1431.9 | 1433.2 | 1431.4 | 1430.2 | 1431.9 | 1430.2 | 1428.4 | 1429.6 |
| 5° | 1443.2 | 1443.8 | 1443.8 | 1442.1 | 1443.8 | 1442.6 | 1440.8 | 1443.2 | 1441.4 | 1439.7 | 1440.8 |
| 7.5° | 1463.9 | 1466.3 | 1464.6 | 1462.7 | 1463.9 | 1462.7 | 1461.6 | 1462.1 | 1461.6 | 1459.8 | 1460.4 |
| 10° | 1491.8 | 1493.5 | 1492.3 | 1491.8 | 1492.9 | 1492.3 | 1491.2 | 1490.5 | 1491.2 | 1489.3 | 1489.3 |
| 12.5° | 1525.4 | 1524.9 | 1524.3 | 1524.9 | 1526.7 | 1526.7 | 1526.0 | 1526.7 | 1527.8 | 1528.4 | 1527.3 |
| 15° | 1558.6 | 1559.8 | 1559.8 | 1559.8 | 1563.4 | 1566.2 | 1568.1 | 1569.2 | 1571.6 | 1572.2 | 1569.8 |
| 17.5° | 1600.0 | 1600.0 | 1599.4 | 1600.0 | 1603.6 | 1608.3 | 1610.0 | 1612.5 | 1614.8 | 1616.6 | 1613.6 |
| 20° | 1646.1 | 1647.4 | 1647.4 | 1648.5 | 1653.3 | 1658.6 | 1658.6 | 1659.7 | 1658.6 | 1659.7 | 1658.0 |
| 22.5° | 1702.4 | 1706.0 | 1706.0 | 1706.5 | 1711.3 | 1717.7 | 1716.0 | 1717.7 | 1714.8 | 1717.1 | 1714.8 |
| 25° | 1775.7 | 1781.1 | 1779.9 | 1779.9 | 1783.4 | 1787.6 | 1788.2 | 1791.7 | 1791.2 | 1794.1 | 1792.3 |
| 27.5° | 1858.6 | 1866.9 | 1869.2 | 1868.6 | 1871.0 | 1875.2 | 1876.3 | 1880.5 | 1878.1 | 1880.5 | 1879.3 |
| 30° | 1958.0 | 1961.5 | 1966.3 | 1968.1 | 1971.0 | 1975.1 | 1975.1 | 1975.7 | 1972.8 | 1976.3 | 1978.1 |
| 32.5° | 2060.9 | 2067.5 | 2072.2 | 2082.8 | 2088.1 | 2091.1 | 2090.5 | 2091.7 | 2088.8 | 2093.5 | 2097.0 |
| 35° | 2197.1 | 2201.8 | 2209.5 | 2217.8 | 2224.9 | 2224.3 | 2222.5 | 2223.1 | 2223.1 | 2227.3 | 2230.7 |
| 37.5° | 2361.0 | 2362.2 | 2372.2 | 2384.1 | 2387.6 | 2384.1 | 2373.3 | 2371.0 | 2365.7 | 2371.0 | 2376.9 |
| 40° | 2534.4 | 2538.5 | 2558.6 | 2566.3 | 2568.0 | 2561.6 | 2546.1 | 2537.3 | 2525.5 | 2532.0 | 2540.3 |
| 42.5° | 2716.0 | 2724.3 | 2742.6 | 2756.2 | 2762.2 | 2758.0 | 2736.7 | 2723.1 | 2707.8 | 2711.2 | 2719.5 |
| 45° | 2917.1 | 2927.3 | 2953.3 | 2966.3 | 2977.5 | 2971.1 | 2950.3 | 2929.6 | 2905.4 | 2907.1 | 2920.1 |
| 47.5° | 3142.0 | 3152.1 | 3185.8 | 3207.7 | 3213.6 | 3212.5 | 3189.4 | 3161.0 | 3127.9 | 3126.6 | 3137.9 |
| 50° | 3394.2 | 3404.2 | 3446.2 | 3479.9 | 3497.1 | 3495.3 | 3468.1 | 3427.8 | 3387.6 | 3388.2 | 3402.4 |
| 52.5° | 3640.3 | 3652.7 | 3696.4 | 3754.4 | 3788.2 | 3812.4 | 3795.9 | 3758.0 | 3708.9 | 3710.0 | 3723.1 |
| 55° | 3871.1 | 3891.7 | 3942.0 | 4020.7 | 4083.4 | 4151.5 | 4171.1 | 4169.9 | 4140.3 | 4148.6 | 4161.6 |
| 57.5° | 3982.9 | 4013.6 | 4091.2 | 4215.4 | 4343.2 | 4481.6 | 4598.9 | 4686.4 | 4723.7 | 4779.9 | 4767.0 |
| 60° | 3771.0 | 3820.1 | 3934.4 | 4117.2 | 4369.8 | 4658.6 | 4968.1 | 5270.4 | 5528.4 | 5723.1 | 5611.3 |
| 62.5° | 3087.6 | 3151.5 | 3290.0 | 3524.3 | 3906.5 | 4368.7 | 4961.0 | 5675.7 | 6454.5 | 6924.4 | 6588.8 |
| 65° | 1931.9 | 1998.2 | 2139.1 | 2389.9 | 2837.3 | 3411.8 | 4215.4 | 5400.1 | 6855.1 | 7563.4 | 6880.6 |
| 67.5° | 753.3 | 789.3 | 865.7 | 1026.0 | 1362.2 | 1873.4 | 2679.9 | 4024.3 | 5764.5 | 6385.3 | 5657.4 |
| 70° | 377.5 | 381.0 | 395.3 | 424.8 | 497.1 | 645.6 | 982.2 | 1865.7 | 3306.0 | 3992.9 | 3187.0 |
| 72.5° | 272.8 | 273.3 | 280.5 | 293.5 | 316.6 | 349.7 | 413.6 | 571.0 | 1075.1 | 1643.2 | 1007.7 |
| 75° | 208.9 | 211.2 | 215.4 | 222.5 | 234.9 | 251.4 | 274.6 | 329.0 | 407.6 | 472.8 | 397.6 |
| 77.5° | 160.9 | 165.7 | 168.7 | 175.1 | 182.8 | 194.1 | 200.6 | 221.3 | 257.4 | 271.0 | 266.9 |
| 80° | 122.4 | 126.6 | 133.2 | 138.5 | 143.8 | 149.1 | 146.8 | 156.2 | 175.1 | 186.4 | 180.4 |
| 82.5° | 78.2 | 82.9 | 101.8 | 106.5 | 108.8 | 112.4 | 108.3 | 108.8 | 117.1 | 124.3 | 117.1 |
| 85° | 50.3 | 53.3 | 64.5 | 70.4 | 71.0 | 73.3 | 71.6 | 67.4 | 67.4 | 61.6 | 69.3 |
| 87.5° | 23.1 | 23.6 | 28.9 | 34.3 | 35.5 | 31.9 | 31.4 | 30.2 | 24.2 | 23.1 | 24.9 |
| 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° | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 | 1429.6 |
| 2.5° | 1429.0 | 1430.2 | 1430.8 | 1432.5 | 1433.2 | 1433.2 | 1433.8 | 1434.9 |
| 5° | 1440.2 | 1442.1 | 1442.6 | 1445.0 | 1445.5 | 1445.0 | 1446.1 | 1446.8 |
| 7.5° | 1460.4 | 1463.3 | 1464.6 | 1466.9 | 1465.1 | 1467.4 | 1468.0 | 1468.0 |
| 10° | 1489.9 | 1492.9 | 1493.5 | 1495.9 | 1494.7 | 1495.9 | 1495.9 | 1494.7 |
| 12.5° | 1529.0 | 1529.6 | 1527.8 | 1529.6 | 1527.3 | 1528.4 | 1526.7 | 1525.4 |
| 15° | 1572.2 | 1570.4 | 1566.2 | 1566.2 | 1562.8 | 1563.4 | 1562.8 | 1562.1 |
| 17.5° | 1614.2 | 1610.6 | 1607.7 | 1606.5 | 1603.6 | 1603.0 | 1601.2 | 1601.2 |
| 20° | 1660.4 | 1658.6 | 1656.8 | 1654.4 | 1651.5 | 1648.5 | 1648.0 | 1649.1 |
| 22.5° | 1716.0 | 1715.4 | 1715.4 | 1714.3 | 1710.1 | 1707.1 | 1705.4 | 1705.4 |
| 25° | 1790.6 | 1785.3 | 1785.3 | 1784.6 | 1782.9 | 1781.1 | 1777.5 | 1779.3 |
| 27.5° | 1874.6 | 1871.6 | 1873.9 | 1873.4 | 1871.6 | 1871.6 | 1869.2 | 1869.2 |
| 30° | 1978.1 | 1977.0 | 1980.5 | 1977.6 | 1971.6 | 1971.0 | 1968.7 | 1965.7 |
| 32.5° | 2097.7 | 2096.4 | 2101.8 | 2098.3 | 2088.8 | 2083.4 | 2078.7 | 2076.4 |
| 35° | 2230.7 | 2231.4 | 2237.9 | 2235.6 | 2224.9 | 2221.3 | 2213.1 | 2211.8 |
| 37.5° | 2376.3 | 2385.8 | 2397.1 | 2399.4 | 2390.5 | 2388.2 | 2379.3 | 2374.6 |
| 40° | 2547.4 | 2559.8 | 2576.9 | 2581.1 | 2571.6 | 2569.9 | 2557.4 | 2550.9 |
| 42.5° | 2729.6 | 2750.9 | 2772.2 | 2775.8 | 2766.3 | 2756.9 | 2745.0 | 2740.3 |
| 45° | 2933.2 | 2958.6 | 2986.4 | 2993.6 | 2979.3 | 2968.1 | 2952.6 | 2952.6 |
| 47.5° | 3161.5 | 3193.6 | 3224.9 | 3244.4 | 3231.4 | 3219.5 | 3201.2 | 3189.4 |
| 50° | 3431.4 | 3475.2 | 3516.0 | 3536.1 | 3515.4 | 3493.0 | 3460.9 | 3450.3 |
| 52.5° | 3769.9 | 3817.1 | 3852.7 | 3842.0 | 3810.1 | 3778.7 | 3743.8 | 3729.6 |
| 55° | 4201.8 | 4217.8 | 4217.8 | 4177.5 | 4113.6 | 4061.0 | 4006.0 | 3987.6 |
| 57.5° | 4742.1 | 4680.5 | 4585.8 | 4465.7 | 4314.8 | 4183.5 | 4094.7 | 4052.7 |
| 60° | 5376.9 | 5081.1 | 4746.8 | 4418.3 | 4148.6 | 3926.1 | 3794.1 | 3733.8 |
| 62.5° | 5800.0 | 5026.1 | 4356.2 | 3829.0 | 3440.9 | 3172.8 | 2990.6 | 2919.5 |
| 65° | 5420.7 | 4191.7 | 3294.7 | 2664.0 | 2240.9 | 1968.1 | 1787.6 | 1721.3 |
| 67.5° | 3970.5 | 2626.6 | 1754.5 | 1257.4 | 921.3 | 734.9 | 660.9 | 630.1 |
| 70° | 1782.3 | 924.8 | 566.8 | 442.6 | 381.7 | 350.3 | 336.7 | 331.9 |
| 72.5° | 537.3 | 388.7 | 327.9 | 295.8 | 271.6 | 256.2 | 245.0 | 243.8 |
| 75° | 324.3 | 269.9 | 239.7 | 220.8 | 205.3 | 192.9 | 187.0 | 185.3 |
| 77.5° | 226.6 | 198.2 | 184.0 | 170.4 | 158.6 | 149.1 | 143.8 | 139.6 |
| 80° | 159.2 | 145.6 | 139.0 | 131.3 | 123.7 | 114.8 | 107.1 | 103.5 |
| 82.5° | 106.5 | 103.5 | 103.5 | 98.8 | 92.3 | 84.0 | 68.6 | 65.1 |
| 85° | 68.6 | 68.0 | 69.3 | 67.4 | 62.7 | 53.8 | 44.4 | 42.0 |
| 87.5° | 31.9 | 32.5 | 36.1 | 35.5 | 34.3 | 28.4 | 22.5 | 21.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)