

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: P191660

Luminaire Tested: **GLEON-AF-02-LED-E1-5NQ-7050-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191660
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: MCGRAW-EDISON
Catalog Number: GLEON-AF-02-LED-E1-5NQ-7050-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5000K, 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: 13781 lumens
Efficiency: N/A
Efficacy: 106.8 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): 129
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

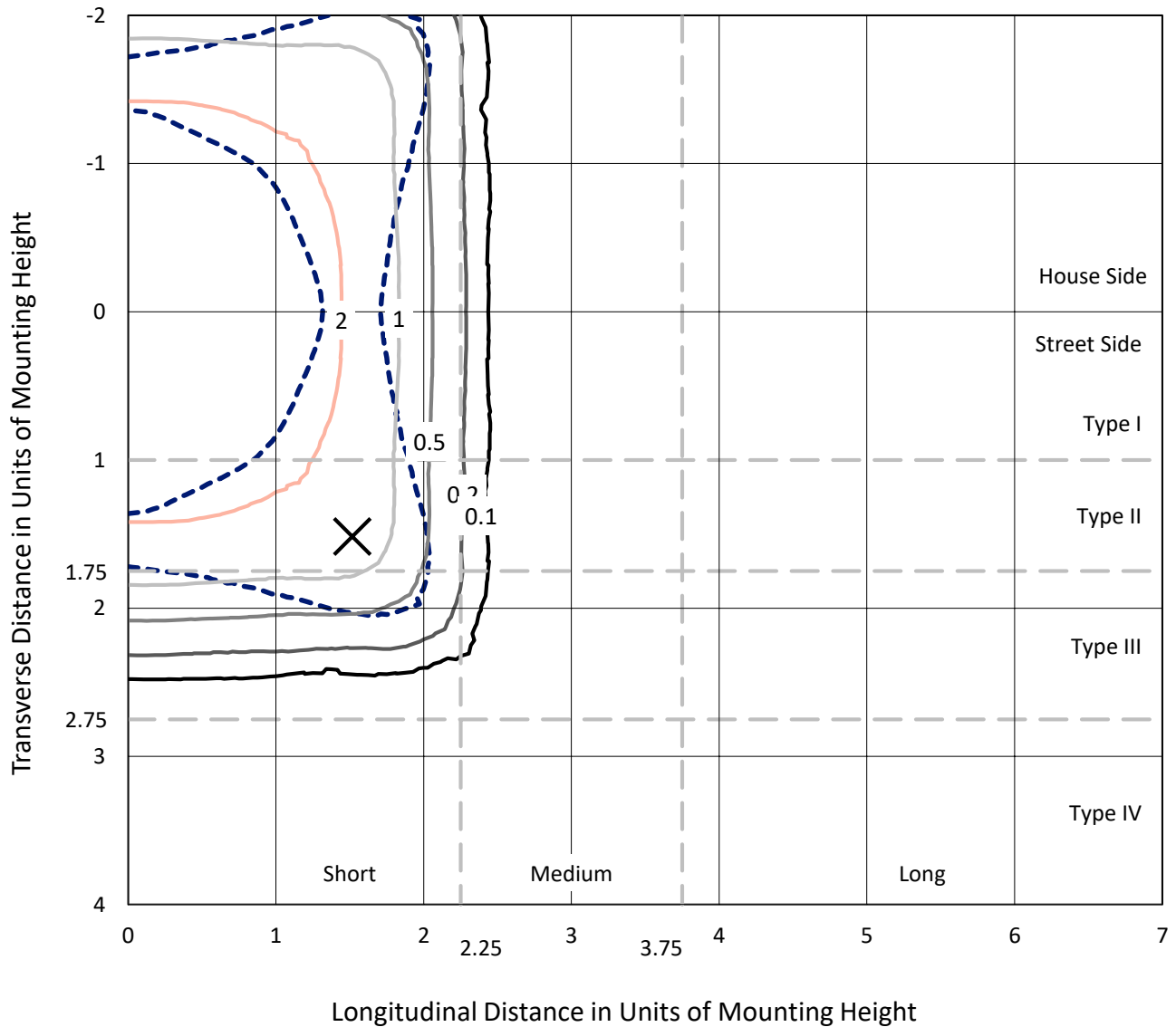


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

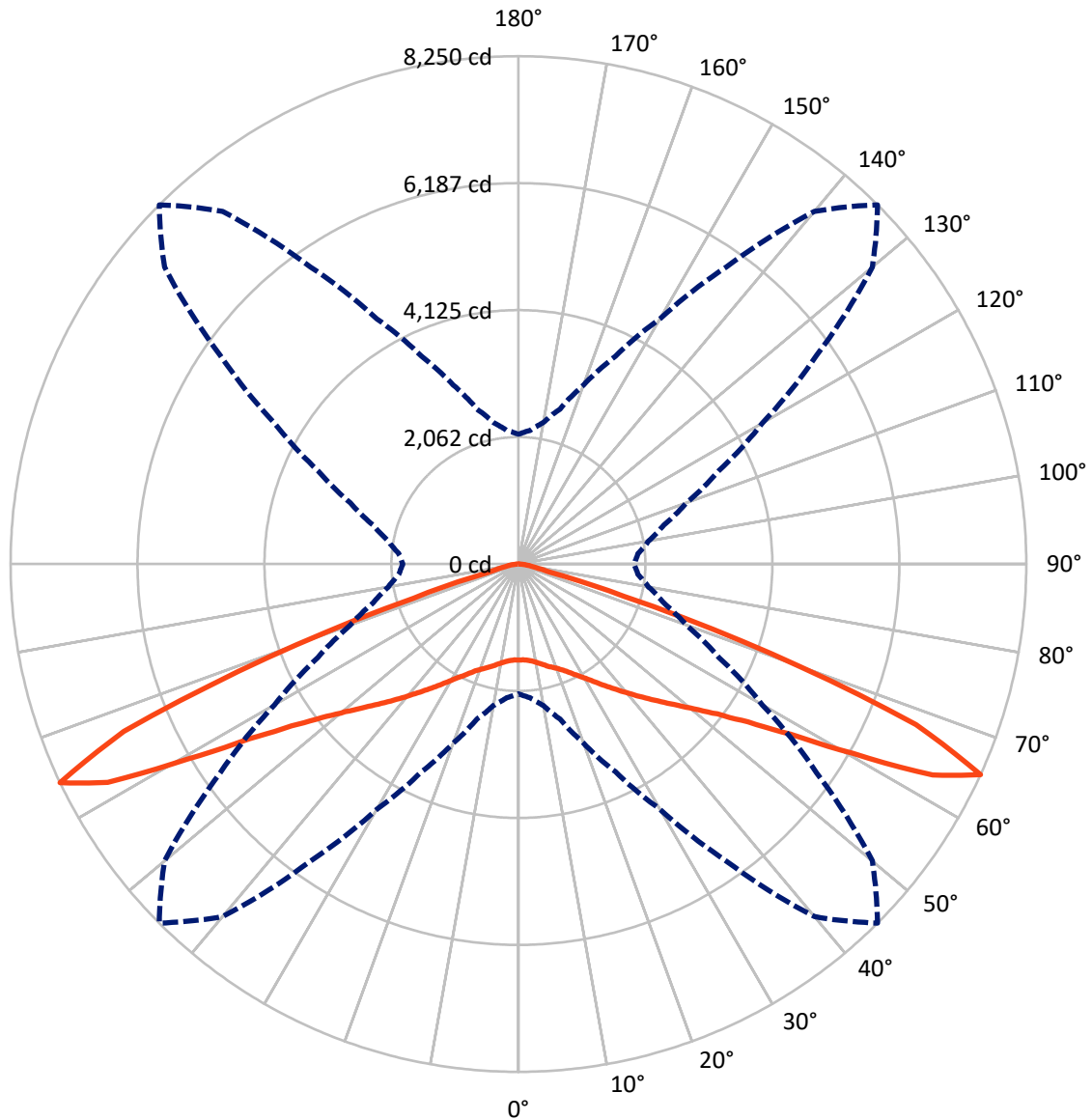


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Full Cutoff

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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 | 6890.5 | 0.0 | 6890.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 6890.5 | 0.0 | 6890.5 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 13781.0 | 0.0 | 13781.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 152.0 | 1.1 |
| 10°-20° | 487.4 | 3.5 |
| 20°-30° | 911.4 | 6.6 |
| 30°-40° | 1541.5 | 11.2 |
| 40°-50° | 2520.5 | 18.3 |
| 50°-60° | 4007.9 | 29.1 |
| 60°-70° | 3622.9 | 26.3 |
| 70°-80° | 458.5 | 3.3 |
| 80°-90° | 78.9 | 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° | 13781.0 | 100.0 |
| 0°-180° | 13781.0 | 100.0 |



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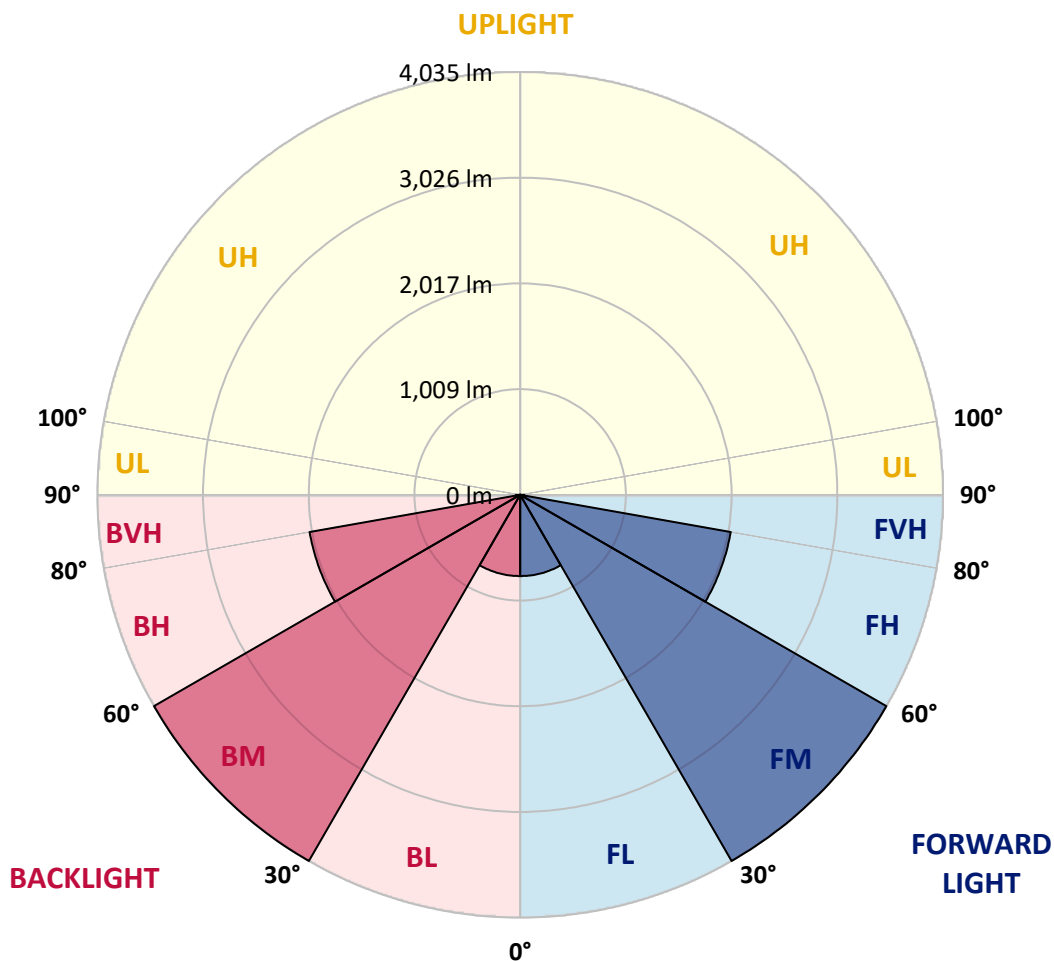
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 775.4 | 5.6 | | | |
| FM | (30°-60°) | 4034.9 | 29.3 | | | |
| FH | (60°-80°) | 2040.7 | 14.8 | | | G2/5000 |
| FVH | (80°-90°) | 39.4 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 775.4 | 5.6 | B2/1000 | | |
| BM | (30°-60°) | 4034.9 | 29.3 | B3/5000 | | |
| BH | (60°-80°) | 2040.7 | 14.8 | B3/2500 | | G2/5000 |
| BVH | (80°-90°) | 39.4 | 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° | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 |
| 2.5° | 1560.6 | 1561.9 | 1563.2 | 1561.9 | 1563.2 | 1561.3 | 1560.0 | 1561.9 | 1560.0 | 1558.0 | 1559.3 |
| 5° | 1574.2 | 1574.8 | 1574.8 | 1572.9 | 1574.8 | 1573.5 | 1571.6 | 1574.2 | 1572.2 | 1570.3 | 1571.6 |
| 7.5° | 1596.8 | 1599.3 | 1597.4 | 1595.5 | 1596.8 | 1595.5 | 1594.2 | 1594.8 | 1594.2 | 1592.2 | 1592.9 |
| 10° | 1627.1 | 1629.0 | 1627.7 | 1627.1 | 1628.4 | 1627.7 | 1626.5 | 1625.8 | 1626.5 | 1624.5 | 1624.5 |
| 12.5° | 1663.9 | 1663.2 | 1662.6 | 1663.2 | 1665.2 | 1665.2 | 1664.5 | 1665.2 | 1666.5 | 1667.1 | 1665.8 |
| 15° | 1700.0 | 1701.3 | 1701.3 | 1701.3 | 1705.2 | 1708.4 | 1710.4 | 1711.6 | 1714.2 | 1714.9 | 1712.3 |
| 17.5° | 1745.2 | 1745.2 | 1744.6 | 1745.2 | 1749.1 | 1754.2 | 1756.2 | 1758.8 | 1761.3 | 1763.3 | 1760.1 |
| 20° | 1795.6 | 1796.8 | 1796.8 | 1798.1 | 1803.3 | 1809.1 | 1809.1 | 1810.4 | 1809.1 | 1810.4 | 1808.5 |
| 22.5° | 1856.9 | 1860.7 | 1860.7 | 1861.4 | 1866.5 | 1873.6 | 1871.7 | 1873.6 | 1870.4 | 1873.0 | 1870.4 |
| 25° | 1936.9 | 1942.7 | 1941.4 | 1941.4 | 1945.3 | 1949.8 | 1950.5 | 1954.3 | 1953.7 | 1956.9 | 1955.0 |
| 27.5° | 2027.3 | 2036.3 | 2038.9 | 2038.2 | 2040.8 | 2045.3 | 2046.6 | 2051.1 | 2048.6 | 2051.1 | 2049.8 |
| 30° | 2135.7 | 2139.6 | 2144.7 | 2146.7 | 2149.9 | 2154.4 | 2154.4 | 2155.0 | 2151.8 | 2155.7 | 2157.6 |
| 32.5° | 2248.0 | 2255.1 | 2260.3 | 2271.9 | 2277.7 | 2280.9 | 2280.3 | 2281.5 | 2278.3 | 2283.5 | 2287.4 |
| 35° | 2396.4 | 2401.6 | 2410.0 | 2419.0 | 2426.8 | 2426.1 | 2424.2 | 2424.8 | 2424.8 | 2429.3 | 2433.2 |
| 37.5° | 2575.2 | 2576.5 | 2587.5 | 2600.4 | 2604.3 | 2600.4 | 2588.8 | 2586.2 | 2580.4 | 2586.2 | 2592.6 |
| 40° | 2764.3 | 2768.8 | 2790.8 | 2799.2 | 2801.1 | 2794.0 | 2777.2 | 2767.5 | 2754.6 | 2761.7 | 2770.8 |
| 42.5° | 2962.5 | 2971.5 | 2991.5 | 3006.4 | 3012.8 | 3008.3 | 2985.1 | 2970.2 | 2953.4 | 2957.3 | 2966.3 |
| 45° | 3181.9 | 3192.9 | 3221.3 | 3235.5 | 3247.7 | 3240.6 | 3218.0 | 3195.5 | 3169.0 | 3170.9 | 3185.1 |
| 47.5° | 3427.2 | 3438.1 | 3474.9 | 3498.8 | 3505.3 | 3504.0 | 3478.8 | 3447.8 | 3411.7 | 3410.4 | 3422.6 |
| 50° | 3702.1 | 3713.1 | 3758.9 | 3795.7 | 3814.4 | 3812.5 | 3782.8 | 3738.9 | 3695.0 | 3695.7 | 3711.1 |
| 52.5° | 3970.6 | 3984.2 | 4031.9 | 4095.2 | 4132.0 | 4158.4 | 4140.4 | 4099.0 | 4045.5 | 4046.8 | 4061.0 |
| 55° | 4222.3 | 4244.9 | 4299.8 | 4385.6 | 4454.0 | 4528.2 | 4549.5 | 4548.3 | 4516.0 | 4525.0 | 4539.2 |
| 57.5° | 4344.3 | 4377.9 | 4462.4 | 4598.0 | 4737.4 | 4888.4 | 5016.2 | 5111.7 | 5152.4 | 5213.7 | 5199.5 |
| 60° | 4113.2 | 4166.8 | 4291.4 | 4490.8 | 4766.4 | 5081.4 | 5418.9 | 5748.7 | 6030.1 | 6242.5 | 6120.5 |
| 62.5° | 3367.8 | 3437.5 | 3588.5 | 3844.1 | 4261.0 | 4765.1 | 5411.2 | 6190.8 | 7040.2 | 7552.7 | 7186.7 |
| 65° | 2107.3 | 2179.6 | 2333.2 | 2606.8 | 3094.8 | 3721.5 | 4598.0 | 5890.1 | 7477.2 | 8249.7 | 7504.9 |
| 67.5° | 821.6 | 861.0 | 944.2 | 1119.2 | 1485.7 | 2043.4 | 2923.1 | 4389.5 | 6287.7 | 6964.7 | 6170.8 |
| 70° | 411.8 | 415.6 | 431.1 | 463.4 | 542.2 | 704.1 | 1071.4 | 2035.0 | 3605.9 | 4355.3 | 3476.2 |
| 72.5° | 297.5 | 298.2 | 305.9 | 320.1 | 345.3 | 381.4 | 451.1 | 622.8 | 1172.7 | 1792.3 | 1099.1 |
| 75° | 227.8 | 230.4 | 234.9 | 242.7 | 256.2 | 274.3 | 299.5 | 358.9 | 444.7 | 515.7 | 433.7 |
| 77.5° | 175.6 | 180.7 | 183.9 | 191.0 | 199.4 | 211.7 | 218.8 | 241.4 | 280.8 | 295.6 | 291.1 |
| 80° | 133.6 | 138.1 | 145.2 | 151.0 | 156.8 | 162.6 | 160.1 | 170.4 | 191.0 | 203.3 | 196.9 |
| 82.5° | 85.2 | 90.4 | 111.0 | 116.2 | 118.8 | 122.6 | 118.1 | 118.8 | 127.8 | 135.5 | 127.8 |
| 85° | 54.9 | 58.1 | 70.4 | 76.8 | 77.5 | 80.0 | 78.1 | 73.6 | 73.6 | 67.1 | 75.5 |
| 87.5° | 25.2 | 25.8 | 31.6 | 37.4 | 38.7 | 34.9 | 34.2 | 32.9 | 26.5 | 25.2 | 27.1 |
| 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° | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 | 1559.3 |
| 2.5° | 1558.7 | 1560.0 | 1560.6 | 1562.6 | 1563.2 | 1563.2 | 1563.8 | 1565.1 |
| 5° | 1570.9 | 1572.9 | 1573.5 | 1576.1 | 1576.8 | 1576.1 | 1577.4 | 1578.0 |
| 7.5° | 1592.9 | 1596.1 | 1597.4 | 1600.0 | 1598.1 | 1600.6 | 1601.3 | 1601.3 |
| 10° | 1625.2 | 1628.4 | 1629.0 | 1631.6 | 1630.3 | 1631.6 | 1631.6 | 1630.3 |
| 12.5° | 1667.8 | 1668.4 | 1666.5 | 1668.4 | 1665.8 | 1667.1 | 1665.2 | 1663.9 |
| 15° | 1714.9 | 1712.9 | 1708.4 | 1708.4 | 1704.5 | 1705.2 | 1704.5 | 1703.9 |
| 17.5° | 1760.7 | 1756.8 | 1753.6 | 1752.3 | 1749.1 | 1748.4 | 1746.5 | 1746.5 |
| 20° | 1811.0 | 1809.1 | 1807.2 | 1804.6 | 1801.4 | 1798.1 | 1797.5 | 1798.8 |
| 22.5° | 1871.7 | 1871.1 | 1871.1 | 1869.8 | 1865.3 | 1862.0 | 1860.1 | 1860.1 |
| 25° | 1953.0 | 1947.2 | 1947.2 | 1946.6 | 1944.6 | 1942.7 | 1938.8 | 1940.8 |
| 27.5° | 2044.7 | 2041.5 | 2044.0 | 2043.4 | 2041.5 | 2041.5 | 2038.9 | 2038.9 |
| 30° | 2157.6 | 2156.3 | 2160.2 | 2157.0 | 2150.5 | 2149.9 | 2147.3 | 2144.1 |
| 32.5° | 2288.0 | 2286.7 | 2292.5 | 2288.6 | 2278.3 | 2272.5 | 2267.4 | 2264.8 |
| 35° | 2433.2 | 2433.9 | 2441.0 | 2438.4 | 2426.8 | 2422.9 | 2413.9 | 2412.6 |
| 37.5° | 2592.0 | 2602.3 | 2614.6 | 2617.2 | 2607.5 | 2604.9 | 2595.2 | 2590.1 |
| 40° | 2778.5 | 2792.1 | 2810.8 | 2815.3 | 2805.0 | 2803.0 | 2789.5 | 2782.4 |
| 42.5° | 2977.3 | 3000.5 | 3023.8 | 3027.7 | 3017.3 | 3007.0 | 2994.1 | 2988.9 |
| 45° | 3199.3 | 3227.1 | 3257.4 | 3265.2 | 3249.7 | 3237.4 | 3220.6 | 3220.6 |
| 47.5° | 3448.5 | 3483.3 | 3517.5 | 3538.8 | 3524.6 | 3511.7 | 3491.7 | 3478.8 |
| 50° | 3742.8 | 3790.5 | 3835.1 | 3857.0 | 3834.4 | 3809.9 | 3775.0 | 3763.4 |
| 52.5° | 4112.0 | 4163.6 | 4202.3 | 4190.7 | 4155.8 | 4121.6 | 4083.6 | 4068.1 |
| 55° | 4583.1 | 4600.5 | 4600.5 | 4556.6 | 4486.9 | 4429.5 | 4369.5 | 4349.5 |
| 57.5° | 5172.4 | 5105.2 | 5002.0 | 4871.0 | 4706.4 | 4563.1 | 4466.3 | 4420.5 |
| 60° | 5864.9 | 5542.2 | 5177.5 | 4819.3 | 4525.0 | 4282.3 | 4138.4 | 4072.6 |
| 62.5° | 6326.4 | 5482.2 | 4751.6 | 4176.5 | 3753.1 | 3460.7 | 3261.9 | 3184.5 |
| 65° | 5912.7 | 4572.1 | 3593.7 | 2905.7 | 2444.2 | 2146.7 | 1949.8 | 1877.5 |
| 67.5° | 4330.7 | 2865.0 | 1913.7 | 1371.5 | 1004.9 | 801.6 | 720.9 | 687.4 |
| 70° | 1944.0 | 1008.8 | 618.3 | 482.8 | 416.3 | 382.1 | 367.2 | 362.1 |
| 72.5° | 586.0 | 424.0 | 357.6 | 322.7 | 296.2 | 279.5 | 267.2 | 265.9 |
| 75° | 353.7 | 294.3 | 261.4 | 240.7 | 224.0 | 210.4 | 204.0 | 202.0 |
| 77.5° | 247.2 | 216.2 | 200.7 | 185.9 | 173.0 | 162.6 | 156.8 | 152.3 |
| 80° | 173.6 | 158.8 | 151.7 | 143.3 | 134.9 | 125.2 | 116.8 | 112.9 |
| 82.5° | 116.2 | 112.9 | 112.9 | 107.8 | 100.7 | 91.6 | 74.9 | 71.0 |
| 85° | 74.9 | 74.2 | 75.5 | 73.6 | 68.4 | 58.7 | 48.4 | 45.8 |
| 87.5° | 34.9 | 35.5 | 39.4 | 38.7 | 37.4 | 31.0 | 24.5 | 23.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)