

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: P193333

Luminaire Tested: **GLEON-AF-05-LED-E1-5MQ-8030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193333
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24142)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-05-LED-E1-5MQ-8030-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V MEDIUM OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16802 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

Input Watts (W): 162
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

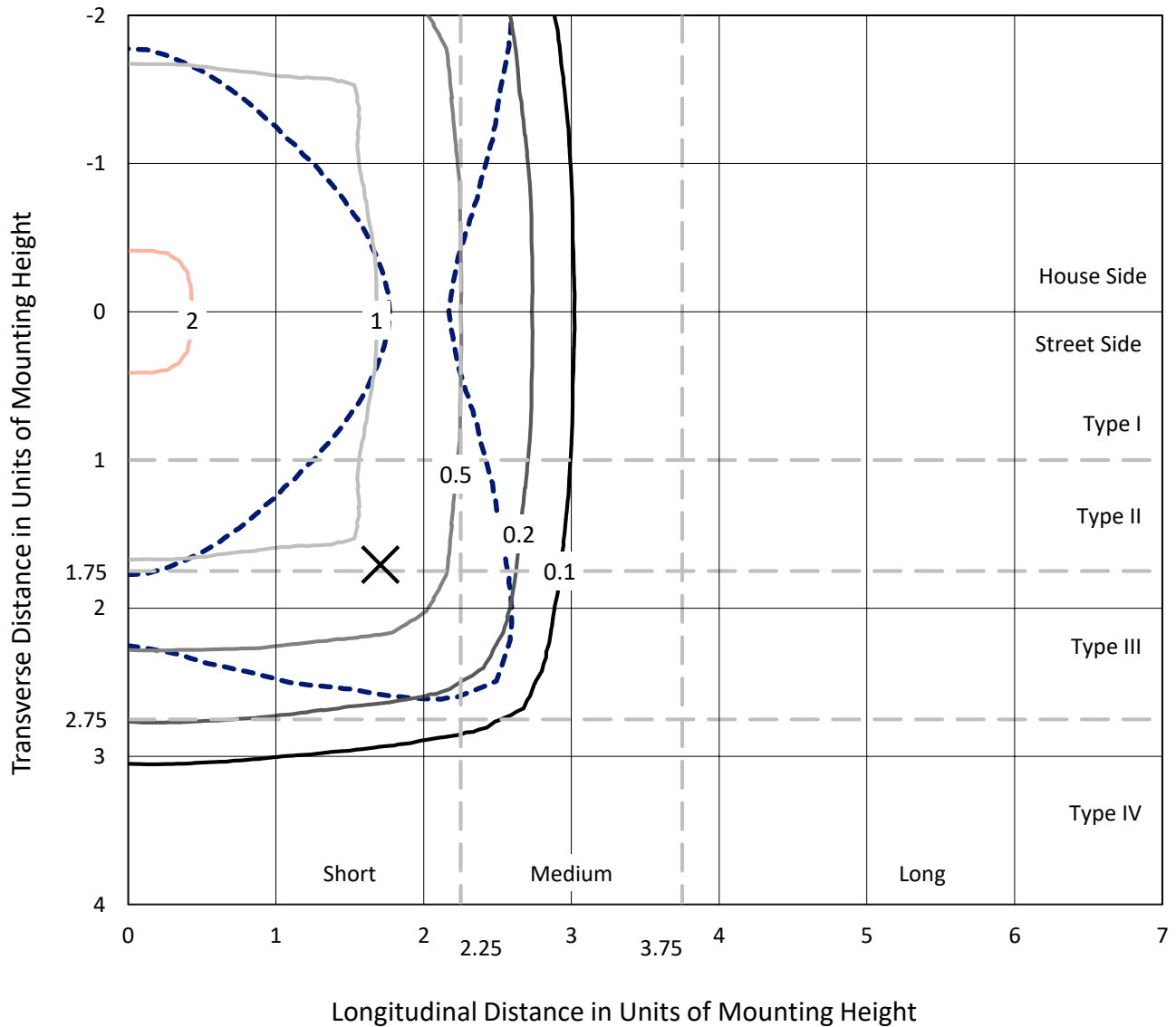


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Iso-Footcandle Lines of Horizontal Illumination

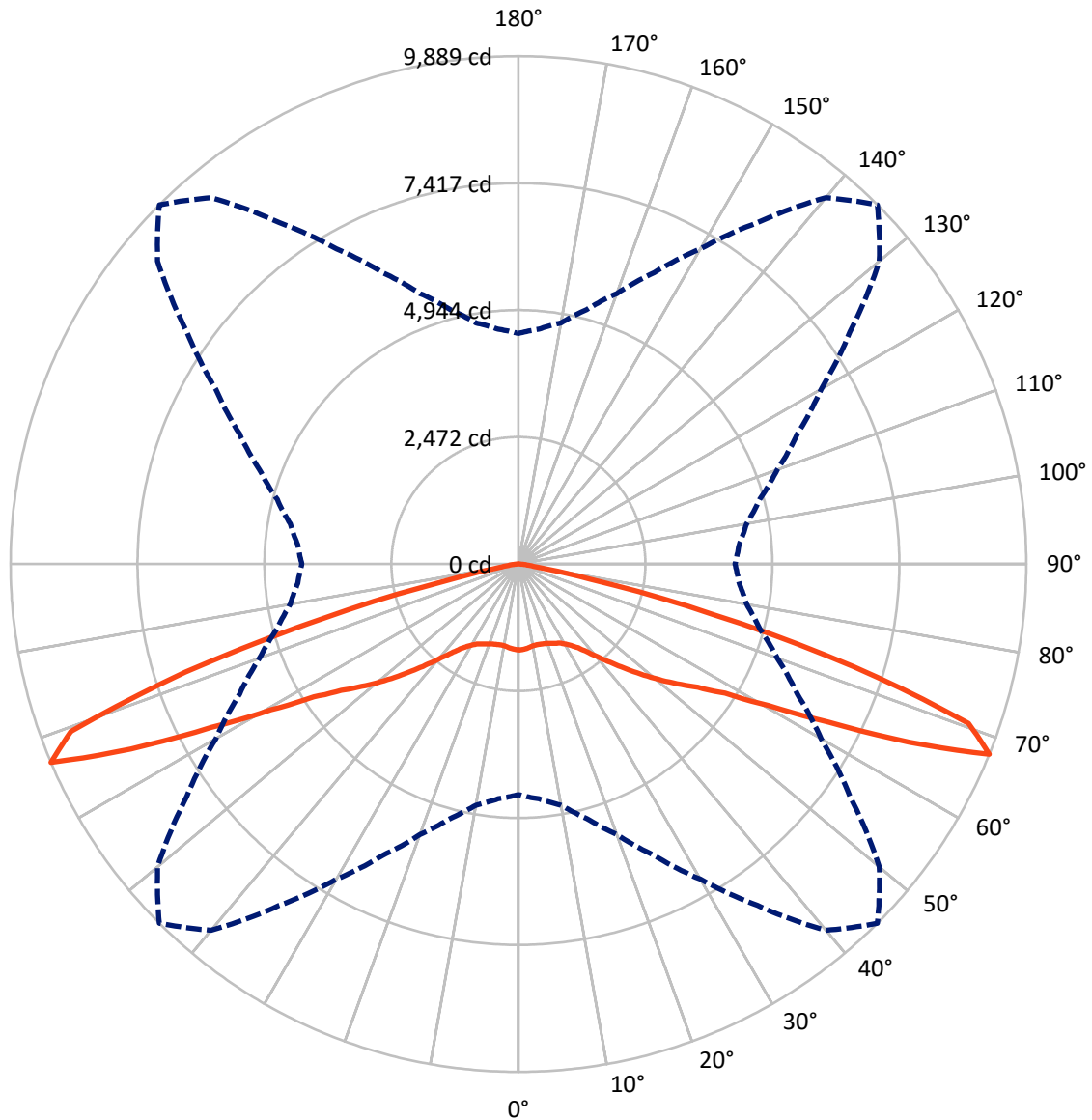
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 8401.0 | 0.0 | 8401.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 8401.0 | 0.0 | 8401.0 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 16802.0 | 0.0 | 16802.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 156.7 | 0.9 |
| 10°-20° | 454.8 | 2.7 |
| 20°-30° | 773.1 | 4.6 |
| 30°-40° | 1263.7 | 7.5 |
| 40°-50° | 2256.0 | 13.4 |
| 50°-60° | 3803.7 | 22.6 |
| 60°-70° | 5902.8 | 35.1 |
| 70°-80° | 2074.0 | 12.3 |
| 80°-90° | 117.2 | 0.7 |
| 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° | 16802.0 | 100.0 |
| 0°-180° | 16802.0 | 100.0 |



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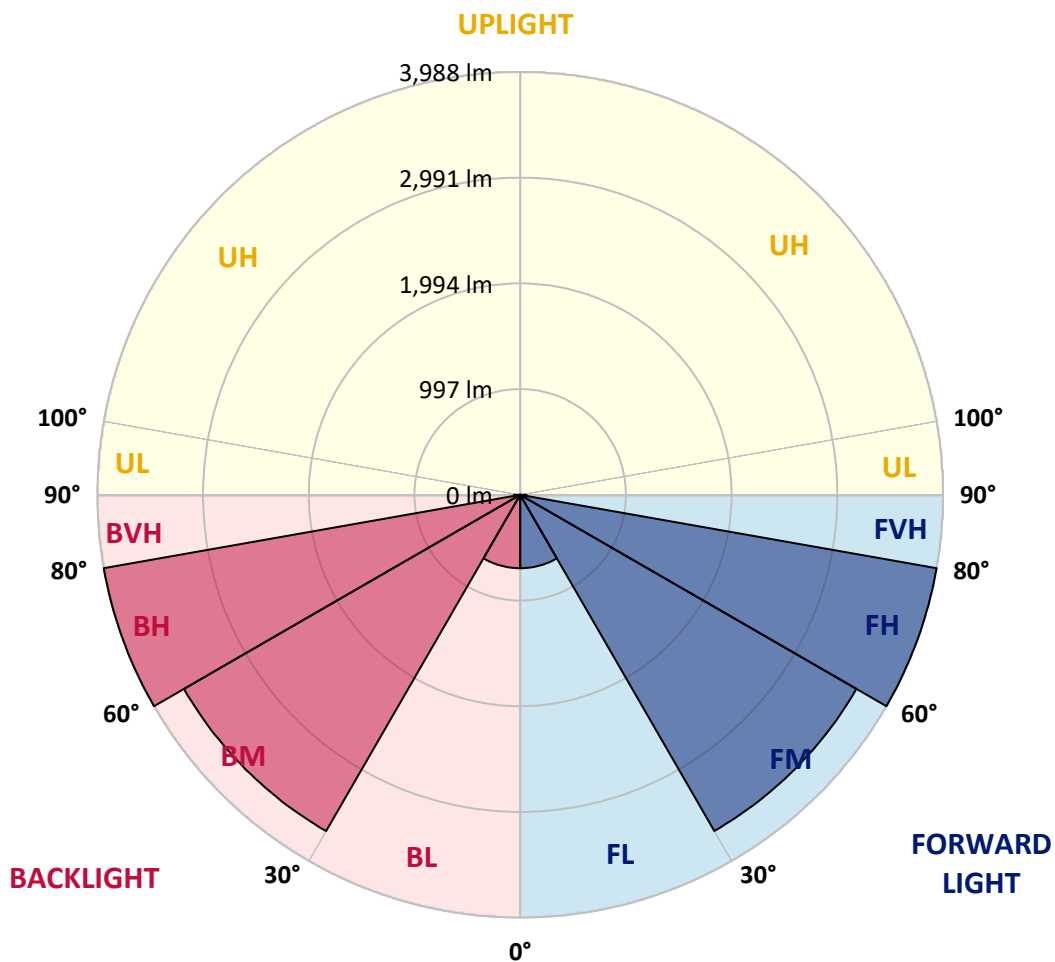
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 692.3 | 4.1 | | | |
| FM | (30°-60°) | 3661.7 | 21.8 | | | |
| FH | (60°-80°) | 3988.4 | 23.7 | | | G2/5000 |
| FVH | (80°-90°) | 58.6 | 0.3 | | | G1/100 |
| BL | (0°-30°) | 692.3 | 4.1 | B2/1000 | | |
| BM | (30°-60°) | 3661.7 | 21.8 | B3/5000 | | |
| BH | (60°-80°) | 3988.4 | 23.7 | B4/5000 | | G2/5000 |
| BVH | (80°-90°) | 58.6 | 0.3 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 |
| 2.5° | 1668.2 | 1669.8 | 1669.8 | 1669.8 | 1669.0 | 1669.0 | 1667.4 | 1669.0 | 1668.2 | 1665.9 | 1666.7 |
| 5° | 1654.3 | 1655.8 | 1655.8 | 1655.1 | 1657.4 | 1656.6 | 1654.3 | 1655.8 | 1655.1 | 1653.5 | 1654.3 |
| 7.5° | 1634.2 | 1636.5 | 1636.5 | 1635.8 | 1638.1 | 1637.3 | 1635.8 | 1636.5 | 1636.5 | 1634.2 | 1634.2 |
| 10° | 1611.8 | 1613.3 | 1613.3 | 1612.6 | 1616.4 | 1616.4 | 1615.7 | 1618.0 | 1618.8 | 1616.4 | 1614.9 |
| 12.5° | 1590.9 | 1593.3 | 1593.3 | 1596.3 | 1600.2 | 1601.8 | 1605.6 | 1608.7 | 1611.8 | 1611.0 | 1607.9 |
| 15° | 1578.6 | 1580.1 | 1583.2 | 1587.1 | 1593.3 | 1598.7 | 1604.8 | 1611.8 | 1618.0 | 1619.5 | 1614.9 |
| 17.5° | 1570.9 | 1573.2 | 1577.8 | 1583.2 | 1591.7 | 1601.0 | 1610.3 | 1619.5 | 1628.0 | 1631.1 | 1625.7 |
| 20° | 1568.5 | 1570.1 | 1574.7 | 1584.0 | 1595.6 | 1609.5 | 1622.6 | 1633.4 | 1645.0 | 1648.9 | 1645.0 |
| 22.5° | 1573.2 | 1576.3 | 1581.7 | 1592.5 | 1607.9 | 1625.7 | 1641.2 | 1655.8 | 1670.5 | 1677.5 | 1672.1 |
| 25° | 1594.0 | 1597.1 | 1604.1 | 1618.0 | 1635.0 | 1653.5 | 1671.3 | 1688.3 | 1701.4 | 1708.4 | 1704.5 |
| 27.5° | 1632.7 | 1636.5 | 1645.0 | 1658.9 | 1677.5 | 1697.6 | 1716.9 | 1730.8 | 1741.6 | 1743.9 | 1739.3 |
| 30° | 1690.6 | 1699.1 | 1709.2 | 1724.6 | 1746.2 | 1763.2 | 1782.6 | 1794.9 | 1808.1 | 1808.1 | 1804.2 |
| 32.5° | 1781.0 | 1789.5 | 1800.3 | 1815.0 | 1832.0 | 1850.6 | 1867.6 | 1878.4 | 1892.3 | 1893.1 | 1883.8 |
| 35° | 1916.2 | 1920.1 | 1929.4 | 1938.6 | 1954.1 | 1970.3 | 1985.0 | 1992.0 | 2003.6 | 2004.3 | 1995.8 |
| 37.5° | 2094.7 | 2095.5 | 2101.7 | 2104.8 | 2118.7 | 2136.5 | 2150.4 | 2155.0 | 2165.8 | 2164.3 | 2155.8 |
| 40° | 2302.6 | 2306.4 | 2308.8 | 2313.4 | 2328.1 | 2345.1 | 2359.8 | 2362.1 | 2373.7 | 2371.3 | 2360.5 |
| 42.5° | 2542.9 | 2544.4 | 2557.6 | 2564.5 | 2578.4 | 2586.9 | 2605.5 | 2607.8 | 2621.7 | 2615.5 | 2603.1 |
| 45° | 2812.5 | 2826.5 | 2838.8 | 2852.7 | 2867.4 | 2877.4 | 2892.1 | 2889.0 | 2898.3 | 2889.0 | 2882.1 |
| 47.5° | 3096.1 | 3106.2 | 3134.0 | 3155.6 | 3179.6 | 3188.1 | 3208.9 | 3199.7 | 3208.9 | 3195.8 | 3193.5 |
| 50° | 3408.3 | 3426.0 | 3450.0 | 3474.7 | 3500.2 | 3514.1 | 3541.2 | 3529.6 | 3541.9 | 3529.6 | 3522.6 |
| 52.5° | 3715.8 | 3720.4 | 3773.0 | 3809.3 | 3844.8 | 3861.1 | 3877.3 | 3871.9 | 3872.7 | 3871.9 | 3864.9 |
| 55° | 4007.9 | 4018.7 | 4071.2 | 4120.7 | 4182.5 | 4228.1 | 4255.9 | 4252.8 | 4245.9 | 4238.9 | 4227.3 |
| 57.5° | 4337.0 | 4347.9 | 4408.1 | 4469.2 | 4539.5 | 4604.4 | 4660.8 | 4718.7 | 4741.1 | 4747.3 | 4721.8 |
| 60° | 4782.1 | 4781.3 | 4861.7 | 4935.9 | 5036.3 | 5132.9 | 5256.5 | 5382.5 | 5527.0 | 5594.2 | 5505.3 |
| 62.5° | 5234.9 | 5253.4 | 5369.3 | 5500.7 | 5707.8 | 5909.4 | 6137.4 | 6361.4 | 6590.2 | 6776.4 | 6578.6 |
| 65° | 5180.8 | 5251.9 | 5424.2 | 5721.7 | 6104.1 | 6558.5 | 7049.9 | 7569.9 | 8039.7 | 8362.7 | 8000.3 |
| 67.5° | 4490.0 | 4591.2 | 4766.6 | 5128.3 | 5606.5 | 6261.8 | 7087.0 | 8115.4 | 9310.8 | 9888.7 | 9172.4 |
| 70° | 3254.5 | 3368.9 | 3552.8 | 3905.9 | 4379.5 | 5002.3 | 5898.6 | 7133.4 | 8715.8 | 9298.4 | 8509.5 |
| 72.5° | 1619.5 | 1681.3 | 1794.9 | 2019.8 | 2378.3 | 2883.6 | 3696.5 | 4883.3 | 6283.4 | 6818.1 | 6097.2 |
| 75° | 550.1 | 578.7 | 598.1 | 671.5 | 785.0 | 983.6 | 1387.7 | 2134.9 | 3256.8 | 3904.3 | 3210.5 |
| 77.5° | 317.6 | 318.3 | 331.5 | 344.6 | 363.9 | 385.6 | 439.7 | 577.2 | 998.3 | 1417.9 | 1033.1 |
| 80° | 205.5 | 204.8 | 215.6 | 225.6 | 238.8 | 249.6 | 252.7 | 267.3 | 308.3 | 365.5 | 326.8 |
| 82.5° | 106.6 | 119.8 | 143.7 | 156.9 | 181.6 | 186.2 | 180.0 | 174.6 | 184.7 | 191.6 | 196.3 |
| 85° | 58.7 | 51.0 | 76.5 | 98.9 | 109.7 | 111.3 | 111.3 | 105.1 | 108.9 | 106.6 | 115.9 |
| 87.5° | 27.0 | 24.7 | 30.1 | 48.7 | 51.8 | 44.0 | 46.4 | 41.0 | 29.4 | 28.6 | 32.5 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 | 1674.4 |
| 2.5° | 1666.7 | 1667.4 | 1667.4 | 1669.8 | 1670.5 | 1672.1 | 1673.6 | 1674.4 |
| 5° | 1653.5 | 1655.8 | 1654.3 | 1656.6 | 1656.6 | 1658.2 | 1658.2 | 1658.9 |
| 7.5° | 1634.2 | 1636.5 | 1636.5 | 1636.5 | 1635.8 | 1638.1 | 1638.1 | 1638.1 |
| 10° | 1614.1 | 1615.7 | 1614.9 | 1613.3 | 1611.8 | 1614.1 | 1613.3 | 1612.6 |
| 12.5° | 1607.9 | 1604.1 | 1601.0 | 1599.4 | 1596.3 | 1597.1 | 1594.8 | 1594.8 |
| 15° | 1611.8 | 1604.8 | 1599.4 | 1597.1 | 1594.0 | 1592.5 | 1590.9 | 1591.7 |
| 17.5° | 1621.8 | 1613.3 | 1606.4 | 1602.5 | 1598.7 | 1596.3 | 1593.3 | 1594.0 |
| 20° | 1639.6 | 1629.6 | 1619.5 | 1611.8 | 1604.8 | 1601.0 | 1598.7 | 1597.9 |
| 22.5° | 1665.9 | 1651.2 | 1636.5 | 1624.9 | 1615.7 | 1610.3 | 1607.9 | 1606.4 |
| 25° | 1696.0 | 1679.8 | 1662.8 | 1649.7 | 1640.4 | 1633.4 | 1628.8 | 1628.8 |
| 27.5° | 1733.9 | 1720.8 | 1705.3 | 1689.8 | 1681.3 | 1674.4 | 1671.3 | 1669.8 |
| 30° | 1797.2 | 1784.9 | 1772.5 | 1757.8 | 1747.0 | 1740.1 | 1734.7 | 1730.0 |
| 32.5° | 1878.4 | 1868.3 | 1858.3 | 1847.5 | 1837.4 | 1828.2 | 1819.7 | 1815.8 |
| 35° | 1992.7 | 1985.0 | 1978.1 | 1965.7 | 1961.8 | 1956.4 | 1951.8 | 1947.9 |
| 37.5° | 2150.4 | 2147.3 | 2147.3 | 2134.1 | 2131.0 | 2128.7 | 2124.1 | 2124.9 |
| 40° | 2357.4 | 2360.5 | 2356.7 | 2352.0 | 2349.7 | 2343.5 | 2343.5 | 2348.9 |
| 42.5° | 2602.4 | 2604.7 | 2613.2 | 2605.5 | 2614.0 | 2606.2 | 2601.6 | 2605.5 |
| 45° | 2886.7 | 2895.2 | 2912.2 | 2904.5 | 2909.9 | 2896.8 | 2880.5 | 2881.3 |
| 47.5° | 3205.8 | 3213.6 | 3220.5 | 3215.1 | 3215.9 | 3194.2 | 3172.6 | 3167.2 |
| 50° | 3537.3 | 3540.4 | 3544.3 | 3536.5 | 3538.1 | 3514.1 | 3489.4 | 3490.2 |
| 52.5° | 3864.9 | 3879.6 | 3895.1 | 3874.2 | 3869.6 | 3842.5 | 3807.8 | 3793.8 |
| 55° | 4239.7 | 4260.5 | 4242.8 | 4206.5 | 4170.1 | 4133.8 | 4088.2 | 4080.5 |
| 57.5° | 4701.7 | 4666.2 | 4610.6 | 4541.8 | 4491.6 | 4440.6 | 4394.2 | 4374.9 |
| 60° | 5344.6 | 5210.9 | 5110.5 | 5008.5 | 4944.4 | 4881.8 | 4820.7 | 4811.5 |
| 62.5° | 6253.3 | 6022.2 | 5822.1 | 5611.2 | 5438.9 | 5304.4 | 5197.0 | 5166.9 |
| 65° | 7392.2 | 6845.9 | 6372.3 | 5930.3 | 5546.3 | 5256.5 | 5074.2 | 4993.8 |
| 67.5° | 7882.1 | 6803.4 | 5991.3 | 5363.9 | 4861.7 | 4510.9 | 4313.9 | 4215.7 |
| 70° | 6926.3 | 5642.1 | 4758.9 | 4130.7 | 3673.3 | 3299.3 | 3120.8 | 3015.8 |
| 72.5° | 4765.1 | 3589.1 | 2838.0 | 2316.5 | 1951.0 | 1638.1 | 1514.4 | 1505.2 |
| 75° | 2139.5 | 1417.1 | 976.7 | 752.6 | 633.6 | 550.9 | 525.4 | 506.1 |
| 77.5° | 598.8 | 442.7 | 394.8 | 369.3 | 344.6 | 316.0 | 305.2 | 307.5 |
| 80° | 291.3 | 275.1 | 264.3 | 248.0 | 225.6 | 201.7 | 190.9 | 195.5 |
| 82.5° | 193.2 | 190.9 | 197.8 | 186.2 | 153.8 | 130.6 | 109.7 | 100.4 |
| 85° | 117.4 | 119.0 | 121.3 | 122.1 | 103.5 | 72.6 | 49.5 | 55.6 |
| 87.5° | 46.4 | 53.3 | 58.0 | 60.3 | 56.4 | 34.8 | 27.8 | 28.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)