

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: P193732

Luminaire Tested: **GLEON-AF-04-LED-E1-SL4-8030-600-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P193732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-04-LED-E1-SL4-8030-600-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10477 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - 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

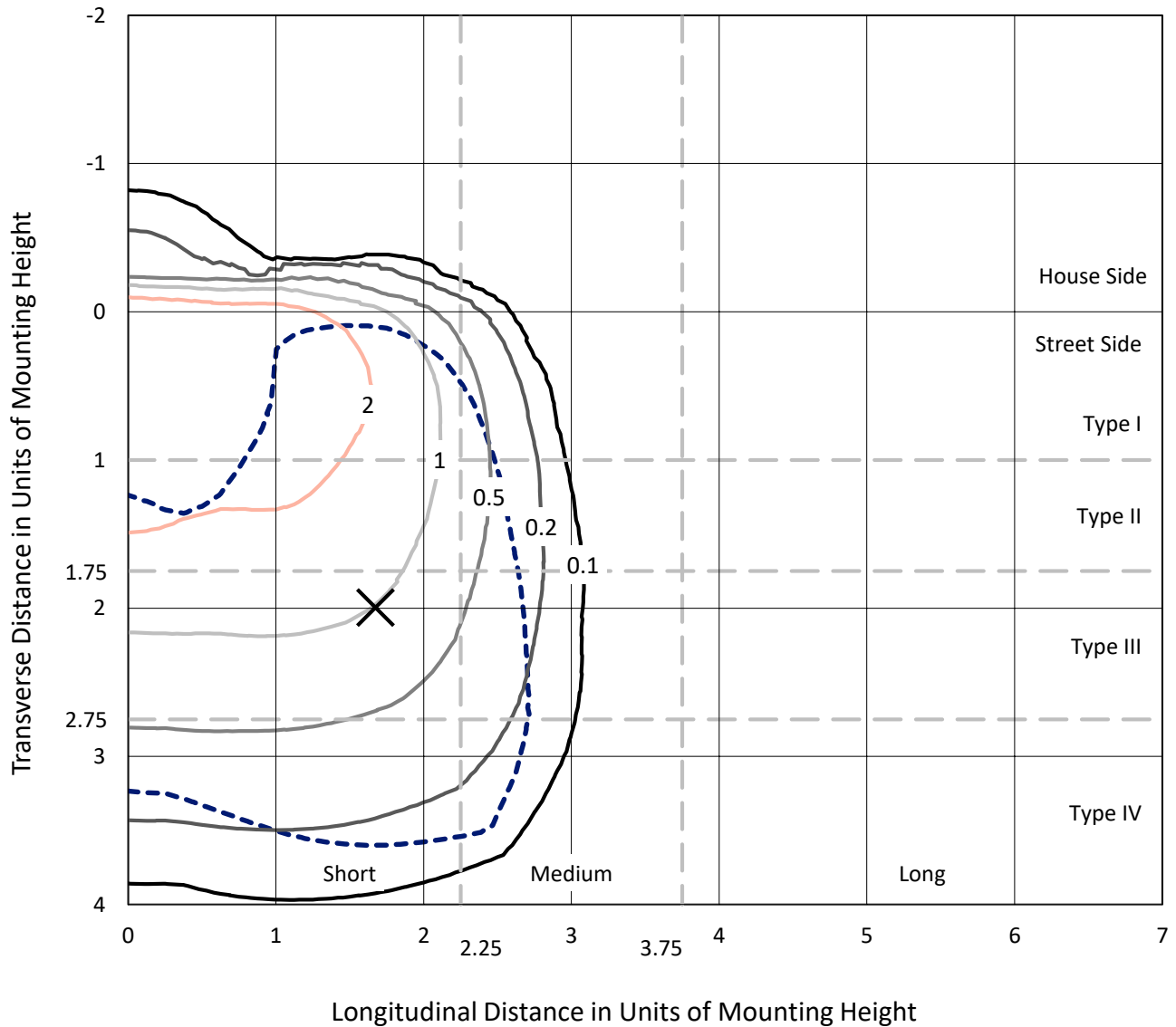


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

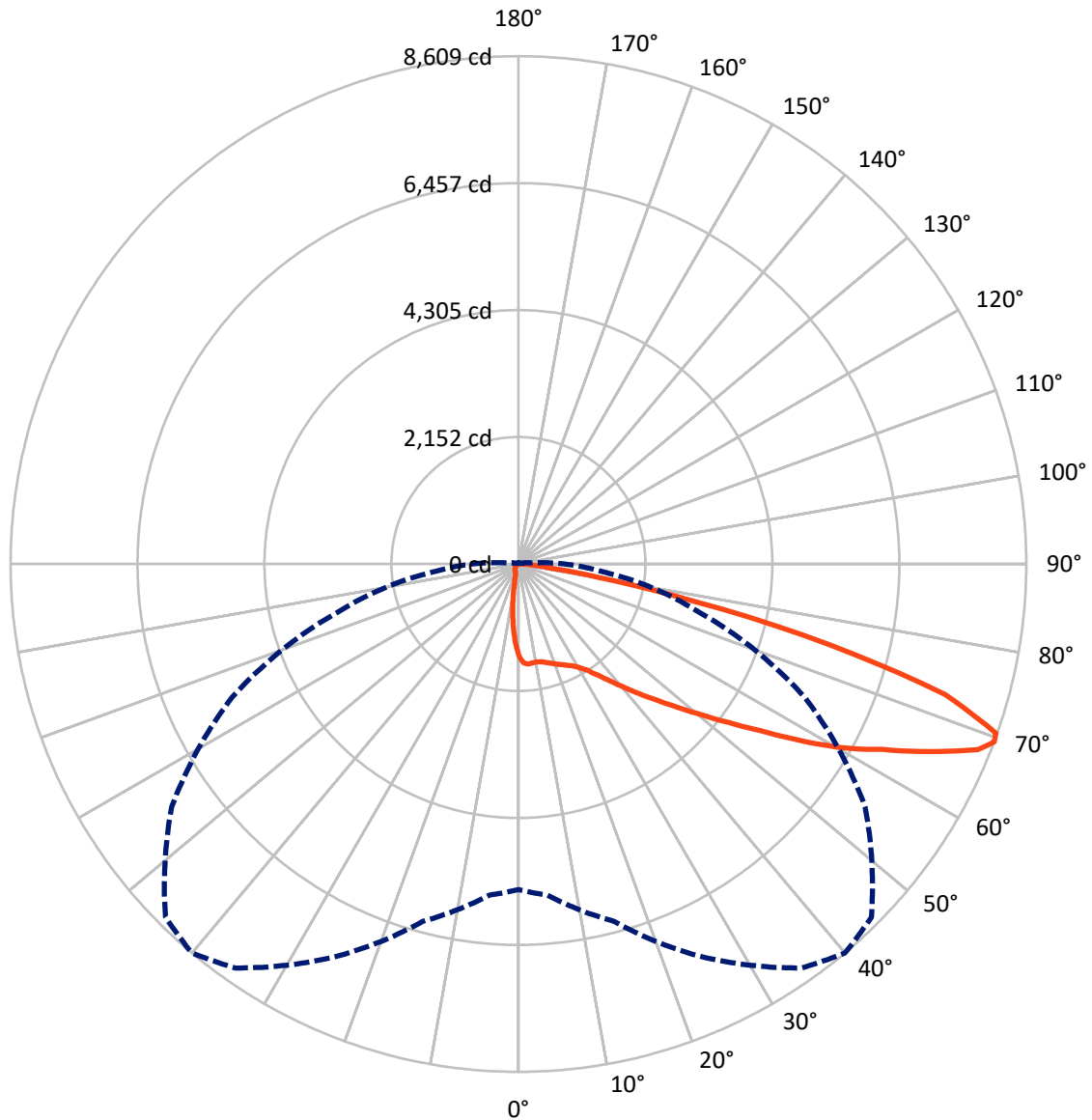


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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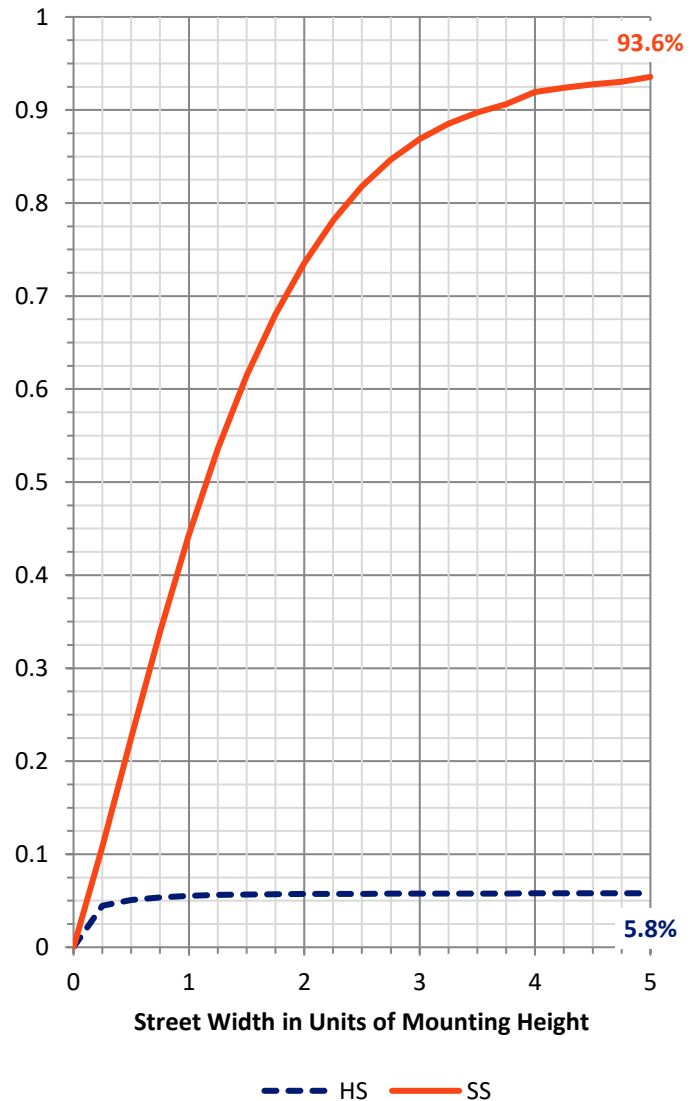
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 613.0 | 0.0 | 613.0 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 9864.0 | 0.0 | 9864.0 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 10477.0 | 0.0 | 10477.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 126.9 | 1.2 |
| 10°-20° | 312.1 | 3.0 |
| 20°-30° | 525.7 | 5.0 |
| 30°-40° | 860.6 | 8.2 |
| 40°-50° | 1490.1 | 14.2 |
| 50°-60° | 2347.0 | 22.4 |
| 60°-70° | 3065.1 | 29.3 |
| 70°-80° | 1578.7 | 15.1 |
| 80°-90° | 170.8 | 1.6 |
| 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° | 10477.0 | 100.0 |
| 0°-180° | 10477.0 | 100.0 |



REPORT NUMBER: P193732

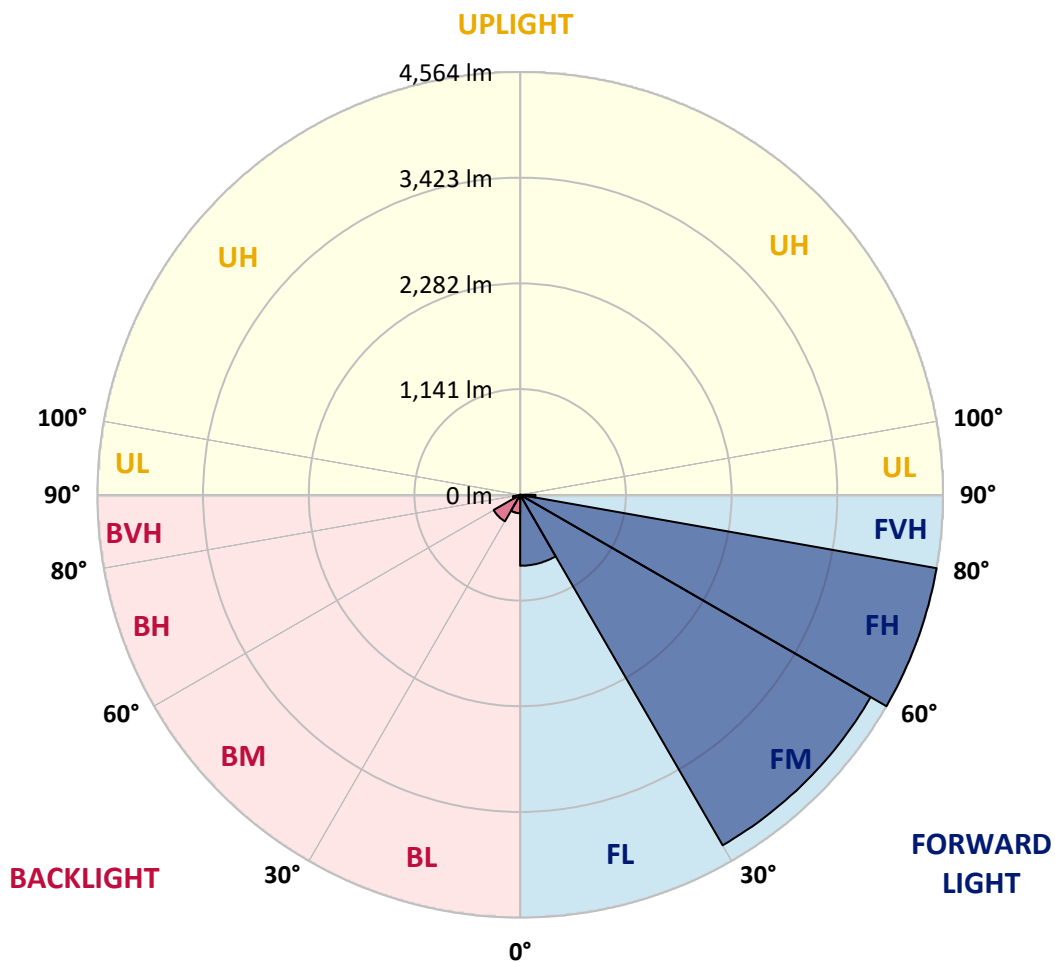
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 766.2 | 7.3 | | | |
| FM | (30°-60°) | 4368.2 | 41.7 | | | |
| FH | (60°-80°) | 4564.2 | 43.6 | | | G2/5000 |
| FVH | (80°-90°) | 165.4 | 1.6 | | | G2/225 |
| BL | (0°-30°) | 198.6 | 1.9 | B1/500 | | |
| BM | (30°-60°) | 329.5 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 79.6 | 0.8 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 5.4 | 0.1 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 |
| 2.5° | 1718.7 | 1709.4 | 1703.8 | 1696.3 | 1686.9 | 1678.8 | 1675.7 | 1652.6 | 1630.8 | 1600.9 | 1566.6 |
| 5° | 1750.5 | 1747.4 | 1737.4 | 1727.5 | 1716.2 | 1703.8 | 1696.9 | 1669.5 | 1638.3 | 1594.6 | 1534.8 |
| 7.5° | 1753.7 | 1749.9 | 1737.4 | 1723.7 | 1708.1 | 1693.2 | 1681.3 | 1653.9 | 1625.2 | 1580.9 | 1507.9 |
| 10° | 1748.7 | 1744.3 | 1734.9 | 1720.0 | 1700.6 | 1686.3 | 1674.5 | 1648.3 | 1623.9 | 1584.0 | 1503.0 |
| 12.5° | 1743.1 | 1738.7 | 1734.3 | 1726.8 | 1710.0 | 1700.0 | 1690.0 | 1665.1 | 1643.3 | 1609.6 | 1521.0 |
| 15° | 1748.7 | 1746.2 | 1751.2 | 1748.0 | 1738.7 | 1730.0 | 1720.0 | 1697.5 | 1677.6 | 1649.5 | 1554.1 |
| 17.5° | 1772.4 | 1772.4 | 1788.0 | 1789.8 | 1781.1 | 1768.6 | 1754.3 | 1731.8 | 1715.0 | 1691.3 | 1593.4 |
| 20° | 1827.9 | 1826.0 | 1846.0 | 1849.7 | 1828.5 | 1809.2 | 1788.0 | 1760.5 | 1747.4 | 1732.5 | 1632.0 |
| 22.5° | 1923.3 | 1914.6 | 1926.4 | 1922.7 | 1880.9 | 1850.9 | 1824.7 | 1791.1 | 1784.2 | 1777.4 | 1675.1 |
| 25° | 2047.4 | 2042.4 | 2050.5 | 2013.7 | 1940.1 | 1899.6 | 1868.4 | 1830.4 | 1830.4 | 1837.2 | 1723.7 |
| 27.5° | 2227.6 | 2208.9 | 2181.5 | 2116.6 | 2006.2 | 1954.5 | 1920.8 | 1880.3 | 1890.9 | 1916.4 | 1788.0 |
| 30° | 2412.2 | 2391.6 | 2328.6 | 2228.9 | 2086.7 | 2032.4 | 1993.1 | 1950.7 | 1975.7 | 2022.4 | 1874.0 |
| 32.5° | 2594.3 | 2571.2 | 2482.1 | 2356.1 | 2202.0 | 2147.8 | 2109.7 | 2063.0 | 2104.8 | 2183.3 | 2000.0 |
| 35° | 2770.8 | 2750.2 | 2647.3 | 2498.9 | 2355.5 | 2310.6 | 2275.6 | 2235.1 | 2288.7 | 2398.5 | 2177.7 |
| 37.5° | 2969.1 | 2946.7 | 2821.3 | 2660.4 | 2541.9 | 2509.5 | 2483.9 | 2443.4 | 2536.9 | 2697.8 | 2425.3 |
| 40° | 3213.0 | 3174.9 | 3005.9 | 2845.6 | 2757.7 | 2742.1 | 2724.7 | 2719.0 | 2864.3 | 3087.0 | 2755.2 |
| 42.5° | 3492.3 | 3430.0 | 3199.2 | 3040.8 | 2994.7 | 3005.9 | 3001.5 | 3026.5 | 3274.1 | 3570.9 | 3156.8 |
| 45° | 3771.7 | 3691.3 | 3414.4 | 3249.1 | 3255.4 | 3294.7 | 3319.0 | 3418.8 | 3787.3 | 4126.0 | 3589.0 |
| 47.5° | 4008.7 | 3929.5 | 3620.8 | 3474.3 | 3549.1 | 3626.4 | 3692.5 | 3881.5 | 4314.9 | 4672.3 | 3925.1 |
| 50° | 4211.4 | 4136.6 | 3839.7 | 3721.8 | 3890.2 | 4014.9 | 4122.2 | 4402.2 | 4882.4 | 5088.2 | 4160.9 |
| 52.5° | 4377.3 | 4327.4 | 4066.7 | 4005.6 | 4280.0 | 4462.7 | 4619.9 | 4955.4 | 5385.1 | 5426.2 | 4344.2 |
| 55° | 4538.8 | 4503.3 | 4310.5 | 4343.0 | 4737.7 | 4986.6 | 5185.5 | 5542.2 | 5817.9 | 5708.1 | 4520.1 |
| 57.5° | 4724.6 | 4692.2 | 4588.7 | 4770.8 | 5339.5 | 5652.6 | 5869.6 | 6062.3 | 6198.9 | 5996.2 | 4686.0 |
| 60° | 4914.2 | 4895.5 | 4898.0 | 5246.0 | 6030.5 | 6331.1 | 6450.9 | 6500.7 | 6573.1 | 6267.5 | 4695.3 |
| 62.5° | 5095.1 | 5130.6 | 5251.6 | 5774.8 | 6692.2 | 6922.9 | 6983.4 | 7032.7 | 6947.9 | 6310.5 | 4338.0 |
| 65° | 5401.3 | 5459.3 | 5748.0 | 6482.7 | 7420.0 | 7666.9 | 7729.3 | 7560.3 | 7007.1 | 5754.3 | 3528.5 |
| 67.5° | 5551.0 | 5657.0 | 6172.1 | 7142.5 | 8125.9 | 8400.3 | 8377.3 | 7594.6 | 6288.1 | 4387.9 | 2264.4 |
| 69° | 5519.8 | 5632.6 | 6270.0 | 7344.5 | 8360.4 | 8609.2 | 8462.7 | 7174.9 | 5357.0 | 3178.7 | 1390.1 |
| 70° | 5396.3 | 5510.4 | 6219.5 | 7337.0 | 8390.4 | 8587.4 | 8304.3 | 6656.7 | 4529.4 | 2324.3 | 869.3 |
| 72.5° | 4506.4 | 4604.9 | 5521.6 | 6631.7 | 7729.3 | 7569.0 | 6947.3 | 4611.8 | 2207.0 | 633.0 | 195.8 |
| 75° | 2773.9 | 2828.8 | 3961.9 | 4995.9 | 5837.8 | 5426.2 | 4628.6 | 2294.3 | 657.9 | 179.0 | 108.5 |
| 77.5° | 1465.5 | 1490.5 | 2169.0 | 2944.8 | 3700.6 | 3062.0 | 2372.3 | 894.9 | 303.1 | 112.3 | 78.6 |
| 80° | 866.2 | 884.9 | 1168.1 | 1346.4 | 1601.5 | 1337.7 | 948.5 | 549.4 | 217.0 | 70.5 | 69.8 |
| 82.5° | 495.8 | 507.6 | 846.9 | 748.4 | 631.1 | 538.8 | 472.1 | 520.7 | 130.3 | 47.4 | 72.3 |
| 85° | 182.1 | 184.6 | 476.5 | 569.4 | 375.4 | 223.3 | 234.5 | 431.6 | 34.9 | 29.9 | 56.8 |
| 87.5° | 84.8 | 82.9 | 245.1 | 348.6 | 219.5 | 141.6 | 182.7 | 94.8 | 13.7 | 19.3 | 15.6 |
| 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° | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 | 1565.3 |
| 2.5° | 1546.6 | 1523.5 | 1481.8 | 1438.7 | 1395.1 | 1361.4 | 1328.3 | 1302.1 | 1293.4 | 1277.2 | 1278.4 |
| 5° | 1499.2 | 1456.8 | 1369.5 | 1280.9 | 1188.6 | 1112.6 | 1040.8 | 982.8 | 954.8 | 926.1 | 926.1 |
| 7.5° | 1458.1 | 1396.3 | 1259.7 | 1115.7 | 966.6 | 841.3 | 728.4 | 643.6 | 596.8 | 559.4 | 558.8 |
| 10° | 1442.5 | 1358.9 | 1168.1 | 961.6 | 754.0 | 583.1 | 449.0 | 363.0 | 318.7 | 290.0 | 288.7 |
| 12.5° | 1449.3 | 1345.8 | 1097.6 | 819.5 | 558.8 | 374.8 | 260.1 | 204.6 | 185.8 | 177.1 | 177.1 |
| 15° | 1469.3 | 1342.1 | 1027.1 | 680.4 | 394.8 | 234.5 | 172.7 | 157.8 | 156.5 | 156.5 | 156.5 |
| 17.5° | 1493.6 | 1343.3 | 954.8 | 545.1 | 268.8 | 167.8 | 149.0 | 147.2 | 148.4 | 148.4 | 148.4 |
| 20° | 1518.5 | 1343.9 | 876.8 | 419.7 | 189.6 | 145.9 | 140.3 | 139.7 | 140.9 | 140.9 | 141.6 |
| 22.5° | 1549.1 | 1347.0 | 798.9 | 313.7 | 156.5 | 137.8 | 133.5 | 133.5 | 134.1 | 134.1 | 133.5 |
| 25° | 1584.0 | 1353.3 | 717.8 | 232.6 | 142.8 | 132.2 | 128.5 | 127.8 | 128.5 | 127.8 | 127.2 |
| 27.5° | 1627.7 | 1362.0 | 627.4 | 182.1 | 136.6 | 126.6 | 123.5 | 123.5 | 122.9 | 122.2 | 121.6 |
| 30° | 1682.6 | 1372.0 | 525.7 | 154.7 | 130.3 | 121.6 | 118.5 | 117.9 | 117.2 | 116.0 | 116.0 |
| 32.5° | 1766.1 | 1393.8 | 425.3 | 140.3 | 123.5 | 114.7 | 112.3 | 112.3 | 111.0 | 109.8 | 109.1 |
| 35° | 1894.6 | 1436.8 | 335.5 | 131.6 | 116.0 | 107.3 | 104.1 | 104.1 | 102.9 | 102.3 | 101.7 |
| 37.5° | 2072.3 | 1502.3 | 260.7 | 123.5 | 108.5 | 99.2 | 96.0 | 95.4 | 94.2 | 92.9 | 92.3 |
| 40° | 2308.7 | 1583.4 | 205.2 | 116.0 | 101.0 | 91.1 | 88.6 | 87.3 | 84.8 | 82.9 | 82.9 |
| 42.5° | 2605.5 | 1675.7 | 166.5 | 107.9 | 92.3 | 83.6 | 81.7 | 79.8 | 75.5 | 73.6 | 73.0 |
| 45° | 2916.1 | 1758.6 | 140.9 | 98.5 | 83.6 | 76.1 | 74.8 | 71.7 | 66.1 | 64.2 | 64.2 |
| 47.5° | 3140.0 | 1778.0 | 124.1 | 89.8 | 75.5 | 68.0 | 67.4 | 61.7 | 56.8 | 55.5 | 54.9 |
| 50° | 3279.7 | 1739.9 | 110.4 | 81.1 | 68.0 | 60.5 | 58.6 | 51.8 | 48.6 | 47.4 | 46.8 |
| 52.5° | 3373.9 | 1672.0 | 99.2 | 73.6 | 61.1 | 53.6 | 49.3 | 44.3 | 41.8 | 40.5 | 40.5 |
| 55° | 3449.3 | 1575.9 | 87.9 | 66.7 | 55.5 | 48.0 | 41.8 | 38.0 | 35.5 | 34.3 | 34.3 |
| 57.5° | 3470.5 | 1445.6 | 76.7 | 61.1 | 49.9 | 42.4 | 35.5 | 33.1 | 29.9 | 29.3 | 29.3 |
| 60° | 3316.5 | 1210.5 | 68.0 | 54.3 | 44.9 | 36.8 | 31.2 | 28.1 | 24.9 | 24.3 | 23.7 |
| 62.5° | 2910.5 | 936.7 | 59.9 | 48.0 | 39.3 | 31.8 | 26.8 | 23.1 | 20.6 | 20.6 | 20.6 |
| 65° | 2220.1 | 628.0 | 52.4 | 41.8 | 34.3 | 26.8 | 23.1 | 18.7 | 17.5 | 17.5 | 18.1 |
| 67.5° | 1329.0 | 341.8 | 44.9 | 35.5 | 29.3 | 22.5 | 19.3 | 16.2 | 15.6 | 16.2 | 16.2 |
| 69° | 778.9 | 200.8 | 40.5 | 31.8 | 25.6 | 20.0 | 16.8 | 14.3 | 15.6 | 16.2 | 16.2 |
| 70° | 480.8 | 135.3 | 37.4 | 28.7 | 23.1 | 18.1 | 15.6 | 13.7 | 15.0 | 15.6 | 15.6 |
| 72.5° | 134.1 | 69.8 | 29.9 | 22.5 | 18.7 | 15.0 | 12.5 | 12.5 | 14.3 | 15.0 | 15.0 |
| 75° | 87.3 | 51.8 | 23.1 | 16.8 | 14.3 | 11.8 | 10.6 | 11.8 | 13.7 | 14.3 | 14.3 |
| 77.5° | 72.3 | 42.4 | 18.7 | 13.7 | 11.8 | 11.2 | 10.0 | 10.6 | 12.5 | 13.1 | 13.1 |
| 80° | 66.1 | 29.9 | 15.0 | 12.5 | 10.6 | 10.0 | 9.4 | 8.7 | 11.2 | 11.8 | 11.8 |
| 82.5° | 63.0 | 23.7 | 13.1 | 11.2 | 10.0 | 8.7 | 8.1 | 8.7 | 10.0 | 10.6 | 11.2 |
| 85° | 39.3 | 15.6 | 11.8 | 10.6 | 8.7 | 8.1 | 8.1 | 8.1 | 9.4 | 10.0 | 10.0 |
| 87.5° | 14.3 | 12.5 | 10.6 | 8.7 | 7.5 | 7.5 | 7.5 | 7.5 | 8.1 | 9.4 | 9.4 |
| 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)