

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: P323017

Luminaire Tested: **GLEON-SA3D-827-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P323017
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-19)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GLEON-SA3D-827-U-T4W-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12621 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

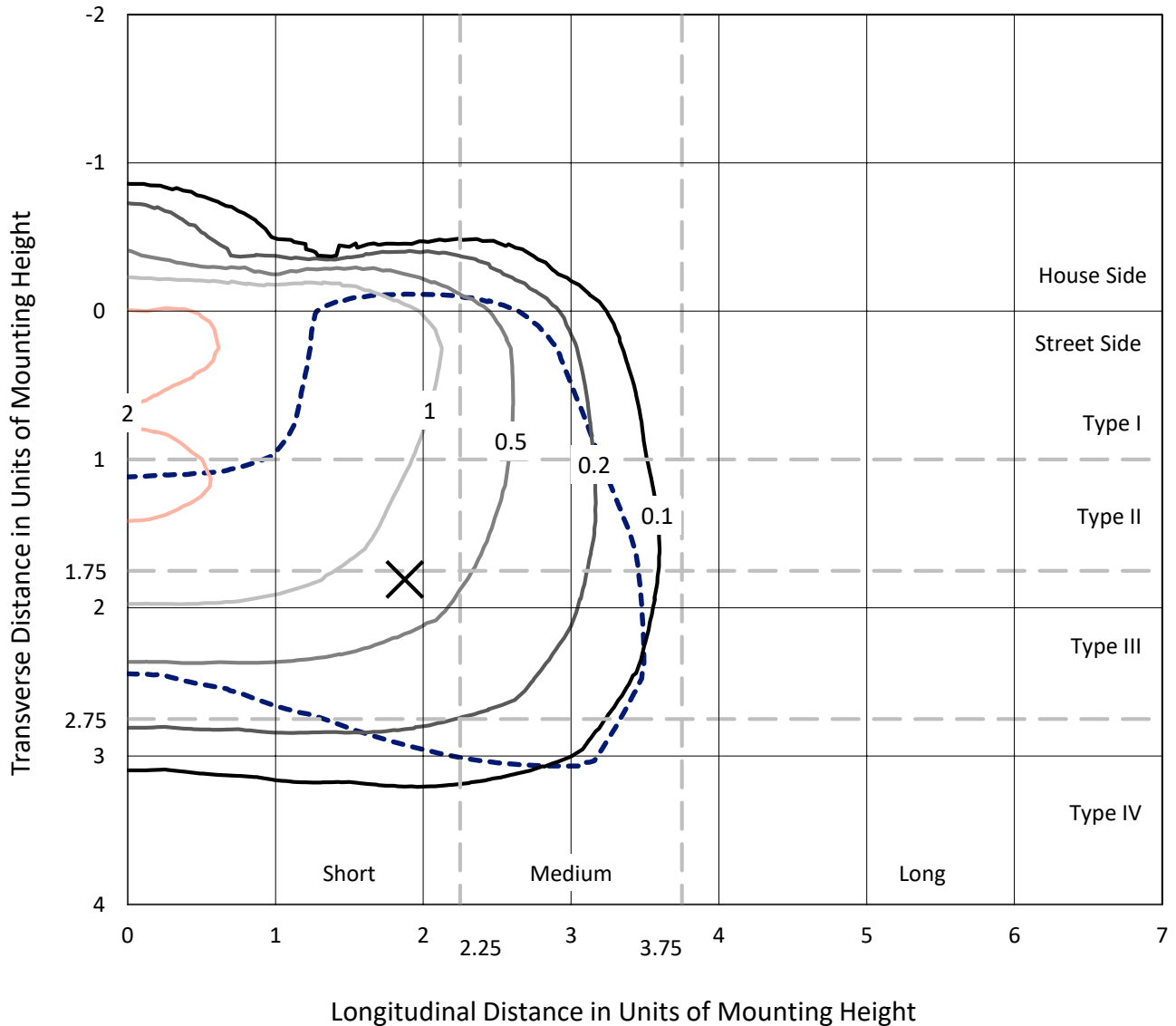
Input Watts (W): 191
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

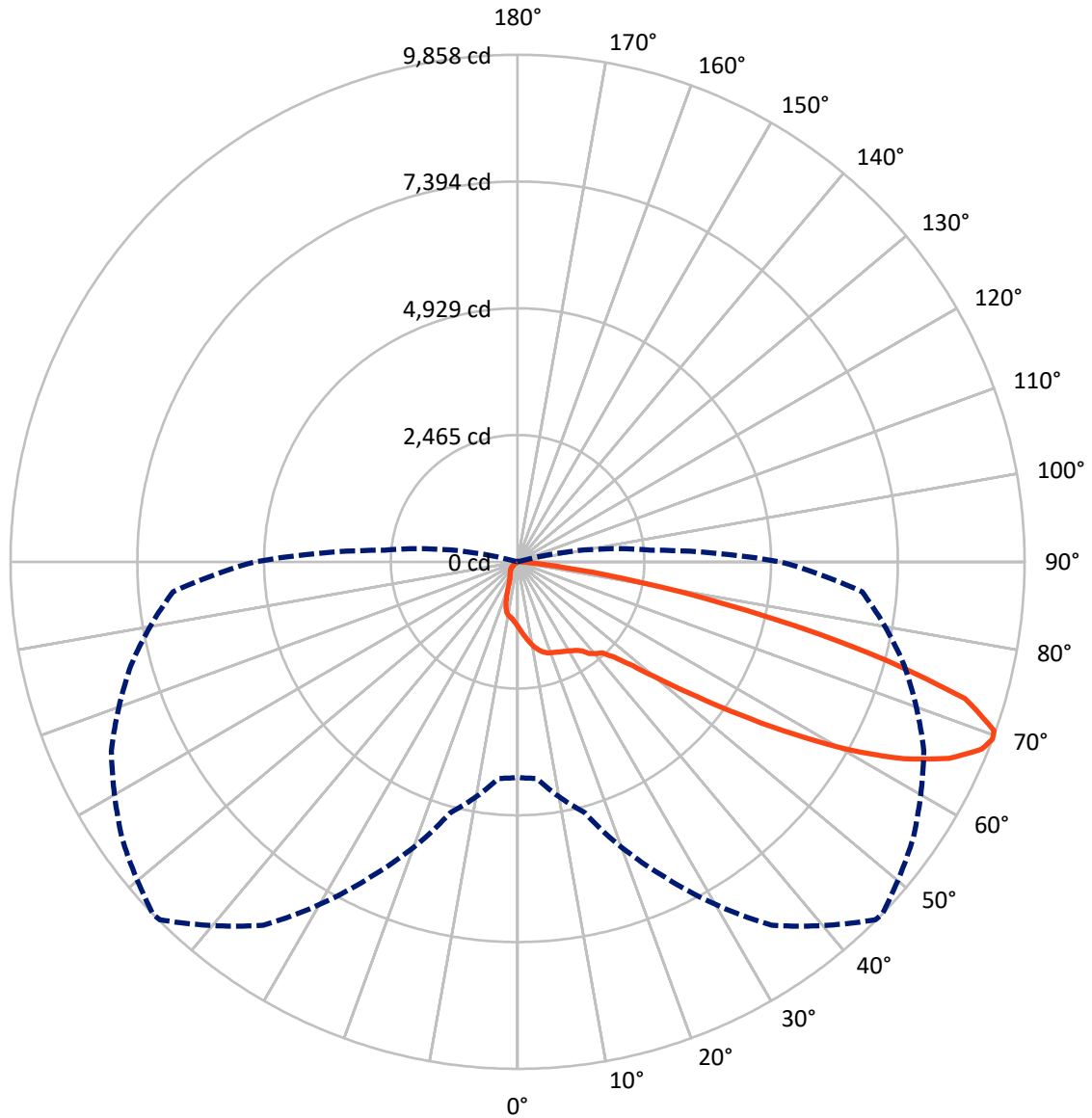
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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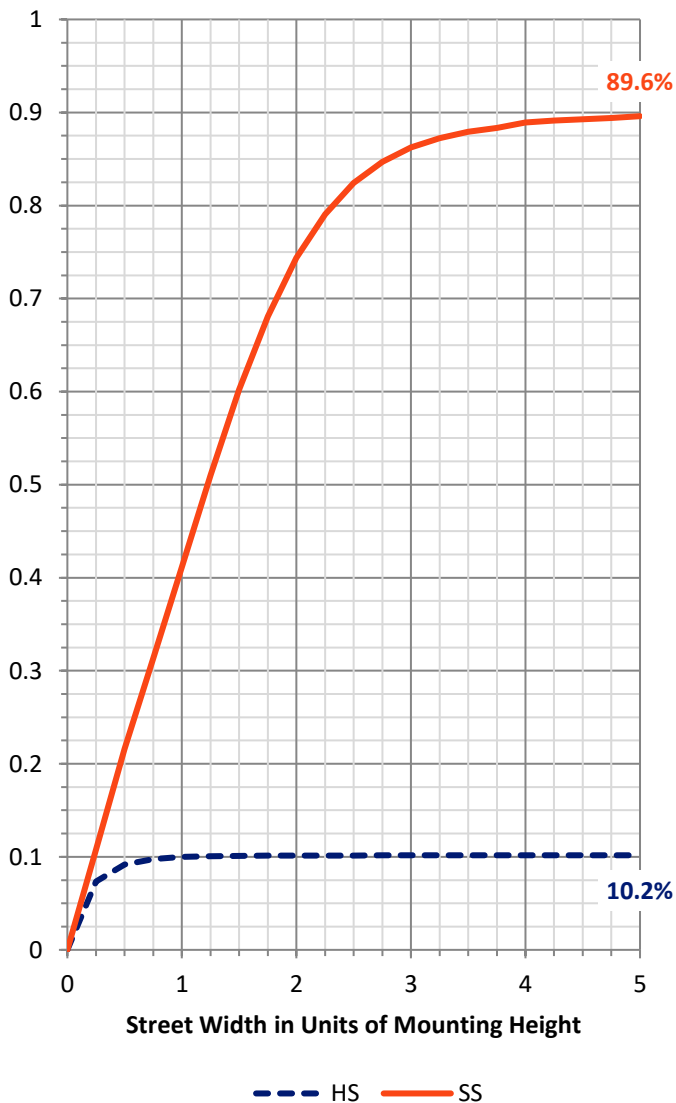
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1295.3 | 0.0 | 1295.3 |
| | % Fixture | 10.3 | 0.0 | 10.3 |
| Street Side | Lumens | 11325.7 | 0.0 | 11325.7 |
| | % Fixture | 89.7 | 0.0 | 89.7 |
| Total | Lumens | 12621.0 | 0.0 | 12621.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 125.9 | 1.0 |
| 10°-20° | 381.9 | 3.0 |
| 20°-30° | 600.5 | 4.8 |
| 30°-40° | 861.2 | 6.8 |
| 40°-50° | 1488.4 | 11.8 |
| 50°-60° | 2940.5 | 23.3 |
| 60°-70° | 4109.6 | 32.6 |
| 70°-80° | 1985.4 | 15.7 |
| 80°-90° | 127.6 | 1.0 |
| 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° | 12621.0 | 100.0 |
| 0°-180° | 12621.0 | 100.0 |



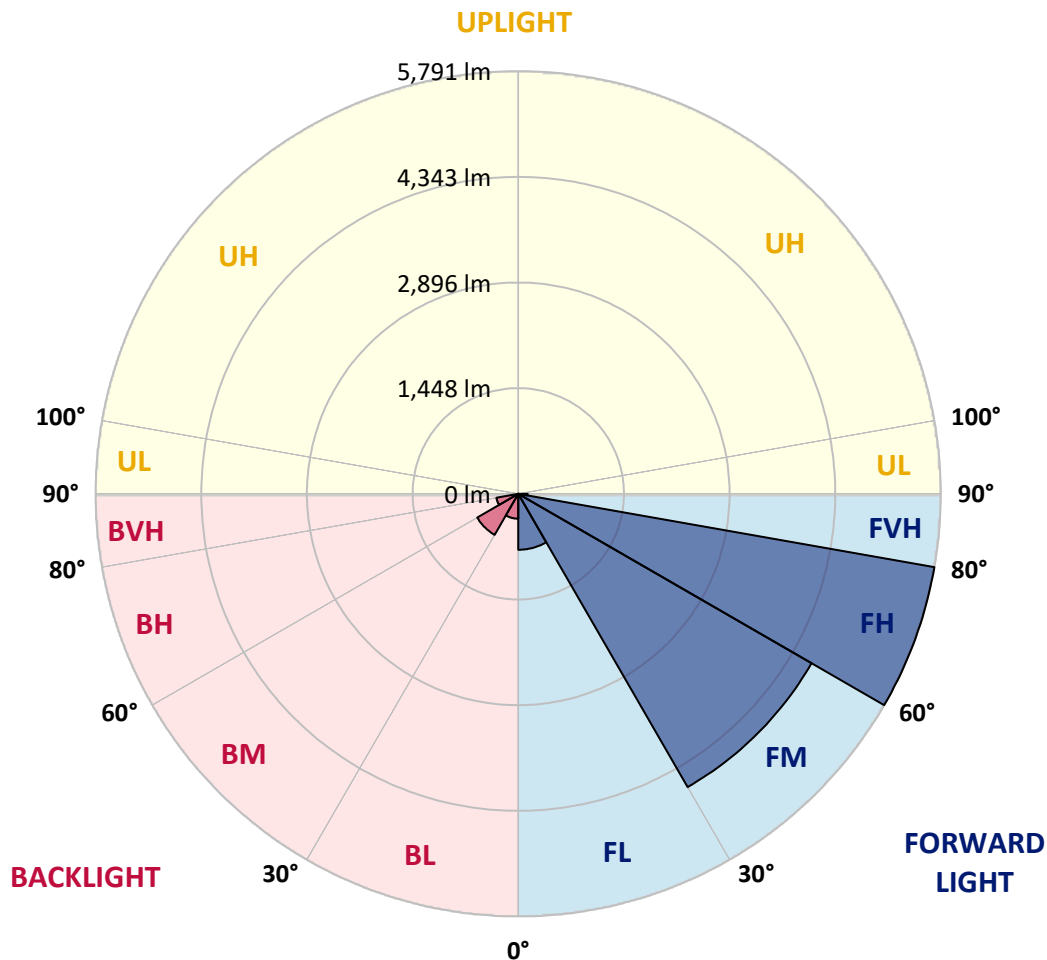
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 766.9 | 6.1 | | | |
| FM (30°-60°) | 4641.0 | 36.8 | | | |
| FH (60°-80°) | 5791.3 | 45.9 | | | G3/7500 |
| FVH (80°-90°) | 126.5 | 1.0 | | | G2/225 |
| BL (0°-30°) | 341.4 | 2.7 | B1/500 | | |
| BM (30°-60°) | 649.1 | 5.1 | B1/1000 | | |
| BH (60°-80°) | 303.7 | 2.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 |
| 2.5° | 1404.8 | 1403.0 | 1394.8 | 1391.2 | 1371.1 | 1359.3 | 1354.5 | 1339.7 | 1318.4 | 1297.1 | 1273.5 |
| 5° | 1564.6 | 1564.0 | 1548.6 | 1533.8 | 1496.0 | 1460.4 | 1453.9 | 1419.6 | 1371.7 | 1326.7 | 1281.7 |
| 7.5° | 1727.9 | 1720.2 | 1704.8 | 1676.4 | 1621.4 | 1564.6 | 1559.3 | 1510.7 | 1442.7 | 1377.6 | 1313.1 |
| 10° | 1866.4 | 1861.7 | 1841.5 | 1798.3 | 1733.8 | 1669.3 | 1662.8 | 1603.1 | 1526.1 | 1446.2 | 1364.0 |
| 12.5° | 1974.1 | 1970.5 | 1943.9 | 1890.1 | 1821.4 | 1754.5 | 1745.7 | 1692.4 | 1610.2 | 1520.8 | 1423.8 |
| 15° | 2039.8 | 2038.0 | 2005.5 | 1948.1 | 1880.6 | 1822.6 | 1814.9 | 1768.2 | 1691.8 | 1598.3 | 1488.9 |
| 17.5° | 2055.2 | 2055.8 | 2022.0 | 1964.0 | 1908.4 | 1867.0 | 1861.1 | 1825.6 | 1761.6 | 1668.7 | 1553.9 |
| 20° | 2020.8 | 2027.9 | 1997.8 | 1947.5 | 1913.1 | 1891.2 | 1886.5 | 1865.2 | 1811.4 | 1723.8 | 1606.0 |
| 22.5° | 1972.3 | 1975.9 | 1955.2 | 1921.4 | 1907.2 | 1911.4 | 1909.0 | 1897.2 | 1851.6 | 1771.1 | 1657.5 |
| 25° | 1942.7 | 1942.7 | 1930.3 | 1901.9 | 1911.4 | 1936.8 | 1937.4 | 1935.0 | 1898.9 | 1829.1 | 1720.2 |
| 27.5° | 1941.5 | 1938.0 | 1923.8 | 1902.5 | 1928.5 | 1967.6 | 1969.9 | 1985.9 | 1963.4 | 1899.5 | 1798.3 |
| 30° | 1988.9 | 1984.7 | 1954.6 | 1926.7 | 1959.9 | 2001.9 | 2007.8 | 2042.7 | 2031.5 | 1975.9 | 1885.3 |
| 32.5° | 2099.5 | 2084.7 | 2017.9 | 1972.3 | 1997.2 | 2047.5 | 2055.2 | 2110.8 | 2128.5 | 2070.0 | 1969.4 |
| 35° | 2251.0 | 2204.3 | 2107.8 | 2058.7 | 2061.1 | 2113.7 | 2120.8 | 2202.5 | 2255.2 | 2156.3 | 2034.4 |
| 37.5° | 2459.9 | 2436.8 | 2280.0 | 2148.7 | 2159.3 | 2239.2 | 2259.9 | 2348.7 | 2333.9 | 2203.7 | 2108.4 |
| 40° | 2917.9 | 2881.8 | 2715.0 | 2400.7 | 2253.4 | 2341.0 | 2347.5 | 2394.8 | 2396.0 | 2310.8 | 2262.3 |
| 42.5° | 3541.6 | 3526.9 | 3351.1 | 2858.2 | 2438.6 | 2409.0 | 2420.9 | 2500.7 | 2590.1 | 2536.8 | 2534.5 |
| 45° | 4232.2 | 4224.5 | 4038.1 | 3465.3 | 2813.2 | 2632.1 | 2646.9 | 2754.0 | 2925.0 | 2936.9 | 3012.0 |
| 47.5° | 4787.9 | 4784.3 | 4677.2 | 4142.9 | 3386.6 | 3010.2 | 3015.0 | 3128.6 | 3429.2 | 3577.7 | 3697.9 |
| 50° | 5294.4 | 5311.6 | 5227.0 | 4876.0 | 4167.7 | 3602.6 | 3591.4 | 3667.1 | 4150.0 | 4393.2 | 4542.3 |
| 52.5° | 5998.6 | 6022.9 | 5785.6 | 5560.1 | 4987.3 | 4337.6 | 4328.7 | 4408.0 | 5016.3 | 5198.6 | 5225.2 |
| 55° | 6620.5 | 6579.1 | 6391.5 | 6326.4 | 5986.8 | 5245.3 | 5242.9 | 5312.8 | 5854.2 | 5931.7 | 5980.9 |
| 57.5° | 6895.1 | 6879.1 | 6969.7 | 7118.8 | 7033.6 | 6318.2 | 6312.8 | 6259.6 | 6604.0 | 6612.3 | 6763.1 |
| 60° | 7068.5 | 7088.0 | 7365.6 | 7825.3 | 8037.8 | 7472.7 | 7438.3 | 7113.5 | 7320.0 | 7301.6 | 7463.2 |
| 62.5° | 6938.3 | 6976.8 | 7476.2 | 8242.5 | 8789.3 | 8480.4 | 8431.9 | 7895.8 | 7931.9 | 7868.5 | 8018.9 |
| 65° | 6247.1 | 6306.9 | 7125.3 | 8163.8 | 9162.1 | 9268.0 | 9218.9 | 8586.3 | 8417.7 | 8313.5 | 8230.1 |
| 67.5° | 5072.5 | 5108.0 | 5962.5 | 7479.2 | 8994.1 | 9737.9 | 9727.8 | 9191.7 | 8784.6 | 8238.4 | 7591.0 |
| 69° | 4192.0 | 4226.9 | 5049.4 | 6758.4 | 8624.2 | 9838.5 | 9858.0 | 9385.8 | 8714.8 | 7781.6 | 6725.9 |
| 70° | 3550.5 | 3587.8 | 4354.1 | 6140.6 | 8195.2 | 9791.7 | 9826.7 | 9367.5 | 8514.7 | 7252.5 | 5966.6 |
| 72.5° | 1862.2 | 1894.2 | 2680.6 | 4230.4 | 6680.9 | 8991.1 | 9097.0 | 8575.7 | 7217.6 | 5267.2 | 3528.0 |
| 75° | 585.2 | 603.6 | 1046.8 | 2211.4 | 4574.3 | 6991.0 | 7015.2 | 6727.1 | 5125.2 | 2897.2 | 1469.3 |
| 77.5° | 223.1 | 217.8 | 348.5 | 814.8 | 2312.6 | 4402.1 | 4550.6 | 4203.8 | 2689.5 | 1024.3 | 339.1 |
| 80° | 120.1 | 120.7 | 181.1 | 337.3 | 989.4 | 2262.3 | 2387.7 | 2037.4 | 955.7 | 319.5 | 78.1 |
| 82.5° | 52.1 | 54.4 | 101.8 | 178.7 | 454.5 | 834.4 | 897.1 | 746.8 | 365.1 | 214.8 | 29.0 |
| 85° | 11.2 | 12.4 | 49.1 | 97.0 | 185.2 | 234.3 | 245.6 | 242.0 | 232.6 | 166.9 | 11.2 |
| 87.5° | 0.0 | 0.0 | 21.9 | 34.9 | 46.7 | 53.3 | 46.7 | 61.0 | 128.4 | 112.4 | 5.9 |
| 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):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 | 1264.6 |
| 2.5° | 1265.8 | 1255.1 | 1236.8 | 1216.6 | 1202.4 | 1187.6 | 1175.8 | 1170.5 | 1164.6 | 1160.4 | 1165.8 |
| 5° | 1263.4 | 1242.7 | 1207.2 | 1172.9 | 1148.0 | 1127.9 | 1111.3 | 1104.8 | 1098.3 | 1093.6 | 1093.0 |
| 7.5° | 1284.1 | 1255.1 | 1200.7 | 1150.4 | 1111.9 | 1084.7 | 1062.2 | 1052.7 | 1045.0 | 1041.5 | 1038.5 |
| 10° | 1323.8 | 1286.5 | 1213.7 | 1148.0 | 1098.3 | 1052.1 | 1003.6 | 966.3 | 942.1 | 930.8 | 926.7 |
| 12.5° | 1375.2 | 1328.5 | 1238.5 | 1160.4 | 1088.2 | 999.5 | 896.5 | 807.7 | 750.3 | 731.4 | 720.2 |
| 15° | 1435.6 | 1377.6 | 1271.1 | 1176.4 | 1051.5 | 889.4 | 714.8 | 598.9 | 545.6 | 534.9 | 523.1 |
| 17.5° | 1493.6 | 1429.7 | 1310.1 | 1179.4 | 971.1 | 710.7 | 523.7 | 445.0 | 424.3 | 431.4 | 433.2 |
| 20° | 1544.5 | 1481.2 | 1348.6 | 1153.3 | 824.9 | 533.2 | 405.4 | 385.8 | 393.5 | 407.1 | 409.5 |
| 22.5° | 1596.0 | 1530.9 | 1384.1 | 1084.7 | 637.9 | 404.8 | 365.1 | 369.8 | 377.5 | 391.1 | 393.5 |
| 25° | 1658.7 | 1591.2 | 1417.2 | 958.6 | 478.7 | 344.4 | 346.8 | 353.9 | 361.6 | 374.0 | 375.2 |
| 27.5° | 1730.9 | 1667.6 | 1439.1 | 794.7 | 355.1 | 316.6 | 324.3 | 334.9 | 342.6 | 354.5 | 356.8 |
| 30° | 1826.7 | 1768.2 | 1446.2 | 624.9 | 297.7 | 291.7 | 295.3 | 308.3 | 319.5 | 330.2 | 332.0 |
| 32.5° | 1916.7 | 1867.6 | 1422.6 | 471.6 | 275.8 | 268.7 | 268.7 | 276.3 | 289.4 | 299.4 | 301.8 |
| 35° | 1999.5 | 1967.6 | 1346.8 | 345.0 | 259.2 | 247.4 | 241.4 | 241.4 | 249.7 | 258.0 | 260.4 |
| 37.5° | 2109.0 | 2107.8 | 1224.3 | 275.2 | 243.2 | 229.6 | 217.2 | 207.7 | 204.7 | 206.5 | 207.7 |
| 40° | 2296.6 | 2298.4 | 1064.6 | 246.8 | 229.6 | 211.3 | 192.3 | 175.2 | 159.2 | 153.9 | 153.3 |
| 42.5° | 2589.5 | 2562.9 | 897.1 | 233.2 | 217.8 | 192.3 | 163.9 | 140.8 | 116.0 | 108.3 | 107.7 |
| 45° | 3054.6 | 2896.6 | 719.6 | 220.7 | 205.3 | 171.0 | 135.5 | 104.1 | 84.0 | 78.1 | 78.1 |
| 47.5° | 3732.2 | 3335.1 | 557.4 | 207.1 | 188.8 | 146.8 | 102.4 | 75.2 | 61.5 | 58.6 | 59.2 |
| 50° | 4432.8 | 3764.7 | 427.2 | 190.0 | 168.6 | 121.3 | 75.7 | 54.4 | 46.7 | 46.7 | 47.3 |
| 52.5° | 5054.2 | 4079.5 | 333.2 | 171.6 | 143.8 | 95.3 | 57.4 | 42.6 | 39.1 | 38.5 | 39.1 |
| 55° | 5635.9 | 4282.5 | 255.0 | 150.3 | 114.2 | 71.0 | 43.8 | 34.9 | 32.5 | 31.4 | 30.8 |
| 57.5° | 6196.8 | 4383.1 | 191.1 | 121.3 | 82.8 | 51.5 | 34.9 | 29.6 | 27.2 | 25.4 | 24.9 |
| 60° | 6570.2 | 4301.5 | 131.4 | 89.4 | 57.4 | 37.3 | 29.0 | 25.4 | 22.5 | 20.7 | 20.1 |
| 62.5° | 6780.9 | 4078.4 | 84.6 | 64.5 | 40.8 | 27.8 | 23.1 | 21.3 | 17.2 | 15.4 | 15.4 |
| 65° | 6695.7 | 3710.3 | 59.2 | 46.2 | 29.6 | 20.7 | 17.2 | 17.2 | 12.4 | 10.1 | 9.5 |
| 67.5° | 5933.5 | 3134.5 | 45.0 | 34.3 | 21.3 | 15.4 | 13.0 | 14.8 | 7.7 | 4.7 | 4.7 |
| 69° | 5105.1 | 2597.8 | 38.5 | 28.4 | 17.8 | 12.4 | 11.2 | 13.6 | 5.3 | 3.6 | 3.0 |
| 70° | 4437.0 | 2241.0 | 34.9 | 24.9 | 14.8 | 10.7 | 10.1 | 13.0 | 5.3 | 3.0 | 2.4 |
| 72.5° | 2654.6 | 1249.8 | 26.6 | 17.8 | 9.5 | 8.3 | 8.3 | 14.8 | 5.3 | 3.0 | 2.4 |
| 75° | 1072.8 | 440.3 | 19.5 | 12.4 | 7.1 | 7.1 | 10.1 | 18.9 | 4.7 | 2.4 | 1.8 |
| 77.5° | 243.2 | 96.5 | 11.2 | 7.7 | 4.7 | 7.1 | 11.8 | 14.8 | 3.0 | 1.2 | 0.0 |
| 80° | 59.2 | 23.7 | 7.1 | 4.7 | 3.0 | 5.3 | 8.9 | 8.3 | 0.6 | 0.0 | 0.0 |
| 82.5° | 19.5 | 8.3 | 3.0 | 2.4 | 0.6 | 1.8 | 4.1 | 2.4 | 0.0 | 0.0 | 0.0 |
| 85° | 8.3 | 4.7 | 1.2 | 0.6 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.3 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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)