

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: P452069

Luminaire Tested: **GLAN-SA3A-727-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452069
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-9)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GLAN-SA3A-727-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8939 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G2

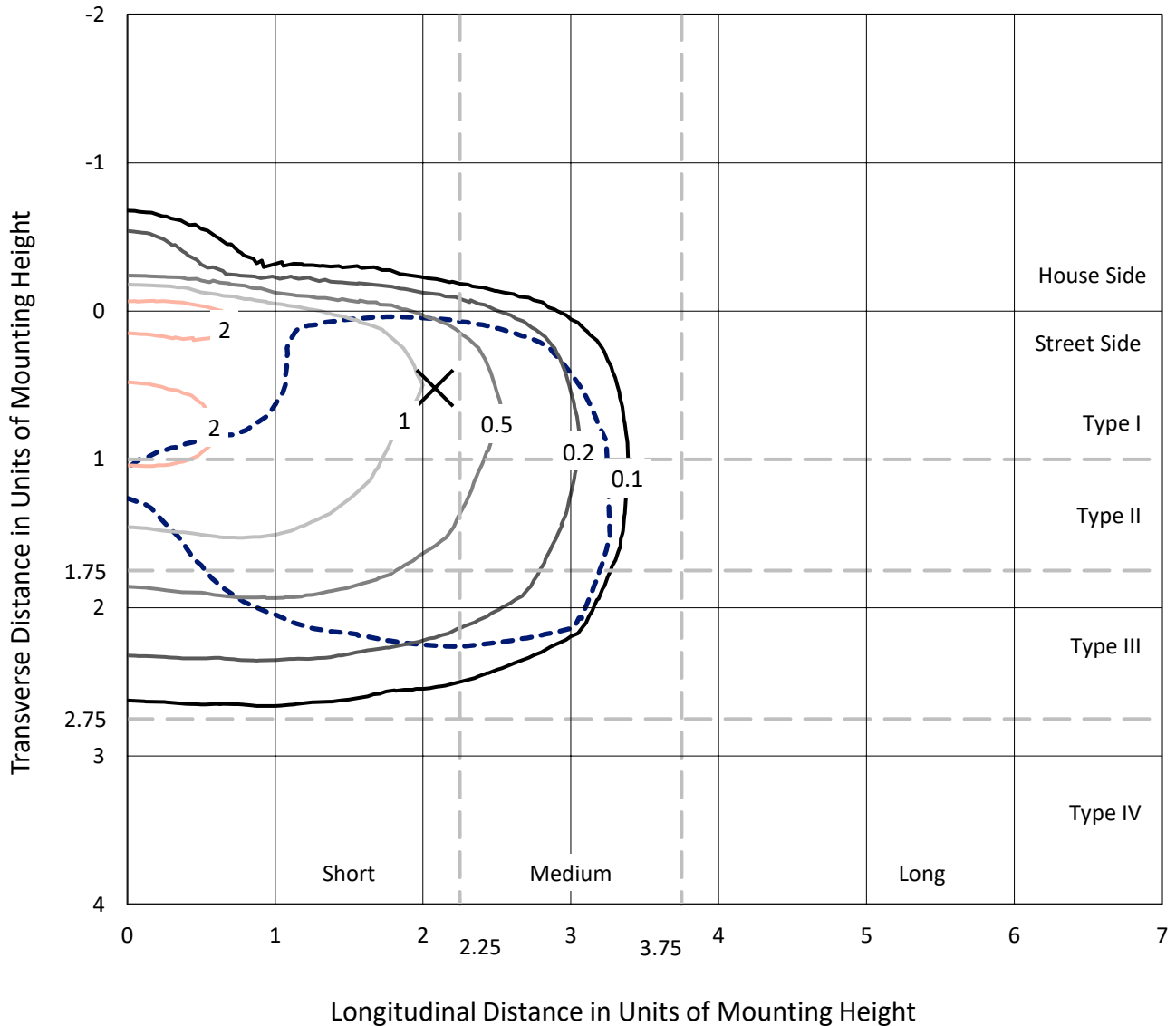
Input Watts (W): 93
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

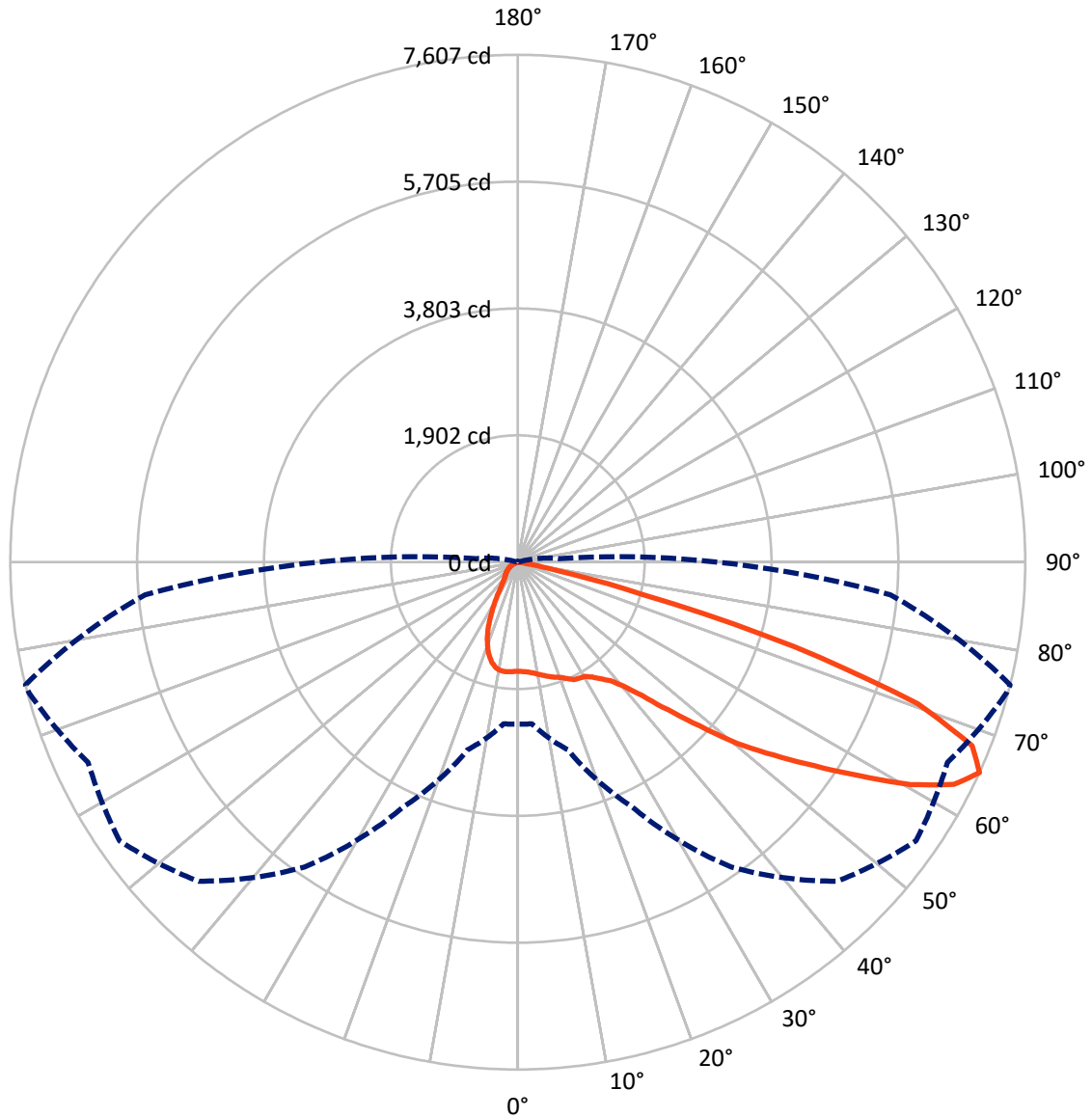
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 76-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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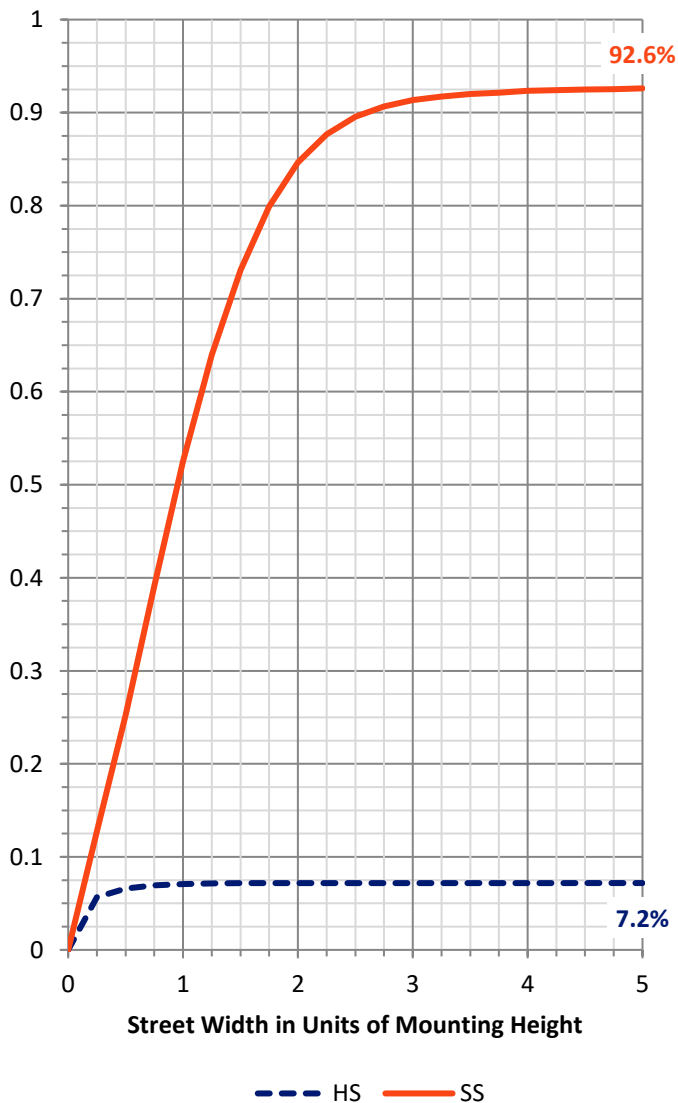
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 645.6 | 0.0 | 645.6 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 8293.4 | 0.0 | 8293.4 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 8939.0 | 0.0 | 8939.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 134.7 | 1.5 |
| 10°-20° | 299.9 | 3.4 |
| 20°-30° | 483.3 | 5.4 |
| 30°-40° | 840.4 | 9.4 |
| 40°-50° | 1388.6 | 15.5 |
| 50°-60° | 2145.2 | 24.0 |
| 60°-70° | 2619.5 | 29.3 |
| 70°-80° | 994.2 | 11.1 |
| 80°-90° | 33.2 | 0.4 |
| 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° | 8939.0 | 100.0 |
| 0°-180° | 8939.0 | 100.0 |

Coefficient of Utilization



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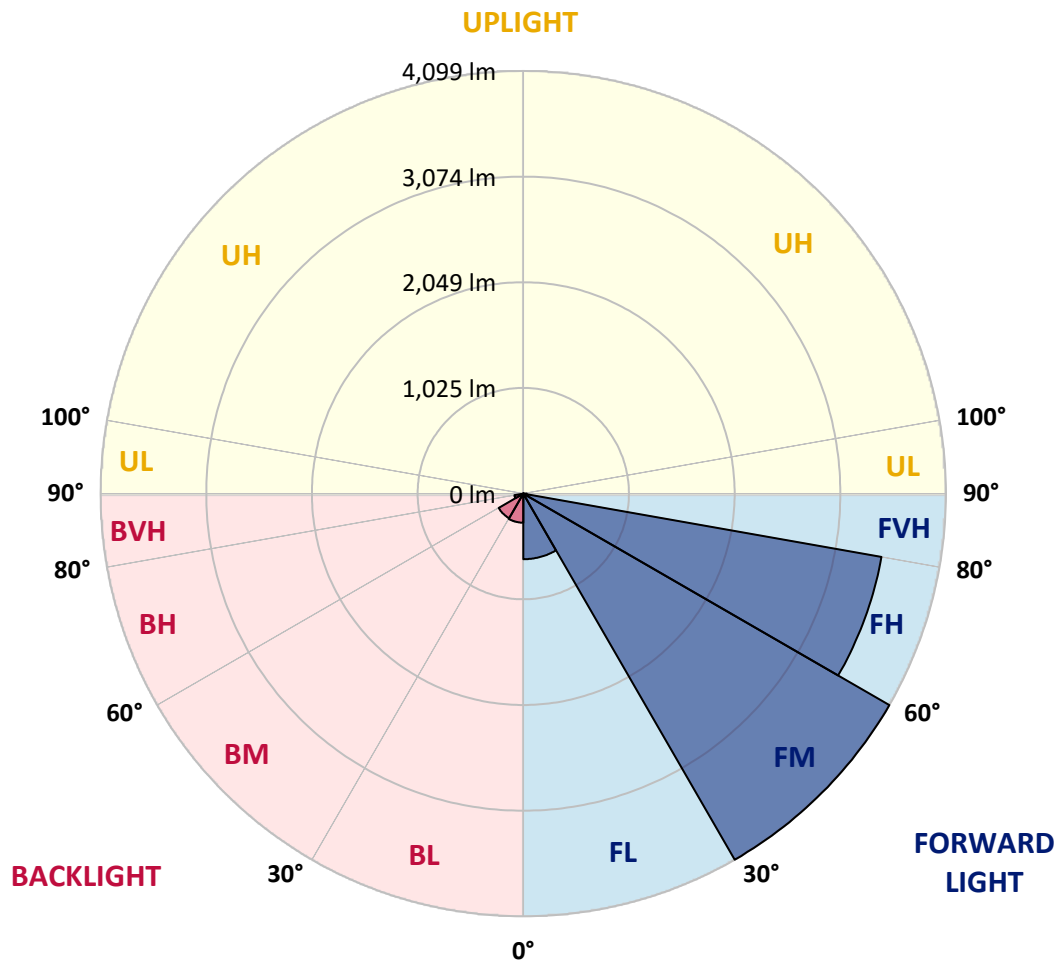
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 635.9 | 7.1 | | | |
| FM (30°-60°) | 4098.7 | 45.9 | | | |
| FH (60°-80°) | 3526.1 | 39.4 | | | G2/5000 |
| FVH (80°-90°) | 32.7 | 0.4 | | | G1/100 |
| BL (0°-30°) | 282.0 | 3.2 | B1/500 | | |
| BM (30°-60°) | 275.5 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 87.6 | 1.0 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 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-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 |
| 2.5° | 1562.6 | 1563.3 | 1567.1 | 1576.5 | 1591.1 | 1603.0 | 1613.1 | 1629.5 | 1640.9 | 1642.2 | 1646.0 |
| 5° | 1454.7 | 1447.2 | 1454.7 | 1479.3 | 1501.4 | 1534.9 | 1575.9 | 1616.9 | 1653.5 | 1656.1 | 1673.7 |
| 7.5° | 1333.6 | 1339.9 | 1351.9 | 1377.1 | 1418.8 | 1469.9 | 1529.2 | 1602.4 | 1671.8 | 1678.1 | 1712.9 |
| 10° | 1210.5 | 1224.4 | 1243.9 | 1282.4 | 1340.5 | 1406.8 | 1487.5 | 1592.3 | 1700.9 | 1709.7 | 1769.7 |
| 12.5° | 1096.9 | 1103.2 | 1127.2 | 1178.9 | 1250.9 | 1344.3 | 1456.0 | 1586.6 | 1733.1 | 1743.8 | 1830.2 |
| 15° | 1009.8 | 1018.0 | 1038.8 | 1085.5 | 1165.7 | 1285.6 | 1430.1 | 1584.7 | 1764.6 | 1779.8 | 1890.8 |
| 17.5° | 993.4 | 998.4 | 1007.3 | 1038.8 | 1108.9 | 1238.9 | 1406.8 | 1584.1 | 1794.9 | 1813.2 | 1947.0 |
| 20° | 1060.9 | 1056.5 | 1047.7 | 1044.5 | 1083.0 | 1202.9 | 1389.7 | 1589.2 | 1823.9 | 1844.8 | 2006.3 |
| 22.5° | 1230.1 | 1235.7 | 1184.0 | 1122.8 | 1110.1 | 1197.2 | 1387.2 | 1613.1 | 1870.0 | 1894.6 | 2072.6 |
| 25° | 1589.2 | 1545.6 | 1464.8 | 1318.4 | 1208.0 | 1231.9 | 1415.6 | 1669.9 | 1923.6 | 1950.8 | 2132.5 |
| 27.5° | 1986.1 | 1972.9 | 1847.3 | 1606.2 | 1400.5 | 1305.2 | 1466.1 | 1713.5 | 1941.3 | 1969.1 | 2166.6 |
| 30° | 2376.2 | 2391.9 | 2248.0 | 1981.7 | 1680.0 | 1440.8 | 1513.4 | 1729.9 | 1957.1 | 1986.1 | 2210.2 |
| 32.5° | 2737.8 | 2756.7 | 2630.5 | 2366.7 | 2009.5 | 1675.6 | 1594.8 | 1793.6 | 2023.4 | 2053.0 | 2282.8 |
| 35° | 3022.4 | 3025.0 | 2929.7 | 2719.5 | 2369.2 | 1960.9 | 1770.9 | 1905.3 | 2113.0 | 2147.7 | 2359.8 |
| 37.5° | 3283.7 | 3279.9 | 3168.2 | 2987.1 | 2669.0 | 2244.3 | 1992.4 | 2034.1 | 2215.2 | 2251.2 | 2470.8 |
| 40° | 3477.5 | 3480.0 | 3444.0 | 3273.6 | 2948.6 | 2506.2 | 2167.9 | 2154.6 | 2386.9 | 2443.1 | 2632.4 |
| 42.5° | 3606.8 | 3630.2 | 3647.9 | 3561.4 | 3300.1 | 2828.7 | 2437.4 | 2412.8 | 2684.8 | 2731.5 | 2860.9 |
| 45° | 3711.6 | 3753.3 | 3841.6 | 3837.2 | 3637.8 | 3224.4 | 2807.2 | 2756.7 | 3107.0 | 3156.9 | 3151.8 |
| 47.5° | 3788.0 | 3830.3 | 3976.7 | 4065.0 | 3955.2 | 3608.1 | 3272.4 | 3228.8 | 3611.3 | 3665.5 | 3473.0 |
| 50° | 3827.1 | 3877.6 | 4064.4 | 4235.4 | 4203.3 | 3977.9 | 3802.5 | 3805.0 | 4220.3 | 4272.7 | 3845.4 |
| 52.5° | 3735.6 | 3801.2 | 4111.1 | 4419.1 | 4481.6 | 4332.0 | 4299.2 | 4382.5 | 4762.4 | 4807.2 | 4181.8 |
| 55° | 3443.4 | 3526.1 | 4047.4 | 4575.6 | 4804.1 | 4749.8 | 4863.4 | 4990.3 | 5355.0 | 5384.1 | 4527.0 |
| 57.5° | 3258.5 | 3346.2 | 3859.3 | 4708.8 | 5191.6 | 5274.9 | 5454.8 | 5547.5 | 5966.6 | 6040.4 | 4923.4 |
| 60° | 3102.6 | 3171.4 | 3704.7 | 4737.2 | 5585.4 | 5917.4 | 6092.2 | 6188.1 | 6721.4 | 6769.4 | 5359.5 |
| 62.5° | 2843.2 | 2922.1 | 3443.4 | 4539.0 | 5783.6 | 6431.7 | 6794.0 | 6751.1 | 7305.2 | 7338.6 | 5627.1 |
| 65° | 2426.0 | 2433.0 | 2913.2 | 4041.1 | 5579.1 | 6765.6 | 7286.9 | 7107.0 | 7584.2 | 7606.9 | 5606.2 |
| 67.5° | 1810.7 | 1877.6 | 2241.1 | 3176.4 | 4712.6 | 6480.3 | 7446.6 | 7116.5 | 7408.1 | 7345.0 | 5161.3 |
| 70° | 1166.3 | 1217.4 | 1519.1 | 2202.6 | 3397.9 | 5408.1 | 6917.1 | 6628.6 | 6501.8 | 6361.7 | 4224.7 |
| 72.5° | 538.3 | 604.0 | 902.5 | 1258.5 | 2015.2 | 3852.3 | 5615.1 | 5385.3 | 4679.7 | 4333.9 | 2685.4 |
| 75° | 234.8 | 251.2 | 445.6 | 663.9 | 944.8 | 2037.3 | 3702.1 | 3343.0 | 2113.6 | 1930.6 | 1074.8 |
| 77.5° | 143.3 | 154.0 | 233.5 | 356.0 | 371.1 | 776.3 | 1994.3 | 1458.5 | 653.2 | 576.2 | 291.6 |
| 80° | 97.2 | 109.2 | 169.8 | 186.2 | 126.9 | 216.5 | 748.5 | 389.4 | 131.9 | 126.2 | 62.5 |
| 82.5° | 47.3 | 60.0 | 125.6 | 104.1 | 54.9 | 69.4 | 217.7 | 83.3 | 38.5 | 36.0 | 22.1 |
| 85° | 6.9 | 12.0 | 70.7 | 68.2 | 24.6 | 16.4 | 38.5 | 20.8 | 13.3 | 12.6 | 10.1 |
| 87.5° | 0.0 | 0.0 | 24.0 | 10.7 | 2.5 | 2.5 | 4.4 | 4.4 | 5.0 | 4.4 | 5.0 |
| 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° | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 | 1635.2 |
| 2.5° | 1647.9 | 1651.0 | 1639.0 | 1622.0 | 1603.7 | 1585.4 | 1559.5 | 1536.1 | 1522.3 | 1530.5 | 1510.3 |
| 5° | 1677.5 | 1675.0 | 1643.4 | 1591.7 | 1522.9 | 1440.2 | 1358.2 | 1288.1 | 1265.4 | 1231.3 | 1227.5 |
| 7.5° | 1718.5 | 1711.6 | 1644.7 | 1526.0 | 1370.8 | 1215.5 | 1064.1 | 963.7 | 906.3 | 857.7 | 859.0 |
| 10° | 1776.0 | 1755.8 | 1630.2 | 1410.6 | 1154.9 | 920.8 | 727.7 | 595.1 | 537.7 | 519.4 | 504.9 |
| 12.5° | 1835.3 | 1796.2 | 1589.8 | 1254.7 | 899.3 | 629.2 | 442.4 | 361.6 | 326.3 | 314.9 | 313.7 |
| 15° | 1888.3 | 1826.5 | 1519.1 | 1067.2 | 653.8 | 402.0 | 301.7 | 275.2 | 270.7 | 271.4 | 270.7 |
| 17.5° | 1940.7 | 1850.4 | 1421.3 | 868.4 | 444.3 | 288.4 | 259.4 | 253.1 | 255.0 | 257.5 | 256.9 |
| 20° | 1984.2 | 1855.5 | 1296.3 | 662.7 | 314.3 | 253.1 | 243.6 | 242.3 | 244.2 | 246.1 | 246.1 |
| 22.5° | 2031.6 | 1859.3 | 1148.0 | 458.8 | 256.9 | 235.4 | 230.4 | 230.4 | 232.9 | 235.4 | 236.0 |
| 25° | 2066.9 | 1838.4 | 970.7 | 329.4 | 226.6 | 218.4 | 215.8 | 216.5 | 219.0 | 220.3 | 219.6 |
| 27.5° | 2072.6 | 1779.8 | 782.6 | 252.4 | 205.7 | 197.5 | 195.0 | 197.5 | 194.4 | 196.3 | 195.0 |
| 30° | 2077.6 | 1705.3 | 592.0 | 212.7 | 186.8 | 174.2 | 170.4 | 166.6 | 164.1 | 160.9 | 160.3 |
| 32.5° | 2093.4 | 1617.6 | 432.3 | 191.2 | 169.1 | 155.3 | 146.4 | 135.7 | 127.5 | 125.0 | 124.3 |
| 35° | 2100.4 | 1512.2 | 317.5 | 174.2 | 153.4 | 138.2 | 122.4 | 107.3 | 95.3 | 90.9 | 94.0 |
| 37.5° | 2126.9 | 1409.9 | 246.1 | 161.6 | 139.5 | 120.5 | 100.3 | 81.4 | 70.1 | 67.5 | 68.8 |
| 40° | 2181.1 | 1298.8 | 206.4 | 150.8 | 127.5 | 104.1 | 79.5 | 61.2 | 53.6 | 51.1 | 50.5 |
| 42.5° | 2268.2 | 1188.4 | 183.7 | 140.7 | 115.5 | 87.7 | 62.5 | 48.0 | 41.7 | 39.8 | 39.8 |
| 45° | 2374.3 | 1082.4 | 167.9 | 130.0 | 102.9 | 70.7 | 49.2 | 38.5 | 34.7 | 33.4 | 33.4 |
| 47.5° | 2513.7 | 989.6 | 154.6 | 119.3 | 89.0 | 56.2 | 39.8 | 33.4 | 30.9 | 31.6 | 32.2 |
| 50° | 2655.1 | 920.8 | 140.1 | 107.3 | 73.2 | 46.1 | 34.1 | 29.7 | 29.0 | 29.7 | 29.7 |
| 52.5° | 2761.8 | 880.4 | 120.5 | 90.9 | 57.4 | 38.5 | 30.3 | 27.8 | 27.1 | 25.9 | 25.9 |
| 55° | 2905.7 | 871.6 | 95.9 | 73.8 | 45.4 | 32.2 | 27.1 | 25.2 | 23.4 | 22.1 | 21.5 |
| 57.5° | 3090.6 | 881.7 | 73.8 | 57.4 | 35.3 | 26.5 | 24.0 | 20.8 | 18.3 | 15.8 | 15.8 |
| 60° | 3205.5 | 859.0 | 57.4 | 44.2 | 25.9 | 21.5 | 18.3 | 15.1 | 12.0 | 10.1 | 9.5 |
| 62.5° | 3168.8 | 763.0 | 45.4 | 32.8 | 18.3 | 15.8 | 12.0 | 10.1 | 6.9 | 5.0 | 4.4 |
| 65° | 2980.1 | 616.0 | 36.6 | 22.7 | 13.3 | 9.5 | 6.3 | 6.3 | 3.2 | 0.6 | 0.0 |
| 67.5° | 2608.4 | 456.3 | 29.0 | 15.1 | 7.6 | 4.4 | 3.2 | 1.9 | 0.0 | 0.0 | 0.0 |
| 70° | 2123.1 | 329.4 | 22.7 | 9.5 | 4.4 | 3.2 | 1.3 | 0.6 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1348.1 | 188.7 | 17.7 | 5.7 | 3.2 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 521.3 | 73.8 | 12.0 | 3.8 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 147.7 | 34.7 | 6.9 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 38.5 | 15.1 | 3.8 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 18.3 | 6.3 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 10.7 | 2.5 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.0 | 0.6 | 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)