

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: P481843

Luminaire Tested: **IFLD-M-SA4B-830-U-T2-HSS**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P481843
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4B-830-U-T2-HSS
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ T2 distribution lens with House Side Shield
Light Source: (64) 3000K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

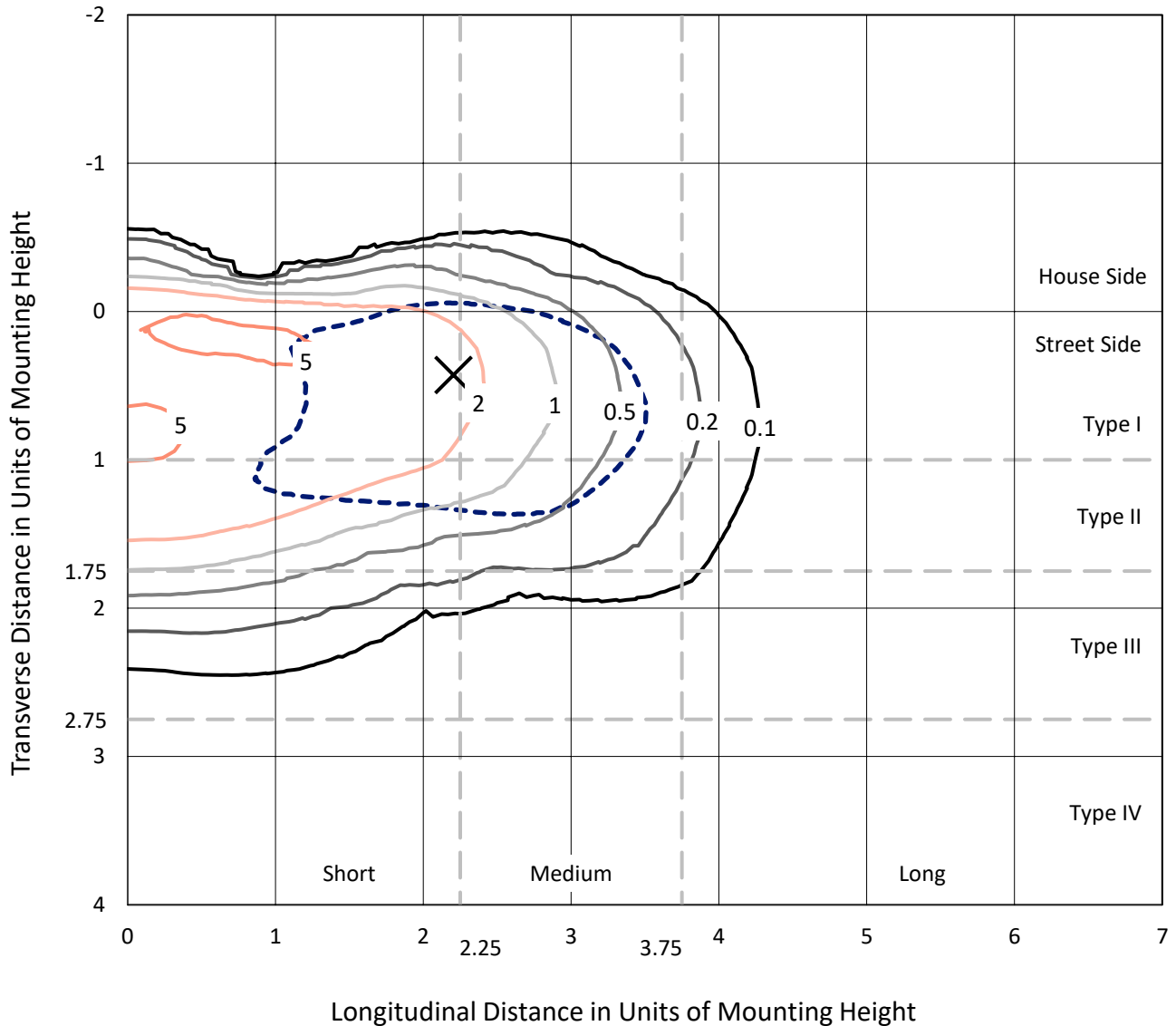
Lumens per Lamp: N/A
Luminaire Lumens: 13069.2 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

Input Watts (W): 166.1
Input Voltage (V): 120
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

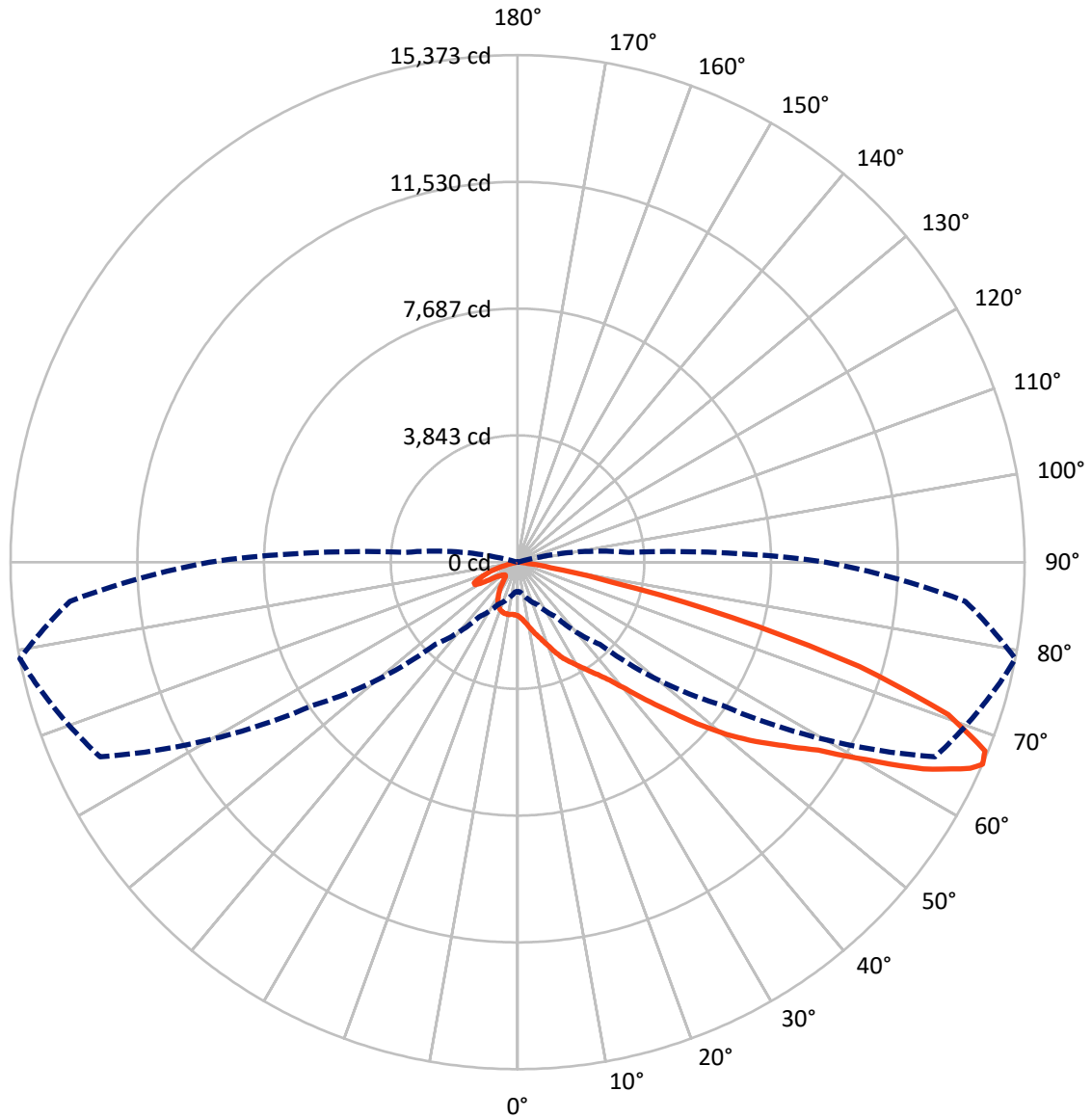
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 981.3 | 0.0 | 981.3 |
| | % Fixture | 7.5 | 0.0 | 7.5 |
| Street Side | Lumens | 12087.9 | 0.0 | 12087.9 |
| | % Fixture | 92.5 | 0.0 | 92.5 |
| Total | Lumens | 13069.2 | 0.0 | 13069.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 153.8 | 1.2 |
| 10°-20° | 423.2 | 3.2 |
| 20°-30° | 703.0 | 5.4 |
| 30°-40° | 1207.6 | 9.2 |
| 40°-50° | 2187.7 | 16.7 |
| 50°-60° | 3458.0 | 26.5 |
| 60°-70° | 3518.8 | 26.9 |
| 70°-80° | 1341.9 | 10.3 |
| 80°-90° | 75.2 | 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° | 13069.2 | 100.0 |
| 0°-180° | 13069.2 | 100.0 |

Coefficient of Utilization



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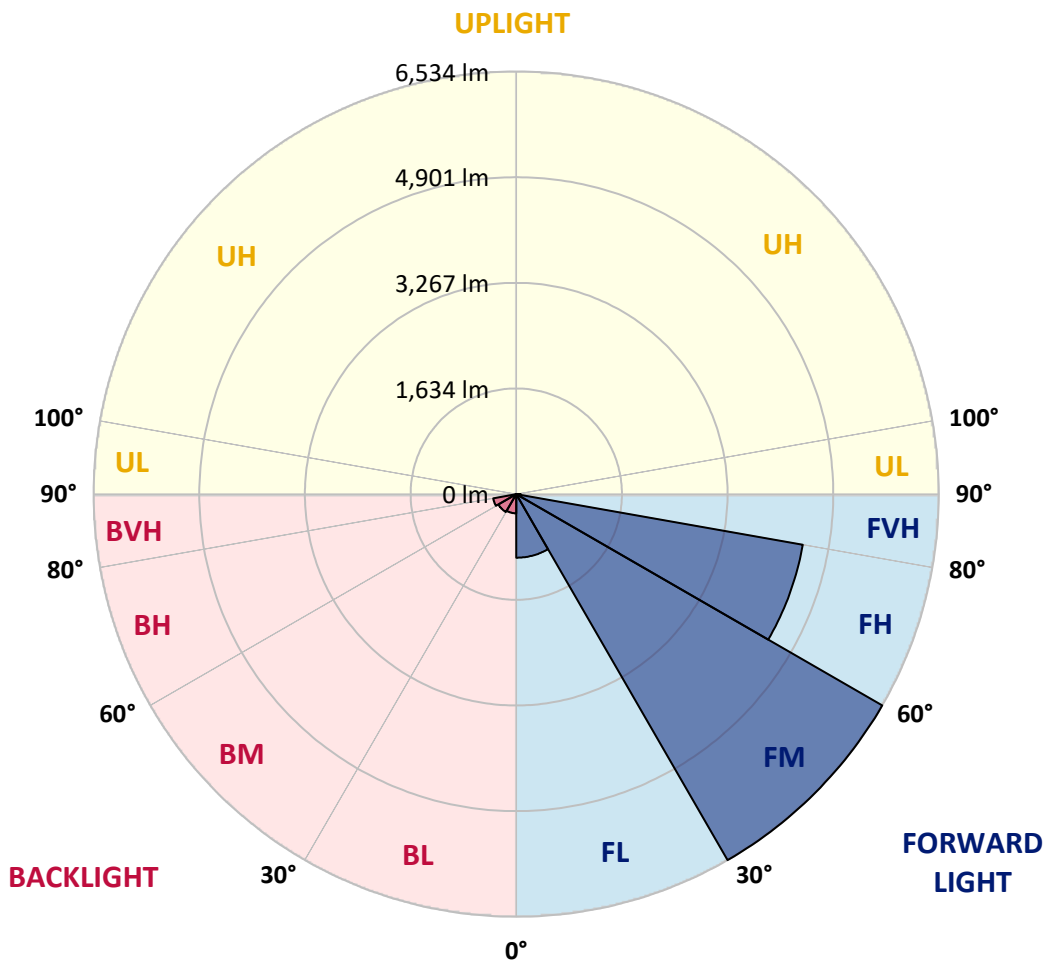
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 983.2 | 7.5 | | | |
| FM (30°-60°) | 6534.3 | 50.0 | | | |
| FH (60°-80°) | 4499.0 | 34.4 | | | G2/5000 |
| FVH (80°-90°) | 71.4 | 0.5 | | | G1/100 |
| BL (0°-30°) | 296.8 | 2.3 | B1/500 | | |
| BM (30°-60°) | 318.9 | 2.4 | B1/1000 | | |
| BH (60°-80°) | 361.8 | 2.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.8 | 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 II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 |
| 2.5° | 1841.6 | 1839.5 | 1831.5 | 1817.4 | 1799.2 | 1793.2 | 1767.0 | 1730.7 | 1710.6 | 1688.4 | 1678.4 |
| 5° | 1968.5 | 1958.4 | 1982.6 | 1972.5 | 1976.5 | 1928.2 | 1896.0 | 1869.8 | 1793.2 | 1763.0 | 1714.6 |
| 7.5° | 1996.7 | 2006.8 | 2004.8 | 2020.9 | 2037.0 | 2055.1 | 2033.0 | 1994.7 | 1918.1 | 1873.8 | 1821.4 |
| 10° | 1996.7 | 1992.7 | 2008.8 | 2031.0 | 2077.3 | 2117.6 | 2178.0 | 2127.7 | 2069.2 | 2016.8 | 1922.1 |
| 12.5° | 1960.4 | 1954.4 | 1970.5 | 2016.8 | 2099.5 | 2182.1 | 2248.6 | 2296.9 | 2214.3 | 2172.0 | 2049.1 |
| 15° | 1849.6 | 1843.6 | 1910.1 | 1992.7 | 2101.5 | 2236.5 | 2375.5 | 2454.1 | 2397.6 | 2331.2 | 2194.2 |
| 17.5° | 1712.6 | 1720.7 | 1791.2 | 1928.2 | 2101.5 | 2262.7 | 2440.0 | 2611.2 | 2603.2 | 2518.5 | 2375.5 |
| 20° | 1666.3 | 1672.3 | 1742.8 | 1841.6 | 2039.0 | 2280.8 | 2540.7 | 2782.5 | 2830.8 | 2730.1 | 2542.7 |
| 22.5° | 1754.9 | 1748.9 | 1754.9 | 1815.4 | 1996.7 | 2264.7 | 2607.2 | 2977.9 | 3064.6 | 2986.0 | 2762.3 |
| 25° | 2057.1 | 2053.1 | 2002.7 | 1910.1 | 1972.5 | 2228.4 | 2641.4 | 3106.9 | 3306.3 | 3233.8 | 2939.6 |
| 27.5° | 2500.4 | 2484.3 | 2405.7 | 2212.3 | 2085.4 | 2250.6 | 2697.9 | 3231.8 | 3517.9 | 3435.3 | 3098.8 |
| 30° | 2975.9 | 2937.6 | 2834.9 | 2593.1 | 2377.5 | 2333.2 | 2730.1 | 3324.5 | 3753.6 | 3648.9 | 3237.8 |
| 32.5° | 3304.3 | 3354.7 | 3322.5 | 3076.6 | 2746.2 | 2524.6 | 2782.5 | 3441.3 | 3971.2 | 3902.7 | 3475.6 |
| 35° | 3812.1 | 3870.5 | 3735.5 | 3517.9 | 3185.4 | 2828.8 | 2893.3 | 3536.0 | 4305.7 | 4190.8 | 3697.2 |
| 37.5° | 4452.8 | 4497.1 | 4400.4 | 3987.4 | 3636.8 | 3203.6 | 3121.0 | 3733.5 | 4593.8 | 4539.4 | 3981.3 |
| 40° | 4775.2 | 4988.7 | 4851.7 | 4479.0 | 4102.2 | 3727.4 | 3497.7 | 3965.2 | 5095.5 | 5051.2 | 4374.2 |
| 42.5° | 5220.4 | 5327.2 | 5256.7 | 4980.7 | 4587.8 | 4287.6 | 3963.2 | 4416.5 | 5704.0 | 5704.0 | 4906.1 |
| 45° | 5691.9 | 5695.9 | 5691.9 | 5466.2 | 5117.7 | 4962.5 | 4591.8 | 4982.7 | 6358.8 | 6431.3 | 5542.8 |
| 47.5° | 6078.7 | 6199.6 | 6189.6 | 6054.6 | 5784.6 | 5726.2 | 5220.4 | 5627.4 | 7180.9 | 7307.8 | 6163.4 |
| 50° | 6278.2 | 6413.2 | 6453.5 | 6524.0 | 6511.9 | 6634.8 | 5907.5 | 6374.9 | 7890.1 | 8202.4 | 6961.2 |
| 52.5° | 6223.8 | 6233.9 | 6481.7 | 6759.8 | 7203.0 | 7547.6 | 6735.6 | 7223.2 | 8720.2 | 9028.5 | 7577.8 |
| 55° | 5778.5 | 5740.3 | 6250.0 | 6568.4 | 7485.1 | 8105.7 | 7882.0 | 8281.0 | 9367.0 | 9836.4 | 8214.5 |
| 57.5° | 4801.3 | 4811.4 | 5282.9 | 5929.6 | 7275.6 | 8327.3 | 9107.0 | 9663.1 | 10273.6 | 10747.1 | 9109.1 |
| 60° | 3314.4 | 3302.3 | 3830.2 | 4577.7 | 6044.5 | 7914.3 | 9812.2 | 11454.3 | 11486.6 | 12157.5 | 10714.9 |
| 62.5° | 1863.7 | 1867.7 | 2268.7 | 2907.4 | 4229.1 | 6467.6 | 9778.0 | 13356.3 | 13219.3 | 13807.6 | 12540.3 |
| 65° | 1055.8 | 1082.0 | 1358.0 | 1722.7 | 2532.6 | 4342.0 | 8409.9 | 14113.9 | 14555.1 | 15079.0 | 13648.5 |
| 66° | 892.6 | 910.7 | 1146.4 | 1422.5 | 2020.9 | 3521.9 | 7569.7 | 13966.8 | 14974.2 | 15373.2 | 13626.3 |
| 67.5° | 691.1 | 715.3 | 912.7 | 1128.3 | 1482.9 | 2437.9 | 6092.9 | 13235.4 | 15050.8 | 15284.5 | 13241.5 |
| 70° | 473.5 | 489.6 | 640.7 | 856.3 | 1013.5 | 1247.2 | 3642.8 | 10942.5 | 13656.5 | 13854.0 | 11508.7 |
| 72.5° | 332.4 | 340.5 | 449.3 | 648.8 | 779.7 | 713.3 | 1807.3 | 7785.3 | 10450.9 | 10835.8 | 8951.9 |
| 75° | 239.8 | 247.8 | 308.3 | 465.4 | 608.5 | 467.4 | 828.1 | 4972.6 | 6409.2 | 6711.4 | 5391.7 |
| 77.5° | 173.3 | 183.3 | 209.5 | 300.2 | 441.2 | 328.4 | 407.0 | 2597.1 | 3022.2 | 2969.9 | 2319.1 |
| 80° | 104.8 | 114.8 | 155.1 | 193.4 | 322.4 | 231.7 | 223.6 | 1084.0 | 1071.9 | 1017.5 | 729.4 |
| 82.5° | 48.4 | 56.4 | 82.6 | 131.0 | 225.7 | 161.2 | 106.8 | 386.8 | 338.5 | 310.3 | 205.5 |
| 85° | 14.1 | 18.1 | 48.4 | 98.7 | 114.8 | 78.6 | 64.5 | 133.0 | 139.0 | 118.9 | 68.5 |
| 87.5° | 0.0 | 2.0 | 22.2 | 24.2 | 34.3 | 26.2 | 24.2 | 34.3 | 64.5 | 52.4 | 22.2 |
| 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° | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 | 1626.0 |
| 2.5° | 1642.1 | 1628.0 | 1593.7 | 1541.3 | 1495.0 | 1470.8 | 1436.6 | 1406.4 | 1390.2 | 1388.2 | 1386.2 |
| 5° | 1682.4 | 1644.1 | 1561.5 | 1466.8 | 1396.3 | 1319.7 | 1267.3 | 1229.0 | 1192.8 | 1158.5 | 1178.7 |
| 7.5° | 1736.8 | 1676.3 | 1541.3 | 1418.4 | 1265.3 | 1166.6 | 1073.9 | 1019.5 | 987.3 | 957.0 | 953.0 |
| 10° | 1821.4 | 1744.8 | 1527.2 | 1305.6 | 1130.3 | 985.3 | 890.6 | 812.0 | 767.7 | 715.3 | 735.4 |
| 12.5° | 1936.3 | 1799.2 | 1474.9 | 1202.9 | 977.2 | 824.1 | 689.1 | 562.1 | 491.6 | 437.2 | 439.2 |
| 15° | 2051.1 | 1871.8 | 1426.5 | 1077.9 | 838.2 | 636.7 | 439.2 | 352.6 | 332.4 | 320.4 | 324.4 |
| 17.5° | 2163.9 | 1930.2 | 1352.0 | 951.0 | 679.0 | 405.0 | 320.4 | 302.2 | 292.2 | 280.1 | 280.1 |
| 20° | 2300.9 | 1968.5 | 1259.3 | 834.1 | 467.4 | 300.2 | 274.0 | 261.9 | 245.8 | 229.7 | 231.7 |
| 22.5° | 2433.9 | 2000.7 | 1152.5 | 685.0 | 314.3 | 259.9 | 229.7 | 213.6 | 199.5 | 183.3 | 183.3 |
| 25° | 2566.9 | 2010.8 | 1013.5 | 491.6 | 253.9 | 207.5 | 179.3 | 157.2 | 143.1 | 128.9 | 131.0 |
| 27.5° | 2657.6 | 1948.3 | 882.5 | 314.3 | 203.5 | 157.2 | 124.9 | 106.8 | 94.7 | 80.6 | 80.6 |
| 30° | 2709.9 | 1833.5 | 741.5 | 221.6 | 153.1 | 106.8 | 74.5 | 56.4 | 44.3 | 34.3 | 32.2 |
| 32.5° | 2762.3 | 1740.8 | 582.3 | 169.2 | 100.7 | 56.4 | 28.2 | 10.1 | 0.0 | 0.0 | 0.0 |
| 35° | 2867.1 | 1636.0 | 390.9 | 94.7 | 34.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 37.5° | 2933.6 | 1491.0 | 179.3 | 14.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40° | 3100.8 | 1418.4 | 44.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42.5° | 3372.8 | 1368.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45° | 3671.0 | 1347.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 47.5° | 4067.9 | 1402.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50° | 4487.0 | 1549.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52.5° | 4946.4 | 1688.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 5347.4 | 1855.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 6084.8 | 2250.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 7408.5 | 3026.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 8899.5 | 3602.5 | 22.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 9445.5 | 3588.4 | 38.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 66° | 9348.8 | 3391.0 | 38.3 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 8847.1 | 3012.2 | 34.3 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 7597.9 | 2488.3 | 34.3 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 5792.6 | 1938.3 | 32.2 | 8.1 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 3495.7 | 1031.6 | 26.2 | 10.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 1392.2 | 362.7 | 20.1 | 8.1 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 376.8 | 108.8 | 12.1 | 8.1 | 6.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 98.7 | 40.3 | 10.1 | 8.1 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 38.3 | 16.1 | 8.1 | 6.0 | 6.0 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.1 | 6.0 | 6.0 | 4.0 | 4.0 | 2.0 | 2.0 | 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)