

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: P481959

Luminaire Tested: **IFLD-M-SA4A-727-U-T2R-HSS**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P481959
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4A-727-U-T2R-HSS
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ T2R distribution lens with House Side Shield
Light Source: (64) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

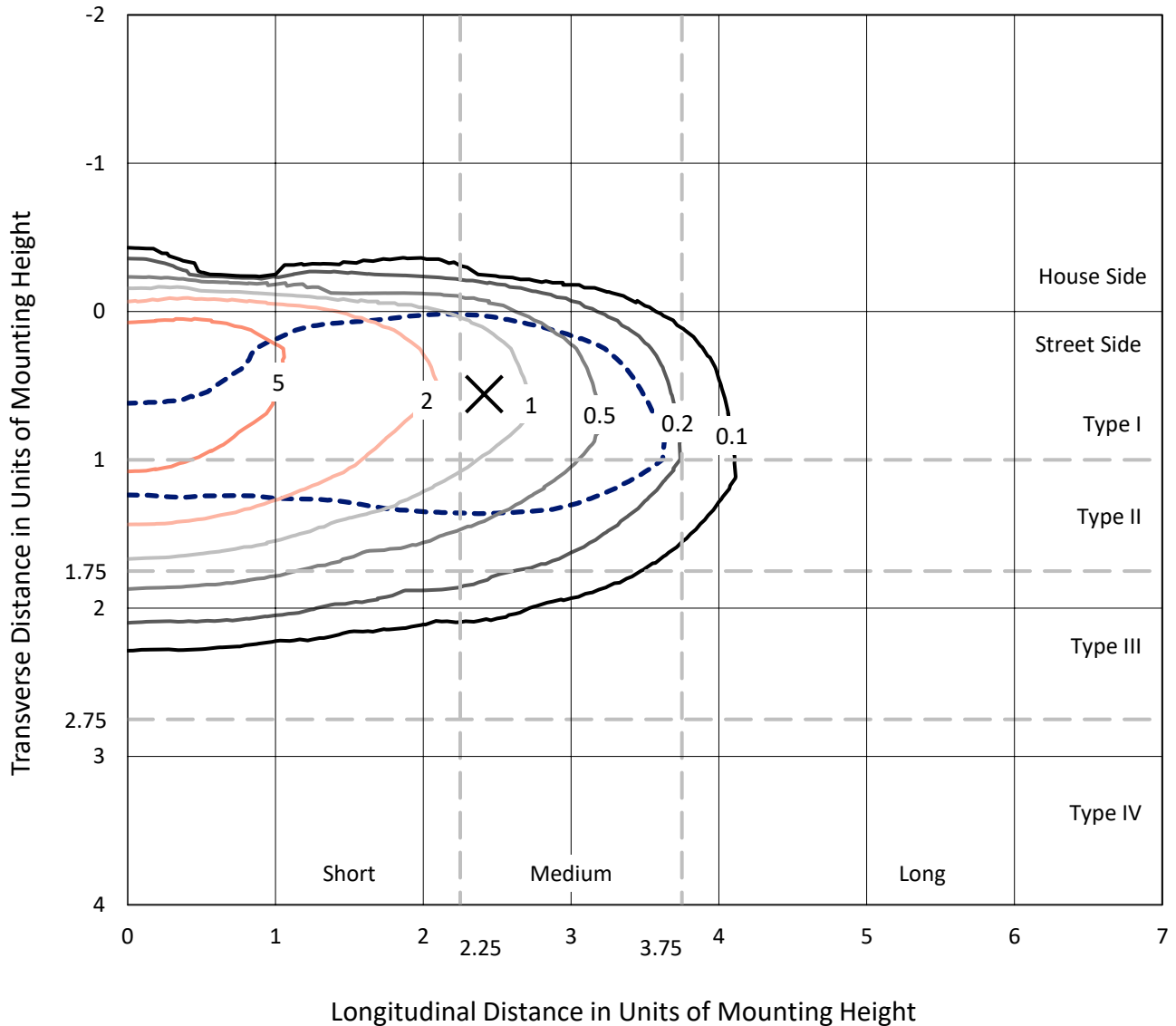
Lumens per Lamp: N/A
Luminaire Lumens: 12142.4 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 128.6
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

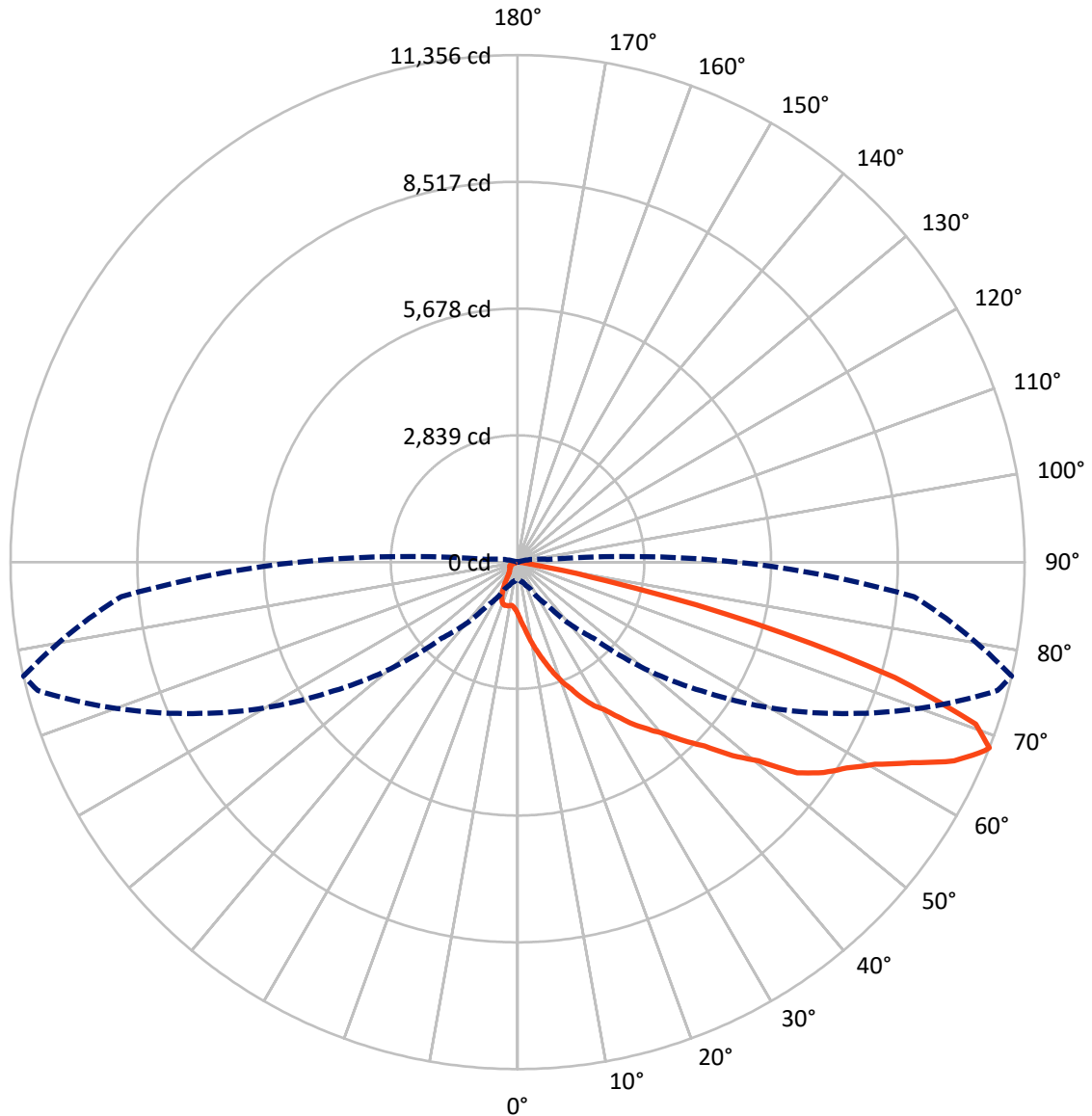
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 77-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 550.6 | 0.0 | 550.6 |
| | % Fixture | 4.5 | 0.0 | 4.5 |
| Street Side | Lumens | 11591.8 | 0.0 | 11591.8 |
| | % Fixture | 95.5 | 0.0 | 95.5 |
| Total | Lumens | 12142.4 | 0.0 | 12142.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 135.8 | 1.1 |
| 10°-20° | 500.9 | 4.1 |
| 20°-30° | 970.8 | 8.0 |
| 30°-40° | 1692.5 | 13.9 |
| 40°-50° | 2478.9 | 20.4 |
| 50°-60° | 2912.3 | 24.0 |
| 60°-70° | 2459.2 | 20.3 |
| 70°-80° | 953.2 | 7.9 |
| 80°-90° | 38.8 | 0.3 |
| 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° | 12142.4 | 100.0 |
| 0°-180° | 12142.4 | 100.0 |

Coefficient of Utilization



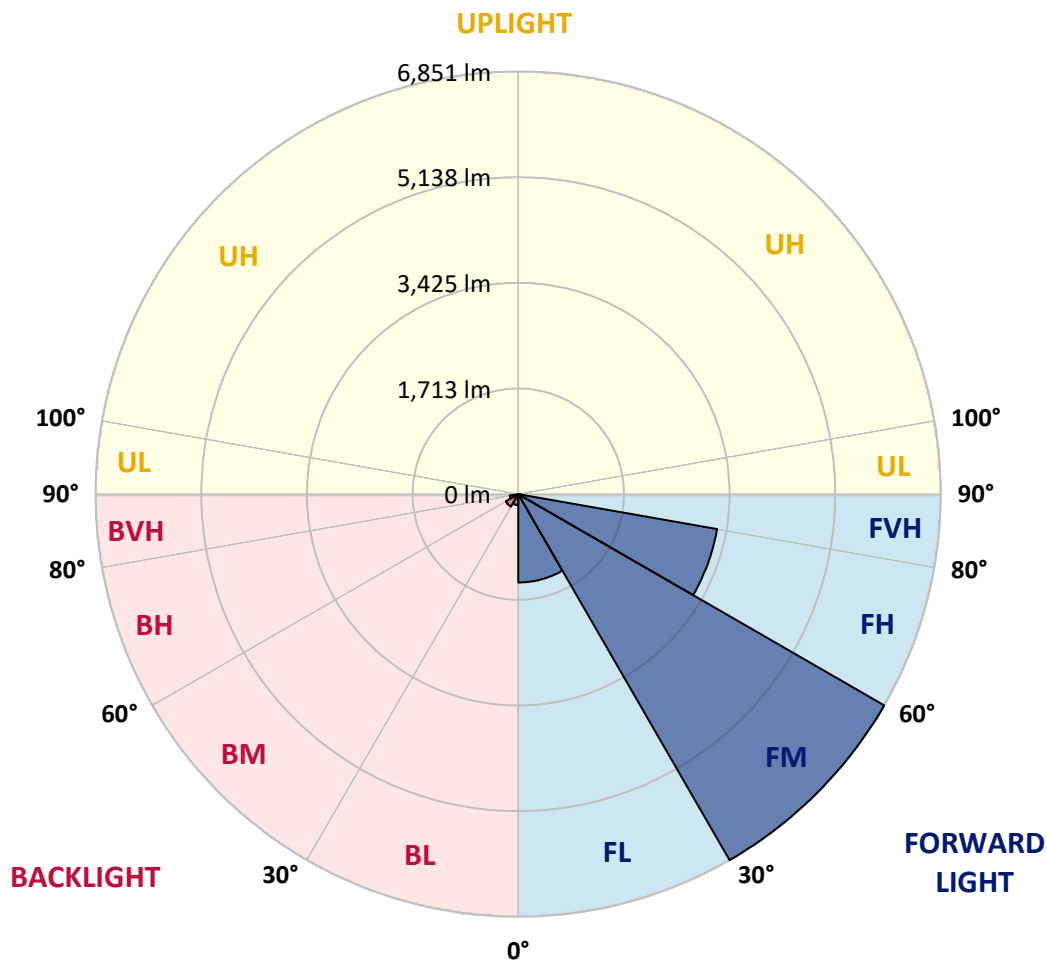
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1431.7 | 11.8 | | | |
| FM (30°-60°) | 6851.0 | 56.4 | | | |
| FH (60°-80°) | 3273.3 | 27.0 | | | G2/5000 |
| FVH (80°-90°) | 35.8 | 0.3 | | | G1/100 |
| BL (0°-30°) | 175.9 | 1.4 | B1/500 | | |
| BM (30°-60°) | 232.7 | 1.9 | B1/1000 | | |
| BH (60°-80°) | 139.0 | 1.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.0 | 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 Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| 0° | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 |
| 2.5° | 1766.6 | 1733.1 | 1698.0 | 1687.9 | 1622.7 | 1549.1 | 1480.5 | 1413.6 | 1301.5 | 1303.2 | 1226.2 |
| 5° | 2276.8 | 2235.0 | 2206.5 | 2199.8 | 2097.8 | 1970.7 | 1866.9 | 1677.9 | 1492.2 | 1450.4 | 1309.9 |
| 7.5° | 2696.7 | 2683.3 | 2641.5 | 2606.3 | 2531.1 | 2375.5 | 2253.4 | 1982.4 | 1699.6 | 1652.8 | 1411.9 |
| 10° | 2951.0 | 2971.0 | 2989.4 | 2944.3 | 2885.7 | 2773.6 | 2606.3 | 2313.6 | 1935.5 | 1877.0 | 1544.1 |
| 12.5° | 3222.0 | 3188.5 | 3200.2 | 3237.0 | 3160.1 | 3135.0 | 2927.5 | 2654.9 | 2211.5 | 2099.5 | 1711.4 |
| 15° | 3292.2 | 3305.6 | 3334.1 | 3441.1 | 3493.0 | 3421.0 | 3242.0 | 2930.9 | 2497.6 | 2342.0 | 1866.9 |
| 17.5° | 3339.1 | 3332.4 | 3367.5 | 3528.1 | 3606.7 | 3675.3 | 3563.2 | 3238.7 | 2746.9 | 2608.0 | 2061.0 |
| 20° | 3397.6 | 3360.8 | 3437.8 | 3539.8 | 3722.2 | 3866.0 | 3861.0 | 3548.2 | 3007.8 | 2860.6 | 2253.4 |
| 22.5° | 3615.1 | 3586.7 | 3648.6 | 3658.6 | 3785.7 | 3986.5 | 4035.0 | 3800.8 | 3275.5 | 3094.8 | 2460.8 |
| 25° | 4016.6 | 4068.4 | 3994.8 | 3931.3 | 3969.7 | 4101.9 | 4137.0 | 4025.0 | 3544.8 | 3379.2 | 2668.2 |
| 27.5° | 4603.8 | 4597.1 | 4451.5 | 4369.6 | 4277.6 | 4260.8 | 4285.9 | 4234.1 | 3757.3 | 3638.5 | 2838.9 |
| 30° | 5234.4 | 5179.2 | 5045.4 | 4848.0 | 4645.6 | 4520.1 | 4485.0 | 4431.5 | 4006.6 | 3834.2 | 3007.8 |
| 32.5° | 5736.3 | 5766.4 | 5617.5 | 5359.9 | 5023.7 | 4854.7 | 4685.7 | 4627.2 | 4280.9 | 4128.7 | 3201.9 |
| 35° | 6198.0 | 6157.9 | 6039.1 | 5821.6 | 5520.5 | 5247.8 | 4983.5 | 4858.0 | 4610.5 | 4459.9 | 3416.0 |
| 37.5° | 6539.3 | 6589.5 | 6363.6 | 6156.2 | 5856.8 | 5630.9 | 5371.6 | 5097.3 | 4950.1 | 4749.3 | 3677.0 |
| 40° | 6862.2 | 6783.5 | 6631.3 | 6440.6 | 6162.9 | 5990.6 | 5820.0 | 5391.7 | 5311.4 | 5052.1 | 3971.4 |
| 42.5° | 6805.3 | 6810.3 | 6726.7 | 6572.8 | 6372.0 | 6273.3 | 6214.8 | 5749.7 | 5639.3 | 5473.7 | 4259.2 |
| 45° | 6572.8 | 6592.8 | 6621.3 | 6546.0 | 6562.7 | 6464.0 | 6621.3 | 6161.2 | 6052.5 | 5876.8 | 4590.4 |
| 47.5° | 6316.8 | 6350.3 | 6343.6 | 6480.7 | 6636.3 | 6669.8 | 7062.9 | 6617.9 | 6571.1 | 6474.1 | 5048.8 |
| 50° | 5891.9 | 5905.3 | 6034.1 | 6283.3 | 6495.8 | 6845.4 | 7394.1 | 7116.4 | 7188.4 | 6997.7 | 5594.1 |
| 52.5° | 5165.9 | 5214.4 | 5545.6 | 5901.9 | 6330.2 | 6934.1 | 7618.3 | 7857.5 | 8039.9 | 7844.1 | 6117.7 |
| 55° | 4247.4 | 4314.4 | 4640.6 | 5308.1 | 5935.4 | 6800.3 | 7822.4 | 8249.0 | 8618.7 | 8322.6 | 6435.6 |
| 57.5° | 3417.7 | 3424.4 | 3717.1 | 4406.4 | 5375.0 | 6537.6 | 7926.1 | 8439.7 | 8936.5 | 8699.0 | 6823.7 |
| 60° | 2604.7 | 2577.9 | 2840.6 | 3437.8 | 4431.5 | 5891.9 | 7666.8 | 8536.7 | 9333.0 | 9195.8 | 7290.4 |
| 62.5° | 1676.2 | 1634.4 | 1920.5 | 2502.6 | 3461.2 | 4816.2 | 7148.2 | 8538.4 | 9952.0 | 9900.1 | 8071.7 |
| 65° | 829.7 | 801.3 | 1047.2 | 1534.0 | 2395.6 | 3683.7 | 6408.8 | 8506.6 | 10708.1 | 10741.6 | 8832.8 |
| 67.5° | 438.3 | 448.3 | 527.0 | 777.9 | 1381.8 | 2603.0 | 5294.7 | 8133.5 | 11094.5 | 11281.9 | 9016.8 |
| 68° | 403.2 | 406.5 | 468.4 | 647.4 | 1199.5 | 2414.0 | 5030.4 | 8024.8 | 11124.7 | 11355.5 | 8914.8 |
| 70° | 327.9 | 332.9 | 354.7 | 406.5 | 649.1 | 1570.8 | 3881.1 | 7101.4 | 10671.3 | 10882.1 | 8070.0 |
| 72.5° | 261.0 | 276.0 | 289.4 | 311.2 | 381.4 | 824.7 | 2414.0 | 5533.9 | 8816.1 | 8839.5 | 6281.7 |
| 75° | 199.1 | 210.8 | 237.5 | 256.0 | 297.8 | 453.4 | 1149.3 | 3374.2 | 5784.8 | 5500.4 | 3700.4 |
| 77.5° | 153.9 | 163.9 | 175.7 | 200.7 | 249.3 | 306.1 | 351.3 | 1432.0 | 2457.5 | 2022.5 | 1045.6 |
| 80° | 92.0 | 98.7 | 137.2 | 157.3 | 217.5 | 207.4 | 138.8 | 398.1 | 498.5 | 393.1 | 190.7 |
| 82.5° | 53.5 | 58.6 | 78.6 | 120.4 | 152.2 | 112.1 | 82.0 | 123.8 | 122.1 | 107.1 | 63.6 |
| 85° | 1.7 | 3.3 | 43.5 | 71.9 | 53.5 | 30.1 | 50.2 | 51.9 | 43.5 | 40.1 | 28.4 |
| 87.5° | 0.0 | 1.7 | 11.7 | 10.0 | 11.7 | 6.7 | 10.0 | 13.4 | 16.7 | 15.1 | 11.7 |
| 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° | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 | 1162.7 |
| 2.5° | 1174.4 | 1137.6 | 1055.6 | 993.7 | 926.8 | 886.6 | 846.5 | 821.4 | 808.0 | 799.6 | 806.3 |
| 5° | 1204.5 | 1127.5 | 995.4 | 878.3 | 801.3 | 749.5 | 697.6 | 670.8 | 645.7 | 632.3 | 640.7 |
| 7.5° | 1271.4 | 1156.0 | 936.8 | 809.7 | 719.3 | 639.0 | 573.8 | 521.9 | 491.8 | 465.1 | 470.1 |
| 10° | 1353.4 | 1172.7 | 938.5 | 769.5 | 639.0 | 511.9 | 419.9 | 354.7 | 317.8 | 294.4 | 292.8 |
| 12.5° | 1437.0 | 1237.9 | 945.2 | 729.4 | 540.3 | 384.8 | 276.0 | 227.5 | 205.8 | 194.1 | 194.1 |
| 15° | 1564.1 | 1296.5 | 928.4 | 655.8 | 409.9 | 250.9 | 189.0 | 172.3 | 163.9 | 153.9 | 155.6 |
| 17.5° | 1674.6 | 1390.2 | 920.1 | 545.4 | 281.0 | 180.7 | 157.3 | 138.8 | 130.5 | 120.4 | 120.4 |
| 20° | 1823.4 | 1448.7 | 874.9 | 421.6 | 194.1 | 150.6 | 127.1 | 110.4 | 97.0 | 88.7 | 90.3 |
| 22.5° | 1958.9 | 1493.9 | 794.6 | 287.7 | 148.9 | 118.8 | 93.7 | 77.0 | 65.2 | 55.2 | 56.9 |
| 25° | 2106.2 | 1539.1 | 677.5 | 177.3 | 105.4 | 73.6 | 50.2 | 36.8 | 25.1 | 18.4 | 18.4 |
| 27.5° | 2211.5 | 1552.4 | 525.3 | 105.4 | 63.6 | 33.5 | 11.7 | 1.7 | 0.0 | 0.0 | 0.0 |
| 30° | 2318.6 | 1557.5 | 363.0 | 56.9 | 25.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 32.5° | 2440.7 | 1555.8 | 227.5 | 30.1 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 35° | 2534.4 | 1527.3 | 108.7 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 37.5° | 2676.6 | 1485.5 | 33.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 40° | 2838.9 | 1410.2 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 42.5° | 2984.4 | 1333.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 45° | 3150.0 | 1237.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 47.5° | 3441.1 | 1197.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 50° | 3820.9 | 1166.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 52.5° | 4055.1 | 1072.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 55° | 4177.2 | 975.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 57.5° | 4357.9 | 928.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 4625.5 | 931.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 5043.7 | 978.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 5274.6 | 931.8 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 5078.9 | 746.1 | 31.8 | 8.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 68° | 4909.9 | 685.9 | 31.8 | 8.4 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 4058.4 | 446.7 | 30.1 | 8.4 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2956.0 | 247.6 | 25.1 | 6.7 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1719.7 | 123.8 | 18.4 | 6.7 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 448.3 | 61.9 | 15.1 | 8.4 | 5.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 88.7 | 40.1 | 13.4 | 10.0 | 6.7 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 41.8 | 28.4 | 13.4 | 10.0 | 8.4 | 5.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 21.7 | 13.4 | 13.4 | 10.0 | 10.0 | 6.7 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 | 3.3 | 1.7 | 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)