

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: P478296

Luminaire Tested: **IFLD-M-SA4D-827-U-T4FT**

Issue Date: 02/26/2021



Test Information

Test Method: LM-79-08
Report Number: P478296
Test Lab: INNOVATION CENTER(G2)
Issue Date: 02/26/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: IFLD-M-SA4D-827-U-T4FT
Description: Infrastructure Flood – Middle Tier Light Square Luminaire w/ T4FT distribution lens
Light Source: (64) 2700K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

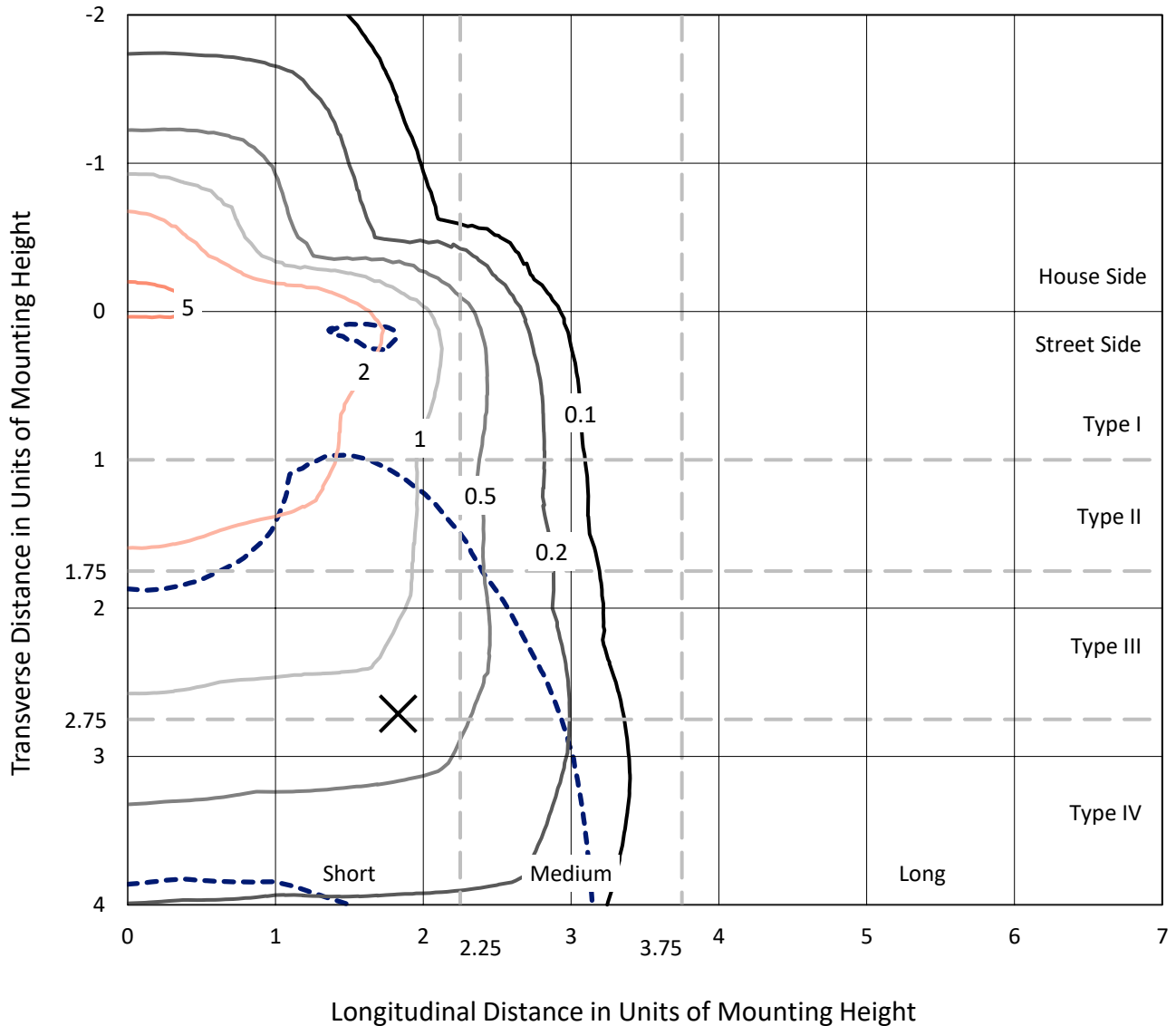
Lumens per Lamp: N/A
Luminaire Lumens: 23560 lumens
Efficiency: N/A
Efficacy: 94.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

Input Watts (W): 249.7
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

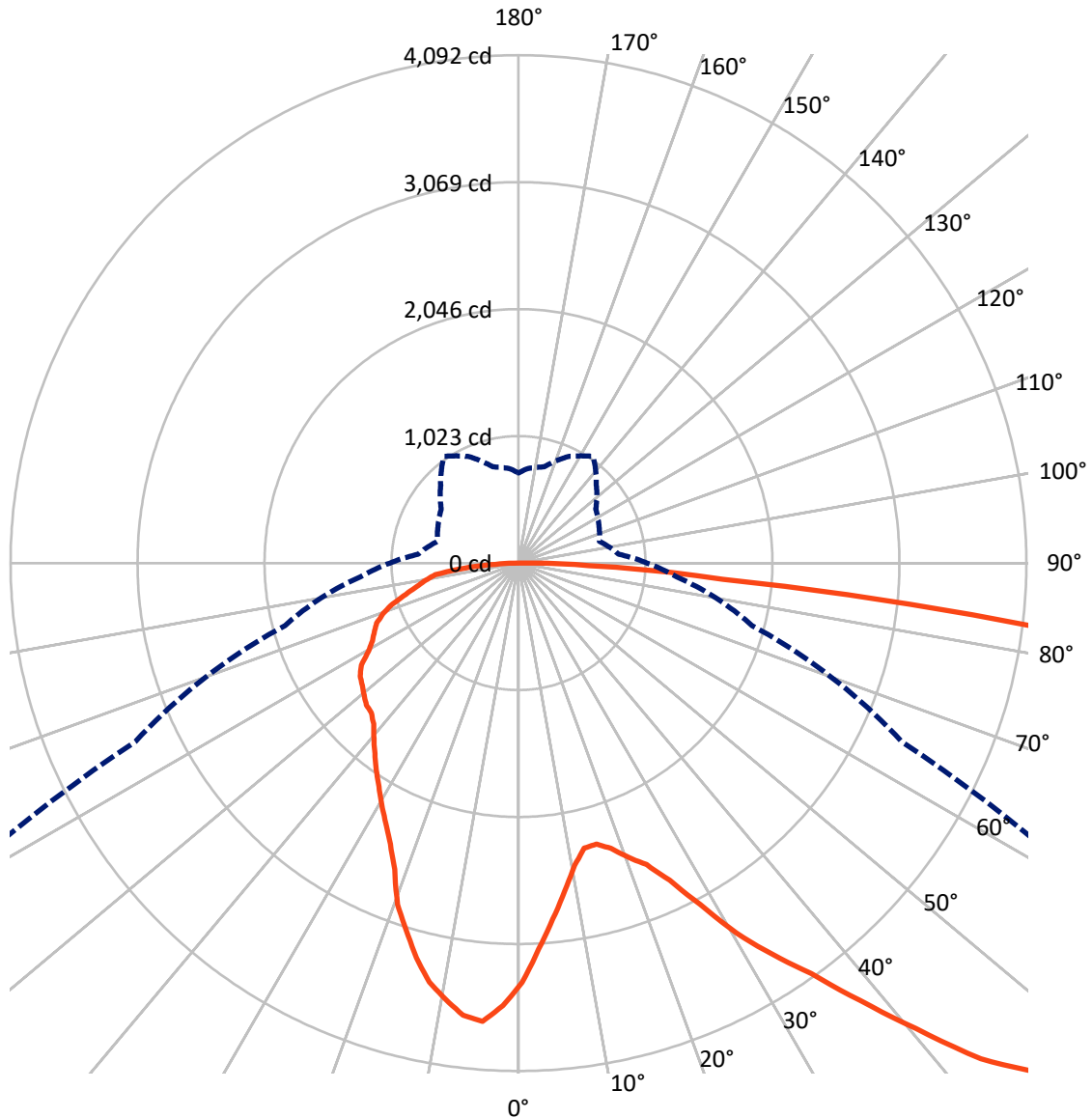
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5089.3 | 0.0 | 5089.3 |
| | % Fixture | 21.6 | 0.0 | 21.6 |
| Street Side | Lumens | 18470.8 | 0.0 | 18470.8 |
| | % Fixture | 78.4 | 0.0 | 78.4 |
| Total | Lumens | 23560.0 | 0.0 | 23560.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 311.7 | 1.3 |
| 10°-20° | 872.4 | 3.7 |
| 20°-30° | 1435.9 | 6.1 |
| 30°-40° | 2147.4 | 9.1 |
| 40°-50° | 3183.4 | 13.5 |
| 50°-60° | 4587.7 | 19.5 |
| 60°-70° | 5854.5 | 24.8 |
| 70°-80° | 4555.8 | 19.3 |
| 80°-90° | 611.2 | 2.6 |
| 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° | 23560.0 | 100.0 |
| 0°-180° | 23560.0 | 100.0 |

Coefficient of Utilization



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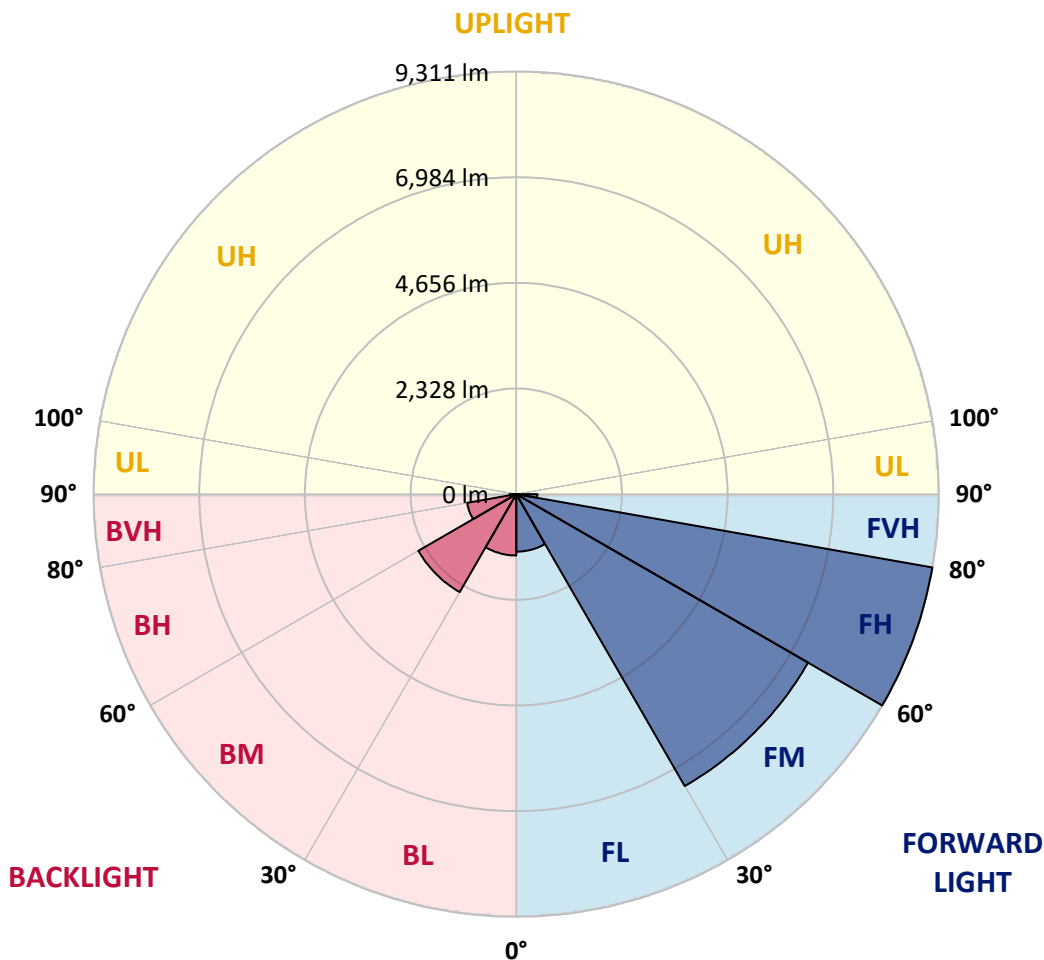
CATALOG NUMBER: IFLD-M-SA4D-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1267.9 | 5.4 | | | |
| FM (30°-60°) | 7426.3 | 31.5 | | | |
| FH (60°-80°) | 9311.3 | 39.5 | | | G4/12000 |
| FVH (80°-90°) | 465.2 | 2.0 | | | G3/500 |
| BL (0°-30°) | 1352.2 | 5.7 | B3/2500 | | |
| BM (30°-60°) | 2492.2 | 10.6 | B2/2500 | | |
| BH (60°-80°) | 1098.9 | 4.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 146.0 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|---------|
| 0° | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 |
| 2.5° | 3026.5 | 3036.4 | 3068.8 | 3076.3 | 3111.2 | 3091.2 | 3133.6 | 3208.3 | 3250.7 | 3312.9 | 3387.7 |
| 5° | 2787.4 | 2745.0 | 2764.9 | 2842.2 | 2882.0 | 2892.0 | 2936.8 | 3063.8 | 3143.6 | 3235.7 | 3375.2 |
| 7.5° | 2505.9 | 2498.4 | 2538.3 | 2588.1 | 2667.8 | 2675.3 | 2774.9 | 2887.0 | 3051.4 | 3255.6 | 3420.0 |
| 10° | 2314.1 | 2346.5 | 2368.9 | 2421.2 | 2476.0 | 2476.0 | 2603.0 | 2797.3 | 2984.1 | 3180.9 | 3430.0 |
| 12.5° | 2304.1 | 2284.2 | 2289.2 | 2316.6 | 2356.4 | 2406.2 | 2525.8 | 2700.2 | 2936.8 | 3166.0 | 3472.4 |
| 15° | 2336.5 | 2344.0 | 2299.1 | 2334.0 | 2348.9 | 2366.4 | 2498.4 | 2695.2 | 2906.9 | 3218.3 | 3544.6 |
| 17.5° | 2508.4 | 2466.0 | 2396.3 | 2363.9 | 2416.2 | 2416.2 | 2505.9 | 2660.3 | 2911.9 | 3245.7 | 3649.2 |
| 20° | 2642.9 | 2642.9 | 2528.3 | 2493.4 | 2530.8 | 2523.3 | 2585.6 | 2700.2 | 2936.8 | 3300.5 | 3766.3 |
| 22.5° | 2869.6 | 2901.9 | 2712.6 | 2640.4 | 2637.9 | 2657.8 | 2712.6 | 2809.8 | 3006.6 | 3377.7 | 3878.4 |
| 25° | 3195.9 | 3203.3 | 2984.1 | 2909.4 | 2829.7 | 2862.1 | 2872.0 | 2969.2 | 3068.8 | 3467.4 | 4005.4 |
| 27.5° | 3559.5 | 3554.6 | 3352.8 | 3166.0 | 3113.7 | 3121.1 | 3066.3 | 3131.1 | 3161.0 | 3494.8 | 4187.3 |
| 30° | 3963.1 | 3918.2 | 3766.3 | 3502.2 | 3459.9 | 3412.6 | 3293.0 | 3290.5 | 3352.8 | 3649.2 | 4438.8 |
| 32.5° | 4227.1 | 4169.8 | 4065.2 | 3875.9 | 3758.8 | 3763.8 | 3574.5 | 3572.0 | 3517.2 | 3818.6 | 4658.0 |
| 35° | 4486.2 | 4399.0 | 4371.6 | 4177.3 | 4060.2 | 4072.7 | 3920.7 | 3900.8 | 3801.2 | 4075.2 | 5019.2 |
| 37.5° | 4797.5 | 4720.3 | 4762.7 | 4615.7 | 4471.2 | 4411.4 | 4341.7 | 4316.8 | 4187.3 | 4436.3 | 5512.4 |
| 40° | 5141.3 | 5116.4 | 5089.0 | 5016.7 | 4929.6 | 4934.5 | 4859.8 | 4834.9 | 4643.1 | 4872.3 | 5985.7 |
| 42.5° | 5604.6 | 5509.9 | 5368.0 | 5415.3 | 5460.1 | 5507.4 | 5482.5 | 5417.8 | 5218.5 | 5315.6 | 6513.8 |
| 45° | 6035.5 | 5911.0 | 5649.4 | 5664.4 | 5848.7 | 5886.1 | 6187.5 | 6180.0 | 5779.0 | 5878.6 | 7114.1 |
| 47.5° | 6327.0 | 6269.7 | 6112.7 | 6095.3 | 6359.3 | 6356.9 | 6899.9 | 6899.9 | 6369.3 | 6439.1 | 7759.2 |
| 50° | 6760.4 | 6610.9 | 6543.7 | 6630.9 | 6765.4 | 6857.5 | 7627.2 | 7674.6 | 6949.7 | 7024.4 | 8603.7 |
| 52.5° | 7268.5 | 7081.7 | 6912.3 | 7136.5 | 7375.6 | 7435.4 | 8347.1 | 8327.2 | 7395.6 | 7704.4 | 9592.6 |
| 55° | 7689.5 | 7594.8 | 7477.8 | 7607.3 | 7998.4 | 8073.1 | 9069.5 | 8885.1 | 7841.4 | 8267.4 | 10068.3 |
| 57.5° | 8180.2 | 8237.5 | 8262.4 | 8230.0 | 8695.8 | 8812.9 | 9894.0 | 9365.9 | 8225.1 | 8646.0 | 10347.3 |
| 60° | 8920.0 | 8954.9 | 8987.3 | 9064.5 | 9557.7 | 9722.1 | 10546.6 | 9968.7 | 8466.7 | 8865.2 | 10369.7 |
| 62.5° | 10045.9 | 9911.4 | 9983.6 | 10250.2 | 10646.2 | 10833.1 | 11508.1 | 10392.2 | 8651.0 | 8997.2 | 9637.4 |
| 65° | 11333.7 | 11151.9 | 11077.2 | 11420.9 | 12447.2 | 12297.7 | 12708.7 | 10708.5 | 8384.5 | 8504.0 | 8172.7 |
| 67.5° | 12639.0 | 12658.9 | 12467.1 | 13157.1 | 14415.0 | 14415.0 | 13824.7 | 10860.5 | 7662.1 | 6892.4 | 5731.6 |
| 70° | 13675.2 | 13737.5 | 13842.1 | 15179.7 | 17172.5 | 17473.9 | 15207.1 | 10237.7 | 6190.0 | 4588.3 | 3133.6 |
| 72.5° | 13660.3 | 13473.4 | 14009.0 | 16472.5 | 19678.4 | 19426.8 | 15496.1 | 8095.5 | 3863.4 | 2246.8 | 1437.3 |
| 73° | 13353.9 | 13196.9 | 13782.3 | 16460.1 | 19780.5 | 19543.8 | 15284.3 | 7462.8 | 3407.6 | 1947.9 | 1277.8 |
| 75° | 10905.3 | 10621.3 | 11617.7 | 14908.2 | 18300.9 | 18482.7 | 12985.2 | 4867.3 | 1868.2 | 1200.6 | 899.2 |
| 77.5° | 4971.9 | 5096.4 | 6394.2 | 10001.1 | 14103.6 | 14317.9 | 8536.4 | 2104.8 | 1023.8 | 841.9 | 662.6 |
| 80° | 1596.7 | 1676.4 | 2488.4 | 4971.9 | 8840.3 | 9226.4 | 3945.6 | 956.5 | 729.8 | 645.2 | 495.7 |
| 82.5° | 610.3 | 607.8 | 1043.7 | 2067.5 | 4189.7 | 4436.3 | 1442.2 | 582.9 | 543.0 | 475.8 | 351.2 |
| 85° | 214.2 | 224.2 | 393.6 | 817.0 | 1649.0 | 1726.2 | 500.7 | 323.8 | 376.1 | 318.8 | 201.8 |
| 87.5° | 74.7 | 77.2 | 139.5 | 296.4 | 567.9 | 600.3 | 139.5 | 129.5 | 186.8 | 184.3 | 102.1 |
| 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° | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 | 3377.7 |
| 2.5° | 3412.6 | 3435.0 | 3442.5 | 3532.1 | 3532.1 | 3532.1 | 3567.0 | 3567.0 | 3557.0 | 3532.1 | 3591.9 |
| 5° | 3427.5 | 3467.4 | 3544.6 | 3621.8 | 3641.7 | 3659.2 | 3706.5 | 3666.6 | 3681.6 | 3656.7 | 3679.1 |
| 7.5° | 3469.9 | 3524.7 | 3669.1 | 3716.5 | 3684.1 | 3721.5 | 3671.6 | 3644.2 | 3616.8 | 3626.8 | 3591.9 |
| 10° | 3542.1 | 3611.8 | 3679.1 | 3766.3 | 3704.0 | 3666.6 | 3564.5 | 3539.6 | 3452.4 | 3422.5 | 3449.9 |
| 12.5° | 3631.8 | 3716.5 | 3831.1 | 3798.7 | 3679.1 | 3572.0 | 3462.4 | 3357.8 | 3305.5 | 3230.7 | 3250.7 |
| 15° | 3721.5 | 3818.6 | 3836.0 | 3781.2 | 3631.8 | 3497.3 | 3298.0 | 3151.0 | 3098.7 | 3031.5 | 3066.3 |
| 17.5° | 3818.6 | 3910.8 | 3880.9 | 3738.9 | 3537.1 | 3332.9 | 3106.2 | 2961.7 | 2852.1 | 2809.8 | 2809.8 |
| 20° | 3963.1 | 4007.9 | 3960.6 | 3669.1 | 3422.5 | 3153.5 | 2934.3 | 2769.9 | 2660.3 | 2642.9 | 2615.5 |
| 22.5° | 4075.2 | 4147.4 | 3935.7 | 3567.0 | 3255.6 | 2919.4 | 2667.8 | 2605.5 | 2573.1 | 2545.7 | 2510.9 |
| 25° | 4219.6 | 4217.1 | 3890.8 | 3472.4 | 2969.2 | 2640.4 | 2488.4 | 2483.5 | 2468.5 | 2458.5 | 2505.9 |
| 27.5° | 4356.6 | 4299.3 | 3838.5 | 3238.2 | 2672.8 | 2428.7 | 2346.5 | 2401.3 | 2423.7 | 2408.7 | 2428.7 |
| 30° | 4573.3 | 4478.7 | 3763.8 | 2989.1 | 2411.2 | 2214.4 | 2229.4 | 2304.1 | 2341.5 | 2363.9 | 2334.0 |
| 32.5° | 4802.5 | 4658.0 | 3609.4 | 2730.1 | 2179.6 | 2079.9 | 2114.8 | 2192.0 | 2236.9 | 2261.8 | 2289.2 |
| 35° | 5133.8 | 4797.5 | 3452.4 | 2391.3 | 2012.7 | 1997.7 | 2017.7 | 2060.0 | 2124.8 | 2142.2 | 2149.7 |
| 37.5° | 5542.3 | 5009.3 | 3240.7 | 2119.8 | 1883.1 | 1900.6 | 1920.5 | 1935.5 | 1937.9 | 1970.3 | 1957.9 |
| 40° | 5950.8 | 5188.6 | 2931.8 | 1860.7 | 1748.6 | 1843.3 | 1833.3 | 1805.9 | 1783.5 | 1753.6 | 1746.1 |
| 42.5° | 6309.5 | 5345.5 | 2588.1 | 1641.5 | 1629.1 | 1783.5 | 1751.1 | 1681.4 | 1629.1 | 1606.7 | 1569.3 |
| 45° | 6713.1 | 5567.2 | 2241.8 | 1504.5 | 1536.9 | 1711.3 | 1701.3 | 1594.2 | 1526.9 | 1447.2 | 1437.3 |
| 47.5° | 7236.2 | 5798.9 | 1910.5 | 1362.5 | 1449.7 | 1683.9 | 1688.9 | 1551.8 | 1454.7 | 1347.6 | 1332.6 |
| 50° | 7906.2 | 6132.7 | 1659.0 | 1302.8 | 1397.4 | 1644.0 | 1651.5 | 1494.6 | 1367.5 | 1257.9 | 1248.0 |
| 52.5° | 8548.9 | 6473.9 | 1449.7 | 1210.6 | 1362.5 | 1596.7 | 1614.1 | 1442.2 | 1295.3 | 1158.3 | 1165.8 |
| 55° | 8872.7 | 6349.4 | 1270.4 | 1143.3 | 1282.8 | 1519.5 | 1584.2 | 1404.9 | 1185.7 | 1091.0 | 1088.5 |
| 57.5° | 8944.9 | 6043.0 | 1128.4 | 1073.6 | 1215.6 | 1437.3 | 1534.4 | 1292.8 | 1135.9 | 1056.2 | 1046.2 |
| 60° | 8708.3 | 5507.4 | 1016.3 | 998.9 | 1130.9 | 1352.6 | 1419.8 | 1233.0 | 1086.0 | 1021.3 | 1006.3 |
| 62.5° | 8125.4 | 4952.0 | 939.1 | 964.0 | 1058.6 | 1260.4 | 1347.6 | 1190.7 | 1038.7 | 993.9 | 961.5 |
| 65° | 6663.2 | 4072.7 | 876.8 | 896.7 | 983.9 | 1170.7 | 1302.8 | 1143.3 | 996.4 | 954.0 | 951.5 |
| 67.5° | 4615.7 | 2807.3 | 827.0 | 864.4 | 924.1 | 1106.0 | 1257.9 | 1091.0 | 941.6 | 926.6 | 906.7 |
| 70° | 2363.9 | 1497.0 | 762.2 | 792.1 | 859.4 | 1023.8 | 1178.2 | 1036.2 | 884.3 | 881.8 | 856.9 |
| 72.5° | 1198.1 | 876.8 | 687.5 | 732.3 | 779.7 | 916.7 | 1078.6 | 964.0 | 812.0 | 784.6 | 744.8 |
| 73° | 1036.2 | 812.0 | 675.0 | 714.9 | 759.7 | 886.8 | 1048.7 | 946.6 | 802.1 | 762.2 | 724.9 |
| 75° | 754.8 | 640.2 | 605.3 | 645.2 | 680.0 | 799.6 | 949.0 | 866.8 | 737.3 | 695.0 | 660.1 |
| 77.5° | 565.4 | 493.2 | 503.2 | 548.0 | 577.9 | 690.0 | 844.4 | 784.6 | 667.6 | 610.3 | 595.3 |
| 80° | 416.0 | 376.1 | 416.0 | 458.3 | 480.7 | 607.8 | 769.7 | 680.0 | 563.0 | 498.2 | 485.7 |
| 82.5° | 296.4 | 274.0 | 321.3 | 348.7 | 358.7 | 503.2 | 692.5 | 543.0 | 425.9 | 341.3 | 313.9 |
| 85° | 169.4 | 166.9 | 216.7 | 214.2 | 221.7 | 293.9 | 455.8 | 361.2 | 274.0 | 209.2 | 204.3 |
| 87.5° | 74.7 | 82.2 | 109.6 | 87.2 | 92.2 | 139.5 | 194.3 | 134.5 | 112.1 | 62.3 | 47.3 |
| 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)