

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: P191852

Luminaire Tested: **GAN-AF-04-LED-U-SL2-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191852
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-04-LED-U-SL2-7050-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19888 lumens
Efficiency: N/A
Efficacy: 88.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

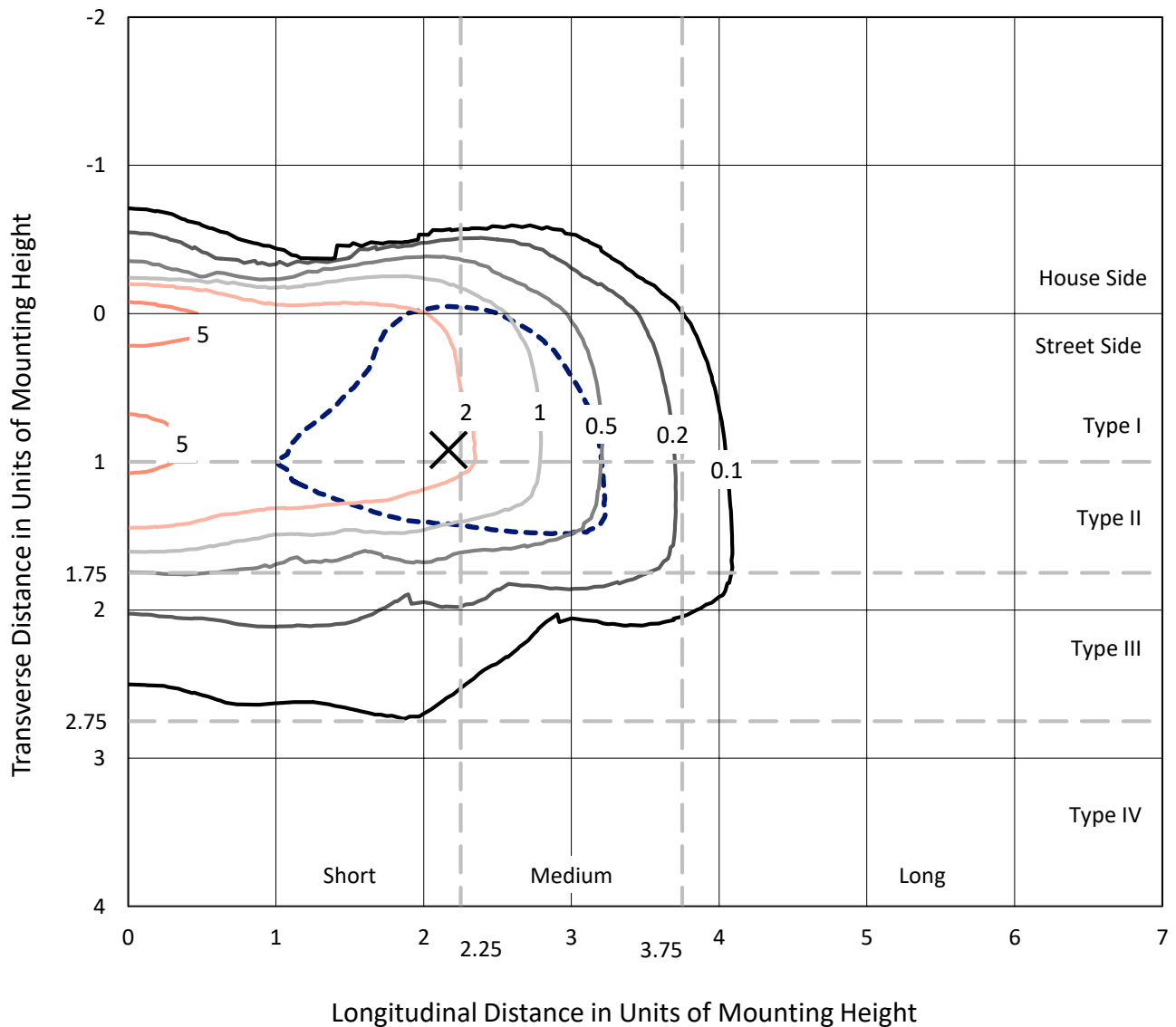
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

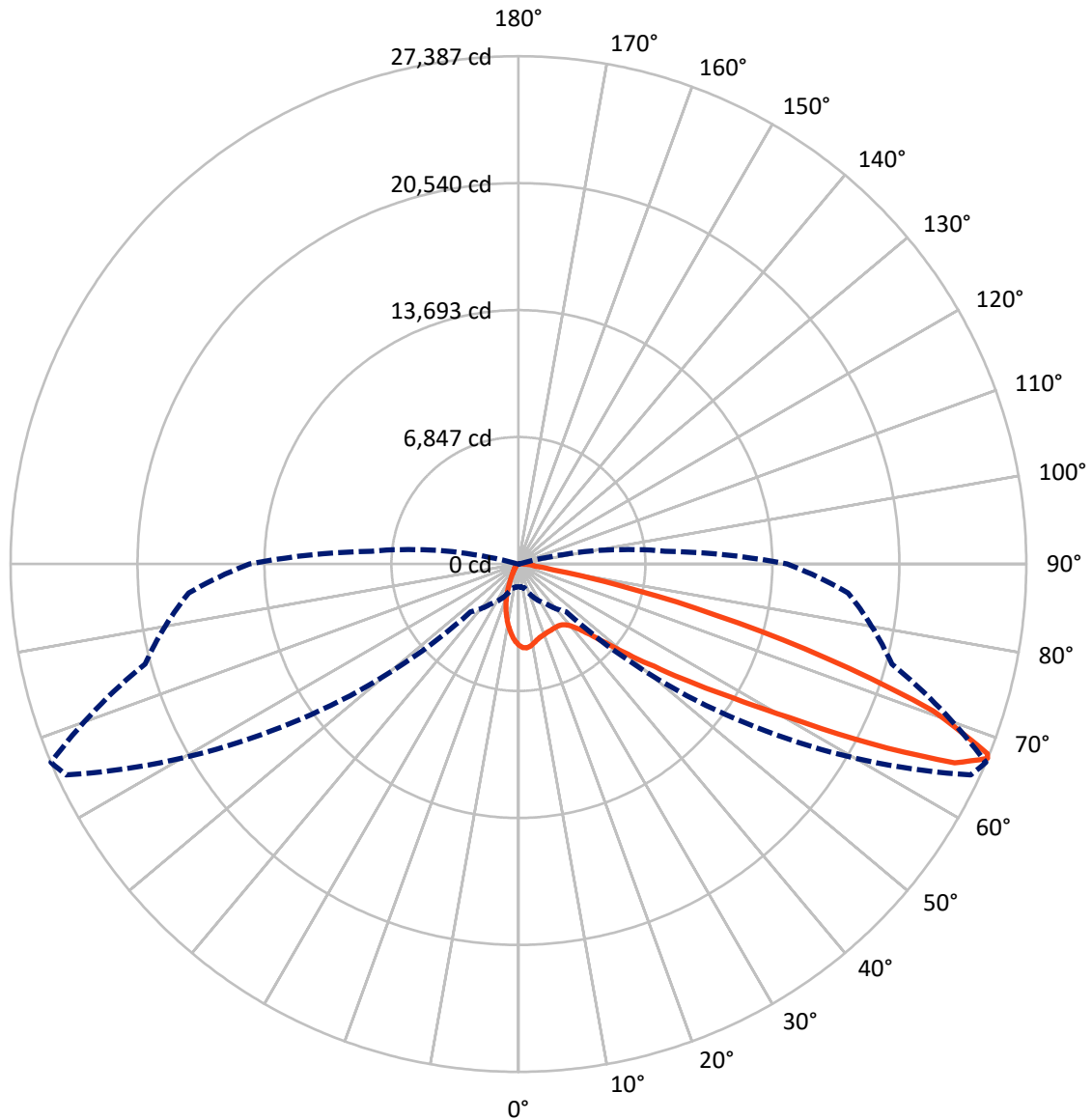
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2065.0 | 0.0 | 2065.0 |
| | % Fixture | 10.4 | 0.0 | 10.4 |
| Street Side | Lumens | 17823.0 | 0.0 | 17823.0 |
| | % Fixture | 89.6 | 0.0 | 89.6 |
| Total | Lumens | 19888.0 | 0.0 | 19888.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 356.9 | 1.8 |
| 10°-20° | 759.6 | 3.8 |
| 20°-30° | 1104.4 | 5.6 |
| 30°-40° | 1722.9 | 8.7 |
| 40°-50° | 3052.0 | 15.3 |
| 50°-60° | 4829.4 | 24.3 |
| 60°-70° | 5531.5 | 27.8 |
| 70°-80° | 2294.4 | 11.5 |
| 80°-90° | 237.0 | 1.2 |
| 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° | 19888.0 | 100.0 |
| 0°-180° | 19888.0 | 100.0 |

Coefficient of Utilization



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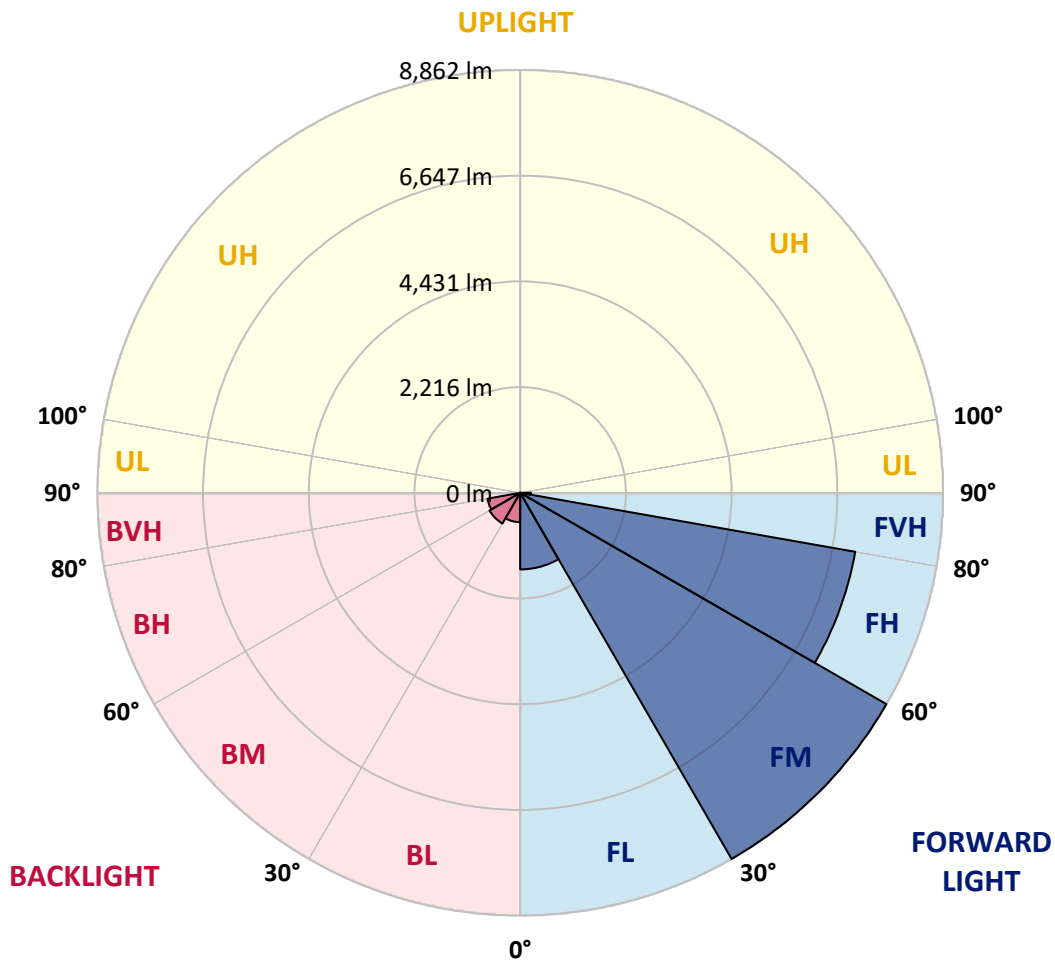
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1604.7 | 8.1 | | | |
| FM (30°-60°) | 8862.1 | 44.6 | | | |
| FH (60°-80°) | 7129.9 | 35.9 | | | G3/7500 |
| FVH (80°-90°) | 226.3 | 1.1 | | | G3/500 |
| BL (0°-30°) | 616.2 | 3.1 | B2/1000 | | |
| BM (30°-60°) | 742.1 | 3.7 | B1/1000 | | |
| BH (60°-80°) | 696.0 | 3.5 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 10.7 | 0.1 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 |
| 2.5° | 4534.5 | 4543.8 | 4542.6 | 4549.6 | 4565.8 | 4567.0 | 4550.8 | 4519.4 | 4512.5 | 4471.9 | 4401.1 |
| 5° | 4181.9 | 4208.6 | 4224.8 | 4290.9 | 4365.2 | 4454.5 | 4521.8 | 4546.1 | 4542.6 | 4513.6 | 4406.9 |
| 7.5° | 3779.3 | 3806.0 | 3824.6 | 3902.3 | 4000.9 | 4154.0 | 4329.2 | 4473.0 | 4485.8 | 4517.1 | 4402.3 |
| 10° | 3511.4 | 3516.0 | 3541.5 | 3615.8 | 3719.0 | 3875.6 | 4084.4 | 4336.2 | 4374.4 | 4489.3 | 4390.7 |
| 12.5° | 3291.0 | 3294.5 | 3328.1 | 3408.1 | 3518.3 | 3676.1 | 3895.3 | 4186.5 | 4245.7 | 4454.5 | 4388.4 |
| 15° | 3134.4 | 3147.1 | 3177.3 | 3260.8 | 3378.0 | 3534.6 | 3759.6 | 4076.3 | 4147.1 | 4441.7 | 4409.2 |
| 17.5° | 3082.2 | 3096.1 | 3105.4 | 3165.7 | 3272.4 | 3425.5 | 3656.4 | 4004.4 | 4084.4 | 4448.7 | 4449.8 |
| 20° | 3136.7 | 3147.1 | 3126.3 | 3141.3 | 3207.5 | 3344.3 | 3569.4 | 3942.9 | 4038.0 | 4456.8 | 4502.0 |
| 22.5° | 3339.7 | 3344.3 | 3287.5 | 3221.4 | 3209.8 | 3285.2 | 3500.9 | 3894.2 | 3996.3 | 4478.8 | 4563.5 |
| 25° | 3687.7 | 3679.6 | 3586.8 | 3444.1 | 3309.5 | 3274.7 | 3460.3 | 3864.0 | 3975.4 | 4502.0 | 4627.3 |
| 27.5° | 4107.6 | 4119.2 | 3991.6 | 3784.0 | 3527.6 | 3344.3 | 3454.5 | 3851.3 | 3966.1 | 4518.3 | 4683.0 |
| 30° | 4618.0 | 4634.3 | 4488.1 | 4227.1 | 3859.4 | 3516.0 | 3507.9 | 3848.9 | 3960.3 | 4507.8 | 4687.6 |
| 32.5° | 5138.9 | 5158.6 | 5043.8 | 4774.6 | 4302.5 | 3803.7 | 3628.5 | 3874.5 | 3971.9 | 4471.9 | 4661.0 |
| 35° | 5684.1 | 5711.9 | 5635.4 | 5404.5 | 4903.4 | 4219.0 | 3840.8 | 3952.2 | 4026.4 | 4468.4 | 4634.3 |
| 37.5° | 6437.0 | 6462.5 | 6318.6 | 6073.9 | 5630.7 | 4775.8 | 4181.9 | 4098.4 | 4155.2 | 4524.1 | 4641.2 |
| 40° | 7561.0 | 7557.5 | 7186.3 | 6811.6 | 6430.0 | 5483.4 | 4661.0 | 4362.8 | 4391.8 | 4692.3 | 4727.1 |
| 42.5° | 8786.0 | 8780.2 | 8231.5 | 7661.9 | 7317.4 | 6354.6 | 5290.9 | 4819.9 | 4800.2 | 5002.0 | 4949.8 |
| 45° | 9730.3 | 9729.1 | 9281.3 | 8639.8 | 8385.8 | 7354.5 | 6105.2 | 5455.6 | 5425.4 | 5505.5 | 5360.5 |
| 47.5° | 10132.8 | 10139.7 | 9914.7 | 9463.4 | 9570.2 | 8707.1 | 7131.8 | 6376.6 | 6331.4 | 6298.9 | 6078.5 |
| 50° | 9819.6 | 9833.5 | 9852.1 | 9763.9 | 10439.0 | 10524.9 | 8508.8 | 7674.7 | 7652.7 | 7507.7 | 7163.1 |
| 52.5° | 8796.4 | 8867.2 | 9085.3 | 9364.8 | 10740.6 | 12269.5 | 10667.6 | 9287.1 | 9168.8 | 9014.5 | 8635.2 |
| 55° | 7072.6 | 7150.4 | 7564.5 | 8243.1 | 10291.7 | 13415.6 | 13692.9 | 11365.9 | 11168.7 | 10708.2 | 10160.6 |
| 57.5° | 4680.7 | 4801.3 | 5402.2 | 6265.3 | 8987.8 | 13600.1 | 16711.3 | 14250.9 | 13564.1 | 12303.2 | 11686.0 |
| 60° | 2578.7 | 2694.7 | 3346.7 | 4128.5 | 6491.5 | 12688.3 | 18741.3 | 18007.0 | 16793.6 | 14086.1 | 13538.6 |
| 62.5° | 1588.1 | 1650.7 | 2132.1 | 2859.5 | 3893.0 | 10014.5 | 19161.2 | 22727.1 | 21322.3 | 16381.8 | 15776.3 |
| 65° | 1264.4 | 1291.1 | 1526.6 | 2337.4 | 2791.0 | 5956.7 | 17805.2 | 26325.5 | 25856.9 | 19161.2 | 17779.6 |
| 67° | 1227.3 | 1237.7 | 1349.1 | 2006.8 | 2630.9 | 3651.7 | 14916.7 | 26911.3 | 27386.9 | 20843.3 | 17842.3 |
| 67.5° | 1235.4 | 1247.0 | 1352.6 | 1915.2 | 2626.3 | 3355.9 | 13921.4 | 26680.5 | 27281.4 | 20976.7 | 17565.0 |
| 70° | 1191.3 | 1227.3 | 1548.6 | 1914.0 | 2497.5 | 2788.7 | 8337.1 | 23116.9 | 23742.1 | 19490.7 | 14903.9 |
| 72.5° | 422.2 | 424.6 | 669.3 | 1548.6 | 2715.6 | 2818.9 | 4186.5 | 16946.7 | 17409.6 | 14909.7 | 10745.3 |
| 75° | 250.6 | 213.4 | 222.7 | 440.8 | 2595.0 | 2737.6 | 2415.2 | 10828.8 | 11001.6 | 8543.6 | 5441.7 |
| 77.5° | 172.8 | 150.8 | 155.4 | 194.9 | 988.3 | 2699.4 | 1918.7 | 5647.0 | 5462.5 | 2996.3 | 1158.9 |
| 80° | 98.6 | 87.0 | 92.8 | 170.5 | 359.6 | 2518.4 | 1809.6 | 2289.9 | 1952.3 | 508.1 | 320.2 |
| 82.5° | 52.2 | 44.1 | 53.4 | 140.4 | 250.6 | 1569.5 | 1813.1 | 1106.7 | 877.0 | 171.7 | 218.1 |
| 85° | 18.6 | 15.1 | 25.5 | 96.3 | 167.0 | 481.4 | 1680.9 | 930.3 | 730.8 | 83.5 | 165.9 |
| 87.5° | 3.5 | 3.5 | 10.4 | 39.4 | 67.3 | 147.3 | 994.1 | 552.2 | 370.0 | 49.9 | 113.7 |
| 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° | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 | 4386.0 |
| 2.5° | 4372.1 | 4322.2 | 4255.0 | 4172.6 | 4075.2 | 3989.3 | 3925.5 | 3859.4 | 3845.5 | 3822.3 | 3818.8 |
| 5° | 4343.1 | 4257.3 | 4090.2 | 3898.8 | 3694.7 | 3510.2 | 3360.6 | 3227.2 | 3168.0 | 3117.0 | 3111.2 |
| 7.5° | 4300.2 | 4171.4 | 3887.2 | 3578.7 | 3259.7 | 2969.7 | 2723.7 | 2549.7 | 2389.6 | 2313.1 | 2301.5 |
| 10° | 4250.3 | 4065.9 | 3658.7 | 3230.7 | 2789.8 | 2380.4 | 2015.0 | 1708.7 | 1523.1 | 1412.9 | 1399.0 |
| 12.5° | 4203.9 | 3962.6 | 3425.5 | 2869.9 | 2284.1 | 1736.6 | 1266.7 | 974.4 | 779.5 | 700.7 | 691.4 |
| 15° | 4181.9 | 3879.1 | 3207.5 | 2501.0 | 1755.1 | 1105.5 | 692.5 | 535.9 | 472.1 | 453.6 | 452.4 |
| 17.5° | 4179.6 | 3808.3 | 2994.0 | 2119.4 | 1229.6 | 642.7 | 451.2 | 411.8 | 399.0 | 394.4 | 394.4 |
| 20° | 4178.4 | 3741.1 | 2780.6 | 1723.8 | 780.7 | 428.0 | 375.8 | 366.6 | 357.3 | 351.5 | 351.5 |
| 22.5° | 4191.2 | 3680.7 | 2557.8 | 1320.1 | 491.8 | 346.8 | 330.6 | 321.3 | 309.7 | 301.6 | 300.4 |
| 25° | 4203.9 | 3634.3 | 2330.5 | 939.6 | 356.1 | 301.6 | 285.4 | 272.6 | 256.4 | 245.9 | 244.8 |
| 27.5° | 4206.2 | 3576.3 | 2086.9 | 628.7 | 298.1 | 263.3 | 242.4 | 222.7 | 204.2 | 193.7 | 192.6 |
| 30° | 4171.4 | 3478.9 | 1816.6 | 424.6 | 263.3 | 228.5 | 200.7 | 179.8 | 162.4 | 154.3 | 154.3 |
| 32.5° | 4103.0 | 3358.3 | 1519.6 | 320.2 | 234.3 | 196.0 | 165.9 | 146.2 | 134.6 | 131.1 | 129.9 |
| 35° | 4041.5 | 3228.3 | 1214.5 | 271.4 | 210.0 | 165.9 | 135.7 | 123.0 | 116.0 | 114.8 | 113.7 |
| 37.5° | 4005.6 | 3123.9 | 928.0 | 245.9 | 186.8 | 139.2 | 114.8 | 105.6 | 102.1 | 99.8 | 100.9 |
| 40° | 4033.4 | 3036.9 | 685.6 | 225.0 | 163.6 | 116.0 | 97.4 | 92.8 | 89.3 | 88.2 | 88.2 |
| 42.5° | 4155.2 | 3021.9 | 509.2 | 206.5 | 141.5 | 96.3 | 84.7 | 81.2 | 78.9 | 77.7 | 78.9 |
| 45° | 4475.4 | 3114.7 | 395.6 | 189.1 | 119.5 | 81.2 | 71.9 | 70.8 | 69.6 | 69.6 | 69.6 |
| 47.5° | 4956.8 | 3306.1 | 329.4 | 169.4 | 99.8 | 69.6 | 62.6 | 61.5 | 60.3 | 61.5 | 61.5 |
| 50° | 5772.3 | 3656.4 | 294.6 | 149.6 | 82.4 | 59.2 | 53.4 | 53.4 | 53.4 | 53.4 | 54.5 |
| 52.5° | 7012.3 | 4345.4 | 271.4 | 129.9 | 67.3 | 49.9 | 45.2 | 45.2 | 46.4 | 46.4 | 47.6 |
| 55° | 8393.9 | 5259.5 | 250.6 | 110.2 | 56.8 | 41.8 | 37.1 | 38.3 | 39.4 | 40.6 | 40.6 |
| 57.5° | 9892.7 | 6272.2 | 233.2 | 90.5 | 48.7 | 33.6 | 31.3 | 32.5 | 33.6 | 36.0 | 36.0 |
| 60° | 11701.1 | 7368.5 | 207.6 | 70.8 | 40.6 | 26.7 | 24.4 | 26.7 | 30.2 | 32.5 | 33.6 |
| 62.5° | 13687.1 | 8428.7 | 175.2 | 55.7 | 33.6 | 20.9 | 19.7 | 24.4 | 29.0 | 31.3 | 32.5 |
| 65° | 15044.3 | 8761.6 | 134.6 | 45.2 | 25.5 | 15.1 | 16.2 | 22.0 | 27.8 | 31.3 | 31.3 |
| 67° | 14494.5 | 7943.8 | 110.2 | 38.3 | 20.9 | 11.6 | 15.1 | 22.0 | 27.8 | 30.2 | 31.3 |
| 67.5° | 14112.8 | 7623.7 | 105.6 | 37.1 | 19.7 | 11.6 | 15.1 | 22.0 | 27.8 | 31.3 | 31.3 |
| 70° | 11483.0 | 5727.0 | 88.2 | 27.8 | 16.2 | 10.4 | 12.8 | 20.9 | 26.7 | 30.2 | 30.2 |
| 72.5° | 7978.6 | 3531.1 | 78.9 | 19.7 | 13.9 | 9.3 | 11.6 | 19.7 | 25.5 | 29.0 | 30.2 |
| 75° | 3793.3 | 1278.3 | 67.3 | 15.1 | 12.8 | 8.1 | 10.4 | 19.7 | 25.5 | 29.0 | 29.0 |
| 77.5° | 773.7 | 297.0 | 54.5 | 12.8 | 10.4 | 8.1 | 9.3 | 18.6 | 24.4 | 27.8 | 27.8 |
| 80° | 254.0 | 114.8 | 40.6 | 11.6 | 10.4 | 8.1 | 9.3 | 17.4 | 24.4 | 26.7 | 27.8 |
| 82.5° | 183.3 | 58.0 | 26.7 | 11.6 | 10.4 | 8.1 | 8.1 | 17.4 | 23.2 | 26.7 | 26.7 |
| 85° | 140.4 | 40.6 | 17.4 | 11.6 | 10.4 | 8.1 | 8.1 | 16.2 | 22.0 | 25.5 | 25.5 |
| 87.5° | 92.8 | 16.2 | 13.9 | 11.6 | 10.4 | 8.1 | 8.1 | 16.2 | 20.9 | 24.4 | 25.5 |
| 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)