

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: McGRAW-EDISON

Report Number: P455781

Luminaire Tested: **GALN-SA7A-727-U-T3R-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P455781
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: MCGRAW-EDISON
Catalog Number: GALN-SA7A-727-U-T3R-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 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: 20856 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B2 - U0 - G4

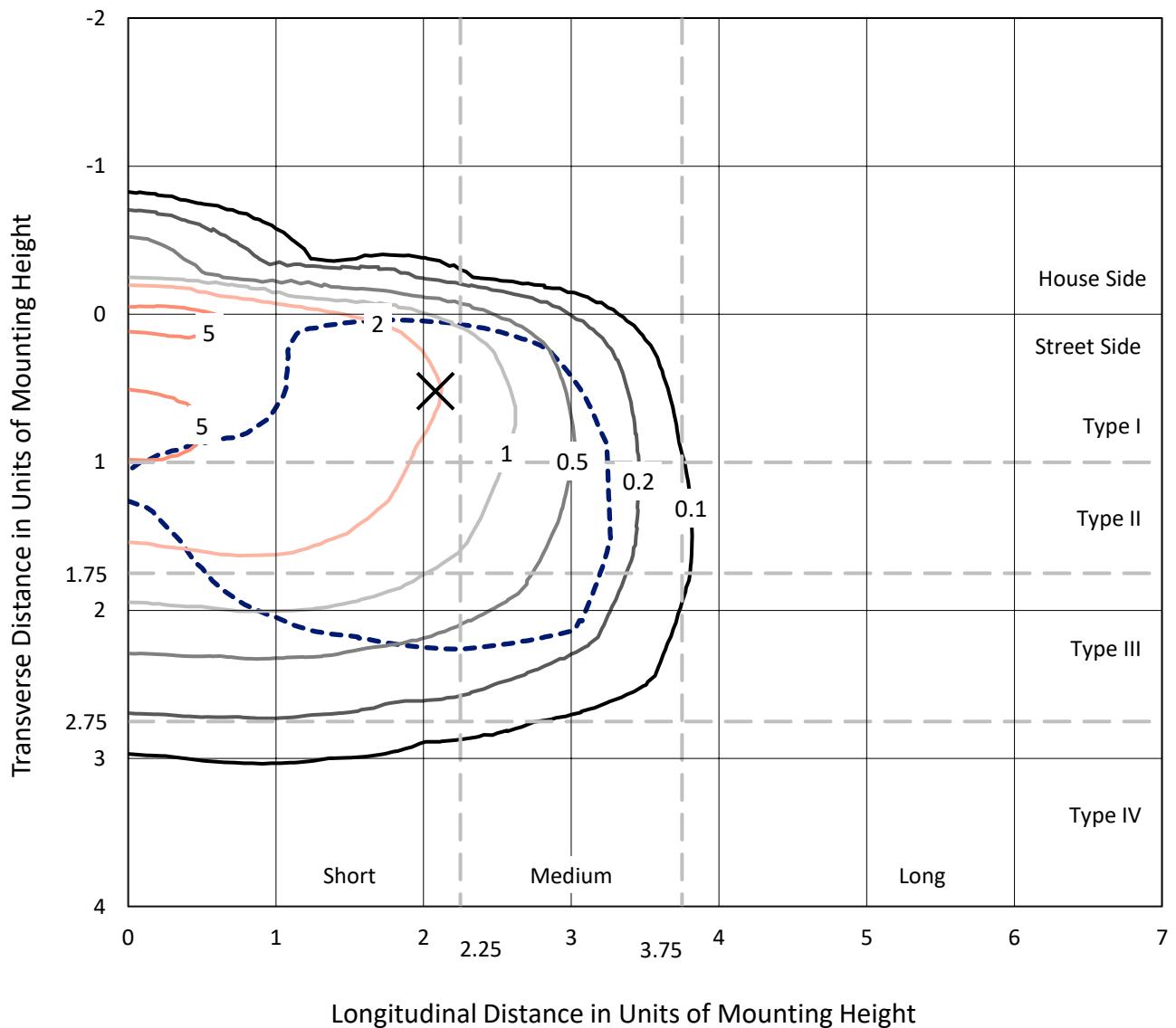
Input Watts (W): 215
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

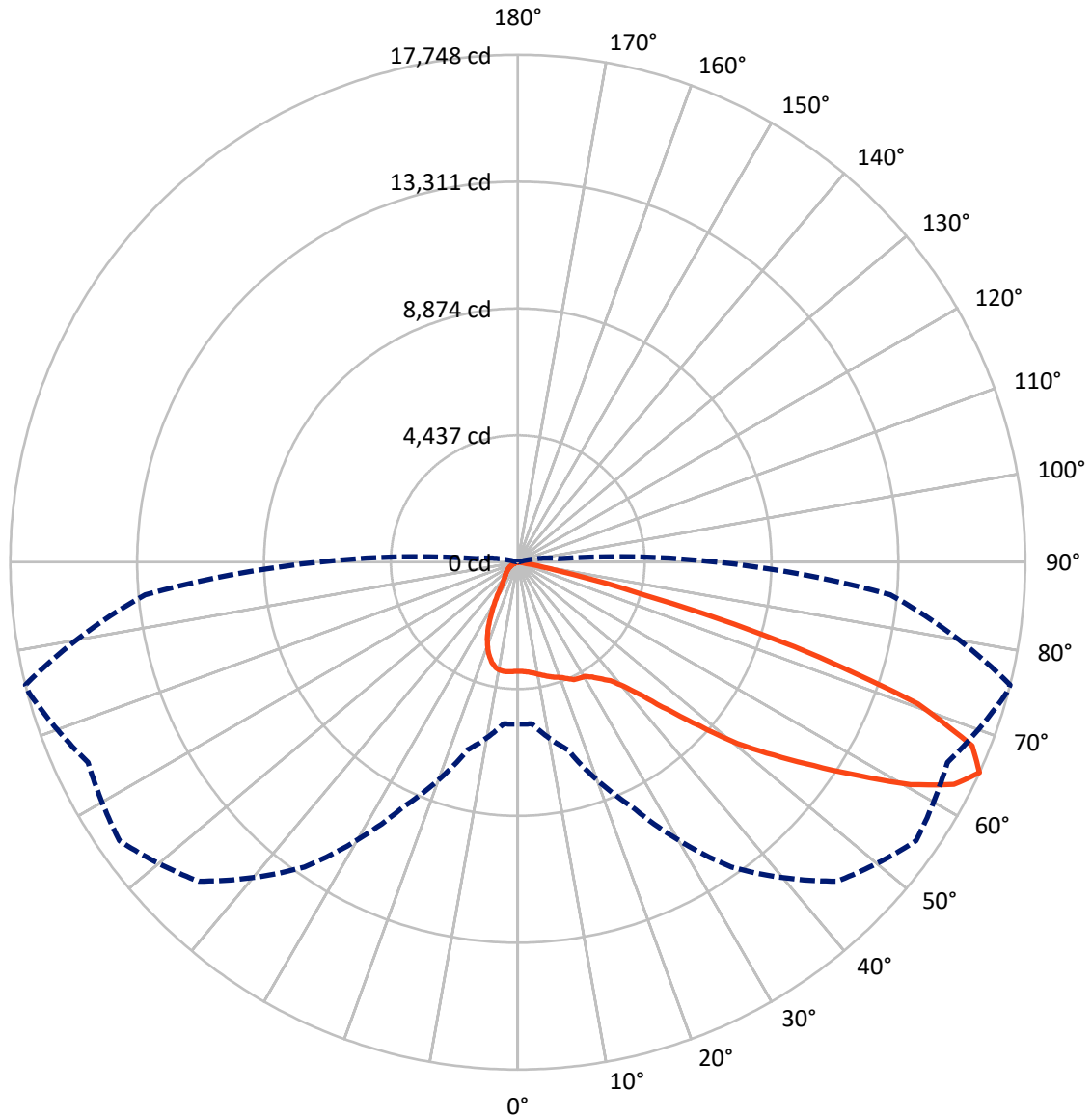
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.4 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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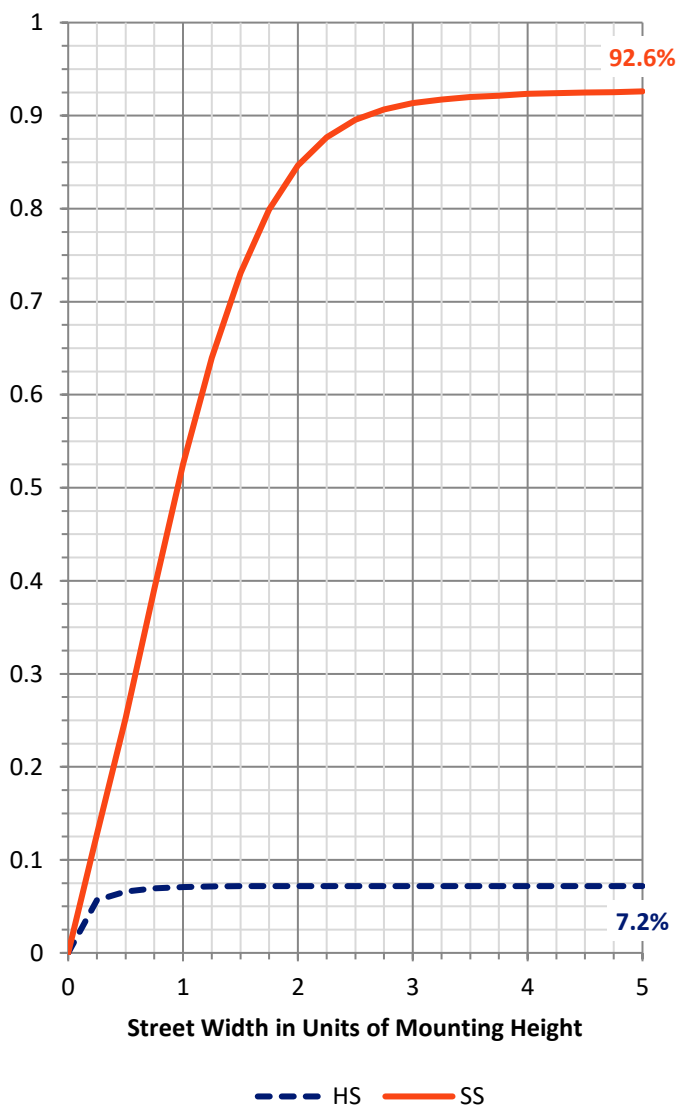
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1506.2 | 0.0 | 1506.2 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 19349.8 | 0.0 | 19349.8 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 20856.0 | 0.0 | 20856.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 314.3 | 1.5 |
| 10°-20° | 699.8 | 3.4 |
| 20°-30° | 1127.6 | 5.4 |
| 30°-40° | 1960.7 | 9.4 |
| 40°-50° | 3239.9 | 15.5 |
| 50°-60° | 5005.0 | 24.0 |
| 60°-70° | 6111.8 | 29.3 |
| 70°-80° | 2319.6 | 11.1 |
| 80°-90° | 77.4 | 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° | 20856.0 | 100.0 |
| 0°-180° | 20856.0 | 100.0 |

Coefficient of Utilization



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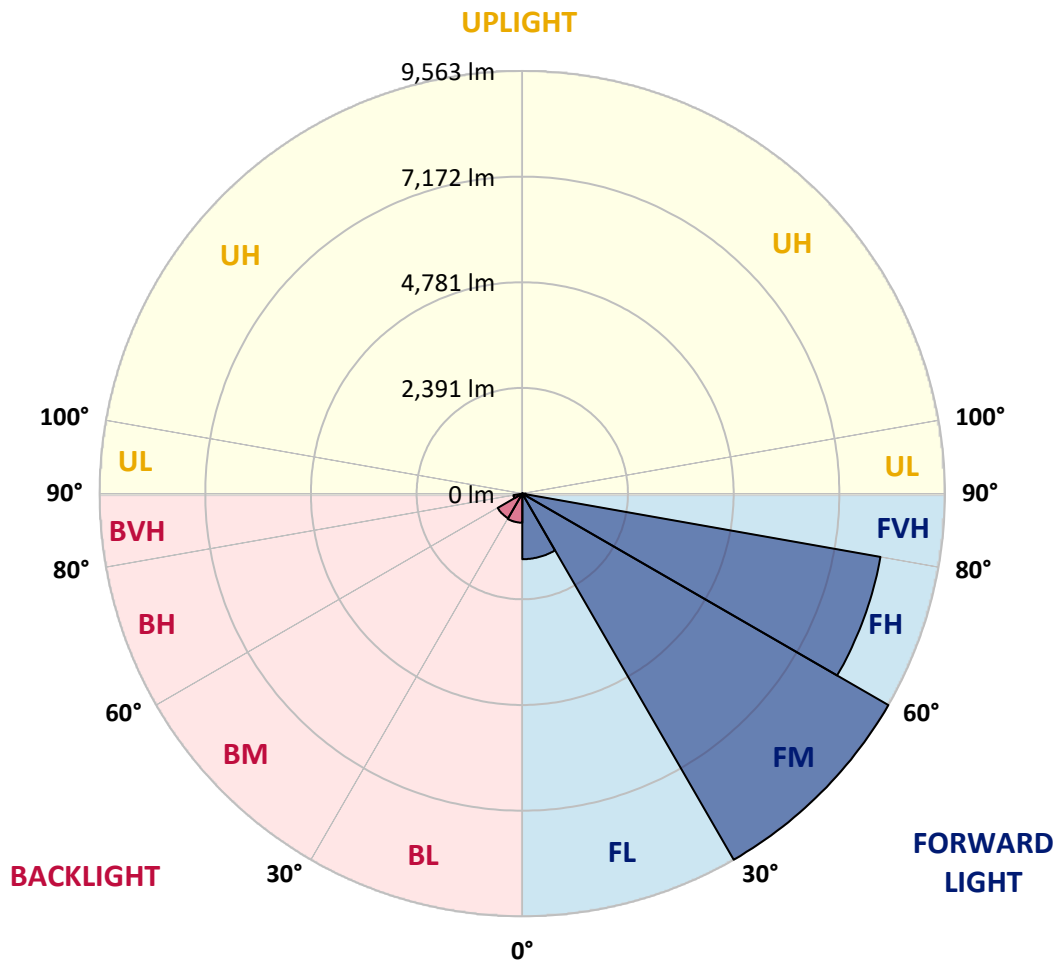
CATALOG NUMBER: GALN-SA7A-727-U-T3R-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1483.7 | 7.1 | | | |
| FM (30°-60°) | 9562.8 | 45.9 | | | |
| FH (60°-80°) | 8227.0 | 39.4 | | | G4/12000 |
| FVH (80°-90°) | 76.3 | 0.4 | | | G1/100 |
| BL (0°-30°) | 658.0 | 3.2 | B2/1000 | | |
| BM (30°-60°) | 642.7 | 3.1 | B1/1000 | | |
| BH (60°-80°) | 204.4 | 1.0 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 |
| 2.5° | 3645.9 | 3647.4 | 3656.2 | 3678.3 | 3712.2 | 3740.1 | 3763.7 | 3802.0 | 3828.5 | 3831.4 | 3840.3 |
| 5° | 3394.1 | 3376.4 | 3394.1 | 3451.5 | 3503.1 | 3581.1 | 3676.8 | 3772.5 | 3857.9 | 3863.8 | 3905.1 |
| 7.5° | 3111.4 | 3126.1 | 3154.1 | 3213.0 | 3310.2 | 3429.4 | 3567.8 | 3738.7 | 3900.6 | 3915.4 | 3996.3 |
| 10° | 2824.2 | 2856.6 | 2902.3 | 2992.1 | 3127.6 | 3282.2 | 3470.7 | 3715.1 | 3968.4 | 3989.0 | 4128.9 |
| 12.5° | 2559.2 | 2573.9 | 2629.9 | 2750.6 | 2918.5 | 3136.4 | 3397.0 | 3701.8 | 4043.5 | 4068.5 | 4270.2 |
| 15° | 2356.0 | 2375.1 | 2423.7 | 2532.7 | 2719.7 | 2999.5 | 3336.7 | 3697.4 | 4117.1 | 4152.4 | 4411.6 |
| 17.5° | 2317.7 | 2329.5 | 2350.1 | 2423.7 | 2587.2 | 2890.5 | 3282.2 | 3696.0 | 4187.8 | 4230.5 | 4542.6 |
| 20° | 2475.3 | 2465.0 | 2444.3 | 2437.0 | 2526.8 | 2806.6 | 3242.4 | 3707.7 | 4255.5 | 4304.1 | 4681.1 |
| 22.5° | 2869.9 | 2883.1 | 2762.4 | 2619.6 | 2590.1 | 2793.3 | 3236.5 | 3763.7 | 4363.0 | 4420.4 | 4835.7 |
| 25° | 3707.7 | 3606.1 | 3417.7 | 3076.0 | 2818.4 | 2874.3 | 3302.8 | 3896.2 | 4488.2 | 4551.5 | 4975.6 |
| 27.5° | 4633.9 | 4603.0 | 4310.0 | 3747.5 | 3267.5 | 3045.1 | 3420.6 | 3997.8 | 4529.4 | 4594.2 | 5055.1 |
| 30° | 5543.9 | 5580.7 | 5245.0 | 4623.6 | 3919.8 | 3361.7 | 3531.0 | 4036.1 | 4566.2 | 4633.9 | 5156.7 |
| 32.5° | 6387.7 | 6431.8 | 6137.3 | 5521.8 | 4688.4 | 3909.5 | 3721.0 | 4184.8 | 4720.8 | 4790.0 | 5326.0 |
| 35° | 7051.8 | 7057.7 | 6835.3 | 6345.0 | 5527.7 | 4575.0 | 4131.8 | 4445.5 | 4929.9 | 5010.9 | 5505.6 |
| 37.5° | 7661.4 | 7652.5 | 7391.9 | 6969.3 | 6227.2 | 5236.2 | 4648.7 | 4745.8 | 5168.4 | 5252.4 | 5764.8 |
| 40° | 8113.4 | 8119.3 | 8035.4 | 7637.8 | 6879.5 | 5847.3 | 5058.0 | 5027.1 | 5569.0 | 5700.0 | 6141.8 |
| 42.5° | 8415.3 | 8469.8 | 8511.0 | 8309.3 | 7699.7 | 6599.7 | 5686.8 | 5629.3 | 6264.0 | 6372.9 | 6674.8 |
| 45° | 8659.7 | 8756.9 | 8963.1 | 8952.8 | 8487.4 | 7523.0 | 6549.6 | 6431.8 | 7249.1 | 7365.4 | 7353.6 |
| 47.5° | 8837.9 | 8936.6 | 9278.2 | 9484.3 | 9228.1 | 8418.2 | 7634.9 | 7533.3 | 8425.6 | 8552.2 | 8103.1 |
| 50° | 8929.2 | 9047.0 | 9482.9 | 9881.9 | 9806.8 | 9281.1 | 8871.8 | 8877.7 | 9846.6 | 9968.8 | 8971.9 |
| 52.5° | 8715.7 | 8868.8 | 9591.8 | 10310.4 | 10456.2 | 10107.2 | 10030.6 | 10225.0 | 11111.4 | 11216.0 | 9756.7 |
| 55° | 8033.9 | 8226.8 | 9443.1 | 10675.6 | 11208.6 | 11082.0 | 11347.0 | 11643.0 | 12494.1 | 12561.8 | 10562.2 |
| 57.5° | 7602.5 | 7807.2 | 9004.3 | 10986.3 | 12112.7 | 12307.1 | 12726.8 | 12943.2 | 13920.9 | 14093.2 | 11486.9 |
| 60° | 7238.8 | 7399.3 | 8643.5 | 11052.5 | 13031.6 | 13806.1 | 14214.0 | 14437.8 | 15682.0 | 15794.0 | 12504.4 |
| 62.5° | 6633.6 | 6817.6 | 8033.9 | 10590.2 | 13493.9 | 15006.2 | 15851.4 | 15751.3 | 17044.1 | 17122.1 | 13128.7 |
| 65° | 5660.3 | 5676.5 | 6797.0 | 9428.4 | 13016.8 | 15785.1 | 17001.4 | 16581.7 | 17694.9 | 17748.0 | 13080.2 |
| 67.5° | 4224.6 | 4380.7 | 5228.8 | 7411.1 | 10995.1 | 15119.6 | 17373.9 | 16603.8 | 17284.1 | 17136.9 | 12042.0 |
| 70° | 2721.2 | 2840.4 | 3544.3 | 5139.0 | 7927.9 | 12617.8 | 16138.5 | 15465.6 | 15169.6 | 14842.7 | 9856.9 |
| 72.5° | 1256.0 | 1409.2 | 2105.7 | 2936.2 | 4701.7 | 8988.1 | 13100.8 | 12564.8 | 10918.5 | 10111.6 | 6265.5 |
| 75° | 547.8 | 586.1 | 1039.6 | 1549.1 | 2204.3 | 4753.2 | 8637.6 | 7799.8 | 4931.4 | 4504.4 | 2507.7 |
| 77.5° | 334.3 | 359.3 | 544.8 | 830.5 | 865.8 | 1811.2 | 4653.1 | 3402.9 | 1524.0 | 1344.4 | 680.3 |
| 80° | 226.8 | 254.7 | 396.1 | 434.4 | 296.0 | 505.1 | 1746.4 | 908.5 | 307.8 | 294.5 | 145.8 |
| 82.5° | 110.4 | 139.9 | 293.0 | 243.0 | 128.1 | 162.0 | 508.0 | 194.4 | 89.8 | 83.9 | 51.5 |
| 85° | 16.2 | 28.0 | 164.9 | 159.0 | 57.4 | 38.3 | 89.8 | 48.6 | 30.9 | 29.4 | 23.6 |
| 87.5° | 0.0 | 0.0 | 56.0 | 25.0 | 5.9 | 5.9 | 10.3 | 10.3 | 11.8 | 10.3 | 11.8 |
| 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° | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 | 3815.2 |
| 2.5° | 3844.7 | 3852.0 | 3824.1 | 3784.3 | 3741.6 | 3698.9 | 3638.5 | 3584.0 | 3551.7 | 3570.8 | 3523.7 |
| 5° | 3913.9 | 3908.0 | 3834.4 | 3713.6 | 3553.1 | 3360.2 | 3168.8 | 3005.4 | 2952.3 | 2872.8 | 2864.0 |
| 7.5° | 4009.6 | 3993.4 | 3837.3 | 3560.5 | 3198.3 | 2836.0 | 2482.6 | 2248.5 | 2114.5 | 2001.1 | 2004.1 |
| 10° | 4143.6 | 4096.5 | 3803.4 | 3291.0 | 2694.7 | 2148.4 | 1697.8 | 1388.6 | 1254.6 | 1211.9 | 1178.0 |
| 12.5° | 4282.0 | 4190.7 | 3709.2 | 2927.3 | 2098.3 | 1468.1 | 1032.2 | 843.7 | 761.3 | 734.8 | 731.8 |
| 15° | 4405.7 | 4261.4 | 3544.3 | 2490.0 | 1525.5 | 938.0 | 703.9 | 642.0 | 631.7 | 633.2 | 631.7 |
| 17.5° | 4527.9 | 4317.3 | 3316.1 | 2026.1 | 1036.6 | 672.9 | 605.2 | 590.5 | 594.9 | 600.8 | 599.3 |
| 20° | 4629.5 | 4329.1 | 3024.5 | 1546.1 | 733.3 | 590.5 | 568.4 | 565.4 | 569.9 | 574.3 | 574.3 |
| 22.5° | 4740.0 | 4338.0 | 2678.5 | 1070.5 | 599.3 | 549.2 | 537.5 | 537.5 | 543.3 | 549.2 | 550.7 |
| 25° | 4822.4 | 4289.4 | 2264.7 | 768.6 | 528.6 | 509.5 | 503.6 | 505.1 | 511.0 | 513.9 | 512.4 |
| 27.5° | 4835.7 | 4152.4 | 1825.9 | 589.0 | 480.0 | 460.9 | 455.0 | 460.9 | 453.5 | 457.9 | 455.0 |
| 30° | 4847.4 | 3978.7 | 1381.2 | 496.2 | 435.9 | 406.4 | 397.6 | 388.7 | 382.8 | 375.5 | 374.0 |
| 32.5° | 4884.3 | 3774.0 | 1008.7 | 446.2 | 394.6 | 362.2 | 341.6 | 316.6 | 297.4 | 291.6 | 290.1 |
| 35° | 4900.5 | 3528.1 | 740.7 | 406.4 | 357.8 | 322.5 | 285.7 | 250.3 | 222.3 | 212.0 | 219.4 |
| 37.5° | 4962.3 | 3289.5 | 574.3 | 377.0 | 325.4 | 281.2 | 234.1 | 190.0 | 163.4 | 157.6 | 160.5 |
| 40° | 5088.9 | 3030.4 | 481.5 | 351.9 | 297.4 | 243.0 | 185.5 | 142.8 | 125.2 | 119.3 | 117.8 |
| 42.5° | 5292.1 | 2772.7 | 428.5 | 328.4 | 269.5 | 204.7 | 145.8 | 111.9 | 97.2 | 92.8 | 92.8 |
| 45° | 5539.5 | 2525.3 | 391.7 | 303.3 | 240.0 | 164.9 | 114.9 | 89.8 | 81.0 | 78.0 | 78.0 |
| 47.5° | 5864.9 | 2308.9 | 360.8 | 278.3 | 207.6 | 131.1 | 92.8 | 78.0 | 72.2 | 73.6 | 75.1 |
| 50° | 6194.8 | 2148.4 | 326.9 | 250.3 | 170.8 | 107.5 | 79.5 | 69.2 | 67.7 | 69.2 | 69.2 |
| 52.5° | 6443.6 | 2054.1 | 281.2 | 212.0 | 134.0 | 89.8 | 70.7 | 64.8 | 63.3 | 60.4 | 60.4 |
| 55° | 6779.4 | 2033.5 | 223.8 | 172.3 | 106.0 | 75.1 | 63.3 | 58.9 | 54.5 | 51.5 | 50.1 |
| 57.5° | 7210.8 | 2057.1 | 172.3 | 134.0 | 82.5 | 61.8 | 56.0 | 48.6 | 42.7 | 36.8 | 36.8 |
| 60° | 7478.8 | 2004.1 | 134.0 | 103.1 | 60.4 | 50.1 | 42.7 | 35.3 | 28.0 | 23.6 | 22.1 |
| 62.5° | 7393.4 | 1780.2 | 106.0 | 76.6 | 42.7 | 36.8 | 28.0 | 23.6 | 16.2 | 11.8 | 10.3 |
| 65° | 6953.1 | 1437.2 | 85.4 | 53.0 | 30.9 | 22.1 | 14.7 | 14.7 | 7.4 | 1.5 | 0.0 |
| 67.5° | 6085.8 | 1064.6 | 67.7 | 35.3 | 17.7 | 10.3 | 7.4 | 4.4 | 0.0 | 0.0 | 0.0 |
| 70° | 4953.5 | 768.6 | 53.0 | 22.1 | 10.3 | 7.4 | 2.9 | 1.5 | 0.0 | 0.0 | 0.0 |
| 72.5° | 3145.2 | 440.3 | 41.2 | 13.3 | 7.4 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1216.3 | 172.3 | 28.0 | 8.8 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 344.6 | 81.0 | 16.2 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 89.8 | 35.3 | 8.8 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 42.7 | 14.7 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 25.0 | 5.9 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 11.8 | 1.5 | 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)