

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: P458248

Luminaire Tested: **GALN-SA9C-827-U-T4FT-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P458248
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-29)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA9C-827-U-T4FT-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33738 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

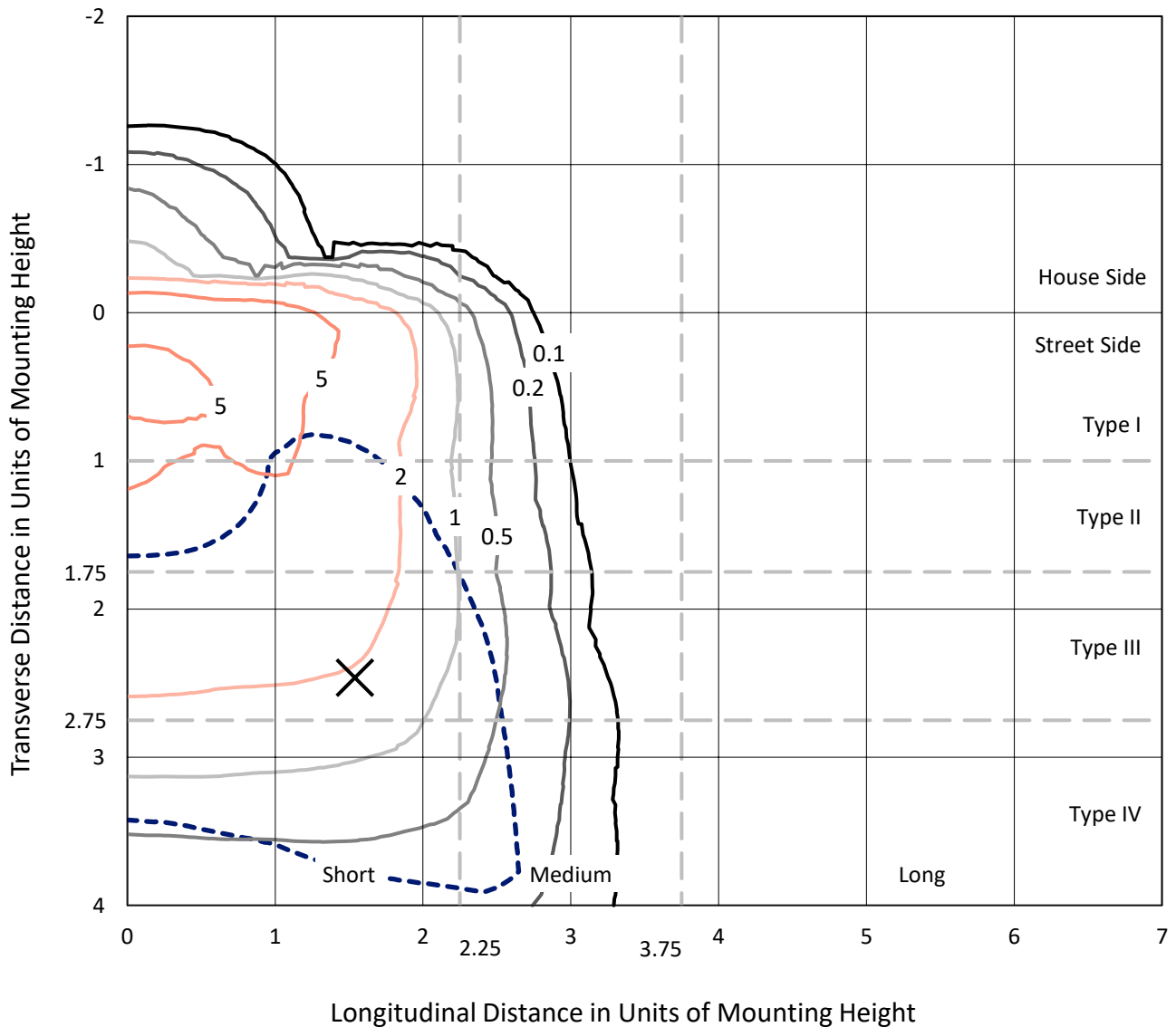
Input Watts (W): 481
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

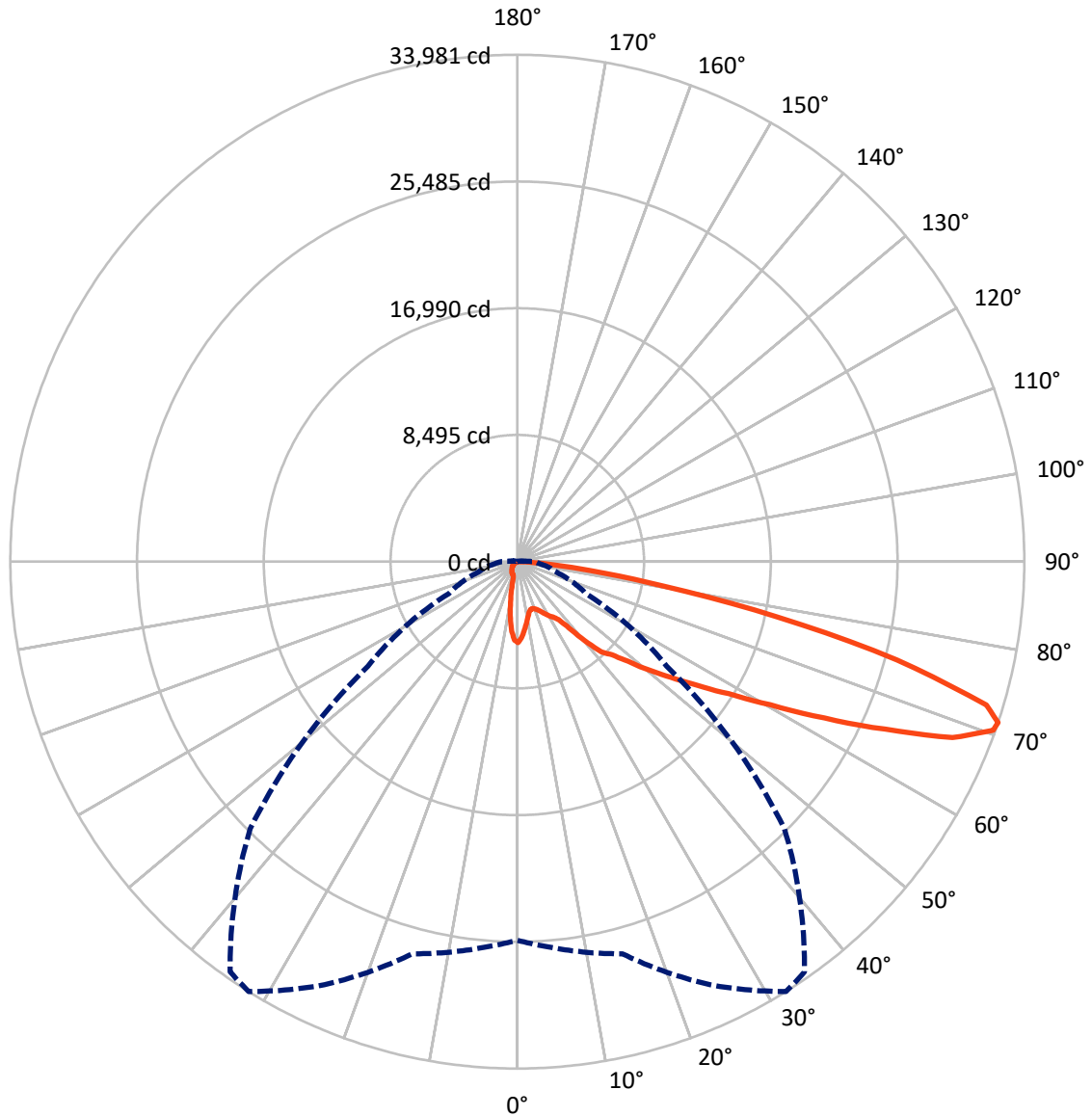
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 32-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2825.9 | 0.0 | 2825.9 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 30912.1 | 0.0 | 30912.1 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 33738.0 | 0.0 | 33738.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 441.2 | 1.3 |
| 10°-20° | 957.5 | 2.8 |
| 20°-30° | 1489.6 | 4.4 |
| 30°-40° | 2481.6 | 7.4 |
| 40°-50° | 4616.2 | 13.7 |
| 50°-60° | 7411.5 | 22.0 |
| 60°-70° | 9968.8 | 29.5 |
| 70°-80° | 5914.6 | 17.5 |
| 80°-90° | 457.2 | 1.4 |
| 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° | 33738.0 | 100.0 |
| 0°-180° | 33738.0 | 100.0 |



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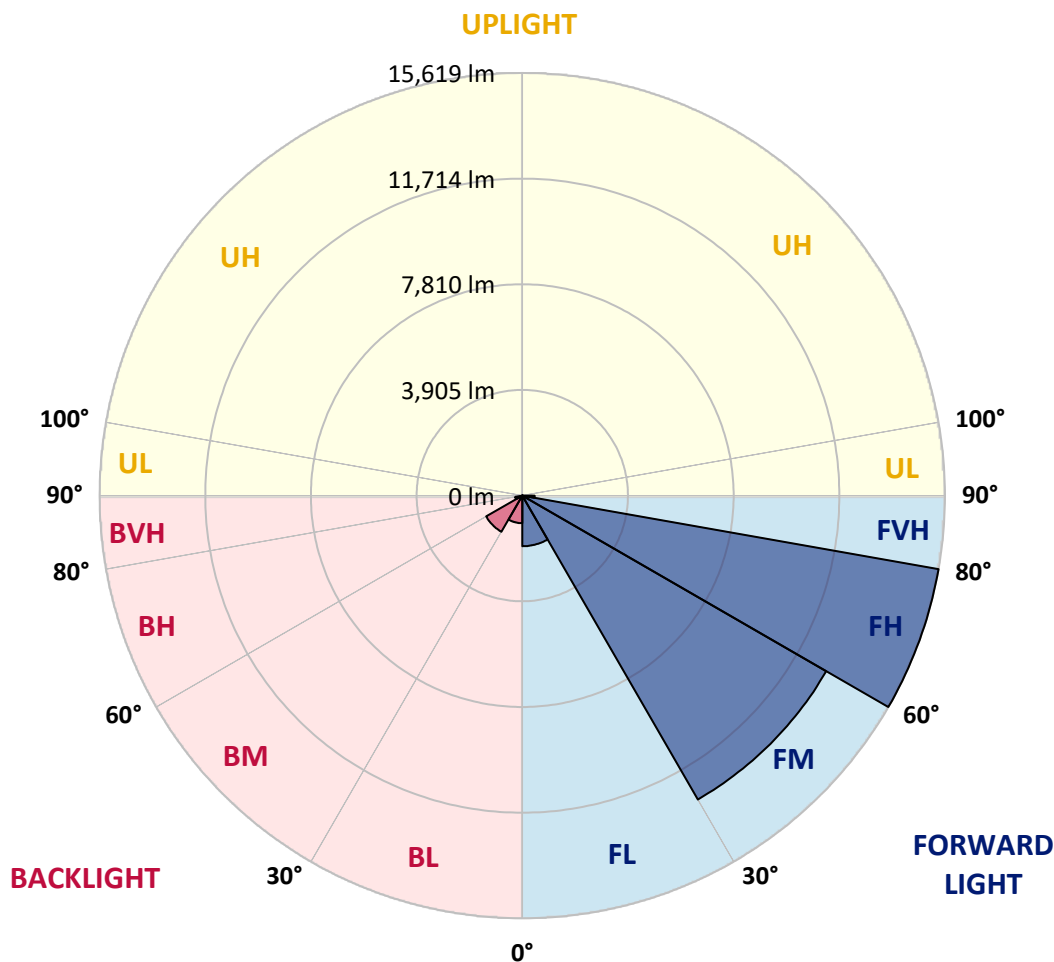
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 1870.0 | 5.5 | | | |
| FM | (30°-60°) | 12967.6 | 38.4 | | | |
| FH | (60°-80°) | 15619.1 | 46.3 | | | G5 |
| FVH | (80°-90°) | 455.4 | 1.3 | | | G3/500 |
| BL | (0°-30°) | 1018.2 | 3.0 | B3/2500 | | |
| BM | (30°-60°) | 1541.6 | 4.6 | B2/2500 | | |
| BH | (60°-80°) | 264.3 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.8 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 32° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 |
| 2.5° | 5032.0 | 5083.7 | 5076.0 | 5094.1 | 5138.1 | 5156.3 | 5205.5 | 5259.9 | 5335.0 | 5386.8 | 5420.4 |
| 5° | 4506.2 | 4545.1 | 4550.3 | 4640.9 | 4684.9 | 4734.1 | 4879.2 | 5037.1 | 5213.2 | 5353.1 | 5446.3 |
| 7.5° | 3944.2 | 3965.0 | 4006.4 | 4125.5 | 4236.9 | 4286.1 | 4506.2 | 4780.7 | 5057.8 | 5319.4 | 5487.8 |
| 10° | 3480.7 | 3504.0 | 3579.1 | 3706.0 | 3809.6 | 3874.3 | 4179.9 | 4524.4 | 4912.8 | 5301.3 | 5547.3 |
| 12.5° | 3216.5 | 3229.5 | 3257.9 | 3371.9 | 3504.0 | 3573.9 | 3902.8 | 4296.5 | 4796.3 | 5309.1 | 5648.3 |
| 15° | 3198.4 | 3193.2 | 3159.5 | 3206.2 | 3325.3 | 3397.8 | 3718.9 | 4141.1 | 4692.7 | 5335.0 | 5767.4 |
| 17.5° | 3294.2 | 3281.3 | 3201.0 | 3201.0 | 3299.4 | 3358.9 | 3641.2 | 4058.2 | 4640.9 | 5394.5 | 5935.8 |
| 20° | 3441.8 | 3421.1 | 3289.0 | 3278.7 | 3374.5 | 3436.6 | 3687.9 | 4063.4 | 4651.3 | 5505.9 | 6161.1 |
| 22.5° | 3628.3 | 3605.0 | 3405.6 | 3410.7 | 3514.3 | 3576.5 | 3822.5 | 4156.6 | 4716.0 | 5643.1 | 6401.9 |
| 25° | 3871.7 | 3845.8 | 3610.2 | 3599.8 | 3708.6 | 3763.0 | 4021.9 | 4322.3 | 4806.6 | 5814.1 | 6717.9 |
| 27.5° | 4195.5 | 4141.1 | 3858.8 | 3843.2 | 3959.8 | 4029.7 | 4262.8 | 4545.1 | 4967.2 | 6049.7 | 7142.6 |
| 30° | 4462.2 | 4402.6 | 4133.3 | 4091.9 | 4216.2 | 4270.6 | 4511.4 | 4845.5 | 5283.2 | 6461.5 | 7730.5 |
| 32.5° | 4811.8 | 4723.8 | 4407.8 | 4299.0 | 4431.1 | 4501.0 | 4871.4 | 5404.9 | 5751.9 | 6896.6 | 8429.7 |
| 35° | 5599.1 | 5544.7 | 5158.8 | 4778.2 | 4770.4 | 4858.4 | 5402.3 | 5969.5 | 6233.6 | 7575.1 | 9382.8 |
| 37.5° | 6725.7 | 6686.8 | 6277.6 | 5767.4 | 5619.8 | 5578.4 | 6047.1 | 6591.0 | 7002.8 | 8507.4 | 10491.2 |
| 40° | 8033.5 | 7942.9 | 7567.3 | 7134.9 | 6943.2 | 6821.5 | 6808.5 | 7515.6 | 8007.6 | 9773.8 | 11646.3 |
| 42.5° | 8971.0 | 8805.3 | 8349.5 | 8318.4 | 8276.9 | 8150.1 | 7782.3 | 8867.4 | 9305.1 | 11136.1 | 12881.6 |
| 45° | 9955.1 | 9703.9 | 9025.4 | 8908.9 | 8893.3 | 8885.5 | 9253.3 | 10467.9 | 10719.1 | 12612.2 | 14150.6 |
| 47.5° | 10719.1 | 10519.7 | 9962.9 | 9911.1 | 9975.8 | 10152.0 | 11198.2 | 12166.8 | 12115.0 | 13927.9 | 15215.0 |
| 50° | 11736.9 | 11586.7 | 10967.7 | 11066.1 | 11400.2 | 11687.7 | 13391.8 | 14018.5 | 13262.3 | 14963.8 | 15989.3 |
| 52.5° | 12938.6 | 12661.5 | 12086.5 | 12353.3 | 12866.0 | 13345.2 | 15720.0 | 15639.7 | 14067.7 | 15743.3 | 16566.8 |
| 55° | 13979.7 | 13782.8 | 13586.0 | 13863.1 | 14629.7 | 15227.9 | 17822.9 | 16854.3 | 14653.0 | 16370.0 | 16820.6 |
| 57.5° | 15740.7 | 15694.1 | 15492.1 | 15774.4 | 16704.1 | 17325.7 | 19705.7 | 17797.0 | 15028.5 | 16696.3 | 16522.8 |
| 60° | 18346.0 | 18270.9 | 17895.4 | 18255.4 | 19467.4 | 20443.8 | 21440.8 | 18643.9 | 15114.0 | 16569.4 | 15665.6 |
| 62.5° | 21479.7 | 21223.3 | 20902.1 | 21433.1 | 23095.7 | 23525.6 | 23075.0 | 19146.3 | 14795.4 | 15559.4 | 13599.0 |
| 65° | 24406.1 | 24142.0 | 24149.7 | 25268.5 | 27078.8 | 27371.4 | 24981.1 | 19071.2 | 13863.1 | 13029.2 | 10030.2 |
| 67.5° | 26646.3 | 26602.3 | 26918.2 | 29101.4 | 31468.5 | 31266.5 | 26685.1 | 17947.2 | 11099.8 | 8445.3 | 5329.8 |
| 70° | 26760.2 | 26845.7 | 27752.1 | 31437.4 | 33840.7 | 33519.6 | 26540.1 | 14588.3 | 6919.9 | 3884.7 | 2100.3 |
| 71° | 25382.5 | 25957.4 | 27210.9 | 31364.9 | 33980.6 | 33563.6 | 25317.7 | 12218.6 | 5076.0 | 2708.9 | 1515.0 |
| 72.5° | 21629.9 | 21932.9 | 24641.8 | 29518.4 | 32874.7 | 31983.8 | 22217.8 | 8564.4 | 3250.2 | 1657.5 | 870.2 |
| 75° | 11913.0 | 12658.9 | 16502.1 | 23157.8 | 26294.1 | 25512.0 | 14479.5 | 4068.6 | 1621.2 | 906.4 | 360.0 |
| 77.5° | 5671.6 | 5526.6 | 8051.6 | 13772.5 | 17828.1 | 17786.6 | 7295.4 | 1807.7 | 945.3 | 613.8 | 181.3 |
| 80° | 1621.2 | 1823.2 | 3081.8 | 6547.0 | 9898.2 | 10006.9 | 2802.1 | 872.8 | 655.2 | 479.1 | 93.2 |
| 82.5° | 489.5 | 499.8 | 1131.7 | 2895.4 | 4923.2 | 4640.9 | 1051.5 | 445.4 | 471.3 | 380.7 | 54.4 |
| 85° | 85.5 | 106.2 | 334.1 | 1020.4 | 1877.6 | 1424.4 | 264.2 | 212.4 | 310.8 | 251.2 | 31.1 |
| 87.5° | 5.2 | 7.8 | 111.4 | 116.5 | 165.7 | 95.8 | 46.6 | 31.1 | 67.3 | 67.3 | 18.1 |
| 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° | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 | 5425.6 |
| 2.5° | 5443.7 | 5459.3 | 5448.9 | 5425.6 | 5386.8 | 5340.1 | 5278.0 | 5226.2 | 5182.2 | 5158.8 | 5187.3 |
| 5° | 5477.4 | 5498.1 | 5446.3 | 5329.8 | 5153.7 | 4962.0 | 4744.5 | 4576.1 | 4444.1 | 4402.6 | 4387.1 |
| 7.5° | 5529.2 | 5542.1 | 5402.3 | 5143.3 | 4770.4 | 4317.2 | 3920.9 | 3586.9 | 3327.9 | 3250.2 | 3136.2 |
| 10° | 5596.5 | 5588.8 | 5324.6 | 4842.9 | 4187.7 | 3506.6 | 2892.8 | 2437.0 | 2092.5 | 1968.2 | 1957.9 |
| 12.5° | 5700.1 | 5658.7 | 5226.2 | 4433.7 | 3493.6 | 2602.7 | 1843.9 | 1442.5 | 1225.0 | 1152.5 | 1136.9 |
| 15° | 5829.6 | 5731.2 | 5070.8 | 3954.6 | 2675.2 | 1680.8 | 1136.9 | 1015.2 | 986.7 | 981.5 | 976.3 |
| 17.5° | 5982.4 | 5827.0 | 4866.2 | 3366.7 | 1880.2 | 1090.3 | 950.5 | 947.9 | 950.5 | 945.3 | 942.7 |
| 20° | 6189.6 | 5928.0 | 4622.8 | 2670.1 | 1243.1 | 919.4 | 906.4 | 906.4 | 909.0 | 906.4 | 906.4 |
| 22.5° | 6409.7 | 6047.1 | 4322.3 | 2038.2 | 937.5 | 872.8 | 870.2 | 875.3 | 880.5 | 877.9 | 877.9 |
| 25° | 6681.6 | 6202.5 | 3926.1 | 1395.9 | 839.1 | 833.9 | 836.5 | 846.9 | 857.2 | 859.8 | 857.2 |
| 27.5° | 7075.3 | 6394.2 | 3501.4 | 960.8 | 769.2 | 774.3 | 800.2 | 826.1 | 841.7 | 844.3 | 844.3 |
| 30° | 7518.1 | 6606.5 | 2947.2 | 779.5 | 712.2 | 712.2 | 743.3 | 792.5 | 826.1 | 831.3 | 833.9 |
| 32.5° | 8087.9 | 6852.6 | 2333.4 | 701.8 | 657.8 | 652.6 | 681.1 | 740.7 | 802.8 | 821.0 | 821.0 |
| 35° | 8792.3 | 7142.6 | 1735.2 | 652.6 | 619.0 | 606.0 | 621.5 | 670.8 | 751.0 | 802.8 | 808.0 |
| 37.5° | 9618.5 | 7417.1 | 1269.0 | 608.6 | 582.7 | 564.6 | 574.9 | 613.8 | 678.5 | 756.2 | 776.9 |
| 40° | 10382.4 | 7660.6 | 947.9 | 572.3 | 546.4 | 533.5 | 541.3 | 559.4 | 613.8 | 686.3 | 699.2 |
| 42.5° | 11216.4 | 7849.6 | 753.6 | 533.5 | 510.2 | 505.0 | 505.0 | 512.8 | 549.0 | 590.5 | 593.1 |
| 45° | 12047.7 | 7917.0 | 631.9 | 486.9 | 471.3 | 476.5 | 473.9 | 468.8 | 484.3 | 479.1 | 479.1 |
| 47.5° | 12640.7 | 7836.7 | 523.1 | 442.9 | 442.9 | 450.6 | 437.7 | 419.5 | 411.8 | 380.7 | 383.3 |
| 50° | 13047.3 | 7544.0 | 429.9 | 391.1 | 411.8 | 422.1 | 396.2 | 367.7 | 339.3 | 305.6 | 297.8 |
| 52.5° | 13215.7 | 7023.5 | 352.2 | 323.7 | 365.2 | 378.1 | 347.0 | 313.4 | 269.3 | 240.8 | 233.1 |
| 55° | 13106.9 | 6381.2 | 292.6 | 264.2 | 308.2 | 323.7 | 292.6 | 253.8 | 204.6 | 173.5 | 168.3 |
| 57.5° | 12627.8 | 5614.7 | 248.6 | 209.8 | 246.0 | 256.4 | 235.7 | 194.2 | 145.0 | 114.0 | 114.0 |
| 60° | 11799.1 | 4822.2 | 202.0 | 165.7 | 183.9 | 199.4 | 178.7 | 139.8 | 98.4 | 69.9 | 64.7 |
| 62.5° | 10118.3 | 3915.8 | 163.2 | 129.5 | 129.5 | 142.4 | 124.3 | 101.0 | 62.2 | 36.3 | 33.7 |
| 65° | 7305.8 | 2685.6 | 129.5 | 95.8 | 93.2 | 93.2 | 77.7 | 67.3 | 36.3 | 15.5 | 10.4 |
| 67.5° | 3970.1 | 1515.0 | 103.6 | 72.5 | 64.7 | 62.2 | 49.2 | 38.8 | 15.5 | 2.6 | 0.0 |
| 70° | 1561.6 | 582.7 | 80.3 | 49.2 | 41.4 | 38.8 | 25.9 | 18.1 | 10.4 | 0.0 | 0.0 |
| 71° | 1059.2 | 401.4 | 69.9 | 41.4 | 33.7 | 28.5 | 20.7 | 15.5 | 7.8 | 0.0 | 0.0 |
| 72.5° | 606.0 | 248.6 | 54.4 | 31.1 | 25.9 | 20.7 | 15.5 | 10.4 | 7.8 | 0.0 | 0.0 |
| 75° | 264.2 | 126.9 | 33.7 | 23.3 | 18.1 | 12.9 | 10.4 | 7.8 | 2.6 | 0.0 | 0.0 |
| 77.5° | 134.7 | 69.9 | 23.3 | 18.1 | 10.4 | 7.8 | 5.2 | 2.6 | 0.0 | 0.0 | 0.0 |
| 80° | 75.1 | 36.3 | 15.5 | 10.4 | 7.8 | 5.2 | 2.6 | 2.6 | 0.0 | 0.0 | 0.0 |
| 82.5° | 41.4 | 20.7 | 7.8 | 5.2 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 25.9 | 12.9 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 12.9 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 2.6 | 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)