

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: P454055

Luminaire Tested: **GALN-SA5A-827-U-SL3-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454055
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-17)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5A-827-U-SL3-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13926 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G3

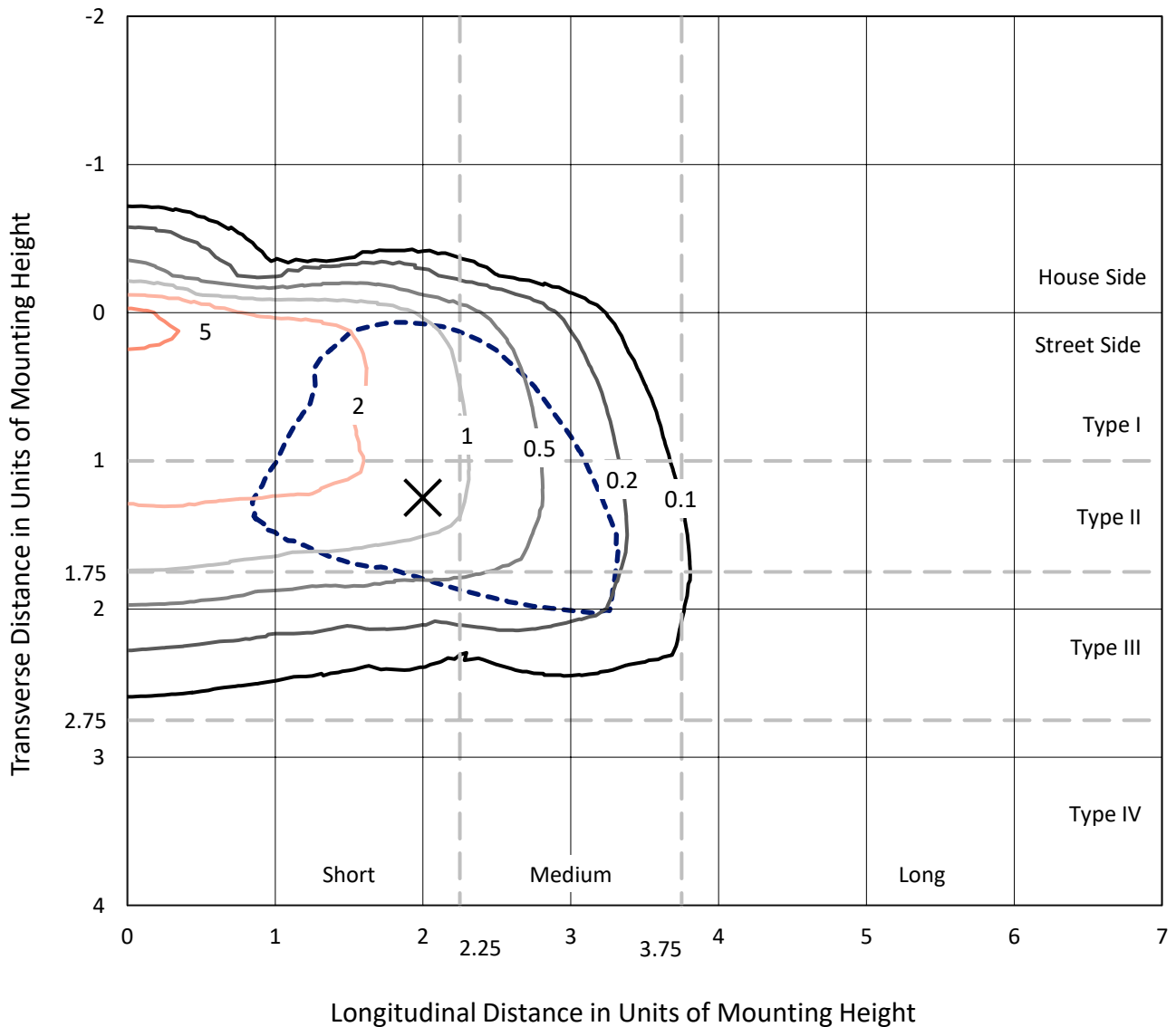
Input Watts (W): 154
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

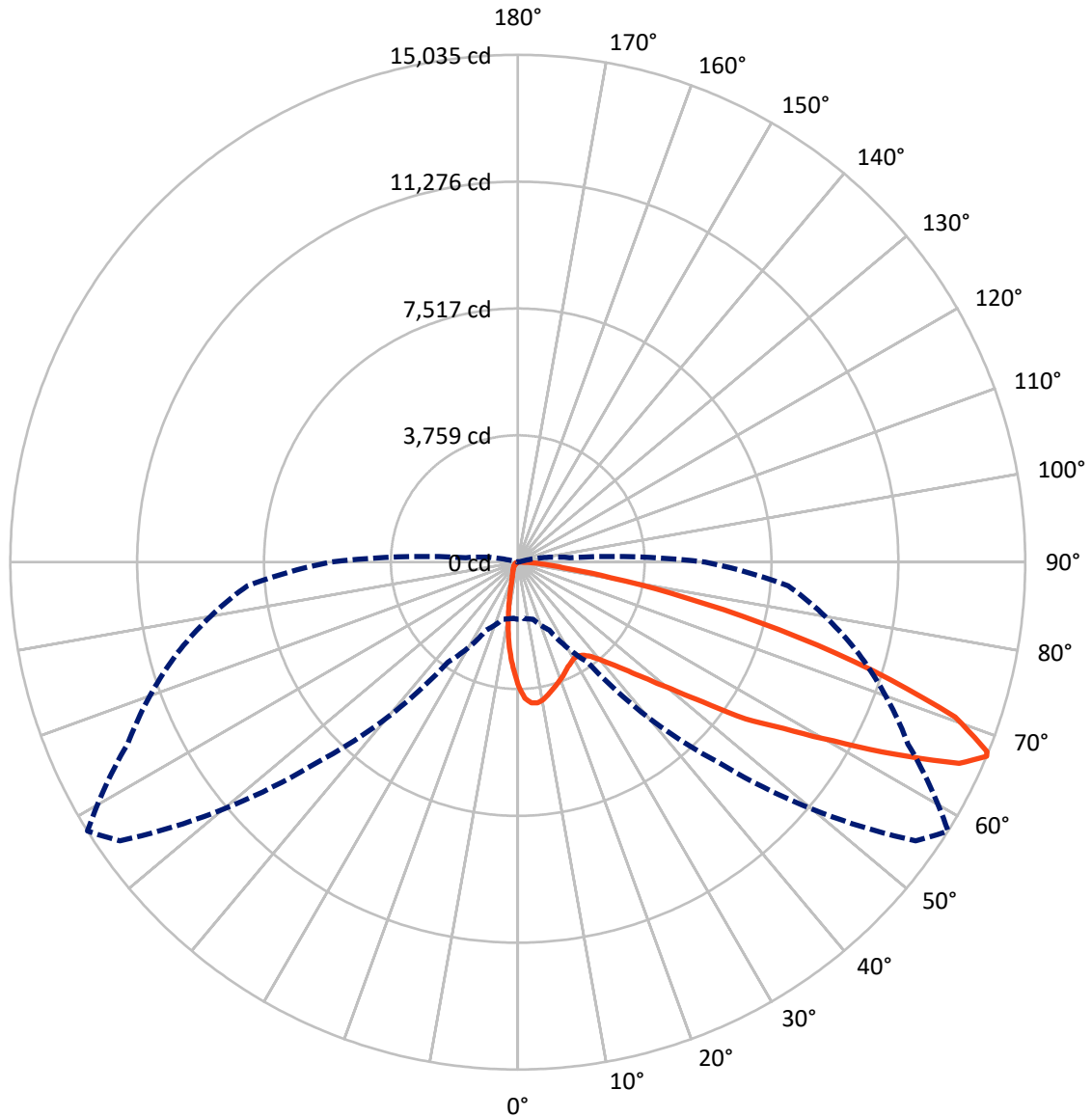
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1005.0 | 0.0 | 1005.0 |
| | % Fixture | 7.2 | 0.0 | 7.2 |
| Street Side | Lumens | 12921.0 | 0.0 | 12921.0 |
| | % Fixture | 92.8 | 0.0 | 92.8 |
| Total | Lumens | 13926.0 | 0.0 | 13926.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 299.6 | 2.2 |
| 10°-20° | 647.0 | 4.6 |
| 20°-30° | 876.7 | 6.3 |
| 30°-40° | 1216.0 | 8.7 |
| 40°-50° | 1939.3 | 13.9 |
| 50°-60° | 3352.3 | 24.1 |
| 60°-70° | 3829.4 | 27.5 |
| 70°-80° | 1596.5 | 11.5 |
| 80°-90° | 169.3 | 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° | 13926.0 | 100.0 |
| 0°-180° | 13926.0 | 100.0 |

Coefficient of Utilization



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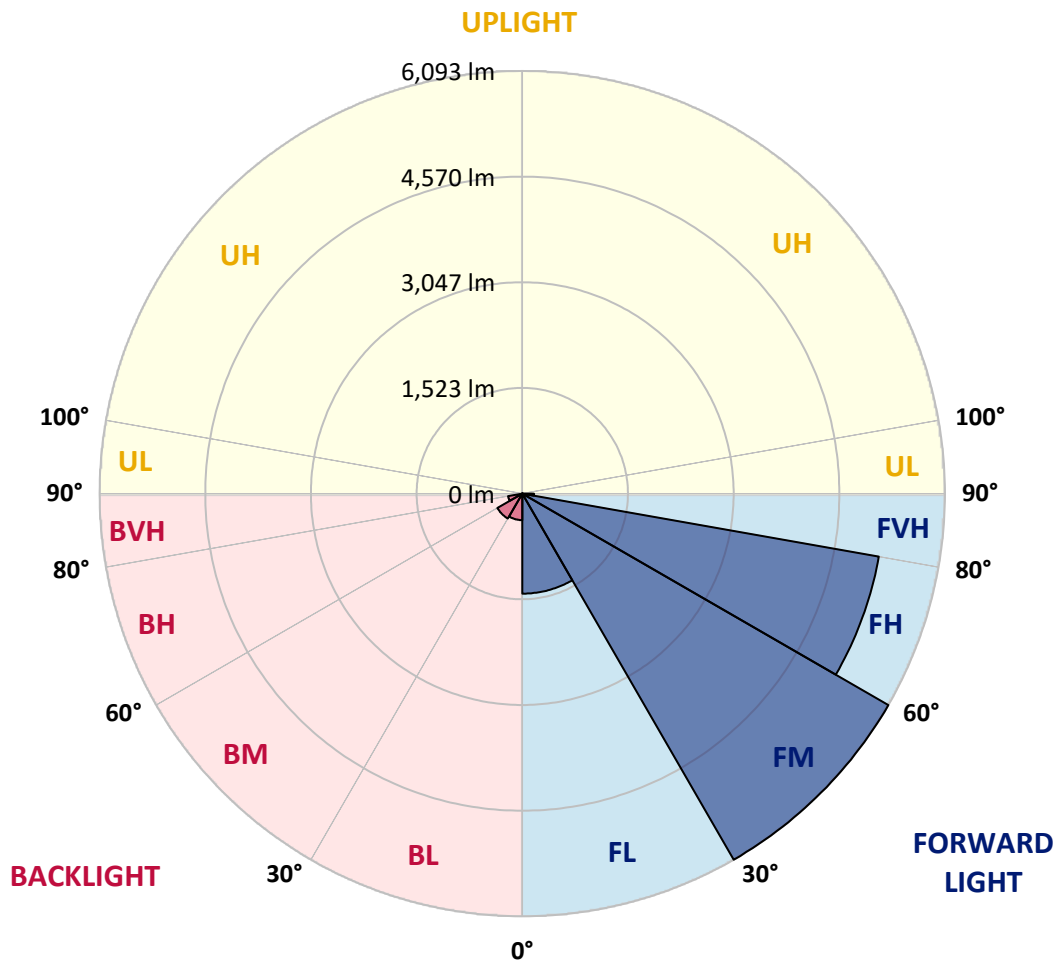
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1441.7 | 10.4 | | | |
| FM (30°-60°) | 6093.2 | 43.8 | | | |
| FH (60°-80°) | 5218.1 | 37.5 | | | G3/7500 |
| FVH (80°-90°) | 168.0 | 1.2 | | | G2/225 |
| BL (0°-30°) | 381.6 | 2.7 | B1/500 | | |
| BM (30°-60°) | 414.4 | 3.0 | B1/1000 | | |
| BH (60°-80°) | 207.8 | 1.5 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.2 | 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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 58° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|--------|
| 0° | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 |
| 2.5° | 4284.4 | 4291.0 | 4266.8 | 4247.2 | 4197.0 | 4143.0 | 4071.3 | 4033.2 | 3968.0 | 3855.4 | 3730.7 |
| 5° | 4384.9 | 4393.3 | 4389.6 | 4384.9 | 4365.4 | 4313.3 | 4222.1 | 4188.6 | 4092.7 | 3909.4 | 3684.2 |
| 7.5° | 4161.6 | 4192.3 | 4196.0 | 4232.3 | 4266.8 | 4271.4 | 4237.0 | 4211.9 | 4123.4 | 3908.5 | 3601.4 |
| 10° | 3865.7 | 3886.1 | 3915.9 | 3957.8 | 4040.6 | 4109.5 | 4143.0 | 4139.3 | 4088.1 | 3879.6 | 3504.6 |
| 12.5° | 3567.0 | 3578.1 | 3623.7 | 3695.4 | 3796.8 | 3914.1 | 4003.4 | 4021.1 | 4022.0 | 3845.2 | 3423.6 |
| 15° | 3310.1 | 3305.5 | 3340.8 | 3423.6 | 3566.0 | 3713.1 | 3873.1 | 3901.0 | 3945.7 | 3811.7 | 3348.3 |
| 17.5° | 3090.5 | 3114.7 | 3120.3 | 3211.5 | 3342.7 | 3533.5 | 3737.3 | 3786.6 | 3875.9 | 3782.9 | 3285.9 |
| 20° | 2954.6 | 2967.7 | 2979.8 | 3030.9 | 3149.1 | 3350.1 | 3609.8 | 3677.7 | 3810.8 | 3756.8 | 3216.1 |
| 22.5° | 2914.6 | 2923.0 | 2912.8 | 2928.6 | 3012.3 | 3191.0 | 3471.1 | 3561.4 | 3748.4 | 3732.6 | 3159.4 |
| 25° | 2945.3 | 2953.7 | 2929.5 | 2910.9 | 2939.7 | 3061.6 | 3337.1 | 3446.9 | 3698.2 | 3727.9 | 3116.5 |
| 27.5° | 3019.8 | 3035.6 | 3002.1 | 2968.6 | 2951.8 | 2991.9 | 3231.9 | 3359.4 | 3663.7 | 3750.3 | 3097.0 |
| 30° | 3136.1 | 3145.4 | 3120.3 | 3079.3 | 3041.2 | 3001.2 | 3177.0 | 3298.9 | 3654.4 | 3802.4 | 3095.1 |
| 32.5° | 3262.7 | 3282.2 | 3268.2 | 3241.2 | 3191.9 | 3097.0 | 3192.9 | 3300.8 | 3676.8 | 3877.8 | 3118.4 |
| 35° | 3419.0 | 3441.3 | 3454.4 | 3448.8 | 3385.5 | 3267.3 | 3293.4 | 3384.6 | 3736.3 | 4016.4 | 3181.7 |
| 37.5° | 3572.5 | 3592.1 | 3665.6 | 3690.7 | 3634.9 | 3523.2 | 3488.8 | 3549.3 | 3867.5 | 4197.9 | 3296.2 |
| 40° | 3748.4 | 3774.5 | 3877.8 | 3973.6 | 3946.6 | 3829.4 | 3766.1 | 3816.4 | 4068.5 | 4471.5 | 3513.0 |
| 42.5° | 3916.9 | 3963.4 | 4120.7 | 4290.0 | 4315.2 | 4183.9 | 4142.1 | 4158.8 | 4366.3 | 4865.1 | 3815.4 |
| 45° | 4156.0 | 4199.8 | 4402.6 | 4632.5 | 4750.7 | 4648.3 | 4605.5 | 4602.7 | 4774.9 | 5418.8 | 4305.8 |
| 47.5° | 4501.3 | 4540.4 | 4779.5 | 5006.6 | 5216.9 | 5230.9 | 5149.9 | 5177.8 | 5288.5 | 6066.5 | 4907.0 |
| 50° | 4924.7 | 5016.8 | 5174.1 | 5410.5 | 5691.5 | 5918.6 | 5943.7 | 5906.5 | 6001.4 | 6816.6 | 5629.1 |
| 52.5° | 5539.8 | 5575.2 | 5719.4 | 5913.9 | 6243.3 | 6628.6 | 6927.3 | 6876.1 | 6846.4 | 7531.3 | 6358.7 |
| 55° | 5998.6 | 6046.1 | 6270.3 | 6537.4 | 7020.4 | 7528.5 | 8176.2 | 8193.9 | 7817.9 | 8218.0 | 7072.5 |
| 57.5° | 5859.9 | 5932.5 | 6272.2 | 6809.1 | 7870.9 | 8799.7 | 9281.7 | 9293.8 | 8716.8 | 8885.3 | 7878.4 |
| 60° | 5148.0 | 5182.5 | 5669.2 | 6385.7 | 7943.5 | 10176.9 | 10849.8 | 10752.0 | 9631.6 | 9631.6 | 8590.3 |
| 62.5° | 3650.7 | 3704.7 | 4099.3 | 5153.6 | 7173.9 | 10655.3 | 12727.7 | 12525.8 | 10891.6 | 10345.4 | 9014.6 |
| 65° | 2333.0 | 2280.9 | 2542.4 | 3253.3 | 5344.4 | 9948.9 | 14362.7 | 14374.8 | 12077.2 | 10631.1 | 8782.9 |
| 67° | 1690.0 | 1669.5 | 1744.9 | 2224.1 | 3623.7 | 8363.2 | 14397.2 | 15034.6 | 12758.4 | 10450.5 | 8042.2 |
| 67.5° | 1545.7 | 1561.5 | 1616.4 | 2006.4 | 3292.4 | 7610.4 | 14240.8 | 14995.5 | 12912.0 | 10341.7 | 7774.2 |
| 70° | 1171.6 | 1144.6 | 1204.2 | 1419.2 | 1973.8 | 4800.9 | 12250.3 | 13753.2 | 12721.2 | 9261.2 | 6211.7 |
| 72.5° | 861.7 | 858.9 | 941.8 | 1160.4 | 1519.7 | 2557.3 | 9196.1 | 11027.5 | 10392.8 | 7052.0 | 3911.3 |
| 75° | 581.6 | 607.7 | 739.8 | 969.7 | 1377.3 | 1658.3 | 6269.4 | 8000.3 | 7214.9 | 4004.3 | 1598.8 |
| 77.5° | 331.3 | 333.2 | 476.5 | 778.9 | 1236.8 | 1334.5 | 3714.9 | 5096.8 | 3819.1 | 1331.7 | 474.6 |
| 80° | 143.3 | 157.3 | 236.4 | 565.8 | 1025.5 | 1181.9 | 2130.1 | 2801.1 | 1544.8 | 282.0 | 153.5 |
| 82.5° | 53.0 | 62.3 | 104.2 | 348.0 | 748.2 | 973.4 | 1287.0 | 1337.3 | 523.9 | 99.6 | 95.9 |
| 85° | 0.0 | 1.9 | 38.2 | 162.9 | 389.9 | 434.6 | 859.9 | 792.9 | 231.7 | 47.5 | 62.3 |
| 87.5° | 0.0 | 0.0 | 0.0 | 16.8 | 51.2 | 161.9 | 267.1 | 297.8 | 55.8 | 16.8 | 14.9 |
| 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° | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 | 3691.7 |
| 2.5° | 3663.7 | 3603.2 | 3451.6 | 3299.9 | 3187.3 | 3093.3 | 2951.8 | 2874.6 | 2833.6 | 2773.2 | 2776.9 |
| 5° | 3571.6 | 3448.8 | 3181.7 | 2905.3 | 2682.0 | 2464.2 | 2203.6 | 2098.5 | 2010.1 | 1959.8 | 1926.3 |
| 7.5° | 3434.8 | 3253.3 | 2857.8 | 2489.3 | 2145.9 | 1765.3 | 1479.6 | 1288.9 | 1160.4 | 1113.0 | 1067.4 |
| 10° | 3285.0 | 3044.0 | 2529.3 | 2018.5 | 1542.0 | 1149.3 | 907.3 | 732.4 | 670.0 | 612.3 | 617.9 |
| 12.5° | 3146.3 | 2853.2 | 2227.8 | 1593.2 | 1080.4 | 730.5 | 569.5 | 497.9 | 477.4 | 470.9 | 470.9 |
| 15° | 3032.8 | 2670.8 | 1904.0 | 1197.7 | 740.8 | 524.9 | 456.0 | 436.4 | 429.0 | 427.1 | 427.1 |
| 17.5° | 2911.8 | 2497.7 | 1611.8 | 885.0 | 538.8 | 439.2 | 416.0 | 402.9 | 400.2 | 398.3 | 398.3 |
| 20° | 2803.9 | 2323.7 | 1334.5 | 658.9 | 435.5 | 395.5 | 380.6 | 372.2 | 369.4 | 367.6 | 368.5 |
| 22.5° | 2701.5 | 2169.2 | 1073.9 | 497.9 | 383.4 | 360.1 | 345.2 | 336.9 | 331.3 | 326.6 | 327.6 |
| 25° | 2610.3 | 2020.3 | 863.6 | 407.6 | 345.2 | 324.8 | 309.9 | 297.8 | 285.7 | 280.1 | 279.2 |
| 27.5° | 2546.1 | 1890.0 | 672.8 | 349.0 | 310.8 | 288.5 | 269.9 | 255.0 | 239.2 | 230.8 | 228.9 |
| 30° | 2493.1 | 1757.9 | 532.3 | 308.0 | 276.4 | 255.0 | 231.7 | 210.3 | 193.6 | 185.2 | 181.5 |
| 32.5° | 2458.6 | 1632.3 | 419.7 | 274.5 | 247.5 | 221.5 | 195.4 | 174.0 | 155.4 | 147.0 | 145.2 |
| 35° | 2453.0 | 1527.1 | 343.4 | 246.6 | 221.5 | 193.6 | 166.6 | 143.3 | 127.5 | 119.1 | 117.3 |
| 37.5° | 2493.1 | 1446.1 | 287.6 | 224.3 | 200.1 | 169.4 | 139.6 | 118.2 | 104.2 | 97.7 | 96.8 |
| 40° | 2600.1 | 1395.0 | 249.4 | 205.7 | 180.5 | 147.0 | 119.1 | 100.5 | 86.5 | 80.0 | 80.0 |
| 42.5° | 2803.9 | 1396.8 | 224.3 | 188.0 | 161.0 | 125.6 | 101.4 | 83.8 | 71.7 | 66.1 | 64.2 |
| 45° | 3122.1 | 1460.1 | 202.9 | 170.3 | 142.4 | 108.9 | 86.5 | 68.9 | 56.8 | 52.1 | 52.1 |
| 47.5° | 3548.3 | 1585.7 | 184.3 | 152.6 | 125.6 | 93.1 | 73.5 | 55.8 | 45.6 | 40.9 | 40.9 |
| 50° | 4105.8 | 1787.7 | 168.4 | 137.7 | 111.7 | 80.0 | 59.6 | 45.6 | 35.4 | 31.6 | 30.7 |
| 52.5° | 4688.3 | 2037.1 | 149.8 | 124.7 | 95.9 | 67.9 | 48.4 | 35.4 | 27.0 | 24.2 | 23.3 |
| 55° | 5331.4 | 2280.9 | 132.1 | 111.7 | 78.2 | 56.8 | 38.2 | 27.9 | 19.5 | 16.8 | 16.8 |
| 57.5° | 5980.0 | 2520.0 | 110.7 | 93.1 | 61.4 | 41.9 | 29.8 | 20.5 | 13.0 | 10.2 | 10.2 |
| 60° | 6529.0 | 2597.3 | 94.0 | 75.4 | 46.5 | 29.8 | 21.4 | 13.0 | 7.4 | 4.7 | 4.7 |
| 62.5° | 6604.4 | 2336.7 | 79.1 | 57.7 | 33.5 | 20.5 | 11.2 | 7.4 | 2.8 | 1.9 | 1.9 |
| 65° | 6194.9 | 1898.4 | 66.1 | 43.7 | 22.3 | 10.2 | 4.7 | 2.8 | 0.9 | 0.0 | 0.0 |
| 67° | 5551.0 | 1539.2 | 54.0 | 32.6 | 15.8 | 6.5 | 2.8 | 0.9 | 0.0 | 0.0 | 0.0 |
| 67.5° | 5386.3 | 1467.5 | 52.1 | 30.7 | 14.0 | 5.6 | 1.9 | 0.9 | 0.0 | 0.0 | 0.0 |
| 70° | 4226.7 | 1099.0 | 37.2 | 18.6 | 8.4 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 2627.1 | 621.6 | 27.0 | 11.2 | 5.6 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 992.9 | 217.8 | 18.6 | 7.4 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 309.0 | 82.8 | 11.2 | 5.6 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 104.2 | 31.6 | 7.4 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 64.2 | 13.0 | 4.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 40.0 | 5.6 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 7.4 | 1.9 | 0.9 | 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)