

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: P299995

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-7060-800-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-07-LED-E1-SL3-7060-800-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26396.4 lumens
Efficiency: N/A
Efficacy: 89.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

Input Watts (W): 295
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: 25 FT

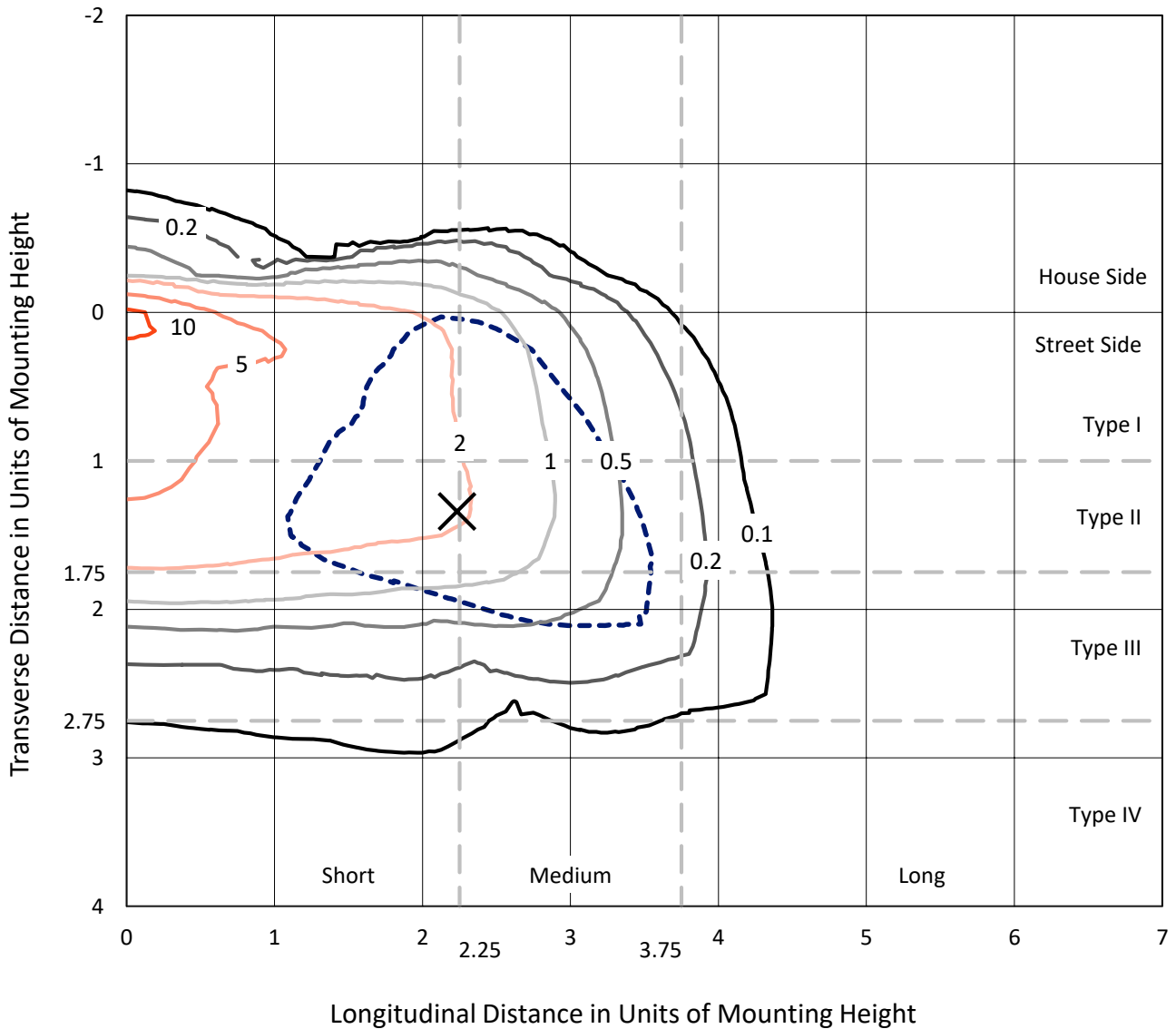


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

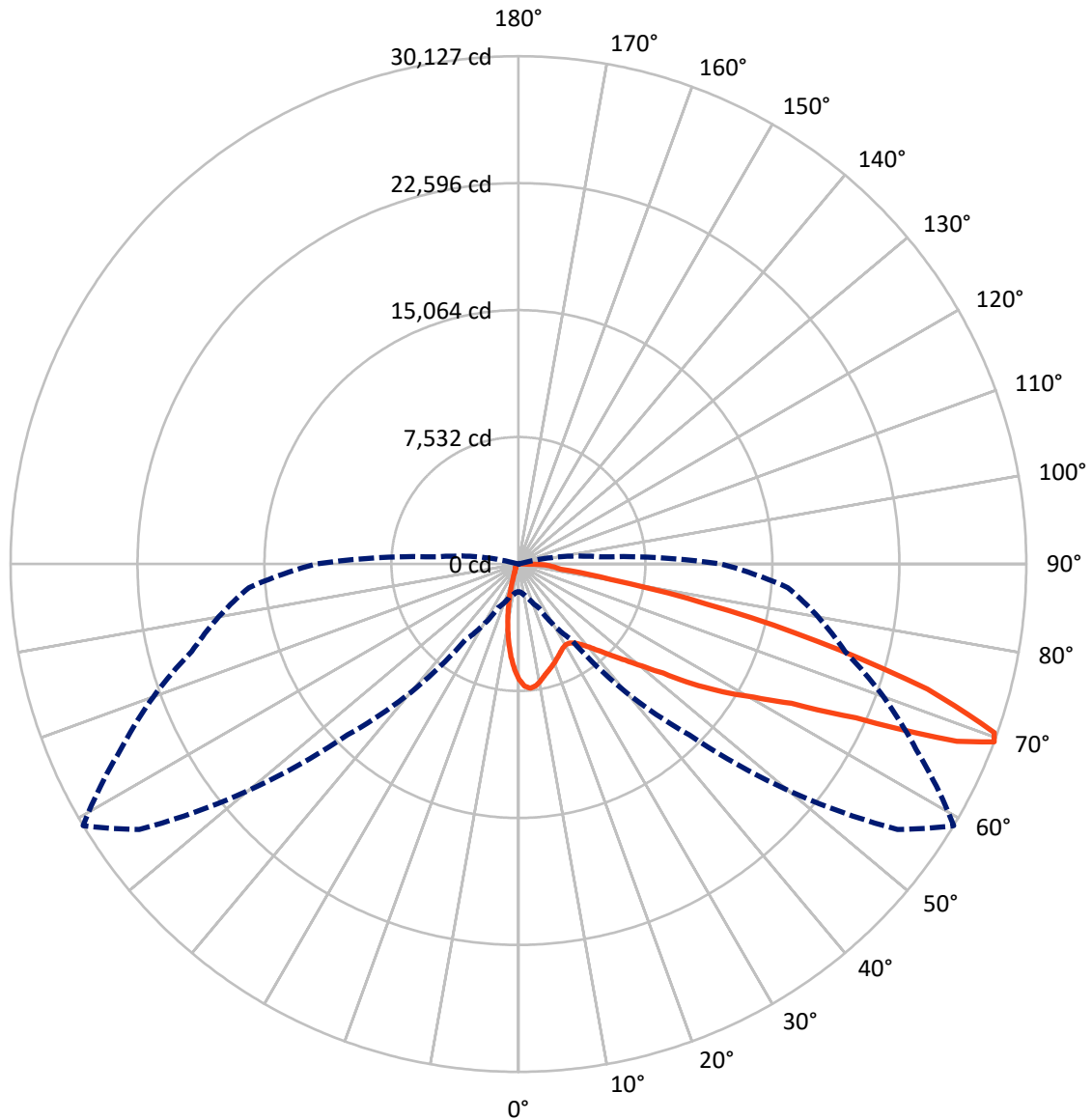


Based on 25 foot mounting height. Maximum calculated value = 11 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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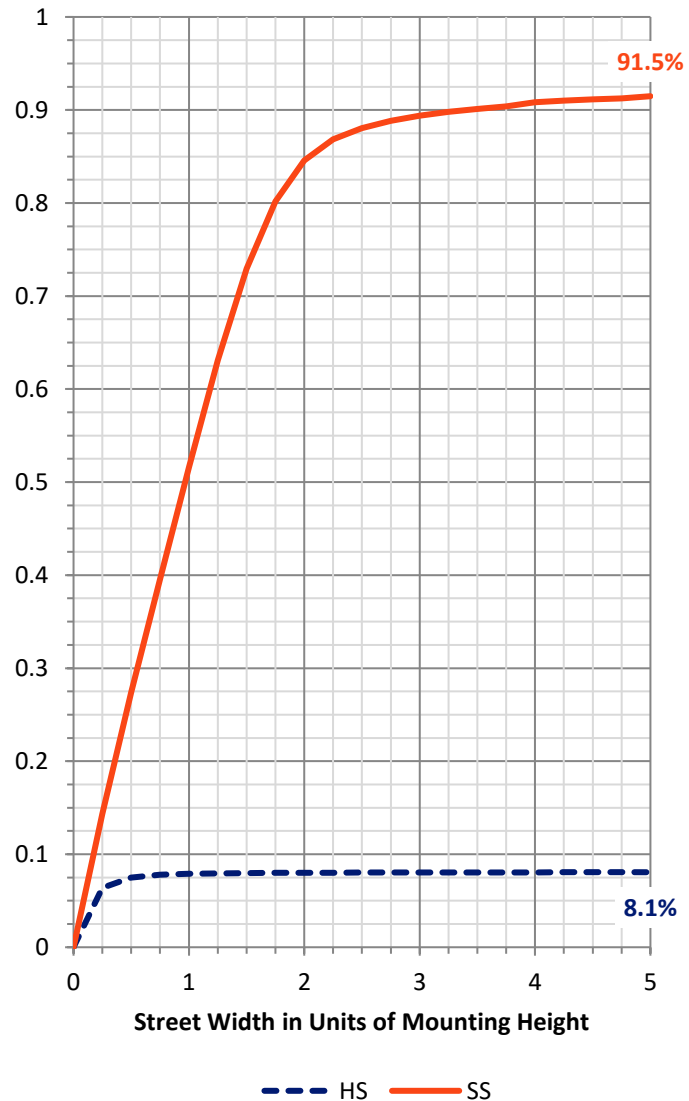
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2149.6 | 0.0 | 2149.6 |
| | % Fixture | 8.1 | 0.0 | 8.1 |
| Street Side | Lumens | 24246.8 | 0.0 | 24246.8 |
| | % Fixture | 91.9 | 0.0 | 91.9 |
| Total | Lumens | 26396.4 | 0.0 | 26396.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 557.7 | 2.1 |
| 10°-20° | 1152.3 | 4.4 |
| 20°-30° | 1550.6 | 5.9 |
| 30°-40° | 2251.4 | 8.5 |
| 40°-50° | 3748.7 | 14.2 |
| 50°-60° | 5848.0 | 22.2 |
| 60°-70° | 7236.5 | 27.4 |
| 70°-80° | 3667.4 | 13.9 |
| 80°-90° | 383.7 | 1.5 |
| 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° | 26396.4 | 100.0 |
| 0°-180° | 26396.4 | 100.0 |

Coefficient of Utilization



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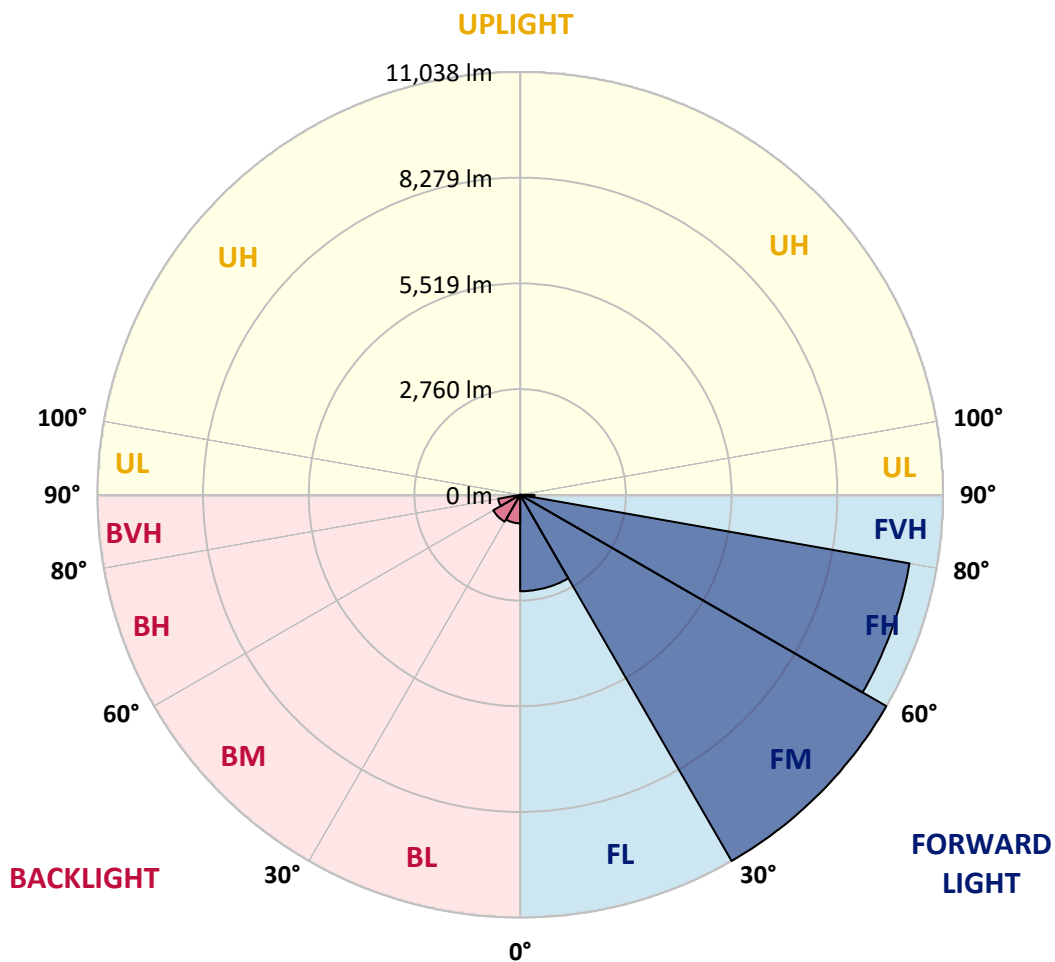
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 2516.6 | 9.5 | | | |
| FM | (30°-60°) | 11038.2 | 41.8 | | | |
| FH | (60°-80°) | 10320.0 | 39.1 | | | G4/12000 |
| FVH | (80°-90°) | 371.9 | 1.4 | | | G3/500 |
| BL | (0°-30°) | 744.1 | 2.8 | B2/1000 | | |
| BM | (30°-60°) | 810.0 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 583.8 | 2.2 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 11.8 | 0.0 | | | G1/100 |
| 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° | 59° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 |
| 2.5° | 7530.3 | 7527.6 | 7494.6 | 7479.7 | 7452.5 | 7396.0 | 7307.9 | 7261.8 | 7187.3 | 7057.1 | 6882.7 |
| 5° | 7461.6 | 7497.7 | 7516.7 | 7518.5 | 7537.9 | 7516.7 | 7437.6 | 7399.2 | 7296.2 | 7086.9 | 6773.8 |
| 7.5° | 6996.1 | 7009.2 | 7064.8 | 7112.2 | 7204.9 | 7293.0 | 7321.5 | 7304.8 | 7243.8 | 7020.1 | 6603.4 |
| 10° | 6497.6 | 6510.7 | 6576.7 | 6639.1 | 6764.7 | 6900.3 | 7043.6 | 7073.8 | 7099.1 | 6924.2 | 6439.3 |
| 12.5° | 6067.4 | 6081.0 | 6148.3 | 6230.1 | 6376.5 | 6543.7 | 6766.1 | 6815.3 | 6927.4 | 6833.4 | 6307.8 |
| 15° | 5697.3 | 5703.2 | 5769.2 | 5870.4 | 6045.3 | 6259.9 | 6512.6 | 6591.6 | 6763.4 | 6769.2 | 6193.0 |
| 17.5° | 5382.3 | 5397.2 | 5437.9 | 5534.6 | 5725.8 | 5991.5 | 6285.7 | 6399.1 | 6600.2 | 6715.5 | 6081.0 |
| 20° | 5189.8 | 5204.7 | 5203.4 | 5257.1 | 5428.9 | 5712.2 | 6058.8 | 6194.4 | 6439.3 | 6660.3 | 5981.1 |
| 22.5° | 5152.7 | 5152.7 | 5113.9 | 5106.2 | 5207.9 | 5445.1 | 5822.9 | 5988.3 | 6294.3 | 6636.4 | 5911.1 |
| 25° | 5285.6 | 5279.3 | 5182.6 | 5103.5 | 5108.0 | 5249.4 | 5594.3 | 5791.3 | 6172.3 | 6652.6 | 5873.5 |
| 27.5° | 5566.2 | 5558.6 | 5436.1 | 5285.6 | 5164.5 | 5163.1 | 5421.2 | 5633.1 | 6075.1 | 6730.4 | 5888.5 |
| 30° | 5954.0 | 5951.3 | 5818.4 | 5628.6 | 5409.4 | 5207.9 | 5361.5 | 5554.0 | 6012.3 | 6870.5 | 5922.8 |
| 32.5° | 6377.9 | 6373.4 | 6273.5 | 6073.7 | 5795.8 | 5409.4 | 5424.3 | 5585.7 | 6030.4 | 7057.1 | 6006.4 |
| 35° | 6827.5 | 6819.9 | 6776.5 | 6602.0 | 6296.1 | 5780.9 | 5630.4 | 5755.6 | 6143.8 | 7336.4 | 6170.5 |
| 37.5° | 7313.8 | 7321.5 | 7352.7 | 7185.5 | 6864.6 | 6302.0 | 5975.2 | 6060.2 | 6372.0 | 7715.6 | 6437.5 |
| 40° | 8031.9 | 8030.5 | 8040.9 | 7821.3 | 7512.6 | 6939.2 | 6457.0 | 6484.1 | 6754.3 | 8218.5 | 6843.8 |
| 42.5° | 9334.8 | 9243.9 | 8967.8 | 8520.0 | 8209.5 | 7667.6 | 7064.8 | 7036.3 | 7221.6 | 8840.8 | 7412.3 |
| 45° | 11085.9 | 10891.6 | 10175.3 | 9317.1 | 8919.9 | 8488.8 | 7812.3 | 7721.4 | 7839.4 | 9588.7 | 8114.1 |
| 47.5° | 12591.7 | 12390.2 | 11377.0 | 10146.9 | 9673.7 | 9267.9 | 8688.5 | 8524.5 | 8563.3 | 10426.1 | 9003.5 |
| 50° | 13103.7 | 13005.2 | 12120.4 | 10869.5 | 10403.5 | 10248.5 | 9705.3 | 9505.1 | 9450.0 | 11394.6 | 10034.8 |
| 52.5° | 12926.1 | 12918.9 | 12329.2 | 11338.1 | 11072.4 | 11263.5 | 10984.3 | 10752.9 | 10550.0 | 12415.9 | 11084.1 |
| 55° | 12641.0 | 12678.5 | 12414.1 | 11748.4 | 11739.4 | 12190.4 | 12733.6 | 12541.1 | 11953.2 | 13524.9 | 11988.9 |
| 57.5° | 11854.6 | 12014.2 | 12366.7 | 12524.8 | 12891.8 | 13353.2 | 14190.6 | 14304.0 | 13608.5 | 14374.1 | 12739.5 |
| 60° | 9618.6 | 9969.3 | 11121.6 | 12636.5 | 14377.2 | 15526.5 | 15949.0 | 16045.7 | 14966.5 | 15080.0 | 13753.1 |
| 62.5° | 6827.5 | 7185.5 | 8646.9 | 11209.8 | 14399.4 | 18381.7 | 18568.3 | 18187.8 | 16462.4 | 16126.6 | 15501.1 |
| 65° | 3623.9 | 3900.5 | 5094.4 | 8091.5 | 12484.6 | 19044.6 | 23149.4 | 22015.1 | 19101.1 | 18184.6 | 17759.4 |
| 67.5° | 1853.8 | 1937.4 | 2412.3 | 3960.1 | 8582.8 | 16916.1 | 27255.5 | 28054.0 | 23649.2 | 20226.8 | 17650.5 |
| 69° | 1640.5 | 1689.7 | 2004.7 | 2862.9 | 5495.7 | 14328.0 | 27455.7 | 30127.4 | 26030.3 | 20056.5 | 16039.8 |
| 70° | 1588.0 | 1631.4 | 1917.9 | 2591.3 | 4295.9 | 12015.5 | 26689.7 | 29945.3 | 26639.1 | 19408.9 | 14836.8 |
| 72.5° | 1348.1 | 1385.1 | 1707.8 | 2289.9 | 3491.5 | 5964.4 | 21680.6 | 25375.0 | 23904.5 | 16168.2 | 10739.3 |
| 75° | 901.6 | 1024.0 | 1639.1 | 2146.6 | 3247.9 | 3388.5 | 14293.6 | 18336.9 | 17034.0 | 10905.2 | 5594.3 |
| 77.5° | 216.5 | 232.7 | 462.8 | 1707.8 | 2970.4 | 2982.2 | 7351.3 | 11399.1 | 9297.7 | 3886.9 | 1322.3 |
| 80° | 116.6 | 112.1 | 129.7 | 338.9 | 2765.7 | 2798.7 | 3309.4 | 5533.3 | 3319.8 | 644.9 | 435.6 |
| 82.5° | 82.2 | 77.7 | 83.6 | 141.9 | 870.4 | 2549.3 | 2394.2 | 2504.5 | 1376.1 | 247.6 | 195.7 |
| 85° | 29.8 | 28.5 | 46.1 | 128.3 | 273.0 | 1465.6 | 2459.8 | 2065.7 | 1114.9 | 113.4 | 143.3 |
| 87.5° | 10.4 | 9.0 | 18.1 | 70.0 | 83.6 | 624.1 | 1518.0 | 1561.4 | 438.8 | 68.7 | 67.3 |
| 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° | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 | 6870.5 |
| 2.5° | 6809.5 | 6716.8 | 6546.9 | 6372.0 | 6210.7 | 6016.8 | 5919.6 | 5824.3 | 5784.1 | 5769.2 | 5699.1 |
| 5° | 6612.4 | 6455.6 | 6094.5 | 5731.6 | 5397.2 | 5042.0 | 4807.9 | 4619.9 | 4509.2 | 4455.4 | 4370.5 |
| 7.5° | 6360.3 | 6103.6 | 5555.4 | 4995.9 | 4474.9 | 3961.5 | 3581.0 | 3288.1 | 3086.6 | 2989.9 | 2901.7 |
| 10° | 6115.3 | 5773.7 | 4994.6 | 4231.7 | 3524.0 | 2843.5 | 2317.9 | 1937.4 | 1694.2 | 1582.2 | 1510.8 |
| 12.5° | 5896.1 | 5452.8 | 4452.7 | 3487.0 | 2598.5 | 1801.8 | 1267.2 | 964.4 | 813.4 | 761.0 | 735.7 |
| 15° | 5700.5 | 5157.3 | 3940.7 | 2779.3 | 1759.8 | 1029.9 | 692.8 | 589.7 | 565.8 | 565.8 | 562.6 |
| 17.5° | 5515.2 | 4867.6 | 3446.3 | 2115.0 | 1104.5 | 630.0 | 526.9 | 513.4 | 513.4 | 519.3 | 519.3 |
| 20° | 5337.6 | 4591.5 | 2968.6 | 1518.0 | 695.5 | 499.8 | 476.3 | 473.2 | 476.3 | 483.5 | 483.5 |
| 22.5° | 5185.3 | 4340.6 | 2522.6 | 1041.7 | 516.5 | 450.6 | 438.8 | 434.3 | 435.6 | 440.2 | 443.3 |
| 25° | 5071.8 | 4128.7 | 2101.9 | 705.9 | 444.7 | 410.3 | 397.2 | 389.6 | 383.7 | 383.7 | 386.4 |
| 27.5° | 5000.4 | 3949.7 | 1694.2 | 513.4 | 399.9 | 373.3 | 352.0 | 340.3 | 326.7 | 319.5 | 322.2 |
| 30° | 4948.0 | 3779.4 | 1311.9 | 419.4 | 358.4 | 331.3 | 304.6 | 285.2 | 265.7 | 256.7 | 259.9 |
| 32.5° | 4928.6 | 3642.0 | 980.7 | 370.1 | 320.9 | 291.0 | 258.0 | 232.7 | 211.9 | 204.3 | 206.1 |
| 35° | 4981.0 | 3533.1 | 718.1 | 334.4 | 291.0 | 253.5 | 216.5 | 188.0 | 171.7 | 167.2 | 168.6 |
| 37.5° | 5118.4 | 3474.8 | 537.3 | 304.6 | 264.4 | 222.3 | 180.8 | 153.7 | 143.3 | 143.3 | 144.6 |
| 40° | 5377.8 | 3473.4 | 431.6 | 283.8 | 240.4 | 192.5 | 149.1 | 129.7 | 123.8 | 127.0 | 128.3 |
| 42.5° | 5756.9 | 3552.5 | 376.0 | 264.4 | 219.6 | 164.0 | 123.8 | 110.3 | 108.9 | 112.1 | 113.4 |
| 45° | 6274.8 | 3697.1 | 346.2 | 247.6 | 197.0 | 137.4 | 104.4 | 95.4 | 95.4 | 99.9 | 101.7 |
| 47.5° | 6909.3 | 3909.1 | 320.9 | 231.4 | 174.4 | 114.8 | 89.5 | 83.6 | 85.0 | 89.5 | 90.8 |
| 50° | 7673.5 | 4176.6 | 295.6 | 213.3 | 158.2 | 95.4 | 77.7 | 73.2 | 74.6 | 80.4 | 82.2 |
| 52.5° | 8543.9 | 4536.3 | 274.8 | 197.0 | 137.4 | 79.1 | 65.5 | 62.8 | 65.5 | 71.9 | 73.2 |
| 55° | 9290.0 | 4858.5 | 249.5 | 183.5 | 110.3 | 65.5 | 53.8 | 53.8 | 56.9 | 64.2 | 65.5 |
| 57.5° | 10008.1 | 5195.7 | 226.9 | 158.2 | 86.8 | 52.4 | 44.7 | 46.1 | 50.6 | 58.3 | 59.7 |
| 60° | 11062.0 | 5767.3 | 200.2 | 132.9 | 65.5 | 41.6 | 37.5 | 38.9 | 44.7 | 52.4 | 53.8 |
| 62.5° | 12851.6 | 6637.7 | 173.1 | 110.3 | 50.6 | 33.0 | 29.8 | 33.0 | 40.2 | 49.3 | 50.6 |
| 65° | 14466.7 | 6991.6 | 141.9 | 92.6 | 38.9 | 25.3 | 25.3 | 29.8 | 38.9 | 47.9 | 49.3 |
| 67.5° | 13566.5 | 5885.3 | 110.3 | 73.2 | 29.8 | 19.4 | 20.8 | 28.5 | 37.5 | 47.9 | 49.3 |
| 69° | 11997.9 | 4812.4 | 94.0 | 58.3 | 25.3 | 18.1 | 19.4 | 28.5 | 37.5 | 46.1 | 47.9 |
| 70° | 10775.5 | 4063.2 | 83.6 | 49.3 | 22.6 | 18.1 | 19.4 | 26.7 | 37.5 | 46.1 | 47.9 |
| 72.5° | 7217.1 | 2194.0 | 67.3 | 35.7 | 20.8 | 16.3 | 16.3 | 26.7 | 35.7 | 44.7 | 46.1 |
| 75° | 3101.5 | 606.0 | 53.8 | 25.3 | 18.1 | 14.9 | 14.9 | 25.3 | 34.3 | 43.4 | 46.1 |
| 77.5° | 567.2 | 153.7 | 43.4 | 22.6 | 18.1 | 14.9 | 13.6 | 24.0 | 33.0 | 41.6 | 43.4 |
| 80° | 225.5 | 75.9 | 34.3 | 19.4 | 16.3 | 13.6 | 11.7 | 22.6 | 31.2 | 40.2 | 41.6 |
| 82.5° | 136.0 | 43.4 | 28.5 | 18.1 | 16.3 | 11.7 | 10.4 | 19.4 | 29.8 | 38.9 | 40.2 |
| 85° | 110.3 | 29.8 | 22.6 | 18.1 | 14.9 | 11.7 | 9.0 | 18.1 | 26.7 | 37.5 | 38.9 |
| 87.5° | 53.8 | 20.8 | 20.8 | 16.3 | 14.9 | 11.7 | 9.0 | 16.3 | 25.3 | 35.7 | 37.5 |
| 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)