

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: P300934

Luminaire Tested: **GLNA-AF-06-LED-E1-SL4-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300934
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-06-LED-E1-SL4-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27234.4 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G4

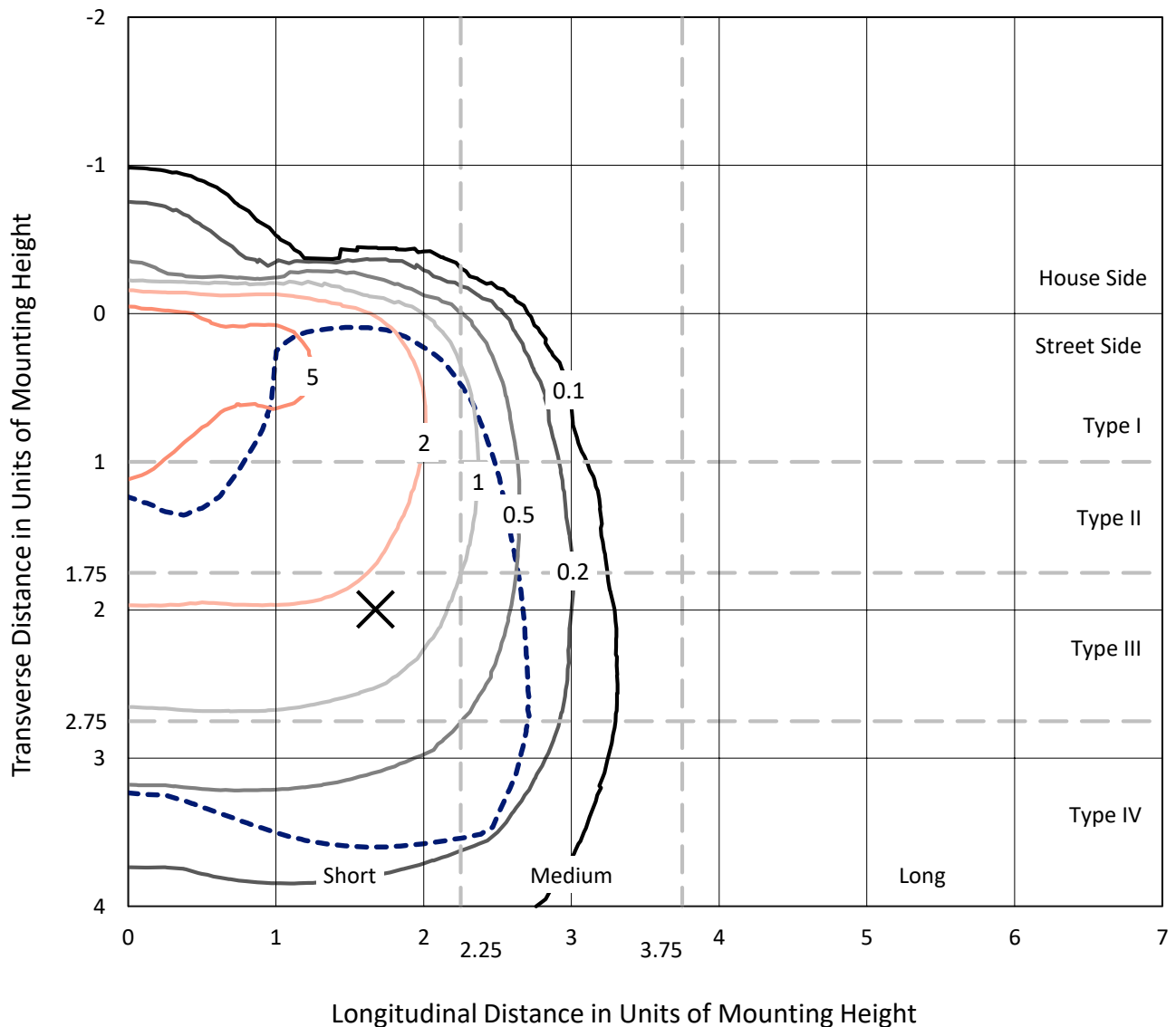
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

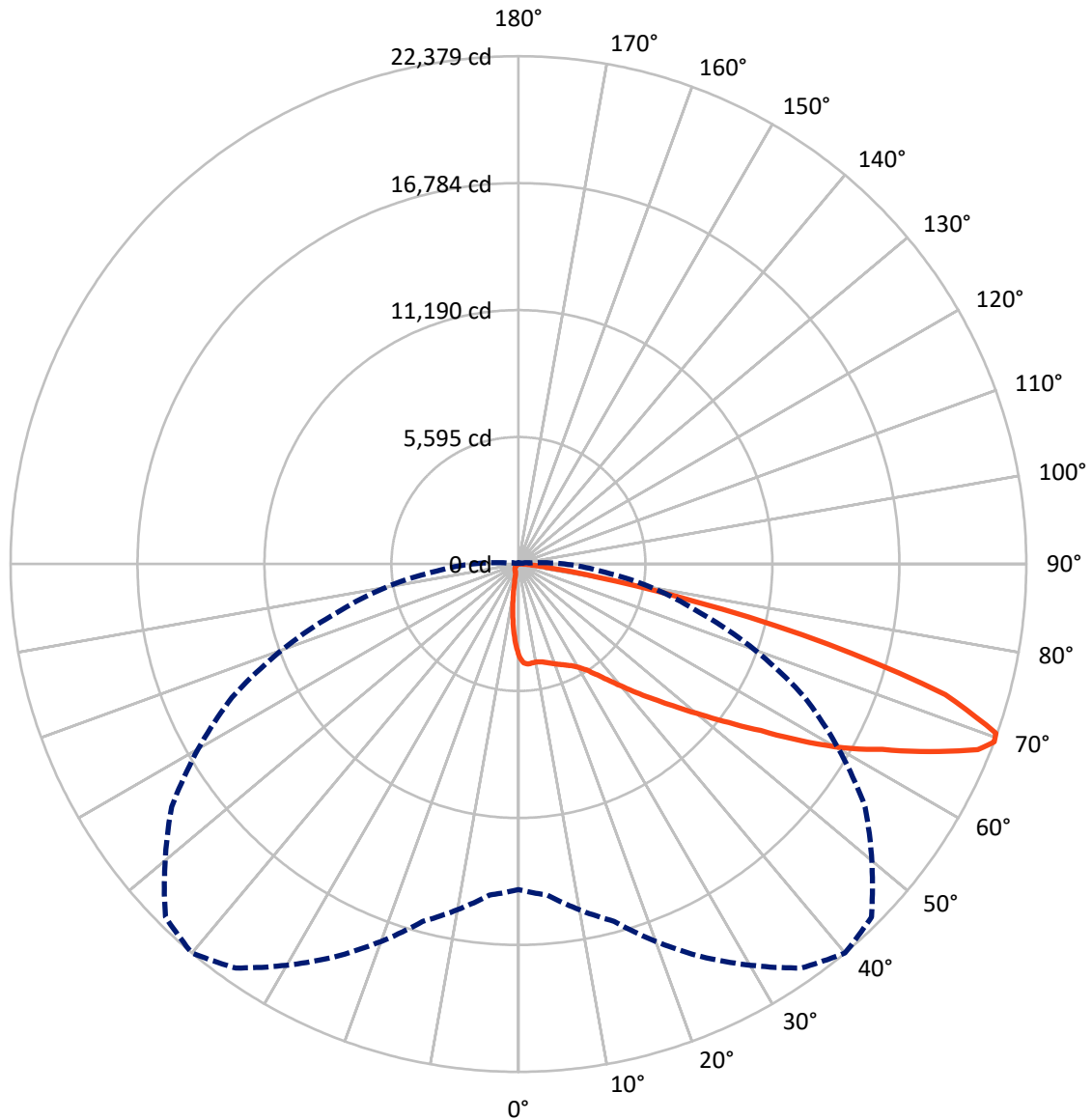
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1593.4 | 0.0 | 1593.4 |
| | % Fixture | 5.9 | 0.0 | 5.9 |
| Street Side | Lumens | 25641.1 | 0.0 | 25641.1 |
| | % Fixture | 94.1 | 0.0 | 94.1 |
| Total | Lumens | 27234.4 | 0.0 | 27234.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 329.9 | 1.2 |
| 10°-20° | 811.3 | 3.0 |
| 20°-30° | 1366.5 | 5.0 |
| 30°-40° | 2237.1 | 8.2 |
| 40°-50° | 3873.4 | 14.2 |
| 50°-60° | 6101.0 | 22.4 |
| 60°-70° | 7967.6 | 29.3 |
| 70°-80° | 4103.7 | 15.1 |
| 80°-90° | 443.9 | 1.6 |
| 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° | 27234.4 | 100.0 |
| 0°-180° | 27234.4 | 100.0 |



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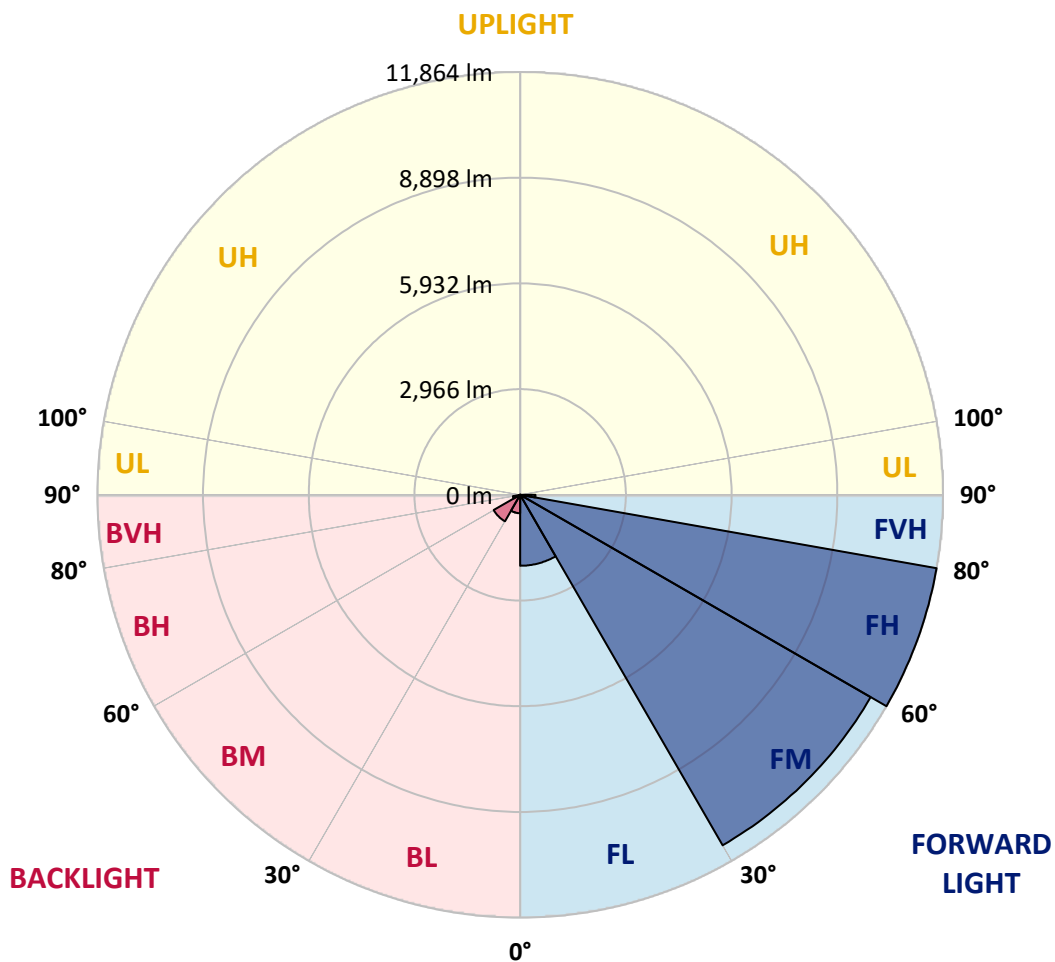
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1991.6 | 7.3 | | | |
| FM | (30°-60°) | 11355.0 | 41.7 | | | |
| FH | (60°-80°) | 11864.4 | 43.6 | | | G4/12000 |
| FVH | (80°-90°) | 430.0 | 1.6 | | | G3/500 |
| BL | (0°-30°) | 516.1 | 1.9 | B2/1000 | | |
| BM | (30°-60°) | 856.4 | 3.1 | B1/1000 | | |
| BH | (60°-80°) | 206.9 | 0.8 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 13.9 | 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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 |
| 2.5° | 4467.8 | 4443.4 | 4428.8 | 4409.4 | 4385.1 | 4364.0 | 4355.9 | 4295.9 | 4239.2 | 4161.4 | 4072.2 |
| 5° | 4550.4 | 4542.3 | 4516.4 | 4490.5 | 4461.3 | 4428.8 | 4411.0 | 4339.7 | 4258.6 | 4145.2 | 3989.5 |
| 7.5° | 4558.5 | 4548.8 | 4516.4 | 4480.7 | 4440.2 | 4401.3 | 4370.5 | 4299.2 | 4224.6 | 4109.5 | 3919.8 |
| 10° | 4545.6 | 4534.2 | 4509.9 | 4471.0 | 4420.7 | 4383.5 | 4352.7 | 4284.6 | 4221.3 | 4117.6 | 3906.9 |
| 12.5° | 4531.0 | 4519.6 | 4508.3 | 4488.8 | 4445.1 | 4419.1 | 4393.2 | 4328.3 | 4271.6 | 4184.1 | 3953.9 |
| 15° | 4545.6 | 4539.1 | 4552.1 | 4543.9 | 4519.6 | 4496.9 | 4471.0 | 4412.6 | 4360.8 | 4287.8 | 4039.8 |
| 17.5° | 4607.2 | 4607.2 | 4647.7 | 4652.6 | 4629.9 | 4597.4 | 4560.2 | 4501.8 | 4458.0 | 4396.4 | 4141.9 |
| 20° | 4751.4 | 4746.6 | 4798.5 | 4808.2 | 4753.1 | 4702.8 | 4647.7 | 4576.4 | 4542.3 | 4503.4 | 4242.4 |
| 22.5° | 4999.5 | 4976.8 | 5007.6 | 4997.9 | 4889.2 | 4811.4 | 4743.3 | 4655.8 | 4638.0 | 4620.1 | 4354.3 |
| 25° | 5322.1 | 5309.1 | 5330.2 | 5234.5 | 5043.2 | 4937.9 | 4856.8 | 4757.9 | 4757.9 | 4775.8 | 4480.7 |
| 27.5° | 5790.6 | 5741.9 | 5670.6 | 5502.0 | 5215.1 | 5080.5 | 4993.0 | 4887.6 | 4915.2 | 4981.6 | 4647.7 |
| 30° | 6270.4 | 6216.9 | 6053.2 | 5793.8 | 5424.2 | 5283.2 | 5181.0 | 5070.8 | 5135.6 | 5257.2 | 4871.4 |
| 32.5° | 6743.8 | 6683.8 | 6452.0 | 6124.5 | 5724.1 | 5583.1 | 5484.2 | 5362.6 | 5471.2 | 5675.5 | 5198.9 |
| 35° | 7202.6 | 7149.1 | 6881.6 | 6495.8 | 6122.9 | 6006.2 | 5915.4 | 5810.0 | 5949.4 | 6234.8 | 5660.9 |
| 37.5° | 7718.1 | 7659.7 | 7333.9 | 6915.6 | 6607.6 | 6523.3 | 6456.8 | 6351.5 | 6594.6 | 7012.9 | 6304.5 |
| 40° | 8351.9 | 8253.0 | 7813.7 | 7397.1 | 7168.5 | 7128.0 | 7082.6 | 7068.0 | 7445.7 | 8024.5 | 7162.0 |
| 42.5° | 9078.2 | 8916.1 | 8316.2 | 7904.5 | 7784.5 | 7813.7 | 7802.4 | 7867.2 | 8510.8 | 9282.4 | 8206.0 |
| 45° | 9804.4 | 9595.3 | 8875.5 | 8445.9 | 8462.1 | 8564.3 | 8627.5 | 8886.9 | 9844.9 | 10725.2 | 9329.4 |
| 47.5° | 10420.4 | 10214.6 | 9412.1 | 9031.2 | 9225.7 | 9426.7 | 9598.5 | 10089.7 | 11216.4 | 12145.3 | 10203.2 |
| 50° | 10947.3 | 10752.8 | 9981.1 | 9674.7 | 10112.4 | 10436.6 | 10715.5 | 11443.4 | 12691.6 | 13226.6 | 10816.0 |
| 52.5° | 11378.5 | 11248.8 | 10571.2 | 10412.3 | 11125.6 | 11600.6 | 12009.1 | 12881.3 | 13998.2 | 14105.2 | 11292.6 |
| 55° | 11798.4 | 11706.0 | 11205.1 | 11289.3 | 12315.5 | 12962.3 | 13479.5 | 14406.7 | 15123.3 | 14837.9 | 11749.7 |
| 57.5° | 12281.5 | 12197.2 | 11928.1 | 12401.4 | 13879.9 | 14693.7 | 15257.8 | 15758.7 | 16113.7 | 15586.9 | 12181.0 |
| 60° | 12774.3 | 12725.6 | 12732.1 | 13636.7 | 15676.0 | 16457.4 | 16768.7 | 16898.4 | 17086.4 | 16292.1 | 12205.3 |
| 62.5° | 13244.4 | 13336.8 | 13651.3 | 15011.4 | 17396.0 | 17995.8 | 18153.1 | 18281.2 | 18060.7 | 16403.9 | 11276.4 |
| 65° | 14040.4 | 14191.1 | 14941.7 | 16851.3 | 19287.9 | 19929.8 | 20091.9 | 19652.6 | 18214.7 | 14957.9 | 9172.2 |
| 67.5° | 14429.4 | 14705.0 | 16044.0 | 18566.5 | 21122.9 | 21836.2 | 21776.3 | 19741.8 | 16345.6 | 11406.1 | 5886.2 |
| 69° | 14348.4 | 14641.8 | 16298.6 | 19091.7 | 21732.5 | 22379.3 | 21998.3 | 18650.8 | 13925.3 | 8262.8 | 3613.4 |
| 70° | 14027.4 | 14324.1 | 16167.2 | 19072.3 | 21810.3 | 22322.6 | 21586.6 | 17303.6 | 11774.1 | 6041.8 | 2259.8 |
| 72.5° | 11714.1 | 11970.2 | 14353.2 | 17238.8 | 20091.9 | 19675.3 | 18059.1 | 11988.0 | 5737.1 | 1645.4 | 509.0 |
| 75° | 7210.7 | 7353.3 | 10298.9 | 12986.6 | 15175.1 | 14105.2 | 12031.8 | 5964.0 | 1710.3 | 465.3 | 282.1 |
| 77.5° | 3809.6 | 3874.4 | 5638.2 | 7654.8 | 9619.6 | 7959.6 | 6166.7 | 2326.3 | 787.9 | 291.8 | 204.3 |
| 80° | 2251.7 | 2300.3 | 3036.3 | 3500.0 | 4163.0 | 3477.3 | 2465.7 | 1428.2 | 564.1 | 183.2 | 181.6 |
| 82.5° | 1288.8 | 1319.6 | 2201.5 | 1945.3 | 1640.6 | 1400.6 | 1227.2 | 1353.6 | 338.8 | 123.2 | 188.0 |
| 85° | 473.4 | 479.8 | 1238.5 | 1480.1 | 975.9 | 580.4 | 609.5 | 1121.8 | 90.8 | 77.8 | 147.5 |
| 87.5° | 220.5 | 215.6 | 637.1 | 906.2 | 570.6 | 368.0 | 475.0 | 246.4 | 35.7 | 50.3 | 40.5 |
| 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° | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 | 4069.0 |
| 2.5° | 4020.3 | 3960.4 | 3851.7 | 3739.9 | 3626.4 | 3538.9 | 3452.9 | 3384.9 | 3362.2 | 3320.0 | 3323.3 |
| 5° | 3897.1 | 3786.9 | 3559.9 | 3329.7 | 3089.8 | 2892.0 | 2705.6 | 2554.9 | 2481.9 | 2407.3 | 2407.3 |
| 7.5° | 3790.1 | 3629.6 | 3274.6 | 2900.2 | 2512.7 | 2186.9 | 1893.4 | 1673.0 | 1551.4 | 1454.1 | 1452.5 |
| 10° | 3749.6 | 3532.4 | 3036.3 | 2499.7 | 1959.9 | 1515.7 | 1167.2 | 943.5 | 828.4 | 753.8 | 750.6 |
| 12.5° | 3767.4 | 3498.3 | 2853.1 | 2130.1 | 1452.5 | 974.3 | 676.0 | 531.7 | 483.1 | 460.4 | 460.4 |
| 15° | 3819.3 | 3488.6 | 2670.0 | 1768.6 | 1026.2 | 609.5 | 449.0 | 410.1 | 406.9 | 406.9 | 406.9 |
| 17.5° | 3882.5 | 3491.9 | 2481.9 | 1416.8 | 698.7 | 436.1 | 387.4 | 382.6 | 385.8 | 385.8 | 385.8 |
| 20° | 3947.4 | 3493.5 | 2279.3 | 1091.0 | 492.8 | 379.3 | 364.7 | 363.1 | 366.4 | 366.4 | 368.0 |
| 22.5° | 4026.8 | 3501.6 | 2076.6 | 815.4 | 406.9 | 358.3 | 346.9 | 346.9 | 348.5 | 348.5 | 346.9 |
| 25° | 4117.6 | 3517.8 | 1865.9 | 604.7 | 371.2 | 343.7 | 333.9 | 332.3 | 333.9 | 332.3 | 330.7 |
| 27.5° | 4231.1 | 3540.5 | 1630.8 | 473.4 | 355.0 | 329.1 | 321.0 | 321.0 | 319.4 | 317.7 | 316.1 |
| 30° | 4373.7 | 3566.4 | 1366.6 | 402.0 | 338.8 | 316.1 | 308.0 | 306.4 | 304.8 | 301.5 | 301.5 |
| 32.5° | 4591.0 | 3623.2 | 1105.6 | 364.7 | 321.0 | 298.3 | 291.8 | 291.8 | 288.6 | 285.3 | 283.7 |
| 35° | 4924.9 | 3735.0 | 872.2 | 342.1 | 301.5 | 278.8 | 270.7 | 270.7 | 267.5 | 265.9 | 264.2 |
| 37.5° | 5386.9 | 3905.2 | 677.6 | 321.0 | 282.1 | 257.8 | 249.6 | 248.0 | 244.8 | 241.5 | 239.9 |
| 40° | 6001.3 | 4116.0 | 533.3 | 301.5 | 262.6 | 236.7 | 230.2 | 227.0 | 220.5 | 215.6 | 215.6 |
| 42.5° | 6773.0 | 4355.9 | 432.8 | 280.5 | 239.9 | 217.2 | 212.4 | 207.5 | 196.2 | 191.3 | 189.7 |
| 45° | 7580.3 | 4571.5 | 366.4 | 256.1 | 217.2 | 197.8 | 194.5 | 186.4 | 171.8 | 167.0 | 167.0 |
| 47.5° | 8162.2 | 4621.8 | 322.6 | 233.4 | 196.2 | 176.7 | 175.1 | 160.5 | 147.5 | 144.3 | 142.7 |
| 50° | 8525.4 | 4522.9 | 286.9 | 210.7 | 176.7 | 157.2 | 152.4 | 134.6 | 126.4 | 123.2 | 121.6 |
| 52.5° | 8770.2 | 4346.2 | 257.8 | 191.3 | 158.9 | 139.4 | 128.1 | 115.1 | 108.6 | 105.4 | 105.4 |
| 55° | 8966.3 | 4096.5 | 228.6 | 173.5 | 144.3 | 124.8 | 108.6 | 98.9 | 92.4 | 89.2 | 89.2 |
| 57.5° | 9021.4 | 3757.7 | 199.4 | 158.9 | 129.7 | 110.2 | 92.4 | 85.9 | 77.8 | 76.2 | 76.2 |
| 60° | 8621.0 | 3146.6 | 176.7 | 141.0 | 116.7 | 95.6 | 81.1 | 72.9 | 64.8 | 63.2 | 61.6 |
| 62.5° | 7565.7 | 2434.9 | 155.6 | 124.8 | 102.1 | 82.7 | 69.7 | 60.0 | 53.5 | 53.5 | 53.5 |
| 65° | 5771.1 | 1632.4 | 136.2 | 108.6 | 89.2 | 69.7 | 60.0 | 48.6 | 45.4 | 45.4 | 47.0 |
| 67.5° | 3454.6 | 888.4 | 116.7 | 92.4 | 76.2 | 58.4 | 50.3 | 42.1 | 40.5 | 42.1 | 42.1 |
| 69° | 2024.8 | 522.0 | 105.4 | 82.7 | 66.5 | 51.9 | 43.8 | 37.3 | 40.5 | 42.1 | 42.1 |
| 70° | 1249.9 | 351.8 | 97.3 | 74.6 | 60.0 | 47.0 | 40.5 | 35.7 | 38.9 | 40.5 | 40.5 |
| 72.5° | 348.5 | 181.6 | 77.8 | 58.4 | 48.6 | 38.9 | 32.4 | 32.4 | 37.3 | 38.9 | 38.9 |
| 75° | 227.0 | 134.6 | 60.0 | 43.8 | 37.3 | 30.8 | 27.6 | 30.8 | 35.7 | 37.3 | 37.3 |
| 77.5° | 188.0 | 110.2 | 48.6 | 35.7 | 30.8 | 29.2 | 25.9 | 27.6 | 32.4 | 34.0 | 34.0 |
| 80° | 171.8 | 77.8 | 38.9 | 32.4 | 27.6 | 25.9 | 24.3 | 22.7 | 29.2 | 30.8 | 30.8 |
| 82.5° | 163.7 | 61.6 | 34.0 | 29.2 | 25.9 | 22.7 | 21.1 | 22.7 | 25.9 | 27.6 | 29.2 |
| 85° | 102.1 | 40.5 | 30.8 | 27.6 | 22.7 | 21.1 | 21.1 | 21.1 | 24.3 | 25.9 | 25.9 |
| 87.5° | 37.3 | 32.4 | 27.6 | 22.7 | 19.5 | 19.5 | 19.5 | 19.5 | 21.1 | 24.3 | 24.3 |
| 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)