

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: P300657

Luminaire Tested: **GLNA-AF-10-LED-E1-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-10-LED-E1-AFL-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 43816 lumens
Efficiency: N/A
Efficacy: 78.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

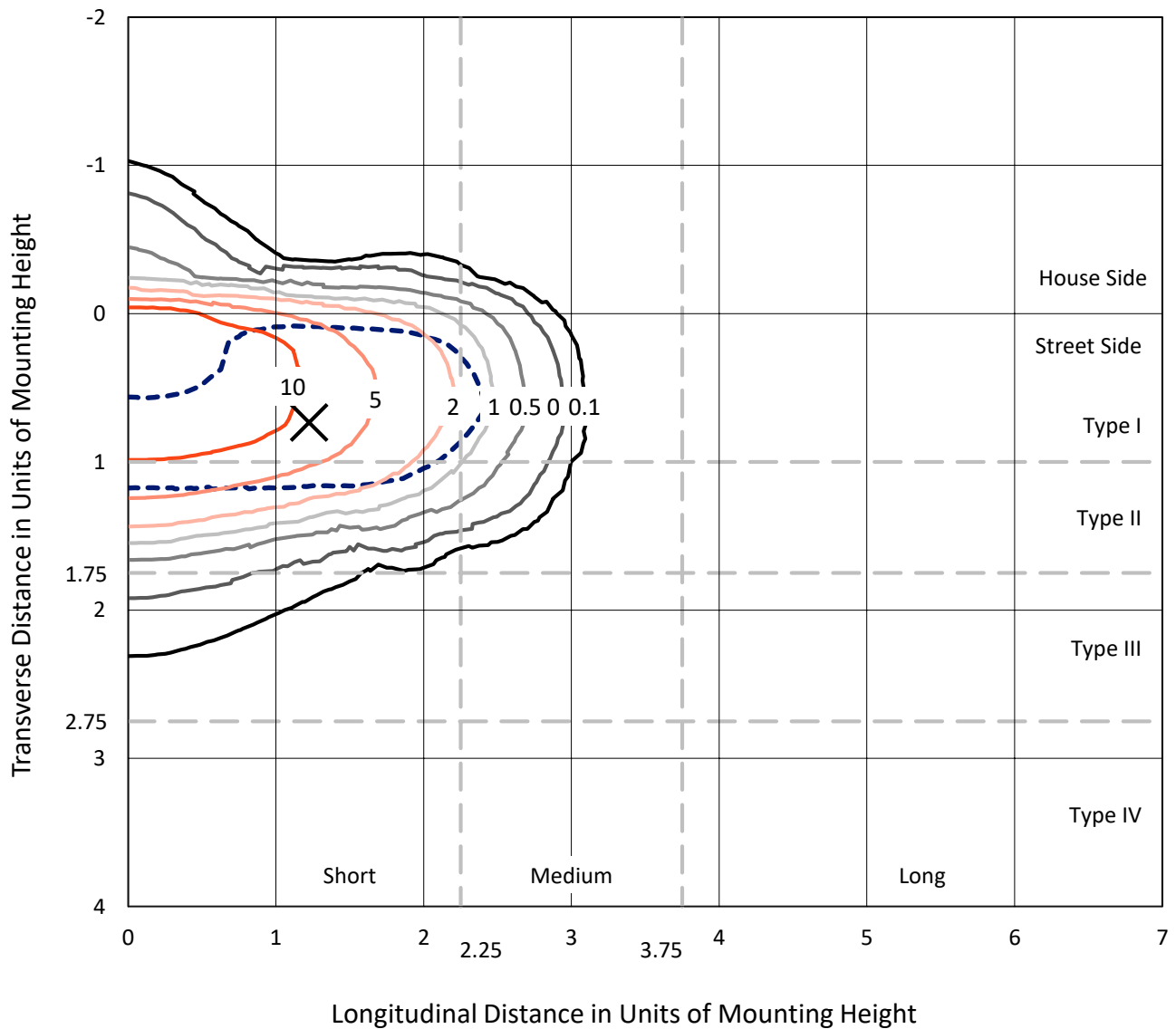
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

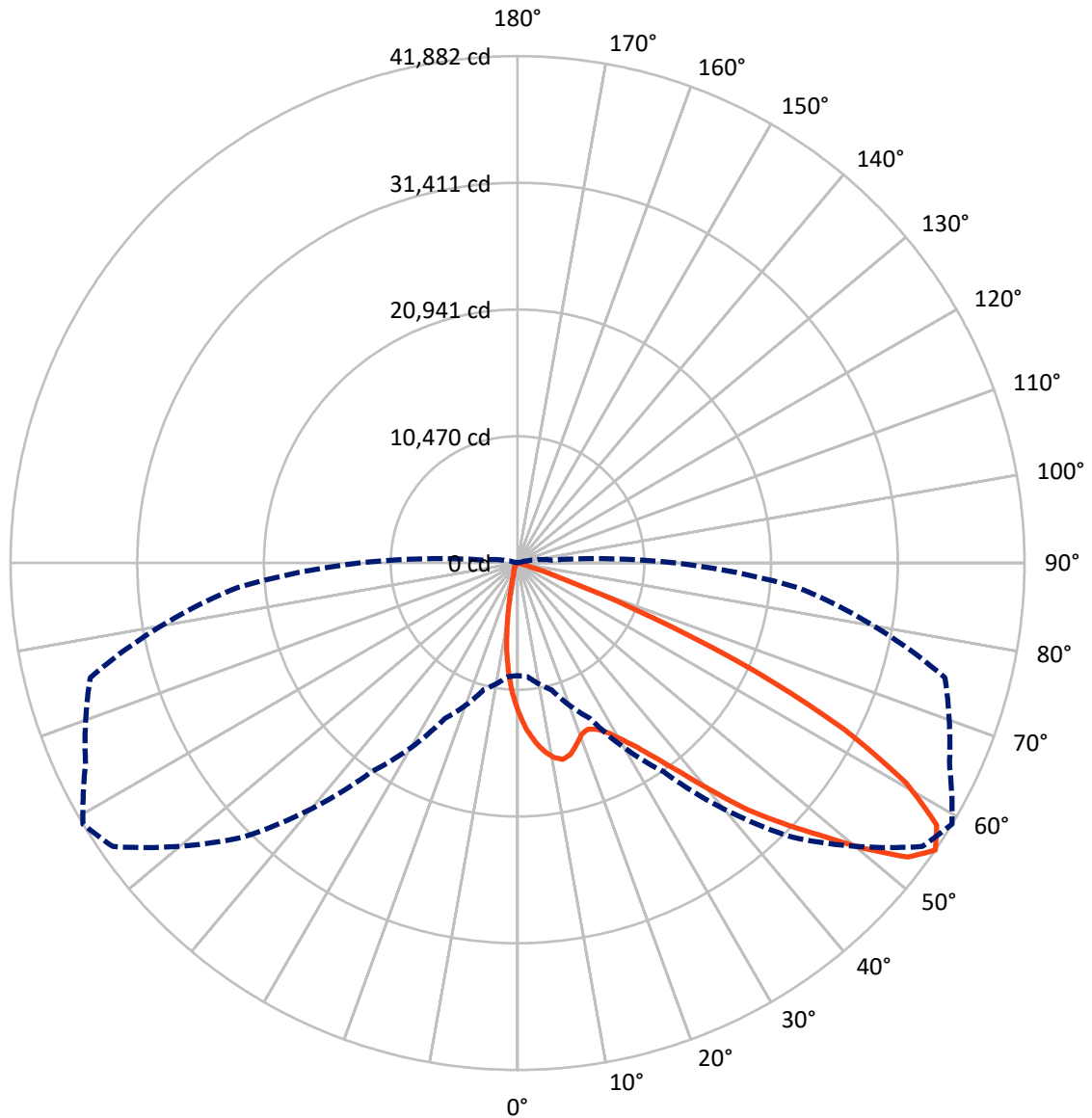
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 17 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2447.4 | 0.0 | 2447.4 |
| | % Fixture | 5.6 | 0.0 | 5.6 |
| Street Side | Lumens | 41368.7 | 0.0 | 41368.7 |
| | % Fixture | 94.4 | 0.0 | 94.4 |
| Total | Lumens | 43816.0 | 0.0 | 43816.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1033.1 | 2.4 |
| 10°-20° | 2473.5 | 5.6 |
| 20°-30° | 4209.0 | 9.6 |
| 30°-40° | 7238.6 | 16.5 |
| 40°-50° | 11175.6 | 25.5 |
| 50°-60° | 11235.1 | 25.6 |
| 60°-70° | 5761.4 | 13.1 |
| 70°-80° | 624.4 | 1.4 |
| 80°-90° | 65.3 | 0.1 |
| 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° | 43816.0 | 100.0 |
| 0°-180° | 43816.0 | 100.0 |



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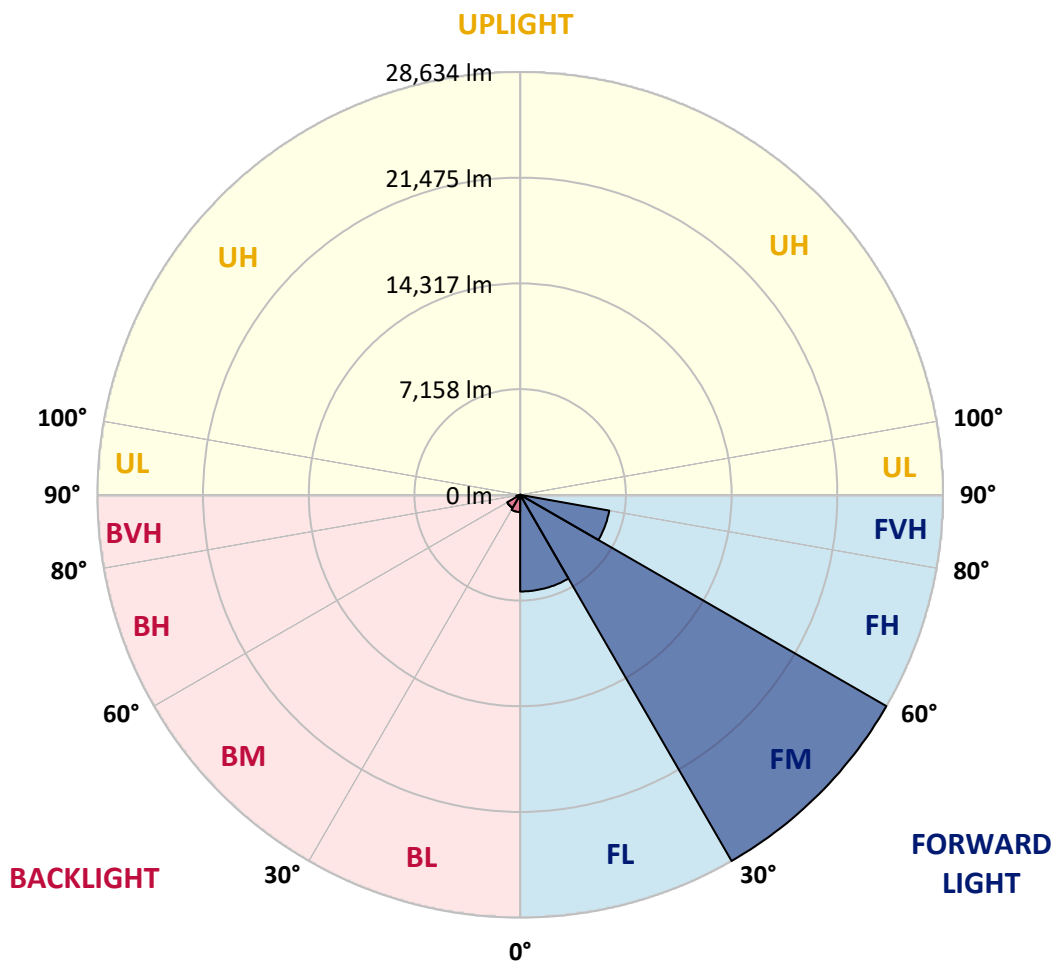
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 6547.6 | 14.9 | | | |
| FM | (30°-60°) | 28633.6 | 65.3 | | | |
| FH | (60°-80°) | 6123.6 | 14.0 | | | G3/7500 |
| FVH | (80°-90°) | 63.9 | 0.1 | | | G1/100 |
| BL | (0°-30°) | 1168.1 | 2.7 | B3/2500 | | |
| BM | (30°-60°) | 1015.7 | 2.3 | B2/2500 | | |
| BH | (60°-80°) | 262.2 | 0.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 1.3 | 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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 |
| 2.5° | 14594.0 | 14438.9 | 14392.3 | 14361.3 | 14219.1 | 14040.7 | 13797.6 | 13683.8 | 13451.1 | 13076.2 | 12615.9 |
| 5° | 15930.8 | 15902.4 | 15799.0 | 15742.1 | 15589.5 | 15336.1 | 14948.3 | 14762.1 | 14392.3 | 13761.4 | 12936.5 |
| 7.5° | 15346.5 | 15524.9 | 15667.1 | 15905.0 | 16204.9 | 16194.6 | 15868.8 | 15674.9 | 15261.1 | 14428.5 | 13293.4 |
| 10° | 13089.1 | 13233.9 | 13466.6 | 14007.0 | 15108.6 | 16080.8 | 16463.5 | 16323.9 | 15992.9 | 15041.3 | 13637.3 |
| 12.5° | 12646.9 | 12631.4 | 12672.8 | 12830.5 | 13407.1 | 14793.1 | 16362.7 | 16644.5 | 16577.3 | 15602.5 | 13963.1 |
| 15° | 12882.2 | 12864.1 | 12859.0 | 12913.3 | 13052.9 | 13637.3 | 15605.0 | 16414.4 | 16934.1 | 16122.2 | 14239.8 |
| 17.5° | 13541.6 | 13464.0 | 13422.7 | 13378.7 | 13337.3 | 13482.1 | 14694.9 | 15770.5 | 16988.4 | 16577.3 | 14469.9 |
| 20° | 14671.6 | 14542.3 | 14389.7 | 14141.5 | 13908.8 | 13836.4 | 14312.2 | 15108.6 | 16794.5 | 16923.8 | 14619.9 |
| 22.5° | 16091.2 | 15925.7 | 15661.9 | 15209.4 | 14736.2 | 14462.1 | 14500.9 | 14899.1 | 16504.9 | 17301.3 | 14689.7 |
| 25° | 17686.6 | 17474.5 | 17122.9 | 16494.5 | 15799.0 | 15312.9 | 15059.4 | 15199.1 | 16373.0 | 17743.5 | 14769.8 |
| 27.5° | 19395.8 | 19160.5 | 18700.2 | 17844.3 | 17055.7 | 16398.9 | 15881.7 | 15863.6 | 16598.0 | 18322.7 | 14899.1 |
| 30° | 21089.4 | 21053.2 | 20453.3 | 19548.3 | 18503.7 | 17704.7 | 16960.0 | 16864.3 | 17226.3 | 19124.3 | 15155.1 |
| 32.5° | 23349.4 | 23077.9 | 22343.5 | 21412.7 | 20207.7 | 19248.4 | 18366.6 | 18144.3 | 18190.8 | 20057.7 | 15550.7 |
| 35° | 26198.9 | 25901.5 | 24867.2 | 23582.1 | 22234.9 | 21102.4 | 20127.5 | 19825.0 | 19711.2 | 21585.9 | 16217.9 |
| 37.5° | 28039.9 | 28034.8 | 27385.7 | 26077.4 | 24631.9 | 23383.0 | 22322.8 | 21968.6 | 21738.5 | 23432.1 | 17252.2 |
| 40° | 28089.1 | 28210.6 | 28295.9 | 28283.0 | 27253.9 | 26103.2 | 25162.0 | 24725.0 | 24189.8 | 25898.9 | 18589.0 |
| 42.5° | 26581.6 | 26894.5 | 27646.9 | 28924.3 | 29534.5 | 29076.8 | 28283.0 | 27853.8 | 27057.4 | 28539.0 | 20218.0 |
| 45° | 24544.0 | 24761.2 | 26077.4 | 28430.4 | 30770.5 | 32024.6 | 31419.5 | 30651.6 | 29601.7 | 31292.8 | 21679.0 |
| 47.5° | 23631.2 | 23670.0 | 24520.7 | 27103.9 | 30863.6 | 34439.7 | 34806.9 | 33557.9 | 31913.4 | 33511.4 | 22821.9 |
| 50° | 20903.3 | 20973.1 | 22147.0 | 24805.2 | 29772.4 | 35580.0 | 38209.7 | 37025.4 | 34434.5 | 35220.6 | 23238.2 |
| 52.5° | 15755.0 | 15853.3 | 17342.7 | 21027.4 | 26772.9 | 35093.9 | 40645.5 | 40358.5 | 37196.1 | 36055.8 | 23261.5 |
| 55° | 9295.8 | 9425.1 | 10847.2 | 14154.4 | 21058.4 | 32001.3 | 40826.5 | 41881.5 | 39375.9 | 36549.7 | 23225.3 |
| 57.5° | 4341.5 | 4432.0 | 5246.5 | 7291.8 | 13096.9 | 25291.3 | 38101.1 | 40836.9 | 40578.3 | 36810.8 | 23481.3 |
| 60° | 2306.5 | 2332.4 | 2528.9 | 3157.2 | 5918.8 | 16036.9 | 32782.2 | 36875.5 | 39481.9 | 37172.8 | 23794.1 |
| 62.5° | 1763.5 | 1771.2 | 1760.9 | 1835.9 | 2487.5 | 7118.6 | 24779.3 | 30315.4 | 35068.0 | 36901.3 | 23447.6 |
| 65° | 1528.2 | 1541.1 | 1468.7 | 1450.6 | 1595.4 | 2539.2 | 14720.7 | 21609.2 | 27556.4 | 33237.3 | 21086.8 |
| 67.5° | 1370.5 | 1375.6 | 1287.7 | 1212.7 | 1238.6 | 1373.0 | 5807.6 | 11829.8 | 18239.9 | 24363.0 | 15284.4 |
| 70° | 1261.8 | 1256.7 | 1161.0 | 1042.1 | 1008.4 | 938.6 | 1846.2 | 4336.3 | 8716.6 | 12354.7 | 7108.2 |
| 72.5° | 1117.0 | 1119.6 | 1073.1 | 917.9 | 837.8 | 656.8 | 855.9 | 1264.4 | 2601.3 | 3366.7 | 1665.2 |
| 75° | 990.3 | 977.4 | 920.5 | 822.3 | 690.4 | 431.8 | 424.1 | 563.7 | 801.6 | 796.4 | 359.4 |
| 77.5° | 716.3 | 703.3 | 721.4 | 674.9 | 530.1 | 279.3 | 212.0 | 271.5 | 325.8 | 315.5 | 100.8 |
| 80° | 524.9 | 517.2 | 465.4 | 561.1 | 468.0 | 191.3 | 131.9 | 144.8 | 168.1 | 142.2 | 31.0 |
| 82.5° | 359.4 | 356.8 | 328.4 | 310.3 | 266.3 | 116.4 | 82.7 | 90.5 | 108.6 | 80.2 | 15.5 |
| 85° | 56.9 | 64.6 | 237.9 | 188.8 | 157.7 | 51.7 | 56.9 | 62.1 | 72.4 | 44.0 | 5.2 |
| 87.5° | 0.0 | 0.0 | 111.2 | 98.3 | 31.0 | 20.7 | 33.6 | 36.2 | 36.2 | 23.3 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 | 12334.1 |
| 2.5° | 12380.6 | 12122.0 | 11643.7 | 11149.8 | 10692.1 | 10146.5 | 9771.6 | 9489.7 | 9163.9 | 9076.0 | 9267.4 |
| 5° | 12465.9 | 11977.2 | 10948.1 | 9828.5 | 8776.1 | 7609.9 | 6717.8 | 6011.9 | 5373.2 | 5156.0 | 5352.5 |
| 7.5° | 12600.4 | 11873.8 | 10195.6 | 8352.0 | 6521.3 | 4700.9 | 3454.6 | 2634.9 | 2112.6 | 1957.4 | 2040.2 |
| 10° | 12734.9 | 11723.8 | 9324.2 | 6604.0 | 4101.0 | 2288.4 | 1489.4 | 1189.4 | 1078.3 | 1055.0 | 1067.9 |
| 12.5° | 12846.0 | 11522.1 | 8261.5 | 4695.7 | 2192.7 | 1225.6 | 974.8 | 925.7 | 910.2 | 910.2 | 915.4 |
| 15° | 12913.3 | 11217.0 | 7002.2 | 2986.5 | 1261.8 | 925.7 | 850.7 | 835.2 | 835.2 | 837.8 | 843.0 |
| 17.5° | 12905.5 | 10829.1 | 5624.0 | 1807.4 | 943.8 | 819.7 | 775.7 | 762.8 | 760.2 | 765.4 | 768.0 |
| 20° | 12809.8 | 10322.3 | 4240.6 | 1192.0 | 822.3 | 747.3 | 703.3 | 680.1 | 677.5 | 682.6 | 687.8 |
| 22.5° | 12628.8 | 9696.6 | 3033.1 | 917.9 | 742.1 | 677.5 | 623.2 | 602.5 | 602.5 | 607.7 | 612.8 |
| 25° | 12409.0 | 8931.2 | 2073.8 | 778.3 | 669.7 | 602.5 | 550.8 | 532.7 | 537.8 | 550.8 | 553.4 |
| 27.5° | 12135.0 | 8070.1 | 1409.2 | 667.1 | 581.8 | 527.5 | 488.7 | 475.8 | 488.7 | 506.8 | 512.0 |
| 30° | 11899.7 | 7172.9 | 1005.9 | 576.6 | 493.9 | 455.1 | 431.8 | 431.8 | 449.9 | 483.5 | 491.3 |
| 32.5° | 11718.6 | 6304.1 | 775.7 | 509.4 | 429.2 | 395.6 | 382.7 | 395.6 | 424.1 | 457.7 | 465.4 |
| 35° | 11695.4 | 5587.8 | 656.8 | 455.1 | 382.7 | 349.1 | 343.9 | 367.2 | 395.6 | 421.5 | 426.6 |
| 37.5° | 11873.8 | 4925.9 | 592.1 | 411.1 | 341.3 | 310.3 | 305.1 | 333.6 | 362.0 | 393.0 | 400.8 |
| 40° | 12212.5 | 4406.1 | 545.6 | 369.8 | 307.7 | 274.1 | 263.7 | 284.4 | 323.2 | 364.6 | 374.9 |
| 42.5° | 12652.1 | 3976.9 | 493.9 | 328.4 | 274.1 | 227.5 | 214.6 | 237.9 | 279.3 | 323.2 | 336.1 |
| 45° | 13071.0 | 3607.1 | 437.0 | 281.8 | 230.1 | 175.8 | 170.7 | 201.7 | 222.4 | 266.3 | 276.7 |
| 47.5° | 13301.1 | 3281.3 | 387.9 | 230.1 | 178.4 | 142.2 | 142.2 | 150.0 | 170.7 | 222.4 | 232.7 |
| 50° | 13223.6 | 3020.2 | 336.1 | 170.7 | 124.1 | 108.6 | 108.6 | 106.0 | 137.0 | 178.4 | 186.2 |
| 52.5° | 13068.4 | 2870.2 | 289.6 | 131.9 | 85.3 | 77.6 | 69.8 | 77.6 | 95.7 | 113.8 | 116.4 |
| 55° | 13045.1 | 2844.3 | 243.1 | 106.0 | 59.5 | 51.7 | 38.8 | 38.8 | 38.8 | 36.2 | 31.0 |
| 57.5° | 13226.1 | 2885.7 | 204.3 | 85.3 | 44.0 | 33.6 | 20.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60° | 13412.3 | 2929.7 | 175.8 | 59.5 | 31.0 | 18.1 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 62.5° | 13102.0 | 2831.4 | 147.4 | 36.2 | 23.3 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 65° | 11509.2 | 2409.9 | 116.4 | 25.9 | 15.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 8186.5 | 1613.5 | 77.6 | 15.5 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 3736.4 | 674.9 | 49.1 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 799.0 | 209.4 | 33.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 162.9 | 152.6 | 12.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 51.7 | 240.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 31.0 | 173.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 5.2 | 25.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 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)