

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: P453783

Luminaire Tested: **GALN-SA4D-750-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453783
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-750-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30535 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

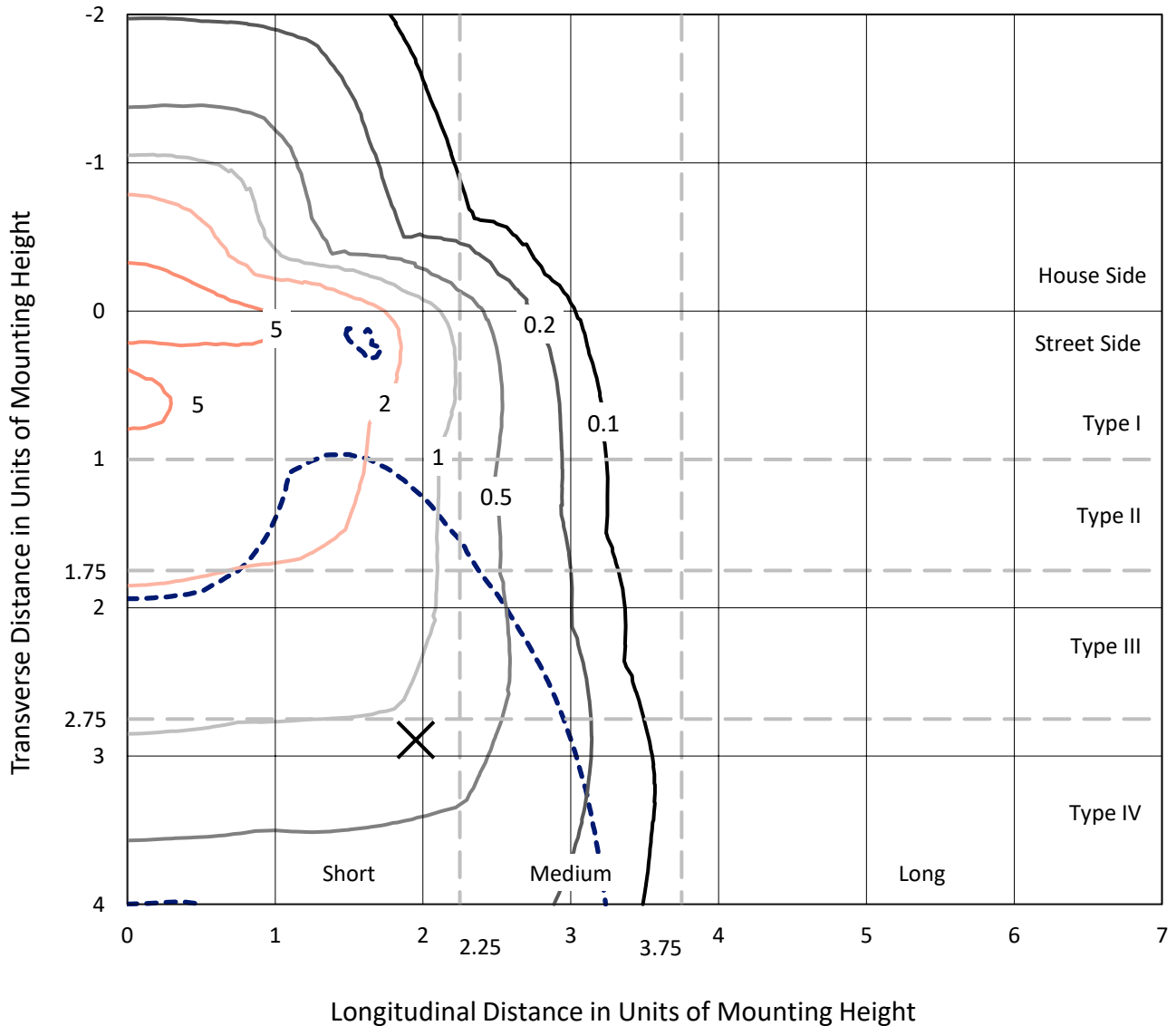
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

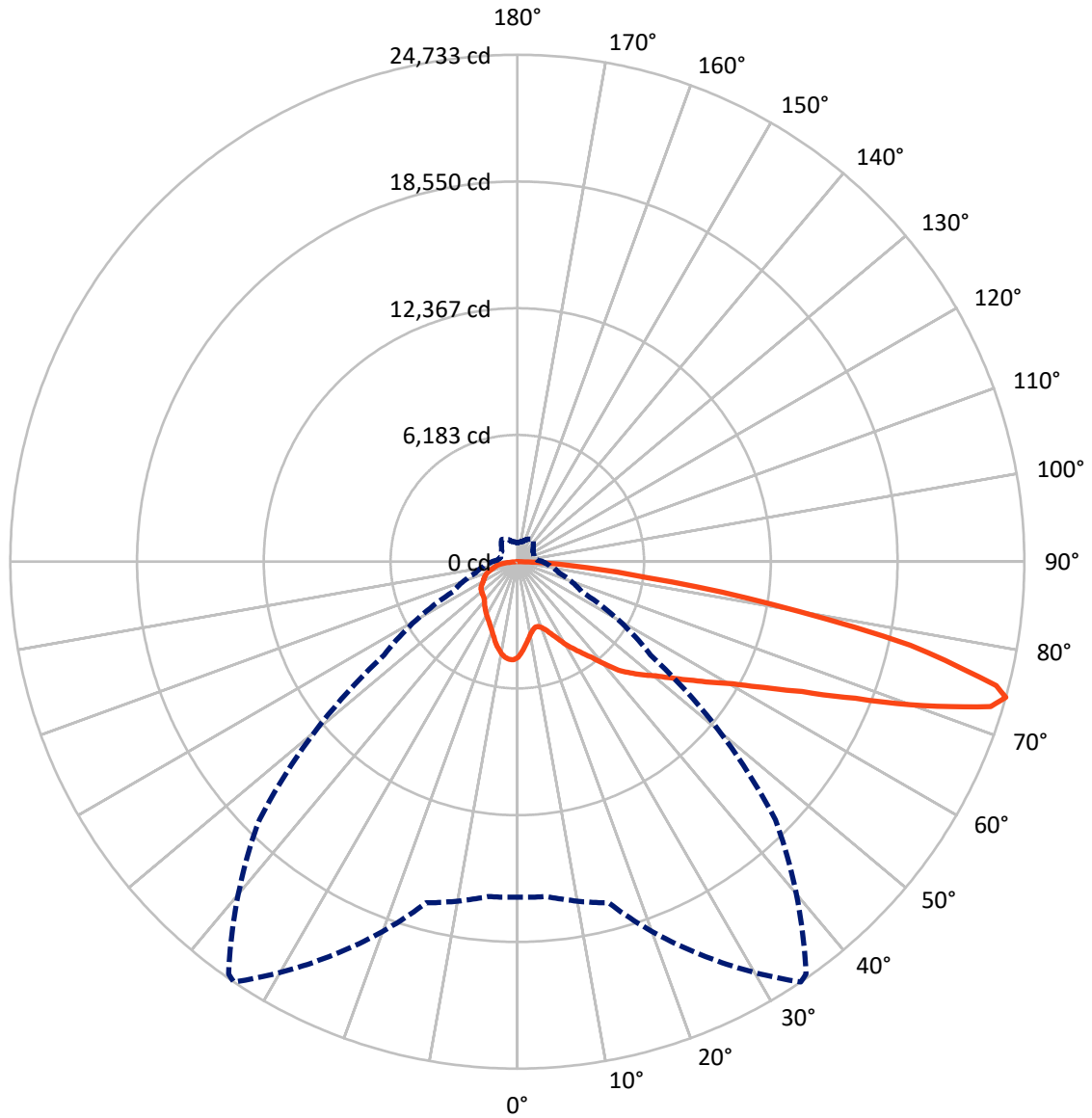
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6498.1 | 0.0 | 6498.1 |
| | % Fixture | 21.3 | 0.0 | 21.3 |
| Street Side | Lumens | 24036.9 | 0.0 | 24036.9 |
| | % Fixture | 78.7 | 0.0 | 78.7 |
| Total | Lumens | 30535.0 | 0.0 | 30535.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 424.0 | 1.4 |
| 10°-20° | 1160.7 | 3.8 |
| 20°-30° | 1913.7 | 6.3 |
| 30°-40° | 2866.4 | 9.4 |
| 40°-50° | 4167.0 | 13.6 |
| 50°-60° | 5820.3 | 19.1 |
| 60°-70° | 7286.7 | 23.9 |
| 70°-80° | 6025.5 | 19.7 |
| 80°-90° | 870.6 | 2.9 |
| 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° | 30535.0 | 100.0 |
| 0°-180° | 30535.0 | 100.0 |

Coefficient of Utilization



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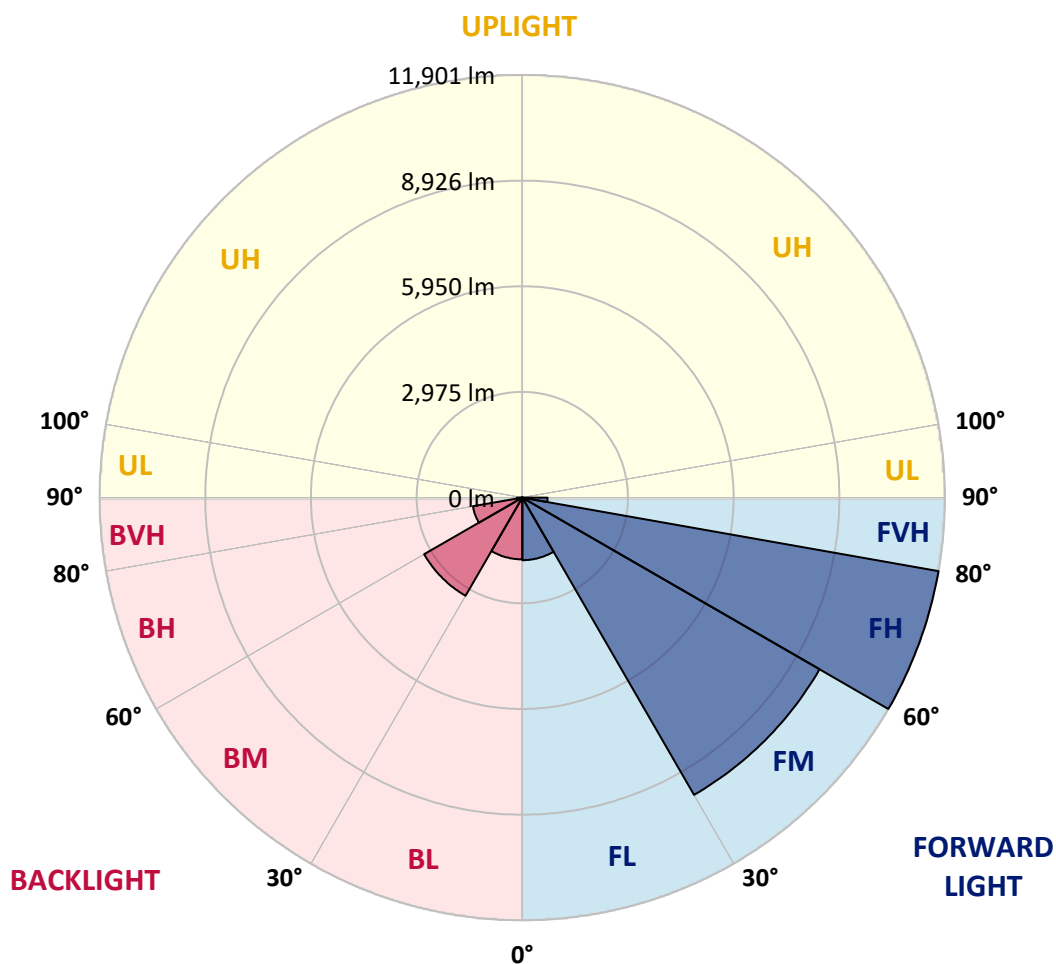
CATALOG NUMBER: GALN-SA4D-750-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1760.2 | 5.8 | | | |
| FM | (30°-60°) | 9662.5 | 31.6 | | | |
| FH | (60°-80°) | 11900.9 | 39.0 | | | G4/12000 |
| FVH | (80°-90°) | 713.3 | 2.3 | | | G4/750 |
| BL | (0°-30°) | 1738.1 | 5.7 | B3/2500 | | |
| BM | (30°-60°) | 3191.2 | 10.5 | B3/5000 | | |
| BH | (60°-80°) | 1411.3 | 4.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 157.4 | 0.5 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 34° | 35° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 |
| 2.5° | 4308.5 | 4330.5 | 4342.4 | 4384.7 | 4394.8 | 4408.3 | 4443.9 | 4491.2 | 4552.1 | 4606.3 | 4653.6 |
| 5° | 3949.9 | 3983.8 | 4004.1 | 4041.3 | 4114.0 | 4120.8 | 4215.5 | 4323.8 | 4447.3 | 4562.3 | 4657.0 |
| 7.5° | 3609.9 | 3647.1 | 3664.0 | 3731.7 | 3828.1 | 3843.3 | 3982.1 | 4152.9 | 4359.3 | 4533.5 | 4679.0 |
| 10° | 3354.5 | 3373.1 | 3410.3 | 3461.0 | 3576.1 | 3586.2 | 3767.2 | 3995.6 | 4262.9 | 4520.0 | 4716.2 |
| 12.5° | 3215.8 | 3225.9 | 3234.4 | 3288.5 | 3401.8 | 3417.1 | 3606.5 | 3865.3 | 4186.7 | 4530.1 | 4777.1 |
| 15° | 3236.1 | 3239.4 | 3202.2 | 3212.4 | 3303.7 | 3325.7 | 3513.5 | 3779.1 | 4139.4 | 4555.5 | 4868.5 |
| 17.5° | 3406.9 | 3395.1 | 3303.7 | 3256.4 | 3320.6 | 3330.8 | 3494.9 | 3745.2 | 4117.4 | 4602.9 | 4963.2 |
| 20° | 3675.9 | 3659.0 | 3501.6 | 3396.8 | 3434.0 | 3442.4 | 3555.8 | 3770.6 | 4139.4 | 4680.7 | 5110.4 |
| 22.5° | 4010.8 | 4004.1 | 3765.5 | 3638.7 | 3637.0 | 3637.0 | 3696.2 | 3862.0 | 4205.4 | 4787.3 | 5264.3 |
| 25° | 4479.4 | 4443.9 | 4132.6 | 3968.5 | 3922.9 | 3919.5 | 3912.7 | 4012.5 | 4289.9 | 4900.6 | 5447.0 |
| 27.5° | 4959.8 | 4898.9 | 4621.5 | 4369.4 | 4271.3 | 4259.5 | 4215.5 | 4225.7 | 4398.2 | 5029.2 | 5655.1 |
| 30° | 5391.2 | 5352.3 | 5091.8 | 4812.6 | 4695.9 | 4668.9 | 4547.1 | 4491.2 | 4579.2 | 5260.9 | 5986.6 |
| 32.5° | 5721.0 | 5697.4 | 5494.4 | 5240.6 | 5068.1 | 5063.0 | 4885.4 | 4839.7 | 4861.7 | 5541.7 | 6365.5 |
| 35° | 5988.3 | 5996.8 | 5893.6 | 5673.7 | 5475.8 | 5447.0 | 5328.6 | 5271.1 | 5206.8 | 5947.7 | 6842.6 |
| 37.5° | 6353.7 | 6372.3 | 6365.5 | 6176.1 | 5934.2 | 5941.0 | 5913.9 | 5819.2 | 5648.3 | 6401.1 | 7372.1 |
| 40° | 6756.3 | 6769.8 | 6768.2 | 6695.4 | 6568.5 | 6575.3 | 6565.2 | 6456.9 | 6201.5 | 6977.9 | 7960.7 |
| 42.5° | 7312.9 | 7248.6 | 7081.1 | 7153.8 | 7228.3 | 7260.4 | 7329.8 | 7226.6 | 6876.4 | 7593.7 | 8513.9 |
| 45° | 7935.4 | 7813.6 | 7434.6 | 7468.5 | 7744.2 | 7805.1 | 8187.4 | 8045.3 | 7608.9 | 8300.8 | 9165.2 |
| 47.5° | 8327.8 | 8207.7 | 7888.0 | 7881.2 | 8246.6 | 8305.8 | 8982.5 | 8930.0 | 8275.4 | 9063.7 | 9960.2 |
| 50° | 8678.0 | 8661.1 | 8300.8 | 8387.0 | 8744.0 | 8831.9 | 9848.6 | 9799.5 | 8940.2 | 9963.6 | 10826.3 |
| 52.5° | 9197.3 | 9060.3 | 8772.7 | 8950.3 | 9422.3 | 9537.3 | 10707.9 | 10564.1 | 9550.9 | 10758.7 | 11667.1 |
| 55° | 9430.8 | 9398.6 | 9381.7 | 9535.6 | 10183.5 | 10266.4 | 11543.6 | 11213.7 | 10071.9 | 11431.9 | 12306.5 |
| 57.5° | 10055.0 | 9995.8 | 10163.2 | 10268.1 | 11080.1 | 11206.9 | 12416.5 | 11892.1 | 10528.6 | 11966.5 | 12617.8 |
| 60° | 10863.6 | 10831.4 | 10985.3 | 11174.8 | 12081.5 | 12274.4 | 13411.1 | 12470.6 | 10895.7 | 12235.5 | 12446.9 |
| 62.5° | 12071.4 | 12068.0 | 12039.2 | 12445.2 | 13500.8 | 13678.4 | 14553.0 | 13033.9 | 10953.2 | 12034.1 | 11563.9 |
| 65° | 13803.6 | 13742.7 | 13492.3 | 13935.5 | 15266.8 | 15474.9 | 15742.2 | 13348.5 | 10606.4 | 11000.6 | 9736.9 |
| 67.5° | 15615.3 | 15611.9 | 15408.9 | 15984.1 | 17802.6 | 18017.4 | 17229.1 | 13279.2 | 9643.9 | 8911.4 | 6915.3 |
| 70° | 17117.5 | 17044.7 | 17303.5 | 18836.1 | 21042.0 | 21290.7 | 18529.9 | 12462.1 | 7681.6 | 5885.1 | 4108.9 |
| 72.5° | 17477.8 | 17481.1 | 18019.1 | 21035.2 | 24152.9 | 24191.8 | 18998.5 | 10100.6 | 5140.8 | 3246.2 | 2055.3 |
| 74° | 16368.1 | 16396.8 | 17230.8 | 21145.2 | 24733.1 | 24557.2 | 17800.9 | 7938.7 | 3476.3 | 2119.6 | 1481.9 |
| 75° | 14940.3 | 14759.3 | 15965.5 | 20412.7 | 24130.9 | 23941.4 | 16398.5 | 6370.6 | 2652.5 | 1693.3 | 1297.5 |
| 77.5° | 7987.8 | 8172.2 | 10033.0 | 15233.0 | 19604.1 | 19385.9 | 11119.0 | 3055.1 | 1432.8 | 1179.1 | 933.8 |
| 80° | 2843.6 | 3136.3 | 4408.3 | 7970.9 | 12568.7 | 12636.4 | 5306.6 | 1400.7 | 1008.2 | 869.5 | 659.7 |
| 82.5° | 1160.4 | 1192.6 | 1892.9 | 3537.2 | 6382.5 | 6443.4 | 2167.0 | 832.3 | 720.6 | 598.8 | 394.1 |
| 85° | 453.4 | 466.9 | 837.3 | 1590.1 | 2723.5 | 2901.1 | 749.4 | 439.8 | 443.2 | 343.4 | 201.3 |
| 87.5° | 152.2 | 172.5 | 343.4 | 529.5 | 925.3 | 906.7 | 218.2 | 130.3 | 159.0 | 148.9 | 62.6 |
| 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° | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 | 4662.1 |
| 2.5° | 4677.3 | 4709.5 | 4731.4 | 4755.1 | 4777.1 | 4783.9 | 4778.8 | 4794.0 | 4795.7 | 4797.4 | 4799.1 |
| 5° | 4704.4 | 4748.4 | 4790.7 | 4814.3 | 4824.5 | 4816.0 | 4787.3 | 4772.0 | 4758.5 | 4748.4 | 4751.7 |
| 7.5° | 4741.6 | 4804.2 | 4843.1 | 4853.2 | 4826.2 | 4787.3 | 4716.2 | 4660.4 | 4624.9 | 4601.2 | 4599.5 |
| 10° | 4799.1 | 4860.0 | 4892.2 | 4863.4 | 4789.0 | 4694.2 | 4582.6 | 4477.7 | 4398.2 | 4374.5 | 4372.8 |
| 12.5° | 4871.9 | 4941.2 | 4939.5 | 4854.9 | 4724.7 | 4555.5 | 4374.5 | 4252.7 | 4144.5 | 4090.3 | 4112.3 |
| 15° | 4966.6 | 5019.0 | 4970.0 | 4817.7 | 4611.3 | 4379.6 | 4156.3 | 3990.5 | 3868.7 | 3811.2 | 3814.6 |
| 17.5° | 5076.5 | 5122.2 | 4992.0 | 4751.7 | 4452.3 | 4154.6 | 3895.8 | 3738.5 | 3642.0 | 3599.8 | 3596.4 |
| 20° | 5213.6 | 5227.1 | 4992.0 | 4636.7 | 4247.6 | 3892.4 | 3645.4 | 3535.5 | 3481.3 | 3459.4 | 3466.1 |
| 22.5° | 5360.7 | 5333.7 | 4964.9 | 4474.3 | 3978.7 | 3618.4 | 3452.6 | 3403.5 | 3376.5 | 3373.1 | 3376.5 |
| 25° | 5526.5 | 5450.4 | 4909.1 | 4254.4 | 3697.9 | 3381.5 | 3285.1 | 3293.6 | 3298.6 | 3298.6 | 3310.5 |
| 27.5° | 5729.5 | 5577.3 | 4816.0 | 3977.0 | 3369.7 | 3161.6 | 3134.6 | 3193.8 | 3220.8 | 3225.9 | 3234.4 |
| 30° | 5996.8 | 5716.0 | 4662.1 | 3630.2 | 3090.6 | 2963.7 | 3011.1 | 3090.6 | 3121.0 | 3139.6 | 3136.3 |
| 32.5° | 6314.8 | 5868.2 | 4454.0 | 3283.4 | 2865.6 | 2825.0 | 2882.5 | 2963.7 | 2997.5 | 3007.7 | 2994.2 |
| 35° | 6688.6 | 6040.8 | 4180.0 | 2958.6 | 2669.4 | 2693.1 | 2760.7 | 2786.1 | 2816.5 | 2816.5 | 2823.3 |
| 37.5° | 7091.2 | 6179.5 | 3845.0 | 2660.9 | 2517.1 | 2603.4 | 2652.5 | 2628.8 | 2615.2 | 2598.3 | 2606.8 |
| 40° | 7500.6 | 6282.7 | 3410.3 | 2366.6 | 2364.9 | 2510.4 | 2523.9 | 2456.2 | 2402.1 | 2385.2 | 2376.7 |
| 42.5° | 7857.6 | 6346.9 | 3017.8 | 2138.2 | 2221.1 | 2419.0 | 2429.2 | 2320.9 | 2234.6 | 2183.9 | 2167.0 |
| 45° | 8278.8 | 6421.4 | 2633.8 | 1948.7 | 2087.5 | 2346.3 | 2371.6 | 2226.2 | 2099.3 | 1992.7 | 1965.7 |
| 47.5° | 8855.6 | 6590.5 | 2331.0 | 1801.6 | 1991.0 | 2300.6 | 2336.1 | 2148.4 | 1980.9 | 1842.2 | 1820.2 |
| 50° | 9506.9 | 6822.3 | 2095.9 | 1701.8 | 1916.6 | 2260.0 | 2304.0 | 2068.8 | 1870.9 | 1717.0 | 1700.1 |
| 52.5° | 10104.0 | 6947.5 | 1892.9 | 1612.1 | 1843.9 | 2185.6 | 2261.7 | 2011.3 | 1762.7 | 1591.8 | 1576.6 |
| 55° | 10430.5 | 6744.5 | 1693.3 | 1524.1 | 1744.1 | 2089.1 | 2202.5 | 1931.8 | 1657.8 | 1525.8 | 1503.8 |
| 57.5° | 10474.5 | 6324.9 | 1512.3 | 1429.4 | 1639.2 | 1970.7 | 2092.5 | 1835.4 | 1590.1 | 1480.2 | 1461.6 |
| 60° | 10134.5 | 5699.1 | 1371.9 | 1351.6 | 1532.6 | 1837.1 | 1969.0 | 1750.8 | 1520.8 | 1429.4 | 1410.8 |
| 62.5° | 9288.7 | 5019.0 | 1273.8 | 1280.6 | 1424.3 | 1696.7 | 1877.7 | 1669.6 | 1454.8 | 1373.6 | 1356.7 |
| 65° | 7833.9 | 4142.8 | 1179.1 | 1207.8 | 1327.9 | 1586.7 | 1794.8 | 1602.0 | 1388.8 | 1331.3 | 1316.1 |
| 67.5° | 5441.9 | 2990.8 | 1101.2 | 1131.7 | 1236.6 | 1475.1 | 1698.4 | 1529.2 | 1314.4 | 1283.9 | 1260.3 |
| 70° | 3012.8 | 1840.5 | 1009.9 | 1045.4 | 1141.8 | 1349.9 | 1590.1 | 1419.3 | 1206.1 | 1192.6 | 1158.8 |
| 72.5° | 1583.4 | 1172.3 | 906.7 | 945.6 | 1013.3 | 1189.2 | 1424.3 | 1299.2 | 1099.5 | 1042.0 | 998.1 |
| 74° | 1236.6 | 960.8 | 837.3 | 877.9 | 923.6 | 1094.5 | 1326.2 | 1212.9 | 1023.4 | 955.8 | 921.9 |
| 75° | 1077.6 | 856.0 | 778.1 | 830.6 | 871.2 | 1030.2 | 1250.1 | 1152.0 | 981.1 | 916.9 | 886.4 |
| 77.5° | 761.2 | 641.1 | 636.0 | 698.6 | 720.6 | 903.3 | 1126.6 | 1048.8 | 874.6 | 806.9 | 778.1 |
| 80° | 534.6 | 480.4 | 504.1 | 543.0 | 573.5 | 798.4 | 1045.4 | 906.7 | 717.2 | 637.7 | 627.6 |
| 82.5° | 348.5 | 314.6 | 360.3 | 395.8 | 406.0 | 588.7 | 844.1 | 688.5 | 522.7 | 424.6 | 394.1 |
| 85° | 160.7 | 157.3 | 206.4 | 201.3 | 199.6 | 287.6 | 500.7 | 402.6 | 301.1 | 225.0 | 211.5 |
| 87.5° | 40.6 | 38.9 | 50.7 | 42.3 | 50.7 | 44.0 | 45.7 | 11.8 | 1.7 | 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)