

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: P647468

Luminaire Tested: **GALN-SA5D-835-U-T3**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P647468
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA5D-835-U-T3
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 3500K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30081.3 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G4

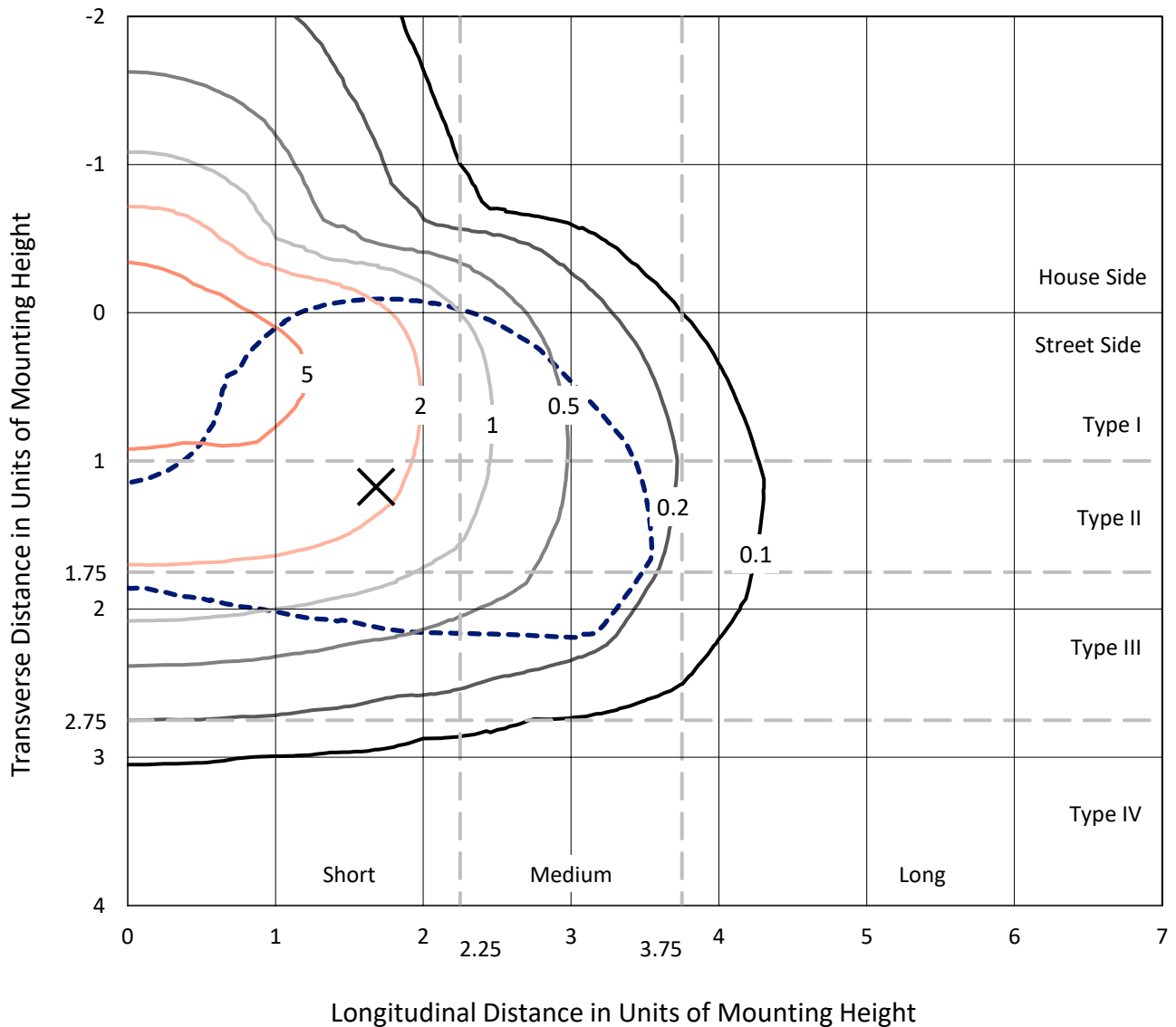
Input Watts (W): 309
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

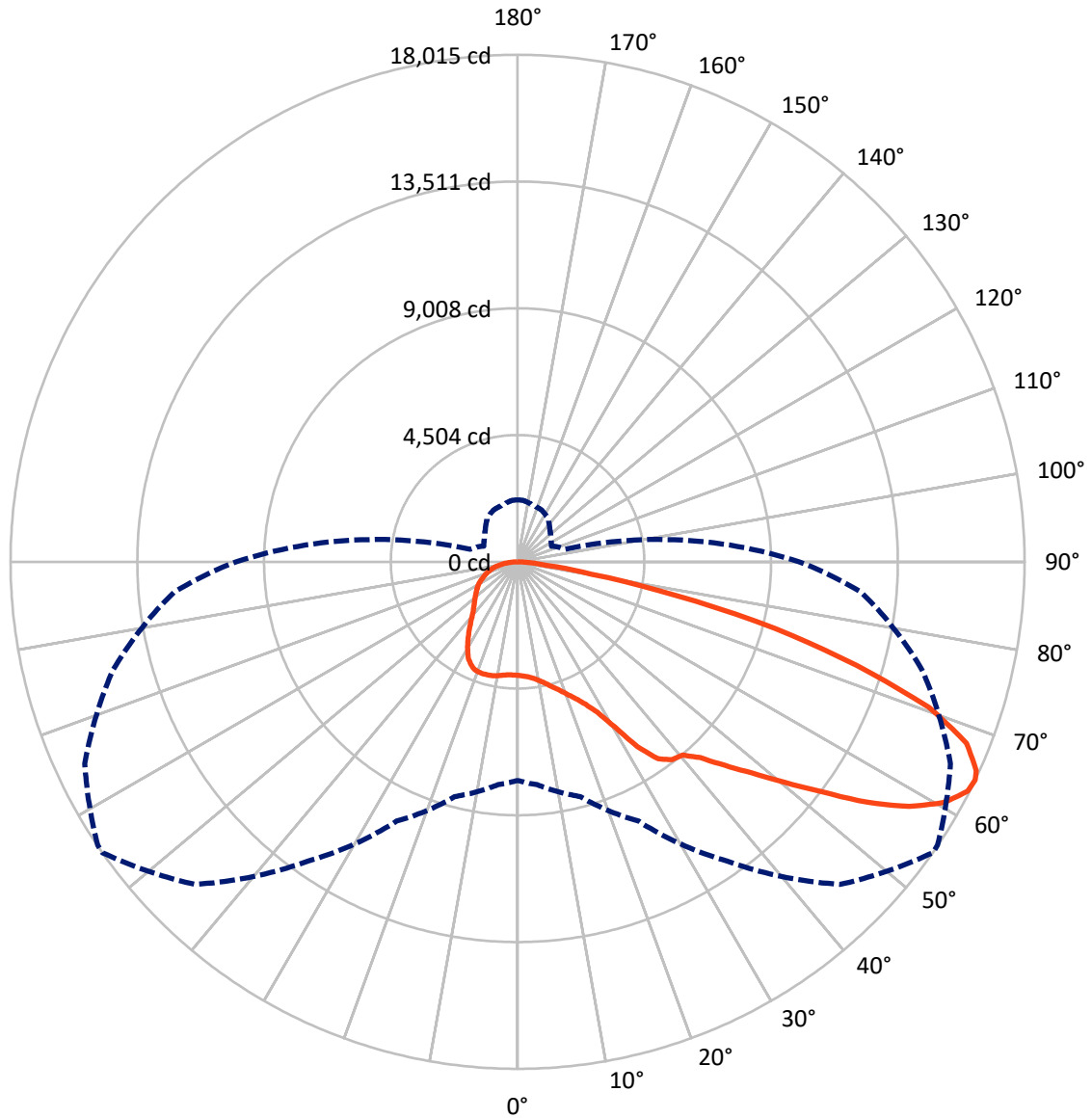
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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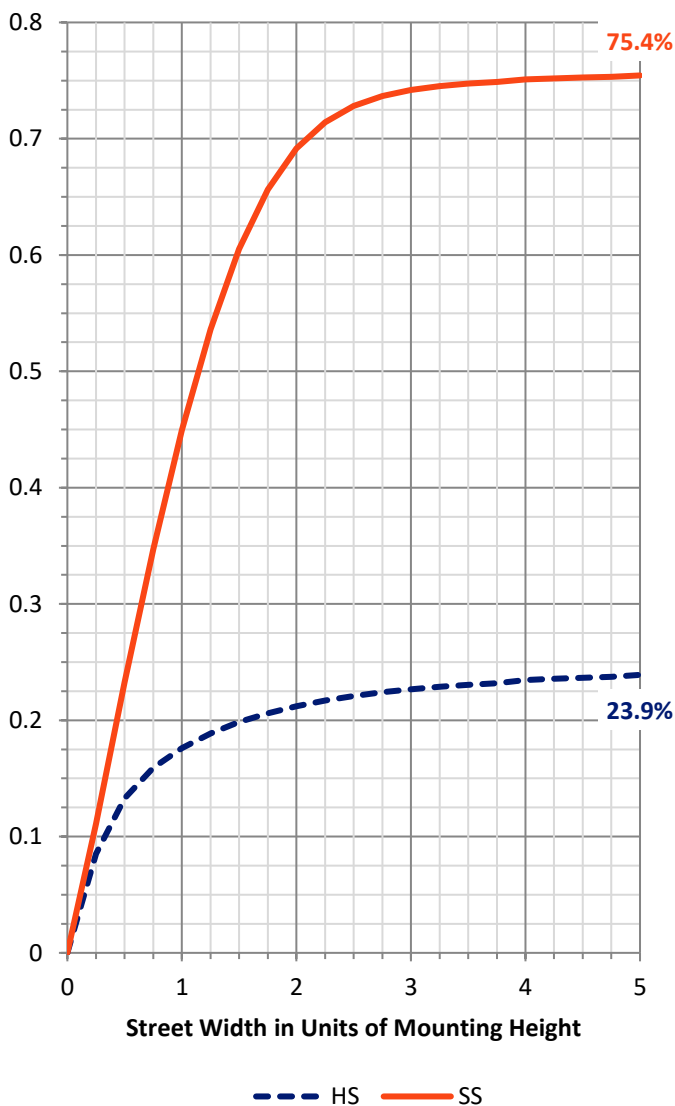
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7307.3 | 0.0 | 7307.3 |
| | % Fixture | 24.3 | 0.0 | 24.3 |
| Street Side | Lumens | 22774.0 | 0.0 | 22774.0 |
| | % Fixture | 75.7 | 0.0 | 75.7 |
| Total | Lumens | 30081.3 | 0.0 | 30081.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 392.6 | 1.3 |
| 10°-20° | 1238.8 | 4.1 |
| 20°-30° | 2205.3 | 7.3 |
| 30°-40° | 3393.1 | 11.3 |
| 40°-50° | 4810.0 | 16.0 |
| 50°-60° | 6962.4 | 23.1 |
| 60°-70° | 7205.3 | 24.0 |
| 70°-80° | 3374.3 | 11.2 |
| 80°-90° | 499.5 | 1.7 |
| 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° | 30081.3 | 100.0 |
| 0°-180° | 30081.3 | 100.0 |

Coefficient of Utilization

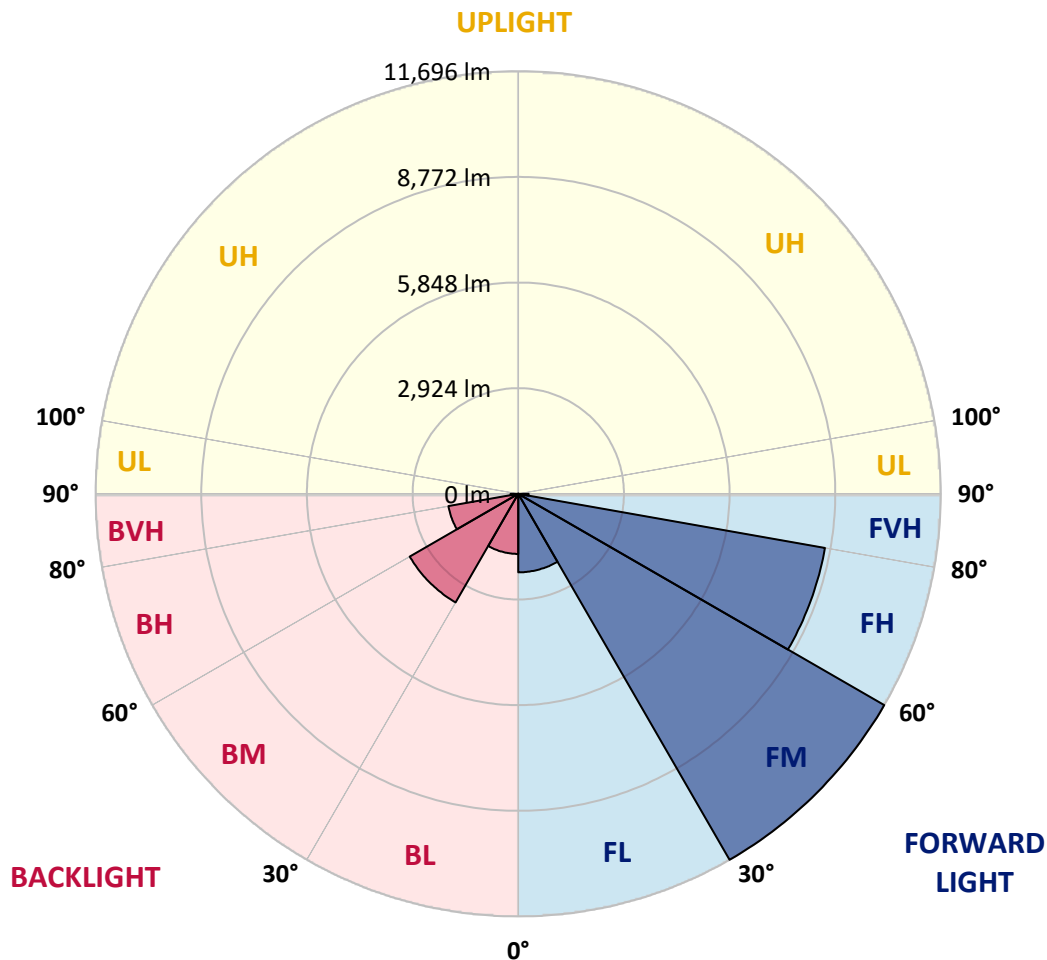


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2172.4 | 7.2 | | | |
| FM (30°-60°) | 11696.4 | 38.9 | | | |
| FH (60°-80°) | 8619.2 | 28.7 | | | G4/12000 |
| FVH (80°-90°) | 286.0 | 1.0 | | | G3/500 |
| BL (0°-30°) | 1664.3 | 5.5 | B3/2500 | | |
| BM (30°-60°) | 3469.1 | 11.5 | B3/5000 | | |
| BH (60°-80°) | 1960.4 | 6.5 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 213.5 | 0.7 | | | 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 III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 56° | 65° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 |
| 2.5° | 4081.3 | 4079.6 | 4084.6 | 4079.6 | 4083.0 | 4071.2 | 4066.2 | 4069.6 | 4064.5 | 4056.1 | 4041.1 |
| 5° | 4131.6 | 4129.9 | 4131.6 | 4124.8 | 4128.2 | 4121.6 | 4109.8 | 4113.1 | 4104.7 | 4086.3 | 4064.5 |
| 7.5° | 4217.1 | 4210.3 | 4210.3 | 4208.7 | 4202.0 | 4191.9 | 4183.6 | 4180.2 | 4171.8 | 4148.3 | 4114.8 |
| 10° | 4327.8 | 4327.8 | 4329.4 | 4316.1 | 4324.4 | 4306.0 | 4297.6 | 4295.9 | 4267.4 | 4237.2 | 4190.3 |
| 12.5° | 4473.7 | 4482.0 | 4477.0 | 4470.3 | 4466.9 | 4460.2 | 4431.7 | 4438.4 | 4406.6 | 4354.6 | 4297.6 |
| 15° | 4654.7 | 4668.2 | 4659.8 | 4656.4 | 4648.0 | 4622.9 | 4611.2 | 4606.1 | 4564.2 | 4488.7 | 4413.3 |
| 17.5° | 4894.5 | 4877.8 | 4871.0 | 4862.7 | 4827.4 | 4809.0 | 4788.9 | 4785.5 | 4748.7 | 4659.8 | 4542.4 |
| 20° | 5104.1 | 5127.6 | 5114.2 | 5105.8 | 5070.6 | 5035.4 | 5020.3 | 5015.3 | 4983.4 | 4886.2 | 4698.3 |
| 22.5° | 5353.9 | 5359.0 | 5364.0 | 5343.9 | 5327.1 | 5300.3 | 5273.4 | 5265.0 | 5253.3 | 5152.8 | 4923.0 |
| 25° | 5620.5 | 5640.7 | 5623.9 | 5603.8 | 5583.7 | 5582.0 | 5607.1 | 5603.8 | 5598.8 | 5501.5 | 5221.5 |
| 27.5° | 6054.9 | 6073.3 | 6078.4 | 6056.5 | 5979.4 | 5986.1 | 6043.1 | 6061.5 | 6138.6 | 5977.7 | 5605.5 |
| 30° | 6299.6 | 6318.1 | 6360.0 | 6442.2 | 6564.6 | 6671.9 | 6809.4 | 6851.3 | 6925.1 | 6621.6 | 6061.5 |
| 32.5° | 6450.6 | 6457.2 | 6532.7 | 6685.3 | 7052.6 | 7453.3 | 7827.2 | 7842.3 | 7889.3 | 7463.3 | 6479.1 |
| 35° | 6688.7 | 6693.7 | 6754.1 | 6921.7 | 7352.7 | 8020.0 | 8598.5 | 8617.0 | 8578.4 | 7724.9 | 6673.6 |
| 37.5° | 6982.1 | 6995.5 | 7034.1 | 7173.2 | 7688.0 | 8494.5 | 8918.8 | 8905.4 | 8563.3 | 7932.8 | 7017.3 |
| 40° | 7409.7 | 7409.7 | 7364.4 | 7552.2 | 8041.8 | 8766.2 | 9031.1 | 9007.6 | 8917.1 | 8534.8 | 7540.4 |
| 42.5° | 7786.9 | 7780.3 | 7887.6 | 8015.0 | 8484.5 | 9185.4 | 9502.3 | 9540.9 | 9690.1 | 9291.0 | 8135.7 |
| 45° | 8278.3 | 8308.4 | 8368.8 | 8600.2 | 9237.4 | 9901.3 | 10310.5 | 10347.4 | 10558.7 | 10181.4 | 8831.6 |
| 47.5° | 8774.6 | 8784.6 | 8974.1 | 9282.6 | 10169.7 | 10872.2 | 11207.5 | 11267.9 | 11460.8 | 11222.7 | 9581.1 |
| 50° | 9126.7 | 9222.3 | 9525.7 | 10012.1 | 11130.4 | 12056.0 | 12317.6 | 12389.7 | 12730.1 | 12356.1 | 10454.7 |
| 52.5° | 9499.0 | 9592.8 | 9963.4 | 10704.5 | 12233.7 | 13266.7 | 13588.6 | 13637.2 | 13991.0 | 13503.1 | 11348.4 |
| 55° | 9817.5 | 9904.7 | 10325.6 | 11318.3 | 13112.4 | 14502.4 | 15086.0 | 15029.0 | 15198.3 | 14386.8 | 12037.6 |
| 57.5° | 9869.5 | 9940.0 | 10469.8 | 11710.6 | 13773.0 | 15562.2 | 16398.8 | 16432.4 | 16236.2 | 15047.4 | 12606.0 |
| 60° | 9467.1 | 9611.2 | 10220.0 | 11668.7 | 14069.8 | 16299.9 | 17378.1 | 17401.6 | 16844.9 | 15386.1 | 12832.4 |
| 62.5° | 8754.5 | 8739.4 | 9475.5 | 10994.7 | 13654.0 | 16467.6 | 17954.9 | 17929.8 | 17083.0 | 15223.5 | 12612.7 |
| 64° | 7770.2 | 7951.3 | 8638.8 | 10166.3 | 12983.3 | 16209.4 | 18015.3 | 18001.9 | 16969.0 | 14884.8 | 12238.8 |
| 65° | 7169.9 | 7159.8 | 7838.9 | 9488.9 | 12316.0 | 15820.4 | 17908.0 | 17889.5 | 16730.9 | 14581.3 | 11948.7 |
| 67.5° | 5176.2 | 5199.7 | 5870.4 | 7322.5 | 10012.1 | 14299.5 | 17208.8 | 17140.0 | 15791.9 | 13575.2 | 10845.4 |
| 70° | 3135.6 | 3149.0 | 3675.5 | 4857.7 | 7186.7 | 11559.7 | 15511.9 | 15515.2 | 14354.9 | 12072.8 | 9230.6 |
| 72.5° | 1651.7 | 1686.8 | 1898.1 | 2758.3 | 4364.7 | 8110.5 | 12584.2 | 12882.7 | 12324.3 | 10303.8 | 7292.3 |
| 75° | 918.9 | 923.9 | 1073.1 | 1359.8 | 2226.8 | 4539.1 | 9458.7 | 9544.2 | 9757.2 | 8293.3 | 5392.5 |
| 77.5° | 700.9 | 711.0 | 757.9 | 878.6 | 1212.3 | 2104.4 | 5724.5 | 6153.8 | 6876.5 | 5846.9 | 3076.9 |
| 80° | 568.5 | 578.5 | 618.7 | 690.8 | 806.6 | 997.7 | 2659.4 | 2890.8 | 3680.5 | 2595.6 | 1200.6 |
| 82.5° | 442.7 | 436.0 | 488.0 | 534.9 | 586.9 | 590.2 | 1091.6 | 1207.3 | 1499.1 | 1116.7 | 519.8 |
| 85° | 328.6 | 328.6 | 370.6 | 360.5 | 379.0 | 345.4 | 481.2 | 531.5 | 600.2 | 474.5 | 241.5 |
| 87.5° | 130.8 | 144.2 | 243.1 | 218.0 | 169.4 | 135.9 | 177.7 | 187.8 | 207.9 | 186.1 | 100.6 |
| 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° | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 | 4036.0 |
| 2.5° | 4042.7 | 4047.7 | 4036.0 | 4027.6 | 4024.2 | 4019.2 | 4014.2 | 4015.9 | 4022.6 | 4029.3 | 4027.6 |
| 5° | 4062.8 | 4064.5 | 4044.4 | 4034.3 | 4027.6 | 4020.9 | 4020.9 | 4026.0 | 4039.3 | 4049.4 | 4049.4 |
| 7.5° | 4113.1 | 4113.1 | 4084.6 | 4066.2 | 4056.1 | 4044.4 | 4041.1 | 4042.7 | 4052.8 | 4066.2 | 4067.8 |
| 10° | 4191.9 | 4185.2 | 4148.3 | 4119.8 | 4101.4 | 4072.9 | 4047.7 | 4034.3 | 4039.3 | 4047.7 | 4047.7 |
| 12.5° | 4287.6 | 4269.1 | 4222.1 | 4183.6 | 4138.3 | 4084.6 | 4032.7 | 4005.8 | 4004.1 | 4012.6 | 4009.2 |
| 15° | 4389.8 | 4369.7 | 4304.3 | 4233.8 | 4155.1 | 4076.2 | 4014.2 | 3975.6 | 3945.5 | 3937.1 | 3955.5 |
| 17.5° | 4508.8 | 4466.9 | 4376.4 | 4279.2 | 4161.7 | 4059.5 | 3962.2 | 3883.4 | 3829.7 | 3814.7 | 3819.7 |
| 20° | 4653.1 | 4597.7 | 4475.3 | 4322.7 | 4156.7 | 3999.1 | 3848.2 | 3742.6 | 3655.4 | 3628.6 | 3631.9 |
| 22.5° | 4852.6 | 4757.0 | 4577.6 | 4344.6 | 4114.8 | 3885.1 | 3675.5 | 3538.0 | 3432.4 | 3390.5 | 3415.6 |
| 25° | 5078.9 | 4975.0 | 4674.8 | 4339.5 | 4005.8 | 3702.3 | 3471.0 | 3291.5 | 3196.0 | 3133.9 | 3147.3 |
| 27.5° | 5390.8 | 5206.4 | 4778.8 | 4294.2 | 3849.9 | 3479.3 | 3211.0 | 3041.6 | 2954.5 | 2922.6 | 2937.7 |
| 30° | 5789.9 | 5506.5 | 4891.2 | 4171.8 | 3603.4 | 3197.6 | 2949.5 | 2838.8 | 2786.8 | 2746.5 | 2760.0 |
| 32.5° | 6078.4 | 5717.8 | 4916.3 | 3965.6 | 3336.8 | 2941.1 | 2771.7 | 2689.5 | 2632.5 | 2594.0 | 2602.4 |
| 35° | 6284.6 | 5897.2 | 4904.6 | 3712.4 | 3058.5 | 2729.8 | 2630.9 | 2563.8 | 2471.5 | 2387.8 | 2372.6 |
| 37.5° | 6561.2 | 6121.9 | 4819.1 | 3435.7 | 2783.5 | 2587.3 | 2516.9 | 2392.8 | 2260.3 | 2147.9 | 2142.9 |
| 40° | 6985.5 | 6385.1 | 4636.3 | 3110.4 | 2548.7 | 2481.6 | 2396.1 | 2235.2 | 2092.6 | 2002.1 | 1995.4 |
| 42.5° | 7423.1 | 6628.3 | 4388.1 | 2768.4 | 2355.9 | 2370.9 | 2267.0 | 2107.7 | 2020.5 | 1961.8 | 1955.2 |
| 45° | 7958.0 | 6891.6 | 4119.8 | 2471.5 | 2213.4 | 2267.0 | 2154.7 | 2062.4 | 2010.4 | 1971.9 | 1961.8 |
| 47.5° | 8536.5 | 7161.5 | 3818.0 | 2204.9 | 2092.6 | 2171.4 | 2107.7 | 2065.8 | 2037.3 | 2010.4 | 1998.7 |
| 50° | 9160.2 | 7463.3 | 3534.6 | 1990.3 | 1983.7 | 2072.5 | 2102.7 | 2087.6 | 2070.8 | 2062.4 | 2052.4 |
| 52.5° | 9844.3 | 7771.8 | 3296.5 | 1839.4 | 1888.0 | 2002.1 | 2104.4 | 2116.1 | 2116.1 | 2111.0 | 2104.4 |
| 55° | 10307.2 | 7986.5 | 3055.1 | 1717.0 | 1790.8 | 1945.1 | 2101.0 | 2146.3 | 2163.0 | 2156.3 | 2149.6 |
| 57.5° | 10649.2 | 8103.9 | 2751.6 | 1611.4 | 1708.7 | 1889.7 | 2082.5 | 2149.6 | 2166.4 | 2174.8 | 2171.4 |
| 60° | 10719.7 | 7994.9 | 2354.2 | 1500.7 | 1619.8 | 1809.3 | 2015.5 | 2099.3 | 2121.1 | 2173.1 | 2178.1 |
| 62.5° | 10402.7 | 7659.5 | 1958.4 | 1391.7 | 1510.8 | 1686.8 | 1924.9 | 2042.3 | 2085.9 | 2166.4 | 2174.8 |
| 64° | 10013.7 | 7283.9 | 1738.8 | 1323.0 | 1440.3 | 1618.1 | 1879.7 | 2027.2 | 2084.3 | 2191.5 | 2198.3 |
| 65° | 9728.7 | 7010.6 | 1601.3 | 1279.3 | 1395.1 | 1572.8 | 1854.5 | 2032.3 | 2099.3 | 2230.1 | 2240.2 |
| 67.5° | 8679.0 | 6069.9 | 1324.7 | 1177.1 | 1287.8 | 1495.7 | 1859.5 | 2074.2 | 2095.9 | 2245.2 | 2243.5 |
| 70° | 7181.6 | 4832.4 | 1110.1 | 1083.2 | 1183.8 | 1433.7 | 1839.4 | 2007.1 | 2008.8 | 2107.7 | 2084.3 |
| 72.5° | 5377.4 | 3571.5 | 962.5 | 986.0 | 1068.1 | 1286.1 | 1737.2 | 1916.5 | 1888.0 | 1901.4 | 1878.0 |
| 75° | 3694.0 | 2362.5 | 828.3 | 882.0 | 947.4 | 1136.8 | 1592.9 | 1740.5 | 1695.2 | 1678.4 | 1661.7 |
| 77.5° | 1971.9 | 1306.2 | 689.1 | 779.7 | 823.3 | 982.6 | 1390.1 | 1532.6 | 1485.6 | 1420.2 | 1398.4 |
| 80° | 798.1 | 615.4 | 555.0 | 645.6 | 670.7 | 791.5 | 1157.0 | 1245.8 | 1210.6 | 1096.6 | 1059.7 |
| 82.5° | 400.7 | 368.9 | 436.0 | 508.1 | 509.7 | 565.1 | 860.2 | 944.1 | 865.2 | 726.1 | 694.2 |
| 85° | 209.6 | 216.3 | 300.1 | 357.1 | 315.2 | 305.1 | 516.5 | 571.7 | 524.8 | 456.1 | 410.8 |
| 87.5° | 75.5 | 87.2 | 157.6 | 156.0 | 110.6 | 58.7 | 114.0 | 55.4 | 30.1 | 18.5 | 23.5 |
| 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)