

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: P456142

Luminaire Tested: **GALN-SA7B-827-U-SL2**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P456142
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-14)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA7B-827-U-SL2
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(7) 80 CRI, 2700K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II SPILL
LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29082 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 286
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

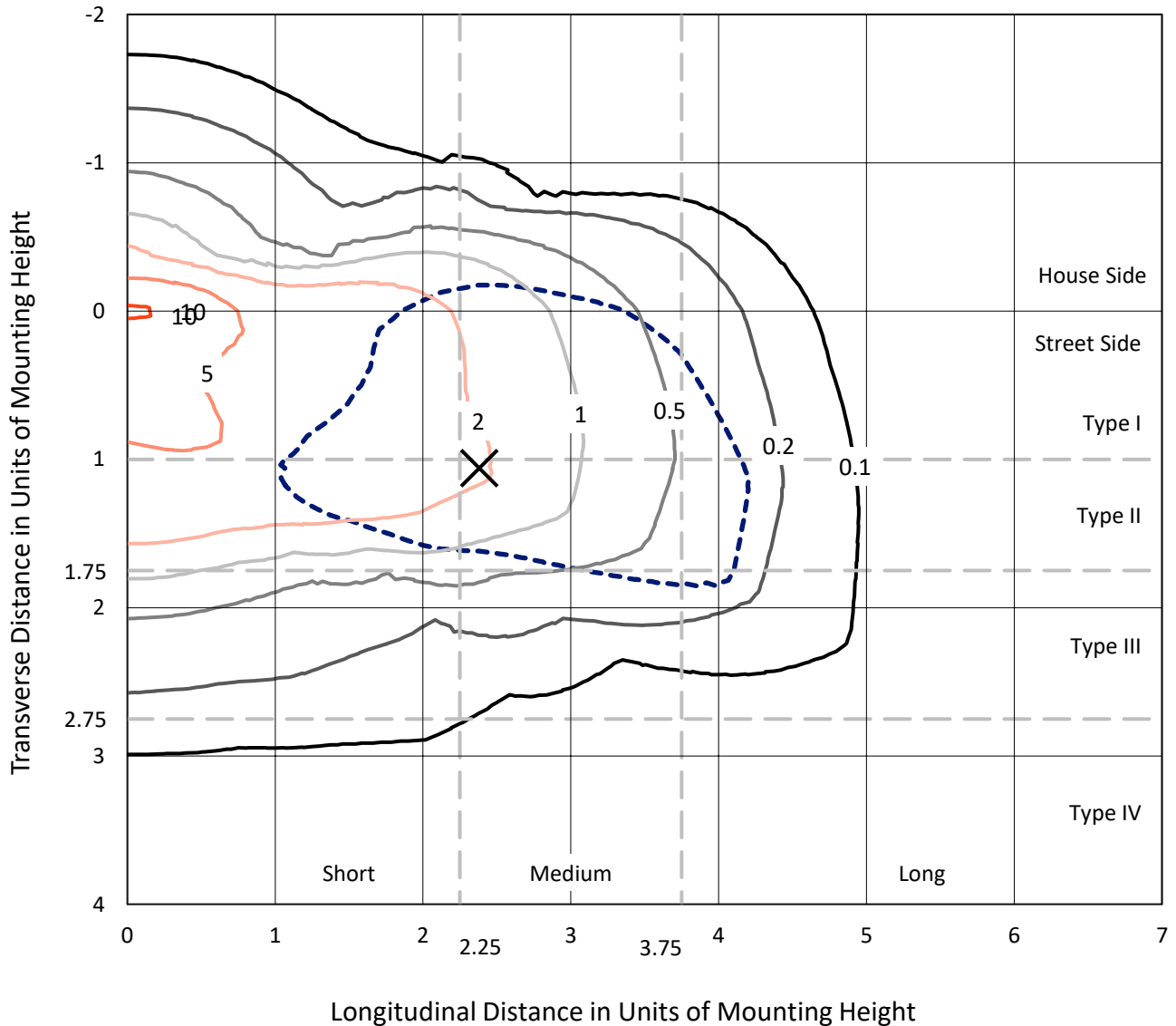




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Iso-Footcandle Lines of Horizontal Illumination

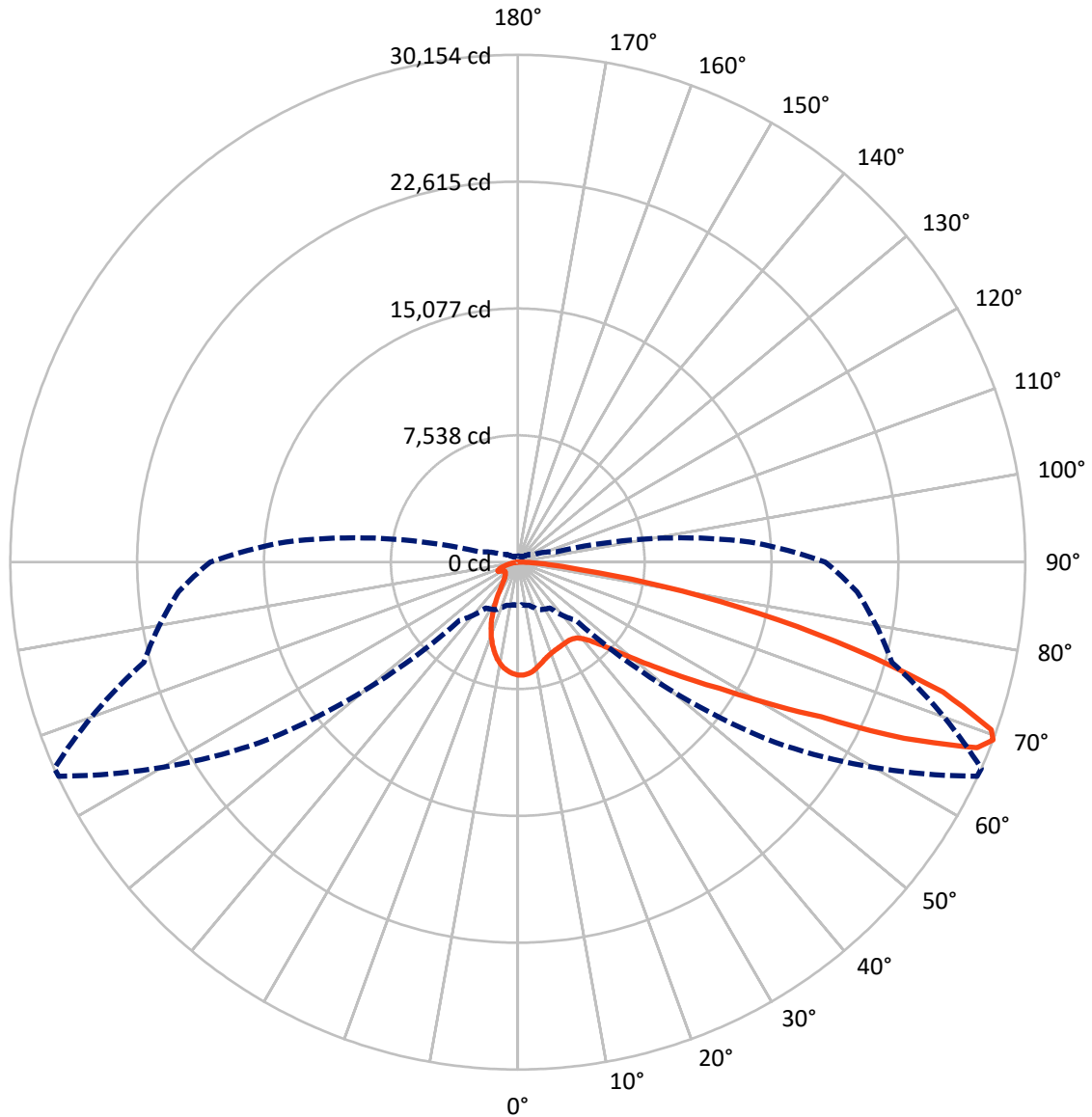
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.7 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5469.2 | 0.0 | 5469.2 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 23612.8 | 0.0 | 23612.8 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 29082.0 | 0.0 | 29082.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 583.2 | 2.0 |
| 10°-20° | 1383.3 | 4.8 |
| 20°-30° | 1883.2 | 6.5 |
| 30°-40° | 2530.6 | 8.7 |
| 40°-50° | 3778.6 | 13.0 |
| 50°-60° | 6010.4 | 20.7 |
| 60°-70° | 7392.5 | 25.4 |
| 70°-80° | 4809.9 | 16.5 |
| 80°-90° | 710.3 | 2.4 |
| 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° | 29082.0 | 100.0 |
| 0°-180° | 29082.0 | 100.0 |

Coefficient of Utilization



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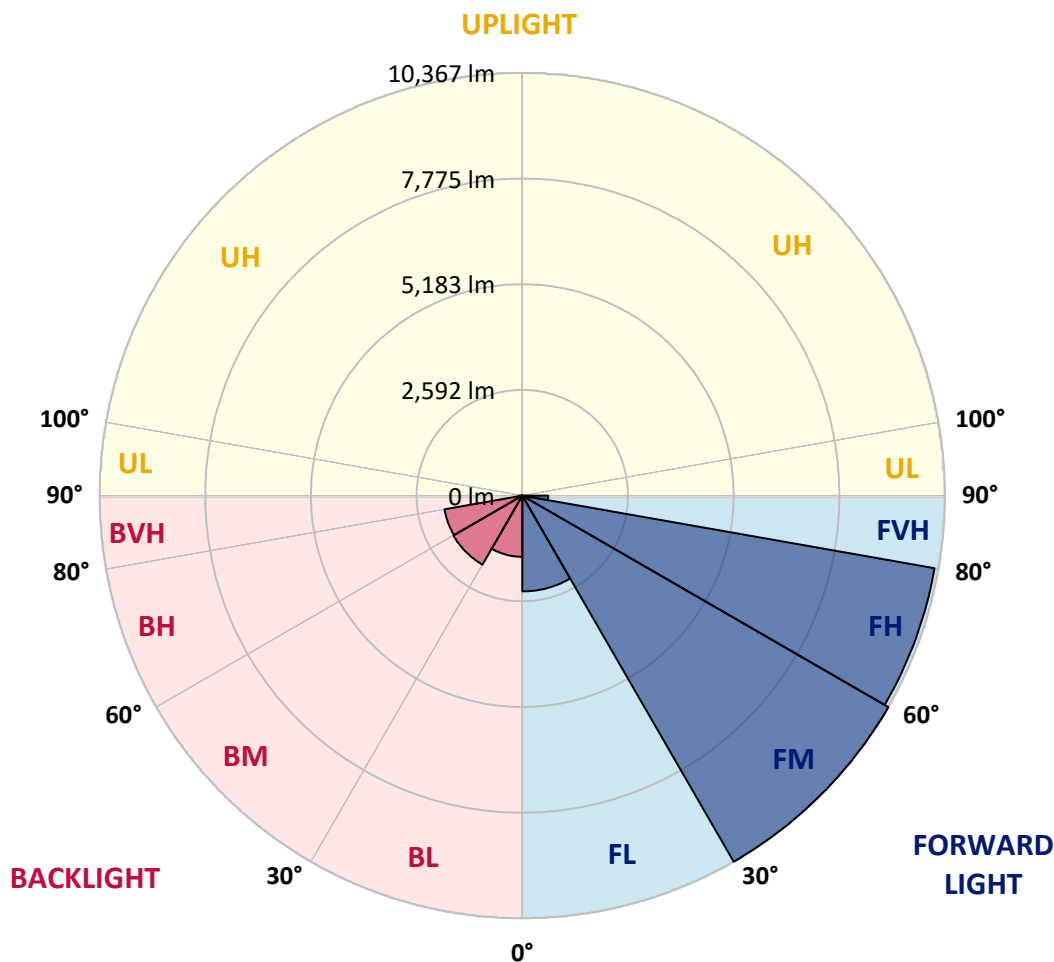
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 2348.3 | 8.1 | | | |
| FM | (30°-60°) | 10366.9 | 35.6 | | | |
| FH | (60°-80°) | 10266.1 | 35.3 | | | G4/12000 |
| FVH | (80°-90°) | 631.5 | 2.2 | | | G4/750 |
| BL | (0°-30°) | 1501.3 | 5.2 | B3/2500 | | |
| BM | (30°-60°) | 1952.8 | 6.7 | B2/2500 | | |
| BH | (60°-80°) | 1936.3 | 6.7 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 78.8 | 0.3 | | | G1/100 |
| 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 Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 |
| 2.5° | 6480.7 | 6506.5 | 6535.5 | 6567.7 | 6628.9 | 6662.7 | 6686.9 | 6714.2 | 6717.5 | 6731.9 | 6720.7 |
| 5° | 6002.4 | 6033.0 | 6076.5 | 6137.7 | 6229.5 | 6372.8 | 6521.0 | 6641.8 | 6656.3 | 6723.9 | 6743.2 |
| 7.5° | 5603.0 | 5620.7 | 5656.1 | 5754.4 | 5884.8 | 6044.3 | 6260.1 | 6504.9 | 6540.3 | 6701.3 | 6757.7 |
| 10° | 5277.7 | 5295.4 | 5337.2 | 5438.7 | 5567.5 | 5767.2 | 6004.0 | 6326.1 | 6355.1 | 6632.1 | 6760.9 |
| 12.5° | 5034.5 | 5050.6 | 5095.7 | 5195.5 | 5343.7 | 5530.5 | 5791.4 | 6132.8 | 6174.7 | 6540.3 | 6730.3 |
| 15° | 4849.3 | 4879.9 | 4916.9 | 4999.0 | 5155.3 | 5335.6 | 5588.5 | 5955.7 | 5989.5 | 6443.7 | 6709.4 |
| 17.5° | 4770.3 | 4784.8 | 4810.6 | 4886.3 | 5000.6 | 5177.8 | 5432.3 | 5817.2 | 5857.4 | 6376.0 | 6704.6 |
| 20° | 4773.6 | 4788.1 | 4792.9 | 4834.8 | 4916.9 | 5069.9 | 5321.1 | 5707.7 | 5756.0 | 6316.4 | 6712.6 |
| 22.5° | 4883.1 | 4884.7 | 4867.0 | 4852.5 | 4884.7 | 5011.9 | 5242.2 | 5625.5 | 5681.9 | 6290.7 | 6719.1 |
| 25° | 5052.2 | 5081.2 | 5055.4 | 4987.8 | 4928.2 | 4989.4 | 5211.6 | 5580.4 | 5633.6 | 6253.6 | 6711.0 |
| 27.5° | 5326.0 | 5330.8 | 5309.9 | 5218.1 | 5063.5 | 5018.4 | 5198.7 | 5546.6 | 5591.7 | 6226.2 | 6670.7 |
| 30° | 5693.2 | 5678.7 | 5659.3 | 5557.9 | 5314.7 | 5129.5 | 5226.1 | 5516.0 | 5562.7 | 6186.0 | 6622.4 |
| 32.5° | 6065.2 | 6110.3 | 6092.6 | 5973.4 | 5657.7 | 5345.3 | 5314.7 | 5512.8 | 5551.4 | 6155.4 | 6569.3 |
| 35° | 6459.8 | 6480.7 | 6564.5 | 6503.3 | 6179.5 | 5694.8 | 5480.6 | 5562.7 | 5593.3 | 6157.0 | 6532.2 |
| 37.5° | 6769.0 | 6825.4 | 7021.8 | 7075.0 | 6770.6 | 6157.0 | 5749.5 | 5704.4 | 5717.3 | 6235.9 | 6546.7 |
| 40° | 7142.6 | 7239.3 | 7492.1 | 7709.5 | 7509.8 | 6757.7 | 6206.9 | 5967.0 | 5983.1 | 6425.9 | 6641.8 |
| 42.5° | 7616.1 | 7683.8 | 8023.6 | 8318.3 | 8286.1 | 7551.7 | 6760.9 | 6397.0 | 6405.0 | 6804.4 | 6907.5 |
| 45° | 8170.1 | 8266.8 | 8648.5 | 9091.3 | 9167.0 | 8450.4 | 7561.4 | 7047.6 | 7042.8 | 7392.3 | 7403.5 |
| 47.5° | 8878.8 | 8938.4 | 9316.8 | 9800.0 | 10106.0 | 9579.3 | 8532.5 | 7981.7 | 7930.2 | 8249.1 | 8157.3 |
| 50° | 9531.0 | 9624.4 | 9911.1 | 10439.3 | 11201.1 | 10901.6 | 9809.6 | 9192.8 | 9072.0 | 9370.0 | 9215.4 |
| 52.5° | 9804.8 | 9903.0 | 10144.6 | 10800.1 | 12140.1 | 12611.9 | 11431.4 | 10637.4 | 10436.1 | 10664.8 | 10608.5 |
| 55° | 9329.7 | 9456.9 | 9682.4 | 10479.6 | 12552.3 | 14584.8 | 13618.5 | 12307.5 | 12161.0 | 12062.7 | 12078.9 |
| 57.5° | 8052.6 | 8173.4 | 8477.7 | 9357.1 | 12059.5 | 16016.6 | 16741.3 | 14454.4 | 14140.3 | 13687.8 | 13765.1 |
| 60° | 6129.6 | 6205.3 | 6363.1 | 7337.5 | 10598.8 | 16388.6 | 20287.6 | 17168.1 | 16968.4 | 15306.3 | 15361.1 |
| 62.5° | 4353.2 | 4438.6 | 4548.1 | 5034.5 | 7759.5 | 15340.1 | 23064.2 | 20957.6 | 20244.2 | 16982.9 | 16929.7 |
| 65° | 3535.1 | 3477.1 | 3609.2 | 3836.2 | 4552.9 | 11888.8 | 23689.0 | 26217.6 | 25235.1 | 19190.9 | 18453.3 |
| 67.5° | 2907.0 | 2845.8 | 2976.2 | 3380.5 | 3462.6 | 6901.1 | 21437.5 | 29631.8 | 29435.4 | 21592.2 | 20001.0 |
| 69° | 2573.6 | 2541.4 | 2655.7 | 3116.3 | 3324.1 | 4900.8 | 18675.5 | 30106.9 | 30153.6 | 23007.8 | 20239.3 |
| 70° | 2319.1 | 2332.0 | 2443.1 | 2982.7 | 3261.3 | 4040.8 | 15961.8 | 29451.5 | 29847.6 | 23714.8 | 19981.6 |
| 72.5° | 1707.1 | 1734.5 | 1889.1 | 2470.5 | 3201.7 | 3428.8 | 9498.8 | 25724.7 | 26425.3 | 23756.7 | 18279.3 |
| 75° | 1193.4 | 1180.5 | 1317.4 | 1860.1 | 3024.5 | 3398.2 | 5578.8 | 19894.7 | 20688.7 | 20534.0 | 15359.5 |
| 77.5° | 781.1 | 802.0 | 911.6 | 1314.2 | 2544.6 | 3372.4 | 3636.5 | 14114.5 | 14629.9 | 13732.8 | 9084.9 |
| 80° | 550.8 | 549.2 | 610.4 | 897.1 | 1887.5 | 3240.4 | 2977.8 | 8896.5 | 8766.0 | 5396.8 | 2694.4 |
| 82.5° | 315.7 | 338.2 | 409.1 | 631.3 | 1262.6 | 2852.2 | 2739.5 | 4255.0 | 3884.6 | 1538.0 | 909.9 |
| 85° | 175.5 | 183.6 | 243.2 | 381.7 | 737.6 | 2148.4 | 2391.6 | 1935.8 | 1826.3 | 642.6 | 391.4 |
| 87.5° | 56.4 | 61.2 | 101.5 | 193.3 | 335.0 | 1014.6 | 1354.4 | 893.8 | 824.6 | 231.9 | 157.8 |
| 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° | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 | 6715.8 |
| 2.5° | 6725.5 | 6744.8 | 6693.3 | 6643.4 | 6598.3 | 6535.5 | 6479.1 | 6432.4 | 6400.2 | 6395.3 | 6379.2 |
| 5° | 6748.1 | 6749.7 | 6651.4 | 6519.4 | 6390.5 | 6248.8 | 6102.2 | 5997.6 | 5899.3 | 5844.6 | 5817.2 |
| 7.5° | 6764.2 | 6749.7 | 6572.5 | 6358.3 | 6110.3 | 5852.6 | 5594.9 | 5388.8 | 5229.3 | 5166.5 | 5190.7 |
| 10° | 6757.7 | 6712.6 | 6453.3 | 6110.3 | 5749.5 | 5364.6 | 4994.2 | 4704.3 | 4438.6 | 4301.7 | 4304.9 |
| 12.5° | 6722.3 | 6648.2 | 6276.2 | 5831.7 | 5301.8 | 4786.4 | 4219.5 | 3828.2 | 3520.6 | 3338.6 | 3282.2 |
| 15° | 6691.7 | 6562.8 | 6068.4 | 5453.2 | 4794.5 | 4058.5 | 3367.6 | 2884.4 | 2626.7 | 2483.4 | 2481.8 |
| 17.5° | 6659.5 | 6480.7 | 5841.3 | 5052.2 | 4211.5 | 3264.5 | 2539.8 | 2171.0 | 2050.2 | 2064.7 | 2040.5 |
| 20° | 6625.7 | 6384.1 | 5604.6 | 4606.1 | 3501.3 | 2435.1 | 1902.0 | 1752.2 | 1786.1 | 1852.1 | 1861.8 |
| 22.5° | 6587.0 | 6281.0 | 5350.1 | 4114.9 | 2754.0 | 1832.8 | 1542.9 | 1520.3 | 1607.3 | 1710.4 | 1724.9 |
| 25° | 6527.4 | 6152.2 | 5029.6 | 3601.1 | 2124.3 | 1476.8 | 1351.2 | 1367.3 | 1452.7 | 1539.7 | 1549.3 |
| 27.5° | 6443.7 | 5992.7 | 4705.9 | 2960.1 | 1596.0 | 1267.5 | 1235.3 | 1256.2 | 1298.1 | 1351.2 | 1364.1 |
| 30° | 6330.9 | 5812.3 | 4333.9 | 2406.1 | 1278.7 | 1162.8 | 1149.9 | 1161.2 | 1185.3 | 1207.9 | 1214.3 |
| 32.5° | 6218.2 | 5638.4 | 3958.6 | 1842.4 | 1140.2 | 1093.5 | 1080.7 | 1080.7 | 1080.7 | 1083.9 | 1085.5 |
| 35° | 6113.5 | 5474.1 | 3556.0 | 1435.0 | 1067.8 | 1038.8 | 1021.1 | 1001.7 | 998.5 | 987.2 | 987.2 |
| 37.5° | 6055.5 | 5324.4 | 3127.6 | 1201.4 | 1014.6 | 993.7 | 969.5 | 937.3 | 919.6 | 921.2 | 918.0 |
| 40° | 6066.8 | 5226.1 | 2737.9 | 1069.4 | 971.1 | 948.6 | 911.6 | 874.5 | 863.2 | 863.2 | 860.0 |
| 42.5° | 6194.0 | 5193.9 | 2364.2 | 1000.1 | 929.3 | 903.5 | 856.8 | 823.0 | 816.5 | 814.9 | 818.1 |
| 45° | 6487.1 | 5272.8 | 2029.2 | 955.0 | 893.8 | 855.2 | 808.5 | 777.9 | 771.4 | 771.4 | 769.8 |
| 47.5° | 7058.9 | 5528.9 | 1789.3 | 926.0 | 868.1 | 818.1 | 769.8 | 739.2 | 728.0 | 724.7 | 724.7 |
| 50° | 7947.9 | 6084.5 | 1610.5 | 900.3 | 835.9 | 784.3 | 734.4 | 699.0 | 681.2 | 679.6 | 678.0 |
| 52.5° | 9183.1 | 6951.0 | 1541.3 | 881.0 | 800.4 | 748.9 | 694.1 | 660.3 | 637.8 | 632.9 | 629.7 |
| 55° | 10627.8 | 8160.5 | 1636.3 | 866.5 | 763.4 | 708.6 | 652.3 | 616.8 | 595.9 | 586.2 | 584.6 |
| 57.5° | 12301.1 | 9613.2 | 1997.0 | 847.1 | 729.6 | 665.1 | 610.4 | 575.0 | 552.4 | 541.1 | 537.9 |
| 60° | 13803.7 | 11106.1 | 2626.7 | 835.9 | 700.6 | 618.4 | 562.1 | 529.9 | 508.9 | 497.6 | 496.0 |
| 62.5° | 15454.5 | 12529.8 | 3378.9 | 866.5 | 687.7 | 573.3 | 517.0 | 488.0 | 470.3 | 459.0 | 459.0 |
| 65° | 17218.0 | 13955.1 | 3876.5 | 969.5 | 707.0 | 537.9 | 468.7 | 444.5 | 428.4 | 420.3 | 418.7 |
| 67.5° | 18406.6 | 14447.9 | 3193.6 | 1075.8 | 755.3 | 499.3 | 422.0 | 402.6 | 393.0 | 384.9 | 384.9 |
| 69° | 18277.7 | 13824.6 | 2356.2 | 1103.2 | 769.8 | 479.9 | 396.2 | 381.7 | 368.8 | 365.6 | 362.4 |
| 70° | 17870.3 | 13114.4 | 1974.5 | 1085.5 | 758.6 | 462.2 | 380.1 | 362.4 | 351.1 | 347.9 | 346.3 |
| 72.5° | 15916.7 | 11373.4 | 1470.4 | 943.8 | 645.8 | 401.0 | 336.6 | 320.5 | 310.8 | 306.0 | 306.0 |
| 75° | 13223.9 | 9295.9 | 1148.3 | 750.5 | 505.7 | 338.2 | 288.3 | 275.4 | 267.3 | 264.1 | 262.5 |
| 77.5° | 7411.6 | 5190.7 | 824.6 | 587.8 | 383.3 | 273.8 | 241.6 | 230.3 | 222.3 | 219.0 | 219.0 |
| 80° | 2064.7 | 1483.3 | 484.8 | 388.1 | 260.9 | 207.8 | 191.7 | 183.6 | 172.3 | 164.3 | 169.1 |
| 82.5° | 777.9 | 642.6 | 277.0 | 233.5 | 165.9 | 138.5 | 133.7 | 127.2 | 122.4 | 111.1 | 111.1 |
| 85° | 378.5 | 312.4 | 177.2 | 124.0 | 91.8 | 72.5 | 69.3 | 66.0 | 62.8 | 54.8 | 56.4 |
| 87.5° | 130.5 | 138.5 | 77.3 | 45.1 | 27.4 | 17.7 | 14.5 | 8.1 | 8.1 | 8.1 | 8.1 |
| 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)