

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: P591047

Luminaire Tested: **CTN-CA10-630-740-U-T3-HSS-HM-EX120**

Issue Date: 12/14/2021

Test Information

Test Method: LM-79-08
Report Number: P591047
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2112-474-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 12/14/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-630-740-U-T3-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 83993 lumens
Efficiency: N/A
Efficacy: 133.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B5 - U0 - G5

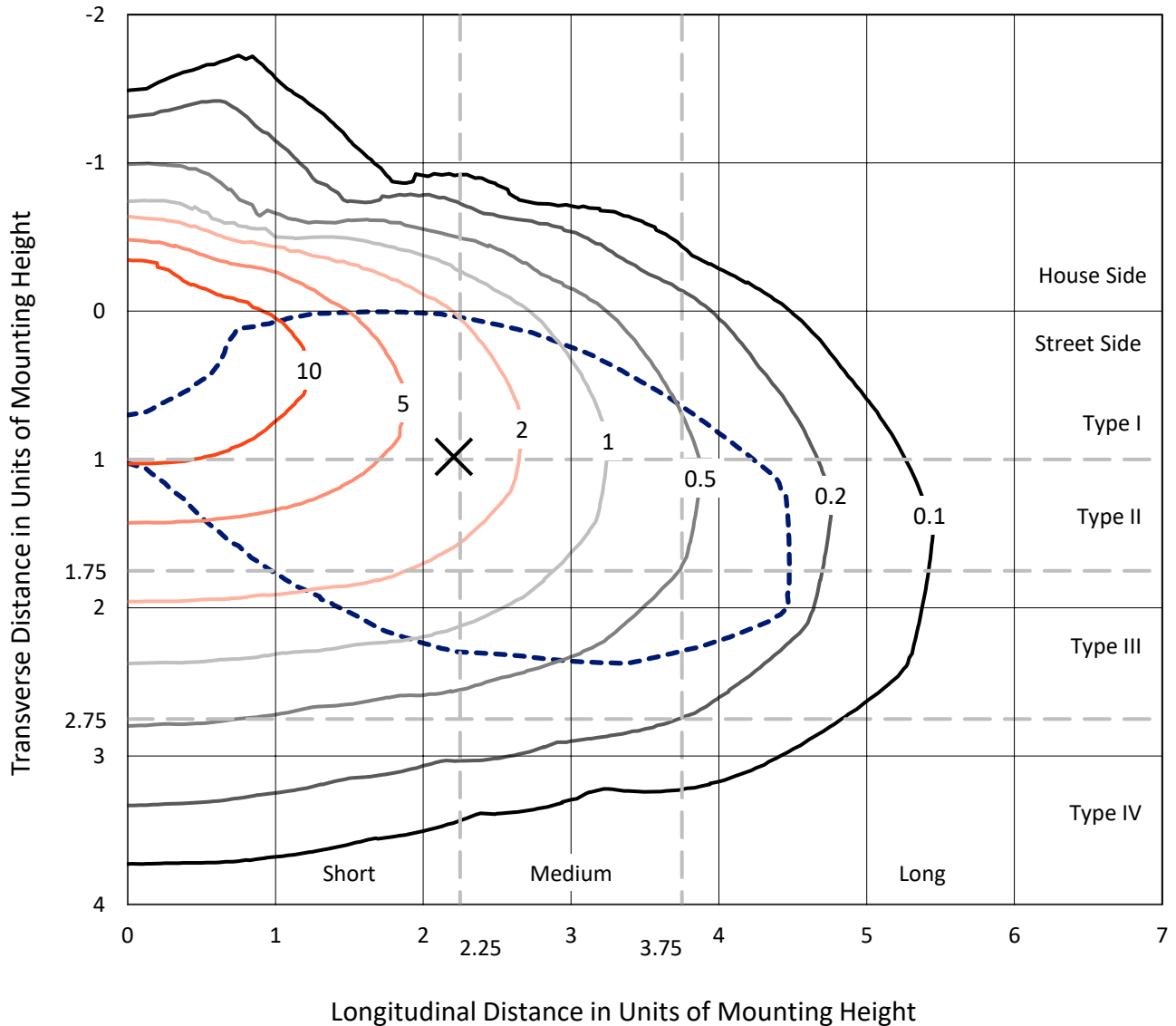
Input Watts (W): 631.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

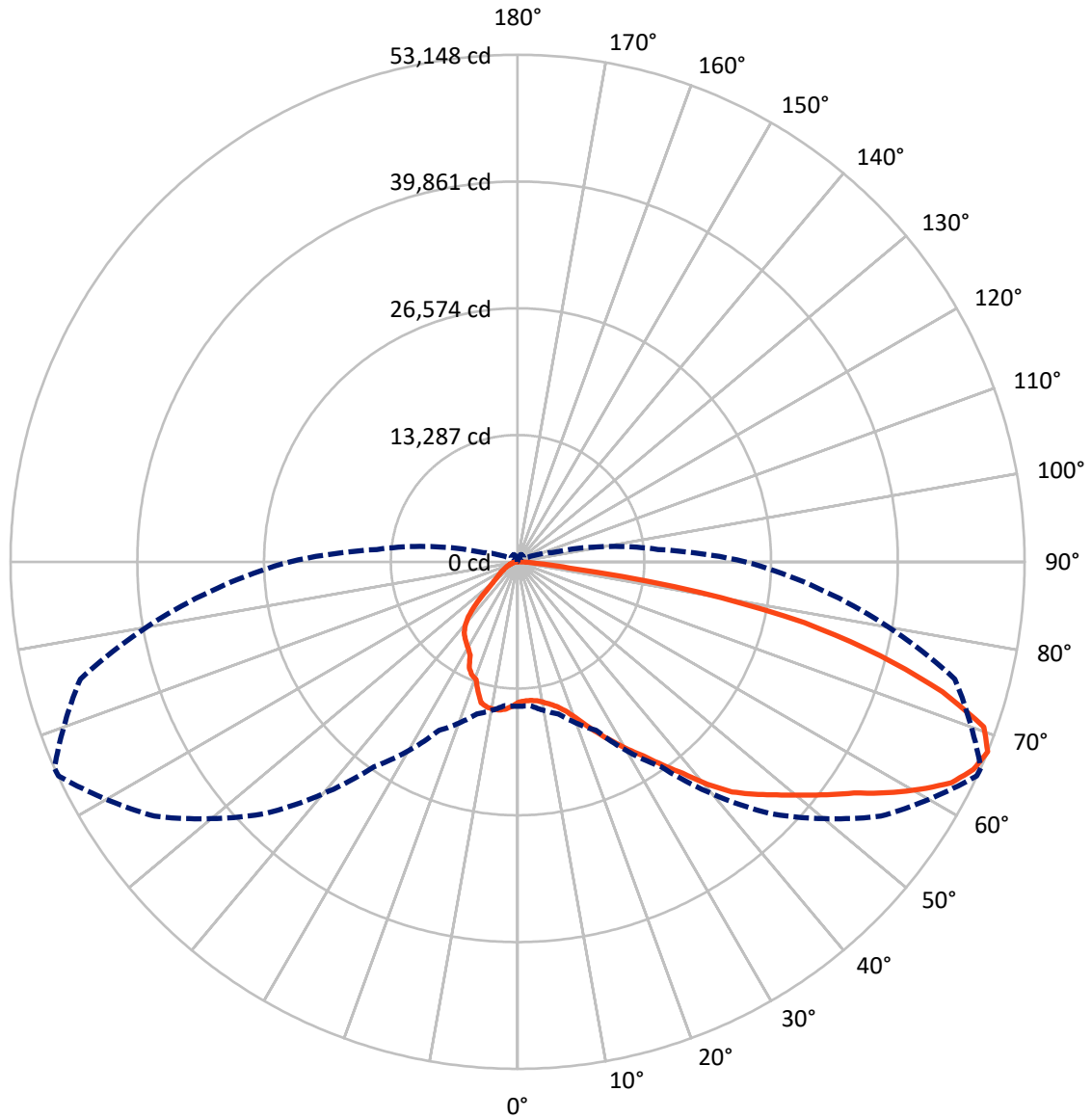
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 18.3 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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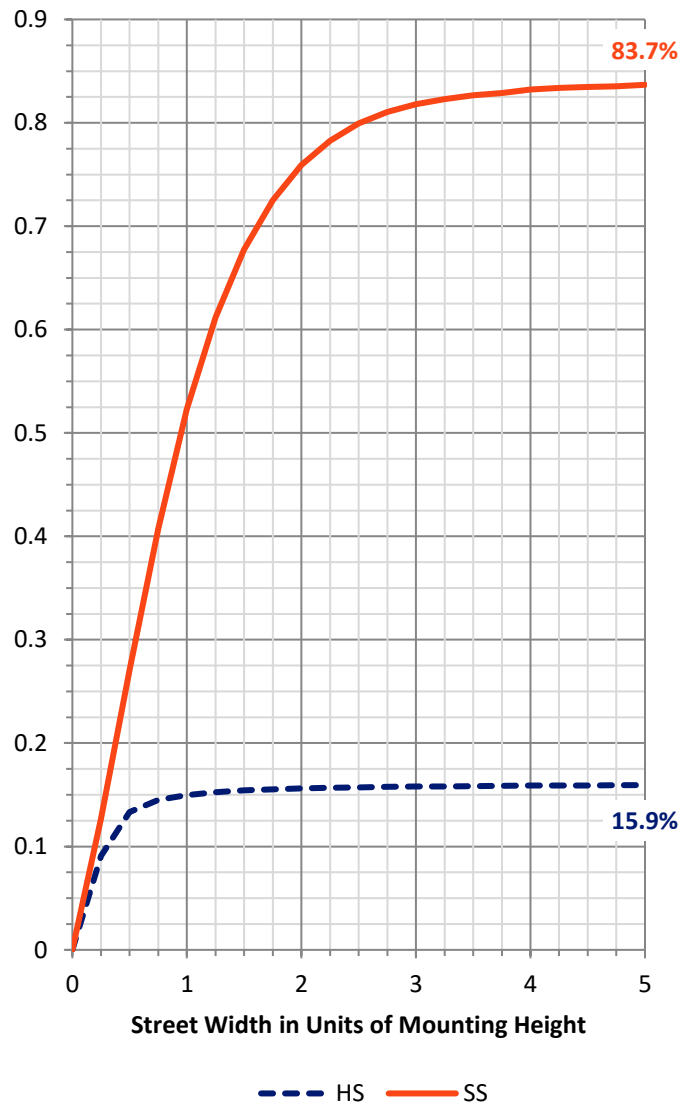
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 13558.2 | 0.0 | 13558.2 |
| | % Fixture | 16.1 | 0.0 | 16.1 |
| Street Side | Lumens | 70434.8 | 0.0 | 70434.8 |
| | % Fixture | 83.9 | 0.0 | 83.9 |
| Total | Lumens | 83993.0 | 0.0 | 83993.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1457.4 | 1.7 |
| 10°-20° | 4394.0 | 5.2 |
| 20°-30° | 7142.8 | 8.5 |
| 30°-40° | 10433.7 | 12.4 |
| 40°-50° | 13896.8 | 16.5 |
| 50°-60° | 16810.6 | 20.0 |
| 60°-70° | 17997.5 | 21.4 |
| 70°-80° | 10680.8 | 12.7 |
| 80°-90° | 1179.3 | 1.4 |
| 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° | 83993.0 | 100.0 |
| 0°-180° | 83993.0 | 100.0 |

Coefficient of Utilization

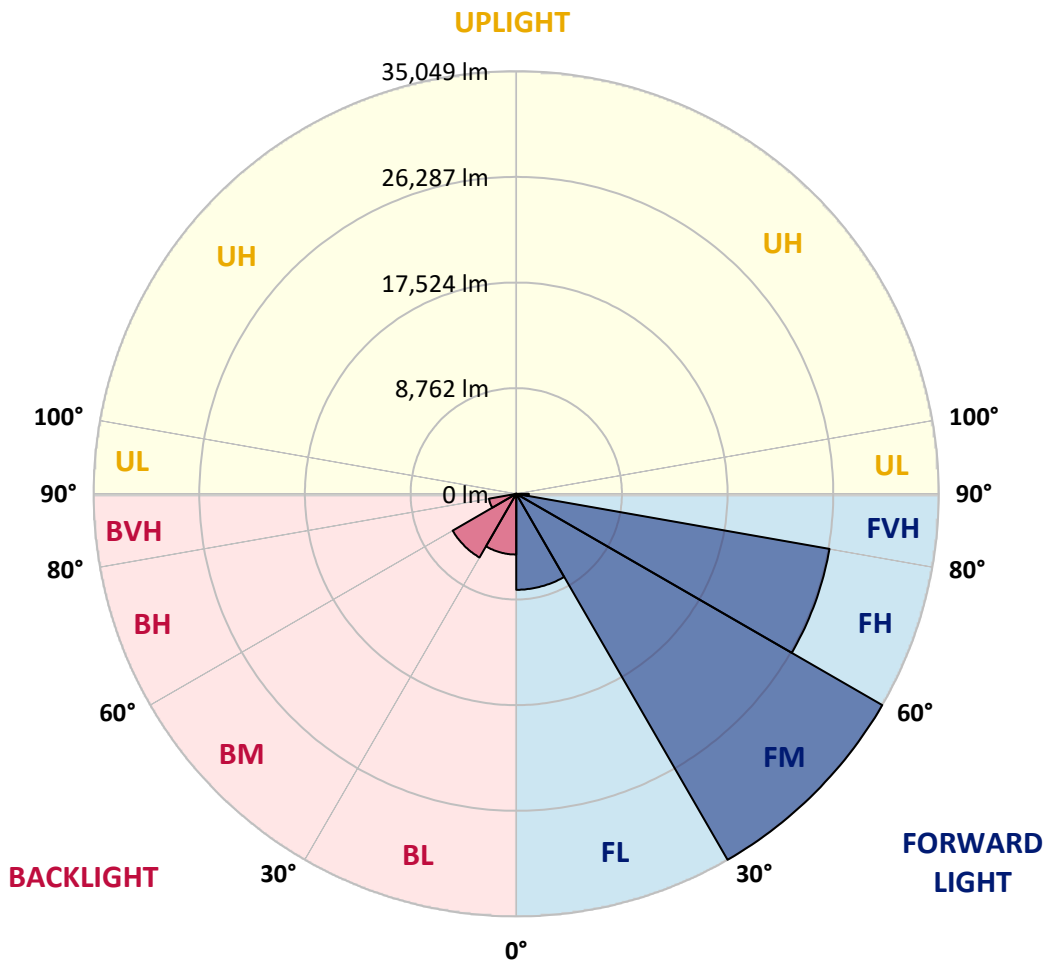


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 7958.8 | 9.5 | | | |
| FM (30°-60°) | 35048.7 | 41.7 | | | |
| FH (60°-80°) | 26381.7 | 31.4 | | | G5 |
| FVH (80°-90°) | 1045.5 | 1.2 | | | G5 |
| BL (0°-30°) | 5035.4 | 6.0 | B5 | | |
| BM (30°-60°) | 6092.4 | 7.3 | B4/8500 | | |
| BH (60°-80°) | 2296.6 | 2.7 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 133.9 | 0.2 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B5-U0-G5
 Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 |
| 2.5° | 14518.7 | 14436.7 | 14473.7 | 14570.3 | 14385.1 | 14502.8 | 14419.5 | 14565.0 | 14604.7 | 14620.5 | 14678.7 |
| 5° | 14803.1 | 14694.6 | 14697.3 | 14758.1 | 14547.8 | 14599.4 | 14457.9 | 14559.7 | 14591.4 | 14633.8 | 14775.3 |
| 7.5° | 15301.7 | 15181.3 | 15170.8 | 15186.6 | 14924.8 | 14866.6 | 14666.8 | 14688.0 | 14711.8 | 14736.9 | 14920.8 |
| 10° | 15986.8 | 15863.8 | 15842.7 | 15801.7 | 15456.5 | 15304.4 | 15008.1 | 14961.8 | 14984.3 | 14943.3 | 15161.5 |
| 12.5° | 16809.5 | 16661.4 | 16583.4 | 16465.6 | 16066.2 | 15828.1 | 15436.6 | 15309.6 | 15329.5 | 15243.5 | 15395.6 |
| 15° | 17674.5 | 17517.1 | 17474.8 | 17293.6 | 16801.6 | 16476.2 | 15969.6 | 15776.5 | 15781.8 | 15682.6 | 15676.0 |
| 17.5° | 18597.7 | 18457.5 | 18423.2 | 18308.1 | 17763.2 | 17375.6 | 16750.0 | 16488.1 | 16468.3 | 16370.4 | 16079.4 |
| 20° | 19645.3 | 19556.7 | 19538.1 | 19472.0 | 18978.7 | 18525.0 | 17813.4 | 17461.6 | 17441.8 | 17287.0 | 16665.4 |
| 22.5° | 20933.5 | 20829.1 | 20773.5 | 20716.6 | 20347.6 | 19875.4 | 19110.9 | 18614.9 | 18693.0 | 18432.4 | 17425.9 |
| 25° | 22215.2 | 22131.9 | 22084.2 | 22047.2 | 21743.0 | 21295.9 | 20522.2 | 19940.2 | 20018.3 | 19739.2 | 18350.4 |
| 27.5° | 23487.6 | 23303.7 | 23380.4 | 23467.7 | 23163.5 | 22807.7 | 21966.5 | 21333.0 | 21356.8 | 21055.2 | 19457.5 |
| 30° | 24670.0 | 24573.5 | 24705.7 | 24787.7 | 24565.5 | 24287.8 | 23404.2 | 22791.9 | 22827.6 | 22469.1 | 20727.2 |
| 32.5° | 25720.2 | 25581.3 | 25876.3 | 26036.3 | 25904.0 | 25675.2 | 24822.1 | 24241.5 | 24252.1 | 24035.1 | 22243.0 |
| 35° | 26491.3 | 26500.6 | 26907.9 | 27337.8 | 27336.5 | 27013.7 | 26288.9 | 26019.1 | 26142.1 | 26045.6 | 24102.6 |
| 37.5° | 27277.0 | 27206.9 | 27677.7 | 28316.6 | 28525.5 | 28238.5 | 27808.7 | 27968.7 | 28134.0 | 28430.3 | 25859.1 |
| 40° | 27648.6 | 27651.3 | 28221.3 | 28959.4 | 29442.1 | 29387.9 | 29237.1 | 30307.1 | 30649.7 | 30738.3 | 25155.4 |
| 42.5° | 27200.2 | 27232.0 | 28249.1 | 29554.6 | 30304.5 | 30591.5 | 30922.2 | 32744.8 | 32976.2 | 32475.0 | 25984.7 |
| 45° | 26613.0 | 26656.6 | 27851.0 | 29759.6 | 31069.0 | 31877.1 | 32788.4 | 34566.1 | 34745.9 | 34079.3 | 27191.0 |
| 47.5° | 26061.4 | 26142.1 | 27385.4 | 29636.6 | 31674.8 | 33325.4 | 34457.6 | 36281.5 | 36501.1 | 35621.5 | 28315.2 |
| 50° | 25336.6 | 25516.5 | 26784.9 | 29309.9 | 32131.1 | 34585.9 | 35999.8 | 38346.2 | 38430.8 | 37126.7 | 29328.4 |
| 52.5° | 24635.6 | 24688.5 | 26105.1 | 28891.9 | 32475.0 | 35728.7 | 37839.6 | 40467.7 | 40565.6 | 38774.7 | 30263.5 |
| 55° | 23675.4 | 23754.7 | 25338.0 | 28368.1 | 32686.6 | 36686.3 | 39701.9 | 42679.2 | 42766.5 | 40754.7 | 31268.7 |
| 57.5° | 22618.6 | 22676.8 | 24343.3 | 27564.0 | 32527.9 | 37536.7 | 41687.2 | 45464.7 | 45678.9 | 42791.6 | 32172.1 |
| 60° | 21292.0 | 21368.7 | 23060.4 | 26449.0 | 31980.3 | 38528.7 | 44139.4 | 48442.0 | 48442.0 | 44661.8 | 32887.6 |
| 62.5° | 19423.1 | 19530.2 | 21243.0 | 24843.3 | 30842.8 | 39102.7 | 46096.9 | 51034.3 | 51017.2 | 46135.3 | 33129.7 |
| 65° | 17251.3 | 17268.5 | 18821.3 | 22584.2 | 28954.1 | 38797.2 | 46842.9 | 52548.8 | 52510.4 | 47201.3 | 32796.4 |
| 67.5° | 15144.3 | 15125.8 | 16504.0 | 19494.5 | 26230.7 | 37293.4 | 46487.1 | 53101.6 | 53147.9 | 47457.9 | 31554.4 |
| 70° | 12155.1 | 12131.3 | 13398.4 | 15842.7 | 22112.0 | 34054.2 | 44464.8 | 51698.3 | 51838.5 | 45992.4 | 29492.4 |
| 72.5° | 8697.7 | 8662.0 | 9269.1 | 10885.4 | 16238.1 | 28013.7 | 39422.8 | 46304.6 | 46561.2 | 41298.3 | 25726.8 |
| 75° | 5093.5 | 5131.9 | 5765.4 | 6695.2 | 9643.4 | 18428.4 | 31975.0 | 38887.2 | 39253.5 | 35132.2 | 20235.2 |
| 77.5° | 2833.1 | 2825.2 | 3290.7 | 3990.4 | 4743.0 | 9229.4 | 22322.3 | 30624.6 | 30748.9 | 27529.6 | 13607.4 |
| 80° | 1367.6 | 1361.0 | 1486.7 | 1875.5 | 2704.8 | 4146.5 | 10963.4 | 19027.6 | 19404.6 | 16731.5 | 6652.9 |
| 82.5° | 984.0 | 989.3 | 1059.4 | 1029.0 | 1009.2 | 1829.2 | 3658.4 | 5992.9 | 5471.8 | 4223.2 | 2056.7 |
| 85° | 739.4 | 739.4 | 802.8 | 740.7 | 723.5 | 931.1 | 1779.0 | 2141.4 | 2055.4 | 1879.5 | 1222.1 |
| 87.5° | 347.9 | 330.7 | 351.8 | 333.3 | 309.5 | 412.7 | 780.4 | 904.7 | 837.2 | 730.1 | 534.3 |
| 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° | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 | 14707.8 |
| 2.5° | 14777.9 | 14807.0 | 14959.1 | 15157.5 | 15176.1 | 15346.7 | 15399.6 | 15611.2 | 15603.3 | 15545.1 | 15605.9 |
| 5° | 14877.1 | 14965.8 | 15226.3 | 15505.4 | 15576.8 | 15791.1 | 15837.4 | 16045.0 | 16058.3 | 15986.8 | 16046.4 |
| 7.5° | 15035.9 | 15165.5 | 15411.5 | 15687.9 | 15719.7 | 15910.1 | 15902.2 | 16099.3 | 16064.9 | 16002.7 | 16082.1 |
| 10° | 15230.3 | 15330.8 | 15494.8 | 15677.3 | 15662.8 | 15814.9 | 15767.3 | 15908.8 | 15837.4 | 15787.1 | 15878.4 |
| 12.5° | 15426.0 | 15430.0 | 15443.2 | 15558.3 | 15468.4 | 15502.7 | 15408.8 | 15513.3 | 15403.6 | 15318.9 | 15374.5 |
| 15° | 15621.8 | 15510.7 | 15324.2 | 15252.8 | 15002.8 | 14874.5 | 14739.6 | 14865.2 | 14608.6 | 14473.7 | 14508.1 |
| 17.5° | 15898.2 | 15631.0 | 15004.1 | 14096.8 | 13327.0 | 12902.4 | 12583.7 | 12337.7 | 12342.9 | 12464.6 | 12537.4 |
| 20° | 16119.1 | 15103.3 | 13571.7 | 13010.9 | 12435.5 | 11659.1 | 10454.2 | 10123.5 | 9905.3 | 9901.3 | 9937.0 |
| 22.5° | 16041.1 | 14545.2 | 13573.0 | 12696.1 | 11444.9 | 9893.4 | 9372.3 | 9069.4 | 8560.2 | 7471.6 | 7383.0 |
| 25° | 16759.3 | 15039.8 | 13651.0 | 12045.3 | 9866.9 | 9080.0 | 8364.4 | 7775.8 | 6490.2 | 6287.9 | 6279.9 |
| 27.5° | 17620.3 | 15707.8 | 13756.9 | 10640.7 | 9236.0 | 8174.0 | 7264.0 | 5842.1 | 5225.8 | 5138.5 | 5108.1 |
| 30° | 18616.3 | 16494.7 | 13111.4 | 10191.0 | 8564.1 | 7119.8 | 5913.6 | 4486.4 | 3985.1 | 3954.7 | 3962.7 |
| 32.5° | 19864.8 | 17392.8 | 12438.2 | 9820.7 | 7750.7 | 5899.0 | 4032.8 | 3421.7 | 3134.7 | 2821.2 | 2921.7 |
| 35° | 21195.4 | 16875.7 | 12840.3 | 9363.0 | 6732.3 | 4436.2 | 3063.3 | 2718.0 | 2485.3 | 2079.2 | 1913.9 |
| 37.5° | 20671.7 | 17231.4 | 13307.2 | 8860.4 | 5459.9 | 3007.7 | 2370.2 | 2071.3 | 1853.0 | 1514.4 | 1507.8 |
| 40° | 21317.1 | 18249.9 | 13640.5 | 8051.0 | 3948.1 | 2133.4 | 1727.4 | 1603.0 | 1502.5 | 1314.7 | 1288.3 |
| 42.5° | 22457.2 | 19138.7 | 13866.6 | 7012.7 | 2359.6 | 1587.2 | 1474.8 | 1493.3 | 1406.0 | 1261.8 | 1244.6 |
| 45° | 23580.2 | 19916.4 | 13653.7 | 5429.5 | 1678.4 | 1431.1 | 1437.7 | 1429.8 | 1324.0 | 1271.1 | 1252.5 |
| 47.5° | 24602.6 | 20573.8 | 13054.5 | 3581.7 | 1456.2 | 1395.4 | 1409.9 | 1374.2 | 1255.2 | 1224.8 | 1222.1 |
| 50° | 25480.8 | 21268.2 | 10336.5 | 2744.5 | 1400.7 | 1347.8 | 1379.5 | 1321.3 | 1116.3 | 1083.2 | 1048.9 |
| 52.5° | 26021.8 | 20113.5 | 9183.1 | 2108.3 | 1342.5 | 1273.7 | 1283.0 | 1330.6 | 1051.5 | 837.2 | 784.3 |
| 55° | 25939.8 | 18118.9 | 8537.7 | 1755.2 | 1249.9 | 1170.5 | 1189.1 | 1265.8 | 951.0 | 654.7 | 592.5 |
| 57.5° | 26329.9 | 17954.9 | 7868.4 | 1493.3 | 1078.0 | 1060.8 | 1023.7 | 1153.3 | 865.0 | 433.8 | 411.3 |
| 60° | 26266.5 | 17935.1 | 7021.9 | 1174.5 | 952.3 | 891.5 | 845.2 | 939.1 | 620.3 | 161.4 | 146.8 |
| 62.5° | 26163.3 | 17425.9 | 6060.4 | 1052.8 | 876.9 | 853.1 | 813.4 | 919.2 | 527.7 | 112.4 | 83.3 |
| 65° | 25646.1 | 16599.2 | 4970.5 | 921.9 | 818.7 | 769.8 | 767.1 | 870.3 | 435.2 | 62.2 | 27.8 |
| 67.5° | 23880.4 | 14799.1 | 3698.1 | 849.1 | 784.3 | 759.2 | 805.5 | 838.6 | 418.0 | 63.5 | 25.1 |
| 70° | 21684.8 | 12424.9 | 2386.1 | 765.8 | 735.4 | 748.6 | 787.0 | 847.8 | 406.1 | 58.2 | 22.5 |
| 72.5° | 18132.2 | 9611.7 | 1447.0 | 683.8 | 665.3 | 705.0 | 776.4 | 847.8 | 375.6 | 48.9 | 18.5 |
| 75° | 13793.9 | 6410.9 | 1076.6 | 604.4 | 583.3 | 633.5 | 707.6 | 814.8 | 369.0 | 42.3 | 11.9 |
| 77.5° | 8564.1 | 3027.5 | 849.1 | 507.9 | 485.4 | 537.0 | 593.9 | 671.9 | 374.3 | 41.0 | 6.6 |
| 80° | 3464.0 | 1264.5 | 666.6 | 408.7 | 380.9 | 408.7 | 481.4 | 572.7 | 297.6 | 58.2 | 0.0 |
| 82.5° | 1457.6 | 890.1 | 544.9 | 325.4 | 304.2 | 268.5 | 328.0 | 424.6 | 234.1 | 46.3 | 0.0 |
| 85° | 964.2 | 617.7 | 390.2 | 220.9 | 194.4 | 130.9 | 160.0 | 191.8 | 133.6 | 0.0 | 0.0 |
| 87.5° | 436.5 | 273.8 | 170.6 | 75.4 | 63.5 | 35.7 | 21.2 | 18.5 | 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)