

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: P453462

Luminaire Tested: **GALN-SA4C-727-U-T3R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453462
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: GALN-SA4C-727-U-T3R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23802 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

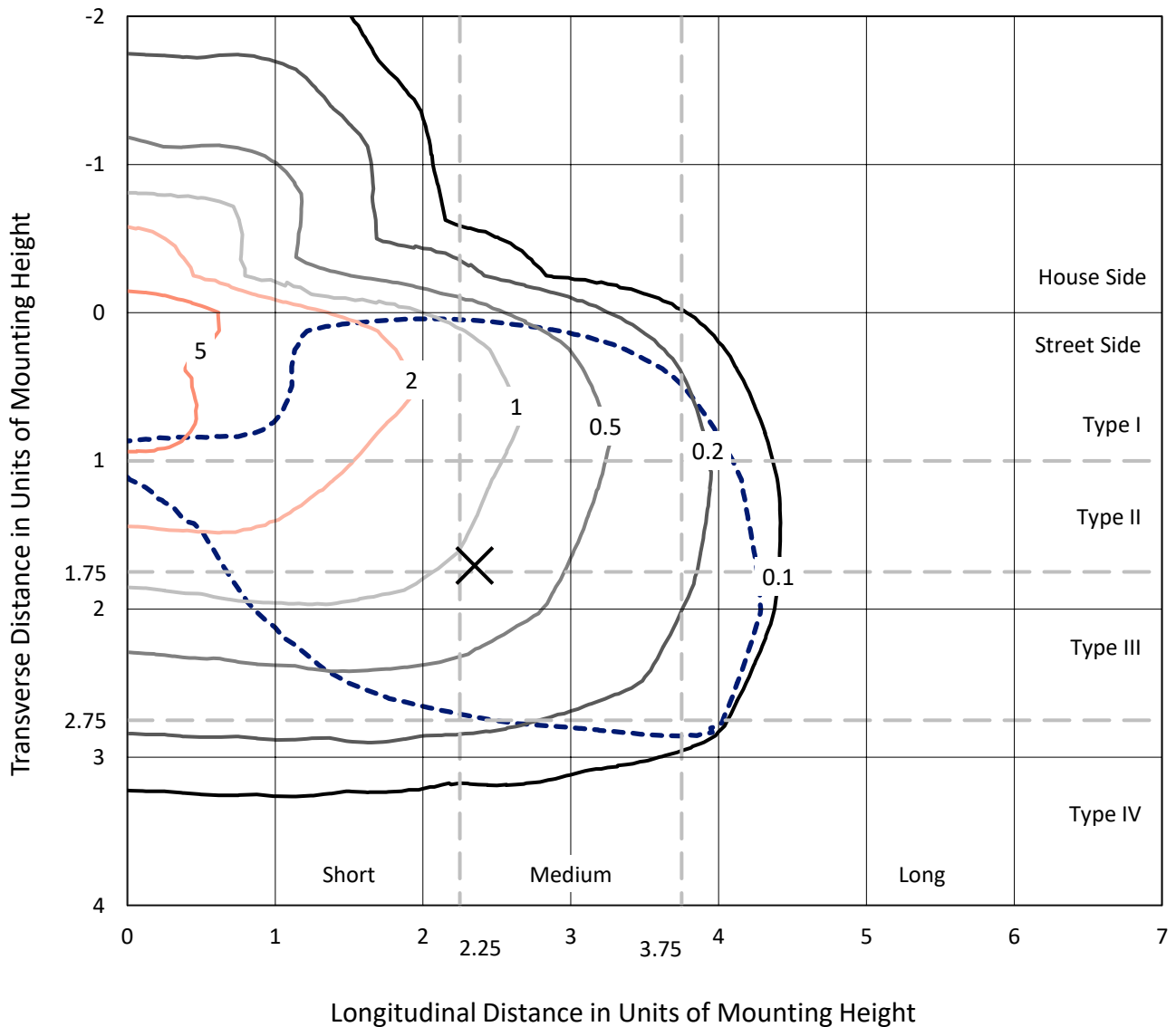
Input Watts (W): 213
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

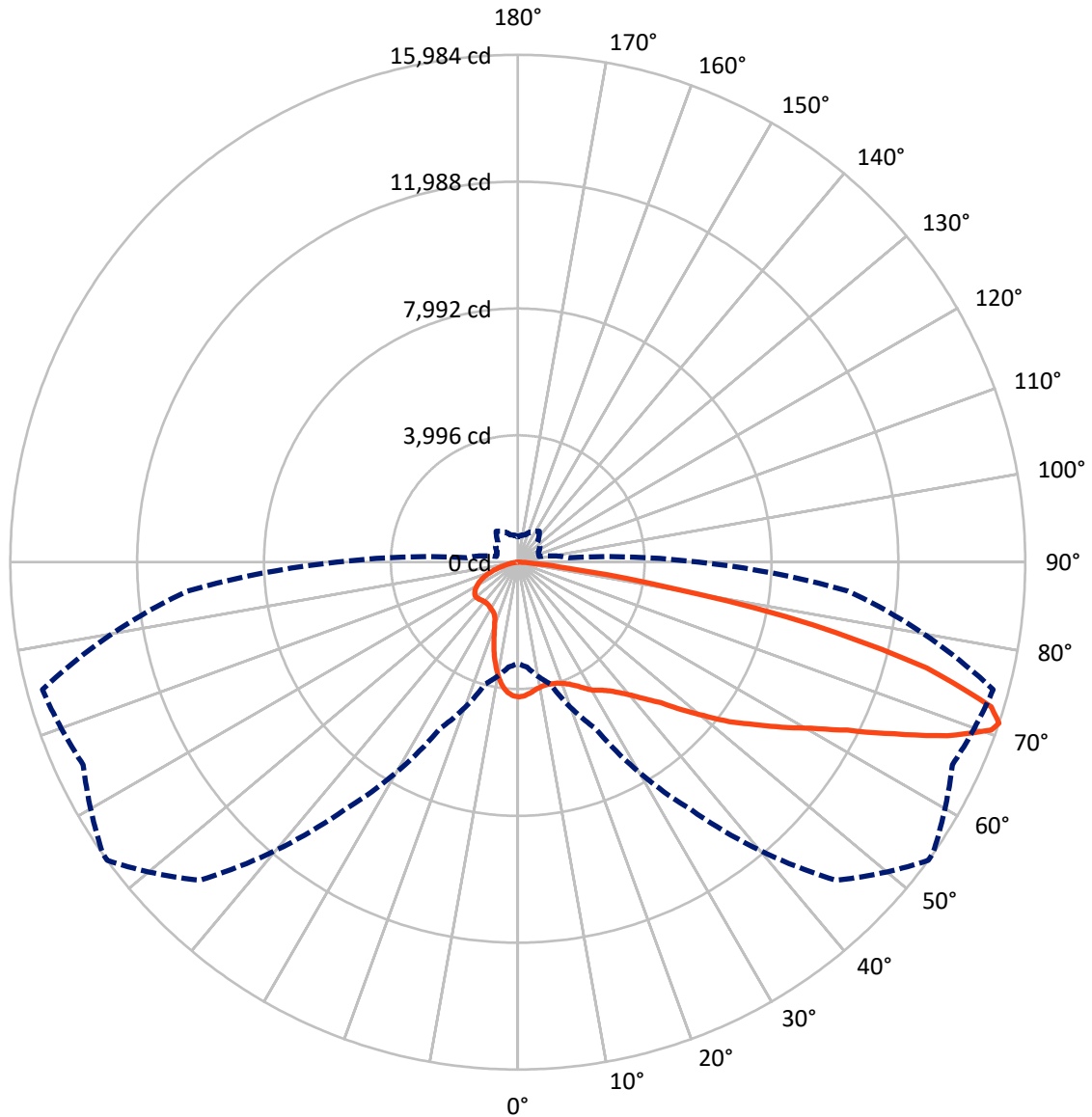
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.8 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical



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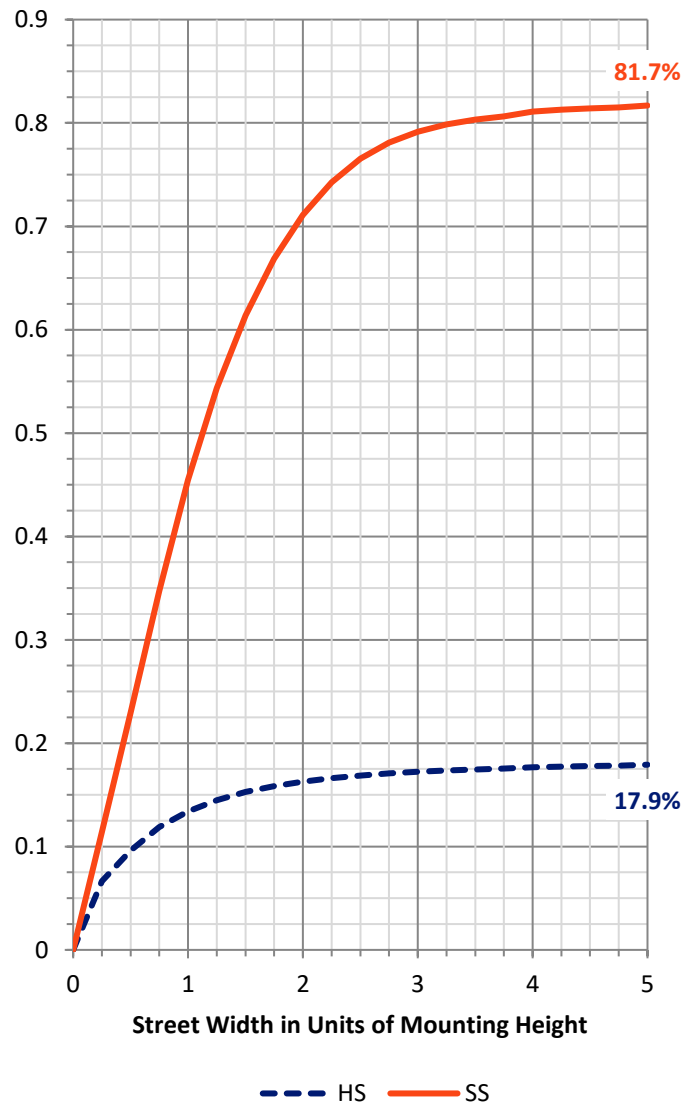
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4297.3 | 0.0 | 4297.3 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 19504.7 | 0.0 | 19504.7 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 23802.0 | 0.0 | 23802.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 378.4 | 1.6 |
| 10°-20° | 999.3 | 4.2 |
| 20°-30° | 1663.8 | 7.0 |
| 30°-40° | 2460.3 | 10.3 |
| 40°-50° | 3465.3 | 14.6 |
| 50°-60° | 4640.3 | 19.5 |
| 60°-70° | 5848.7 | 24.6 |
| 70°-80° | 3994.6 | 16.8 |
| 80°-90° | 351.3 | 1.5 |
| 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° | 23802.0 | 100.0 |
| 0°-180° | 23802.0 | 100.0 |



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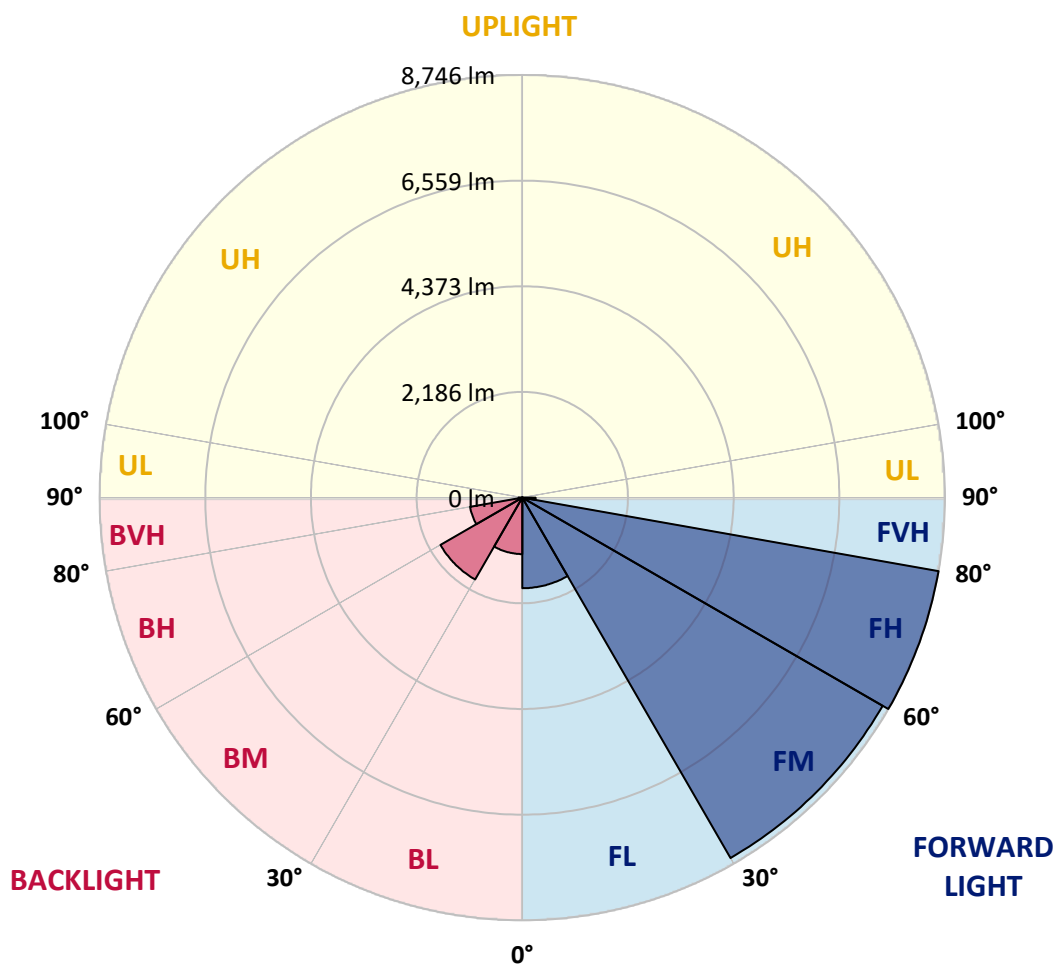
CATALOG NUMBER: GALN-SA4C-727-U-T3R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1873.6 | 7.9 | | | |
| FM | (30°-60°) | 8610.7 | 36.2 | | | |
| FH | (60°-80°) | 8745.8 | 36.7 | | | G4/12000 |
| FVH | (80°-90°) | 274.6 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1167.9 | 4.9 | B3/2500 | | |
| BM | (30°-60°) | 1955.1 | 8.2 | B2/2500 | | |
| BH | (60°-80°) | 1097.5 | 4.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 76.7 | 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 IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 54° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 |
| 2.5° | 4102.6 | 4121.9 | 4127.1 | 4139.9 | 4166.9 | 4188.8 | 4210.6 | 4208.1 | 4238.9 | 4251.8 | 4263.3 |
| 5° | 3920.1 | 3925.2 | 3944.5 | 3970.2 | 4017.8 | 4078.2 | 4137.3 | 4138.6 | 4214.5 | 4274.9 | 4304.5 |
| 7.5° | 3786.4 | 3803.1 | 3815.9 | 3842.9 | 3893.1 | 3958.6 | 4052.5 | 4060.2 | 4195.2 | 4314.8 | 4377.8 |
| 10° | 3698.9 | 3718.2 | 3732.4 | 3765.8 | 3815.9 | 3889.2 | 3990.8 | 4004.9 | 4181.1 | 4377.8 | 4488.3 |
| 12.5° | 3619.2 | 3638.5 | 3651.4 | 3695.1 | 3760.6 | 3850.6 | 3965.1 | 3981.8 | 4186.2 | 4451.1 | 4609.2 |
| 15° | 3668.1 | 3683.5 | 3678.4 | 3691.2 | 3734.9 | 3837.8 | 3975.3 | 3992.1 | 4205.5 | 4521.8 | 4728.8 |
| 17.5° | 3885.4 | 3898.2 | 3855.8 | 3806.9 | 3786.4 | 3862.2 | 4007.5 | 4025.5 | 4244.1 | 4595.1 | 4850.9 |
| 20° | 4205.5 | 4240.2 | 4147.6 | 4038.3 | 3939.3 | 3949.6 | 4074.3 | 4093.6 | 4298.1 | 4668.3 | 4975.6 |
| 22.5° | 4622.1 | 4647.8 | 4534.6 | 4354.6 | 4172.1 | 4078.2 | 4174.6 | 4186.2 | 4379.1 | 4763.5 | 5111.9 |
| 25° | 5111.9 | 5127.3 | 4970.5 | 4739.0 | 4475.5 | 4298.1 | 4312.2 | 4332.8 | 4512.8 | 4871.5 | 5232.8 |
| 27.5° | 5587.6 | 5636.5 | 5455.2 | 5172.3 | 4825.2 | 4529.5 | 4501.2 | 4514.1 | 4658.0 | 4931.9 | 5316.3 |
| 30° | 6152.0 | 6148.2 | 5956.6 | 5628.7 | 5183.9 | 4781.5 | 4679.9 | 4677.3 | 4736.5 | 4961.5 | 5376.7 |
| 32.5° | 6602.0 | 6654.7 | 6467.0 | 6109.6 | 5594.0 | 5042.5 | 4803.3 | 4798.2 | 4796.9 | 5012.9 | 5466.7 |
| 35° | 7113.7 | 7121.4 | 6949.1 | 6589.2 | 6037.6 | 5370.3 | 4975.6 | 4949.9 | 4920.3 | 5123.5 | 5588.9 |
| 37.5° | 7571.4 | 7607.4 | 7449.3 | 7045.6 | 6473.4 | 5711.0 | 5212.2 | 5195.5 | 5105.5 | 5315.0 | 5784.3 |
| 40° | 7928.8 | 7955.8 | 7860.7 | 7476.3 | 6902.9 | 6078.7 | 5513.0 | 5482.2 | 5372.9 | 5628.7 | 6045.3 |
| 42.5° | 8045.8 | 8101.1 | 8138.4 | 7949.4 | 7396.6 | 6514.6 | 5883.3 | 5844.7 | 5761.2 | 6104.4 | 6346.2 |
| 45° | 8054.8 | 8142.3 | 8339.0 | 8348.0 | 7892.8 | 7036.6 | 6315.3 | 6288.3 | 6281.9 | 6713.9 | 6769.2 |
| 47.5° | 7986.7 | 8075.4 | 8405.8 | 8584.5 | 8335.1 | 7563.7 | 6938.9 | 6896.4 | 6900.3 | 7467.3 | 7243.6 |
| 50° | 7822.1 | 7927.6 | 8328.7 | 8736.3 | 8681.0 | 8111.4 | 7597.1 | 7583.0 | 7662.7 | 8327.4 | 7736.0 |
| 52.5° | 7512.3 | 7639.6 | 8249.0 | 8831.4 | 8938.1 | 8583.3 | 8345.4 | 8305.5 | 8507.4 | 9260.8 | 8274.7 |
| 55° | 6654.7 | 6846.3 | 7957.1 | 8884.1 | 9182.4 | 9034.5 | 9019.1 | 9091.1 | 9358.5 | 10279.1 | 8867.4 |
| 57.5° | 6207.3 | 6351.3 | 7323.3 | 8893.1 | 9491.0 | 9559.1 | 9805.9 | 9823.9 | 10291.9 | 11360.3 | 9537.2 |
| 60° | 5963.0 | 6090.3 | 6976.1 | 8834.0 | 9921.7 | 10208.4 | 10610.8 | 10675.1 | 11203.5 | 12531.6 | 10231.5 |
| 62.5° | 5749.6 | 5858.9 | 6767.9 | 8629.5 | 10407.6 | 11171.3 | 11653.5 | 11684.3 | 12238.5 | 13825.0 | 10916.8 |
| 65° | 5246.9 | 5371.6 | 6348.7 | 8425.1 | 10826.8 | 12374.8 | 13036.9 | 13000.9 | 13340.3 | 14941.0 | 11346.2 |
| 67.5° | 4569.3 | 4727.5 | 5565.7 | 7719.3 | 11033.8 | 13690.0 | 14595.1 | 14550.1 | 14428.0 | 15672.5 | 11469.6 |
| 70° | 3704.1 | 3788.9 | 4564.2 | 6499.2 | 10207.1 | 14380.4 | 15825.5 | 15778.0 | 15101.7 | 15769.0 | 10885.9 |
| 71° | 3187.2 | 3319.6 | 3974.1 | 5772.7 | 9519.2 | 14169.6 | 15983.7 | 15970.8 | 15103.0 | 15502.8 | 10446.2 |
| 72.5° | 2487.8 | 2568.8 | 3147.4 | 4472.9 | 8090.8 | 12971.3 | 15592.8 | 15641.7 | 14775.1 | 14763.6 | 9539.8 |
| 75° | 1573.7 | 1609.7 | 1974.8 | 2633.1 | 4439.5 | 9186.2 | 13310.7 | 13443.2 | 13119.2 | 12084.2 | 7094.4 |
| 77.5° | 914.1 | 960.4 | 1182.8 | 1551.8 | 1918.2 | 4985.9 | 9524.4 | 9668.4 | 9115.5 | 6653.4 | 2904.4 |
| 80° | 532.3 | 583.7 | 779.1 | 901.3 | 880.7 | 1850.1 | 4849.6 | 5095.2 | 3947.1 | 1680.4 | 815.1 |
| 82.5° | 295.7 | 330.4 | 547.7 | 549.0 | 469.3 | 604.3 | 1526.1 | 1596.8 | 1126.3 | 677.6 | 333.0 |
| 85° | 214.7 | 243.0 | 353.6 | 320.1 | 225.0 | 259.7 | 531.0 | 556.7 | 455.1 | 285.4 | 108.0 |
| 87.5° | 75.9 | 108.0 | 194.1 | 154.3 | 61.7 | 54.0 | 153.0 | 124.7 | 115.7 | 79.7 | 24.4 |
| 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° | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 | 4246.6 |
| 2.5° | 4269.8 | 4272.3 | 4259.5 | 4236.3 | 4213.2 | 4183.6 | 4150.2 | 4124.5 | 4112.9 | 4111.6 | 4110.3 |
| 5° | 4316.1 | 4322.5 | 4273.6 | 4201.6 | 4121.9 | 4024.2 | 3940.6 | 3845.5 | 3821.1 | 3782.5 | 3794.1 |
| 7.5° | 4390.6 | 4386.8 | 4290.3 | 4137.3 | 3950.9 | 3743.9 | 3569.1 | 3467.5 | 3362.1 | 3332.5 | 3333.8 |
| 10° | 4497.3 | 4472.9 | 4290.3 | 4006.2 | 3695.1 | 3387.8 | 3143.5 | 2989.2 | 2905.7 | 2836.2 | 2810.5 |
| 12.5° | 4610.5 | 4548.8 | 4249.2 | 3822.4 | 3365.9 | 2989.2 | 2726.9 | 2518.7 | 2464.7 | 2408.1 | 2409.4 |
| 15° | 4718.5 | 4615.6 | 4168.2 | 3563.9 | 3011.1 | 2563.7 | 2309.1 | 2184.4 | 2167.7 | 2174.1 | 2172.8 |
| 17.5° | 4816.2 | 4663.2 | 4044.8 | 3275.9 | 2597.1 | 2198.5 | 2063.5 | 2072.5 | 2117.5 | 2149.7 | 2153.5 |
| 20° | 4915.2 | 4691.5 | 3860.9 | 2890.2 | 2206.2 | 1977.4 | 1982.5 | 2053.2 | 2121.4 | 2165.1 | 2171.5 |
| 22.5° | 5009.0 | 4704.3 | 3644.9 | 2517.4 | 1923.4 | 1883.5 | 1959.4 | 2035.2 | 2102.1 | 2144.5 | 2151.0 |
| 25° | 5070.8 | 4674.8 | 3338.9 | 2127.8 | 1784.5 | 1850.1 | 1929.8 | 1994.1 | 2050.7 | 2094.4 | 2104.7 |
| 27.5° | 5087.5 | 4579.6 | 2959.7 | 1812.8 | 1720.3 | 1818.0 | 1891.2 | 1938.8 | 1982.5 | 2023.7 | 2031.4 |
| 30° | 5078.5 | 4439.5 | 2543.1 | 1627.7 | 1683.0 | 1780.7 | 1837.2 | 1872.0 | 1924.7 | 1956.8 | 1963.2 |
| 32.5° | 5064.3 | 4276.2 | 2108.5 | 1528.7 | 1652.1 | 1746.0 | 1779.4 | 1810.2 | 1809.0 | 1796.1 | 1805.1 |
| 35° | 5069.5 | 4080.8 | 1756.3 | 1469.5 | 1625.1 | 1720.3 | 1748.5 | 1710.0 | 1599.4 | 1594.3 | 1589.1 |
| 37.5° | 5096.5 | 3887.9 | 1500.4 | 1428.4 | 1611.0 | 1716.4 | 1731.8 | 1554.4 | 1456.7 | 1411.7 | 1400.1 |
| 40° | 5165.9 | 3662.9 | 1332.0 | 1397.5 | 1609.7 | 1746.0 | 1656.0 | 1476.0 | 1288.3 | 1200.8 | 1194.4 |
| 42.5° | 5258.5 | 3441.8 | 1229.1 | 1378.3 | 1625.1 | 1791.0 | 1625.1 | 1365.4 | 1161.0 | 1109.5 | 1101.8 |
| 45° | 5396.0 | 3188.5 | 1172.5 | 1369.3 | 1648.3 | 1807.7 | 1614.8 | 1284.4 | 1109.5 | 1068.4 | 1068.4 |
| 47.5° | 5551.6 | 2946.8 | 1141.7 | 1362.8 | 1677.8 | 1796.1 | 1523.5 | 1258.7 | 1085.1 | 1090.3 | 1114.7 |
| 50° | 5705.9 | 2737.2 | 1118.5 | 1348.7 | 1703.5 | 1789.7 | 1486.3 | 1257.4 | 1091.5 | 1157.1 | 1200.8 |
| 52.5° | 5884.6 | 2589.4 | 1090.3 | 1325.5 | 1703.5 | 1748.5 | 1474.7 | 1283.1 | 1109.5 | 1128.8 | 1148.1 |
| 55° | 6100.6 | 2543.1 | 1054.3 | 1275.4 | 1672.7 | 1645.7 | 1468.3 | 1320.4 | 1122.4 | 1077.4 | 1085.1 |
| 57.5° | 6386.0 | 2617.7 | 1019.6 | 1212.4 | 1602.0 | 1539.0 | 1465.7 | 1330.7 | 1092.8 | 1055.6 | 1047.8 |
| 60° | 6717.7 | 2765.5 | 1009.3 | 1148.1 | 1505.5 | 1447.7 | 1450.3 | 1301.1 | 1051.7 | 1013.1 | 1019.6 |
| 62.5° | 6950.4 | 2854.2 | 1002.8 | 1099.3 | 1400.1 | 1347.4 | 1413.0 | 1265.1 | 1033.7 | 1000.3 | 1006.7 |
| 65° | 6950.4 | 2746.2 | 943.7 | 1024.7 | 1263.8 | 1226.5 | 1368.0 | 1220.1 | 1010.6 | 972.0 | 965.6 |
| 67.5° | 6686.9 | 2431.2 | 853.7 | 912.8 | 1113.4 | 1089.0 | 1305.0 | 1166.1 | 975.8 | 946.3 | 930.8 |
| 70° | 6000.3 | 1843.7 | 740.6 | 781.7 | 923.1 | 945.0 | 1224.0 | 1092.8 | 918.0 | 882.0 | 858.8 |
| 71° | 5698.2 | 1605.8 | 693.0 | 714.8 | 849.8 | 882.0 | 1185.4 | 1062.0 | 892.3 | 840.8 | 799.7 |
| 72.5° | 5115.8 | 1352.5 | 621.0 | 630.0 | 726.4 | 784.3 | 1104.4 | 1002.8 | 843.4 | 770.1 | 723.8 |
| 75° | 3886.6 | 987.4 | 500.1 | 495.0 | 537.4 | 622.3 | 934.7 | 893.6 | 739.3 | 640.3 | 613.3 |
| 77.5° | 1679.1 | 537.4 | 374.1 | 378.0 | 365.1 | 471.8 | 735.4 | 767.6 | 633.8 | 520.7 | 496.3 |
| 80° | 509.1 | 309.9 | 255.9 | 261.0 | 244.3 | 316.3 | 518.1 | 601.7 | 509.1 | 405.0 | 371.6 |
| 82.5° | 261.0 | 185.1 | 174.9 | 172.3 | 155.6 | 178.7 | 313.7 | 411.4 | 363.8 | 253.3 | 223.7 |
| 85° | 113.1 | 99.0 | 86.1 | 83.6 | 73.3 | 64.3 | 111.9 | 205.7 | 192.9 | 141.4 | 135.0 |
| 87.5° | 28.3 | 25.7 | 16.7 | 15.4 | 9.0 | 1.3 | 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)