

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: STREETWORKS

Report Number: P191583

Luminaire Tested: **GAN-AF-05-LED-U-T4W-1200**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191583
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24147)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-05-LED-U-T4W-1200
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33151.8 lumens
Efficiency: N/A
Efficacy: 103.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G5

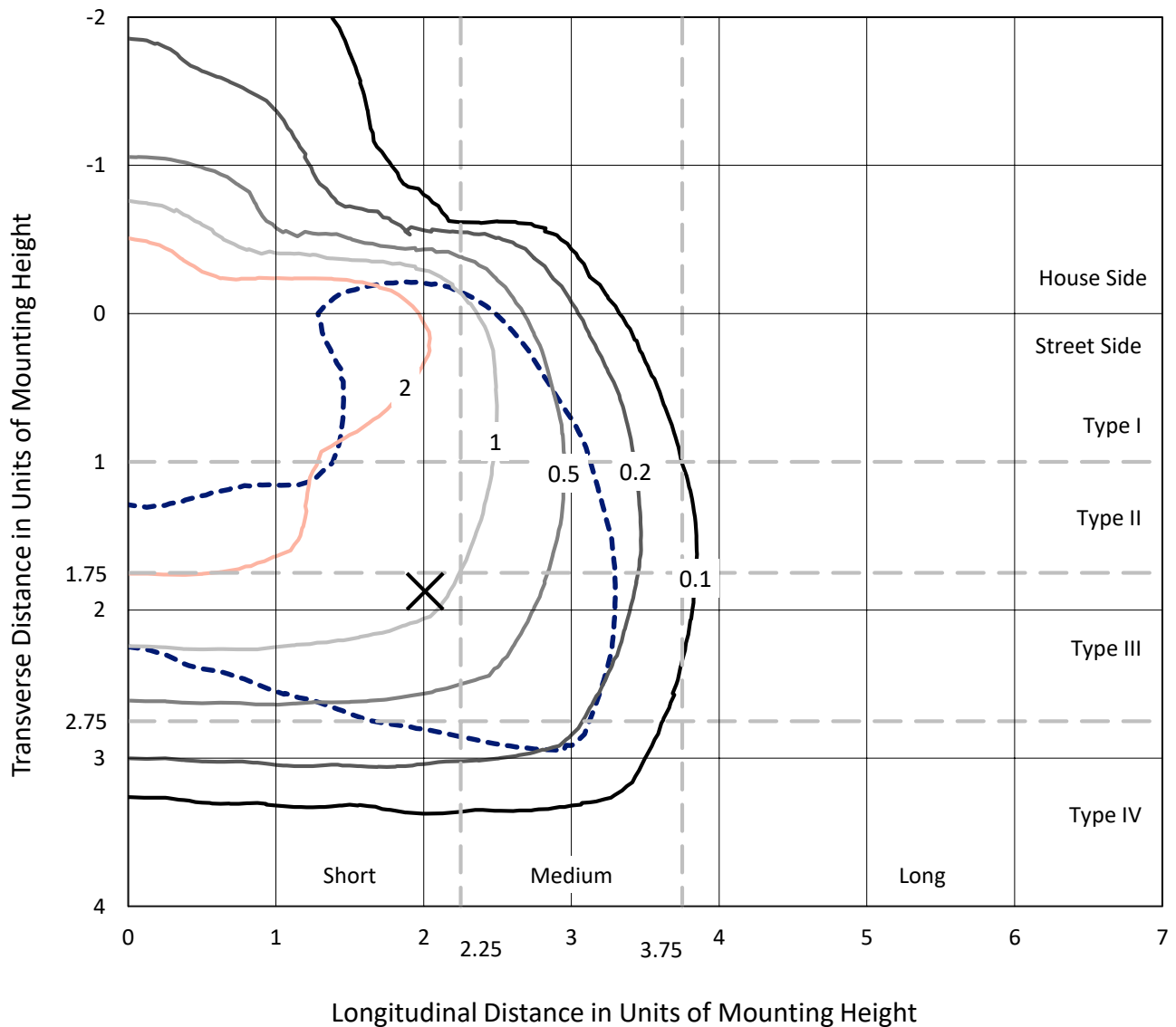
Input Watts (W): 320
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

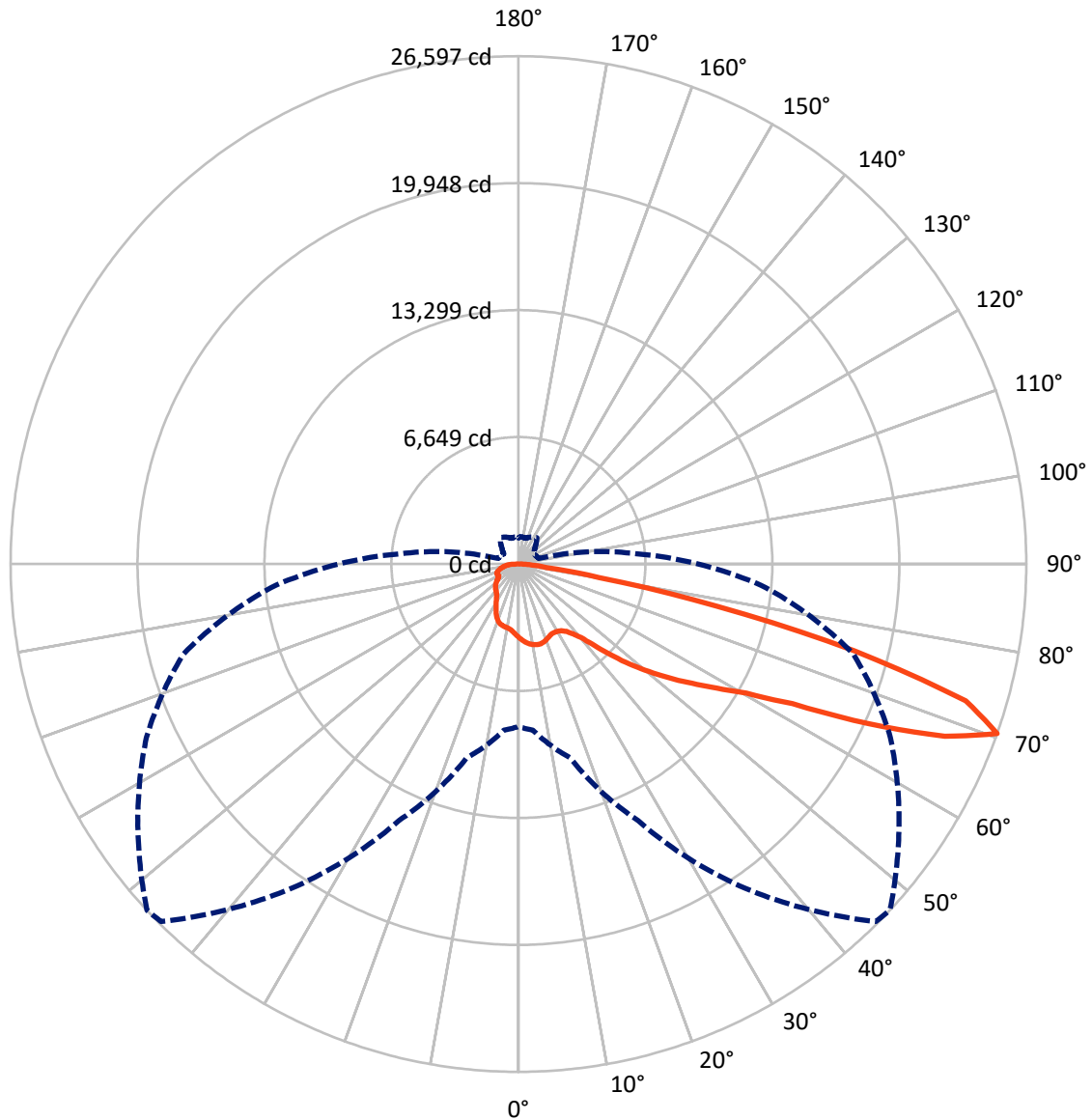
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.9 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6916.1 | 0.0 | 6916.1 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 26235.7 | 0.0 | 26235.7 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 33151.8 | 0.0 | 33151.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 368.6 | 1.1 |
| 10°-20° | 1081.3 | 3.3 |
| 20°-30° | 1596.8 | 4.8 |
| 30°-40° | 2320.9 | 7.0 |
| 40°-50° | 4176.8 | 12.6 |
| 50°-60° | 7235.9 | 21.8 |
| 60°-70° | 10327.7 | 31.2 |
| 70°-80° | 5301.7 | 16.0 |
| 80°-90° | 742.3 | 2.2 |
| 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° | 33151.8 | 100.0 |
| 0°-180° | 33151.8 | 100.0 |

Coefficient of Utilization



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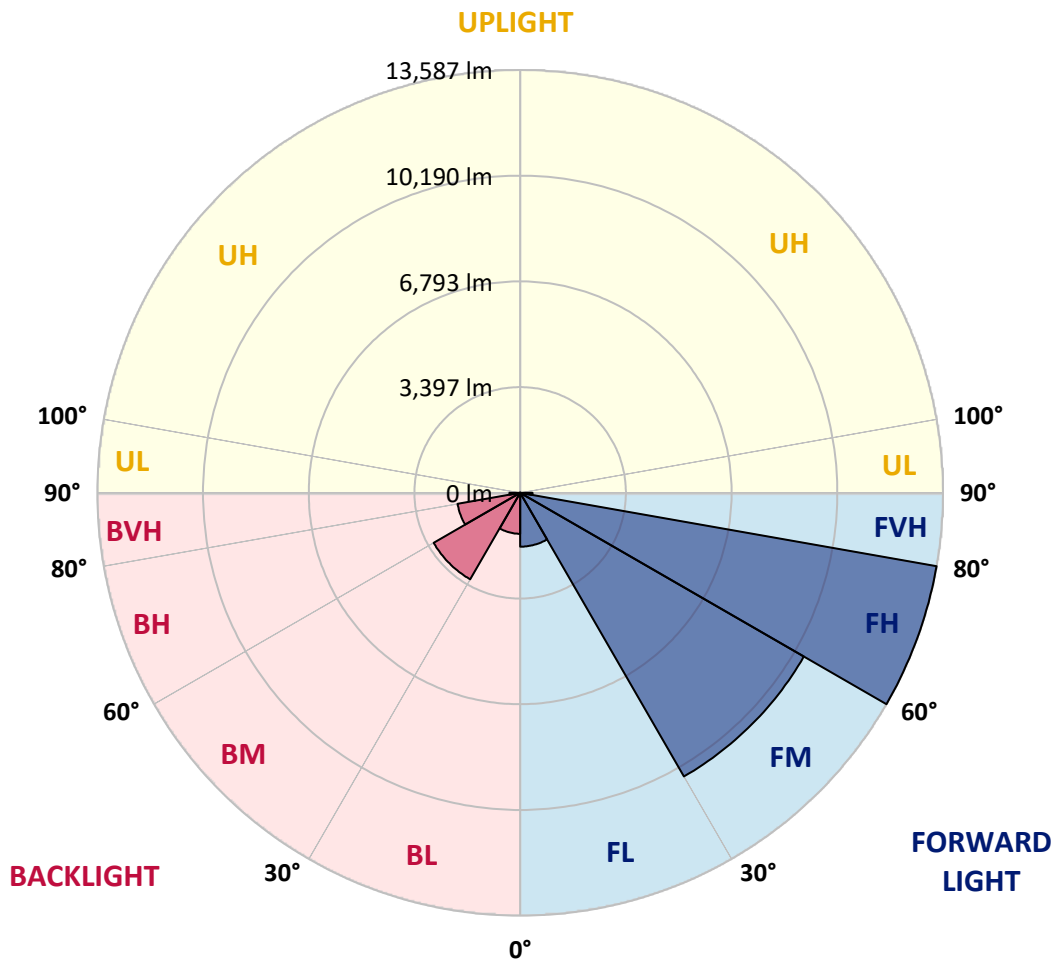
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1729.8 | 5.2 | | | |
| FM | (30°-60°) | 10523.3 | 31.7 | | | |
| FH | (60°-80°) | 13586.5 | 41.0 | | | G5 |
| FVH | (80°-90°) | 396.1 | 1.2 | | | G3/500 |
| BL | (0°-30°) | 1316.9 | 4.0 | B3/2500 | | |
| BM | (30°-60°) | 3210.2 | 9.7 | B3/5000 | | |
| BH | (60°-80°) | 2042.8 | 6.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 346.2 | 1.0 | | | G3/500 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 47° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 |
| 2.5° | 4072.5 | 4064.4 | 4061.1 | 4054.7 | 4046.6 | 4006.3 | 3998.2 | 3969.3 | 3928.8 | 3887.0 | 3843.4 |
| 5° | 4340.2 | 4338.5 | 4320.8 | 4288.5 | 4237.0 | 4148.3 | 4127.3 | 4056.3 | 3961.2 | 3869.2 | 3777.2 |
| 7.5° | 4575.7 | 4561.1 | 4527.3 | 4462.7 | 4372.4 | 4251.5 | 4222.4 | 4124.0 | 3993.4 | 3867.6 | 3743.4 |
| 10° | 4748.2 | 4740.1 | 4666.0 | 4577.3 | 4459.6 | 4325.6 | 4291.8 | 4182.1 | 4038.6 | 3878.9 | 3724.1 |
| 12.5° | 4846.6 | 4830.5 | 4745.0 | 4638.6 | 4498.2 | 4367.6 | 4333.7 | 4222.4 | 4061.1 | 3878.9 | 3696.6 |
| 15° | 4840.2 | 4828.8 | 4743.4 | 4627.2 | 4485.3 | 4370.9 | 4340.2 | 4228.9 | 4056.3 | 3862.8 | 3661.1 |
| 17.5° | 4711.1 | 4716.0 | 4643.4 | 4528.9 | 4412.7 | 4325.6 | 4298.2 | 4195.0 | 4024.1 | 3830.5 | 3619.2 |
| 20° | 4485.3 | 4507.9 | 4459.6 | 4357.9 | 4293.4 | 4233.7 | 4216.0 | 4128.9 | 3974.1 | 3783.7 | 3574.1 |
| 22.5° | 4259.6 | 4280.5 | 4261.1 | 4175.7 | 4166.0 | 4130.5 | 4120.9 | 4057.9 | 3930.5 | 3754.7 | 3546.7 |
| 25° | 4093.4 | 4112.8 | 4109.5 | 4035.3 | 4064.4 | 4062.8 | 4054.7 | 4024.1 | 3920.9 | 3754.7 | 3551.5 |
| 27.5° | 4048.2 | 4054.7 | 4048.2 | 3980.5 | 4020.8 | 4053.0 | 4046.6 | 4041.8 | 3949.8 | 3801.5 | 3612.8 |
| 30° | 4203.1 | 4193.4 | 4143.4 | 4006.3 | 4043.4 | 4088.5 | 4082.1 | 4085.4 | 4037.0 | 3924.0 | 3749.8 |
| 32.5° | 4820.8 | 4777.3 | 4619.2 | 4233.7 | 4135.4 | 4159.5 | 4162.8 | 4216.0 | 4224.1 | 4112.8 | 3962.8 |
| 35° | 5745.0 | 5696.6 | 5491.7 | 4843.4 | 4420.8 | 4336.9 | 4336.9 | 4417.6 | 4466.0 | 4383.8 | 4293.4 |
| 37.5° | 6724.0 | 6670.8 | 6561.1 | 5688.5 | 5020.7 | 4645.0 | 4636.9 | 4693.4 | 4762.8 | 4782.1 | 4804.7 |
| 40° | 7836.8 | 7780.4 | 7811.0 | 6636.9 | 5857.8 | 5178.9 | 5064.3 | 5024.0 | 5211.1 | 5335.3 | 5516.0 |
| 42.5° | 9054.5 | 9028.7 | 9040.0 | 7693.3 | 6811.0 | 5977.2 | 5814.4 | 5606.3 | 5832.0 | 6053.0 | 6432.0 |
| 45° | 10181.9 | 10204.4 | 10193.2 | 8823.9 | 7872.3 | 6951.4 | 6778.8 | 6375.5 | 6596.5 | 6975.6 | 7593.3 |
| 47.5° | 11169.0 | 11075.4 | 11220.5 | 10059.3 | 9061.0 | 8041.6 | 7828.7 | 7288.4 | 7512.7 | 7980.3 | 9025.5 |
| 50° | 12367.3 | 12354.4 | 12141.5 | 11707.7 | 10498.0 | 9136.8 | 8857.7 | 8232.0 | 8580.3 | 9230.3 | 10830.3 |
| 52.5° | 13626.9 | 13393.1 | 13197.9 | 12989.8 | 12022.1 | 10259.3 | 9917.4 | 9172.3 | 9835.2 | 10652.8 | 13030.1 |
| 55° | 13885.0 | 13780.2 | 14022.1 | 14372.0 | 13491.5 | 11425.4 | 11027.0 | 10351.2 | 11248.0 | 12278.6 | 15567.2 |
| 57.5° | 14436.6 | 14435.0 | 14935.0 | 15559.2 | 15004.3 | 12662.5 | 12260.9 | 11775.4 | 12836.6 | 14141.5 | 18260.7 |
| 60° | 14809.2 | 14914.0 | 15843.0 | 17054.2 | 16489.8 | 14091.5 | 13722.1 | 13418.9 | 14643.0 | 16223.6 | 20770.2 |
| 62.5° | 15004.3 | 15146.2 | 16414.0 | 17660.6 | 18589.7 | 16470.4 | 16101.0 | 15663.9 | 17033.3 | 18507.4 | 22237.9 |
| 65° | 14193.0 | 14472.1 | 16325.3 | 18184.9 | 20428.3 | 20326.7 | 20160.6 | 19392.9 | 20021.9 | 20312.2 | 21707.3 |
| 67.5° | 11948.0 | 12233.5 | 14391.4 | 17696.1 | 21741.2 | 24045.9 | 24081.4 | 22770.2 | 21860.6 | 20467.0 | 18251.0 |
| 70° | 8512.6 | 8736.8 | 10522.2 | 14836.6 | 20741.2 | 26476.5 | 26597.4 | 24326.6 | 21494.4 | 18150.9 | 12751.2 |
| 72.5° | 4041.8 | 4178.9 | 5869.2 | 9656.1 | 16459.1 | 24258.9 | 24492.7 | 22339.5 | 18276.8 | 13438.2 | 6956.2 |
| 75° | 1485.4 | 1527.4 | 1983.8 | 4108.0 | 9546.5 | 17889.7 | 18165.5 | 16014.0 | 12115.7 | 6690.1 | 2650.0 |
| 77.5° | 890.3 | 917.7 | 1112.9 | 1733.8 | 3754.7 | 10225.4 | 10633.5 | 8709.4 | 5295.0 | 2490.3 | 1303.1 |
| 80° | 622.6 | 641.9 | 798.3 | 1079.0 | 1774.1 | 3896.6 | 4259.6 | 3554.8 | 2109.6 | 1575.8 | 948.4 |
| 82.5° | 420.9 | 430.7 | 561.3 | 729.1 | 1179.0 | 1391.9 | 1501.6 | 1580.6 | 1422.5 | 1172.5 | 601.6 |
| 85° | 275.8 | 285.5 | 380.6 | 480.6 | 749.9 | 719.3 | 735.5 | 930.6 | 1038.7 | 796.8 | 333.9 |
| 87.5° | 158.0 | 164.5 | 229.0 | 256.5 | 367.8 | 304.8 | 308.0 | 490.3 | 664.5 | 537.0 | 203.3 |
| 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° | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 | 3846.6 |
| 2.5° | 3832.1 | 3811.2 | 3764.4 | 3735.3 | 3707.9 | 3701.4 | 3690.2 | 3688.6 | 3686.9 | 3686.9 | 3682.1 |
| 5° | 3746.7 | 3711.2 | 3638.5 | 3598.2 | 3564.4 | 3561.2 | 3559.6 | 3567.6 | 3570.8 | 3574.1 | 3569.3 |
| 7.5° | 3691.8 | 3643.4 | 3553.1 | 3495.0 | 3454.7 | 3445.0 | 3461.2 | 3498.3 | 3522.4 | 3532.1 | 3527.3 |
| 10° | 3658.0 | 3598.2 | 3493.4 | 3430.6 | 3396.6 | 3391.8 | 3412.8 | 3456.3 | 3506.4 | 3525.7 | 3524.1 |
| 12.5° | 3619.2 | 3551.5 | 3440.2 | 3374.1 | 3354.8 | 3364.4 | 3391.8 | 3432.1 | 3483.8 | 3514.3 | 3516.0 |
| 15° | 3580.5 | 3501.5 | 3387.0 | 3328.9 | 3320.8 | 3333.8 | 3359.6 | 3390.2 | 3430.6 | 3461.2 | 3464.4 |
| 17.5° | 3533.8 | 3451.5 | 3337.0 | 3277.3 | 3270.9 | 3277.3 | 3279.0 | 3295.0 | 3320.8 | 3349.9 | 3357.9 |
| 20° | 3483.8 | 3399.9 | 3280.5 | 3220.9 | 3191.8 | 3166.0 | 3137.0 | 3140.3 | 3148.2 | 3177.3 | 3183.7 |
| 22.5° | 3448.3 | 3364.4 | 3237.0 | 3154.7 | 3077.3 | 2999.9 | 2941.8 | 2933.7 | 2937.0 | 2961.1 | 2969.2 |
| 25° | 3451.5 | 3362.7 | 3225.7 | 3083.8 | 2914.4 | 2790.2 | 2712.8 | 2699.9 | 2698.3 | 2716.0 | 2727.3 |
| 27.5° | 3514.3 | 3425.7 | 3267.6 | 3011.2 | 2737.0 | 2553.2 | 2470.8 | 2461.2 | 2448.3 | 2453.1 | 2466.0 |
| 30° | 3654.7 | 3572.5 | 3369.2 | 2937.0 | 2545.1 | 2320.9 | 2235.5 | 2225.7 | 2207.9 | 2200.0 | 2209.6 |
| 32.5° | 3883.7 | 3816.0 | 3517.6 | 2866.0 | 2353.1 | 2122.5 | 2035.4 | 2014.4 | 2003.1 | 1993.5 | 2001.5 |
| 35° | 4264.4 | 4235.3 | 3716.0 | 2788.6 | 2183.8 | 1969.3 | 1890.2 | 1858.0 | 1841.8 | 1859.6 | 1872.5 |
| 37.5° | 4861.2 | 4877.2 | 3975.7 | 2667.7 | 2053.2 | 1867.7 | 1801.5 | 1764.5 | 1740.2 | 1754.8 | 1769.3 |
| 40° | 5706.2 | 5717.6 | 4262.7 | 2496.7 | 1940.2 | 1808.0 | 1737.1 | 1703.2 | 1669.3 | 1643.5 | 1641.8 |
| 42.5° | 6815.9 | 6701.4 | 4545.0 | 2311.3 | 1809.6 | 1770.9 | 1691.9 | 1649.9 | 1598.4 | 1527.4 | 1512.8 |
| 45° | 8131.9 | 7730.3 | 4759.5 | 2098.3 | 1662.8 | 1725.7 | 1641.8 | 1583.8 | 1503.1 | 1425.8 | 1417.7 |
| 47.5° | 9648.1 | 8835.1 | 4864.3 | 1877.3 | 1525.7 | 1659.6 | 1580.6 | 1488.7 | 1387.0 | 1348.4 | 1343.5 |
| 50° | 11499.6 | 10146.4 | 4914.4 | 1662.8 | 1406.4 | 1572.5 | 1491.9 | 1383.8 | 1298.3 | 1290.2 | 1285.4 |
| 52.5° | 13607.6 | 11723.8 | 4930.5 | 1487.1 | 1308.0 | 1459.6 | 1419.3 | 1314.5 | 1246.8 | 1253.2 | 1253.2 |
| 55° | 15814.0 | 13352.8 | 4711.1 | 1359.6 | 1217.7 | 1343.5 | 1371.0 | 1287.1 | 1230.6 | 1256.4 | 1266.1 |
| 57.5° | 17839.6 | 14796.3 | 4020.8 | 1261.2 | 1132.2 | 1254.8 | 1353.2 | 1312.9 | 1274.2 | 1378.9 | 1385.5 |
| 60° | 19394.5 | 15649.4 | 3003.1 | 1172.5 | 1069.3 | 1224.2 | 1399.9 | 1411.3 | 1420.9 | 1670.9 | 1704.7 |
| 62.5° | 19720.2 | 15365.6 | 2064.4 | 1103.2 | 1040.2 | 1249.9 | 1485.4 | 1487.1 | 1475.7 | 1649.9 | 1670.9 |
| 65° | 18225.2 | 13570.5 | 1501.6 | 1064.5 | 1016.1 | 1296.7 | 1558.1 | 1524.1 | 1449.9 | 1582.2 | 1543.5 |
| 67.5° | 14473.7 | 10223.9 | 1249.9 | 1035.4 | 980.6 | 1293.5 | 1635.4 | 1558.1 | 1435.4 | 1550.0 | 1487.1 |
| 70° | 9394.9 | 6182.0 | 1112.9 | 1011.3 | 938.7 | 1232.2 | 1680.6 | 1554.8 | 1393.5 | 1441.8 | 1367.7 |
| 72.5° | 4583.7 | 2764.4 | 1020.9 | 975.8 | 895.1 | 1146.7 | 1679.0 | 1525.7 | 1350.0 | 1346.7 | 1306.4 |
| 75° | 1793.4 | 1266.1 | 937.0 | 922.6 | 820.9 | 1050.0 | 1633.9 | 1483.8 | 1298.3 | 1246.8 | 1232.2 |
| 77.5° | 1050.0 | 903.2 | 830.6 | 843.5 | 732.2 | 953.2 | 1567.7 | 1411.3 | 1227.3 | 1166.1 | 1150.0 |
| 80° | 764.5 | 675.8 | 708.1 | 729.1 | 625.7 | 856.4 | 1479.0 | 1322.6 | 1148.4 | 1179.0 | 1156.4 |
| 82.5° | 490.3 | 435.5 | 574.2 | 595.2 | 521.0 | 758.0 | 1382.2 | 1229.0 | 1037.1 | 941.9 | 919.3 |
| 85° | 250.0 | 275.8 | 427.4 | 453.2 | 401.6 | 622.6 | 1264.5 | 1104.8 | 911.2 | 783.9 | 796.8 |
| 87.5° | 140.3 | 188.7 | 272.6 | 304.8 | 283.9 | 479.0 | 1025.8 | 911.2 | 743.5 | 604.8 | 532.2 |
| 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)