

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: P191517

Luminaire Tested: **GAN-AF-09-LED-U-T4FT-600-ADJ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAN-AF-09-LED-U-T4FT-600-ADJ
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36081.5 lumens
Efficiency: N/A
Efficacy: 124.4 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

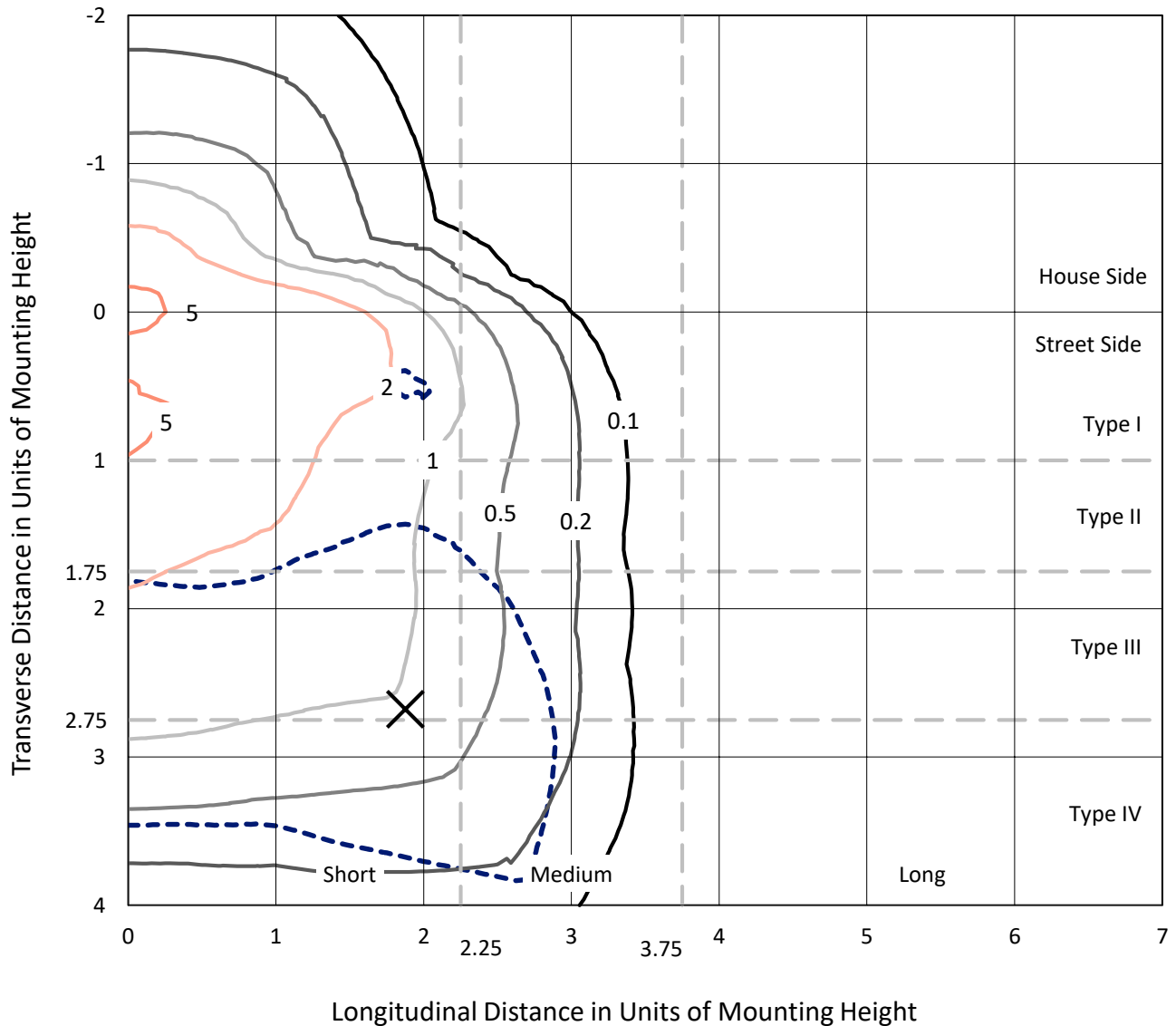
Input Watts (W): 290
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

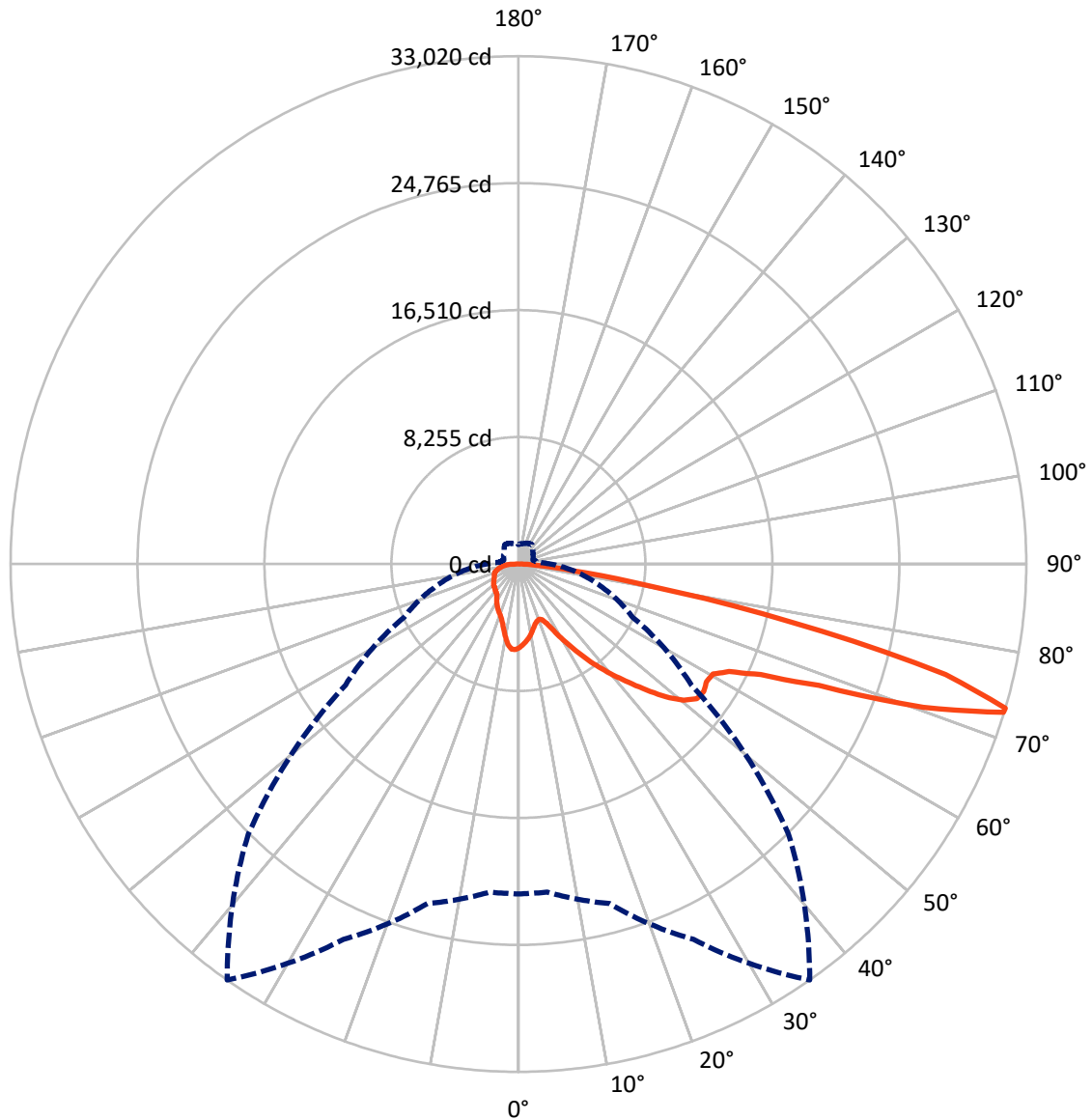
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6881.7 | 0.0 | 6881.7 |
| | % Fixture | 19.1 | 0.0 | 19.1 |
| Street Side | Lumens | 29199.8 | 0.0 | 29199.8 |
| | % Fixture | 80.9 | 0.0 | 80.9 |
| Total | Lumens | 36081.5 | 0.0 | 36081.5 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 493.0 | 1.4 |
| 10°-20° | 1230.5 | 3.4 |
| 20°-30° | 1989.2 | 5.5 |
| 30°-40° | 3335.6 | 9.2 |
| 40°-50° | 5141.7 | 14.3 |
| 50°-60° | 6898.2 | 19.1 |
| 60°-70° | 9189.8 | 25.5 |
| 70°-80° | 7009.0 | 19.4 |
| 80°-90° | 794.4 | 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° | 36081.5 | 100.0 |
| 0°-180° | 36081.5 | 100.0 |



REPORT NUMBER: P191517

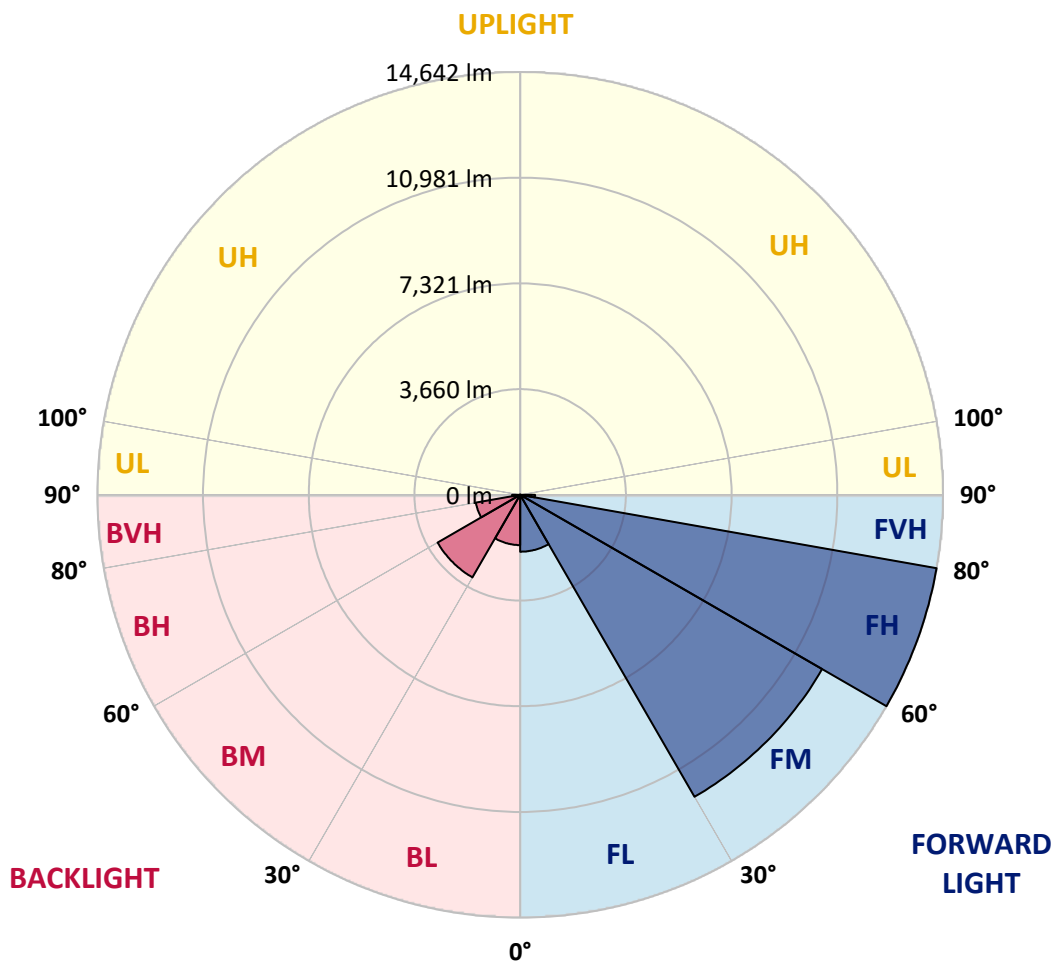
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1971.3 | 5.5 | | | |
| FM | (30°-60°) | 12073.1 | 33.5 | | | |
| FH | (60°-80°) | 14641.9 | 40.6 | | | G5 |
| FVH | (80°-90°) | 513.5 | 1.4 | | | G4/750 |
| BL | (0°-30°) | 1741.4 | 4.8 | B3/2500 | | |
| BM | (30°-60°) | 3302.5 | 9.2 | B3/5000 | | |
| BH | (60°-80°) | 1556.9 | 4.3 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 280.9 | 0.8 | | | 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° | 55° | 65° | 75° | 85° | 90° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 |
| 2.5° | 5231.0 | 5241.4 | 5229.2 | 5244.9 | 5270.9 | 5298.6 | 5317.6 | 5345.3 | 5376.5 | 5419.8 | 5430.2 |
| 5° | 4984.9 | 5000.5 | 5000.5 | 5028.2 | 5078.5 | 5123.6 | 5165.1 | 5210.2 | 5276.0 | 5350.5 | 5380.0 |
| 7.5° | 4714.7 | 4723.3 | 4738.9 | 4780.5 | 4853.3 | 4917.3 | 4976.2 | 5049.1 | 5139.1 | 5237.9 | 5289.9 |
| 10° | 4388.9 | 4401.0 | 4425.3 | 4484.2 | 4582.9 | 4671.3 | 4756.2 | 4856.7 | 4971.0 | 5094.1 | 5160.0 |
| 12.5° | 4158.4 | 4155.0 | 4165.4 | 4208.7 | 4295.4 | 4402.8 | 4525.7 | 4654.0 | 4794.4 | 4938.2 | 5017.9 |
| 15° | 4080.4 | 4061.4 | 4021.5 | 4011.2 | 4057.9 | 4165.4 | 4307.4 | 4465.1 | 4633.1 | 4806.4 | 4905.3 |
| 17.5° | 4128.9 | 4096.1 | 3987.0 | 3907.2 | 3900.3 | 3981.7 | 4132.4 | 4309.2 | 4503.2 | 4714.7 | 4837.6 |
| 20° | 4434.0 | 4355.9 | 4087.4 | 3902.0 | 3837.9 | 3877.7 | 4009.5 | 4196.6 | 4425.3 | 4706.0 | 4863.6 |
| 22.5° | 5163.3 | 5049.1 | 4479.0 | 4134.2 | 3917.6 | 3869.1 | 3967.8 | 4167.1 | 4434.0 | 4813.4 | 5014.4 |
| 25° | 6225.6 | 6062.6 | 5151.3 | 4712.9 | 4265.9 | 4007.7 | 4030.2 | 4234.7 | 4556.9 | 5062.9 | 5305.4 |
| 27.5° | 7064.2 | 6958.4 | 6029.8 | 5528.9 | 4900.0 | 4381.9 | 4233.0 | 4404.5 | 4808.2 | 5471.8 | 5719.6 |
| 30° | 7563.2 | 7499.0 | 6968.9 | 6454.2 | 5709.2 | 4978.0 | 4621.1 | 4723.3 | 5201.5 | 6038.4 | 6242.9 |
| 32.5° | 8141.9 | 8103.7 | 7843.9 | 7370.9 | 6582.5 | 5761.2 | 5236.2 | 5199.8 | 5728.2 | 6719.4 | 6813.0 |
| 35° | 8741.4 | 8729.2 | 8576.8 | 8237.2 | 7519.8 | 6793.8 | 6052.3 | 5806.3 | 6301.8 | 7426.3 | 7367.4 |
| 37.5° | 9299.3 | 9278.5 | 9190.2 | 8992.7 | 8500.5 | 7902.8 | 6883.9 | 6428.2 | 6920.4 | 8102.0 | 7840.4 |
| 40° | 10326.8 | 10163.9 | 9860.7 | 9711.7 | 9491.7 | 8836.7 | 7544.1 | 7008.7 | 7561.4 | 8746.5 | 8249.3 |
| 42.5° | 11579.5 | 11314.4 | 10749.6 | 10545.1 | 10513.9 | 9573.1 | 7994.6 | 7571.8 | 8207.7 | 9386.0 | 8651.3 |
| 45° | 12565.4 | 12315.9 | 11829.0 | 11570.9 | 11685.2 | 10240.1 | 8446.8 | 8173.1 | 8873.1 | 10056.5 | 9065.4 |
| 47.5° | 13617.1 | 13225.5 | 12581.0 | 12659.0 | 12908.5 | 10870.9 | 8907.8 | 8819.4 | 9602.5 | 10806.8 | 9580.0 |
| 50° | 13655.3 | 13355.5 | 13073.1 | 13539.2 | 13927.3 | 11451.3 | 9484.7 | 9496.9 | 10494.9 | 11751.0 | 10264.4 |
| 52.5° | 12863.4 | 12799.4 | 13248.1 | 13981.0 | 14540.6 | 11910.4 | 10141.4 | 10196.9 | 11636.7 | 12835.7 | 11016.4 |
| 55° | 12586.2 | 12513.5 | 13031.5 | 13826.8 | 14623.8 | 12289.9 | 10853.5 | 10954.1 | 13017.7 | 13979.2 | 11749.3 |
| 57.5° | 13261.9 | 13100.8 | 13135.5 | 13754.1 | 14421.2 | 12705.8 | 11629.7 | 11832.5 | 14518.1 | 14979.1 | 12220.6 |
| 60° | 15150.6 | 14805.8 | 14150.8 | 14135.2 | 14530.3 | 13329.6 | 12527.3 | 12775.1 | 16077.6 | 15457.3 | 12037.0 |
| 62.5° | 17799.9 | 17455.0 | 16228.3 | 15429.6 | 15370.7 | 14358.8 | 13629.3 | 13695.2 | 16978.5 | 14809.3 | 10915.9 |
| 65° | 20667.4 | 20359.1 | 18988.4 | 17860.5 | 17316.4 | 16063.7 | 14909.7 | 14105.8 | 16684.0 | 13026.4 | 8954.5 |
| 67.5° | 24148.4 | 23817.5 | 22639.2 | 21597.9 | 21074.6 | 18815.2 | 15809.0 | 13712.5 | 14814.5 | 10091.1 | 6436.9 |
| 70° | 26582.8 | 26244.9 | 25780.6 | 26624.4 | 27904.9 | 22784.8 | 15925.1 | 12113.2 | 11065.0 | 6707.2 | 3874.3 |
| 72.5° | 23406.9 | 23249.1 | 24096.4 | 27650.2 | 32983.3 | 25193.2 | 14395.2 | 8819.4 | 6426.5 | 3560.7 | 2242.1 |
| 73° | 21445.4 | 21410.8 | 22855.8 | 26931.1 | 33019.7 | 24822.4 | 13724.6 | 8197.3 | 5511.7 | 3150.0 | 2049.8 |
| 75° | 9684.0 | 9962.9 | 13130.3 | 20570.4 | 28688.0 | 20454.3 | 9659.7 | 4702.5 | 3113.7 | 2176.2 | 1547.3 |
| 77.5° | 2327.0 | 2424.0 | 4108.2 | 9768.9 | 18117.0 | 12189.4 | 4376.8 | 2325.3 | 1990.9 | 1536.9 | 1129.7 |
| 80° | 991.1 | 1024.0 | 1581.9 | 3609.2 | 8530.0 | 4908.7 | 2016.8 | 1557.6 | 1377.5 | 1072.6 | 791.9 |
| 82.5° | 551.0 | 585.6 | 897.5 | 1637.3 | 3442.8 | 1673.8 | 1230.2 | 1084.6 | 906.2 | 646.3 | 514.6 |
| 85° | 311.9 | 330.9 | 525.0 | 914.8 | 1458.9 | 672.3 | 736.4 | 720.8 | 511.2 | 332.7 | 253.0 |
| 87.5° | 147.3 | 159.4 | 253.0 | 424.5 | 571.8 | 263.4 | 374.3 | 412.4 | 320.6 | 202.7 | 131.7 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 | 5445.8 |
| 2.5° | 5442.4 | 5473.5 | 5509.9 | 5528.9 | 5546.3 | 5567.1 | 5587.9 | 5587.9 | 5591.3 | 5593.1 |
| 5° | 5404.2 | 5468.4 | 5525.6 | 5549.8 | 5555.0 | 5555.0 | 5549.8 | 5522.1 | 5497.8 | 5508.2 |
| 7.5° | 5324.6 | 5418.1 | 5466.6 | 5458.0 | 5392.1 | 5315.9 | 5251.7 | 5173.8 | 5134.0 | 5127.0 |
| 10° | 5210.2 | 5317.6 | 5326.3 | 5239.7 | 5076.8 | 4913.8 | 4778.7 | 4647.1 | 4584.7 | 4569.1 |
| 12.5° | 5083.7 | 5182.5 | 5127.0 | 4948.5 | 4687.0 | 4449.5 | 4278.0 | 4144.6 | 4085.7 | 4070.1 |
| 15° | 4981.5 | 5049.1 | 4908.7 | 4628.0 | 4298.7 | 4047.5 | 3905.4 | 3806.7 | 3765.1 | 3753.0 |
| 17.5° | 4927.8 | 4941.6 | 4685.2 | 4305.7 | 3955.8 | 3746.0 | 3657.7 | 3610.9 | 3595.4 | 3586.7 |
| 20° | 4953.7 | 4856.7 | 4472.0 | 4006.0 | 3675.1 | 3527.7 | 3507.0 | 3494.8 | 3491.3 | 3486.1 |
| 22.5° | 5083.7 | 4830.7 | 4276.2 | 3721.8 | 3428.9 | 3364.9 | 3382.2 | 3380.4 | 3377.0 | 3373.5 |
| 25° | 5315.9 | 4853.3 | 4085.7 | 3451.5 | 3222.8 | 3208.9 | 3240.1 | 3240.1 | 3226.3 | 3226.3 |
| 27.5° | 5622.5 | 4900.0 | 3872.6 | 3195.1 | 3035.7 | 3037.3 | 3061.7 | 3054.7 | 3039.1 | 3028.8 |
| 30° | 5996.8 | 4929.5 | 3623.1 | 2964.6 | 2860.7 | 2853.7 | 2860.7 | 2831.2 | 2784.5 | 2781.0 |
| 32.5° | 6379.7 | 4893.1 | 3333.7 | 2760.1 | 2675.2 | 2659.7 | 2654.5 | 2612.9 | 2559.2 | 2543.6 |
| 35° | 6726.3 | 4759.7 | 3039.1 | 2597.3 | 2498.6 | 2463.9 | 2488.1 | 2474.3 | 2425.7 | 2413.7 |
| 37.5° | 6979.3 | 4511.9 | 2774.0 | 2453.4 | 2372.0 | 2363.4 | 2379.0 | 2384.2 | 2327.0 | 2314.8 |
| 40° | 7149.1 | 4175.8 | 2547.0 | 2332.2 | 2347.8 | 2314.8 | 2262.9 | 2226.5 | 2209.2 | 2203.9 |
| 42.5° | 7286.0 | 3825.7 | 2356.5 | 2275.0 | 2353.0 | 2257.7 | 2145.0 | 2086.1 | 2117.3 | 2131.2 |
| 45° | 7443.6 | 3484.4 | 2197.0 | 2203.9 | 2327.0 | 2191.9 | 2063.6 | 2006.4 | 2018.6 | 2022.1 |
| 47.5° | 7660.2 | 3068.5 | 2025.5 | 2089.6 | 2240.4 | 2146.8 | 2013.4 | 1931.9 | 1874.8 | 1848.8 |
| 50° | 7960.0 | 2576.5 | 1847.0 | 1961.4 | 2155.5 | 2113.8 | 1935.4 | 1848.8 | 1743.1 | 1718.9 |
| 52.5° | 8167.9 | 2117.3 | 1699.7 | 1854.0 | 2079.2 | 2048.0 | 1873.0 | 1760.4 | 1649.5 | 1628.7 |
| 55° | 8055.2 | 1758.7 | 1571.6 | 1734.4 | 1978.7 | 1966.6 | 1821.1 | 1670.3 | 1583.6 | 1566.3 |
| 57.5° | 7492.1 | 1531.7 | 1472.7 | 1621.8 | 1855.7 | 1897.3 | 1751.7 | 1594.1 | 1531.7 | 1519.6 |
| 60° | 6417.9 | 1389.6 | 1410.4 | 1545.6 | 1755.2 | 1828.0 | 1682.4 | 1552.5 | 1510.9 | 1502.2 |
| 62.5° | 4979.7 | 1294.3 | 1363.6 | 1490.1 | 1677.2 | 1779.4 | 1644.3 | 1547.3 | 1531.7 | 1521.3 |
| 65° | 3567.6 | 1218.0 | 1313.4 | 1434.7 | 1606.2 | 1734.4 | 1630.5 | 1540.4 | 1543.8 | 1535.1 |
| 67.5° | 2424.0 | 1150.5 | 1252.7 | 1372.3 | 1536.9 | 1694.5 | 1611.4 | 1516.1 | 1559.4 | 1549.1 |
| 70° | 1696.3 | 1084.6 | 1181.7 | 1292.6 | 1450.2 | 1639.1 | 1576.8 | 1479.7 | 1476.2 | 1434.7 |
| 72.5° | 1323.8 | 998.0 | 1084.6 | 1181.7 | 1339.3 | 1561.1 | 1507.4 | 1398.3 | 1341.1 | 1297.8 |
| 73° | 1263.1 | 977.2 | 1060.4 | 1157.5 | 1315.1 | 1542.1 | 1488.4 | 1375.8 | 1311.6 | 1271.8 |
| 75° | 1044.8 | 887.1 | 963.4 | 1050.0 | 1211.2 | 1452.0 | 1394.8 | 1273.5 | 1192.0 | 1167.8 |
| 77.5° | 821.3 | 758.9 | 831.7 | 909.6 | 1067.3 | 1320.3 | 1256.2 | 1140.1 | 1095.1 | 1074.3 |
| 80° | 608.1 | 629.0 | 693.0 | 762.4 | 925.3 | 1180.0 | 1122.8 | 1006.7 | 1207.7 | 1157.5 |
| 82.5° | 428.0 | 476.5 | 535.4 | 597.8 | 776.2 | 1043.1 | 973.7 | 854.2 | 883.6 | 734.7 |
| 85° | 253.0 | 311.9 | 367.3 | 421.0 | 559.7 | 864.6 | 803.9 | 681.0 | 557.9 | 531.9 |
| 87.5° | 147.3 | 173.3 | 188.8 | 244.3 | 384.6 | 651.5 | 566.6 | 504.2 | 289.4 | 195.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)