

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: P302789

Luminaire Tested: **GAA-AF-05-LED-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P302789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191569)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-05-LED-U-T4W
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
Wide OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29442.3 lumens
Efficiency: N/A
Efficacy: 105.5 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

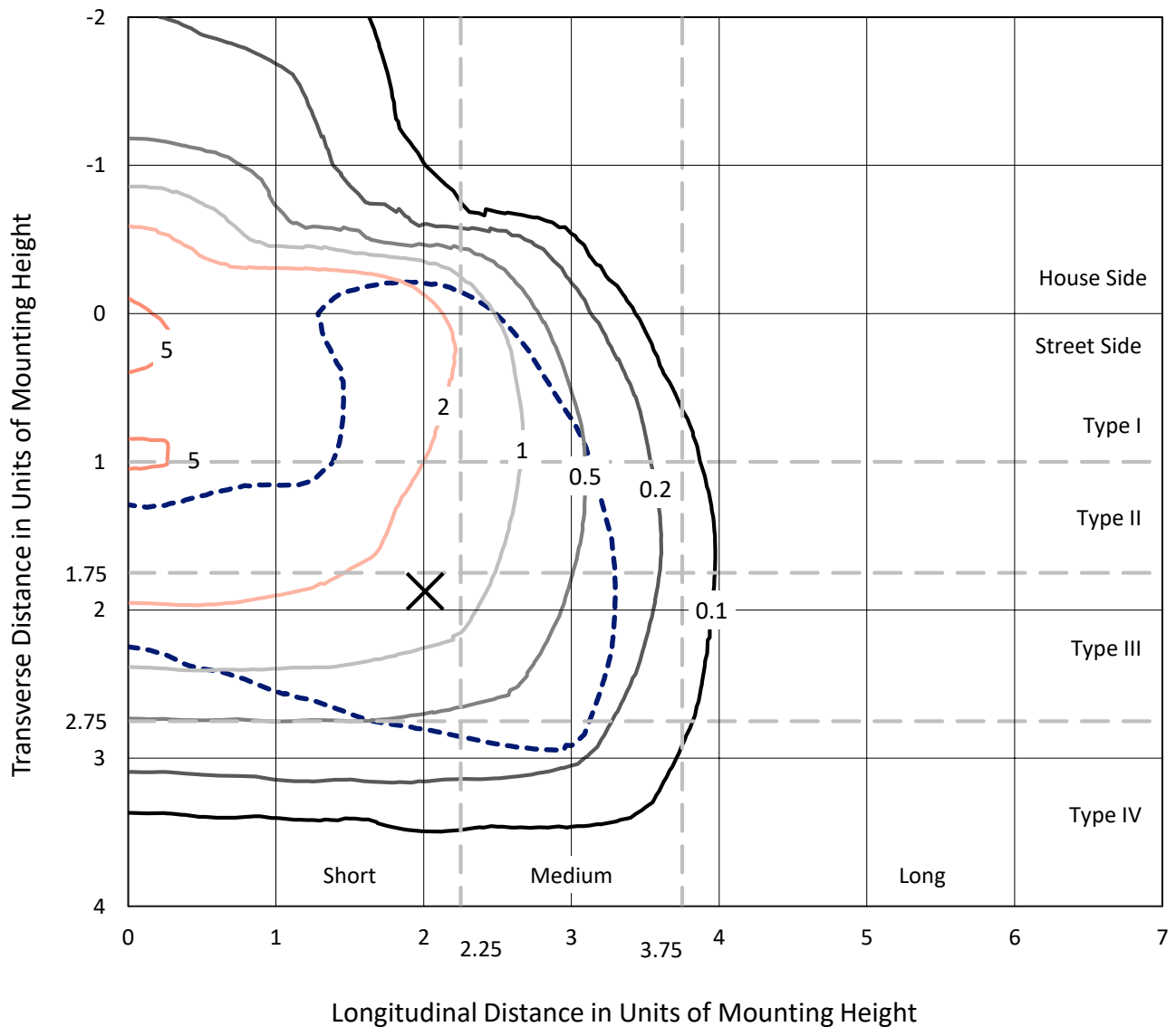
Input Watts (W): 279
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

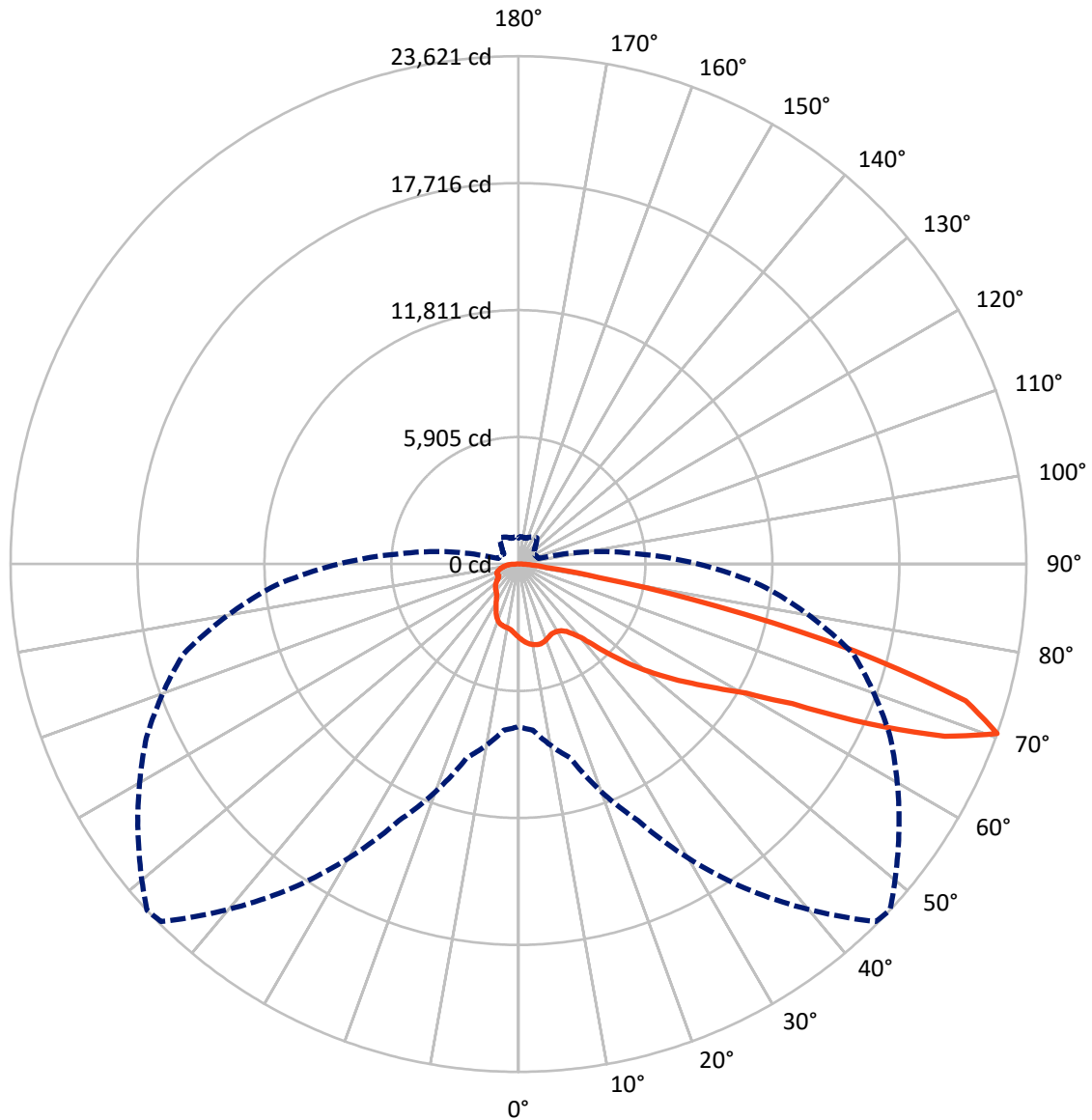


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Short - Semi-Cutoff

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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 | 6142.2 | 0.0 | 6142.2 |
| | % Fixture | 20.9 | 0.0 | 20.9 |
| Street Side | Lumens | 23300.0 | 0.0 | 23300.0 |
| | % Fixture | 79.1 | 0.0 | 79.1 |
| Total | Lumens | 29442.3 | 0.0 | 29442.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 327.3 | 1.1 |
| 10°-20° | 960.3 | 3.3 |
| 20°-30° | 1418.1 | 4.8 |
| 30°-40° | 2061.2 | 7.0 |
| 40°-50° | 3709.4 | 12.6 |
| 50°-60° | 6426.2 | 21.8 |
| 60°-70° | 9172.1 | 31.2 |
| 70°-80° | 4708.4 | 16.0 |
| 80°-90° | 659.2 | 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° | 29442.3 | 100.0 |
| 0°-180° | 29442.3 | 100.0 |

Coefficient of Utilization



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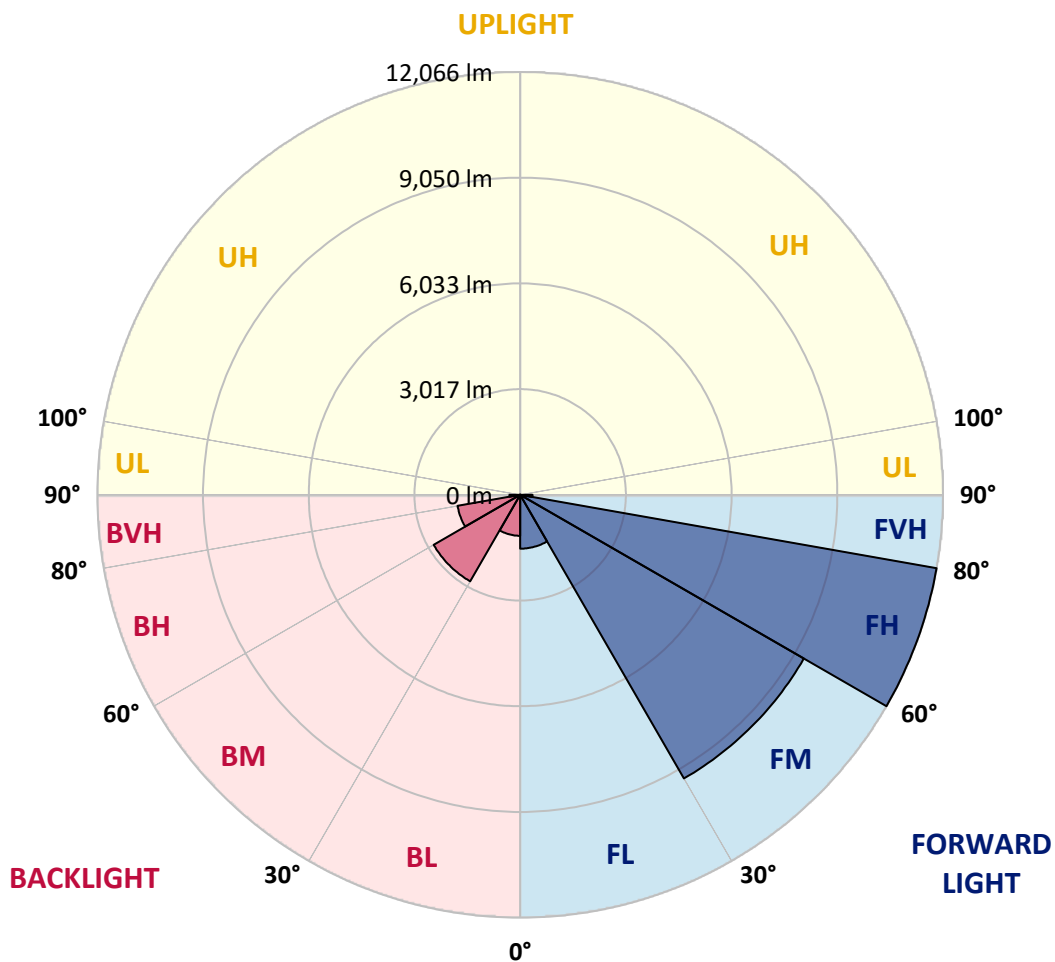
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1536.2 | 5.2 | | | |
| FM (30°-60°) | 9345.8 | 31.7 | | | |
| FH (60°-80°) | 12066.2 | 41.0 | | | G5 |
| FVH (80°-90°) | 351.8 | 1.2 | | | G3/500 |
| BL (0°-30°) | 1169.5 | 4.0 | B3/2500 | | |
| BM (30°-60°) | 2851.0 | 9.7 | B3/5000 | | |
| BH (60°-80°) | 1814.2 | 6.2 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 307.4 | 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° | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 |
| 2.5° | 3616.9 | 3609.8 | 3606.9 | 3601.2 | 3594.1 | 3557.9 | 3550.8 | 3525.1 | 3489.4 | 3451.8 | 3413.3 |
| 5° | 3854.8 | 3853.3 | 3837.2 | 3808.6 | 3762.9 | 3684.0 | 3665.4 | 3602.6 | 3517.9 | 3436.1 | 3354.8 |
| 7.5° | 4063.6 | 4050.8 | 4020.8 | 3963.2 | 3883.3 | 3775.8 | 3750.1 | 3662.6 | 3546.5 | 3434.7 | 3324.3 |
| 10° | 4216.8 | 4209.6 | 4144.0 | 4065.0 | 3960.4 | 3841.4 | 3811.5 | 3713.9 | 3586.4 | 3444.7 | 3307.2 |
| 12.5° | 4304.3 | 4290.0 | 4213.9 | 4119.7 | 3995.1 | 3879.0 | 3848.6 | 3750.1 | 3606.9 | 3444.7 | 3282.9 |
| 15° | 4298.6 | 4288.6 | 4212.5 | 4109.3 | 3983.7 | 3881.9 | 3854.8 | 3755.8 | 3602.6 | 3430.4 | 3251.5 |
| 17.5° | 4184.0 | 4188.2 | 4124.0 | 4022.2 | 3919.0 | 3841.4 | 3817.2 | 3725.8 | 3573.6 | 3401.9 | 3214.4 |
| 20° | 3983.7 | 4003.7 | 3960.4 | 3870.5 | 3812.9 | 3760.1 | 3744.4 | 3666.8 | 3529.4 | 3360.5 | 3174.0 |
| 22.5° | 3782.9 | 3801.5 | 3784.3 | 3708.2 | 3699.7 | 3668.3 | 3659.7 | 3604.1 | 3490.8 | 3334.8 | 3149.7 |
| 25° | 3635.4 | 3652.6 | 3649.7 | 3583.6 | 3609.8 | 3608.3 | 3601.2 | 3573.6 | 3482.3 | 3334.8 | 3154.0 |
| 27.5° | 3595.5 | 3601.2 | 3595.5 | 3535.1 | 3570.7 | 3599.8 | 3594.1 | 3589.3 | 3508.0 | 3376.2 | 3208.7 |
| 30° | 3733.0 | 3724.4 | 3679.7 | 3557.9 | 3591.2 | 3631.2 | 3625.5 | 3628.3 | 3585.0 | 3485.1 | 3330.5 |
| 32.5° | 4281.5 | 4242.5 | 4102.1 | 3760.1 | 3672.6 | 3694.0 | 3696.8 | 3744.4 | 3751.5 | 3652.6 | 3519.4 |
| 35° | 5102.1 | 5059.3 | 4877.1 | 4301.5 | 3926.1 | 3851.9 | 3851.9 | 3923.3 | 3966.1 | 3893.3 | 3812.9 |
| 37.5° | 5971.7 | 5924.1 | 5827.1 | 5052.1 | 4458.9 | 4125.4 | 4118.3 | 4168.3 | 4229.6 | 4247.2 | 4267.2 |
| 40° | 6959.8 | 6909.8 | 6936.9 | 5894.2 | 5202.5 | 4599.3 | 4497.5 | 4461.8 | 4627.8 | 4738.2 | 4899.0 |
| 42.5° | 8041.6 | 8018.3 | 8028.2 | 6832.3 | 6048.8 | 5308.6 | 5163.9 | 4978.9 | 5179.6 | 5375.6 | 5712.4 |
| 45° | 9042.5 | 9062.5 | 9052.5 | 7836.5 | 6991.6 | 6173.4 | 6020.2 | 5662.0 | 5858.5 | 6194.8 | 6743.8 |
| 47.5° | 9919.2 | 9836.0 | 9964.9 | 8933.5 | 8047.3 | 7142.0 | 6952.6 | 6473.1 | 6672.0 | 7087.3 | 8015.4 |
| 50° | 10983.4 | 10972.0 | 10783.1 | 10397.8 | 9323.1 | 8114.3 | 7866.5 | 7310.9 | 7620.1 | 8197.6 | 9618.6 |
| 52.5° | 12102.3 | 11894.4 | 11721.3 | 11536.2 | 10677.0 | 9111.5 | 8807.5 | 8145.7 | 8734.7 | 9460.6 | 11572.4 |
| 55° | 12331.1 | 12238.4 | 12452.9 | 12764.0 | 11981.9 | 10147.1 | 9793.2 | 9192.8 | 9989.6 | 10904.9 | 13825.4 |
| 57.5° | 12821.1 | 12819.7 | 13264.0 | 13818.2 | 13325.4 | 11245.5 | 10888.7 | 10457.7 | 11400.1 | 12559.0 | 16217.3 |
| 60° | 13152.2 | 13245.0 | 14070.4 | 15146.0 | 14644.5 | 12514.8 | 12186.5 | 11917.2 | 13004.7 | 14408.1 | 18446.0 |
| 62.5° | 13325.4 | 13451.4 | 14577.5 | 15684.5 | 16509.4 | 14627.4 | 14299.7 | 13911.5 | 15127.4 | 16436.6 | 19749.5 |
| 65° | 12605.1 | 12852.5 | 14498.5 | 16150.2 | 18142.5 | 18052.1 | 17904.7 | 17222.9 | 17781.4 | 18039.3 | 19278.5 |
| 67.5° | 10610.9 | 10864.5 | 12781.2 | 15715.9 | 19308.5 | 21355.5 | 21386.9 | 20222.4 | 19414.6 | 18176.8 | 16208.7 |
| 70° | 7560.1 | 7759.0 | 9345.0 | 13176.5 | 18420.3 | 23513.9 | 23621.4 | 21604.3 | 19089.2 | 16119.8 | 11324.5 |
| 72.5° | 3589.3 | 3711.1 | 5212.5 | 8575.8 | 14617.4 | 21544.4 | 21752.3 | 19839.9 | 16231.5 | 11934.4 | 6177.7 |
| 75° | 1319.2 | 1356.3 | 1761.6 | 3648.3 | 8478.3 | 15888.1 | 16133.1 | 14222.1 | 10759.8 | 5941.7 | 2353.4 |
| 77.5° | 790.6 | 814.9 | 988.5 | 1539.9 | 3334.8 | 9081.5 | 9443.5 | 7734.7 | 4702.5 | 2211.6 | 1157.4 |
| 80° | 552.8 | 569.9 | 708.8 | 958.1 | 1575.6 | 3460.9 | 3782.9 | 3156.9 | 1873.4 | 1399.6 | 842.0 |
| 82.5° | 373.9 | 382.5 | 498.6 | 647.5 | 1047.1 | 1235.9 | 1333.4 | 1403.8 | 1263.5 | 1041.3 | 534.2 |
| 85° | 245.0 | 253.6 | 338.2 | 426.7 | 666.0 | 638.9 | 653.2 | 826.3 | 922.4 | 707.4 | 296.4 |
| 87.5° | 140.3 | 146.0 | 203.6 | 227.9 | 326.8 | 270.7 | 273.5 | 435.3 | 590.4 | 477.1 | 180.3 |
| 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° | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 | 3416.1 |
| 2.5° | 3403.3 | 3384.7 | 3343.4 | 3317.2 | 3292.9 | 3287.2 | 3277.2 | 3275.8 | 3274.4 | 3274.4 | 3270.1 |
| 5° | 3327.2 | 3295.8 | 3231.6 | 3195.4 | 3165.4 | 3162.6 | 3161.2 | 3168.3 | 3171.1 | 3174.0 | 3169.7 |
| 7.5° | 3278.7 | 3235.8 | 3155.4 | 3104.1 | 3068.4 | 3059.4 | 3074.1 | 3106.9 | 3128.3 | 3136.9 | 3132.6 |
| 10° | 3248.7 | 3195.4 | 3102.6 | 3046.5 | 3016.5 | 3012.3 | 3030.8 | 3069.8 | 3114.1 | 3131.2 | 3129.8 |
| 12.5° | 3214.4 | 3154.0 | 3055.1 | 2996.6 | 2979.4 | 2988.0 | 3012.3 | 3047.9 | 3094.1 | 3121.2 | 3122.6 |
| 15° | 3179.7 | 3109.8 | 3008.0 | 2956.6 | 2949.5 | 2960.9 | 2983.7 | 3010.8 | 3046.5 | 3074.1 | 3077.0 |
| 17.5° | 3138.3 | 3065.1 | 2963.7 | 2910.5 | 2904.7 | 2910.5 | 2911.9 | 2926.2 | 2949.5 | 2975.1 | 2982.3 |
| 20° | 3094.1 | 3019.4 | 2913.3 | 2860.5 | 2834.8 | 2812.0 | 2785.8 | 2788.7 | 2795.8 | 2822.0 | 2827.7 |
| 22.5° | 3062.2 | 2988.0 | 2874.8 | 2801.5 | 2733.0 | 2664.0 | 2612.7 | 2605.5 | 2608.4 | 2629.8 | 2636.9 |
| 25° | 3065.1 | 2986.6 | 2864.8 | 2738.7 | 2588.4 | 2478.0 | 2409.0 | 2397.6 | 2396.2 | 2411.9 | 2422.4 |
| 27.5° | 3121.2 | 3042.2 | 2901.9 | 2674.0 | 2430.9 | 2267.3 | 2194.5 | 2185.9 | 2174.5 | 2178.8 | 2190.2 |
| 30° | 3245.8 | 3172.6 | 2992.3 | 2608.4 | 2260.1 | 2061.3 | 1985.2 | 1976.6 | 1960.9 | 1953.8 | 1962.3 |
| 32.5° | 3449.0 | 3389.0 | 3124.0 | 2545.1 | 2089.8 | 1884.8 | 1807.7 | 1789.2 | 1779.2 | 1770.6 | 1777.8 |
| 35° | 3787.2 | 3761.5 | 3300.1 | 2476.6 | 1939.5 | 1748.7 | 1678.8 | 1650.3 | 1636.0 | 1651.7 | 1663.1 |
| 37.5° | 4317.2 | 4331.4 | 3530.8 | 2369.1 | 1823.4 | 1658.8 | 1599.8 | 1567.0 | 1545.6 | 1558.5 | 1571.3 |
| 40° | 5067.8 | 5077.8 | 3785.8 | 2217.3 | 1723.1 | 1605.6 | 1542.8 | 1512.8 | 1482.3 | 1459.5 | 1458.1 |
| 42.5° | 6053.1 | 5951.7 | 4036.5 | 2052.7 | 1607.0 | 1572.7 | 1502.8 | 1465.2 | 1419.5 | 1356.3 | 1343.4 |
| 45° | 7221.9 | 6865.6 | 4226.8 | 1863.4 | 1476.6 | 1532.8 | 1458.1 | 1406.7 | 1334.9 | 1266.4 | 1259.2 |
| 47.5° | 8568.7 | 7846.5 | 4320.0 | 1667.4 | 1354.8 | 1473.8 | 1403.8 | 1322.0 | 1231.6 | 1197.4 | 1193.1 |
| 50° | 10212.7 | 9011.1 | 4364.2 | 1476.6 | 1249.2 | 1396.7 | 1324.9 | 1228.8 | 1153.1 | 1146.0 | 1141.7 |
| 52.5° | 12085.2 | 10412.1 | 4379.0 | 1320.6 | 1161.7 | 1296.3 | 1260.7 | 1167.4 | 1107.0 | 1113.2 | 1113.2 |
| 55° | 14044.7 | 11858.7 | 4184.0 | 1207.4 | 1081.3 | 1193.1 | 1217.4 | 1143.2 | 1092.7 | 1116.0 | 1124.6 |
| 57.5° | 15843.4 | 13140.8 | 3570.7 | 1120.3 | 1005.7 | 1114.6 | 1201.7 | 1166.0 | 1131.7 | 1224.5 | 1230.2 |
| 60° | 17224.4 | 13898.1 | 2666.9 | 1041.3 | 949.5 | 1087.0 | 1243.5 | 1253.5 | 1262.1 | 1483.8 | 1514.2 |
| 62.5° | 17513.6 | 13646.5 | 1833.4 | 980.0 | 923.8 | 1110.3 | 1319.2 | 1320.6 | 1310.6 | 1465.2 | 1483.8 |
| 65° | 16185.9 | 12051.9 | 1333.4 | 945.3 | 902.4 | 1151.7 | 1383.9 | 1353.4 | 1287.8 | 1405.3 | 1370.5 |
| 67.5° | 12853.9 | 9080.1 | 1110.3 | 919.6 | 871.0 | 1148.9 | 1452.4 | 1383.9 | 1274.9 | 1376.7 | 1320.6 |
| 70° | 8343.6 | 5490.3 | 988.5 | 898.2 | 833.5 | 1094.2 | 1492.3 | 1381.0 | 1237.3 | 1280.6 | 1214.5 |
| 72.5° | 4070.7 | 2455.2 | 906.7 | 866.8 | 794.9 | 1018.5 | 1490.9 | 1354.8 | 1198.8 | 1196.0 | 1160.3 |
| 75° | 1592.7 | 1124.6 | 832.0 | 819.2 | 729.3 | 932.4 | 1450.9 | 1317.7 | 1153.1 | 1107.0 | 1094.2 |
| 77.5° | 932.4 | 802.1 | 737.8 | 749.3 | 650.3 | 846.3 | 1392.4 | 1253.5 | 1089.9 | 1035.6 | 1021.4 |
| 80° | 678.9 | 600.4 | 628.9 | 647.5 | 555.6 | 760.7 | 1313.5 | 1174.6 | 1019.9 | 1047.1 | 1027.1 |
| 82.5° | 435.3 | 386.8 | 510.0 | 528.5 | 462.9 | 673.1 | 1227.4 | 1091.3 | 921.0 | 836.3 | 816.3 |
| 85° | 222.2 | 245.0 | 379.6 | 402.5 | 356.8 | 552.8 | 1123.2 | 981.4 | 809.2 | 696.0 | 707.4 |
| 87.5° | 124.6 | 167.5 | 242.1 | 270.7 | 252.1 | 425.3 | 911.0 | 809.2 | 660.3 | 537.1 | 472.9 |
| 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)