Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P318633

Luminaire Tested: **GAN-SA9A-727-U-T4FT**

Issue Date: 3/3/2020

Report Generated By E0585644

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Peachtree City, GA 30269

Scaled Data Report

**Test Information**

| | |
|---|---|
| Test Method: | LM-79-08 |
| Report Number: | P318633 |
| | TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1903-205-16) |
| Test Lab: | INNOVATION CENTER |
| Issue Date: | 3/3/2020 |
| Manufacturer: | COOPER LIGHTING SOLUTIONS (FORMERLY EATON) |
| Product Line: | STREETWORKS |
| Catalog Number: | GAN-SA9A-727-U-T4FT |
| Description: | GALLEON AREA AND ROADWAY LUMINAIRE |
| | (9) 70 CRI, 2700K, 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: | 35051 lumens |
| Efficiency: | N/A |
| Efficacy: | 120.9 lumens/watt |
| Luminous Opening: | Rectangular (W 2.5' x L: 1' x H: 0') |
| IES Classification: | Type IV - Short |
| 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: | 24 FT |

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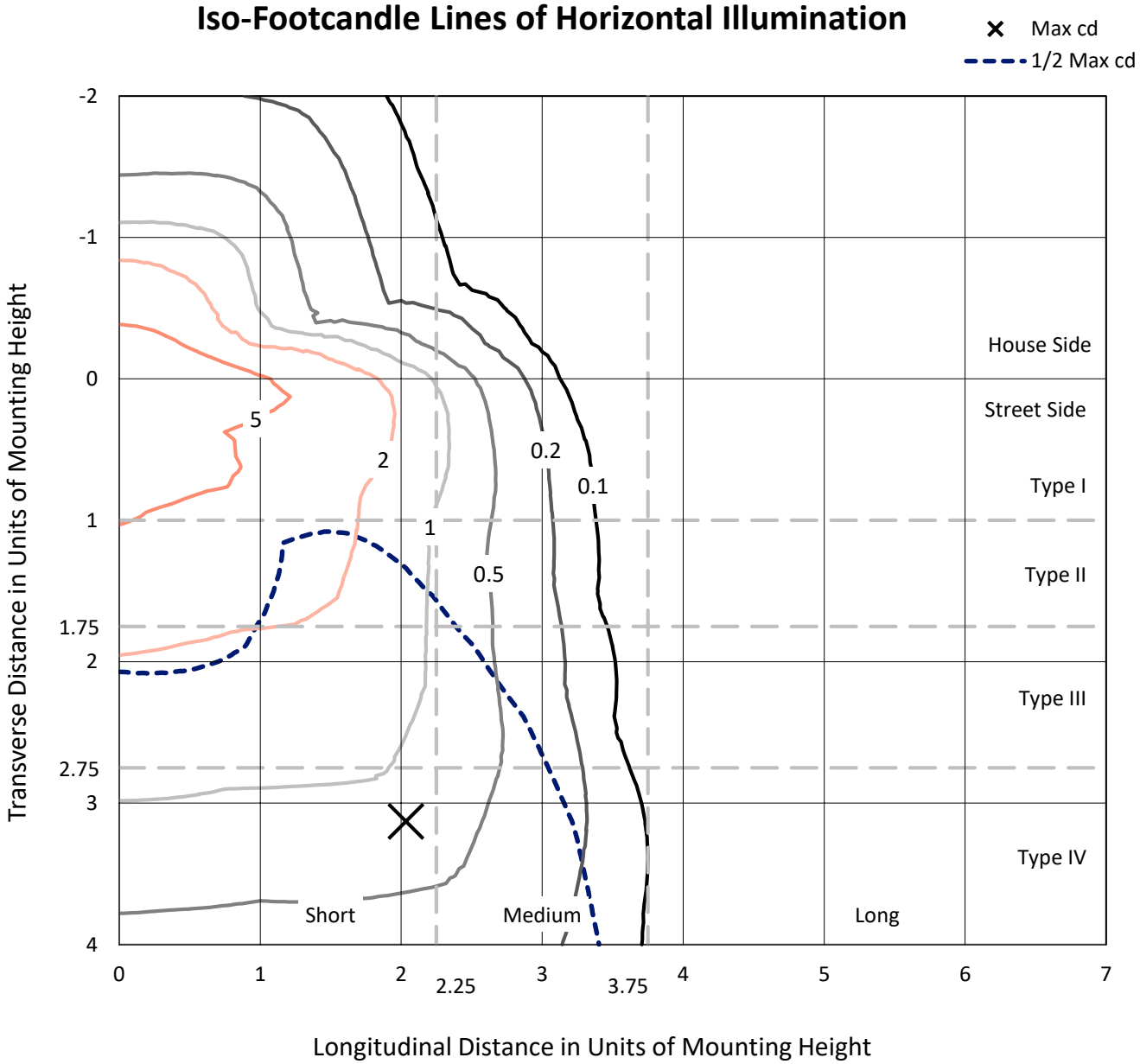
## Iso-Footcandle Lines of Horizontal Illumination




Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
Type IV - Short - N/A

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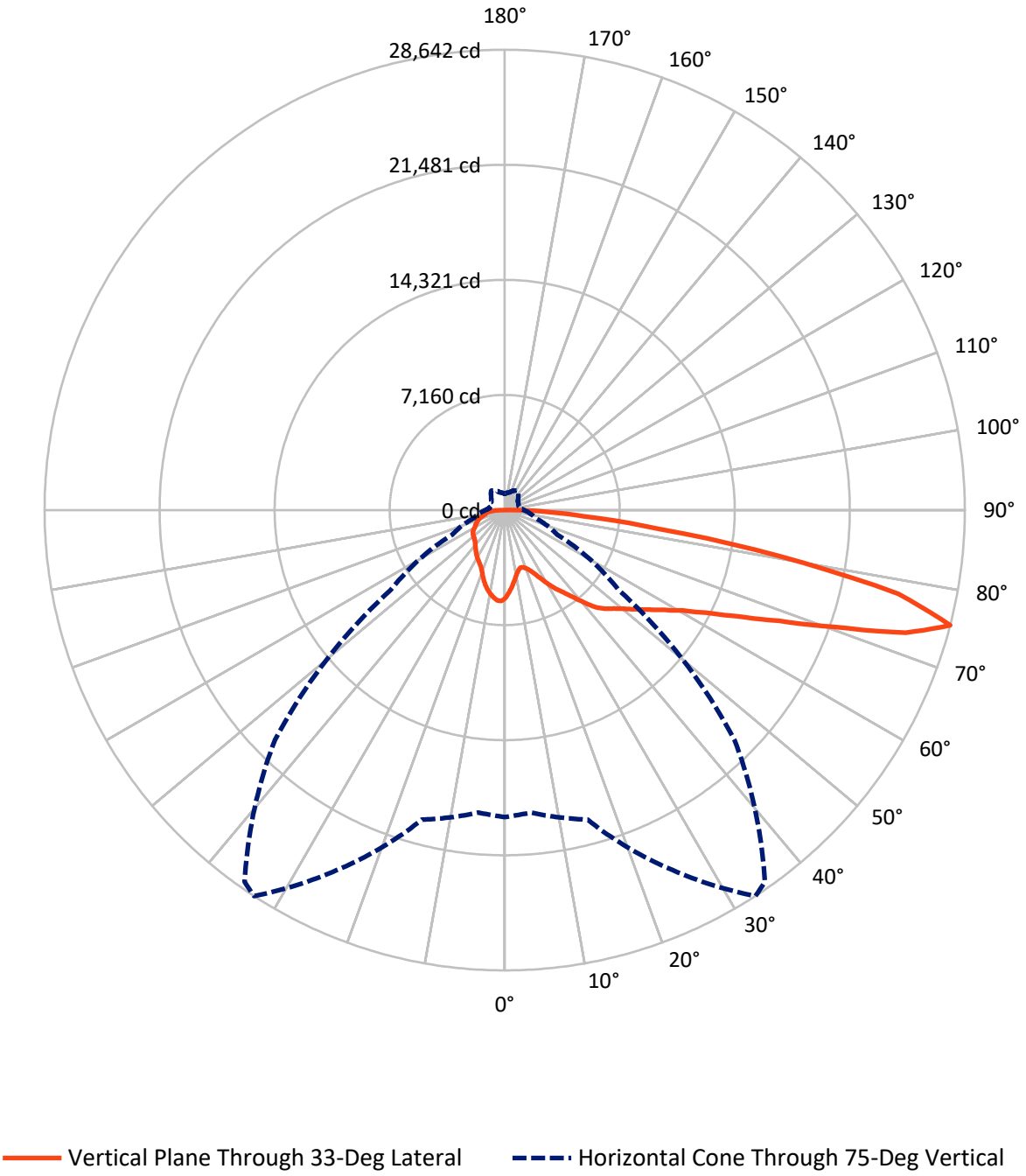
## Luminous Intensity Polar Plot



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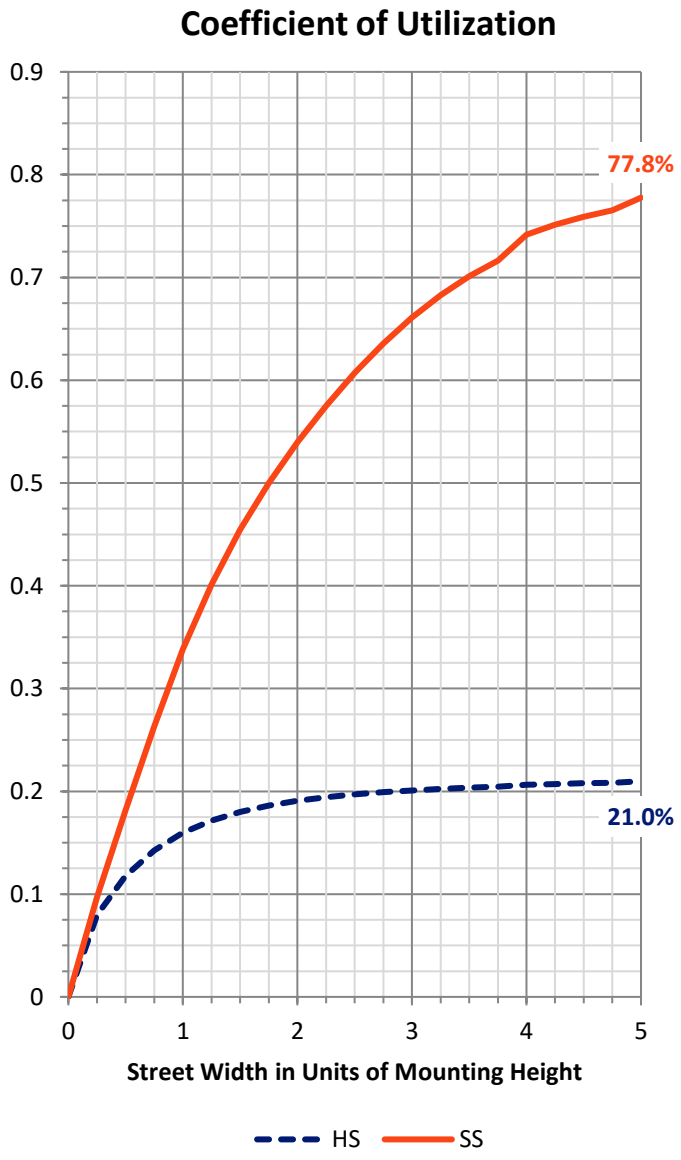
**FLUX DISTRIBUTION:**

| | | Downward | Upward | Total |
|---|---|---|---|---|
| **House Side** | Lumens | 7526.4 | 0.0 | 7526.4 |
| | % Fixture | 21.5 | 0.0 | 21.5 |
| **Street Side** | Lumens | 27524.6 | 0.0 | 27524.6 |
| | % Fixture | 78.5 | 0.0 | 78.5 |
| **Total** | Lumens | 35051.0 | 0.0 | 35051.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

**ZONAL LUMENS:**

| Zone | Lumens | % Fixture |
|---|---|---|
| 0°-10° | 495.5 | 1.4 |
| 10°-20° | 1342.0 | 3.8 |
| 20°-30° | 2191.6 | 6.3 |
| 30°-40° | 3263.8 | 9.3 |
| 40°-50° | 4681.2 | 13.4 |
| 50°-60° | 6426.6 | 18.3 |
| 60°-70° | 8045.8 | 23.0 |
| 70°-80° | 7278.7 | 20.8 |
| 80°-90° | 1325.8 | 3.8 |
| 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° | 35051.0 | 100.0 |
| 0°-180° | 35051.0 | 100.0 |



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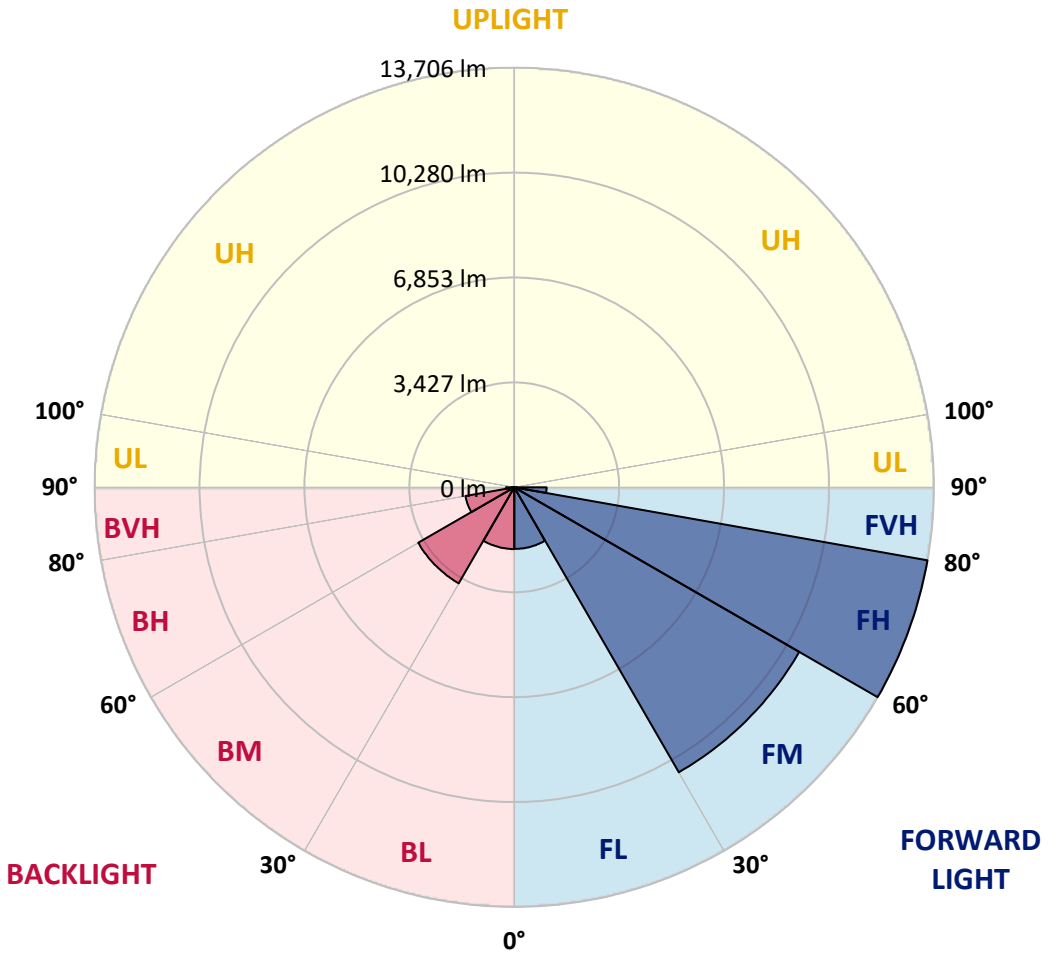
## LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit B | U | G |
|---|---|---|---|---|---|---|
| FL | (0°-30°) | 2013.1 | 5.7 | | | |
| FM | (30°-60°) | 10749.4 | 30.7 | | | |
| FH | (60°-80°) | 13706.2 | 39.1 | | | G5 |
| FVH | (80°-90°) | 1055.9 | 3.0 | | | G5 |
| BL | (0°-30°) | 2015.9 | 5.8 | B3/2500 | | |
| BM | (30°-60°) | 3622.2 | 10.3 | B3/5000 | | |
| BH | (60°-80°) | 1618.3 | 4.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 269.9 | 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° | 33° | 35° | 45° | 55° | 65° | 75° | 85° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0° | 5478.7 | 5478.7 | 5478.7 | 5478.7 | *5478.7* | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 |
| 2.5° | 5087.6 | 5068.2 | 5104.5 | 5109.4 | *5140.9* | 5153.0 | 5196.6 | 5264.4 | 5320.1 | 5384.2 | 5442.3 |
| 5° | 4626.3 | 4613.0 | 4663.8 | 4700.2 | *4769.2* | 4798.2 | 4901.1 | 5045.2 | 5173.6 | 5318.8 | 5450.8 |
| 7.5° | 4188.0 | 4180.7 | 4237.6 | 4320.0 | *4399.9* | 4439.8 | 4617.8 | 4827.3 | 5041.6 | 5276.5 | 5478.7 |
| 10° | 3818.7 | 3816.3 | 3870.8 | 3951.9 | *4069.3* | 4114.1 | 4344.2 | 4620.2 | 4920.5 | 5243.8 | 5525.9 |
| 12.5° | 3611.7 | 3620.2 | 3645.6 | 3713.4 | *3822.4* | 3867.2 | 4122.6 | 4447.1 | 4818.8 | 5232.9 | 5594.9 |
| 15° | 3662.5 | 3675.9 | 3632.3 | 3629.8 | *3707.3* | 3742.4 | 3982.2 | 4323.6 | 4746.2 | 5251.0 | 5695.4 |
| 17.5° | 3879.3 | 3881.7 | 3766.7 | 3694.0 | *3741.2* | 3759.4 | 3938.6 | 4253.4 | 4703.8 | 5292.2 | 5821.3 |
| 20° | 4184.4 | 4178.3 | 3974.9 | 3853.8 | *3879.3* | 3884.1 | 4000.3 | 4254.6 | 4700.2 | 5363.6 | 5984.8 |
| 22.5° | 4588.8 | 4544.0 | 4270.3 | 4105.7 | *4099.6* | 4092.4 | 4158.9 | 4344.2 | 4753.4 | 5479.9 | 6179.7 |
| 25° | 5116.7 | 5074.3 | 4697.7 | 4472.5 | *4424.1* | 4405.9 | 4415.6 | 4535.5 | 4858.8 | 5604.6 | 6397.6 |
| 27.5° | 5703.9 | 5630.0 | 5266.8 | 4948.4 | *4847.9* | 4822.4 | 4764.3 | 4805.5 | 4973.8 | 5724.5 | 6656.7 |
| 30° | 6195.4 | 6155.5 | 5838.3 | 5460.5 | *5341.9* | 5305.5 | 5153.0 | 5108.2 | 5139.7 | 5887.9 | 6983.6 |
| 32.5° | 6470.3 | 6443.6 | 6251.1 | 5946.0 | *5835.8* | 5785.0 | 5569.5 | 5479.9 | 5406.0 | 6145.8 | 7426.8 |
| 35° | 6803.2 | 6786.3 | 6670.1 | 6448.5 | *6285.0* | 6231.8 | 6064.7 | 5971.4 | 5781.4 | 6500.5 | 7999.5 |
| 37.5° | 7227.0 | 7208.8 | 7211.3 | 7032.1 | *6837.1* | 6787.5 | 6677.3 | 6579.2 | 6268.1 | 6966.7 | 8621.8 |
| 40° | 7706.5 | 7671.3 | 7658.0 | 7649.6 | *7526.1* | 7498.2 | 7440.1 | 7306.9 | 6878.3 | 7523.6 | 9235.6 |
| 42.5° | 8428.1 | 8303.4 | 8037.0 | 8137.5 | *8259.8* | 8245.2 | 8292.5 | 8101.2 | 7556.3 | 8182.3 | 9835.0 |
| 45° | 9124.3 | 8919.6 | 8459.5 | 8481.3 | *8748.9* | 8830.0 | 9183.6 | 9048.0 | 8291.3 | 8903.9 | 10454.9 |
| 47.5° | 9441.5 | 9286.5 | 8895.4 | 8896.6 | *9161.8* | 9330.1 | 10105.0 | 10008.1 | 9063.7 | 9723.6 | 11211.6 |
| 50° | 9796.2 | 9641.2 | 9290.1 | 9422.1 | *9653.4* | 9832.5 | 10994.9 | 10945.2 | 9798.6 | 10620.7 | 12118.4 |
| 52.5° | 10183.7 | 9920.9 | 9698.2 | 9934.2 | *10258.7* | 10467.0 | 11886.0 | 11750.4 | 10473.0 | 11524.0 | 13160.9 |
| 55° | 10188.5 | 10117.1 | 10286.6 | 10459.7 | *10945.2* | 11200.7 | 12819.5 | 12461.1 | 11022.7 | 12411.5 | 14009.6 |
| 57.5° | 10768.5 | 10652.2 | 11011.8 | 11091.7 | *11726.2* | 12014.3 | 13748.1 | 13079.8 | 11582.1 | 13091.9 | 14467.3 |
| 60° | 11536.1 | 11436.8 | 11731.0 | 11941.7 | *12692.3* | 13077.4 | 14739.7 | 13715.4 | 12021.6 | 13605.3 | 14445.5 |
| 62.5° | 12861.9 | 12749.3 | 12745.6 | 13041.0 | *14052.0* | 14500.0 | 15852.4 | 14339.0 | 12195.9 | 13707.0 | 13829.2 |
| 65° | 14802.7 | 14623.5 | 14285.7 | 14426.1 | *15929.9* | 16376.7 | 17095.9 | 14790.6 | 11965.9 | 13162.1 | 12241.9 |
| 67.5° | 16691.5 | 16685.4 | 16270.1 | 16558.3 | *18409.5* | 18767.9 | 18512.4 | 14835.4 | 11247.9 | 11264.9 | 9425.7 |
| 70° | 18574.2 | 18598.4 | 18528.2 | 19530.7 | *21759.7* | 22132.6 | 20021.0 | 14233.6 | 9634.0 | 8135.1 | 5647.0 |
| 72.5° | 20065.8 | 20059.8 | 20413.3 | 22998.3 | *26107.5* | 26024.0 | 21292.3 | 12410.2 | 6917.0 | 4391.4 | 2698.8 |
| 75° | *19099.7* | *18889.0* | *19942.4* | *24715.1* | *28641.6* | *28233.6* | *20211.1* | *8656.9* | *3589.9* | *1999.0* | *1452.9* |
| 77.5° | 12457.5 | 12657.2 | 14203.4 | 20417.0 | *25052.9* | 24556.5 | 14828.1 | 4039.1 | 1691.4 | 1311.2 | 1053.4 |
| 80° | 4511.3 | 4721.9 | 6650.7 | 11565.1 | *17260.5* | 17179.4 | 7302.1 | 1659.9 | 1144.2 | 990.4 | 767.6 |
| 82.5° | 1552.2 | 1629.7 | 2623.7 | 5136.0 | *9745.4* | 10108.6 | 2747.2 | 943.2 | 831.8 | 702.2 | 525.5 |
| 85° | 609.0 | 697.4 | 1199.9 | 2471.2 | *4915.7* | 4952.0 | 1112.7 | 564.2 | 578.7 | 460.1 | 288.2 |
| 87.5° | 231.3 | 280.9 | 573.9 | 1147.8 | *2244.7* | 2061.9 | 398.3 | 268.8 | 329.3 | 273.6 | 136.8 |
| 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° | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 | 5478.7 |
| 2.5° | 5487.1 | 5512.6 | 5565.8 | 5602.2 | 5640.9 | 5651.8 | 5656.6 | 5666.3 | 5676.0 | 5672.4 | 5673.6 |
| 5° | 5521.0 | 5570.7 | 5656.6 | 5693.0 | 5709.9 | 5690.5 | 5653.0 | 5622.7 | 5601.0 | 5588.8 | 5585.2 |
| 7.5° | 5576.7 | 5647.0 | 5739.0 | 5732.9 | 5694.2 | 5608.2 | 5511.4 | 5438.7 | 5378.2 | 5356.4 | 5344.3 |
| 10° | 5650.6 | 5732.9 | 5797.1 | 5728.1 | 5615.5 | 5466.6 | 5321.3 | 5208.7 | 5117.9 | 5082.8 | 5076.7 |
| 12.5° | 5745.0 | 5828.6 | 5840.7 | 5694.2 | 5507.7 | 5304.3 | 5107.0 | 4958.0 | 4822.4 | 4778.9 | 4769.2 |
| 15° | 5867.3 | 5946.0 | 5871.0 | 5634.9 | 5374.5 | 5100.9 | 4845.4 | 4643.2 | 4500.4 | 4447.1 | 4427.7 |
| 17.5° | 5995.7 | 6070.7 | 5877.0 | 5536.8 | 5200.2 | 4860.0 | 4539.1 | 4332.1 | 4168.6 | 4106.9 | 4099.6 |
| 20° | 6149.4 | 6183.3 | 5851.6 | 5396.3 | 4960.5 | 4547.6 | 4209.8 | 4014.9 | 3927.7 | 3884.1 | 3879.3 |
| 22.5° | 6339.5 | 6303.2 | 5793.5 | 5206.2 | 4656.6 | 4186.8 | 3912.0 | 3821.1 | 3799.4 | 3789.7 | 3793.3 |
| 25° | 6540.5 | 6429.1 | 5707.5 | 4958.0 | 4272.8 | 3826.0 | 3694.0 | 3719.4 | 3748.5 | 3744.9 | 3744.9 |
| 27.5° | 6762.1 | 6557.5 | 5575.5 | 4628.7 | 3847.8 | 3530.6 | 3546.3 | 3639.5 | 3683.1 | 3681.9 | 3680.7 |
| 30° | 7046.6 | 6702.7 | 5407.2 | 4232.8 | 3450.7 | 3322.3 | 3418.0 | 3531.8 | 3591.1 | 3588.7 | 3589.9 |
| 32.5° | 7396.5 | 6862.6 | 5178.4 | 3790.9 | 3163.7 | 3168.5 | 3278.7 | 3391.3 | 3460.3 | 3454.3 | 3455.5 |
| 35° | 7805.7 | 7041.8 | 4868.4 | 3355.0 | 2973.6 | 3046.3 | 3133.4 | 3212.1 | 3277.5 | 3269.0 | 3260.6 |
| 37.5° | 8251.3 | 7217.3 | 4456.8 | 2965.1 | 2818.6 | 2932.4 | 3005.1 | 3018.4 | 3048.7 | 3026.9 | 3011.1 |
| 40° | 8675.1 | 7351.7 | 3926.5 | 2645.5 | 2662.5 | 2835.6 | 2882.8 | 2829.5 | 2775.1 | 2767.8 | 2746.0 |
| 42.5° | 9044.3 | 7396.5 | 3390.1 | 2390.0 | 2497.8 | 2733.9 | 2762.9 | 2651.6 | 2553.5 | 2507.5 | 2488.1 |
| 45° | 9434.2 | 7412.2 | 2890.1 | 2175.7 | 2339.2 | 2643.1 | 2674.6 | 2525.6 | 2387.6 | 2288.3 | 2255.6 |
| 47.5° | 9943.9 | 7526.1 | 2501.4 | 2017.1 | 2218.1 | 2582.5 | 2627.3 | 2425.1 | 2246.0 | 2104.3 | 2074.0 |
| 50° | 10611.1 | 7751.3 | 2185.4 | 1896.0 | 2139.4 | 2542.6 | 2593.4 | 2327.1 | 2129.7 | 1959.0 | 1928.7 |
| 52.5° | 11352.0 | 7958.3 | 1929.9 | 1798.0 | 2063.1 | 2472.4 | 2549.9 | 2256.8 | 2020.8 | 1824.6 | 1791.9 |
| 55° | 11870.2 | 7799.7 | 1724.1 | 1696.3 | 1963.8 | 2371.9 | 2489.3 | 2197.5 | 1864.6 | 1693.8 | 1664.8 |
| 57.5° | 11969.5 | 7257.3 | 1567.9 | 1590.9 | 1844.0 | 2246.0 | 2396.1 | 2065.5 | 1779.8 | 1636.9 | 1606.7 |
| 60° | 11698.3 | 6501.8 | 1451.7 | 1494.1 | 1715.6 | 2087.3 | 2221.7 | 1972.3 | 1698.7 | 1576.4 | 1551.0 |
| 62.5° | 11016.7 | 5728.1 | 1365.7 | 1406.9 | 1595.8 | 1926.3 | 2112.8 | 1874.2 | 1616.4 | 1507.4 | 1482.0 |
| 65° | 9640.0 | 4809.1 | 1283.4 | 1329.4 | 1484.4 | 1787.1 | 2014.7 | 1783.4 | 1535.2 | 1451.7 | 1427.5 |
| 67.5° | 7276.6 | 3602.0 | 1205.9 | 1247.1 | 1385.1 | 1666.0 | 1908.2 | 1693.8 | 1456.5 | 1403.3 | 1374.2 |
| 70° | 4284.9 | 2255.6 | 1117.5 | 1161.1 | 1281.0 | 1540.1 | 1794.3 | 1595.8 | 1358.5 | 1334.3 | 1296.7 |
| 72.5° | 1994.1 | 1357.3 | 1017.0 | 1059.4 | 1150.2 | 1371.8 | 1647.8 | 1467.4 | 1242.2 | 1189.0 | 1138.1 |
| 75° | *1190.2* | *992.8* | *898.4* | *935.9* | *1000.1* | *1192.6* | *1463.8* | *1336.7* | *1132.1* | *1061.8* | *1008.6* |
| 77.5° | 889.9 | 759.1 | 767.6 | 807.6 | 859.6 | 1043.7 | 1296.7 | 1233.8 | 1047.3 | 992.8 | 956.5 |
| 80° | 640.5 | 576.3 | 626.0 | 669.5 | 724.0 | 949.2 | 1242.2 | 1140.5 | 946.8 | 874.2 | 840.3 |
| 82.5° | 427.4 | 414.1 | 471.0 | 515.8 | 569.1 | 830.6 | 1167.2 | 998.9 | 808.8 | 716.8 | 641.7 |
| 85° | 236.1 | 249.4 | 317.2 | 336.6 | 382.6 | 584.8 | 956.5 | 802.7 | 609.0 | 490.4 | 468.6 |
| 87.5° | 98.1 | 115.0 | 170.7 | 164.7 | 203.4 | 348.7 | 629.6 | 484.3 | 387.4 | 289.4 | 225.2 |
| 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)