

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: P510491

Luminaire Tested: **CST-CA10-310-740-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510491
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-151-12)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: CST-CA10-310-740-U-T4
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47807 lumens
Efficiency: N/A
Efficacy: 153.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U0 - G5

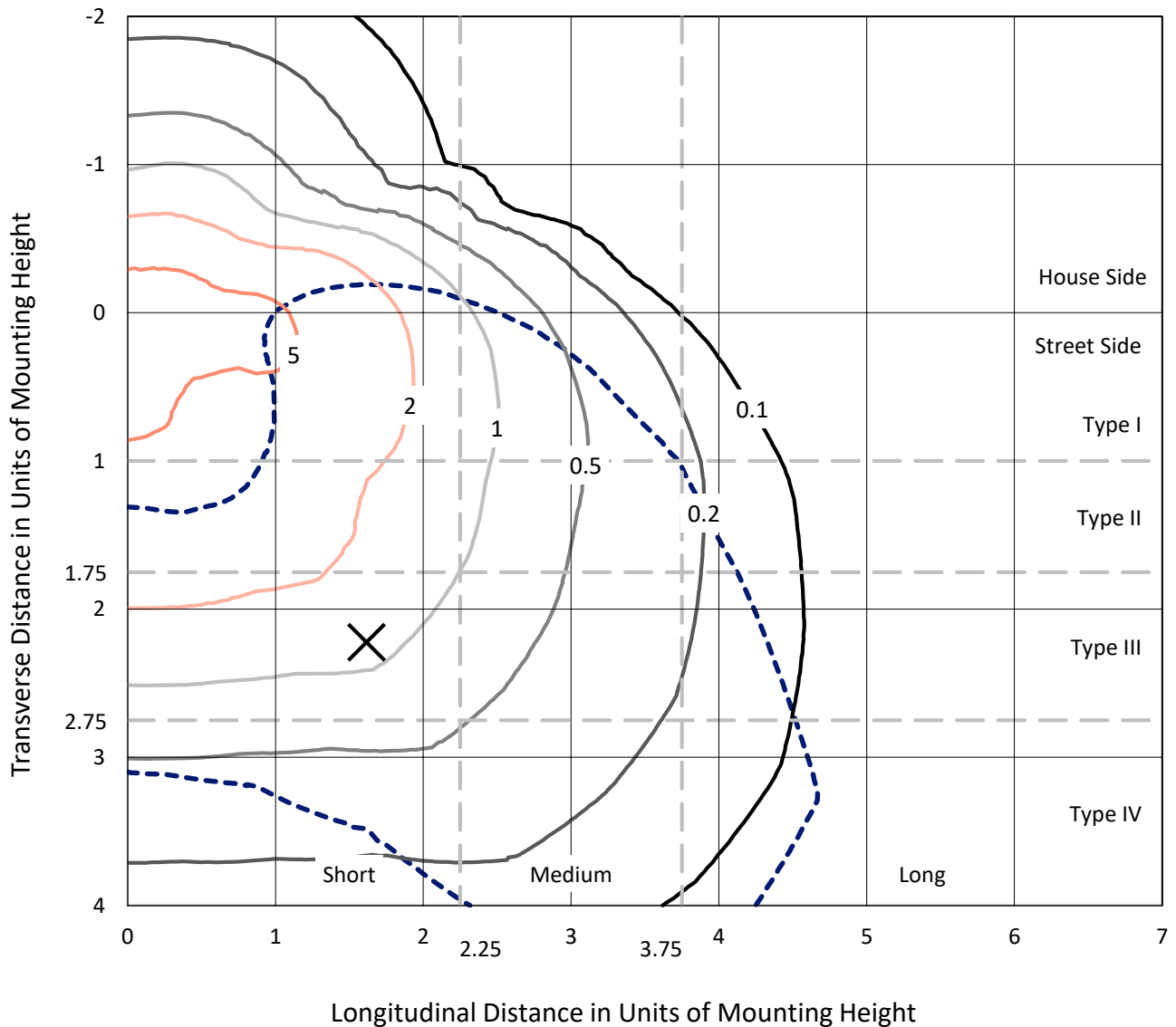
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

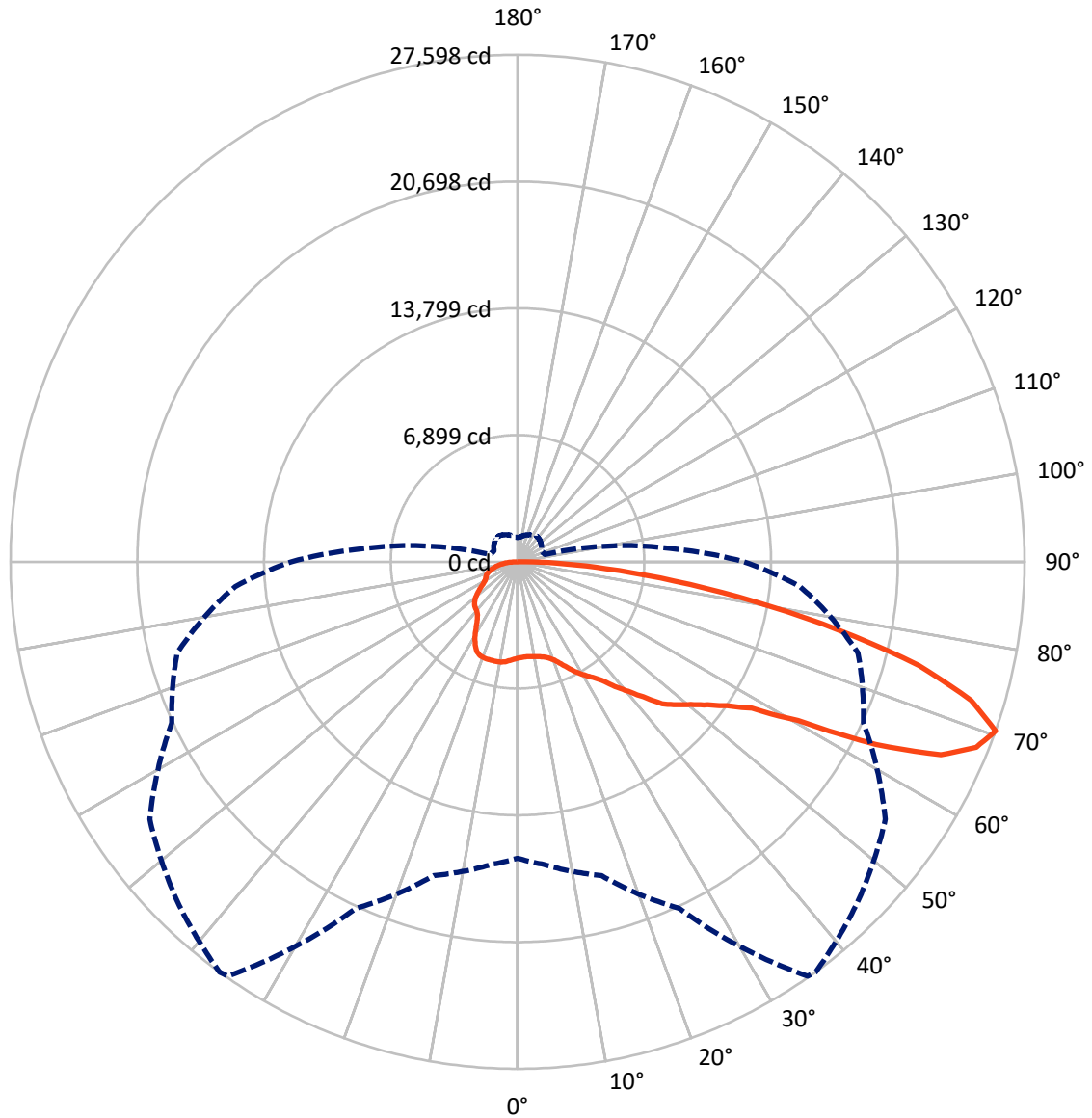
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 36-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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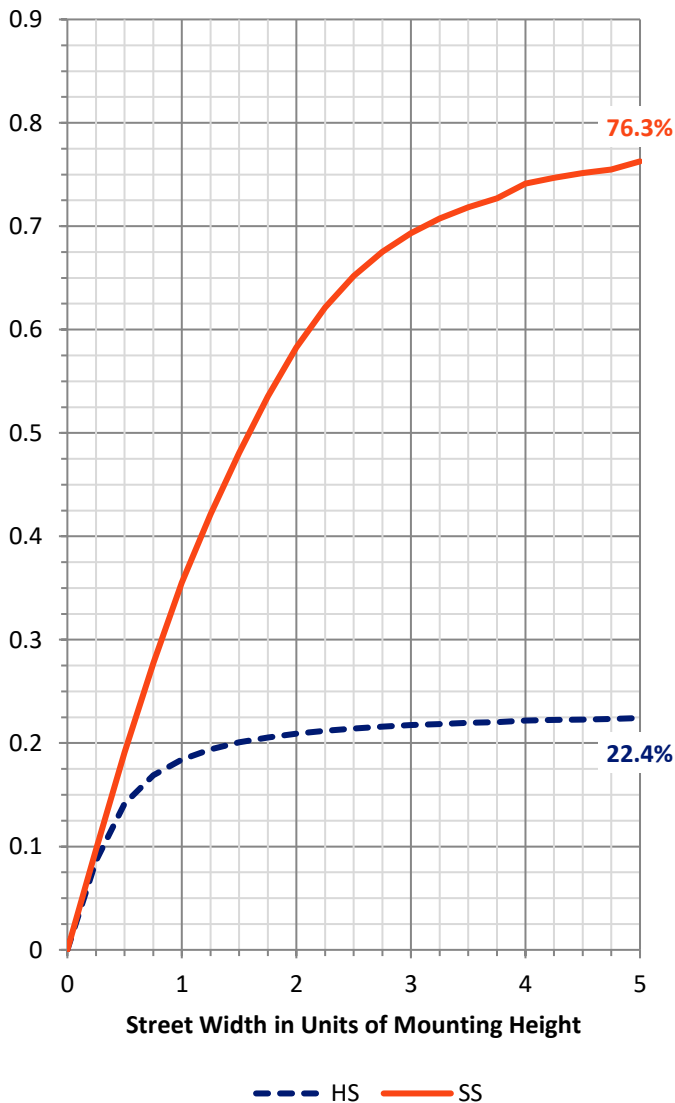
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 10892.5 | 0.0 | 10892.5 |
| | % Fixture | 22.8 | 0.0 | 22.8 |
| Street Side | Lumens | 36914.5 | 0.0 | 36914.5 |
| | % Fixture | 77.2 | 0.0 | 77.2 |
| Total | Lumens | 47807.0 | 0.0 | 47807.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 507.3 | 1.1 |
| 10°-20° | 1568.3 | 3.3 |
| 20°-30° | 2828.9 | 5.9 |
| 30°-40° | 4381.5 | 9.2 |
| 40°-50° | 6655.5 | 13.9 |
| 50°-60° | 9224.9 | 19.3 |
| 60°-70° | 11995.5 | 25.1 |
| 70°-80° | 8858.6 | 18.5 |
| 80°-90° | 1786.6 | 3.7 |
| 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° | 47807.0 | 100.0 |
| 0°-180° | 47807.0 | 100.0 |

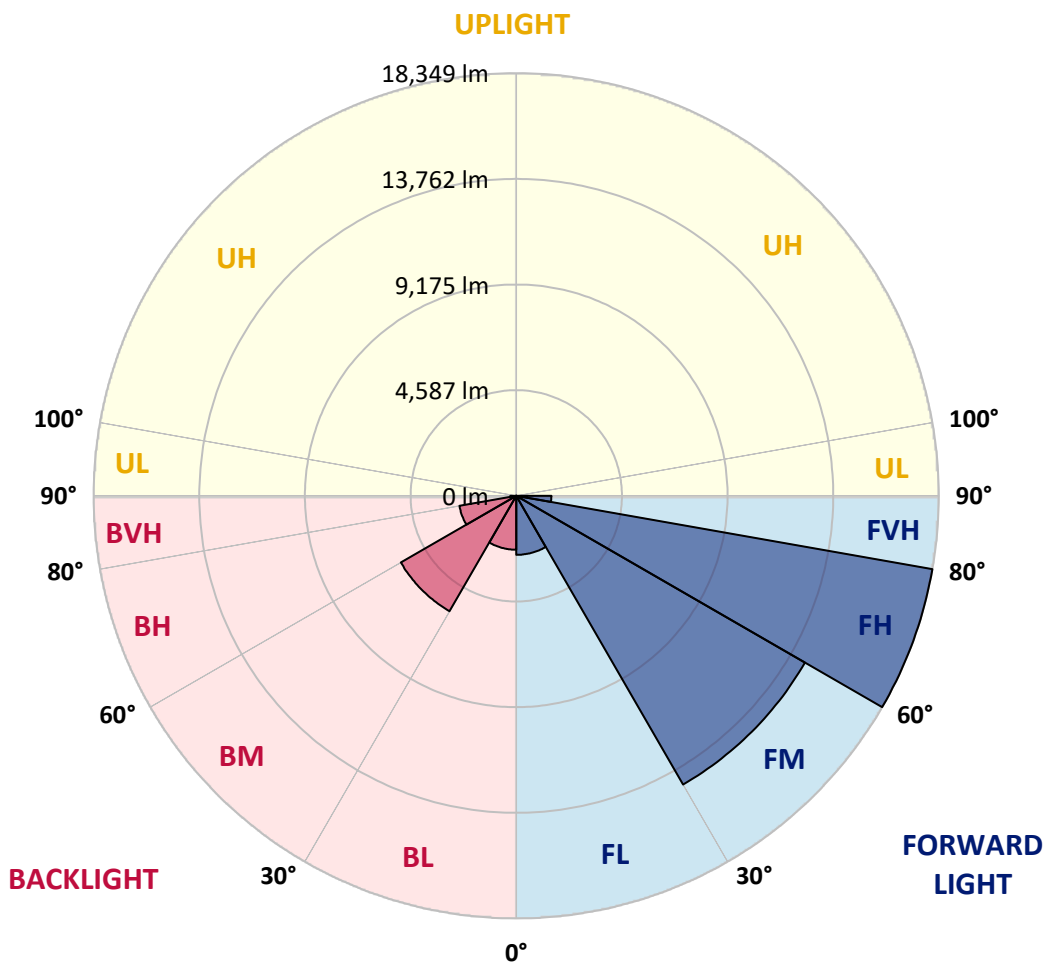


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2562.9 | 5.4 | | | |
| FM (30°-60°) | 14475.8 | 30.3 | | | |
| FH (60°-80°) | 18349.4 | 38.4 | | | G5 |
| FVH (80°-90°) | 1526.3 | 3.2 | | | G5 |
| BL (0°-30°) | 2341.6 | 4.9 | B3/2500 | | |
| BM (30°-60°) | 5786.0 | 12.1 | B4/8500 | | |
| BH (60°-80°) | 2504.7 | 5.2 | B4/5000 | | G4/5000 |
| BVH (80°-90°) | 260.3 | 0.5 | | | G3/500 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B4-U0-G5
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 |
| 2.5° | 5204.6 | 5197.7 | 5193.7 | 5201.6 | 5204.6 | 5205.6 | 5207.6 | 5205.6 | 5200.7 | 5218.5 | 5240.3 |
| 5° | 5205.6 | 5201.6 | 5193.7 | 5186.8 | 5186.8 | 5186.8 | 5187.8 | 5210.6 | 5220.5 | 5218.5 | 5245.2 |
| 7.5° | 5213.5 | 5210.6 | 5195.7 | 5190.8 | 5202.6 | 5206.6 | 5226.4 | 5219.5 | 5230.4 | 5248.2 | 5270.9 |
| 10° | 5214.5 | 5210.6 | 5197.7 | 5208.6 | 5242.2 | 5248.2 | 5257.1 | 5276.9 | 5280.8 | 5302.6 | 5325.4 |
| 12.5° | 5224.4 | 5224.4 | 5229.4 | 5253.1 | 5288.8 | 5295.7 | 5329.3 | 5345.2 | 5368.9 | 5379.8 | 5407.5 |
| 15° | 5276.9 | 5275.9 | 5287.8 | 5314.5 | 5371.9 | 5375.9 | 5417.4 | 5464.9 | 5482.8 | 5509.5 | 5554.0 |
| 17.5° | 5401.6 | 5407.5 | 5408.5 | 5428.3 | 5496.6 | 5498.6 | 5566.9 | 5611.4 | 5652.0 | 5699.5 | 5801.5 |
| 20° | 5697.6 | 5686.7 | 5674.8 | 5674.8 | 5701.5 | 5715.4 | 5767.8 | 5839.1 | 5922.3 | 6006.4 | 6126.2 |
| 22.5° | 6069.7 | 6091.5 | 6048.0 | 6025.2 | 6038.1 | 6022.2 | 6061.8 | 6119.2 | 6216.2 | 6342.0 | 6493.4 |
| 25° | 6514.2 | 6516.2 | 6513.2 | 6421.1 | 6392.4 | 6402.3 | 6435.0 | 6488.4 | 6617.1 | 6717.1 | 6936.8 |
| 27.5° | 6947.7 | 6938.8 | 6907.2 | 6810.1 | 6782.4 | 6796.3 | 6795.3 | 6942.8 | 7074.4 | 7202.1 | 7460.5 |
| 30° | 7341.7 | 7365.5 | 7309.0 | 7145.7 | 7148.7 | 7146.7 | 7192.2 | 7382.3 | 7622.8 | 7860.4 | 8125.7 |
| 32.5° | 8036.6 | 7964.3 | 7888.1 | 7565.4 | 7506.0 | 7499.1 | 7525.8 | 7808.9 | 8165.2 | 8566.1 | 8884.9 |
| 35° | 8690.9 | 8673.0 | 8597.8 | 8270.2 | 7926.7 | 7920.8 | 7884.1 | 8228.6 | 8729.5 | 9471.8 | 9869.8 |
| 37.5° | 9360.0 | 9334.3 | 9260.0 | 8980.9 | 8639.4 | 8606.7 | 8298.9 | 8676.0 | 9353.1 | 10531.0 | 11098.2 |
| 40° | 10157.8 | 10142.0 | 10027.2 | 9669.8 | 9319.4 | 9269.9 | 8950.2 | 9146.2 | 10140.0 | 11941.5 | 12341.4 |
| 42.5° | 10857.6 | 10854.7 | 10723.0 | 10391.4 | 10093.5 | 10044.0 | 9771.8 | 9975.7 | 11233.8 | 13323.3 | 13558.9 |
| 45° | 11371.4 | 11449.6 | 11455.5 | 11266.4 | 11060.6 | 11017.0 | 10944.7 | 11225.9 | 12498.8 | 14577.5 | 14542.8 |
| 47.5° | 11804.9 | 11872.2 | 11801.9 | 11704.9 | 11634.7 | 11637.6 | 11749.5 | 12307.8 | 13748.0 | 15670.3 | 15401.0 |
| 50° | 12529.5 | 12487.9 | 12122.7 | 12065.2 | 12154.3 | 12206.8 | 12531.5 | 13475.8 | 15178.3 | 16695.8 | 16171.1 |
| 52.5° | 13574.8 | 13415.4 | 12698.8 | 12581.9 | 12919.5 | 12939.3 | 13456.0 | 14520.1 | 16607.7 | 17575.7 | 16875.9 |
| 55° | 15005.1 | 14873.4 | 14063.7 | 13524.3 | 13694.5 | 13828.2 | 14555.7 | 15590.1 | 17774.7 | 18403.2 | 17418.3 |
| 57.5° | 17119.4 | 17129.3 | 16469.1 | 15463.4 | 14884.3 | 15026.9 | 15595.0 | 16630.4 | 18738.8 | 19096.1 | 17756.9 |
| 60° | 18814.0 | 19127.8 | 18930.8 | 18471.5 | 17640.1 | 17543.1 | 17110.5 | 17714.3 | 19562.4 | 19685.1 | 18080.5 |
| 62.5° | 19989.0 | 20131.5 | 20808.6 | 20905.6 | 21855.8 | 21896.4 | 19824.7 | 18984.3 | 20467.1 | 20071.1 | 18148.8 |
| 65° | 19929.6 | 20017.7 | 21087.7 | 22390.3 | 25197.6 | 25323.3 | 24110.7 | 20905.6 | 21086.7 | 20243.4 | 17949.9 |
| 67.5° | 18541.8 | 18674.5 | 20034.5 | 22469.5 | 26978.3 | 26930.8 | 26161.7 | 23580.1 | 21290.6 | 19967.2 | 17001.6 |
| 70° | 16131.5 | 16540.3 | 17682.6 | 20799.7 | 27534.6 | 27597.9 | 26180.5 | 24434.4 | 20765.0 | 19186.2 | 15420.8 |
| 72.5° | 13295.6 | 13424.3 | 14503.2 | 17991.5 | 25908.3 | 25815.2 | 25107.5 | 23306.9 | 19814.8 | 17773.7 | 12654.2 |
| 75° | 10111.3 | 10111.3 | 11417.9 | 14337.9 | 22248.8 | 22575.4 | 22850.6 | 21109.5 | 17554.0 | 14486.4 | 8616.6 |
| 77.5° | 6712.2 | 6952.7 | 8004.9 | 10774.5 | 17611.4 | 17852.9 | 18803.1 | 17993.4 | 14372.6 | 10623.0 | 3935.6 |
| 80° | 3560.5 | 3590.2 | 4718.6 | 7159.6 | 12596.8 | 13052.1 | 14358.7 | 13877.7 | 10338.0 | 4977.0 | 994.8 |
| 82.5° | 1245.2 | 1359.1 | 2074.7 | 4149.4 | 8299.9 | 8584.0 | 9525.3 | 8246.4 | 3651.5 | 1101.7 | 550.4 |
| 85° | 618.7 | 640.4 | 913.6 | 1975.7 | 4673.1 | 4810.7 | 5564.9 | 3212.1 | 588.0 | 481.1 | 374.2 |
| 87.5° | 297.9 | 304.9 | 350.4 | 706.8 | 2031.2 | 2125.2 | 2249.9 | 1045.3 | 217.8 | 183.1 | 162.3 |
| 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° | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 | 5236.3 |
| 2.5° | 5245.2 | 5254.1 | 5270.9 | 5275.9 | 5264.0 | 5285.8 | 5306.6 | 5325.4 | 5324.4 | 5331.3 | 5356.1 |
| 5° | 5257.1 | 5275.9 | 5293.7 | 5325.4 | 5356.1 | 5373.9 | 5390.7 | 5406.5 | 5411.5 | 5426.3 | 5441.2 |
| 7.5° | 5293.7 | 5312.5 | 5353.1 | 5408.5 | 5410.5 | 5455.0 | 5483.8 | 5488.7 | 5492.7 | 5492.7 | 5527.3 |
| 10° | 5350.1 | 5384.8 | 5450.1 | 5488.7 | 5523.3 | 5508.5 | 5538.2 | 5519.4 | 5505.5 | 5511.5 | 5535.2 |
| 12.5° | 5447.1 | 5477.8 | 5571.9 | 5614.4 | 5582.7 | 5576.8 | 5547.1 | 5504.5 | 5456.0 | 5451.1 | 5472.9 |
| 15° | 5599.6 | 5657.0 | 5741.1 | 5781.7 | 5702.5 | 5632.2 | 5532.3 | 5445.1 | 5351.1 | 5316.5 | 5330.3 |
| 17.5° | 5845.0 | 5914.3 | 6006.4 | 5978.7 | 5834.2 | 5695.6 | 5530.3 | 5346.2 | 5164.0 | 5037.3 | 5070.0 |
| 20° | 6204.4 | 6255.8 | 6331.1 | 6219.2 | 6008.4 | 5779.7 | 5508.5 | 5217.5 | 4909.6 | 4679.0 | 4652.3 |
| 22.5° | 6581.5 | 6659.7 | 6614.2 | 6407.3 | 6131.1 | 5812.4 | 5463.0 | 5030.4 | 4554.3 | 4265.3 | 4221.7 |
| 25° | 7035.8 | 7061.6 | 6904.2 | 6592.4 | 6165.8 | 5760.9 | 5315.5 | 4757.2 | 4191.0 | 3918.8 | 3905.9 |
| 27.5° | 7517.9 | 7459.5 | 7166.5 | 6677.5 | 6127.2 | 5608.5 | 5019.5 | 4325.6 | 3862.4 | 3621.9 | 3584.2 |
| 30° | 8062.3 | 7926.7 | 7383.3 | 6686.4 | 5981.6 | 5311.5 | 4645.4 | 3988.1 | 3595.1 | 3353.6 | 3315.0 |
| 32.5° | 8763.1 | 8443.4 | 7584.2 | 6594.4 | 5674.8 | 4876.0 | 4196.0 | 3700.0 | 3354.6 | 3112.1 | 3077.4 |
| 35° | 9658.9 | 9119.5 | 7797.0 | 6428.1 | 5296.7 | 4440.5 | 3823.8 | 3455.6 | 3159.6 | 2867.6 | 2821.1 |
| 37.5° | 10691.3 | 10062.8 | 8051.4 | 6218.2 | 4881.9 | 4057.4 | 3572.4 | 3300.2 | 3015.1 | 2684.5 | 2629.0 |
| 40° | 11891.0 | 11007.1 | 8443.4 | 5967.8 | 4509.7 | 3781.2 | 3450.6 | 3246.7 | 2934.9 | 2590.4 | 2527.1 |
| 42.5° | 12930.4 | 12005.9 | 8909.6 | 5698.6 | 4158.3 | 3551.6 | 3396.2 | 3211.1 | 2884.4 | 2520.2 | 2447.9 |
| 45° | 13891.5 | 12830.4 | 9364.9 | 5371.9 | 3788.1 | 3394.2 | 3330.8 | 3122.0 | 2795.3 | 2433.0 | 2357.8 |
| 47.5° | 14672.5 | 13496.6 | 9760.9 | 5072.0 | 3492.2 | 3249.7 | 3188.3 | 2952.7 | 2645.9 | 2328.1 | 2272.7 |
| 50° | 15272.4 | 13997.4 | 9977.7 | 4833.4 | 3179.4 | 3085.4 | 3004.2 | 2761.7 | 2466.7 | 2192.5 | 2145.0 |
| 52.5° | 15886.1 | 14499.3 | 10084.6 | 4845.3 | 2888.4 | 2840.9 | 2757.7 | 2549.8 | 2324.2 | 2113.3 | 2061.9 |
| 55° | 16243.4 | 14705.2 | 9971.7 | 4557.3 | 2621.1 | 2565.7 | 2493.4 | 2385.5 | 2250.9 | 2063.8 | 2015.3 |
| 57.5° | 16452.3 | 14832.9 | 9628.2 | 3716.9 | 2299.4 | 2247.0 | 2258.8 | 2249.9 | 2139.1 | 1942.1 | 1897.5 |
| 60° | 16602.7 | 14555.7 | 8924.5 | 2732.0 | 2025.2 | 1985.6 | 2083.6 | 2052.0 | 1955.9 | 1802.5 | 1764.9 |
| 62.5° | 16481.0 | 14028.1 | 7657.5 | 2053.9 | 1801.5 | 1885.7 | 1971.8 | 1913.4 | 1782.7 | 1643.1 | 1599.6 |
| 65° | 15738.6 | 12992.7 | 5820.3 | 1650.1 | 1729.3 | 1845.1 | 1914.4 | 1820.3 | 1687.7 | 1522.4 | 1502.6 |
| 67.5° | 14387.4 | 11116.0 | 3432.8 | 1512.5 | 1674.8 | 1797.6 | 1855.0 | 1730.3 | 1613.5 | 1455.1 | 1431.3 |
| 70° | 12325.6 | 8321.6 | 1533.3 | 1408.6 | 1579.8 | 1701.5 | 1739.2 | 1621.4 | 1494.7 | 1346.2 | 1322.4 |
| 72.5° | 9173.9 | 5017.5 | 1033.4 | 1300.7 | 1439.2 | 1547.1 | 1588.7 | 1464.0 | 1373.9 | 1306.6 | 1299.7 |
| 75° | 5094.7 | 1742.1 | 953.2 | 1177.9 | 1285.8 | 1382.8 | 1434.3 | 1346.2 | 1274.9 | 1182.9 | 1145.3 |
| 77.5° | 1622.4 | 740.4 | 905.7 | 1053.2 | 1189.8 | 1270.0 | 1262.1 | 1129.4 | 1106.6 | 994.8 | 984.9 |
| 80° | 647.4 | 645.4 | 837.4 | 862.2 | 1015.6 | 1082.9 | 1065.1 | 897.8 | 927.5 | 862.2 | 836.4 |
| 82.5° | 507.8 | 590.9 | 671.1 | 658.2 | 789.9 | 869.1 | 844.3 | 659.2 | 745.4 | 685.0 | 626.6 |
| 85° | 386.0 | 517.7 | 430.6 | 428.6 | 551.3 | 645.4 | 661.2 | 506.8 | 507.8 | 462.3 | 411.8 |
| 87.5° | 199.0 | 191.0 | 165.3 | 164.3 | 184.1 | 262.3 | 321.7 | 288.0 | 227.7 | 171.2 | 164.3 |
| 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)