

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: P510337

Luminaire Tested: **VERD-M-CA4-250-750-U-T4**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510337
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-6)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-250-750-U-T4
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 5000K, 1130mA LEDS AND TYPE IV OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35143 lumens
Efficiency: N/A
Efficacy: 139.6 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

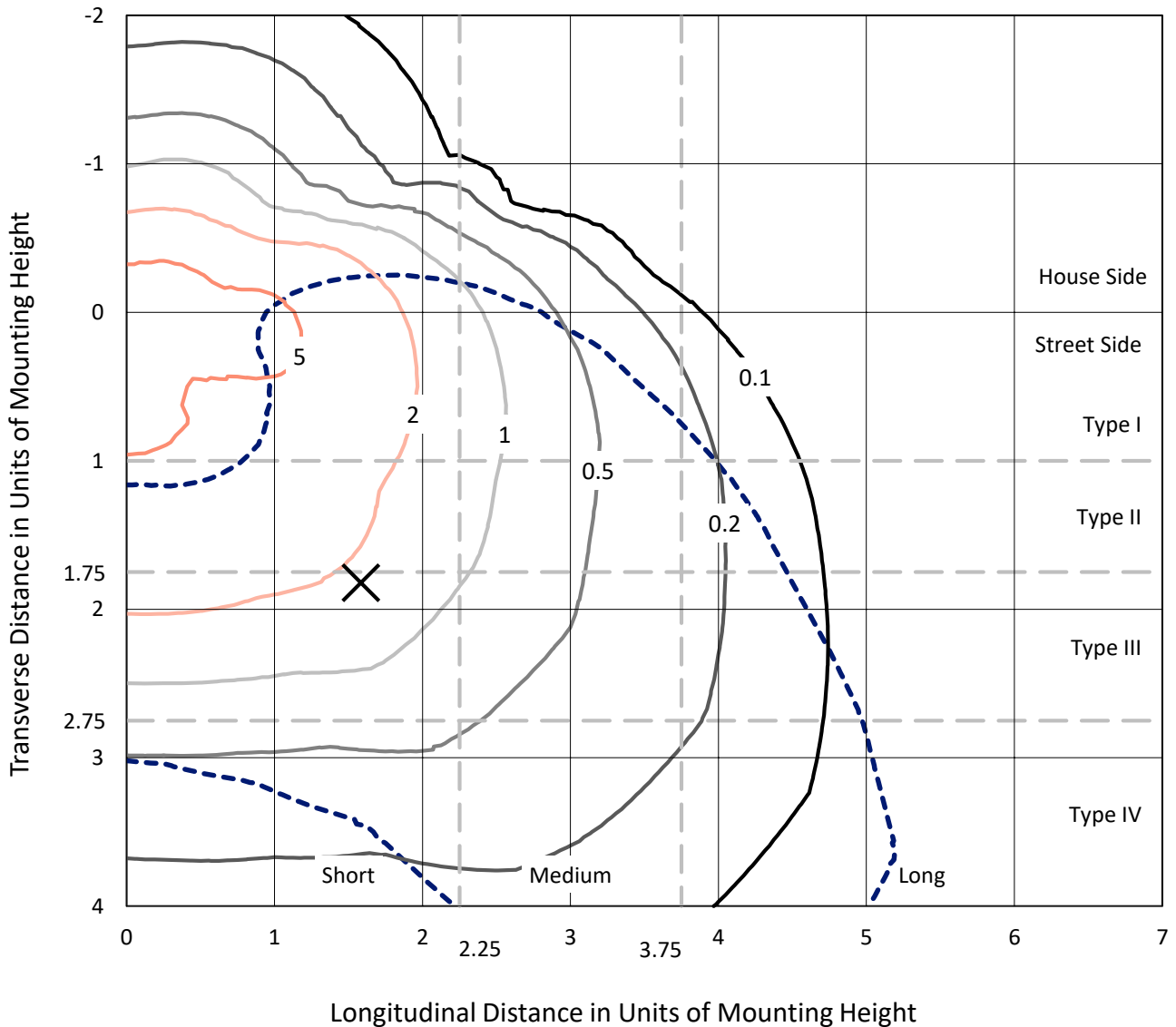
Input Watts (W): 251.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

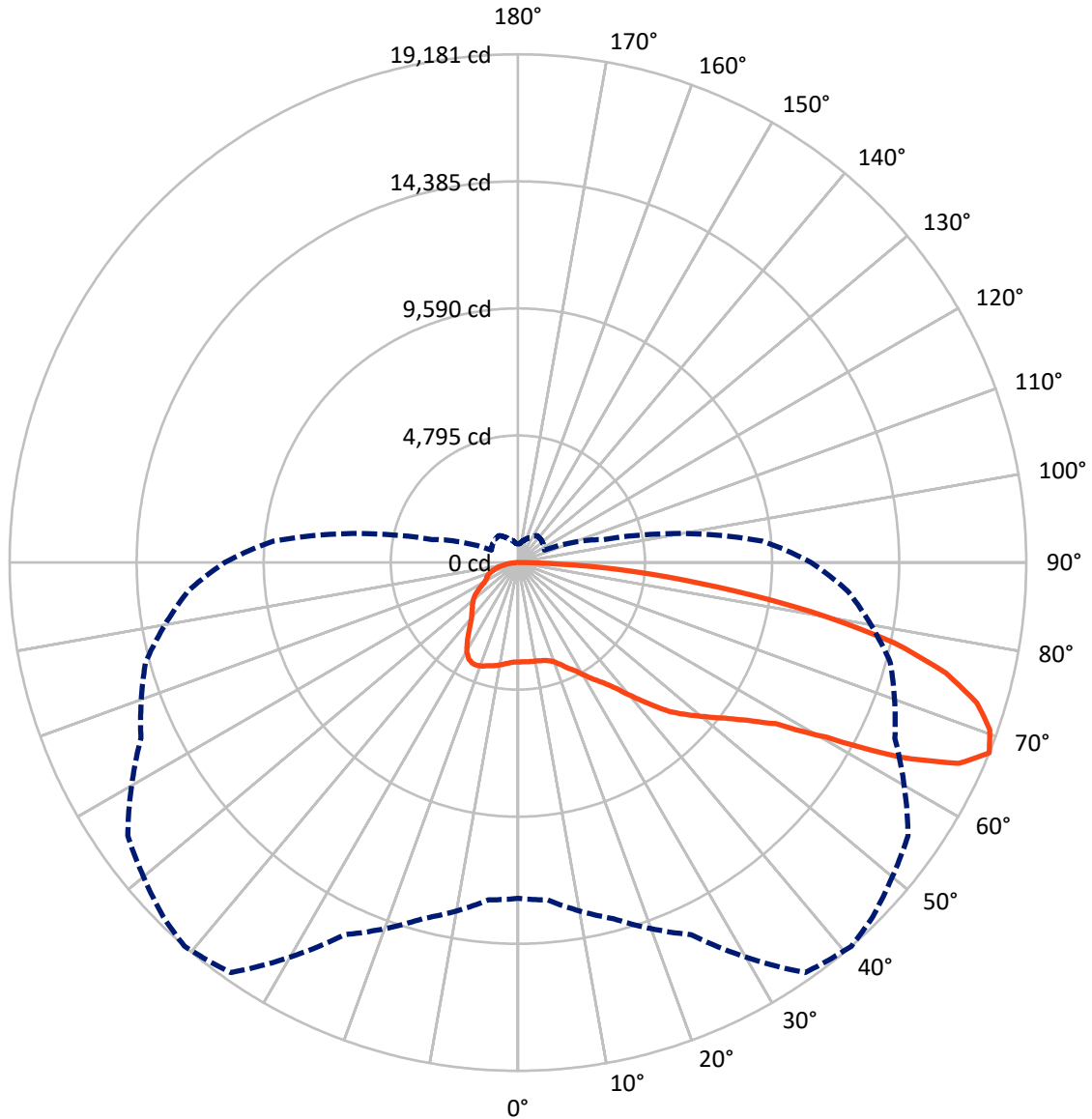
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 41-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7952.7 | 0.0 | 7952.7 |
| | % Fixture | 22.6 | 0.0 | 22.6 |
| Street Side | Lumens | 27190.3 | 0.0 | 27190.3 |
| | % Fixture | 77.4 | 0.0 | 77.4 |
| Total | Lumens | 35143.0 | 0.0 | 35143.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 362.6 | 1.0 |
| 10°-20° | 1124.5 | 3.2 |
| 20°-30° | 2010.9 | 5.7 |
| 30°-40° | 3153.1 | 9.0 |
| 40°-50° | 4889.5 | 13.9 |
| 50°-60° | 6893.0 | 19.6 |
| 60°-70° | 8787.0 | 25.0 |
| 70°-80° | 6575.6 | 18.7 |
| 80°-90° | 1346.7 | 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° | 35143.0 | 100.0 |
| 0°-180° | 35143.0 | 100.0 |

Coefficient of Utilization



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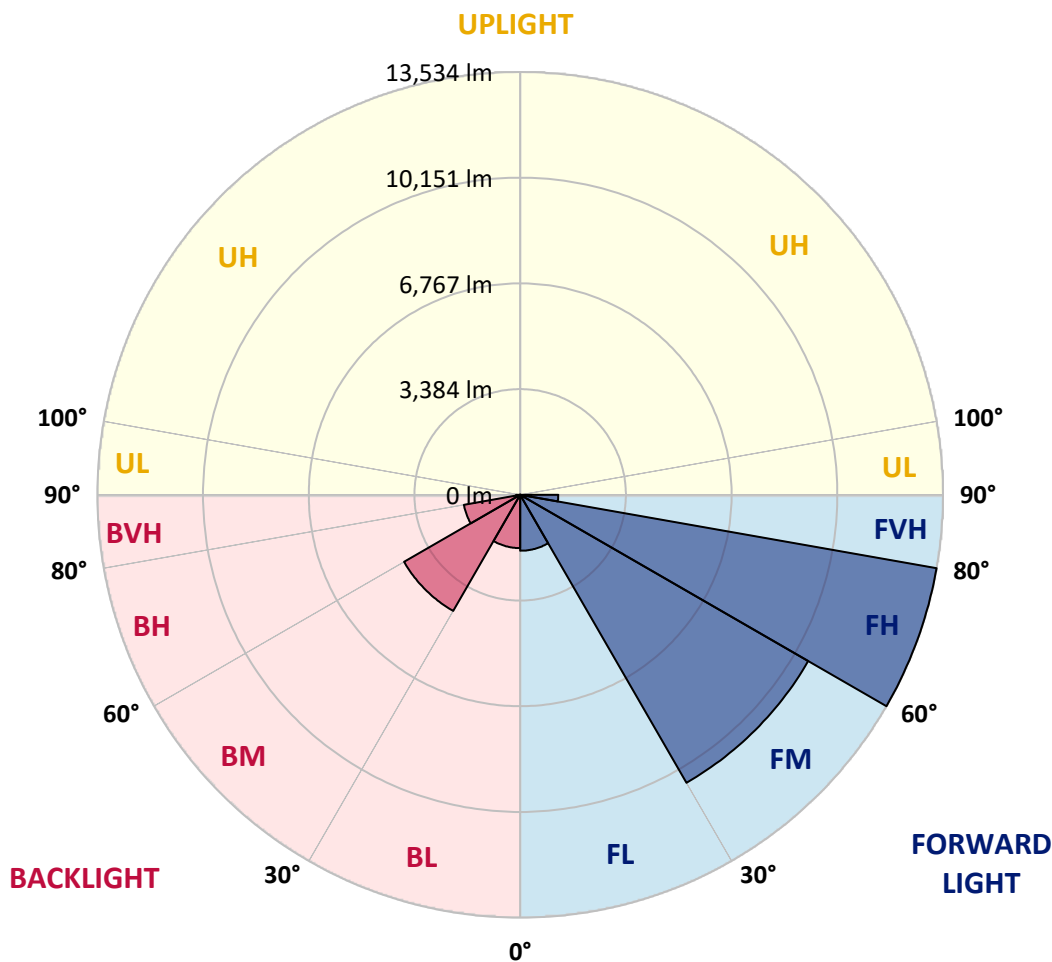
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 1790.6 | 5.1 | | | |
| FM | (30°-60°) | 10644.5 | 30.3 | | | |
| FH | (60°-80°) | 13534.3 | 38.5 | | | G5 |
| FVH | (80°-90°) | 1220.9 | 3.5 | | | G5 |
| BL | (0°-30°) | 1707.4 | 4.9 | B3/2500 | | |
| BM | (30°-60°) | 4291.2 | 12.2 | B3/5000 | | |
| BH | (60°-80°) | 1828.3 | 5.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 125.8 | 0.4 | | | G2/225 |
| 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° | 41° | 45° | 55° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 |
| 2.5° | 3706.0 | 3748.9 | 3742.6 | 3734.6 | 3747.3 | 3748.9 | 3712.4 | 3726.7 | 3734.6 | 3747.3 | 3768.0 |
| 5° | 3715.5 | 3758.5 | 3755.3 | 3741.0 | 3750.5 | 3755.3 | 3721.9 | 3747.3 | 3747.3 | 3752.1 | 3776.0 |
| 7.5° | 3694.9 | 3736.2 | 3736.2 | 3731.4 | 3752.1 | 3771.2 | 3741.0 | 3763.3 | 3776.0 | 3788.7 | 3804.6 |
| 10° | 3675.8 | 3710.8 | 3723.5 | 3720.3 | 3768.0 | 3772.8 | 3752.1 | 3806.2 | 3826.9 | 3839.6 | 3858.7 |
| 12.5° | 3655.1 | 3698.0 | 3715.5 | 3733.0 | 3783.9 | 3801.4 | 3790.3 | 3846.0 | 3888.9 | 3911.2 | 3931.9 |
| 15° | 3645.6 | 3693.3 | 3721.9 | 3747.3 | 3803.0 | 3834.8 | 3834.8 | 3919.1 | 3970.0 | 3998.7 | 4035.2 |
| 17.5° | 3712.4 | 3761.7 | 3783.9 | 3804.6 | 3855.5 | 3898.5 | 3895.3 | 3993.9 | 4068.6 | 4113.2 | 4180.0 |
| 20° | 3877.8 | 3936.6 | 3949.4 | 3957.3 | 3989.1 | 4005.0 | 4000.2 | 4106.8 | 4210.2 | 4294.5 | 4369.3 |
| 22.5° | 4165.7 | 4200.7 | 4207.0 | 4175.2 | 4183.2 | 4195.9 | 4187.9 | 4246.8 | 4364.5 | 4463.1 | 4596.7 |
| 25° | 4401.1 | 4456.7 | 4440.8 | 4394.7 | 4401.1 | 4418.6 | 4394.7 | 4485.4 | 4569.7 | 4698.5 | 4833.7 |
| 27.5° | 4649.2 | 4690.5 | 4673.1 | 4644.4 | 4638.1 | 4625.3 | 4620.6 | 4736.7 | 4860.7 | 4962.5 | 5162.9 |
| 30° | 4951.4 | 4973.7 | 4922.8 | 4910.0 | 4921.2 | 4929.1 | 4898.9 | 5046.8 | 5159.8 | 5306.1 | 5576.5 |
| 32.5° | 5460.4 | 5481.1 | 5407.9 | 5212.3 | 5217.0 | 5253.6 | 5228.2 | 5414.3 | 5627.4 | 5805.5 | 6080.7 |
| 35° | 6109.3 | 6109.3 | 6052.1 | 5776.9 | 5568.5 | 5570.1 | 5576.5 | 5838.9 | 6235.0 | 6634.2 | 6917.3 |
| 37.5° | 6766.2 | 6788.5 | 6680.3 | 6429.0 | 6165.0 | 6025.0 | 5907.3 | 6244.5 | 6763.0 | 7653.8 | 8075.3 |
| 40° | 7450.2 | 7485.2 | 7322.9 | 7092.3 | 6788.5 | 6629.4 | 6492.6 | 6697.8 | 7397.7 | 8663.8 | 8997.8 |
| 42.5° | 8048.2 | 8097.5 | 7930.5 | 7687.2 | 7475.6 | 7295.9 | 7089.1 | 7171.8 | 8095.9 | 9622.9 | 9812.1 |
| 45° | 8604.9 | 8631.9 | 8490.4 | 8290.0 | 8115.0 | 8016.4 | 7871.7 | 7967.1 | 8894.4 | 10561.3 | 10526.3 |
| 47.5° | 9015.3 | 9055.0 | 8926.2 | 8818.0 | 8638.3 | 8579.5 | 8577.9 | 8840.3 | 9793.1 | 11308.9 | 11146.6 |
| 50° | 9681.7 | 9651.5 | 9362.0 | 9230.0 | 9120.2 | 9139.3 | 9185.5 | 9638.8 | 10849.2 | 12029.4 | 11668.3 |
| 52.5° | 10799.9 | 10744.2 | 10101.6 | 9826.5 | 9691.3 | 9753.3 | 9777.1 | 10362.5 | 11914.9 | 12651.3 | 12099.4 |
| 55° | 12245.7 | 12067.5 | 11599.9 | 10861.9 | 10437.2 | 10496.1 | 10469.0 | 11140.3 | 12767.4 | 13244.6 | 12419.1 |
| 57.5° | 13201.6 | 13368.6 | 13144.4 | 12722.9 | 11668.3 | 11475.9 | 11412.2 | 11910.1 | 13556.3 | 13812.4 | 12749.9 |
| 60° | 14031.9 | 14308.6 | 14664.9 | 14394.5 | 14109.8 | 13389.3 | 12796.0 | 12784.9 | 14251.4 | 14190.9 | 12883.5 |
| 62.5° | 14908.3 | 15054.6 | 15603.4 | 15770.4 | 16298.4 | 16166.4 | 15371.1 | 13891.9 | 14946.5 | 14467.7 | 12961.4 |
| 65° | 14022.3 | 14218.0 | 15216.8 | 16128.2 | 18083.0 | 18273.9 | 18014.6 | 15950.1 | 15428.4 | 14609.3 | 12850.1 |
| 67.5° | 12673.5 | 12781.7 | 13912.6 | 15493.6 | 18891.0 | 19180.5 | 18919.7 | 17970.1 | 15695.6 | 14547.2 | 12506.5 |
| 70° | 10944.6 | 11071.9 | 12151.8 | 14308.6 | 18849.7 | 18887.9 | 18786.1 | 18156.2 | 15589.0 | 14256.2 | 11641.3 |
| 72.5° | 8873.7 | 9034.4 | 9983.9 | 12223.4 | 17946.2 | 18111.7 | 17951.0 | 17787.2 | 15290.0 | 13441.8 | 10150.9 |
| 75° | 6713.7 | 6926.9 | 7774.6 | 9745.3 | 15859.4 | 16692.9 | 16713.6 | 17219.4 | 14128.9 | 11523.6 | 7367.5 |
| 77.5° | 4579.2 | 4782.8 | 5586.0 | 7424.7 | 13165.0 | 14496.3 | 14843.1 | 15396.6 | 11805.1 | 8515.8 | 4019.3 |
| 80° | 2578.3 | 2559.2 | 3578.8 | 5304.5 | 10041.2 | 11210.2 | 11646.0 | 11623.8 | 8290.0 | 4372.4 | 819.1 |
| 82.5° | 1191.3 | 1194.5 | 1830.7 | 3386.3 | 6798.0 | 7569.5 | 7746.0 | 6742.4 | 2909.1 | 741.2 | 260.9 |
| 85° | 593.3 | 599.6 | 881.2 | 1698.7 | 3838.0 | 4434.5 | 4215.0 | 2805.7 | 623.5 | 216.3 | 155.9 |
| 87.5° | 235.4 | 225.9 | 348.3 | 698.3 | 1385.4 | 1468.1 | 1282.0 | 561.5 | 112.9 | 76.3 | 52.5 |
| 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° | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 | 3752.1 |
| 2.5° | 3763.3 | 3766.4 | 3780.8 | 3752.1 | 3760.1 | 3753.7 | 3748.9 | 3774.4 | 3772.8 | 3777.6 | 3769.6 |
| 5° | 3774.4 | 3782.3 | 3796.7 | 3783.9 | 3796.7 | 3790.3 | 3795.1 | 3830.1 | 3834.8 | 3833.2 | 3833.2 |
| 7.5° | 3804.6 | 3812.6 | 3839.6 | 3823.7 | 3852.3 | 3844.4 | 3846.0 | 3879.4 | 3885.7 | 3876.2 | 3873.0 |
| 10° | 3868.2 | 3874.6 | 3912.8 | 3909.6 | 3920.7 | 3914.4 | 3908.0 | 3922.3 | 3919.1 | 3904.8 | 3898.5 |
| 12.5° | 3941.4 | 3958.9 | 4001.8 | 4003.4 | 4017.7 | 3985.9 | 3952.5 | 3947.8 | 3938.2 | 3915.9 | 3911.2 |
| 15° | 4051.1 | 4071.8 | 4137.0 | 4121.1 | 4111.6 | 4043.2 | 3987.5 | 3943.0 | 3904.8 | 3885.7 | 3868.2 |
| 17.5° | 4208.6 | 4243.6 | 4334.3 | 4285.0 | 4215.0 | 4114.8 | 4017.7 | 3920.7 | 3839.6 | 3771.2 | 3744.2 |
| 20° | 4409.0 | 4448.8 | 4525.1 | 4459.9 | 4353.4 | 4203.8 | 4046.4 | 3871.4 | 3694.9 | 3543.8 | 3521.5 |
| 22.5° | 4647.6 | 4711.2 | 4766.9 | 4617.4 | 4459.9 | 4270.6 | 4046.4 | 3795.1 | 3502.4 | 3276.5 | 3220.9 |
| 25° | 4926.0 | 4975.3 | 4957.8 | 4747.8 | 4520.4 | 4281.8 | 4001.8 | 3659.9 | 3246.3 | 2983.9 | 2939.3 |
| 27.5° | 5228.2 | 5250.4 | 5115.2 | 4809.8 | 4526.7 | 4216.6 | 3876.2 | 3419.7 | 2947.3 | 2740.5 | 2697.6 |
| 30° | 5600.3 | 5533.5 | 5275.9 | 4848.0 | 4463.1 | 4071.8 | 3651.9 | 3068.2 | 2703.9 | 2522.6 | 2473.3 |
| 32.5° | 6001.2 | 5878.7 | 5390.4 | 4821.0 | 4323.1 | 3830.1 | 3305.2 | 2820.1 | 2541.7 | 2320.6 | 2279.3 |
| 35° | 6764.6 | 6416.3 | 5557.4 | 4739.9 | 4079.8 | 3507.2 | 2969.6 | 2629.2 | 2369.9 | 2132.9 | 2094.8 |
| 37.5° | 7795.3 | 7189.3 | 5791.2 | 4626.9 | 3791.9 | 3193.8 | 2719.9 | 2425.6 | 2201.3 | 1956.4 | 1895.9 |
| 40° | 8597.0 | 7970.3 | 6166.6 | 4506.0 | 3526.3 | 2896.4 | 2538.5 | 2319.0 | 2090.0 | 1829.1 | 1776.7 |
| 42.5° | 9360.4 | 8684.4 | 6627.8 | 4370.8 | 3252.7 | 2689.6 | 2459.0 | 2295.2 | 2059.8 | 1794.1 | 1744.8 |
| 45° | 10034.8 | 9261.8 | 7025.5 | 4235.7 | 2944.1 | 2498.8 | 2400.1 | 2249.0 | 2016.8 | 1749.6 | 1701.9 |
| 47.5° | 10580.4 | 9758.1 | 7370.6 | 4089.3 | 2664.2 | 2354.0 | 2323.8 | 2164.7 | 1934.1 | 1658.9 | 1601.7 |
| 50° | 11073.4 | 10178.0 | 7609.2 | 3933.4 | 2390.6 | 2236.3 | 2198.1 | 2010.5 | 1770.3 | 1526.9 | 1490.4 |
| 52.5° | 11377.2 | 10462.7 | 7752.4 | 3958.9 | 2131.3 | 2104.3 | 2042.3 | 1849.8 | 1627.1 | 1418.8 | 1371.1 |
| 55° | 11695.4 | 10731.5 | 7750.8 | 3815.7 | 1915.0 | 1905.5 | 1846.6 | 1698.7 | 1523.8 | 1348.8 | 1320.2 |
| 57.5° | 11825.8 | 10755.3 | 7606.0 | 3142.9 | 1724.2 | 1663.7 | 1651.0 | 1573.1 | 1420.4 | 1254.9 | 1223.1 |
| 60° | 11913.3 | 10650.4 | 7332.5 | 2145.7 | 1484.0 | 1441.0 | 1503.1 | 1450.6 | 1312.2 | 1138.8 | 1107.0 |
| 62.5° | 11827.4 | 10535.8 | 6615.1 | 1549.2 | 1301.1 | 1324.9 | 1383.8 | 1326.5 | 1181.8 | 1024.3 | 997.3 |
| 65° | 11622.2 | 10098.4 | 5223.4 | 1207.2 | 1220.0 | 1272.4 | 1318.6 | 1223.1 | 957.5 | 801.6 | 785.7 |
| 67.5° | 11062.3 | 9266.6 | 3360.8 | 1107.0 | 1173.8 | 1227.9 | 1243.8 | 1035.5 | 866.9 | 717.3 | 699.8 |
| 70° | 9883.7 | 7439.0 | 1294.7 | 1043.4 | 1127.7 | 1151.6 | 1086.3 | 949.6 | 796.9 | 668.0 | 652.1 |
| 72.5° | 7731.7 | 4884.6 | 747.6 | 954.3 | 1029.1 | 1006.8 | 1008.4 | 852.5 | 718.9 | 596.5 | 583.7 |
| 75° | 4805.1 | 1768.7 | 664.9 | 849.4 | 871.6 | 913.0 | 860.5 | 739.6 | 618.7 | 545.6 | 529.7 |
| 77.5° | 1589.0 | 502.6 | 615.5 | 731.7 | 781.0 | 750.7 | 720.5 | 631.5 | 529.7 | 472.4 | 464.4 |
| 80° | 384.9 | 377.0 | 551.9 | 572.6 | 612.4 | 561.5 | 558.3 | 524.9 | 446.9 | 413.5 | 405.6 |
| 82.5° | 237.0 | 270.4 | 439.0 | 356.3 | 408.8 | 413.5 | 470.8 | 432.6 | 326.1 | 338.8 | 327.7 |
| 85° | 146.3 | 208.4 | 230.6 | 171.8 | 173.4 | 232.2 | 281.5 | 260.9 | 195.6 | 184.5 | 182.9 |
| 87.5° | 49.3 | 42.9 | 49.3 | 36.6 | 49.3 | 84.3 | 127.2 | 120.9 | 81.1 | 55.7 | 52.5 |
| 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)