

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: P510079

Luminaire Tested: **VERD-M-CA4-200-730-U-T3**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-4)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-200-730-U-T3
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 3000K, 910mA LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28308 lumens
Efficiency: N/A
Efficacy: 140.3 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B3 - U0 - G4

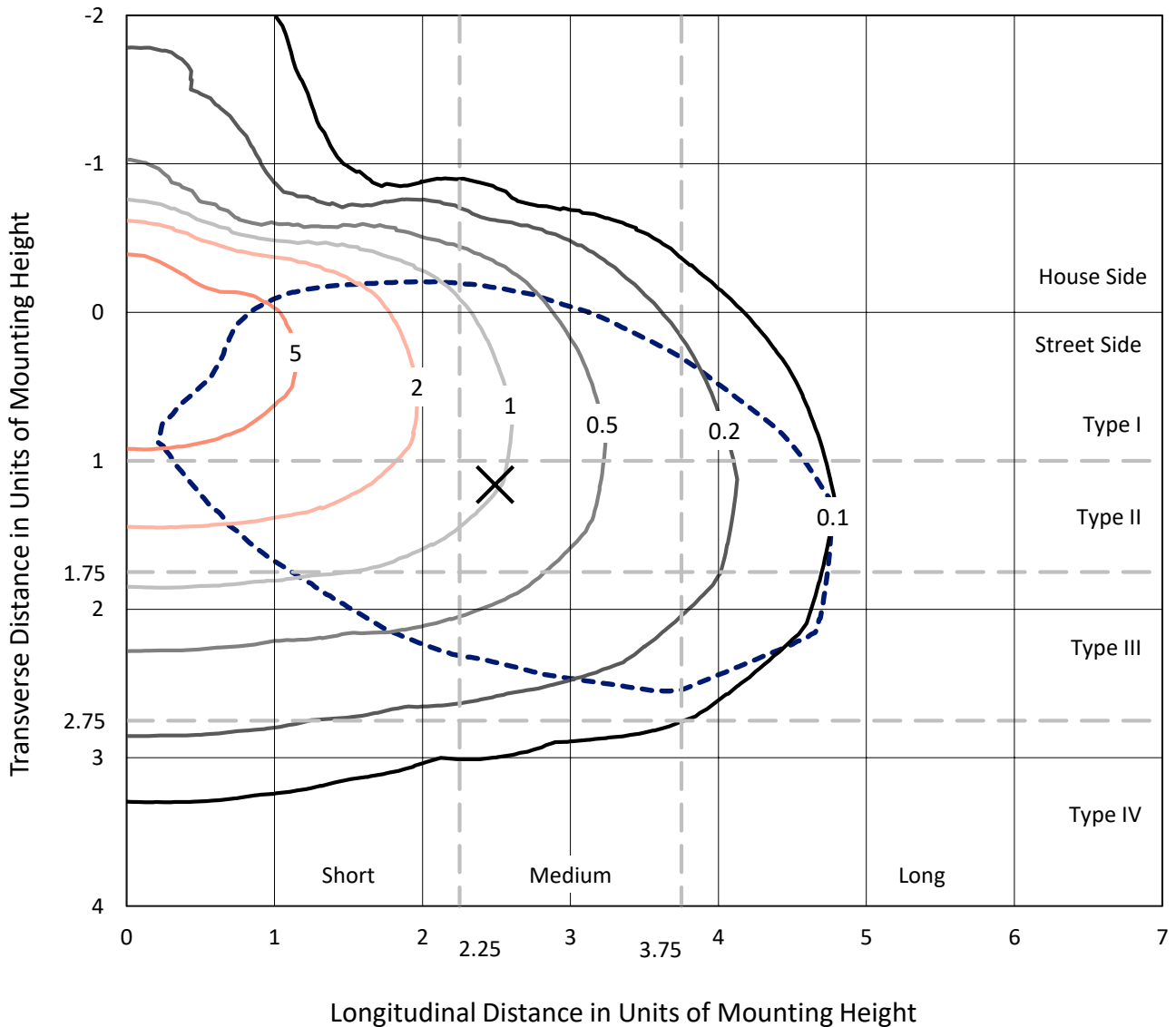
Input Watts (W): 201.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

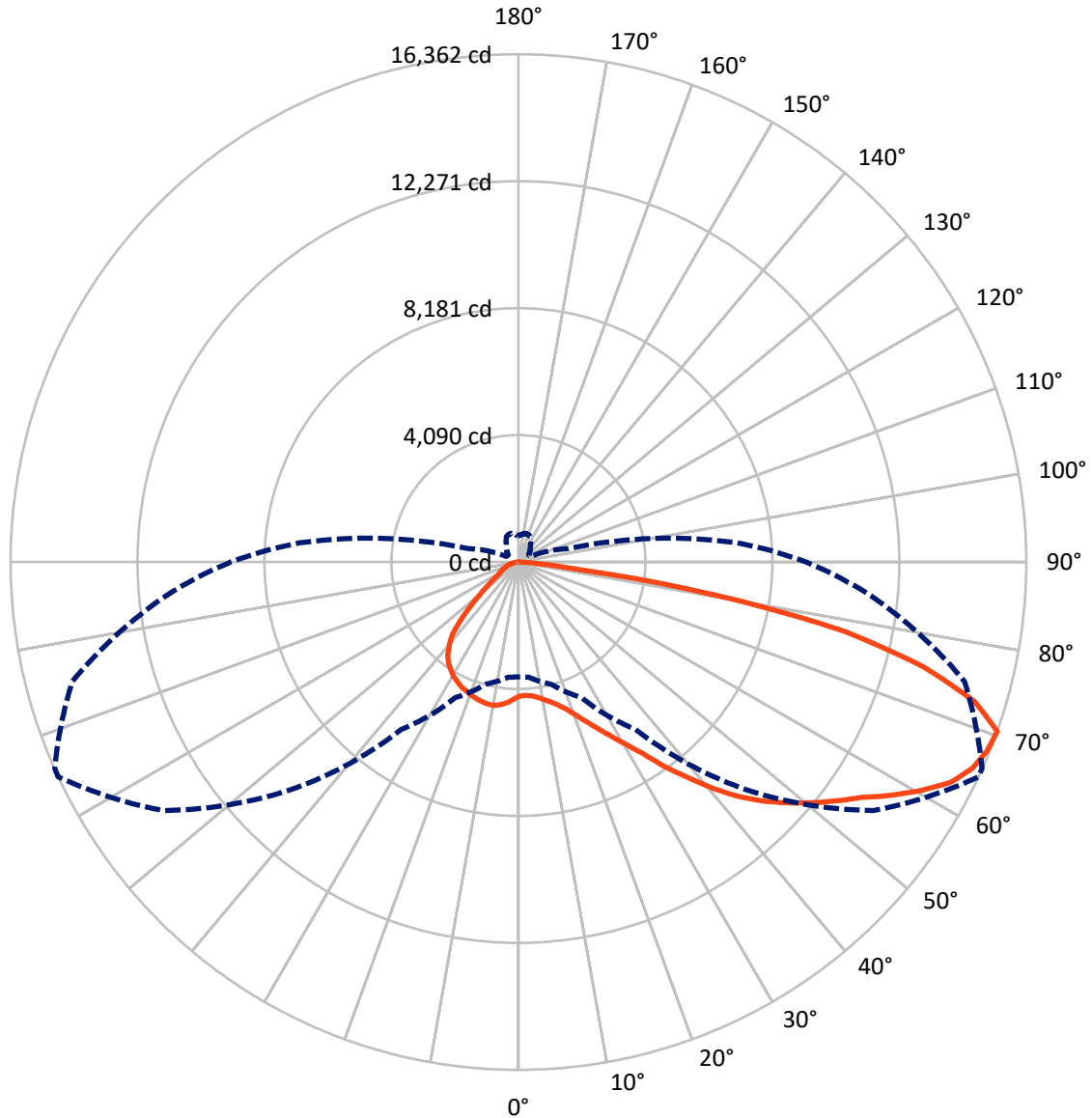
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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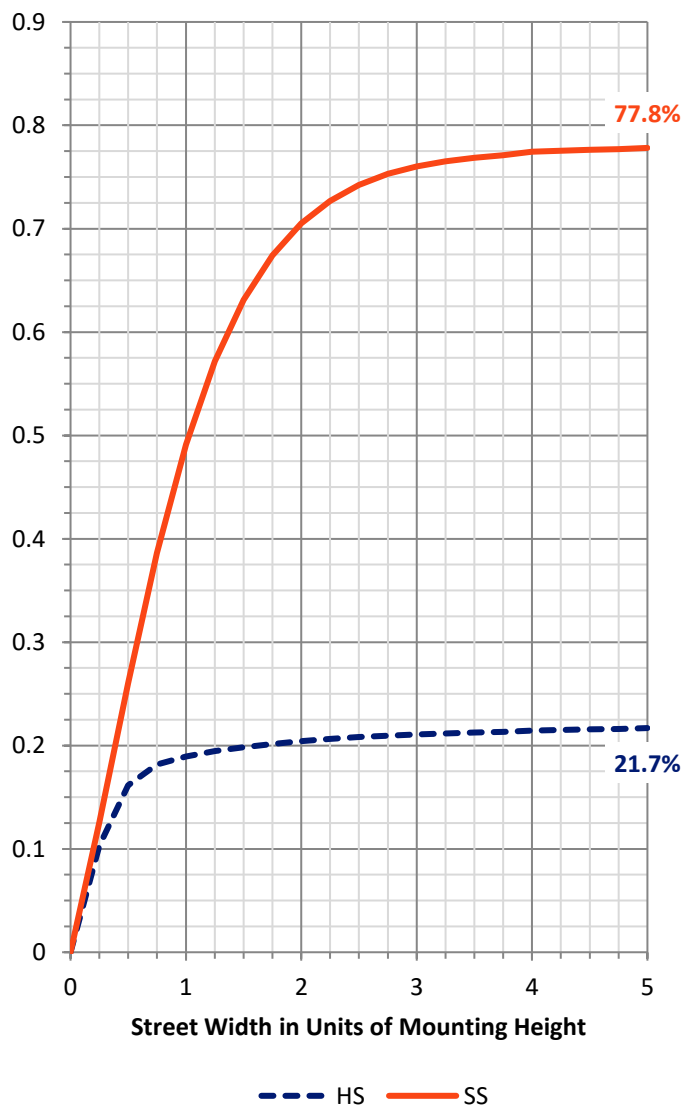
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 6244.5 | 0.0 | 6244.5 |
| | % Fixture | 22.1 | 0.0 | 22.1 |
| Street Side | Lumens | 22063.5 | 0.0 | 22063.5 |
| | % Fixture | 77.9 | 0.0 | 77.9 |
| Total | Lumens | 28308.0 | 0.0 | 28308.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 433.5 | 1.5 |
| 10°-20° | 1370.3 | 4.8 |
| 20°-30° | 2377.1 | 8.4 |
| 30°-40° | 3456.3 | 12.2 |
| 40°-50° | 4617.7 | 16.3 |
| 50°-60° | 5624.7 | 19.9 |
| 60°-70° | 6063.6 | 21.4 |
| 70°-80° | 3931.2 | 13.9 |
| 80°-90° | 433.6 | 1.5 |
| 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° | 28308.0 | 100.0 |
| 0°-180° | 28308.0 | 100.0 |

Coefficient of Utilization



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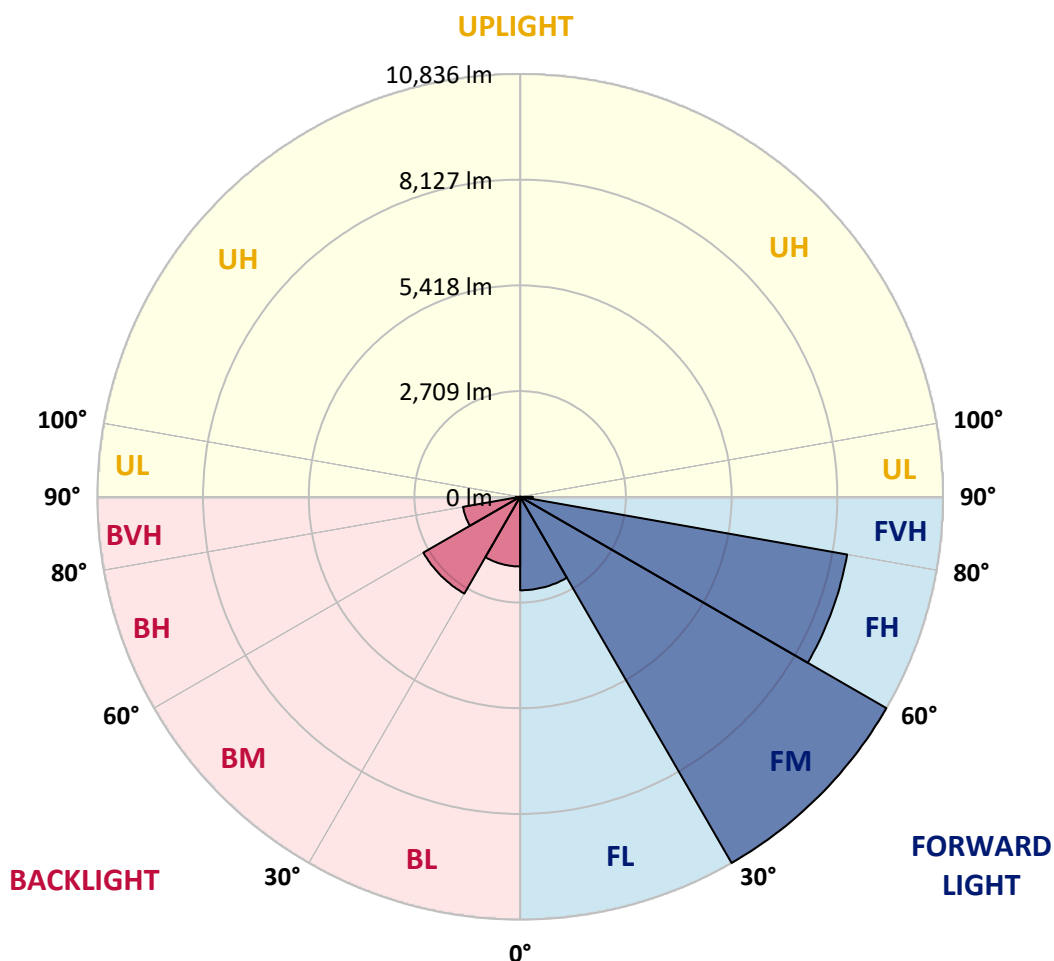
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 2395.7 | 8.5 | | | |
| FM | (30°-60°) | 10835.8 | 38.3 | | | |
| FH | (60°-80°) | 8508.7 | 30.1 | | | G4/12000 |
| FVH | (80°-90°) | 323.4 | 1.1 | | | G3/500 |
| BL | (0°-30°) | 1785.3 | 6.3 | B3/2500 | | |
| BM | (30°-60°) | 2862.9 | 10.1 | B3/5000 | | |
| BH | (60°-80°) | 1486.1 | 5.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 110.2 | 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-G4

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 66° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| 0° | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 |
| 2.5° | 4258.0 | 4296.3 | 4275.9 | 4277.1 | 4306.5 | 4282.3 | 4298.8 | 4298.8 | 4297.6 | 4306.5 | 4333.3 |
| 5° | 4362.7 | 4403.5 | 4379.3 | 4363.9 | 4370.3 | 4339.7 | 4333.3 | 4328.2 | 4324.4 | 4334.6 | 4379.3 |
| 7.5° | 4515.8 | 4563.1 | 4536.3 | 4522.2 | 4514.6 | 4444.4 | 4431.6 | 4397.1 | 4393.3 | 4402.2 | 4443.1 |
| 10° | 4718.8 | 4782.6 | 4750.7 | 4711.1 | 4684.3 | 4602.6 | 4537.5 | 4506.9 | 4498.0 | 4492.9 | 4535.0 |
| 12.5° | 5011.1 | 5067.2 | 5030.2 | 4956.2 | 4920.4 | 4789.0 | 4711.1 | 4624.3 | 4623.0 | 4605.2 | 4637.1 |
| 15° | 5288.0 | 5346.8 | 5299.5 | 5226.8 | 5179.6 | 5002.1 | 4887.3 | 4780.0 | 4767.3 | 4746.9 | 4757.1 |
| 17.5° | 5556.1 | 5627.6 | 5594.4 | 5528.0 | 5470.6 | 5272.7 | 5122.1 | 4984.3 | 4970.2 | 4938.3 | 4891.1 |
| 20° | 5889.2 | 5954.3 | 5945.4 | 5885.4 | 5821.6 | 5596.9 | 5432.3 | 5254.9 | 5239.5 | 5182.1 | 5076.2 |
| 22.5° | 6222.4 | 6302.8 | 6253.0 | 6242.8 | 6207.0 | 5983.7 | 5753.9 | 5574.0 | 5558.6 | 5483.3 | 5289.3 |
| 25° | 6536.3 | 6607.8 | 6625.7 | 6609.1 | 6612.9 | 6392.1 | 6163.6 | 5937.7 | 5922.4 | 5820.3 | 5539.5 |
| 27.5° | 6907.8 | 6975.4 | 6980.5 | 6984.4 | 7029.0 | 6845.2 | 6577.2 | 6344.9 | 6334.7 | 6219.8 | 5863.7 |
| 30° | 7192.4 | 7304.7 | 7327.7 | 7349.4 | 7372.4 | 7274.1 | 7030.3 | 6813.3 | 6792.9 | 6667.8 | 6228.7 |
| 32.5° | 7452.8 | 7537.0 | 7618.7 | 7663.4 | 7766.8 | 7678.7 | 7478.3 | 7344.3 | 7345.6 | 7286.9 | 6810.8 |
| 35° | 7654.5 | 7747.6 | 7851.0 | 8014.4 | 8165.0 | 8128.0 | 8065.4 | 8073.1 | 8074.4 | 8099.9 | 7595.7 |
| 37.5° | 7847.2 | 7931.4 | 8061.6 | 8256.9 | 8522.4 | 8570.9 | 8613.0 | 8772.6 | 8828.7 | 8948.7 | 8320.7 |
| 40° | 7963.3 | 8052.7 | 8221.2 | 8491.8 | 8836.4 | 9011.2 | 9138.9 | 9548.6 | 9645.6 | 9646.9 | 8881.1 |
| 42.5° | 7793.6 | 7891.9 | 8193.1 | 8674.3 | 9119.7 | 9446.5 | 9782.2 | 10299.1 | 10369.3 | 10212.3 | 9359.7 |
| 45° | 7641.7 | 7732.3 | 8056.5 | 8702.4 | 9341.8 | 9911.1 | 10378.2 | 10976.9 | 11027.9 | 10711.4 | 9801.3 |
| 47.5° | 7494.9 | 7566.4 | 7941.6 | 8643.6 | 9569.0 | 10377.0 | 10886.2 | 11589.5 | 11626.5 | 11257.7 | 10232.7 |
| 50° | 7292.0 | 7377.5 | 7775.7 | 8574.7 | 9705.6 | 10776.5 | 11384.0 | 12194.5 | 12189.4 | 11749.1 | 10623.3 |
| 52.5° | 7069.9 | 7154.1 | 7581.7 | 8448.4 | 9794.9 | 11086.6 | 11950.7 | 12786.8 | 12790.6 | 12313.2 | 11010.1 |
| 55° | 6790.3 | 6893.7 | 7344.3 | 8277.3 | 9816.6 | 11330.4 | 12442.2 | 13394.3 | 13456.9 | 12888.9 | 11382.8 |
| 57.5° | 6455.9 | 6559.3 | 7052.0 | 8027.2 | 9687.7 | 11534.6 | 12966.7 | 14170.4 | 14203.6 | 13477.3 | 11661.0 |
| 60° | 6066.6 | 6191.7 | 6662.7 | 7692.7 | 9441.4 | 11772.1 | 13602.4 | 14931.1 | 14942.6 | 14003.2 | 11893.3 |
| 62.5° | 5616.1 | 5705.4 | 6200.7 | 7207.7 | 9048.3 | 11866.5 | 14128.3 | 15629.3 | 15631.8 | 14400.1 | 11998.0 |
| 65° | 5128.5 | 5163.0 | 5577.8 | 6547.8 | 8475.2 | 11712.1 | 14329.9 | 16054.3 | 16042.8 | 14748.6 | 11945.6 |
| 67.5° | 4547.7 | 4531.1 | 4974.1 | 5732.2 | 7750.2 | 11197.7 | 14231.6 | 16272.6 | 16307.0 | 15016.6 | 11777.2 |
| 70° | 3697.7 | 3721.9 | 4074.2 | 4819.6 | 6579.7 | 10371.9 | 13961.0 | 16361.9 | 16353.0 | 14882.6 | 11234.7 |
| 72.5° | 2806.8 | 2850.2 | 3105.4 | 3664.5 | 5106.8 | 8722.8 | 12802.1 | 15374.0 | 15391.9 | 13938.1 | 10258.3 |
| 75° | 1735.9 | 1861.0 | 2076.7 | 2417.5 | 3199.9 | 6249.2 | 10896.5 | 13467.1 | 13557.7 | 12297.9 | 8447.1 |
| 77.5° | 760.7 | 790.1 | 898.6 | 1165.3 | 1673.3 | 3137.3 | 8055.2 | 10754.8 | 11022.8 | 9945.6 | 6093.4 |
| 80° | 471.0 | 471.0 | 501.6 | 584.6 | 746.7 | 1166.6 | 3228.0 | 6421.5 | 6149.6 | 5688.8 | 2688.1 |
| 82.5° | 391.8 | 391.8 | 407.2 | 421.2 | 382.9 | 494.0 | 1079.8 | 1799.7 | 1928.6 | 1561.0 | 825.8 |
| 85° | 213.2 | 218.3 | 219.5 | 223.4 | 219.5 | 266.8 | 425.0 | 532.3 | 538.6 | 487.6 | 293.6 |
| 87.5° | 77.9 | 83.0 | 80.4 | 75.3 | 67.6 | 63.8 | 81.7 | 83.0 | 85.5 | 79.1 | 43.4 |
| 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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CATALOG NUMBER: VERD-M-CA4-200-730-U-T3

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 | 4321.8 |
| 2.5° | 4351.2 | 4369.0 | 4416.3 | 4420.1 | 4438.0 | 4444.4 | 4459.7 | 4481.4 | 4519.7 | 4500.5 | 4478.8 |
| 5° | 4401.0 | 4423.9 | 4499.2 | 4537.5 | 4587.3 | 4616.7 | 4665.2 | 4689.4 | 4748.1 | 4729.0 | 4726.4 |
| 7.5° | 4476.3 | 4524.8 | 4592.4 | 4629.4 | 4694.5 | 4713.7 | 4749.4 | 4749.4 | 4797.9 | 4773.7 | 4767.3 |
| 10° | 4578.4 | 4610.3 | 4681.8 | 4684.3 | 4721.3 | 4721.3 | 4763.5 | 4736.6 | 4783.9 | 4755.8 | 4754.5 |
| 12.5° | 4660.1 | 4677.9 | 4704.7 | 4683.0 | 4702.2 | 4680.5 | 4702.2 | 4670.3 | 4699.6 | 4663.9 | 4656.2 |
| 15° | 4752.0 | 4727.7 | 4700.9 | 4649.9 | 4633.3 | 4598.8 | 4580.9 | 4547.7 | 4550.3 | 4509.5 | 4503.1 |
| 17.5° | 4855.4 | 4792.8 | 4714.9 | 4603.9 | 4542.6 | 4454.6 | 4417.6 | 4370.3 | 4343.5 | 4306.5 | 4323.1 |
| 20° | 4980.4 | 4887.3 | 4725.2 | 4552.8 | 4422.7 | 4288.6 | 4201.8 | 4125.3 | 4118.9 | 4085.7 | 4067.8 |
| 22.5° | 5142.5 | 4993.2 | 4769.8 | 4480.1 | 4270.8 | 4079.3 | 3950.4 | 3822.8 | 3810.0 | 3742.3 | 3716.8 |
| 25° | 5342.9 | 5133.6 | 4792.8 | 4423.9 | 4093.4 | 3830.4 | 3627.5 | 3450.1 | 3364.5 | 3293.1 | 3276.5 |
| 27.5° | 5612.2 | 5340.4 | 4838.8 | 4323.1 | 3884.0 | 3521.5 | 3230.5 | 2995.7 | 2893.6 | 2857.8 | 2820.8 |
| 30° | 5927.5 | 5593.1 | 4924.3 | 4238.9 | 3636.4 | 3127.1 | 2772.3 | 2492.8 | 2381.7 | 2325.6 | 2307.7 |
| 32.5° | 6392.1 | 5912.2 | 5003.4 | 4099.7 | 3336.5 | 2693.2 | 2231.1 | 1922.2 | 1854.6 | 1844.4 | 1868.6 |
| 35° | 7068.6 | 6512.1 | 5118.3 | 3970.8 | 2984.2 | 2210.7 | 1700.1 | 1498.5 | 1484.4 | 1487.0 | 1487.0 |
| 37.5° | 7773.2 | 7083.9 | 5459.1 | 3780.6 | 2552.8 | 1664.4 | 1294.2 | 1184.5 | 1189.6 | 1189.6 | 1188.3 |
| 40° | 8232.7 | 7543.4 | 5706.7 | 3511.3 | 2016.7 | 1193.4 | 959.8 | 876.9 | 912.6 | 961.1 | 986.6 |
| 42.5° | 8739.4 | 7960.8 | 5877.7 | 3201.2 | 1402.7 | 843.7 | 698.2 | 727.5 | 832.2 | 906.2 | 916.4 |
| 45° | 9170.8 | 8315.6 | 5896.9 | 2718.7 | 903.7 | 640.7 | 636.9 | 721.2 | 842.4 | 922.8 | 929.2 |
| 47.5° | 9540.9 | 8638.5 | 5776.9 | 2167.3 | 658.6 | 598.6 | 636.9 | 742.9 | 852.6 | 902.4 | 907.5 |
| 50° | 9899.6 | 8895.1 | 5494.8 | 1665.7 | 599.9 | 583.3 | 644.6 | 746.7 | 815.6 | 850.1 | 845.0 |
| 52.5° | 10218.7 | 9128.7 | 5086.4 | 1299.4 | 576.9 | 573.1 | 651.0 | 742.9 | 786.3 | 783.7 | 779.9 |
| 55° | 10461.2 | 9197.6 | 4767.3 | 1013.4 | 557.8 | 566.7 | 654.8 | 746.7 | 778.6 | 755.6 | 750.5 |
| 57.5° | 10586.3 | 9112.1 | 4499.2 | 805.4 | 537.4 | 560.3 | 665.0 | 745.4 | 801.6 | 845.0 | 842.4 |
| 60° | 10583.7 | 9015.1 | 4168.7 | 694.4 | 516.9 | 555.2 | 681.6 | 809.2 | 1012.2 | 1053.0 | 1054.3 |
| 62.5° | 10542.9 | 8849.1 | 3715.5 | 628.0 | 494.0 | 557.8 | 693.1 | 919.0 | 1152.6 | 1119.4 | 1092.6 |
| 65° | 10407.6 | 8537.7 | 3108.0 | 556.5 | 464.6 | 560.3 | 688.0 | 994.3 | 1056.8 | 938.1 | 921.5 |
| 67.5° | 10031.1 | 7935.3 | 2440.4 | 497.8 | 437.8 | 546.3 | 696.9 | 924.1 | 971.3 | 896.0 | 871.8 |
| 70° | 9266.5 | 7086.5 | 1654.2 | 428.9 | 407.2 | 525.9 | 676.5 | 908.8 | 958.6 | 882.0 | 846.2 |
| 72.5° | 8055.2 | 5687.6 | 967.5 | 368.9 | 362.5 | 483.7 | 666.3 | 919.0 | 973.9 | 888.4 | 842.4 |
| 75° | 6269.6 | 3987.4 | 559.1 | 298.7 | 302.5 | 446.7 | 611.4 | 866.7 | 964.9 | 898.6 | 838.6 |
| 77.5° | 4047.4 | 1936.3 | 394.4 | 238.7 | 236.1 | 352.3 | 496.5 | 758.2 | 929.2 | 907.5 | 857.7 |
| 80° | 1448.7 | 707.1 | 277.0 | 177.4 | 172.3 | 238.7 | 381.6 | 610.1 | 786.3 | 814.3 | 814.3 |
| 82.5° | 520.8 | 354.8 | 177.4 | 108.5 | 107.2 | 151.9 | 284.6 | 463.3 | 570.5 | 643.3 | 661.2 |
| 85° | 218.3 | 154.4 | 86.8 | 54.9 | 44.7 | 58.7 | 146.8 | 287.2 | 386.7 | 416.1 | 453.1 |
| 87.5° | 31.9 | 28.1 | 23.0 | 17.9 | 15.3 | 15.3 | 19.1 | 83.0 | 137.8 | 197.8 | 245.1 |
| 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)