

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: P509965

Luminaire Tested: **VERD-M-CA3-180-722-U-T2**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P509965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-2)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA3-180-722-U-T2
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2200K, 1120mA LEDS AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20795 lumens
Efficiency: N/A
Efficacy: 113.6 lumens/watt
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

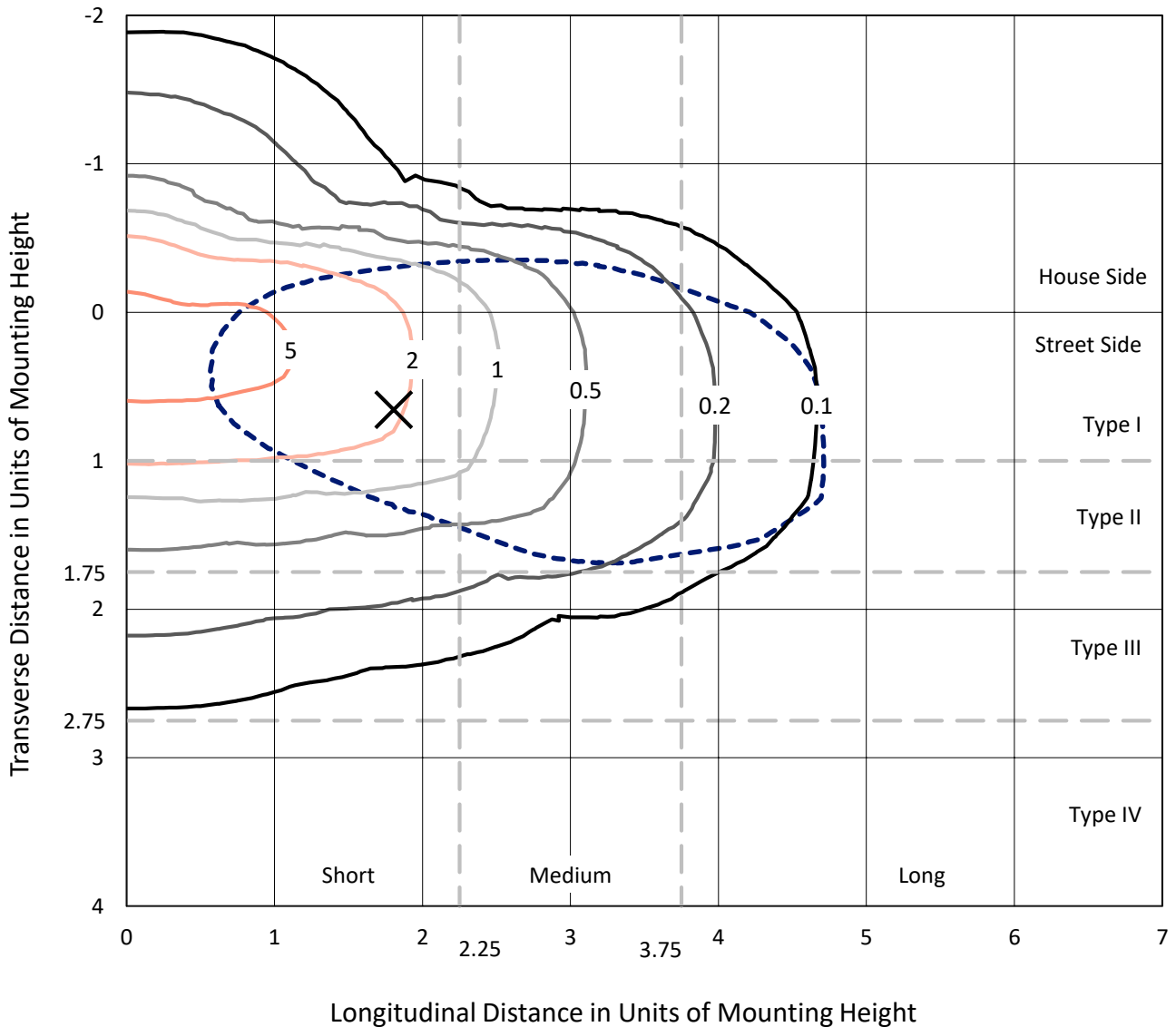
Input Watts (W): 183.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

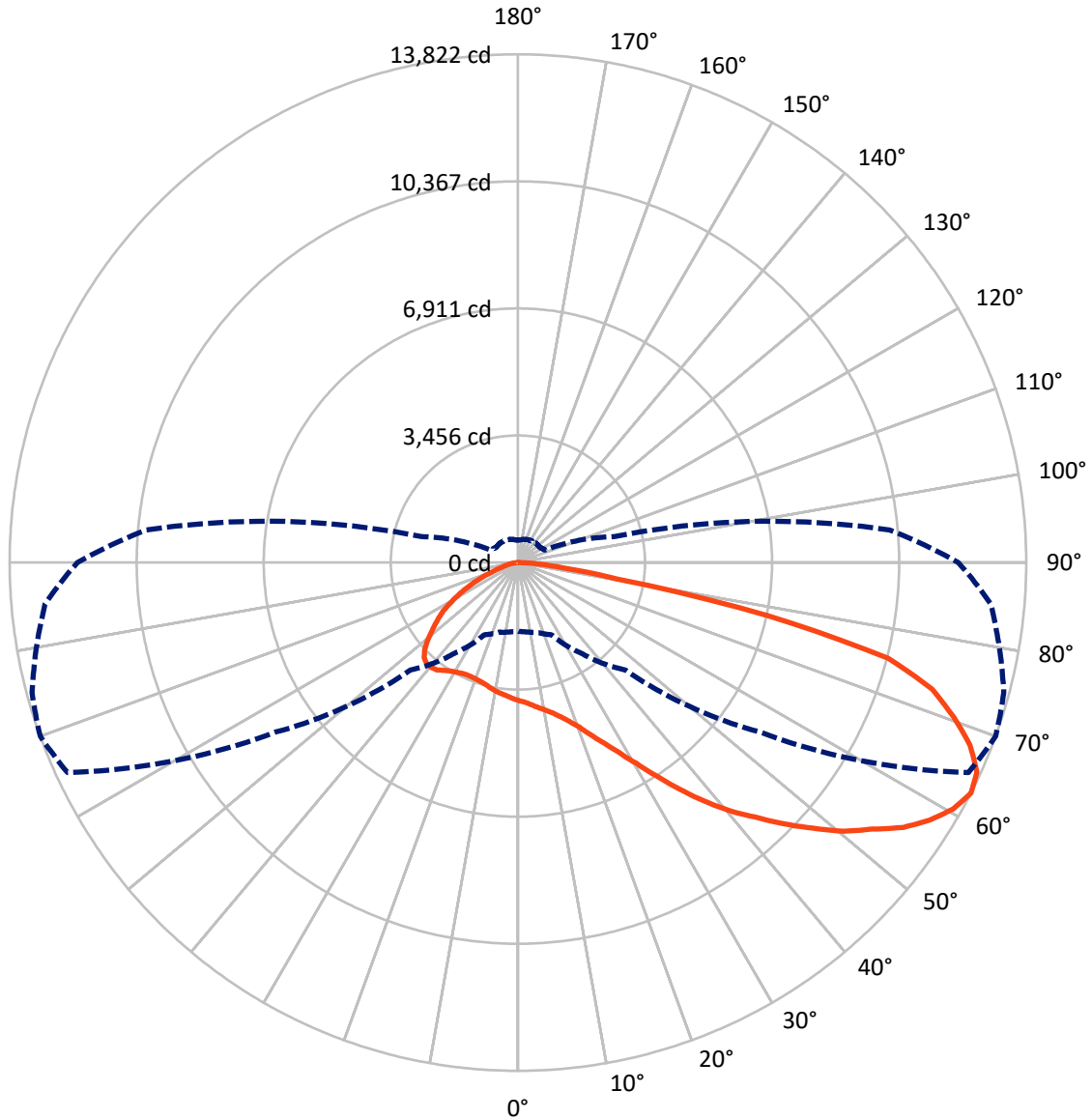
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 70-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5383.9 | 0.0 | 5383.9 |
| | % Fixture | 25.9 | 0.0 | 25.9 |
| Street Side | Lumens | 15411.1 | 0.0 | 15411.1 |
| | % Fixture | 74.1 | 0.0 | 74.1 |
| Total | Lumens | 20795.0 | 0.0 | 20795.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 360.5 | 1.7 |
| 10°-20° | 1094.8 | 5.3 |
| 20°-30° | 1858.0 | 8.9 |
| 30°-40° | 2688.4 | 12.9 |
| 40°-50° | 3527.9 | 17.0 |
| 50°-60° | 4122.2 | 19.8 |
| 60°-70° | 4136.8 | 19.9 |
| 70°-80° | 2636.0 | 12.7 |
| 80°-90° | 370.5 | 1.8 |
| 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° | 20795.0 | 100.0 |
| 0°-180° | 20795.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P509965

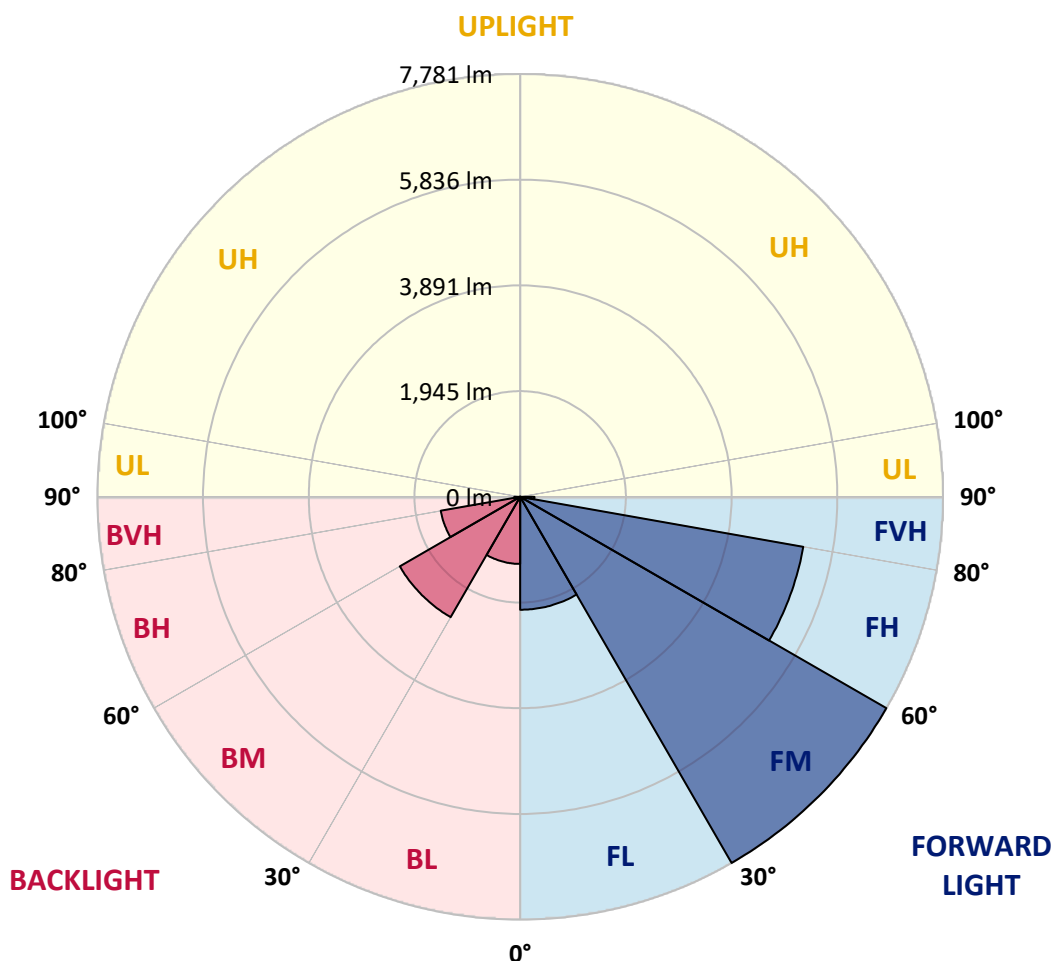
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 2078.5 | 10.0 | | | |
| FM (30°-60°) | 7781.3 | 37.4 | | | |
| FH (60°-80°) | 5290.0 | 25.4 | | | G3/7500 |
| FVH (80°-90°) | 261.3 | 1.3 | | | G3/500 |
| BL (0°-30°) | 1234.8 | 5.9 | B3/2500 | | |
| BM (30°-60°) | 2557.2 | 12.3 | B3/5000 | | |
| BH (60°-80°) | 1482.8 | 7.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 109.1 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 |
| 2.5° | 3897.0 | 3938.3 | 3932.7 | 3907.3 | 3925.2 | 3876.3 | 3858.5 | 3831.2 | 3803.0 | 3793.6 | 3777.6 |
| 5° | 4081.2 | 4135.7 | 4125.3 | 4091.5 | 4090.6 | 4021.0 | 3981.6 | 3929.9 | 3886.6 | 3852.8 | 3803.0 |
| 7.5° | 4253.1 | 4316.1 | 4306.7 | 4273.8 | 4271.9 | 4192.1 | 4110.3 | 4029.5 | 3979.7 | 3936.5 | 3845.3 |
| 10° | 4435.4 | 4483.4 | 4474.9 | 4432.6 | 4424.2 | 4346.2 | 4250.3 | 4148.8 | 4075.5 | 4015.4 | 3885.7 |
| 12.5° | 4603.6 | 4654.4 | 4658.2 | 4605.5 | 4592.4 | 4508.7 | 4425.1 | 4290.7 | 4195.8 | 4127.2 | 3936.5 |
| 15° | 4760.6 | 4820.7 | 4809.4 | 4756.8 | 4742.7 | 4658.2 | 4576.4 | 4452.4 | 4353.7 | 4257.8 | 4019.1 |
| 17.5° | 4886.5 | 4943.8 | 4929.7 | 4906.2 | 4898.7 | 4832.9 | 4765.3 | 4630.9 | 4543.5 | 4420.4 | 4146.9 |
| 20° | 4973.0 | 5026.5 | 5032.2 | 5025.6 | 5068.8 | 5006.8 | 4969.2 | 4874.3 | 4778.4 | 4667.6 | 4321.7 |
| 22.5° | 5006.8 | 5070.7 | 5125.2 | 5167.5 | 5256.7 | 5247.4 | 5240.8 | 5186.3 | 5092.3 | 4930.7 | 4552.9 |
| 25° | 5017.1 | 5081.0 | 5165.6 | 5269.9 | 5429.7 | 5487.0 | 5528.3 | 5541.5 | 5439.1 | 5311.3 | 4840.5 |
| 27.5° | 5019.0 | 5087.6 | 5174.1 | 5342.3 | 5585.6 | 5758.6 | 5857.2 | 5903.3 | 5845.9 | 5744.5 | 5231.4 |
| 30° | 4979.5 | 5050.0 | 5160.9 | 5385.5 | 5707.8 | 5991.6 | 6155.1 | 6359.0 | 6334.6 | 6249.1 | 5721.0 |
| 32.5° | 4865.8 | 4929.7 | 5082.9 | 5378.0 | 5829.0 | 6230.3 | 6485.0 | 6838.3 | 6921.0 | 6865.5 | 6285.7 |
| 35° | 4661.9 | 4739.9 | 4938.2 | 5316.0 | 5894.8 | 6462.4 | 6873.1 | 7422.8 | 7572.2 | 7576.0 | 6978.3 |
| 37.5° | 4456.1 | 4515.3 | 4748.4 | 5199.4 | 5931.5 | 6668.2 | 7241.4 | 8008.2 | 8225.3 | 8230.0 | 7554.3 |
| 40° | 4237.2 | 4291.7 | 4548.2 | 5043.4 | 5893.9 | 6829.8 | 7584.4 | 8571.1 | 8882.2 | 8853.0 | 8120.1 |
| 42.5° | 3953.4 | 4013.5 | 4268.2 | 4831.1 | 5799.9 | 6954.8 | 7933.1 | 9162.2 | 9461.0 | 9493.9 | 8710.2 |
| 45° | 3710.9 | 3758.8 | 3981.6 | 4499.3 | 5627.9 | 7022.5 | 8260.1 | 9792.7 | 10134.8 | 10100.0 | 9339.8 |
| 47.5° | 3412.1 | 3483.5 | 3721.3 | 4229.6 | 5318.8 | 7005.6 | 8573.0 | 10416.7 | 10797.3 | 10765.3 | 9885.8 |
| 50° | 2632.1 | 2714.8 | 3267.4 | 3946.8 | 4924.1 | 6873.1 | 8856.8 | 11013.4 | 11486.1 | 11402.5 | 10463.7 |
| 52.5° | 2390.6 | 2414.1 | 2634.0 | 3621.7 | 4535.1 | 6572.3 | 9065.4 | 11767.1 | 12047.1 | 12014.2 | 11049.1 |
| 55° | 2243.1 | 2288.2 | 2388.7 | 2983.6 | 4185.5 | 6083.7 | 9210.1 | 12396.7 | 12712.4 | 12558.3 | 11579.1 |
| 57.5° | 2113.4 | 2145.4 | 2264.7 | 2554.1 | 3783.3 | 5410.9 | 9167.8 | 12927.6 | 13209.5 | 12994.3 | 12096.9 |
| 60° | 1975.3 | 1995.9 | 2115.3 | 2331.4 | 3349.1 | 4667.6 | 8738.4 | 13475.5 | 13600.5 | 13403.1 | 12534.8 |
| 62.5° | 1868.1 | 1887.9 | 1959.3 | 2167.0 | 3010.8 | 4135.7 | 8035.5 | 13514.0 | 13822.2 | 13678.5 | 12906.9 |
| 65° | 1730.9 | 1744.1 | 1833.4 | 1996.9 | 2697.0 | 3819.0 | 7416.2 | 13152.2 | 13715.1 | 13679.4 | 13049.8 |
| 67.5° | 1579.7 | 1595.6 | 1680.2 | 1795.8 | 2295.7 | 3445.9 | 6380.6 | 12956.8 | 13262.2 | 13296.9 | 12782.0 |
| 70° | 1402.1 | 1413.3 | 1500.7 | 1584.4 | 1964.0 | 3024.9 | 5072.6 | 12207.8 | 12564.0 | 12563.0 | 11955.0 |
| 72.5° | 1210.3 | 1209.4 | 1295.9 | 1384.2 | 1645.4 | 2541.0 | 3971.2 | 10838.6 | 11781.2 | 11710.7 | 10778.5 |
| 75° | 998.0 | 1012.1 | 1095.7 | 1165.2 | 1369.2 | 2059.8 | 2765.6 | 7851.3 | 10400.7 | 10497.5 | 9302.2 |
| 77.5° | 638.1 | 647.5 | 694.4 | 765.9 | 957.6 | 1574.0 | 1804.2 | 4363.1 | 6944.5 | 8376.6 | 7322.2 |
| 80° | 466.1 | 470.8 | 512.1 | 553.5 | 637.1 | 958.5 | 917.2 | 1896.3 | 2752.4 | 4112.2 | 4491.8 |
| 82.5° | 317.6 | 318.6 | 351.5 | 360.8 | 365.5 | 432.3 | 435.1 | 922.8 | 1310.9 | 1543.9 | 1983.7 |
| 85° | 210.5 | 174.8 | 136.3 | 180.4 | 185.1 | 158.8 | 155.1 | 416.3 | 650.3 | 780.0 | 734.9 |
| 87.5° | 47.0 | 46.0 | 53.6 | 54.5 | 52.6 | 45.1 | 37.6 | 63.9 | 97.7 | 96.8 | 124.0 |
| 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-CA3-180-722-U-T2

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 | 3753.2 |
| 2.5° | 3762.6 | 3757.9 | 3731.6 | 3676.2 | 3638.6 | 3600.0 | 3578.4 | 3565.3 | 3570.0 | 3548.4 | 3539.0 |
| 5° | 3772.0 | 3748.5 | 3674.3 | 3608.5 | 3549.3 | 3482.6 | 3427.1 | 3419.6 | 3430.9 | 3411.2 | 3399.9 |
| 7.5° | 3796.4 | 3746.6 | 3651.7 | 3539.0 | 3440.3 | 3377.3 | 3297.5 | 3257.0 | 3254.2 | 3234.5 | 3238.2 |
| 10° | 3810.5 | 3745.7 | 3618.8 | 3482.6 | 3367.0 | 3255.2 | 3169.6 | 3124.5 | 3121.7 | 3093.5 | 3087.0 |
| 12.5° | 3849.1 | 3756.0 | 3580.3 | 3414.0 | 3285.2 | 3135.8 | 3045.6 | 3004.3 | 2999.6 | 2960.1 | 2945.1 |
| 15° | 3908.3 | 3779.5 | 3539.9 | 3334.1 | 3167.8 | 3027.8 | 2919.7 | 2864.2 | 2855.8 | 2809.7 | 2793.8 |
| 17.5° | 4002.2 | 3846.2 | 3527.7 | 3261.7 | 3065.3 | 2912.2 | 2785.3 | 2725.2 | 2676.3 | 2650.9 | 2629.3 |
| 20° | 4129.1 | 3928.9 | 3541.8 | 3194.1 | 2936.6 | 2759.9 | 2602.1 | 2523.1 | 2489.3 | 2448.0 | 2450.8 |
| 22.5° | 4309.5 | 4058.6 | 3566.2 | 3141.5 | 2820.1 | 2597.4 | 2419.8 | 2331.4 | 2270.3 | 2235.6 | 2237.5 |
| 25° | 4563.2 | 4254.1 | 3614.1 | 3091.7 | 2693.2 | 2419.8 | 2210.2 | 2087.1 | 2025.1 | 2002.5 | 1979.0 |
| 27.5° | 4883.7 | 4488.1 | 3727.8 | 3030.6 | 2542.9 | 2218.7 | 1986.6 | 1842.8 | 1779.8 | 1746.0 | 1741.3 |
| 30° | 5295.3 | 4795.4 | 3861.3 | 2985.5 | 2385.0 | 1967.8 | 1709.3 | 1595.6 | 1540.2 | 1492.3 | 1469.7 |
| 32.5° | 5797.1 | 5229.5 | 4009.8 | 2940.4 | 2189.5 | 1686.8 | 1452.8 | 1365.4 | 1277.1 | 1216.0 | 1218.8 |
| 35° | 6379.7 | 5702.2 | 4230.6 | 2883.0 | 1960.2 | 1424.6 | 1263.0 | 1150.2 | 1067.5 | 1027.1 | 1008.3 |
| 37.5° | 6929.4 | 6187.1 | 4489.9 | 2824.8 | 1703.7 | 1254.5 | 1076.0 | 971.7 | 907.8 | 876.8 | 883.3 |
| 40° | 7485.7 | 6687.0 | 4713.6 | 2681.9 | 1416.1 | 1100.4 | 890.8 | 831.6 | 806.3 | 781.8 | 784.7 |
| 42.5° | 7983.8 | 7085.4 | 4877.1 | 2523.1 | 1215.0 | 923.7 | 759.3 | 772.4 | 787.5 | 773.4 | 769.6 |
| 45° | 8502.5 | 7551.5 | 5020.9 | 2252.5 | 1046.8 | 784.7 | 726.4 | 763.0 | 795.9 | 794.1 | 789.4 |
| 47.5° | 9023.1 | 7983.8 | 5035.0 | 1893.5 | 893.7 | 737.7 | 725.5 | 752.7 | 795.9 | 803.5 | 797.8 |
| 50° | 9559.7 | 8436.7 | 4952.3 | 1470.6 | 828.8 | 743.3 | 726.4 | 731.1 | 779.0 | 787.5 | 784.7 |
| 52.5° | 10154.5 | 8926.3 | 4748.4 | 1118.3 | 803.5 | 752.7 | 729.2 | 722.6 | 749.9 | 764.9 | 767.7 |
| 55° | 10701.4 | 9315.4 | 4365.9 | 987.6 | 784.7 | 753.6 | 749.9 | 728.3 | 729.2 | 721.7 | 740.5 |
| 57.5° | 11161.0 | 9686.6 | 3931.8 | 916.2 | 767.7 | 745.2 | 759.3 | 718.9 | 707.6 | 676.6 | 669.1 |
| 60° | 11636.5 | 9988.2 | 3320.9 | 867.4 | 748.0 | 734.9 | 735.8 | 702.9 | 674.7 | 629.6 | 616.5 |
| 62.5° | 11973.8 | 10148.0 | 2728.0 | 810.0 | 720.8 | 718.9 | 704.8 | 680.4 | 655.0 | 615.5 | 609.9 |
| 65° | 12071.5 | 10063.4 | 2095.6 | 749.9 | 685.1 | 692.6 | 667.2 | 633.4 | 528.1 | 479.3 | 479.3 |
| 67.5° | 11748.3 | 9542.8 | 1551.5 | 680.4 | 641.8 | 656.9 | 607.1 | 499.0 | 444.5 | 415.4 | 420.1 |
| 70° | 10862.1 | 8701.7 | 1010.2 | 578.9 | 579.8 | 592.0 | 500.9 | 449.2 | 397.5 | 379.6 | 389.0 |
| 72.5° | 9678.1 | 7454.7 | 666.3 | 461.4 | 488.7 | 468.0 | 457.6 | 413.5 | 367.4 | 346.8 | 353.3 |
| 75° | 7975.3 | 5886.4 | 462.3 | 362.7 | 316.7 | 399.4 | 406.9 | 347.7 | 312.0 | 378.7 | 393.7 |
| 77.5° | 6300.8 | 4091.5 | 381.5 | 253.7 | 234.0 | 295.1 | 326.1 | 322.3 | 515.9 | 606.1 | 599.5 |
| 80° | 3746.6 | 2355.9 | 311.0 | 175.7 | 165.4 | 189.8 | 256.5 | 370.2 | 577.9 | 434.1 | 413.5 |
| 82.5° | 1699.0 | 1071.3 | 165.4 | 92.1 | 108.1 | 125.9 | 191.7 | 460.5 | 378.7 | 278.2 | 262.2 |
| 85° | 663.4 | 349.6 | 65.8 | 40.4 | 37.6 | 47.0 | 87.4 | 221.8 | 152.2 | 123.1 | 123.1 |
| 87.5° | 85.5 | 63.0 | 18.8 | 14.1 | 12.2 | 15.0 | 28.2 | 123.1 | 71.4 | 60.1 | 58.3 |
| 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)