

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: P510212

Luminaire Tested: **VERD-M-CA4-230-727-U-T2-HSS**

Issue Date: 4/6/2021

Test Information

Test Method: LM-79-08
Report Number: P510212
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-181-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/6/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VERD-M-CA4-230-727-U-T2-HSS
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE
(4) 70 CRI, 2700K, 1050mA LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25109 lumens
Efficiency: N/A
Efficacy: 107.6 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

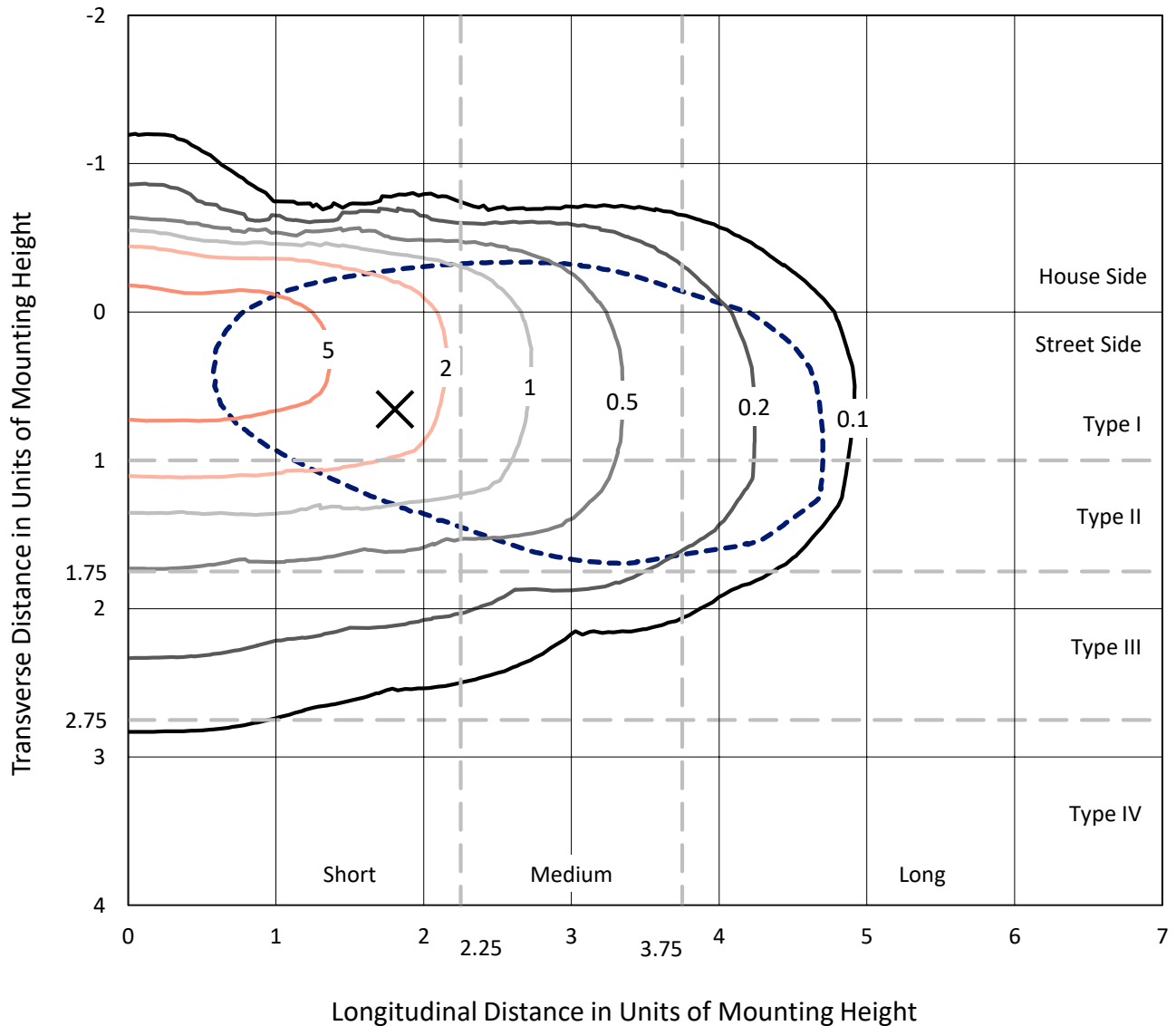
Input Watts (W): 233.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P510212
 CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

Iso-Footcandle Lines of Horizontal Illumination

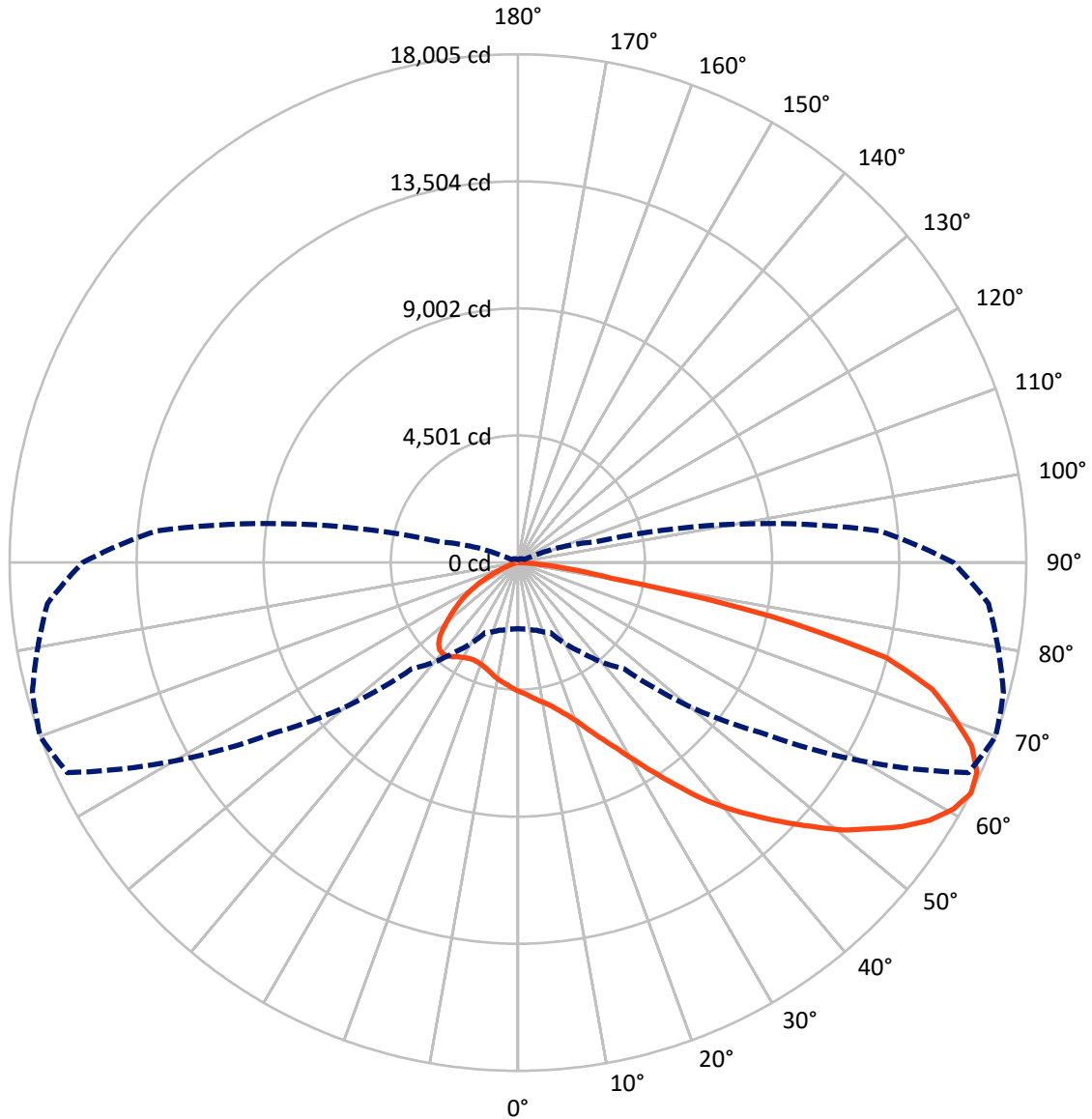
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type II - Short - N/A

REPORT NUMBER: P510212
CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P510212

CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

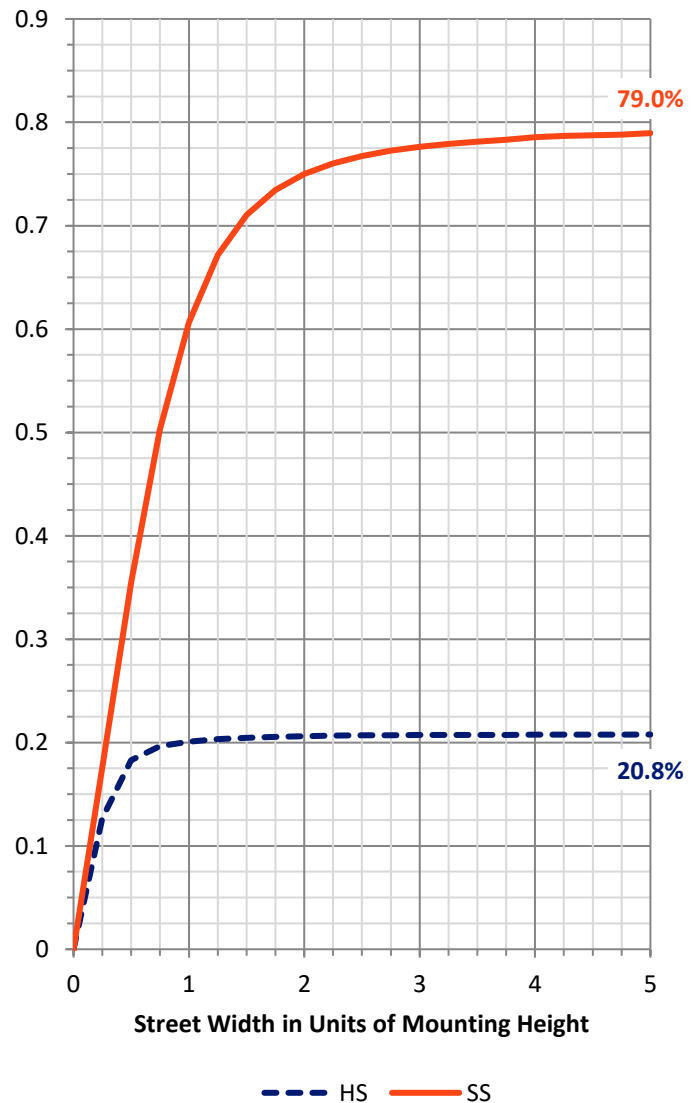
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5280.2 | 0.0 | 5280.2 |
| | % Fixture | 21.0 | 0.0 | 21.0 |
| Street Side | Lumens | 19828.8 | 0.0 | 19828.8 |
| | % Fixture | 79.0 | 0.0 | 79.0 |
| Total | Lumens | 25109.0 | 0.0 | 25109.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 433.4 | 1.7 |
| 10°-20° | 1293.4 | 5.2 |
| 20°-30° | 2192.6 | 8.7 |
| 30°-40° | 3224.4 | 12.8 |
| 40°-50° | 4293.9 | 17.1 |
| 50°-60° | 5023.0 | 20.0 |
| 60°-70° | 5051.9 | 20.1 |
| 70°-80° | 3198.0 | 12.7 |
| 80°-90° | 398.5 | 1.6 |
| 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° | 25109.0 | 100.0 |
| 0°-180° | 25109.0 | 100.0 |



REPORT NUMBER: P510212

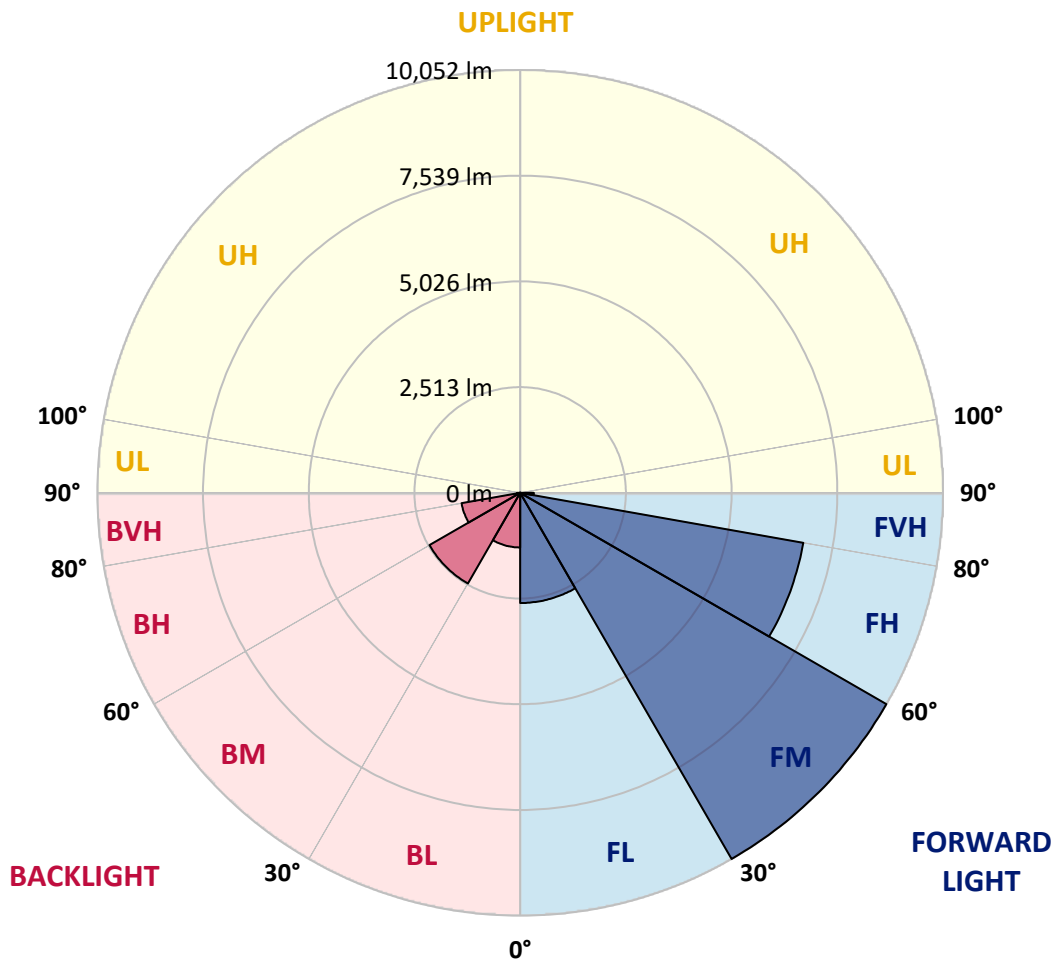
CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 2619.4 | 10.4 | | | |
| FM | (30°-60°) | 10051.6 | 40.0 | | | |
| FH | (60°-80°) | 6834.7 | 27.2 | | | G3/7500 |
| FVH | (80°-90°) | 323.1 | 1.3 | | | G3/500 |
| BL | (0°-30°) | 1300.0 | 5.2 | B3/2500 | | |
| BM | (30°-60°) | 2489.7 | 9.9 | B2/2500 | | |
| BH | (60°-80°) | 1415.2 | 5.6 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 75.3 | 0.3 | | | G1/100 |
| 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





REPORT NUMBER: P510212

CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 70° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 0° | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 |
| 2.5° | 4815.3 | 4857.4 | 4825.2 | 4812.8 | 4822.7 | 4773.1 | 4733.4 | 4676.4 | 4649.1 | 4629.2 | 4597.0 |
| 5° | 5059.6 | 5129.0 | 5086.8 | 5060.8 | 5057.1 | 4966.5 | 4913.2 | 4835.1 | 4774.3 | 4721.0 | 4639.2 |
| 7.5° | 5317.5 | 5358.4 | 5342.3 | 5312.5 | 5292.7 | 5182.3 | 5088.1 | 4977.7 | 4910.7 | 4840.1 | 4702.4 |
| 10° | 5543.2 | 5592.8 | 5576.7 | 5523.3 | 5504.7 | 5391.9 | 5284.0 | 5134.0 | 5042.2 | 4954.1 | 4764.4 |
| 12.5° | 5776.3 | 5832.1 | 5798.6 | 5745.3 | 5729.2 | 5615.1 | 5503.5 | 5321.2 | 5207.1 | 5107.9 | 4845.0 |
| 15° | 5990.9 | 6041.7 | 6018.1 | 5957.4 | 5941.3 | 5844.5 | 5721.8 | 5551.9 | 5427.9 | 5296.4 | 4959.1 |
| 17.5° | 6162.0 | 6212.8 | 6183.1 | 6154.5 | 6149.6 | 6054.1 | 5980.9 | 5807.3 | 5689.5 | 5510.9 | 5134.0 |
| 20° | 6287.2 | 6339.3 | 6324.4 | 6338.1 | 6390.2 | 6319.5 | 6274.8 | 6128.5 | 6008.2 | 5814.8 | 5385.7 |
| 22.5° | 6386.4 | 6453.4 | 6512.9 | 6540.2 | 6636.9 | 6632.0 | 6622.1 | 6535.3 | 6441.0 | 6240.1 | 5685.8 |
| 25° | 6396.4 | 6473.3 | 6591.1 | 6718.8 | 6894.9 | 6979.2 | 7041.2 | 7027.6 | 6917.2 | 6718.8 | 6101.2 |
| 27.5° | 6411.2 | 6490.6 | 6612.1 | 6831.6 | 7146.6 | 7343.8 | 7446.7 | 7510.0 | 7445.5 | 7312.8 | 6573.7 |
| 30° | 6379.0 | 6460.9 | 6613.4 | 6893.6 | 7319.0 | 7684.8 | 7868.3 | 8102.7 | 8110.2 | 7998.6 | 7286.7 |
| 32.5° | 6232.7 | 6340.6 | 6525.3 | 6901.1 | 7486.4 | 8040.7 | 8323.5 | 8773.6 | 8871.6 | 8788.5 | 8022.1 |
| 35° | 5988.4 | 6086.3 | 6350.5 | 6835.4 | 7588.1 | 8337.1 | 8854.2 | 9556.1 | 9701.2 | 9696.2 | 8887.7 |
| 37.5° | 5718.0 | 5817.2 | 6114.9 | 6680.3 | 7653.8 | 8601.2 | 9321.7 | 10332.4 | 10621.3 | 10560.6 | 9704.9 |
| 40° | 5419.2 | 5523.3 | 5866.8 | 6485.7 | 7621.6 | 8836.9 | 9816.5 | 11085.1 | 11443.5 | 11451.0 | 10486.2 |
| 42.5° | 5072.0 | 5157.5 | 5502.3 | 6216.6 | 7514.9 | 9010.5 | 10276.6 | 11877.5 | 12254.5 | 12233.5 | 11222.8 |
| 45° | 4739.6 | 4828.9 | 5130.2 | 5799.9 | 7268.1 | 9107.2 | 10728.0 | 12679.9 | 13092.8 | 13025.9 | 12041.2 |
| 47.5° | 4337.8 | 4465.6 | 4809.1 | 5450.2 | 6887.4 | 9099.8 | 11122.3 | 13500.8 | 13964.6 | 13910.1 | 12748.1 |
| 50° | 3338.3 | 3414.0 | 4191.5 | 5089.3 | 6371.6 | 8926.1 | 11508.0 | 14306.9 | 14893.4 | 14786.8 | 13502.1 |
| 52.5° | 3007.2 | 3075.4 | 3325.9 | 4656.5 | 5902.8 | 8550.4 | 11829.2 | 15229.5 | 15668.5 | 15585.4 | 14272.2 |
| 55° | 2842.3 | 2879.5 | 3032.0 | 3840.5 | 5445.2 | 7940.3 | 12043.7 | 16049.2 | 16505.6 | 16322.0 | 14992.6 |
| 57.5° | 2635.2 | 2681.1 | 2858.4 | 3280.0 | 4882.2 | 7004.0 | 11994.1 | 16788.3 | 17209.9 | 16928.4 | 15627.6 |
| 60° | 2476.5 | 2511.2 | 2677.3 | 2952.6 | 4300.6 | 6034.3 | 11486.9 | 17513.7 | 17725.8 | 17448.0 | 16260.0 |
| 62.5° | 2342.5 | 2362.4 | 2478.9 | 2740.6 | 3857.9 | 5326.2 | 10497.3 | 17610.5 | 18004.8 | 17803.9 | 16731.2 |
| 65° | 2176.4 | 2181.3 | 2319.0 | 2523.6 | 3448.7 | 4900.8 | 9647.9 | 17114.4 | 17865.9 | 17799.0 | 16901.1 |
| 67.5° | 1981.7 | 1991.6 | 2130.5 | 2286.7 | 2956.4 | 4448.2 | 8324.7 | 16847.8 | 17326.5 | 17284.3 | 16565.1 |
| 70° | 1737.4 | 1757.2 | 1884.9 | 2004.0 | 2503.7 | 3905.0 | 6625.8 | 15793.7 | 16361.7 | 16299.7 | 15457.7 |
| 72.5° | 1501.7 | 1490.6 | 1609.6 | 1727.4 | 2085.8 | 3260.2 | 5022.4 | 13979.5 | 15347.3 | 15287.8 | 14019.2 |
| 75° | 1233.9 | 1226.4 | 1349.2 | 1460.8 | 1710.1 | 2633.9 | 3533.0 | 10338.6 | 13484.7 | 13668.2 | 12088.4 |
| 77.5° | 760.2 | 766.4 | 837.1 | 911.5 | 1158.2 | 1968.0 | 2254.5 | 5751.5 | 9160.5 | 10863.2 | 9486.7 |
| 80° | 550.6 | 550.6 | 602.7 | 647.3 | 766.4 | 1199.2 | 1122.3 | 2398.3 | 3348.2 | 5243.1 | 5916.5 |
| 82.5° | 357.1 | 342.3 | 374.5 | 412.9 | 426.6 | 519.6 | 513.4 | 1202.9 | 1706.4 | 2053.6 | 2464.1 |
| 85° | 186.0 | 205.9 | 124.0 | 174.9 | 184.8 | 172.4 | 177.3 | 564.2 | 757.7 | 971.0 | 1069.0 |
| 87.5° | 28.5 | 22.3 | 29.8 | 40.9 | 47.1 | 39.7 | 34.7 | 65.7 | 101.7 | 135.2 | 160.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



REPORT NUMBER: P510212

CATALOG NUMBER: VERD-M-CA4-230-727-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 | 4564.8 |
| 2.5° | 4575.9 | 4569.7 | 4512.7 | 4429.6 | 4361.4 | 4304.3 | 4267.1 | 4242.3 | 4269.6 | 4220.0 | 4213.8 |
| 5° | 4588.3 | 4546.2 | 4422.1 | 4303.1 | 4211.3 | 4088.6 | 4005.5 | 3949.7 | 3972.0 | 3928.6 | 3911.2 |
| 7.5° | 4621.8 | 4544.9 | 4373.8 | 4184.1 | 4010.4 | 3879.0 | 3751.3 | 3628.5 | 3609.9 | 3582.6 | 3583.9 |
| 10° | 4651.6 | 4541.2 | 4318.0 | 4070.0 | 3867.8 | 3635.9 | 3482.2 | 3355.7 | 3327.2 | 3294.9 | 3278.8 |
| 12.5° | 4698.7 | 4549.9 | 4248.5 | 3948.4 | 3678.1 | 3410.2 | 3244.1 | 3095.3 | 3066.7 | 3003.5 | 2989.8 |
| 15° | 4792.9 | 4580.9 | 4180.3 | 3798.4 | 3464.8 | 3194.5 | 2979.9 | 2849.7 | 2797.6 | 2727.0 | 2725.7 |
| 17.5° | 4915.7 | 4671.4 | 4145.6 | 3657.0 | 3283.7 | 2981.2 | 2754.2 | 2622.8 | 2534.7 | 2492.6 | 2481.4 |
| 20° | 5090.6 | 4789.2 | 4144.4 | 3529.3 | 3095.3 | 2753.0 | 2492.6 | 2343.8 | 2269.4 | 2234.6 | 2213.6 |
| 22.5° | 5359.7 | 4962.8 | 4166.7 | 3440.0 | 2905.5 | 2532.3 | 2273.1 | 2068.5 | 1945.7 | 1850.2 | 1863.9 |
| 25° | 5694.5 | 5223.2 | 4217.5 | 3358.2 | 2740.6 | 2321.4 | 1996.5 | 1712.6 | 1493.1 | 1397.6 | 1405.0 |
| 27.5° | 6119.8 | 5534.5 | 4349.0 | 3275.1 | 2553.3 | 2094.5 | 1635.7 | 1274.8 | 1108.6 | 997.0 | 1005.7 |
| 30° | 6664.2 | 5921.4 | 4521.4 | 3210.6 | 2379.7 | 1777.0 | 1231.4 | 940.0 | 793.7 | 701.9 | 693.2 |
| 32.5° | 7315.3 | 6481.9 | 4709.8 | 3167.2 | 2190.0 | 1380.2 | 887.9 | 689.5 | 546.9 | 494.8 | 502.2 |
| 35° | 8121.3 | 7111.9 | 4997.5 | 3103.9 | 1865.1 | 982.1 | 633.7 | 466.3 | 393.1 | 383.2 | 384.4 |
| 37.5° | 8856.7 | 7756.7 | 5282.8 | 2997.3 | 1472.0 | 698.2 | 430.3 | 354.7 | 338.5 | 334.8 | 339.8 |
| 40° | 9577.2 | 8344.5 | 5540.7 | 2842.3 | 1011.9 | 478.7 | 316.2 | 319.9 | 306.3 | 296.4 | 291.4 |
| 42.5° | 10251.8 | 8911.3 | 5742.8 | 2557.1 | 692.0 | 316.2 | 280.3 | 291.4 | 288.9 | 269.1 | 260.4 |
| 45° | 10979.7 | 9510.2 | 5854.4 | 2157.8 | 435.3 | 269.1 | 251.7 | 271.6 | 284.0 | 261.7 | 251.7 |
| 47.5° | 11601.0 | 10094.3 | 5849.5 | 1653.0 | 295.1 | 254.2 | 236.9 | 254.2 | 269.1 | 253.0 | 244.3 |
| 50° | 12317.8 | 10577.9 | 5690.8 | 1049.1 | 261.7 | 235.6 | 226.9 | 233.1 | 253.0 | 241.8 | 233.1 |
| 52.5° | 13113.9 | 11240.1 | 5450.2 | 585.3 | 248.0 | 223.2 | 210.8 | 218.3 | 235.6 | 222.0 | 226.9 |
| 55° | 13773.6 | 11789.5 | 4884.7 | 399.3 | 241.8 | 208.3 | 200.9 | 205.9 | 213.3 | 199.7 | 207.1 |
| 57.5° | 14362.7 | 12243.4 | 4313.0 | 327.4 | 233.1 | 198.4 | 197.2 | 187.3 | 186.0 | 177.3 | 169.9 |
| 60° | 14959.2 | 12601.8 | 3541.7 | 296.4 | 224.5 | 199.7 | 178.6 | 164.9 | 153.8 | 145.1 | 141.4 |
| 62.5° | 15416.8 | 12849.8 | 2801.4 | 267.9 | 212.1 | 187.3 | 163.7 | 141.4 | 122.8 | 111.6 | 111.6 |
| 65° | 15550.7 | 12739.4 | 1971.7 | 243.1 | 198.4 | 176.1 | 146.3 | 115.3 | 93.0 | 85.6 | 81.8 |
| 67.5° | 15121.6 | 12105.7 | 1372.8 | 224.5 | 184.8 | 163.7 | 129.0 | 94.2 | 74.4 | 64.5 | 62.0 |
| 70° | 14029.1 | 11045.5 | 809.8 | 198.4 | 167.4 | 142.6 | 117.8 | 76.9 | 60.8 | 50.8 | 48.4 |
| 72.5° | 12414.5 | 9455.7 | 504.7 | 168.7 | 143.9 | 116.6 | 88.0 | 63.2 | 48.4 | 39.7 | 38.4 |
| 75° | 10254.3 | 7371.1 | 329.9 | 130.2 | 114.1 | 91.8 | 67.0 | 50.8 | 42.2 | 33.5 | 31.0 |
| 77.5° | 8223.0 | 5214.6 | 295.1 | 99.2 | 84.3 | 65.7 | 50.8 | 42.2 | 34.7 | 29.8 | 29.8 |
| 80° | 4732.2 | 2976.2 | 241.8 | 68.2 | 52.1 | 49.6 | 39.7 | 34.7 | 32.2 | 28.5 | 27.3 |
| 82.5° | 2325.2 | 1429.8 | 156.3 | 42.2 | 29.8 | 32.2 | 33.5 | 31.0 | 27.3 | 24.8 | 24.8 |
| 85° | 801.1 | 476.2 | 63.2 | 27.3 | 19.8 | 19.8 | 21.1 | 22.3 | 21.1 | 19.8 | 19.8 |
| 87.5° | 124.0 | 90.5 | 17.4 | 16.1 | 12.4 | 11.2 | 12.4 | 13.6 | 13.6 | 12.4 | 12.4 |
| 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)