

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: P189864

Luminaire Tested: **VERD-M-A04-E-U-T4-AP**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P189864  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P26232)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VERD-M-A04-E-U-T4-AP  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 4000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29533 lumens  
Efficiency: N/A  
Efficacy: 119.6 lumens/watt  
Luminous Opening: Rectangular (W 1.35' x L: 1.58' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B3 - U0 - G5

Input Watts (W): 247  
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: 28.75 FT

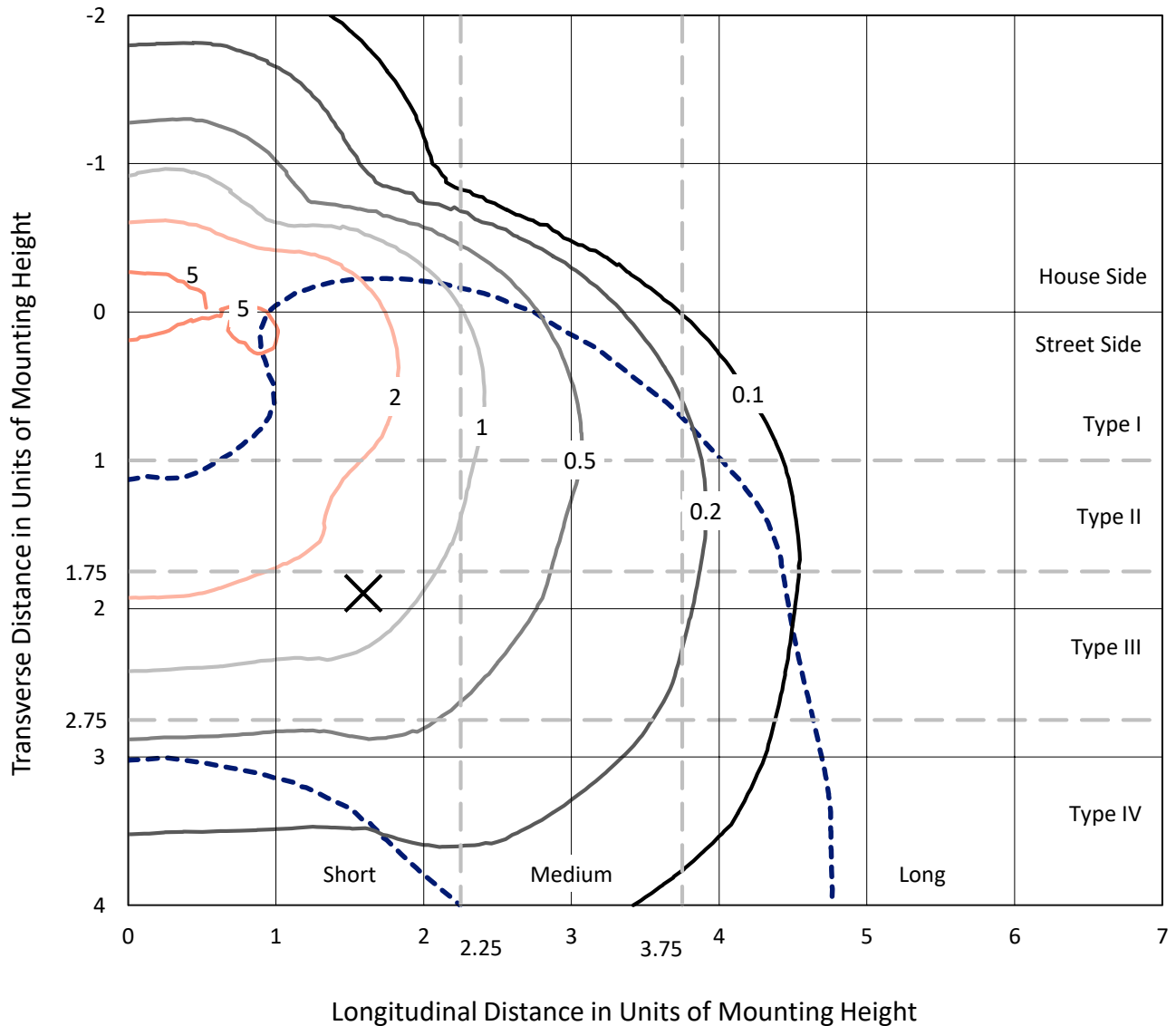


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

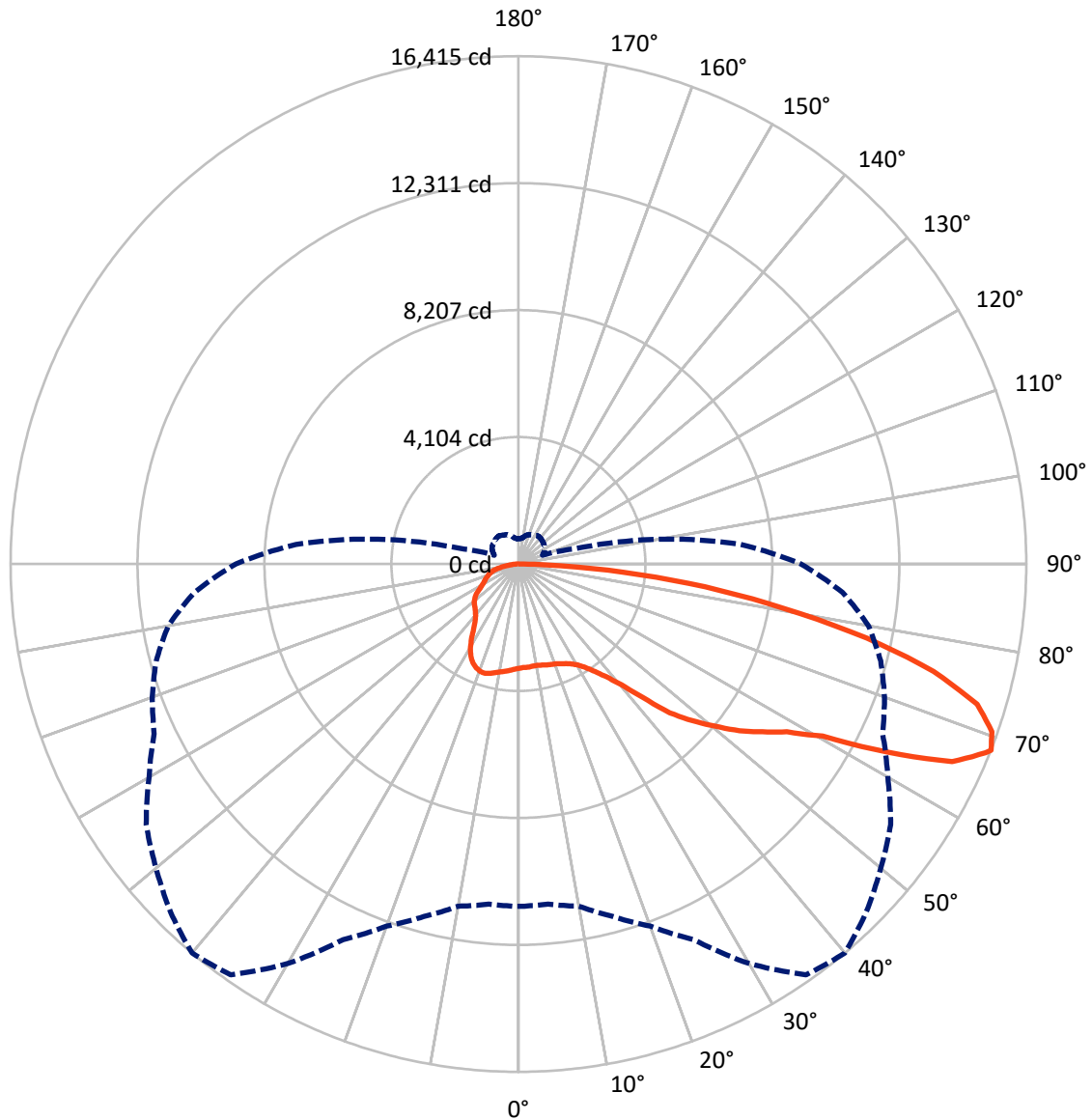


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical



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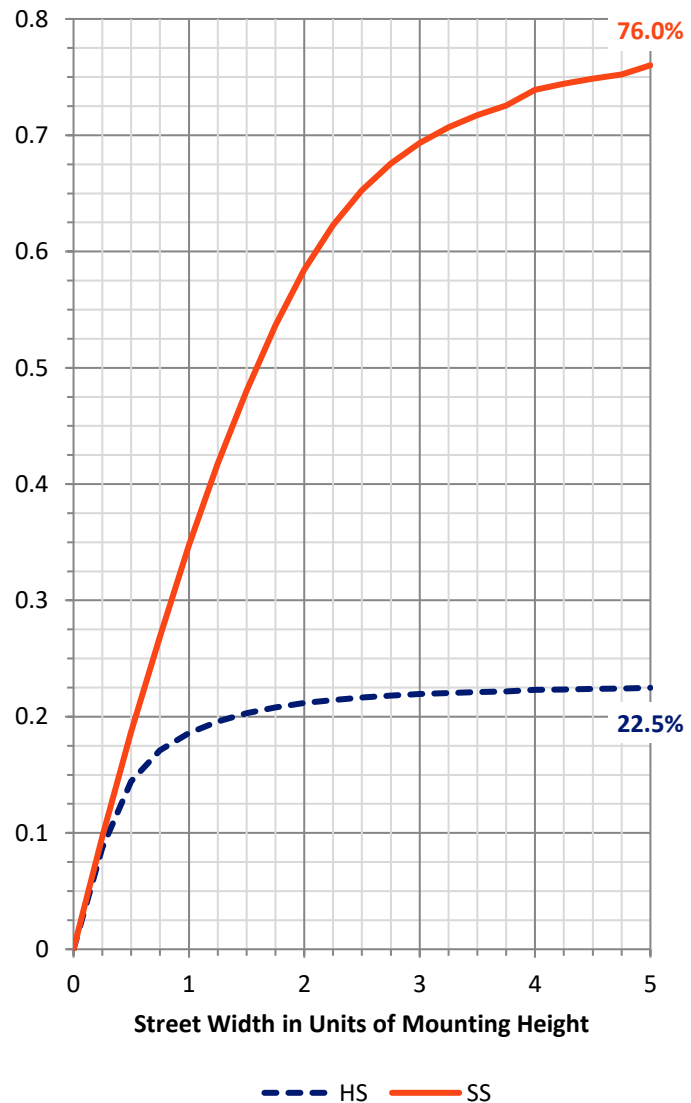
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6721.1	0.0	6721.1
	% Fixture	22.8	0.0	22.8
<b>Street Side</b>	Lumens	22811.9	0.0	22811.9
	% Fixture	77.2	0.0	77.2
<b>Total</b>	Lumens	29533.0	0.0	29533.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	325.7	1.1
10°-20°	999.8	3.4
20°-30°	1683.0	5.7
30°-40°	2523.1	8.5
40°-50°	4133.0	14.0
50°-60°	5893.8	20.0
60°-70°	7426.5	25.1
70°-80°	5456.5	18.5
80°-90°	1091.6	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°	29533.0	100.0
0°-180°	29533.0	100.0



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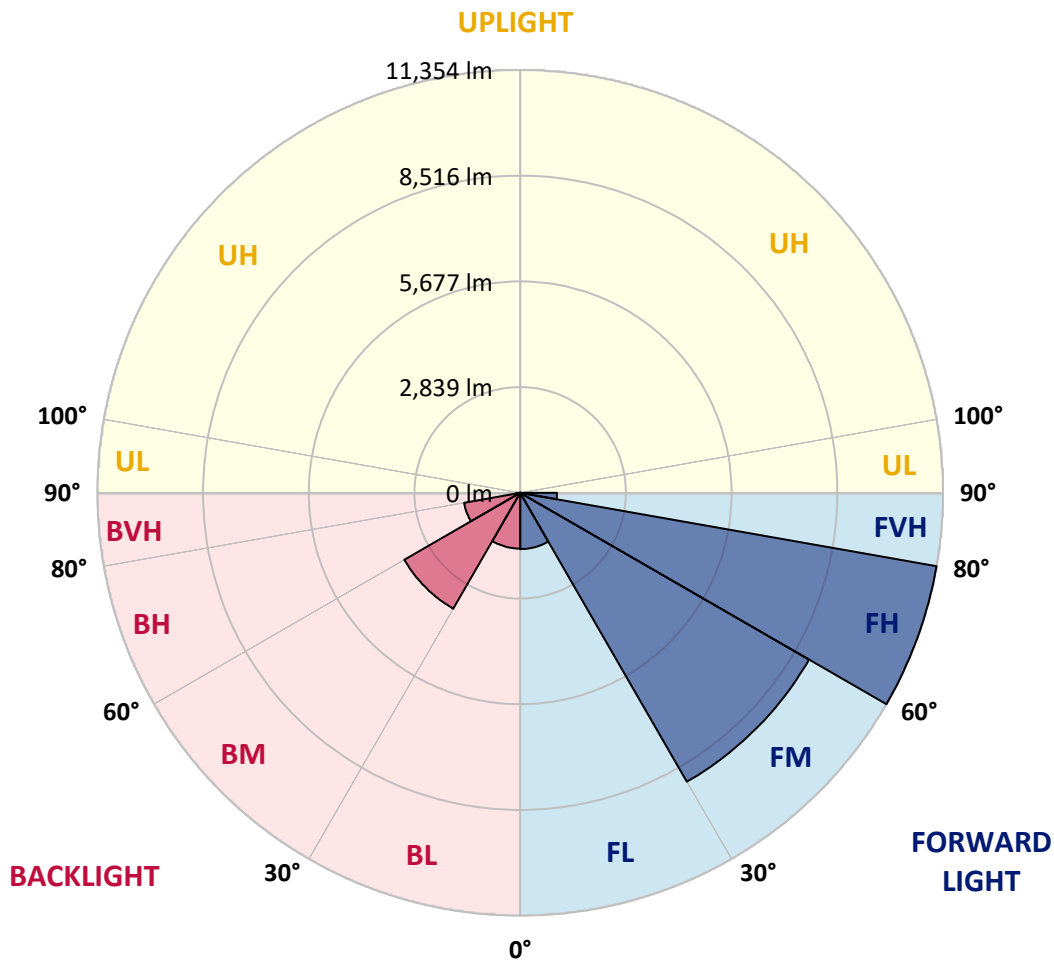
CATALOG NUMBER: VERD-M-A04-E-U-T4-AP

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1510.9	5.1			
FM	(30°-60°)	8956.7	30.3			
FH	(60°-80°)	11354.4	38.4			G4/12000
FVH	(80°-90°)	989.9	3.4			G5
BL	(0°-30°)	1497.6	5.1	B3/2500		
BM	(30°-60°)	3593.1	12.2	B3/5000		
BH	(60°-80°)	1528.7	5.2	B3/2500		G3/2500
BVH	(80°-90°)	101.7	0.3			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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7
2.5°	3385.3	3383.4	3367.8	3363.9	3350.3	3352.2	3348.3	3342.5	3344.5	3332.8	3332.8
5°	3381.4	3381.4	3365.9	3362.0	3354.2	3362.0	3360.0	3348.3	3352.2	3350.3	3348.3
7.5°	3350.3	3346.4	3328.9	3326.9	3321.1	3332.8	3336.7	3326.9	3330.8	3344.5	3348.3
10°	3323.1	3325.0	3309.4	3309.4	3305.5	3325.0	3334.7	3328.9	3332.8	3352.2	3354.2
12.5°	3280.3	3286.1	3276.4	3280.3	3282.2	3309.4	3334.7	3342.5	3352.2	3369.7	3379.5
15°	3260.8	3262.7	3256.9	3264.7	3274.4	3305.5	3336.7	3360.0	3385.3	3410.6	3426.2
17.5°	3291.9	3290.0	3280.3	3282.2	3288.0	3315.3	3354.2	3389.2	3412.6	3437.8	3467.0
20°	3301.7	3307.5	3301.7	3307.5	3317.2	3346.4	3397.0	3428.1	3445.6	3469.0	3507.9
22.5°	3362.0	3354.2	3352.2	3358.1	3356.1	3383.4	3428.1	3474.8	3504.0	3517.6	3558.5
25°	3422.3	3416.4	3416.4	3428.1	3428.1	3449.5	3492.3	3531.2	3564.3	3607.1	3661.6
27.5°	3486.5	3482.6	3482.6	3505.9	3517.6	3537.1	3579.9	3622.7	3657.7	3700.5	3778.3
30°	3616.8	3609.1	3593.5	3620.7	3626.6	3644.1	3698.6	3743.3	3788.0	3844.5	3918.4
32.5°	3842.5	3828.9	3803.6	3805.6	3795.8	3809.5	3891.2	3920.3	3982.6	4041.0	4105.2
35°	4340.6	4292.0	4235.5	4200.5	4153.8	4111.0	4163.5	4204.4	4268.6	4327.0	4410.6
37.5°	5074.1	4982.6	4899.0	4860.1	4774.5	4661.6	4624.7	4566.3	4622.7	4720.0	4821.2
40°	5891.2	5891.2	5797.8	5690.8	5552.7	5364.0	5262.8	5163.6	5128.6	5161.6	5311.4
42.5°	6669.5	6694.8	6605.3	6494.4	6377.6	6181.1	6046.9	5963.2	5893.2	5858.1	5908.7
45°	7393.2	7486.6	7430.2	7307.6	7231.7	7150.0	7107.2	6955.5	6862.1	6722.0	6673.3
47.5°	7932.1	8023.6	7963.3	7784.3	7739.5	7725.9	7724.0	7624.7	7566.4	7436.0	7356.2
50°	8492.5	8626.7	8519.7	8204.5	8231.8	8241.5	8260.9	8233.7	8239.5	8210.4	8165.6
52.5°	9371.9	9385.5	9008.0	8753.2	8702.6	8714.3	8799.9	8842.7	8953.6	8858.2	8877.7
55°	10650.1	10235.7	9757.1	9560.6	9350.5	9261.0	9274.6	9401.1	9576.2	9490.6	9502.2
57.5°	11074.3	11144.3	11167.6	10763.0	10642.3	10385.5	10331.0	10068.4	10233.8	10115.1	10154.0
60°	11965.3	12161.8	12117.1	12216.3	11965.3	11955.6	12041.2	11465.3	11299.9	10973.1	10893.3
62.5°	12961.5	12959.5	13230.0	13305.8	13409.0	13251.4	13593.8	13529.6	13397.3	12443.9	11868.1
65°	12560.7	12552.9	12729.9	13327.2	13533.5	13986.8	14490.7	15187.2	15401.2	14947.9	14017.9
67.5°	11196.8	11247.4	11465.3	12175.5	12763.0	13572.4	14805.9	16103.6	16282.6	15827.3	15200.8
68°	11066.5	11035.3	11229.9	11796.1	12453.7	13393.4	14910.9	16210.6	16414.9	15905.1	15290.3
70°	9589.8	9558.6	9920.5	10562.6	11274.7	12638.5	15045.2	16183.4	16235.9	15770.9	15214.5
72.5°	7471.0	7434.1	7774.5	8294.0	9089.8	10568.4	13895.4	15473.2	15504.3	15064.6	14615.2
75°	5428.2	5383.4	5702.5	6161.7	6821.2	8122.8	11498.4	13492.6	13866.2	13916.8	13780.6
77.5°	3745.2	3838.6	4153.8	4486.5	5074.1	6060.5	8690.9	10784.4	11510.1	11967.3	12276.6
80°	2517.6	2671.3	2914.5	3229.7	3698.6	4472.9	6465.2	8058.6	8690.9	9148.1	9371.9
82.5°	1651.8	1675.1	1873.6	2146.0	2550.7	3173.2	4566.3	5718.1	6081.9	6140.3	5916.5
85°	867.7	935.8	1058.4	1229.6	1482.5	1858.0	2529.3	3272.5	3406.7	3381.4	3054.6
87.5°	317.1	344.4	404.7	486.4	607.0	786.0	1017.5	1138.2	861.9	634.3	453.3
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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CATALOG NUMBER: VERD-M-A04-E-U-T4-AP

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7
2.5°	3338.6	3323.1	3321.1	3350.3	3342.5	3342.5	3338.6	3352.2	3338.6	3338.6	3358.1
5°	3346.4	3336.7	3336.7	3367.8	3375.6	3367.8	3375.6	3375.6	3371.7	3379.5	3393.1
7.5°	3344.5	3348.3	3350.3	3369.7	3393.1	3383.4	3406.7	3393.1	3410.6	3426.2	3430.1
10°	3344.5	3367.8	3377.5	3383.4	3404.8	3406.7	3424.2	3410.6	3437.8	3459.2	3463.1
12.5°	3379.5	3408.7	3443.7	3451.5	3469.0	3494.3	3496.2	3494.3	3529.3	3544.9	3562.4
15°	3437.8	3472.9	3515.7	3535.1	3558.5	3607.1	3601.3	3622.7	3661.6	3679.1	3710.2
17.5°	3500.1	3539.0	3589.6	3626.6	3661.6	3720.0	3716.1	3756.9	3795.8	3823.1	3858.1
20°	3556.5	3609.1	3667.4	3720.0	3778.3	3834.7	3846.4	3895.1	3949.5	3992.3	4021.5
22.5°	3622.7	3681.0	3745.2	3821.1	3895.1	3949.5	4000.1	4072.1	4132.4	4175.2	4192.7
25°	3727.7	3788.0	3860.0	3967.0	4048.8	4116.9	4210.2	4299.7	4356.2	4371.7	4365.9
27.5°	3860.0	3928.1	4015.7	4155.8	4245.3	4346.4	4480.7	4558.5	4589.6	4560.4	4484.6
30°	4013.7	4107.1	4216.1	4363.9	4480.7	4644.1	4807.5	4873.7	4838.7	4725.8	4560.4
32.5°	4225.8	4356.2	4484.6	4644.1	4836.7	5066.3	5235.6	5258.9	5124.7	4895.1	4632.4
35°	4560.4	4718.0	4881.5	5095.5	5447.6	5757.0	5895.1	5813.4	5527.4	5159.7	4764.7
37.5°	5009.9	5202.5	5445.7	5760.9	6284.2	6638.3	6696.7	6509.9	6085.8	5541.0	4955.4
40°	5537.1	5797.8	6120.8	6659.7	7220.1	7541.1	7521.6	7247.3	6702.5	5982.7	5210.3
42.5°	6198.6	6486.6	6893.2	7519.7	8152.0	8377.7	8284.3	7947.7	7303.7	6453.5	5488.5
45°	6844.6	7138.3	7597.5	8299.9	8906.9	9082.0	8934.1	8552.8	7842.6	6901.0	5803.7
47.5°	7490.5	7692.8	8276.5	9043.1	9613.1	9708.5	9492.5	9010.0	8290.1	7286.2	6031.3
50°	8251.2	8406.9	9015.8	9821.3	10245.4	10264.9	10035.3	9408.8	8605.3	7519.7	6202.5
52.5°	8965.2	9226.0	9856.3	10541.2	10801.9	10712.4	10453.6	9764.9	8834.9	7760.9	6251.2
55°	9655.9	10039.2	10726.0	11173.5	11278.5	11132.6	10733.8	10019.8	9025.6	7762.9	6210.3
57.5°	10321.3	10852.5	11494.5	11786.3	11739.6	11443.9	10846.6	10078.1	9045.0	7653.9	6046.9
60°	11049.0	11599.6	12161.8	12226.0	12023.7	11617.1	10943.9	10097.6	8932.2	7428.2	5768.7
62.5°	11846.7	12272.7	12595.7	12465.3	12183.2	11757.2	10984.8	9908.9	8743.4	7043.0	5122.7
65°	12936.2	12947.9	12918.7	12648.2	12218.3	11632.6	10813.5	9792.1	8270.7	6311.5	3986.5
67.5°	14547.1	13661.9	13017.9	12613.2	12138.5	11502.3	10611.2	9227.9	7463.3	4969.0	2286.1
68°	14687.2	13786.4	12988.7	12591.8	12122.9	11488.7	10510.0	9126.7	7216.2	4609.1	1926.1
70°	14720.3	13786.4	12811.7	12467.3	12060.7	11228.0	9975.0	8157.8	5895.1	2957.3	801.6
72.5°	14280.6	13278.6	12599.6	12358.3	11654.0	10342.7	8496.4	6218.1	3577.9	928.0	610.9
75°	13691.1	12673.5	11846.7	11136.5	10105.4	8259.0	6099.4	3577.9	1044.8	453.3	531.1
77.5°	11942.0	10835.0	9885.5	8969.1	7399.1	5344.5	3021.5	912.5	328.8	363.8	447.5
80°	8504.1	7276.5	5897.1	4618.8	2661.6	1015.6	365.8	233.5	237.4	276.3	359.9
82.5°	4675.2	3103.2	1852.2	717.9	249.0	214.0	192.6	159.5	167.3	223.7	262.7
85°	2037.0	982.5	297.7	180.9	157.6	144.0	122.6	110.9	142.0	147.9	142.0
87.5°	192.6	97.3	77.8	73.9	60.3	52.5	38.9	37.0	35.0	35.0	40.9
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7	3369.7
2.5°	3354.2	3358.1	3373.6	3369.7	3381.4	3398.9	3400.9	3410.6	3422.3	3434.0	3449.5
5°	3408.7	3408.7	3416.4	3410.6	3420.3	3430.1	3445.6	3449.5	3465.1	3488.4	3509.8
7.5°	3449.5	3447.6	3449.5	3465.1	3476.8	3476.8	3492.3	3494.3	3509.8	3529.3	3546.8
10°	3490.4	3515.7	3507.9	3519.6	3523.5	3525.4	3533.2	3537.1	3558.5	3566.3	3579.9
12.5°	3579.9	3603.2	3589.6	3607.1	3609.1	3599.3	3587.7	3585.7	3585.7	3577.9	3572.1
15°	3710.2	3721.9	3714.1	3700.5	3690.8	3688.8	3651.9	3622.7	3597.4	3562.4	3535.1
17.5°	3856.1	3850.3	3828.9	3811.4	3772.5	3745.2	3696.6	3632.4	3574.0	3498.2	3445.6
20°	4011.8	3970.9	3959.3	3898.9	3828.9	3760.8	3683.0	3593.5	3488.4	3377.5	3288.0
22.5°	4149.9	4089.6	4035.1	3955.4	3846.4	3743.3	3622.7	3507.9	3375.6	3223.8	3095.4
25°	4280.3	4165.5	4072.1	3955.4	3813.3	3679.1	3527.3	3381.4	3208.3	3019.5	2852.2
27.5°	4352.3	4196.6	4044.9	3887.3	3725.8	3542.9	3375.6	3192.7	2988.4	2774.4	2574.0
30°	4360.1	4171.3	3972.9	3755.0	3560.4	3348.3	3151.8	2924.2	2700.5	2478.7	2326.9
32.5°	4363.9	4099.3	3834.7	3574.0	3334.7	3089.6	2863.9	2612.9	2424.2	2288.0	2171.3
35°	4367.8	4011.8	3673.3	3330.8	3058.5	2793.9	2556.5	2360.0	2225.7	2136.2	2042.9
37.5°	4410.6	3930.1	3498.2	3091.5	2790.0	2525.4	2326.9	2177.1	2085.7	2019.5	1949.5
40°	4459.3	3832.8	3313.3	2865.8	2554.6	2321.1	2173.2	2079.8	2011.7	1961.1	1904.7
42.5°	4494.3	3663.5	3060.4	2640.2	2340.5	2157.7	2074.0	2023.4	1984.5	1947.5	1885.3
45°	4556.6	3476.8	2776.3	2354.2	2142.1	2031.2	1996.2	1978.7	1949.5	1912.5	1844.4
47.5°	4630.5	3278.3	2488.4	2114.8	1963.1	1945.6	1943.6	1928.1	1887.2	1848.3	1778.3
50°	4669.4	3081.8	2184.9	1914.5	1852.2	1865.8	1877.5	1861.9	1801.6	1745.2	1682.9
52.5°	4790.0	2994.3	1910.6	1754.9	1758.8	1772.4	1780.2	1758.8	1700.4	1642.1	1577.9
55°	4982.6	2867.8	1706.3	1597.3	1632.3	1651.8	1671.3	1638.2	1599.3	1556.5	1507.8
57.5°	4712.2	2402.8	1494.2	1449.5	1470.9	1488.4	1502.0	1502.0	1502.0	1505.9	1470.9
60°	3815.3	1710.2	1291.9	1262.7	1289.9	1324.9	1369.7	1395.0	1404.7	1408.6	1393.0
62.5°	2686.8	1214.0	1112.9	1130.4	1165.4	1223.8	1266.6	1293.8	1289.9	1266.6	1231.6
65°	1503.9	1009.8	1027.3	1079.8	1109.0	1155.7	1194.6	1210.2	1181.0	1145.9	1114.8
67.5°	848.3	926.1	996.1	1040.9	1066.2	1093.4	1116.8	1134.3	1099.3	1058.4	1035.1
68°	826.9	914.4	988.4	1027.3	1052.6	1079.8	1097.3	1109.0	1072.0	1035.1	1015.6
70°	770.5	893.0	955.3	986.4	988.4	1033.1	1037.0	1044.8	1013.6	970.8	945.6
72.5°	706.2	846.3	877.5	902.8	924.2	939.7	976.7	961.1	922.2	885.2	826.9
75°	651.8	725.7	754.9	813.3	828.8	854.1	873.6	836.6	778.2	743.2	708.2
77.5°	566.2	603.1	634.3	645.9	692.6	712.1	733.5	733.5	698.5	702.4	649.8
80°	435.8	439.7	428.0	463.0	525.3	550.6	558.4	542.8	568.1	564.2	542.8
82.5°	251.0	233.5	252.9	262.7	293.8	317.1	356.0	389.1	393.0	381.3	404.7
85°	105.1	93.4	107.0	122.6	155.6	192.6	237.4	254.9	251.0	243.2	223.7
87.5°	42.8	42.8	50.6	60.3	79.8	101.2	114.8	134.2	145.9	149.8	140.1
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):**

	165°	170°	175°	180°
0°	3369.7	3369.7	3369.7	3369.7
2.5°	3455.4	3453.4	3451.5	3447.6
5°	3515.7	3517.6	3517.6	3515.7
7.5°	3560.4	3570.1	3572.1	3572.1
10°	3595.4	3603.2	3605.2	3603.2
12.5°	3583.8	3585.7	3593.5	3595.4
15°	3529.3	3515.7	3511.8	3509.8
17.5°	3400.9	3365.9	3336.7	3323.1
20°	3198.5	3130.4	3074.0	3060.4
22.5°	2972.9	2867.8	2793.9	2768.6
25°	2700.5	2570.1	2490.3	2465.1
27.5°	2433.9	2305.5	2249.1	2218.0
30°	2214.1	2118.7	2056.5	2025.4
32.5°	2068.2	1974.8	1910.6	1881.4
35°	1947.5	1850.2	1764.6	1725.7
37.5°	1867.8	1753.0	1653.7	1614.8
40°	1821.1	1717.9	1610.9	1568.1
42.5°	1797.7	1710.2	1614.8	1568.1
45°	1760.8	1667.4	1585.7	1535.1
47.5°	1704.3	1616.8	1535.1	1488.4
50°	1601.2	1511.7	1445.6	1408.6
52.5°	1492.3	1393.0	1323.0	1282.1
55°	1418.3	1319.1	1264.6	1237.4
57.5°	1404.7	1311.3	1256.8	1225.7
60°	1324.9	1235.4	1165.4	1132.3
62.5°	1153.7	1066.2	1011.7	990.3
65°	1046.7	963.1	910.5	895.0
67.5°	976.7	889.1	834.7	823.0
68°	959.2	871.6	824.9	809.4
70°	879.4	795.7	754.9	739.3
72.5°	710.1	628.4	573.9	554.5
75°	618.7	529.2	484.5	474.7
77.5°	542.8	437.8	393.0	383.3
80°	439.7	346.3	237.4	221.8
82.5°	328.8	212.1	177.0	161.5
85°	190.7	145.9	114.8	107.0
87.5°	120.6	101.2	87.6	81.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)