

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: P189860

Luminaire Tested: **VERD-M-A04-E-U-T4-7030-AP**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P189860  
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-T4-7030-AP  
Description: VERDEON-M ROADWAY AND AREA LUMINAIRE  
(4) 70 CRI, 3000K LEDS AND TYPE IV OPTICS, GREY PAINTED FINISH  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 28393 lumens  
Efficiency: N/A  
Efficacy: 115.0 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

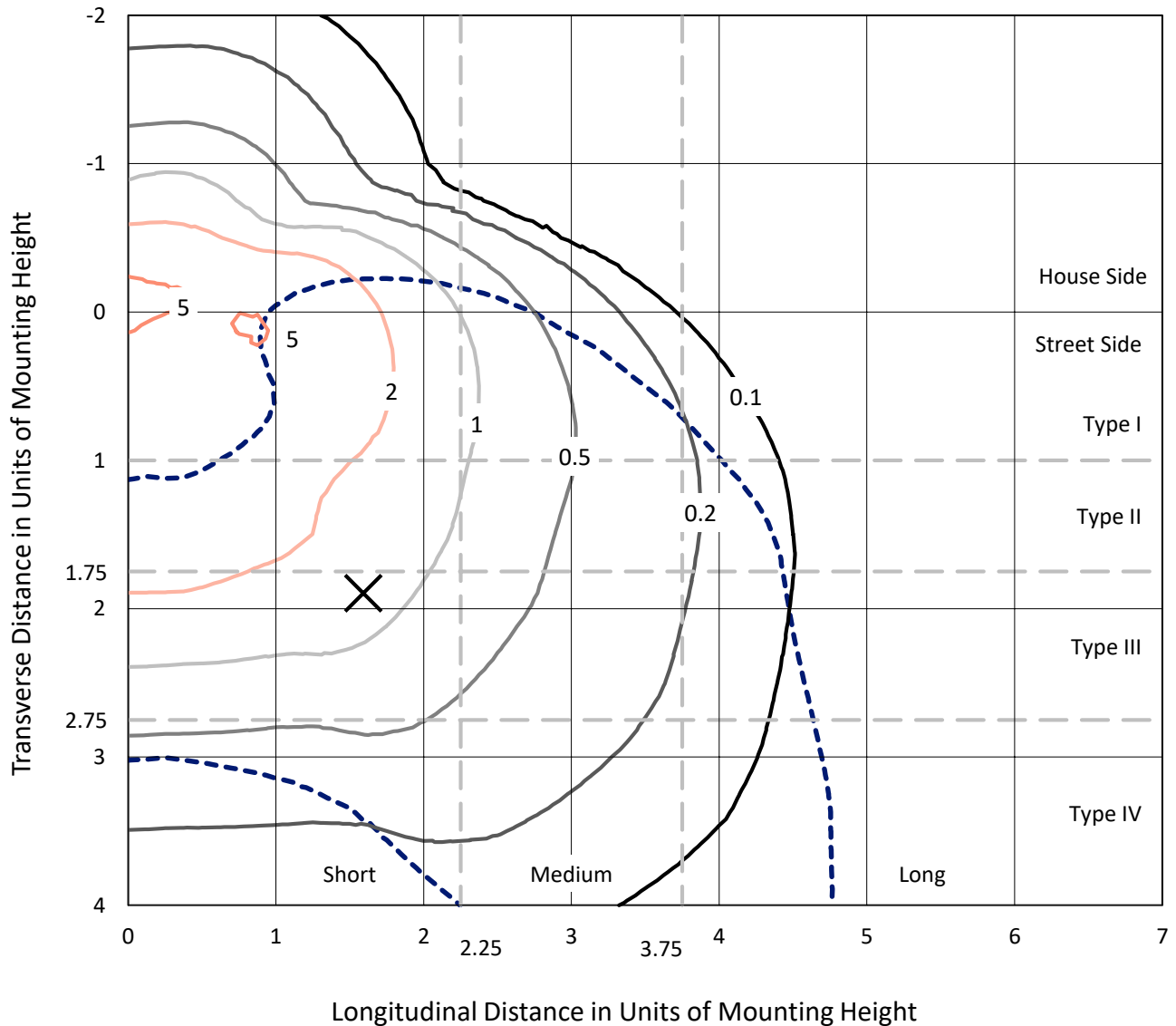
Input Watts (W): 247  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

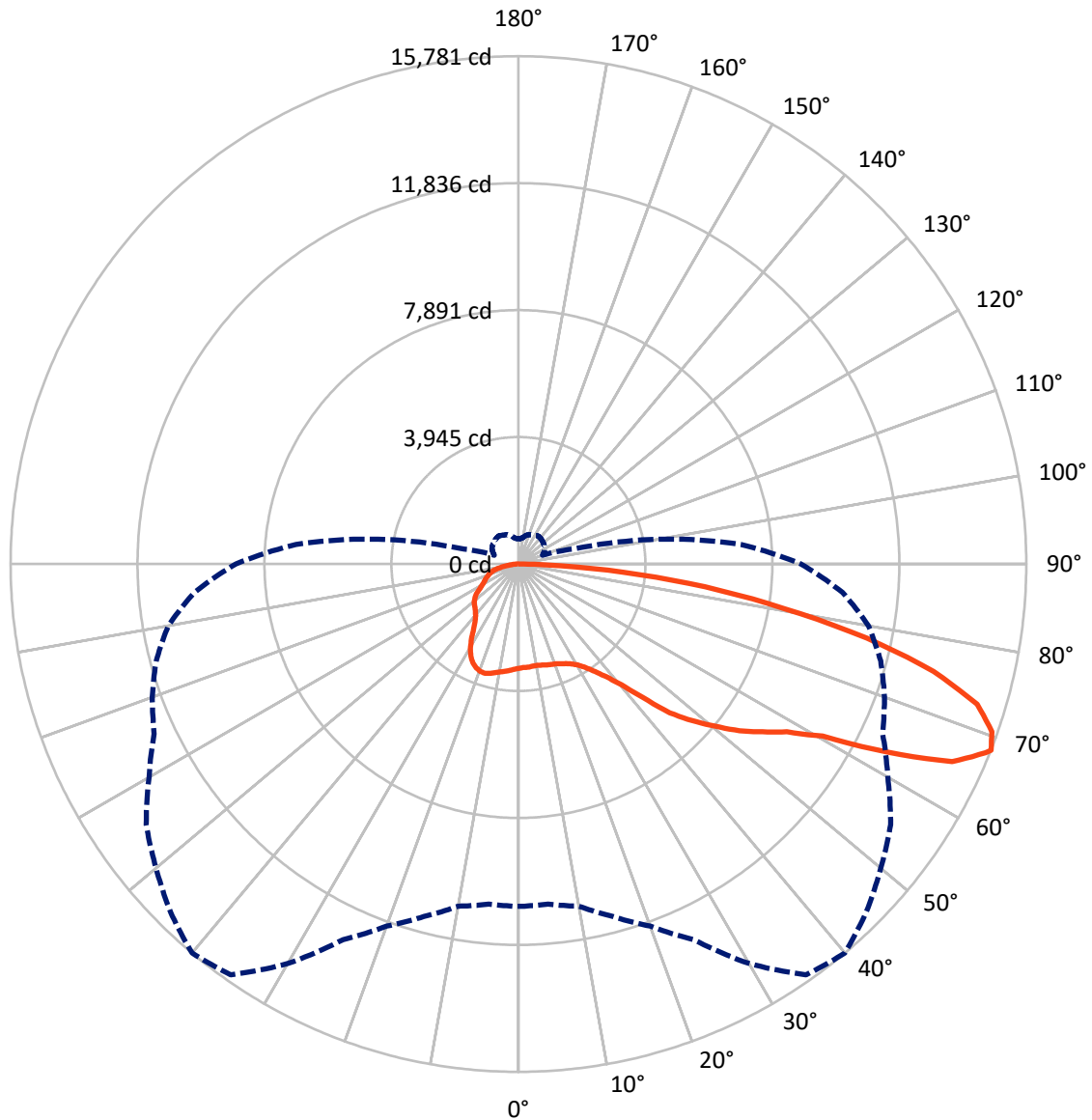
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.4 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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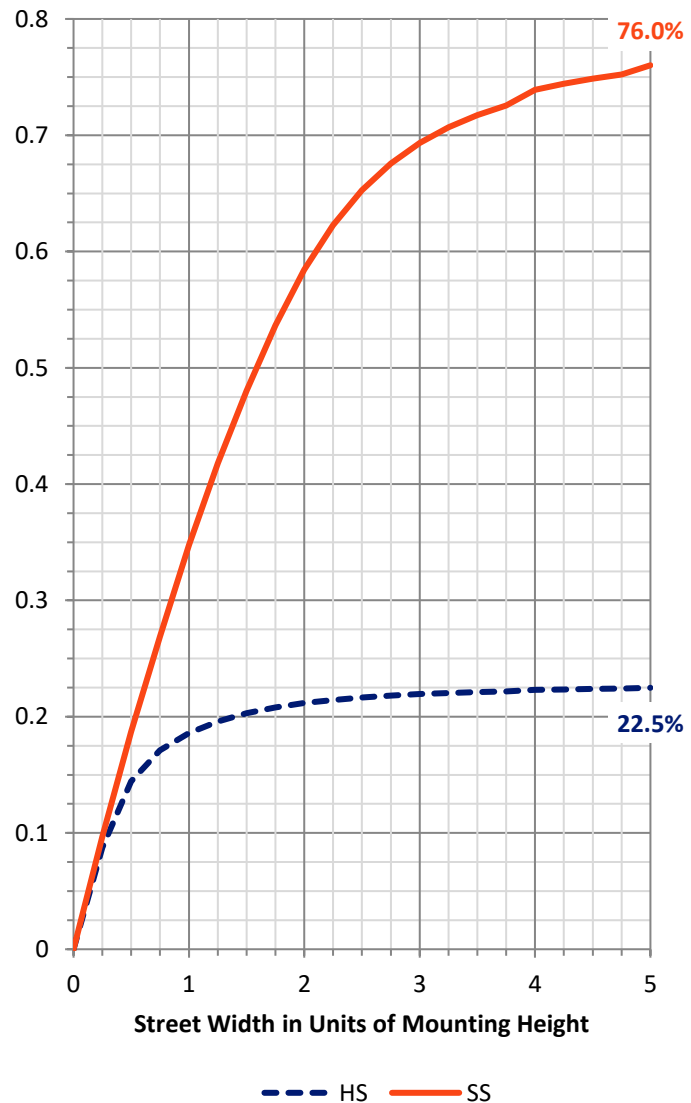
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6461.7	0.0	6461.7
	% Fixture	22.8	0.0	22.8
<b>Street Side</b>	Lumens	21931.3	0.0	21931.3
	% Fixture	77.2	0.0	77.2
<b>Total</b>	Lumens	28393.0	0.0	28393.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	313.1	1.1
10°-20°	961.2	3.4
20°-30°	1618.0	5.7
30°-40°	2425.7	8.5
40°-50°	3973.5	14.0
50°-60°	5666.3	20.0
60°-70°	7139.8	25.1
70°-80°	5245.9	18.5
80°-90°	1049.5	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°	28393.0	100.0
0°-180°	28393.0	100.0



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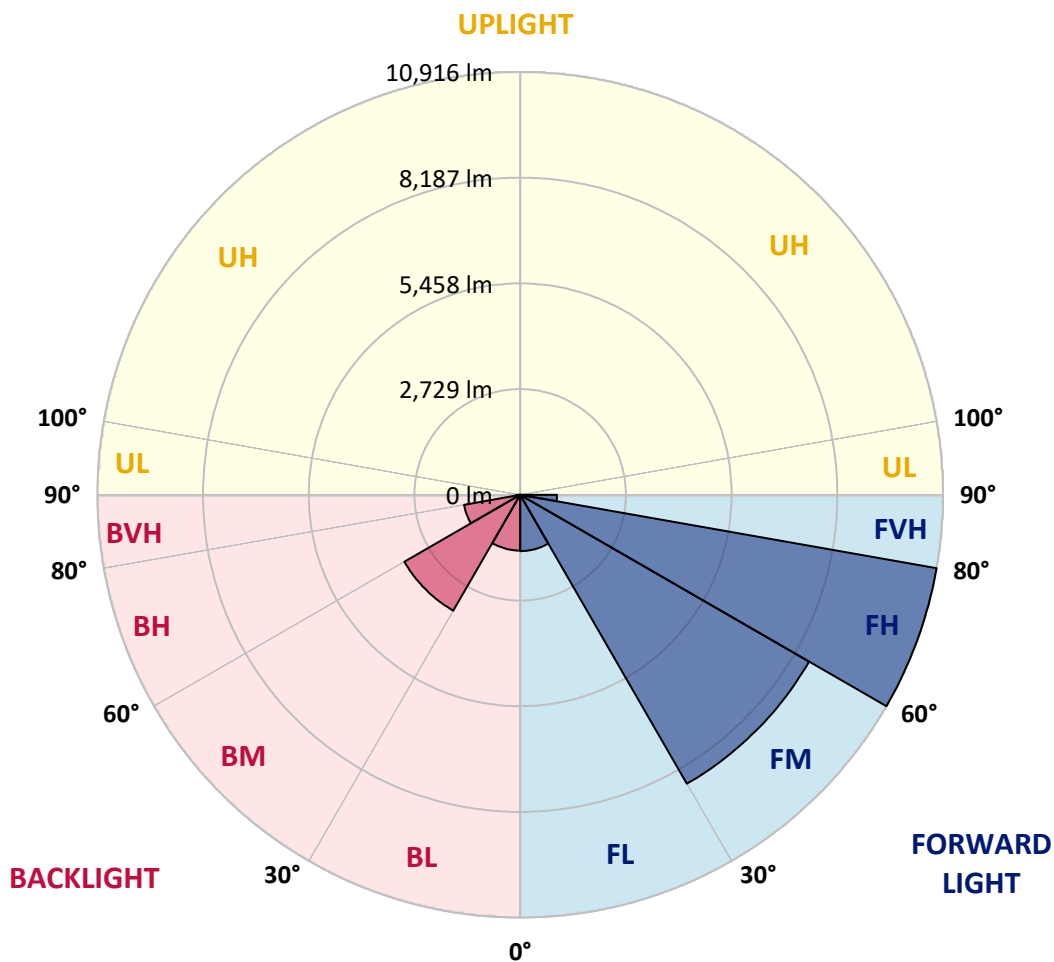
CATALOG NUMBER: VERD-M-A04-E-U-T4-7030-AP

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1452.6	5.1			
FM	(30°-60°)	8611.0	30.3			
FH	(60°-80°)	10916.1	38.4			G4/12000
FVH	(80°-90°)	951.7	3.4			G5
BL	(0°-30°)	1439.8	5.1	B3/2500		
BM	(30°-60°)	3454.4	12.2	B3/5000		
BH	(60°-80°)	1469.6	5.2	B3/2500		G3/2500
BVH	(80°-90°)	97.8	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-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7
2.5°	3254.6	3252.8	3237.8	3234.1	3221.0	3222.8	3219.1	3213.5	3215.4	3204.1	3204.1
5°	3250.9	3250.9	3235.9	3232.2	3224.7	3232.2	3230.3	3219.1	3222.8	3221.0	3219.1
7.5°	3221.0	3217.2	3200.4	3198.5	3192.9	3204.1	3207.9	3198.5	3202.3	3215.4	3219.1
10°	3194.8	3196.7	3181.7	3181.7	3177.9	3196.7	3206.0	3200.4	3204.1	3222.8	3224.7
12.5°	3153.6	3159.2	3149.9	3153.6	3155.5	3181.7	3206.0	3213.5	3222.8	3239.7	3249.0
15°	3134.9	3136.8	3131.2	3138.7	3148.0	3177.9	3207.9	3230.3	3254.6	3279.0	3293.9
17.5°	3164.9	3163.0	3153.6	3155.5	3161.1	3187.3	3224.7	3258.4	3280.8	3305.1	3333.2
20°	3174.2	3179.8	3174.2	3179.8	3189.2	3217.2	3265.9	3295.8	3312.6	3335.1	3372.5
22.5°	3232.2	3224.7	3222.8	3228.5	3226.6	3252.8	3295.8	3340.7	3368.7	3381.8	3421.1
25°	3290.2	3284.6	3284.6	3295.8	3295.8	3316.4	3357.5	3394.9	3426.7	3467.9	3520.2
27.5°	3351.9	3348.2	3348.2	3370.6	3381.8	3400.5	3441.7	3482.8	3516.5	3557.7	3632.5
30°	3477.2	3469.7	3454.8	3481.0	3486.6	3503.4	3555.8	3598.8	3641.8	3696.1	3767.1
32.5°	3694.2	3681.1	3656.8	3658.7	3649.3	3662.4	3741.0	3769.0	3828.9	3885.0	3946.7
35°	4173.0	4126.3	4072.0	4038.4	3993.5	3952.3	4002.8	4042.1	4103.8	4160.0	4240.4
37.5°	4878.2	4790.3	4709.9	4672.5	4590.2	4481.7	4446.1	4390.0	4444.3	4537.8	4635.1
40°	5663.8	5663.8	5574.0	5471.2	5338.4	5156.9	5059.7	4964.3	4930.6	4962.4	5106.4
42.5°	6412.0	6436.3	6350.3	6243.7	6131.4	5942.5	5813.5	5733.0	5665.7	5632.0	5680.7
45°	7107.8	7197.6	7143.4	7025.5	6952.6	6874.0	6832.9	6687.0	6597.2	6462.5	6415.8
47.5°	7626.0	7713.9	7655.9	7483.8	7440.8	7427.7	7425.8	7330.4	7274.3	7149.0	7072.3
50°	8164.7	8293.7	8190.8	7887.8	7914.0	7923.4	7942.1	7915.9	7921.5	7893.4	7850.4
52.5°	9010.1	9023.2	8660.3	8415.3	8366.7	8377.9	8460.2	8501.3	8608.0	8516.3	8535.0
55°	10239.0	9840.6	9380.5	9191.5	8989.5	8903.5	8916.6	9038.2	9206.5	9124.2	9135.4
57.5°	10646.8	10714.1	10736.6	10347.5	10231.5	9984.6	9932.3	9679.7	9838.7	9724.6	9762.0
60°	11503.5	11692.4	11649.4	11744.8	11503.5	11494.1	11576.4	11022.7	10863.8	10549.5	10472.8
62.5°	12461.1	12459.3	12719.3	12792.2	12891.4	12739.9	13069.1	13007.3	12880.1	11963.6	11409.9
65°	12075.8	12068.3	12238.6	12812.8	13011.1	13446.9	13931.3	14601.0	14806.7	14370.9	13476.8
67.5°	10764.6	10813.3	11022.7	11705.5	12270.4	13048.5	14234.4	15482.0	15654.1	15216.4	14614.1
68°	10639.3	10609.4	10796.4	11340.7	11973.0	12876.4	14335.4	15584.9	15781.3	15291.2	14700.1
70°	9219.6	9189.7	9537.6	10154.8	10839.4	12150.6	14464.4	15558.7	15609.2	15162.1	14627.2
72.5°	7182.6	7147.1	7474.4	7973.9	8738.9	10160.5	13359.0	14875.9	14905.9	14483.1	14051.1
75°	5218.6	5175.6	5482.4	5923.8	6557.9	7809.3	11054.5	12971.8	13330.9	13379.6	13248.6
77.5°	3600.7	3690.5	3993.5	4313.3	4878.2	5826.6	8355.4	10368.1	11065.8	11505.3	11802.7
80°	2420.4	2568.2	2802.0	3105.0	3555.8	4300.2	6215.6	7747.5	8355.4	8795.0	9010.1
82.5°	1588.0	1610.5	1801.3	2063.1	2452.2	3050.8	4390.0	5497.3	5847.1	5903.2	5688.1
85°	834.2	899.7	1017.5	1182.1	1425.3	1786.3	2431.6	3146.2	3275.2	3250.9	2936.7
87.5°	304.9	331.1	389.1	467.6	583.6	755.7	978.3	1094.2	828.6	609.8	435.8
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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7
2.5°	3209.7	3194.8	3192.9	3221.0	3213.5	3213.5	3209.7	3222.8	3209.7	3209.7	3228.5
5°	3217.2	3207.9	3207.9	3237.8	3245.3	3237.8	3245.3	3245.3	3241.5	3249.0	3262.1
7.5°	3215.4	3219.1	3221.0	3239.7	3262.1	3252.8	3275.2	3262.1	3279.0	3293.9	3297.7
10°	3215.4	3237.8	3247.2	3252.8	3273.3	3275.2	3292.0	3279.0	3305.1	3325.7	3329.5
12.5°	3249.0	3277.1	3310.8	3318.2	3335.1	3359.4	3361.3	3359.4	3393.1	3408.0	3424.9
15°	3305.1	3338.8	3380.0	3398.7	3421.1	3467.9	3462.3	3482.8	3520.2	3537.1	3567.0
17.5°	3365.0	3402.4	3451.0	3486.6	3520.2	3576.4	3572.6	3611.9	3649.3	3675.5	3709.2
20°	3419.2	3469.7	3525.9	3576.4	3632.5	3686.7	3697.9	3744.7	3797.1	3838.2	3866.3
22.5°	3482.8	3539.0	3600.7	3673.6	3744.7	3797.1	3845.7	3914.9	3972.9	4014.1	4030.9
25°	3583.8	3641.8	3711.0	3813.9	3892.5	3957.9	4047.7	4133.8	4188.0	4203.0	4197.4
27.5°	3711.0	3776.5	3860.7	3995.3	4081.4	4178.7	4307.7	4382.5	4412.5	4384.4	4311.5
30°	3858.8	3948.6	4053.3	4195.5	4307.7	4464.8	4622.0	4685.6	4651.9	4543.4	4384.4
32.5°	4062.7	4188.0	4311.5	4464.8	4650.0	4870.7	5033.5	5055.9	4926.8	4706.1	4453.6
35°	4384.4	4535.9	4693.0	4898.8	5237.3	5534.8	5667.6	5589.0	5314.0	4960.5	4580.8
37.5°	4816.5	5001.7	5235.5	5538.5	6041.7	6382.1	6438.2	6258.6	5850.9	5327.1	4764.1
40°	5323.4	5574.0	5884.5	6402.7	6941.4	7250.0	7231.3	6967.5	6443.8	5751.7	5009.1
42.5°	5959.4	6236.2	6627.1	7229.4	7837.3	8054.3	7964.5	7640.9	7021.8	6204.4	5276.6
45°	6580.4	6862.8	7304.2	7979.5	8563.1	8731.4	8589.3	8222.6	7539.9	6634.6	5579.6
47.5°	7201.4	7395.9	7957.0	8694.0	9242.0	9333.7	9126.1	8662.2	7970.1	7005.0	5798.5
50°	7932.7	8082.4	8667.8	9442.2	9850.0	9868.7	9647.9	9045.6	8273.1	7229.4	5963.1
52.5°	8619.2	8869.8	9475.9	10134.3	10384.9	10298.9	10050.1	9387.9	8493.9	7461.4	6009.9
55°	9283.2	9651.7	10312.0	10742.2	10843.2	10702.9	10319.4	9633.0	8677.2	7463.2	5970.6
57.5°	9922.9	10433.5	11050.8	11331.4	11286.5	11002.2	10427.9	9689.1	8695.9	7358.5	5813.5
60°	10622.5	11151.8	11692.4	11754.1	11559.6	11168.6	10521.5	9707.8	8587.4	7141.5	5546.0
62.5°	11389.4	11799.0	12109.5	11984.2	11713.0	11303.3	10560.7	9526.4	8405.9	6771.1	4925.0
65°	12436.8	12448.1	12420.0	12160.0	11746.6	11183.6	10396.1	9414.1	7951.4	6067.8	3832.6
67.5°	13985.6	13134.5	12515.4	12126.3	11669.9	11058.3	10201.6	8871.7	7175.2	4777.2	2197.8
68°	14120.3	13254.2	12487.3	12105.8	11655.0	11045.2	10104.3	8774.4	6937.6	4431.2	1851.8
70°	14152.1	13254.2	12317.1	11986.0	11595.1	10794.5	9590.0	7842.9	5667.6	2843.1	770.6
72.5°	13729.3	12766.0	12113.2	11881.3	11204.2	9943.5	8168.4	5978.1	3439.8	892.2	587.3
75°	13162.6	12184.3	11389.4	10706.6	9715.3	7940.2	5864.0	3439.8	1004.4	435.8	510.6
77.5°	11481.0	10416.7	9503.9	8622.9	7113.4	5138.2	2904.9	877.3	316.1	349.8	430.2
80°	8175.9	6995.6	5669.4	4440.5	2558.8	976.4	351.7	224.5	228.2	265.6	346.0
82.5°	4494.8	2983.4	1780.7	690.2	239.4	205.8	185.2	153.4	160.9	215.1	252.5
85°	1958.4	944.6	286.2	174.0	151.5	138.4	117.8	106.6	136.5	142.2	136.5
87.5°	185.2	93.5	74.8	71.1	58.0	50.5	37.4	35.5	33.7	33.7	39.3
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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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7	3239.7
2.5°	3224.7	3228.5	3243.4	3239.7	3250.9	3267.7	3269.6	3279.0	3290.2	3301.4	3316.4
5°	3277.1	3277.1	3284.6	3279.0	3288.3	3297.7	3312.6	3316.4	3331.3	3353.8	3374.3
7.5°	3316.4	3314.5	3316.4	3331.3	3342.6	3342.6	3357.5	3359.4	3374.3	3393.1	3409.9
10°	3355.6	3380.0	3372.5	3383.7	3387.4	3389.3	3396.8	3400.5	3421.1	3428.6	3441.7
12.5°	3441.7	3464.1	3451.0	3467.9	3469.7	3460.4	3449.2	3447.3	3447.3	3439.8	3434.2
15°	3567.0	3578.2	3570.7	3557.7	3548.3	3546.4	3510.9	3482.8	3458.5	3424.9	3398.7
17.5°	3707.3	3701.7	3681.1	3664.3	3626.9	3600.7	3553.9	3492.2	3436.1	3363.1	3312.6
20°	3856.9	3817.7	3806.4	3748.4	3681.1	3615.6	3540.8	3454.8	3353.8	3247.2	3161.1
22.5°	3989.7	3931.8	3879.4	3802.7	3697.9	3598.8	3482.8	3372.5	3245.3	3099.4	2975.9
25°	4115.1	4004.7	3914.9	3802.7	3666.1	3537.1	3391.2	3250.9	3084.4	2903.0	2742.1
27.5°	4184.3	4034.6	3888.7	3737.2	3582.0	3406.1	3245.3	3069.5	2873.1	2667.3	2474.6
30°	4191.7	4010.3	3819.5	3610.0	3423.0	3219.1	3030.2	2811.3	2596.2	2383.0	2237.1
32.5°	4195.5	3941.1	3686.7	3436.1	3206.0	2970.3	2753.3	2512.1	2330.6	2199.7	2087.5
35°	4199.2	3856.9	3531.5	3202.3	2940.4	2686.0	2457.8	2268.9	2139.8	2053.8	1964.0
37.5°	4240.4	3778.4	3363.1	2972.2	2682.3	2427.9	2237.1	2093.1	2005.2	1941.6	1874.2
40°	4287.1	3684.8	3185.4	2755.2	2455.9	2231.5	2089.3	1999.5	1934.1	1885.4	1831.2
42.5°	4320.8	3522.1	2942.3	2538.2	2250.2	2074.4	1993.9	1945.3	1907.9	1872.4	1812.5
45°	4380.7	3342.6	2669.2	2263.3	2059.4	1952.8	1919.1	1902.3	1874.2	1838.7	1773.2
47.5°	4451.7	3151.8	2392.3	2033.2	1887.3	1870.5	1868.6	1853.6	1814.4	1777.0	1709.6
50°	4489.2	2962.8	2100.6	1840.6	1780.7	1793.8	1805.0	1790.1	1732.1	1677.8	1618.0
52.5°	4605.1	2878.7	1836.8	1687.2	1690.9	1704.0	1711.5	1690.9	1634.8	1578.7	1517.0
55°	4790.3	2757.1	1640.4	1535.7	1569.3	1588.0	1606.7	1574.9	1537.5	1496.4	1449.6
57.5°	4530.3	2310.0	1436.5	1393.5	1414.1	1430.9	1444.0	1444.0	1444.0	1447.8	1414.1
60°	3668.0	1644.2	1242.0	1213.9	1240.1	1273.8	1316.8	1341.1	1350.5	1354.2	1339.3
62.5°	2583.1	1167.2	1069.9	1086.7	1120.4	1176.5	1217.7	1243.9	1240.1	1217.7	1184.0
65°	1445.9	970.8	987.6	1038.1	1066.2	1111.1	1148.5	1163.4	1135.4	1101.7	1071.8
67.5°	815.5	890.3	957.7	1000.7	1025.0	1051.2	1073.7	1090.5	1056.8	1017.5	995.1
68°	795.0	879.1	950.2	987.6	1011.9	1038.1	1055.0	1066.2	1030.6	995.1	976.4
70°	740.7	858.6	918.4	948.3	950.2	993.2	997.0	1004.4	974.5	933.4	909.1
72.5°	679.0	813.7	843.6	867.9	888.5	903.4	939.0	924.0	886.6	851.1	795.0
75°	626.6	697.7	725.7	781.9	796.8	821.1	839.8	804.3	748.2	714.5	680.9
77.5°	544.3	579.8	609.8	621.0	665.9	684.6	705.2	705.2	671.5	675.2	624.7
80°	419.0	422.7	411.5	445.2	505.0	529.3	536.8	521.9	546.2	542.4	521.9
82.5°	241.3	224.5	243.2	252.5	282.4	304.9	342.3	374.1	377.8	366.6	389.1
85°	101.0	89.8	102.9	117.8	149.6	185.2	228.2	245.0	241.3	233.8	215.1
87.5°	41.2	41.2	48.6	58.0	76.7	97.3	110.4	129.1	140.3	144.0	134.7
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°	3239.7	3239.7	3239.7	3239.7
2.5°	3322.0	3320.1	3318.2	3314.5
5°	3380.0	3381.8	3381.8	3380.0
7.5°	3423.0	3432.3	3434.2	3434.2
10°	3456.6	3464.1	3466.0	3464.1
12.5°	3445.4	3447.3	3454.8	3456.6
15°	3393.1	3380.0	3376.2	3374.3
17.5°	3269.6	3235.9	3207.9	3194.8
20°	3075.1	3009.6	2955.4	2942.3
22.5°	2858.1	2757.1	2686.0	2661.7
25°	2596.2	2470.9	2394.2	2369.9
27.5°	2340.0	2216.5	2162.3	2132.3
30°	2128.6	2037.0	1977.1	1947.2
32.5°	1988.3	1898.5	1836.8	1808.8
35°	1872.4	1778.8	1696.5	1659.1
37.5°	1795.7	1685.3	1589.9	1552.5
40°	1750.8	1651.6	1548.8	1507.6
42.5°	1728.3	1644.2	1552.5	1507.6
45°	1692.8	1603.0	1524.4	1475.8
47.5°	1638.5	1554.4	1475.8	1430.9
50°	1539.4	1453.4	1389.8	1354.2
52.5°	1434.7	1339.3	1271.9	1232.6
55°	1363.6	1268.2	1215.8	1189.6
57.5°	1350.5	1260.7	1208.3	1178.4
60°	1273.8	1187.8	1120.4	1088.6
62.5°	1109.2	1025.0	972.7	952.1
65°	1006.3	925.9	875.4	860.4
67.5°	939.0	854.8	802.4	791.2
68°	922.1	838.0	793.1	778.1
70°	845.5	765.0	725.7	710.8
72.5°	682.7	604.2	551.8	533.1
75°	594.8	508.8	465.7	456.4
77.5°	521.9	420.9	377.8	368.5
80°	422.7	332.9	228.2	213.2
82.5°	316.1	203.9	170.2	155.2
85°	183.3	140.3	110.4	102.9
87.5°	116.0	97.3	84.2	78.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)