

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: P158524

Luminaire Tested: **VST-F12-LED-E-U-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158524
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F12-LED-E-U-SL3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27296.4 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 306.6
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

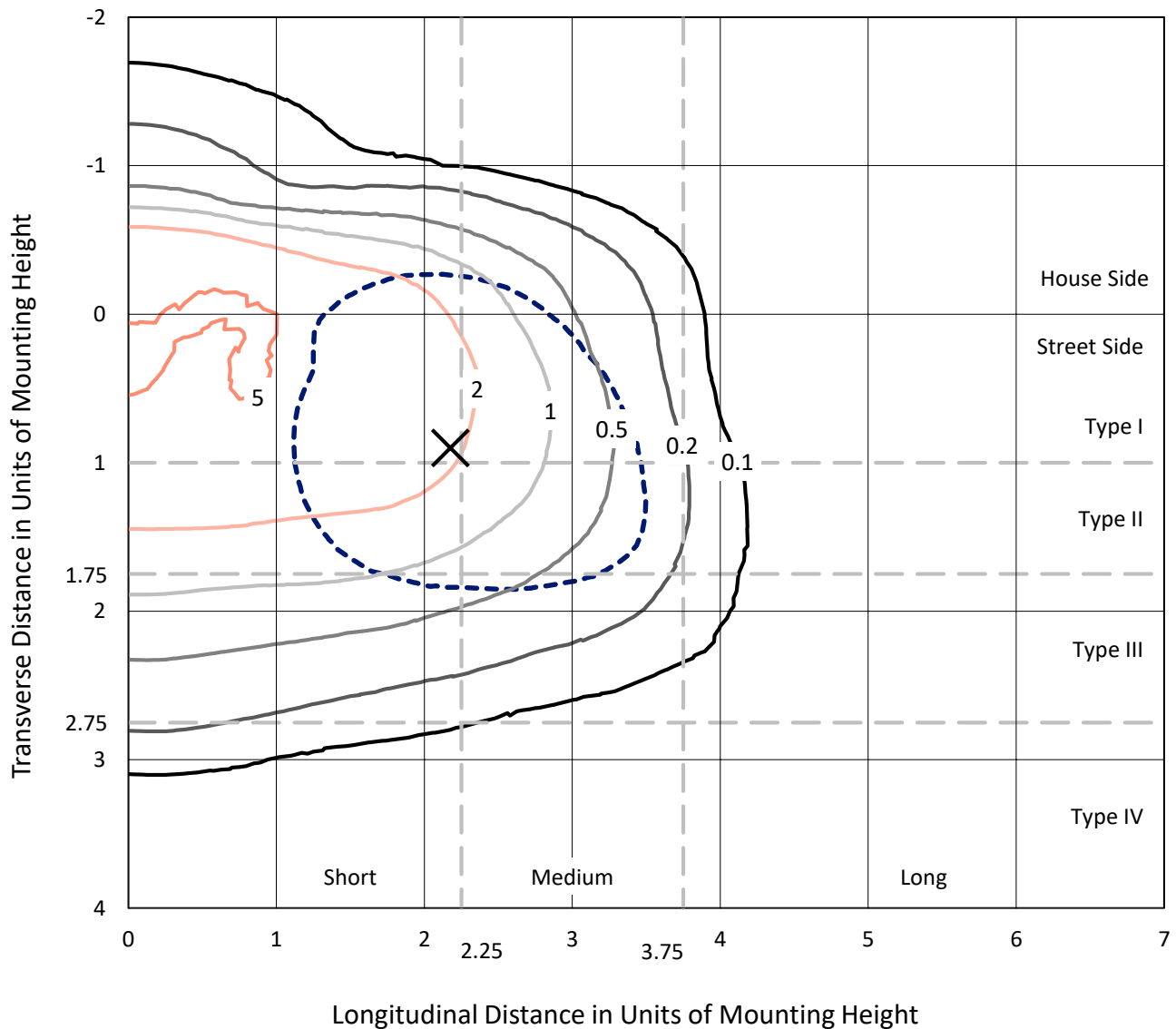


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

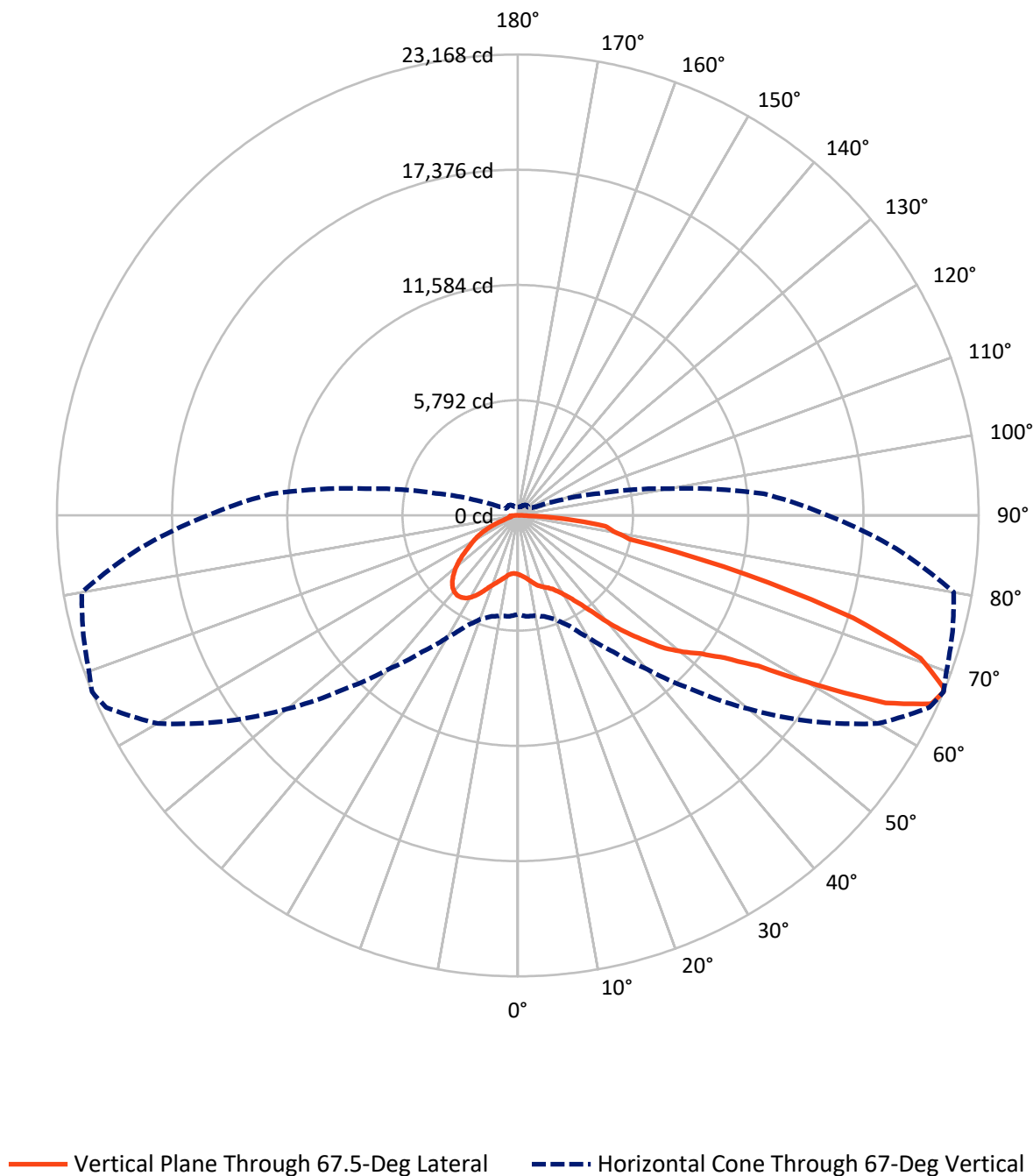


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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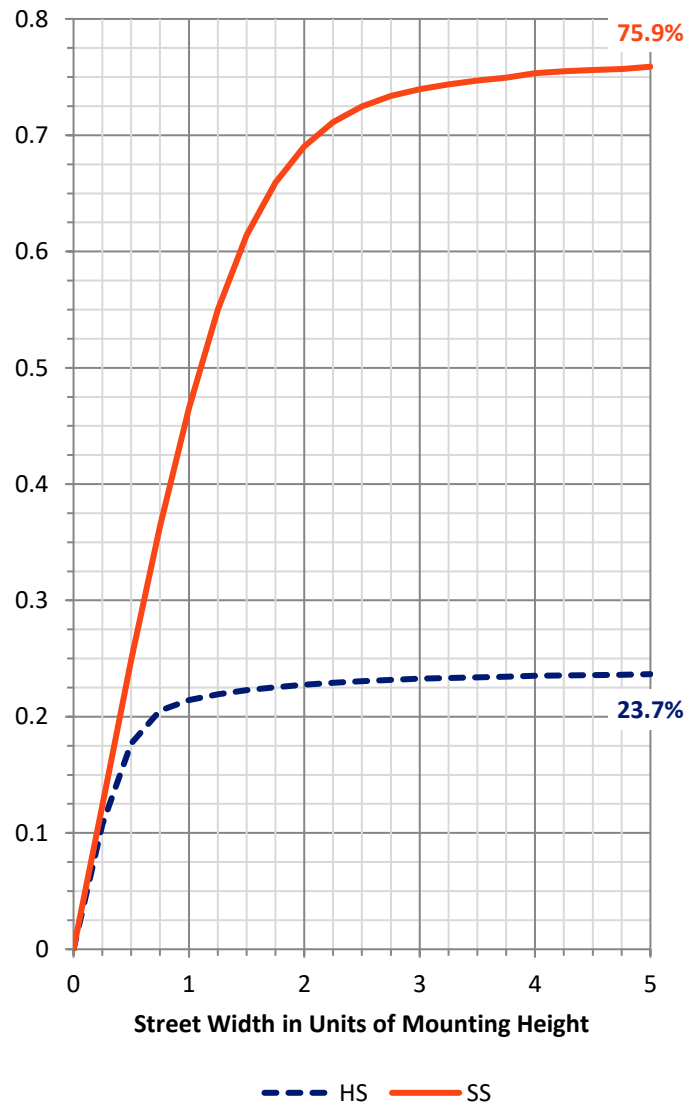
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6548.4	0.0	6548.4
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	20747.9	0.0	20747.9
	% Fixture	76.0	0.0	76.0
Total	Lumens	27296.4	0.0	27296.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.0	1.1
10°-20°	1001.8	3.7
20°-30°	1788.6	6.6
30°-40°	2621.3	9.6
40°-50°	4050.3	14.8
50°-60°	5898.0	21.6
60°-70°	7683.1	28.1
70°-80°	3439.2	12.6
80°-90°	520.0	1.9
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°	27296.4	100.0
0°-180°	27296.4	100.0

Coefficient of Utilization



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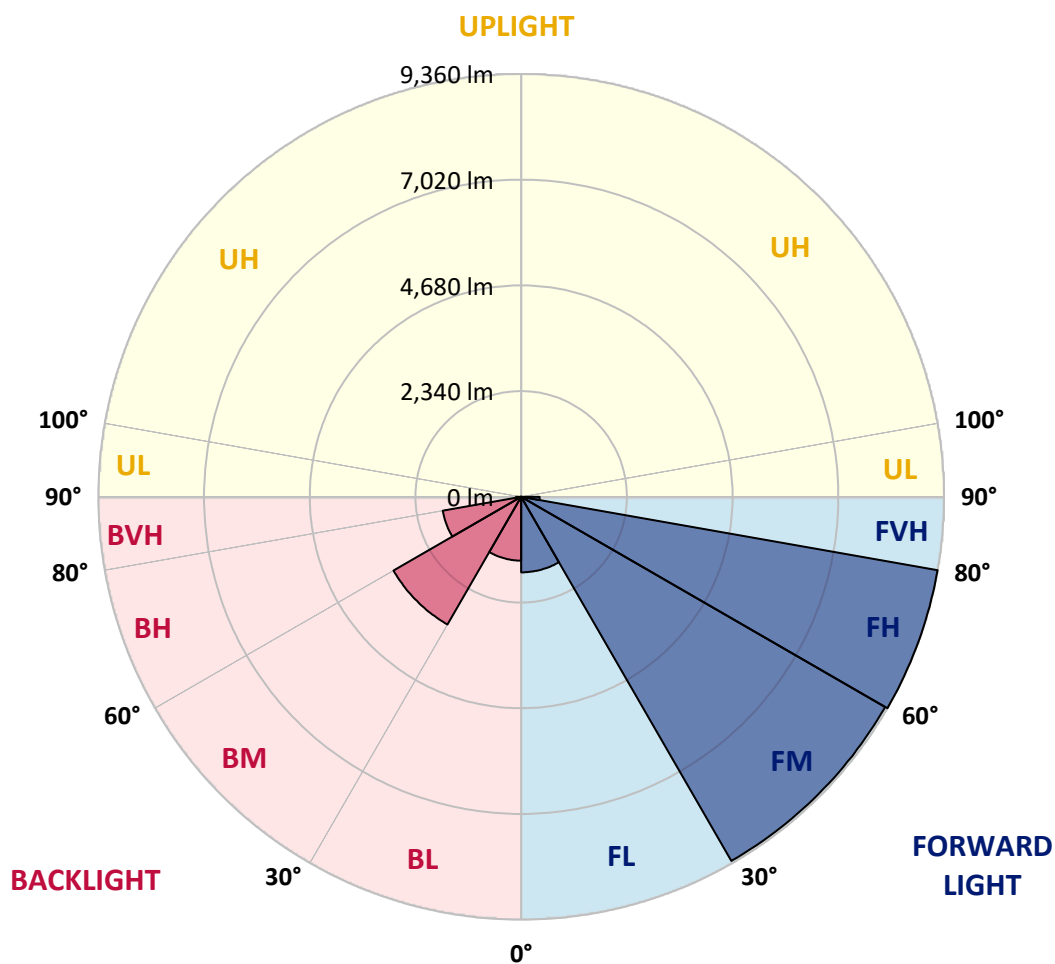
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1672.5	6.1			
FM	(30°-60°)	9306.6	34.1			
FH	(60°-80°)	9360.5	34.3			G4/12000
FVH	(80°-90°)	408.4	1.5			G3/500
BL	(0°-30°)	1412.1	5.2	B3/2500		
BM	(30°-60°)	3263.0	12.0	B3/5000		
BH	(60°-80°)	1761.8	6.5	B3/2500		G3/2500
BVH	(80°-90°)	111.7	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 Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	3074.5	3081.7	3083.5	3081.7	3083.5	3076.3	3074.5	3063.6	3069.1	3054.6	3051.0
5°	3241.0	3246.4	3250.0	3235.5	3239.2	3231.9	3222.9	3212.0	3197.5	3177.6	3165.0
7.5°	3403.8	3412.9	3411.1	3405.6	3393.0	3385.7	3367.6	3351.4	3326.0	3302.5	3286.2
10°	3622.8	3621.0	3621.0	3590.2	3572.1	3555.8	3523.3	3497.9	3472.6	3438.2	3420.1
12.5°	3876.1	3863.5	3858.0	3836.3	3798.3	3769.4	3722.3	3673.5	3628.2	3592.0	3563.1
15°	4120.4	4120.4	4105.9	4071.6	4035.4	3997.4	3930.4	3859.8	3785.7	3727.7	3698.8
17.5°	4343.0	4323.1	4310.4	4265.2	4227.2	4165.7	4091.5	4015.5	3923.2	3841.7	3785.7
20°	4505.9	4489.6	4462.4	4406.3	4341.2	4268.8	4181.9	4093.3	3993.8	3905.1	3841.7
22.5°	4600.0	4580.1	4538.4	4464.2	4375.6	4274.2	4172.9	4089.7	3999.2	3932.2	3879.7
25°	4648.8	4628.9	4572.8	4475.1	4355.7	4221.8	4105.9	4024.5	3972.0	3955.8	3948.5
27.5°	4647.0	4630.7	4571.0	4458.8	4305.0	4151.2	4026.3	3957.6	3952.1	4015.5	4062.5
30°	4600.0	4589.1	4534.8	4422.6	4261.6	4100.5	3984.7	3948.5	4004.6	4138.5	4254.3
32.5°	4552.9	4547.5	4509.5	4408.1	4270.6	4134.9	4055.3	4058.9	4174.7	4381.0	4567.4
35°	4558.3	4565.6	4560.2	4505.9	4419.0	4348.4	4310.4	4390.1	4571.0	4820.7	5070.5
37.5°	4605.4	4632.5	4666.9	4672.3	4674.2	4663.3	4742.9	4911.2	5175.4	5501.1	5892.0
40°	4708.5	4739.3	4838.8	4925.7	5037.9	5171.8	5332.8	5566.3	5893.8	6295.5	6775.1
42.5°	5028.8	5072.3	5195.3	5356.4	5562.7	5772.6	6013.2	6331.7	6733.5	7156.9	7660.0
45°	5446.8	5537.3	5673.0	5852.2	6161.6	6456.6	6767.8	7124.3	7551.4	8081.6	8588.3
47.5°	5968.0	6058.5	6255.7	6447.5	6813.1	7180.4	7520.6	7893.4	8356.7	8899.5	9460.5
50°	6424.0	6527.2	6702.7	6961.5	7384.9	7835.5	8211.9	8615.4	9004.5	9576.3	10142.7
52.5°	6782.3	6856.5	7024.8	7261.9	7734.2	8228.2	8704.1	9152.9	9614.3	10186.2	10710.9
55°	6827.6	6896.3	7061.0	7332.4	7812.0	8360.3	8908.6	9440.6	10093.9	10718.2	11413.0
57.5°	6632.1	6688.2	6854.7	7097.2	7564.1	8188.4	8881.4	9563.7	10399.7	11242.9	12091.6
60°	6355.3	6411.4	6541.6	6735.3	7156.9	7830.1	8639.0	9572.7	10683.8	11901.6	13150.2
62.5°	6051.2	6100.1	6205.1	6342.6	6713.6	7334.2	8260.8	9513.0	10915.4	12556.7	14482.1
65°	5539.1	5656.8	5702.0	5843.1	6214.1	6800.4	7743.2	9109.4	10821.3	12848.0	15318.1
67°	4972.7	5092.2	5115.7	5258.7	5555.4	6118.2	7077.3	8362.1	10075.8	12345.0	15133.6
67.5°	4791.8	4893.1	4929.3	5072.3	5352.8	5883.0	6793.2	8092.5	9847.8	12069.9	14911.0
70°	3523.3	3635.5	3675.3	3735.0	3935.8	4377.4	4980.0	6107.3	7851.8	9849.6	12578.4
72.5°	1885.6	1976.1	2014.1	2102.7	2205.9	2446.6	2908.0	3716.9	4818.9	6590.5	8948.4
75°	1275.8	1311.9	1339.1	1400.6	1507.4	1699.2	1901.9	2186.0	2851.9	3718.7	5092.2
77.5°	727.5	743.7	747.4	758.2	843.3	1026.0	1359.0	1840.3	2359.7	2694.5	3257.3
80°	314.9	347.4	372.8	356.5	351.1	389.1	486.8	725.6	1422.3	2258.4	2680.0
82.5°	170.1	184.6	206.3	208.1	219.0	231.6	251.5	298.6	419.8	846.9	1847.6
85°	88.7	92.3	123.1	141.1	150.2	157.4	161.1	179.1	206.3	262.4	459.6
87.5°	12.7	18.1	21.7	29.0	32.6	34.4	39.8	50.7	59.7	72.4	123.1
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	3034.7	3031.1	3020.2	3013.0	3005.7	2998.5	2989.4	2982.2	2969.5	2960.5	2949.6
5°	3146.9	3125.2	3110.7	3090.8	3087.2	3063.6	3040.1	3029.2	3007.5	2989.4	2967.7
7.5°	3260.9	3235.5	3212.0	3195.7	3186.7	3154.1	3130.6	3103.4	3078.1	3054.6	3029.2
10°	3394.8	3369.4	3344.1	3333.3	3317.0	3286.2	3266.3	3231.9	3206.6	3177.6	3143.2
12.5°	3534.1	3516.0	3497.9	3483.4	3476.2	3461.7	3432.8	3403.8	3369.4	3340.5	3300.7
15°	3657.2	3644.5	3637.3	3633.6	3633.6	3624.6	3597.5	3570.3	3534.1	3501.5	3458.1
17.5°	3744.0	3738.6	3744.0	3749.5	3756.7	3749.5	3744.0	3713.3	3689.7	3649.9	3606.5
20°	3794.7	3805.6	3832.7	3850.8	3867.1	3879.7	3885.2	3859.8	3829.1	3800.1	3771.2
22.5°	3849.0	3879.7	3926.8	3953.9	3981.1	4026.3	4037.2	4019.1	3995.6	3977.5	3946.7
25°	3939.5	3984.7	4066.1	4109.6	4147.6	4214.5	4223.6	4227.2	4221.8	4207.3	4169.3
27.5°	4080.6	4169.3	4277.9	4334.0	4375.6	4462.4	4496.8	4496.8	4482.3	4498.6	4498.6
30°	4326.7	4444.3	4585.5	4618.1	4683.2	4759.2	4815.3	4822.5	4824.4	4858.7	4909.4
32.5°	4704.9	4817.1	4974.5	5010.7	5066.8	5139.2	5202.6	5195.3	5211.6	5285.8	5352.8
35°	5255.0	5369.0	5472.2	5521.0	5546.4	5611.5	5635.0	5674.9	5723.7	5816.0	5807.0
37.5°	6069.3	6170.7	6185.2	6215.9	6185.2	6197.8	6215.9	6263.0	6393.3	6476.5	6342.6
40°	7050.1	7218.4	7202.1	7166.0	7097.2	7004.9	7037.5	7109.9	7251.0	7178.6	6818.5
42.5°	7974.8	8148.6	8116.0	8074.4	7922.4	7888.0	7884.4	7944.1	8020.1	7813.8	7191.3
45°	8885.1	9062.4	9006.3	8982.8	8881.4	8807.2	8868.8	8872.4	8852.5	8410.9	7517.0
47.5°	9824.2	9987.1	9950.9	9970.8	9865.9	9817.0	9822.4	9797.1	9610.7	8917.6	7770.4
50°	10582.4	10801.4	10823.1	10777.9	10721.8	10647.6	10837.6	10768.8	10354.4	9409.8	8014.6
52.5°	11172.4	11467.3	11579.5	11550.6	11505.3	11514.4	11870.9	11948.7	11262.9	10030.5	8284.3
55°	11870.9	12335.9	12518.7	12627.3	12580.2	12761.2	13577.3	13617.1	12525.9	10841.2	8635.3
57.5°	12878.8	13544.7	14122.0	14275.8	14424.2	15012.3	16336.9	15933.4	14165.4	12068.1	9080.5
60°	14411.5	15870.1	16807.4	17299.6	17647.1	18468.6	19728.1	18705.7	16208.4	13528.5	9639.7
62.5°	16557.7	18689.4	20256.5	20750.5	20893.5	21365.8	22277.8	20321.6	17321.3	14183.5	9688.5
65°	18155.6	20712.5	22589.0	22842.4	22672.3	22681.3	22920.2	20236.6	16906.9	13611.7	8848.9
67°	18050.6	20913.4	22835.1	23168.1	22932.9	22623.4	22250.6	19083.9	15575.1	12413.7	7748.6
67.5°	17889.6	20719.7	22728.4	23079.4	22864.1	22511.2	21966.5	18636.9	15160.7	12041.0	7524.3
70°	15464.7	18275.0	20980.3	21474.3	21564.8	21242.7	19713.6	15714.4	12308.8	9795.3	5843.1
72.5°	12037.4	14540.0	17216.4	17645.3	17992.7	17064.4	14348.2	10853.9	8971.9	7059.2	4230.8
75°	7947.7	10493.8	11843.7	11907.1	11463.7	9744.6	7010.3	5436.0	5003.5	4149.4	2618.5
77.5°	4252.5	6170.7	6208.7	5749.0	5539.1	4129.5	1675.7	924.7	1029.7	1169.0	1042.3
80°	3172.2	3930.4	4554.7	4896.7	4998.1	3541.4	866.8	490.4	428.9	390.9	385.4
82.5°	2861.0	3796.5	4256.1	4442.5	4395.5	2913.4	486.8	329.3	273.2	296.8	338.4
85°	1121.9	2026.7	2665.5	2580.5	2167.9	1085.8	266.0	177.3	177.3	257.0	333.0
87.5°	229.8	416.2	564.6	539.3	485.0	209.9	130.3	106.8	108.6	208.1	314.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2938.8	2927.9	2920.7	2913.4	2906.2	2902.6	2897.1	2897.1	2886.3	2882.7	2879.0
5°	2951.4	2933.3	2920.7	2904.4	2891.7	2880.9	2866.4	2862.8	2850.1	2841.0	2837.4
7.5°	3005.7	2978.6	2951.4	2931.5	2913.4	2889.9	2873.6	2859.1	2846.5	2837.4	2826.6
10°	3108.9	3079.9	3041.9	3005.7	2982.2	2946.0	2920.7	2895.3	2880.9	2870.0	2855.5
12.5°	3260.9	3219.3	3174.0	3130.6	3090.8	3043.7	3018.4	2987.6	2969.5	2960.5	2949.6
15°	3416.5	3371.3	3315.2	3273.5	3228.3	3192.1	3168.6	3141.4	3127.0	3116.1	3108.9
17.5°	3575.7	3523.3	3483.4	3441.8	3420.1	3393.0	3362.2	3327.8	3286.2	3260.9	3226.5
20°	3738.6	3698.8	3675.3	3651.7	3626.4	3588.4	3526.9	3456.3	3378.5	3304.3	3233.7
22.5°	3928.6	3905.1	3901.5	3879.7	3827.3	3736.8	3622.8	3490.7	3358.6	3235.5	3139.6
25°	4196.4	4196.4	4178.3	4089.7	3966.6	3803.7	3611.9	3421.9	3246.4	3078.1	2951.4
27.5°	4533.0	4520.3	4431.7	4248.9	4028.1	3774.8	3517.8	3277.2	3052.8	2868.2	2705.3
30°	4904.0	4815.3	4625.3	4337.6	4006.4	3680.7	3365.8	3087.2	2823.0	2596.8	2404.9
32.5°	5289.4	5074.1	4732.1	4337.6	3930.4	3539.5	3175.8	2833.8	2531.6	2278.3	2050.3
35°	5638.7	5246.0	4757.4	4267.0	3782.0	3331.4	2909.8	2522.6	2160.6	1887.4	1637.7
37.5°	5955.3	5360.0	4730.3	4129.5	3566.7	3038.3	2544.3	2117.2	1708.2	1444.0	1230.5
40°	6161.6	5383.5	4618.1	3914.1	3259.1	2642.0	2095.5	1617.8	1293.9	1053.2	910.2
42.5°	6290.1	5338.3	4437.1	3619.2	2844.7	2144.4	1572.5	1159.9	919.3	785.4	731.1
45°	6362.5	5220.7	4169.3	3215.6	2343.4	1630.4	1116.5	837.8	707.5	660.5	642.4
47.5°	6358.9	5030.6	3834.5	2748.8	1789.7	1136.4	790.8	653.3	617.1	602.6	599.0
50°	6320.9	4797.2	3441.8	2242.1	1292.0	792.6	626.1	586.3	577.3	568.2	564.6
52.5°	6268.4	4507.7	3007.5	1748.1	917.5	633.4	568.2	557.4	550.1	541.1	537.4
55°	6170.7	4151.2	2537.0	1315.6	718.4	571.8	548.3	544.7	535.6	523.0	515.7
57.5°	6051.2	3789.3	2086.5	1027.8	635.2	557.4	544.7	539.3	526.6	512.1	497.6
60°	6007.8	3490.7	1733.6	866.8	615.3	562.8	553.7	546.5	528.4	506.7	490.4
62.5°	5736.4	3154.1	1480.2	803.5	626.1	586.3	582.7	571.8	544.7	519.4	494.0
65°	5034.3	2667.3	1254.0	760.0	647.8	626.1	629.7	613.4	586.3	551.9	506.7
67°	4258.0	2175.1	1044.1	718.4	664.1	667.7	680.4	667.7	633.4	584.5	523.0
67.5°	4051.7	2050.3	991.7	705.7	667.7	678.6	693.1	684.0	649.6	593.5	530.2
70°	3011.1	1444.0	740.1	638.8	667.7	711.2	743.7	752.8	714.8	637.0	544.7
72.5°	2120.8	931.9	568.2	553.7	606.2	664.1	725.6	756.4	713.0	627.9	524.8
75°	1273.9	582.7	461.4	470.5	510.3	570.0	618.9	631.5	577.3	523.0	454.2
77.5°	589.9	387.3	361.9	374.6	412.6	439.7	439.7	414.4	372.8	340.2	325.7
80°	347.4	316.7	314.9	338.4	363.7	343.8	313.1	278.7	257.0	246.1	240.7
82.5°	325.7	338.4	360.1	365.5	345.6	296.8	258.8	224.4	213.5	208.1	202.7
85°	383.6	410.8	374.6	345.6	305.8	249.7	202.7	173.7	168.3	162.9	155.6
87.5°	354.7	338.4	295.0	253.3	209.9	152.0	110.4	99.5	106.8	105.0	101.3
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):

	160°	165°	170°	175°	180°
0°	2958.7	2958.7	2958.7	2958.7	2958.7
2.5°	2880.9	2880.9	2873.6	2870.0	2879.0
5°	2830.2	2832.0	2826.6	2824.8	2826.6
7.5°	2819.3	2817.5	2813.9	2810.3	2813.9
10°	2851.9	2850.1	2844.7	2848.3	2842.9
12.5°	2949.6	2960.5	2958.7	2962.3	2969.5
15°	3108.9	3107.1	3101.6	3105.2	3110.7
17.5°	3199.3	3184.9	3172.2	3166.8	3166.8
20°	3177.6	3136.0	3114.3	3101.6	3098.0
22.5°	3049.1	2989.4	2944.2	2933.3	2924.3
25°	2839.2	2765.0	2707.1	2694.5	2670.9
27.5°	2594.9	2495.4	2426.7	2412.2	2399.5
30°	2274.6	2160.6	2081.0	2030.4	2046.6
32.5°	1883.8	1775.2	1682.9	1601.5	1588.8
35°	1454.9	1335.5	1254.0	1217.9	1194.3
37.5°	1085.8	986.2	931.9	897.6	899.4
40°	830.6	778.1	749.2	725.6	727.5
42.5°	693.1	669.5	662.3	651.5	646.0
45°	627.9	620.7	622.5	611.6	608.0
47.5°	591.7	586.3	588.1	580.9	579.1
50°	562.8	559.2	561.0	555.5	553.7
52.5°	533.8	535.6	533.8	530.2	530.2
55°	508.5	506.7	510.3	504.9	504.9
57.5°	488.6	486.8	486.8	485.0	485.0
60°	477.7	470.5	468.7	468.7	470.5
62.5°	472.3	459.6	457.8	457.8	459.6
65°	474.1	454.2	447.0	445.2	443.3
67°	475.9	447.0	432.5	425.3	423.4
67.5°	477.7	443.3	427.1	419.8	416.2
70°	466.9	418.0	394.5	381.8	378.2
72.5°	439.7	387.3	358.3	342.0	338.4
75°	390.9	351.1	325.7	307.6	300.4
77.5°	302.2	284.1	275.1	264.2	260.6
80°	235.2	226.2	222.6	215.3	213.5
82.5°	195.4	186.4	181.0	171.9	166.5
85°	152.0	141.1	137.5	130.3	126.7
87.5°	99.5	94.1	92.3	83.2	79.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)