

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: P158501

Luminaire Tested: **VST-E10-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158501
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-E10-LED-E-U-SL3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (210) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30956.2 lumens
Efficiency: N/A
Efficacy: 125.0 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

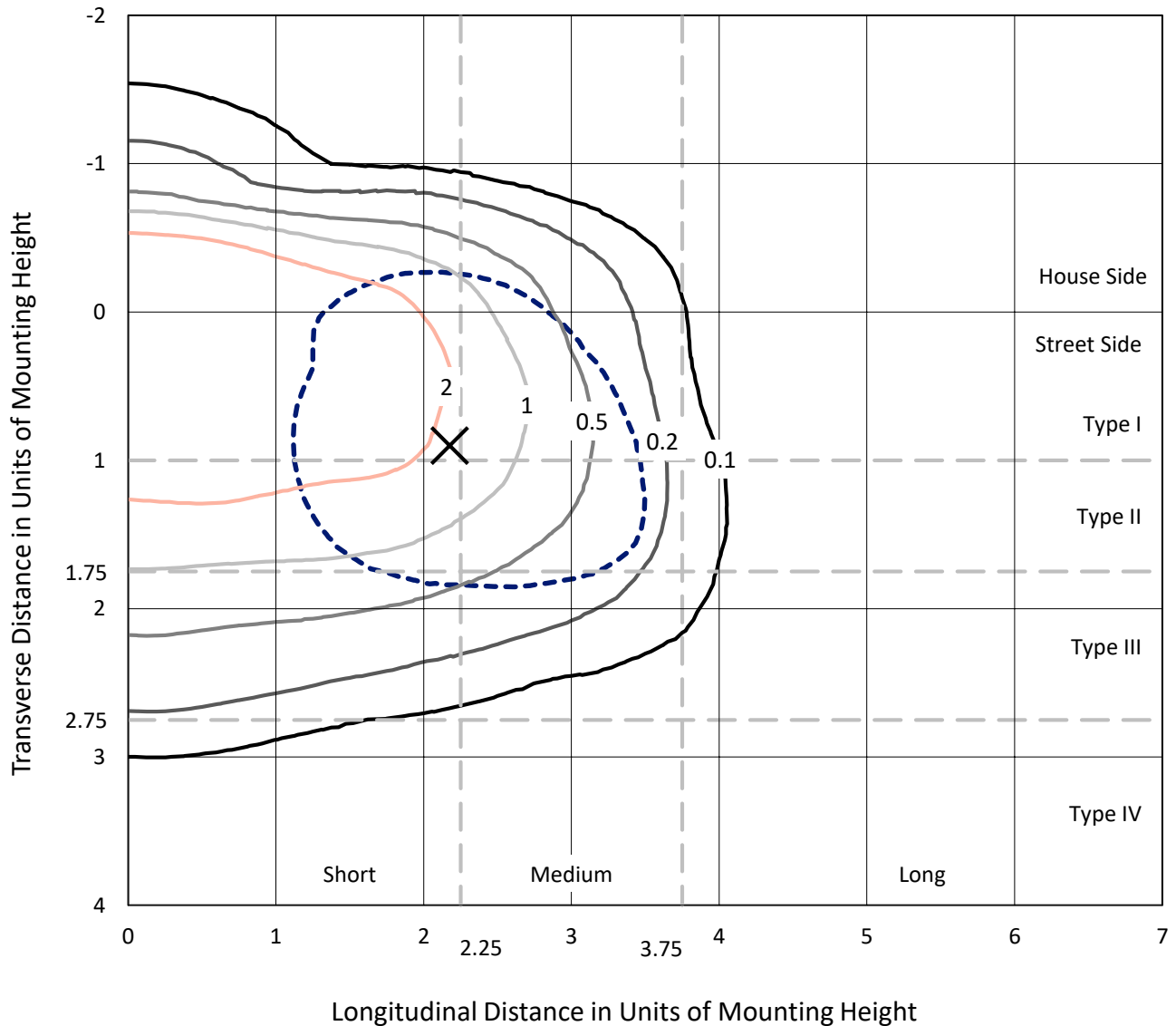
Input Watts (W): 247.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

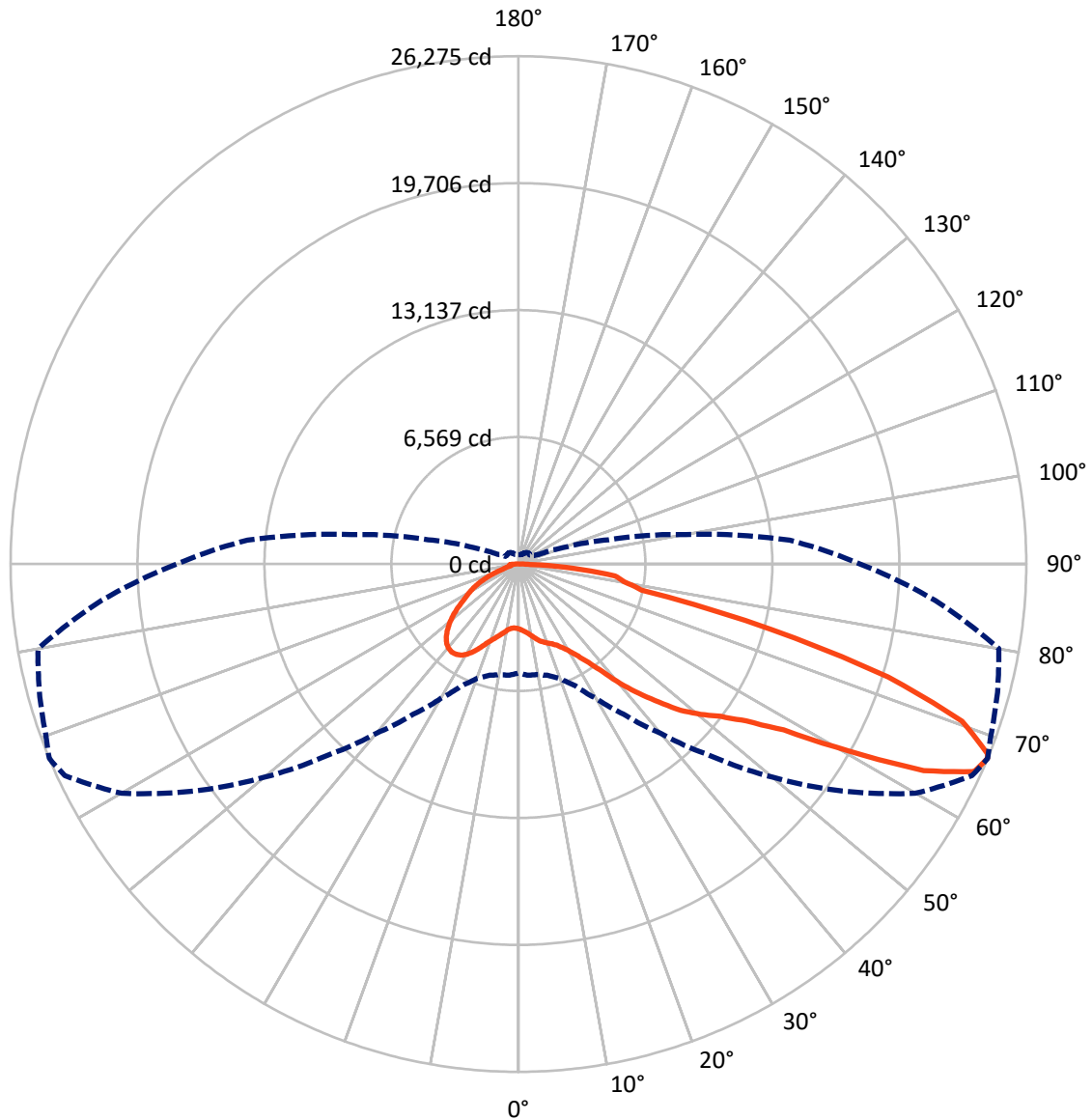
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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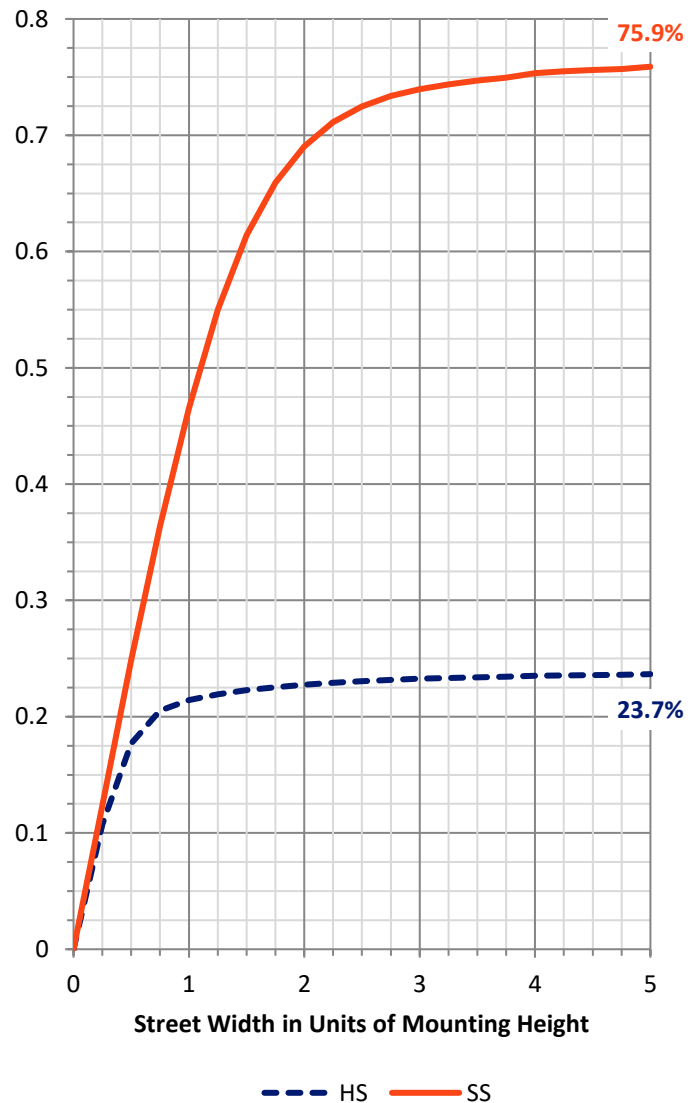
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7426.5	0.0	7426.5
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	23529.8	0.0	23529.8
	% Fixture	76.0	0.0	76.0
Total	Lumens	30956.2	0.0	30956.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.5	1.1
10°-20°	1136.2	3.7
20°-30°	2028.4	6.6
30°-40°	2972.8	9.6
40°-50°	4593.4	14.8
50°-60°	6688.8	21.6
60°-70°	8713.2	28.1
70°-80°	3900.3	12.6
80°-90°	589.7	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°	30956.2	100.0
0°-180°	30956.2	100.0



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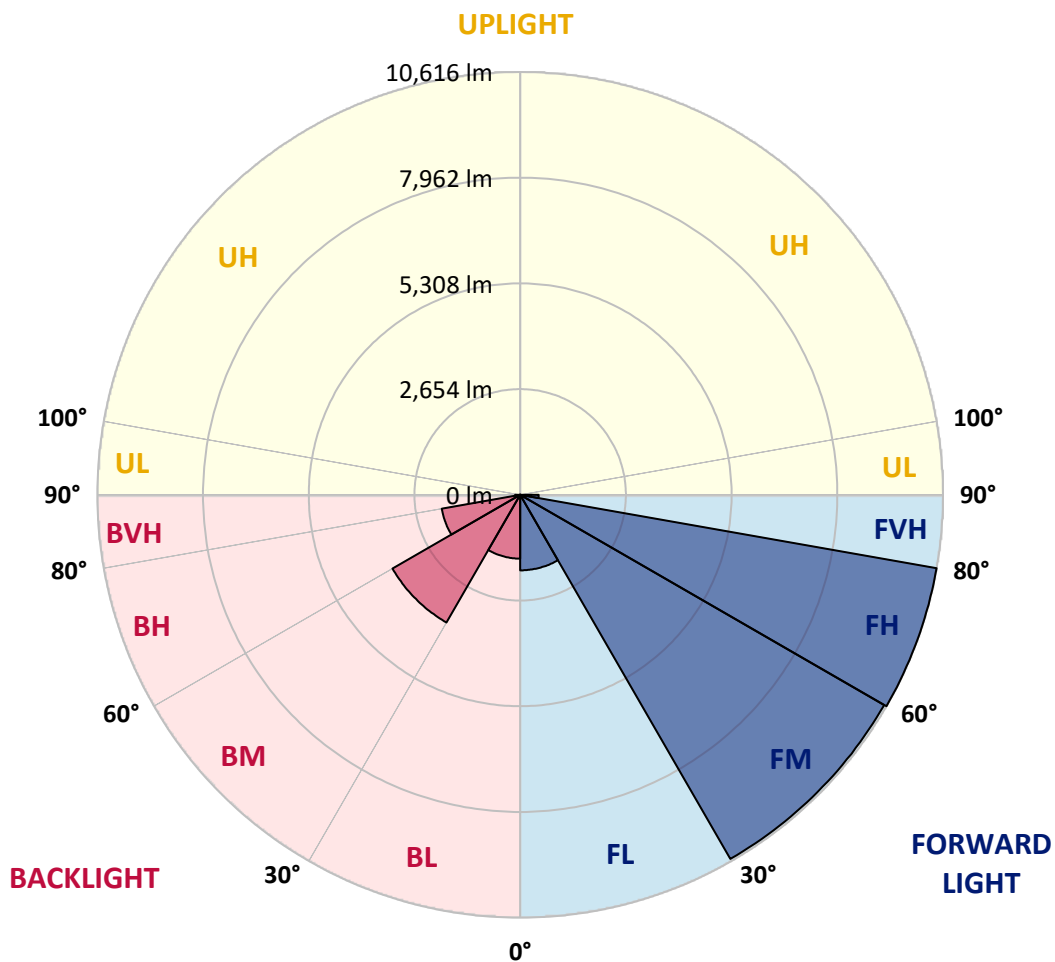
CATALOG NUMBER: VST-E10-LED-E-U-SL3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1896.7	6.1			
FM	(30°-60°)	10554.5	34.1			
FH	(60°-80°)	10615.5	34.3			G4/12000
FVH	(80°-90°)	463.1	1.5			G3/500
BL	(0°-30°)	1601.4	5.2	B3/2500		
BM	(30°-60°)	3700.5	12.0	B3/5000		
BH	(60°-80°)	1998.0	6.5	B3/2500		G3/2500
BVH	(80°-90°)	126.6	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°	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4
2.5°	3486.7	3494.9	3497.0	3494.9	3497.0	3488.8	3486.7	3474.4	3480.5	3464.1	3460.0
5°	3675.5	3681.7	3685.8	3669.4	3673.5	3665.2	3655.0	3642.7	3626.3	3603.7	3589.3
7.5°	3860.2	3870.5	3868.4	3862.3	3847.9	3839.7	3819.2	3800.7	3772.0	3745.3	3726.8
10°	4108.5	4106.5	4106.5	4071.6	4051.1	4032.6	3995.7	3966.9	3938.2	3899.2	3878.7
12.5°	4395.8	4381.5	4375.3	4350.7	4307.6	4274.8	4221.4	4166.0	4114.7	4073.6	4040.8
15°	4672.9	4672.9	4656.5	4617.5	4576.4	4533.3	4457.4	4377.4	4293.2	4227.6	4194.7
17.5°	4925.3	4902.7	4888.4	4837.1	4794.0	4724.2	4640.0	4553.9	4449.2	4356.8	4293.2
20°	5110.0	5091.5	5060.8	4997.1	4923.3	4841.2	4742.7	4642.1	4529.2	4428.7	4356.8
22.5°	5216.7	5194.1	5146.9	5062.8	4962.2	4847.3	4732.4	4638.0	4535.4	4459.5	4399.9
25°	5272.1	5249.6	5185.9	5075.1	4939.7	4787.8	4656.5	4564.1	4504.6	4486.1	4477.9
27.5°	5270.1	5251.6	5183.9	5056.6	4882.2	4707.8	4566.2	4488.2	4482.0	4553.9	4607.2
30°	5216.7	5204.4	5142.8	5015.6	4833.0	4650.3	4519.0	4477.9	4541.5	4693.4	4824.7
32.5°	5163.4	5157.2	5114.1	4999.2	4843.2	4689.3	4599.0	4603.1	4734.5	4968.4	5179.8
35°	5169.5	5177.7	5171.6	5110.0	5011.5	4931.5	4888.4	4978.7	5183.9	5467.1	5750.3
37.5°	5222.9	5253.7	5292.7	5298.8	5300.9	5288.5	5378.8	5569.7	5869.3	6238.7	6682.0
40°	5339.9	5374.7	5487.6	5586.1	5713.4	5865.2	6047.9	6312.6	6684.1	7139.6	7683.5
42.5°	5703.1	5752.3	5891.9	6074.5	6308.5	6546.6	6819.5	7180.7	7636.3	8116.5	8687.0
45°	6177.2	6279.8	6433.7	6636.8	6987.8	7322.3	7675.3	8079.6	8563.9	9165.2	9739.8
47.5°	6768.2	6870.8	7094.5	7312.0	7726.6	8143.2	8529.0	8951.7	9477.1	10092.8	10729.0
50°	7285.3	7402.3	7601.4	7894.9	8375.1	8886.1	9312.9	9770.6	10211.8	10860.3	11502.6
52.5°	7691.7	7775.8	7966.7	8235.5	8771.1	9331.4	9871.1	10380.1	10903.4	11551.9	12147.0
55°	7743.0	7821.0	8007.7	8315.6	8859.4	9481.2	10103.0	10706.4	11447.2	12155.2	12943.3
57.5°	7521.4	7585.0	7773.8	8048.8	8578.2	9286.3	10072.3	10845.9	11794.1	12750.4	13712.9
60°	7207.4	7271.0	7418.7	7638.3	8116.5	8879.9	9797.3	10856.2	12116.3	13497.4	14913.4
62.5°	6862.6	6918.0	7037.0	7193.0	7613.7	8317.6	9368.3	10788.5	12378.9	14240.3	16423.8
65°	6281.8	6415.2	6466.5	6626.6	7047.3	7712.2	8781.4	10330.8	12272.2	14570.7	17372.0
67°	5639.5	5774.9	5801.6	5963.7	6300.3	6938.5	8026.2	9483.3	11426.7	14000.2	17162.6
67.5°	5434.3	5549.2	5590.2	5752.3	6070.4	6671.7	7704.0	9177.5	11168.1	13688.2	16910.2
70°	3995.7	4122.9	4168.0	4235.8	4463.6	4964.3	5647.7	6926.2	8904.5	11170.2	14264.9
72.5°	2138.4	2241.0	2284.1	2384.7	2501.6	2774.6	3297.9	4215.2	5465.0	7474.2	10148.2
75°	1446.8	1487.9	1518.6	1588.4	1709.5	1927.0	2156.9	2479.1	3234.3	4217.3	5774.9
77.5°	825.0	843.5	847.6	859.9	956.3	1163.6	1541.2	2087.1	2676.1	3055.7	3694.0
80°	357.1	394.0	422.8	404.3	398.1	441.2	552.0	822.9	1613.0	2561.2	3039.3
82.5°	192.9	209.3	234.0	236.0	248.3	262.7	285.3	338.6	476.1	960.4	2095.3
85°	100.6	104.7	139.6	160.1	170.3	178.5	182.6	203.2	234.0	297.6	521.3
87.5°	14.4	20.5	24.6	32.8	36.9	39.0	45.1	57.5	67.7	82.1	139.6
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°	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4
2.5°	3441.6	3437.5	3425.1	3416.9	3408.7	3400.5	3390.3	3382.0	3367.7	3357.4	3345.1
5°	3568.8	3544.2	3527.8	3505.2	3501.1	3474.4	3447.7	3435.4	3410.8	3390.3	3365.6
7.5°	3698.1	3669.4	3642.7	3624.2	3613.9	3577.0	3550.3	3519.5	3490.8	3464.1	3435.4
10°	3849.9	3821.2	3792.5	3780.2	3761.7	3726.8	3704.2	3665.2	3636.5	3603.7	3564.7
12.5°	4008.0	3987.4	3966.9	3950.5	3942.3	3925.9	3893.0	3860.2	3821.2	3788.4	3743.2
15°	4147.5	4133.2	4124.9	4120.8	4120.8	4110.6	4079.8	4049.0	4008.0	3971.0	3921.8
17.5°	4246.0	4239.9	4246.0	4252.2	4260.4	4252.2	4246.0	4211.1	4184.5	4139.3	4090.1
20°	4303.5	4315.8	4346.6	4367.1	4385.6	4399.9	4406.1	4377.4	4342.5	4309.6	4276.8
22.5°	4365.1	4399.9	4453.3	4484.1	4514.9	4566.2	4578.5	4558.0	4531.3	4510.8	4475.9
25°	4467.7	4519.0	4611.3	4660.6	4703.7	4779.6	4789.9	4794.0	4787.8	4771.4	4728.3
27.5°	4627.7	4728.3	4851.4	4915.0	4962.2	5060.8	5099.7	5099.7	5083.3	5101.8	5101.8
30°	4906.8	5040.2	5200.3	5237.2	5311.1	5397.3	5460.9	5469.1	5471.2	5510.2	5567.6
32.5°	5335.7	5463.0	5641.5	5682.6	5746.2	5828.3	5900.1	5891.9	5910.4	5994.5	6070.4
35°	5959.6	6088.9	6205.9	6261.3	6290.0	6363.9	6390.6	6435.7	6491.1	6595.8	6585.5
37.5°	6883.1	6998.0	7014.5	7049.3	7014.5	7028.8	7049.3	7102.7	7250.5	7344.9	7193.0
40°	7995.4	8186.3	8167.8	8126.8	8048.8	7944.1	7981.0	8063.1	8223.2	8141.1	7732.7
42.5°	9044.1	9241.1	9204.2	9157.0	8984.6	8945.6	8941.5	9009.2	9095.4	8861.4	8155.5
45°	10076.4	10277.5	10213.9	10187.2	10072.3	9988.1	10057.9	10062.0	10039.4	9538.7	8524.9
47.5°	11141.5	11326.2	11285.1	11307.7	11188.7	11133.2	11139.4	11110.7	10899.3	10113.3	8812.2
50°	12001.3	12249.6	12274.3	12223.0	12159.3	12075.2	12290.7	12212.7	11742.8	10671.5	9089.2
52.5°	12670.4	13004.9	13132.1	13099.3	13048.0	13058.2	13462.5	13550.7	12773.0	11375.4	9395.0
55°	13462.5	13989.9	14197.2	14320.3	14267.0	14472.2	15397.7	15442.9	14205.4	12294.8	9793.2
57.5°	14605.6	15360.8	16015.5	16189.9	16358.2	17025.1	18527.4	18069.7	16064.7	13686.2	10298.0
60°	16343.8	17997.9	19060.9	19619.1	20013.2	20944.9	22373.2	21213.7	18381.7	15342.3	10932.1
62.5°	18777.7	21195.2	22972.4	23532.7	23694.8	24230.5	25264.8	23046.3	19643.8	16085.2	10987.5
65°	20589.8	23489.6	25617.7	25905.1	25712.2	25722.4	25993.3	22949.9	19173.8	15436.7	10035.3
67°	20470.8	23717.4	25896.8	26274.5	26007.7	25656.7	25234.0	21642.6	17663.4	14078.2	8787.6
67.5°	20288.2	23497.8	25775.8	26173.9	25929.7	25529.5	24911.8	21135.7	17193.4	13655.4	8533.1
70°	17538.2	20725.3	23793.3	24353.6	24456.2	24090.9	22356.8	17821.4	13959.1	11108.6	6626.6
72.5°	13651.3	16489.5	19524.7	20011.1	20405.1	19352.3	16272.0	12309.2	10174.9	8005.7	4798.1
75°	9013.3	11900.8	13431.7	13503.5	13000.8	11051.2	7950.3	6164.8	5674.4	4705.7	2969.5
77.5°	4822.7	6998.0	7041.1	6519.9	6281.8	4683.1	1900.3	1048.7	1167.7	1325.7	1182.1
80°	3597.5	4457.4	5165.4	5553.3	5668.2	4016.2	983.0	556.1	486.4	443.3	437.1
82.5°	3244.5	4305.5	4826.8	5038.2	4984.8	3304.1	552.0	373.5	309.9	336.6	383.8
85°	1272.4	2298.5	3022.9	2926.5	2458.5	1231.3	301.7	201.1	201.1	291.4	377.6
87.5°	260.6	472.0	640.3	611.6	550.0	238.1	147.8	121.1	123.1	236.0	357.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4	3355.4
2.5°	3332.8	3320.5	3312.3	3304.1	3295.9	3291.7	3285.6	3285.6	3273.3	3269.2	3265.1
5°	3347.2	3326.6	3312.3	3293.8	3279.4	3267.1	3250.7	3246.6	3232.2	3222.0	3217.9
7.5°	3408.7	3377.9	3347.2	3324.6	3304.1	3277.4	3258.9	3242.5	3228.1	3217.9	3205.6
10°	3525.7	3492.9	3449.8	3408.7	3382.0	3341.0	3312.3	3283.5	3267.1	3254.8	3238.4
12.5°	3698.1	3650.9	3599.6	3550.3	3505.2	3451.8	3423.1	3388.2	3367.7	3357.4	3345.1
15°	3874.6	3823.3	3759.7	3712.4	3661.1	3620.1	3593.4	3562.6	3546.2	3533.9	3525.7
17.5°	4055.2	3995.7	3950.5	3903.3	3878.7	3847.9	3813.0	3774.0	3726.8	3698.1	3659.1
20°	4239.9	4194.7	4168.0	4141.4	4112.6	4069.5	3999.8	3919.7	3831.5	3747.3	3667.3
22.5°	4455.3	4428.7	4424.6	4399.9	4340.4	4237.8	4108.5	3958.7	3808.9	3669.4	3560.6
25°	4759.1	4759.1	4738.6	4638.0	4498.4	4313.7	4096.2	3880.7	3681.7	3490.8	3347.2
27.5°	5140.8	5126.4	5025.9	4818.6	4568.2	4280.9	3989.5	3716.6	3462.1	3252.8	3068.1
30°	5561.5	5460.9	5245.5	4919.1	4543.6	4174.2	3817.1	3501.1	3201.4	2944.9	2727.4
32.5°	5998.6	5754.4	5366.5	4919.1	4457.4	4014.1	3601.6	3213.8	2871.0	2583.7	2325.2
35°	6394.7	5949.4	5395.3	4839.1	4289.1	3778.1	3300.0	2860.8	2450.3	2140.5	1857.3
37.5°	6753.8	6078.6	5364.5	4683.1	4044.9	3445.7	2885.4	2401.1	1937.3	1637.7	1395.5
40°	6987.8	6105.3	5237.2	4438.9	3696.0	2996.2	2376.5	1834.7	1467.3	1194.4	1032.3
42.5°	7133.5	6054.0	5032.0	4104.4	3226.1	2431.9	1783.4	1315.5	1042.5	890.7	829.1
45°	7215.6	5920.6	4728.3	3646.8	2657.6	1849.0	1266.2	950.2	802.4	749.1	728.5
47.5°	7211.5	5705.1	4348.6	3117.3	2029.6	1288.8	896.8	740.8	699.8	683.4	679.3
50°	7168.4	5440.4	3903.3	2542.7	1465.3	898.9	710.1	664.9	654.7	644.4	640.3
52.5°	7108.9	5112.1	3410.8	1982.4	1040.5	718.3	644.4	632.1	623.9	613.6	609.5
55°	6998.0	4707.8	2877.2	1492.0	814.7	648.5	621.8	617.7	607.5	593.1	584.9
57.5°	6862.6	4297.3	2366.2	1165.7	720.3	632.1	617.7	611.6	597.2	580.8	564.4
60°	6813.3	3958.7	1966.0	983.0	697.8	638.2	628.0	619.8	599.2	574.6	556.1
62.5°	6505.5	3577.0	1678.7	911.2	710.1	664.9	660.8	648.5	617.7	589.0	560.3
65°	5709.3	3025.0	1422.2	861.9	734.7	710.1	714.2	695.7	664.9	625.9	574.6
67°	4828.9	2466.8	1184.1	814.7	753.2	757.3	771.6	757.3	718.3	662.9	593.1
67.5°	4594.9	2325.2	1124.6	800.4	757.3	769.6	786.0	775.7	736.7	673.1	601.3
70°	3414.9	1637.7	839.4	724.4	757.3	806.5	843.5	853.7	810.6	722.4	617.7
72.5°	2405.2	1056.9	644.4	628.0	687.5	753.2	822.9	857.8	808.6	712.1	595.1
75°	1444.8	660.8	523.3	533.6	578.7	646.4	701.9	716.2	654.7	593.1	515.1
77.5°	669.0	439.2	410.4	424.8	467.9	498.7	498.7	470.0	422.8	385.8	369.4
80°	394.0	359.1	357.1	383.8	412.5	389.9	355.0	316.0	291.4	279.1	272.9
82.5°	369.4	383.8	408.4	414.5	392.0	336.6	293.5	254.5	242.2	236.0	229.8
85°	435.1	465.9	424.8	392.0	346.8	283.2	229.8	197.0	190.9	184.7	176.5
87.5°	402.2	383.8	334.5	287.3	238.1	172.4	125.2	112.9	121.1	119.0	114.9
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):

	160°	165°	170°	175°	180°
0°	3355.4	3355.4	3355.4	3355.4	3355.4
2.5°	3267.1	3267.1	3258.9	3254.8	3265.1
5°	3209.7	3211.7	3205.6	3203.5	3205.6
7.5°	3197.3	3195.3	3191.2	3187.1	3191.2
10°	3234.3	3232.2	3226.1	3230.2	3224.0
12.5°	3345.1	3357.4	3355.4	3359.5	3367.7
15°	3525.7	3523.6	3517.5	3521.6	3527.8
17.5°	3628.3	3611.9	3597.5	3591.4	3591.4
20°	3603.7	3556.5	3531.9	3517.5	3513.4
22.5°	3458.0	3390.3	3338.9	3326.6	3316.4
25°	3219.9	3135.8	3070.1	3055.7	3029.1
27.5°	2942.9	2830.0	2752.0	2735.6	2721.2
30°	2579.6	2450.3	2360.0	2302.6	2321.1
32.5°	2136.4	2013.2	1908.6	1816.2	1801.8
35°	1650.0	1514.5	1422.2	1381.1	1354.5
37.5°	1231.3	1118.5	1056.9	1017.9	1019.9
40°	942.0	882.5	849.6	822.9	825.0
42.5°	786.0	759.3	751.1	738.8	732.6
45°	712.1	703.9	706.0	693.6	689.5
47.5°	671.1	664.9	667.0	658.8	656.7
50°	638.2	634.1	636.2	630.0	628.0
52.5°	605.4	607.5	605.4	601.3	601.3
55°	576.7	574.6	578.7	572.6	572.6
57.5°	554.1	552.0	552.0	550.0	550.0
60°	541.8	533.6	531.5	531.5	533.6
62.5°	535.6	521.3	519.2	519.2	521.3
65°	537.7	515.1	506.9	504.8	502.8
67°	539.7	506.9	490.5	482.3	480.2
67.5°	541.8	502.8	484.3	476.1	472.0
70°	529.5	474.1	447.4	433.0	428.9
72.5°	498.7	439.2	406.3	387.9	383.8
75°	443.3	398.1	369.4	348.9	340.7
77.5°	342.7	322.2	311.9	299.6	295.5
80°	266.8	256.5	252.4	244.2	242.2
82.5°	221.6	211.4	205.2	195.0	188.8
85°	172.4	160.1	156.0	147.8	143.7
87.5°	112.9	106.7	104.7	94.4	90.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)