

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: P158519

Luminaire Tested: **VST-E12-LED-E-U-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158519
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-E12-LED-E-U-SL3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (252) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33065.5 lumens
Efficiency: N/A
Efficacy: 113.4 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

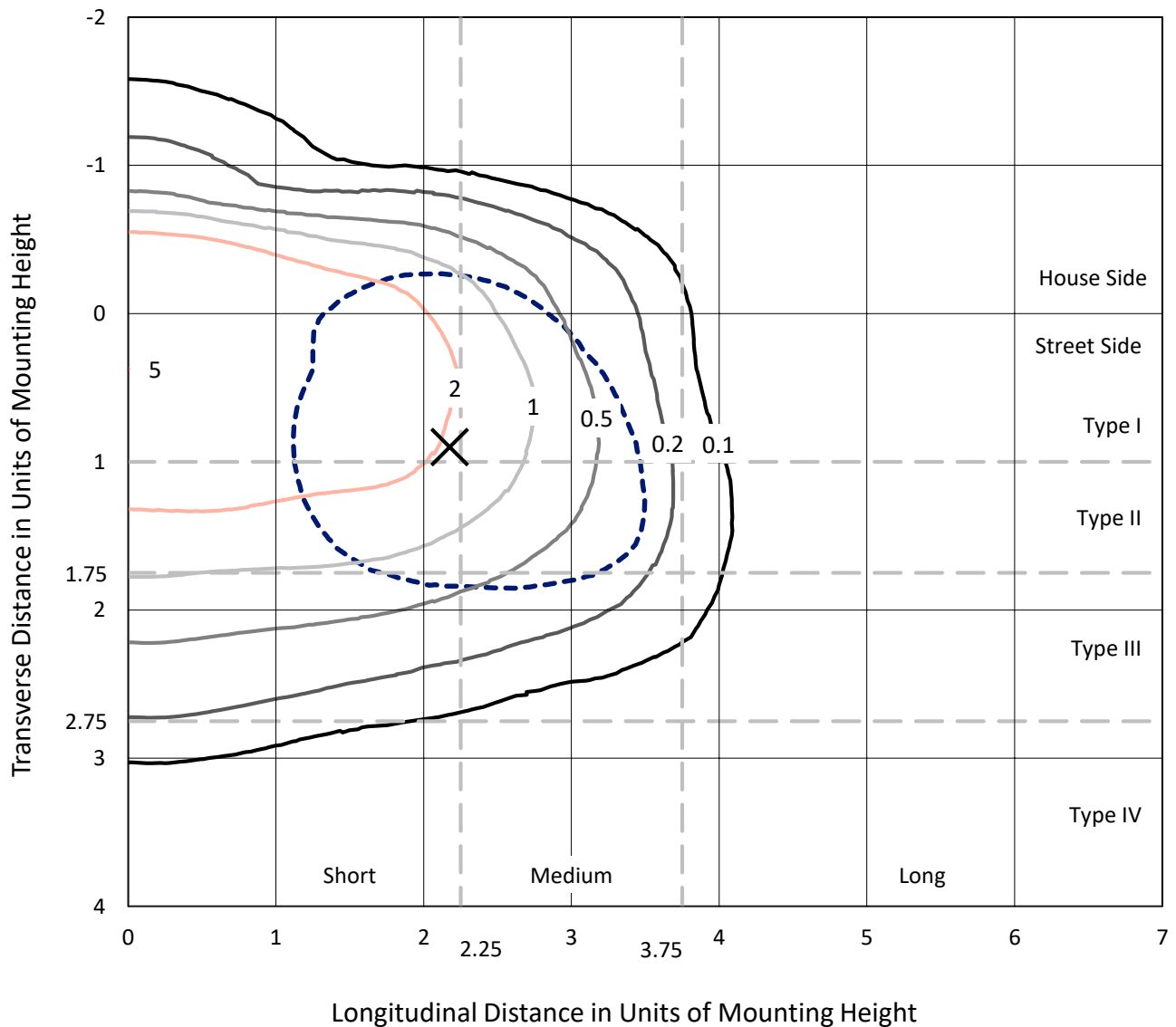
Input Watts (W): 291.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

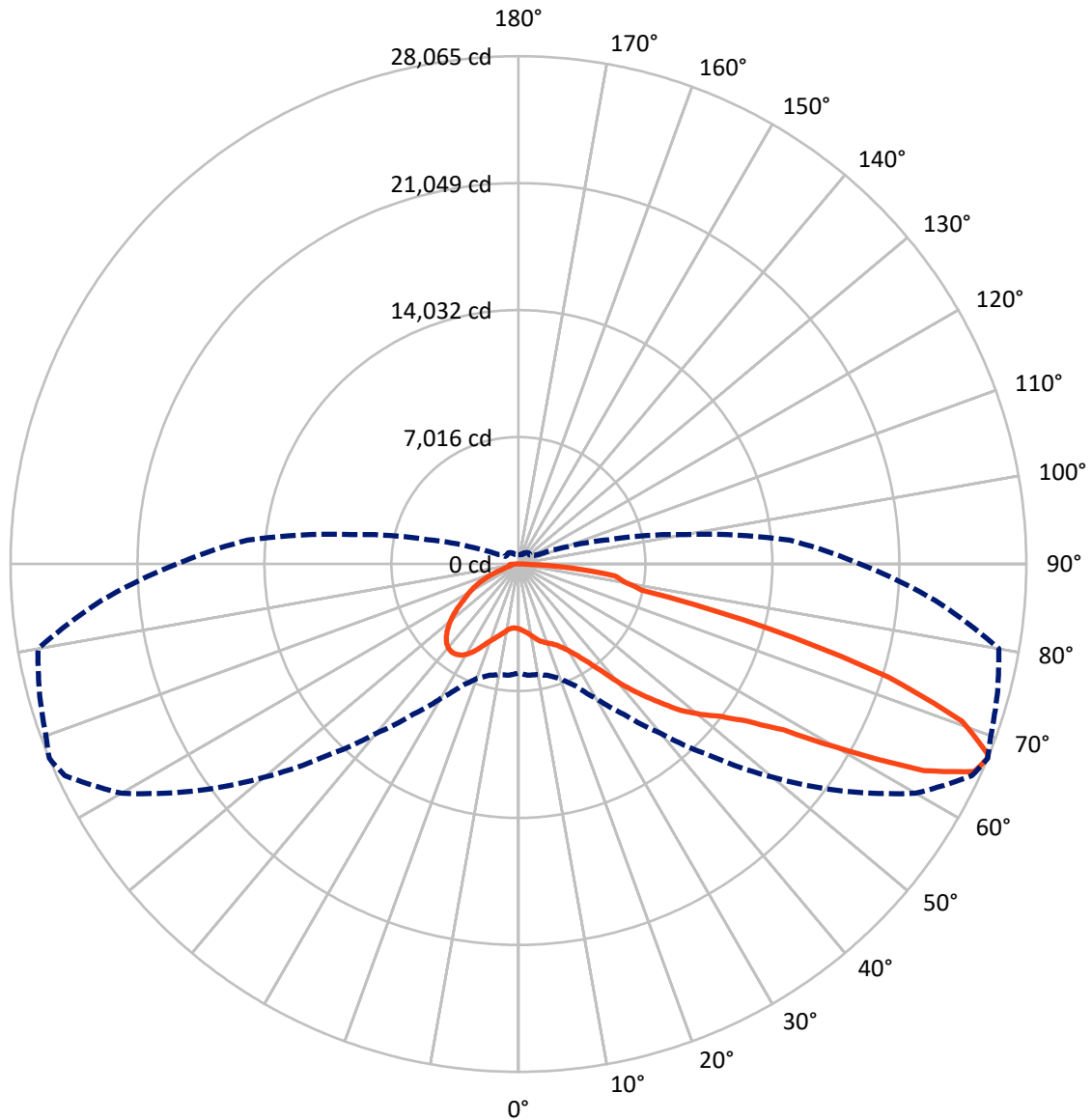
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5 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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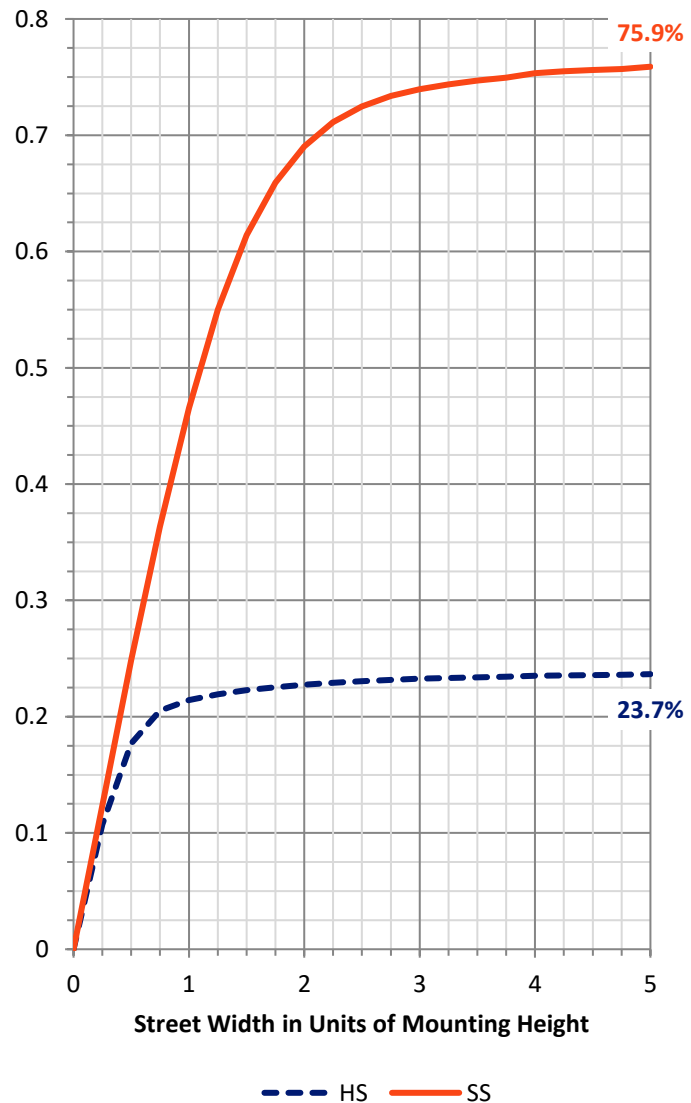
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7932.5	0.0	7932.5
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	25133.0	0.0	25133.0
	% Fixture	76.0	0.0	76.0
Total	Lumens	33065.5	0.0	33065.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	356.2	1.1
10°-20°	1213.6	3.7
20°-30°	2166.6	6.6
30°-40°	3175.3	9.6
40°-50°	4906.4	14.8
50°-60°	7144.5	21.6
60°-70°	9306.9	28.1
70°-80°	4166.1	12.6
80°-90°	629.9	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°	33065.5	100.0
0°-180°	33065.5	100.0



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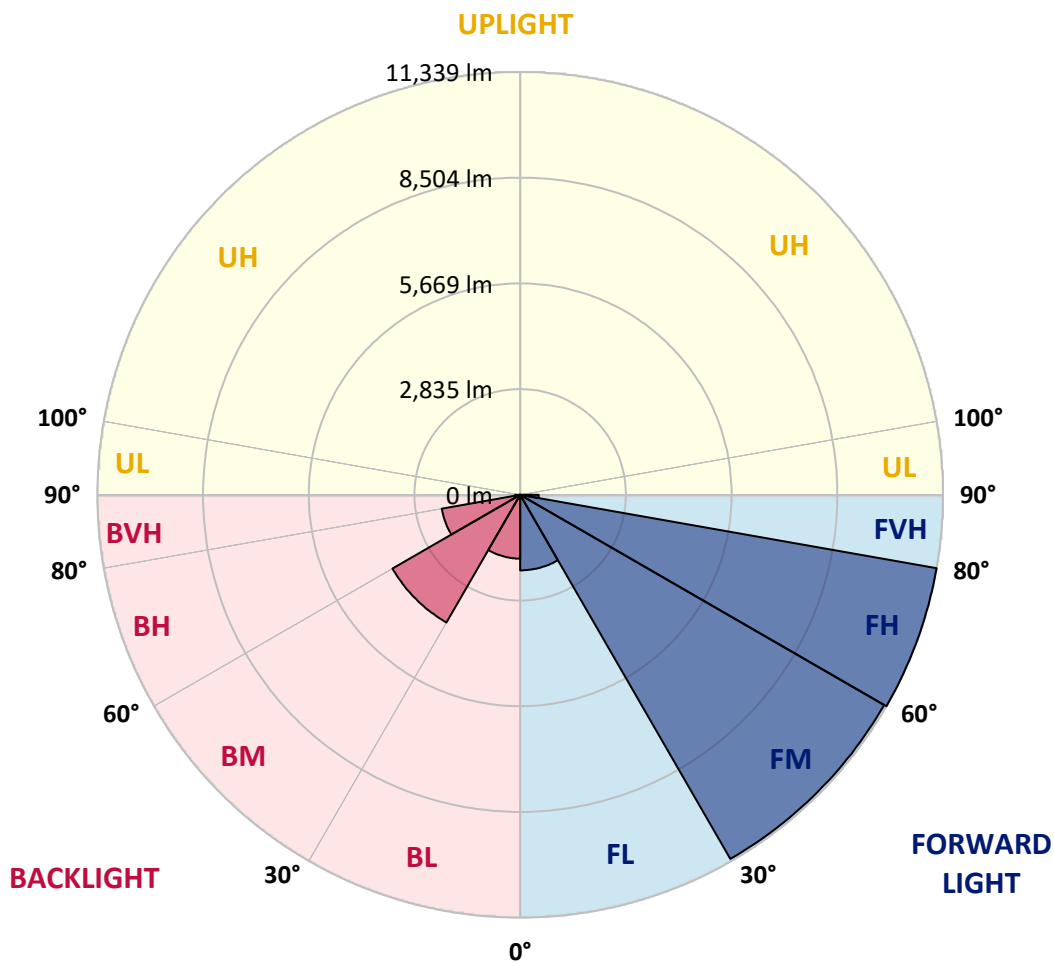
CATALOG NUMBER: VST-E12-LED-E-U-SL3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2025.9	6.1			
FM	(30°-60°)	11273.6	34.1			
FH	(60°-80°)	11338.8	34.3			G4/12000
FVH	(80°-90°)	494.7	1.5			G3/500
BL	(0°-30°)	1710.5	5.2	B3/2500		
BM	(30°-60°)	3952.6	12.0	B3/5000		
BH	(60°-80°)	2134.1	6.5	B3/2500		G3/2500
BVH	(80°-90°)	135.3	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°	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0
2.5°	3724.3	3733.0	3735.2	3733.0	3735.2	3726.5	3724.3	3711.1	3717.7	3700.2	3695.8
5°	3925.9	3932.5	3936.9	3919.4	3923.8	3915.0	3904.0	3890.9	3873.3	3849.2	3833.9
7.5°	4123.2	4134.2	4132.0	4125.4	4110.1	4101.3	4079.4	4059.7	4029.0	4000.5	3980.7
10°	4388.5	4386.3	4386.3	4349.0	4327.1	4307.4	4267.9	4237.2	4206.5	4164.9	4143.0
12.5°	4695.4	4680.0	4673.4	4647.1	4601.1	4566.0	4509.0	4449.8	4395.0	4351.2	4316.1
15°	4991.3	4991.3	4973.7	4932.1	4888.3	4842.2	4761.1	4675.6	4585.7	4515.6	4480.5
17.5°	5260.9	5236.8	5221.4	5166.6	5120.6	5046.1	4956.2	4864.1	4752.3	4653.7	4585.7
20°	5458.2	5438.5	5405.6	5337.6	5258.7	5171.0	5065.8	4958.4	4837.8	4730.4	4653.7
22.5°	5572.2	5548.1	5497.6	5407.8	5300.4	5177.6	5054.8	4954.0	4844.4	4763.3	4699.7
25°	5631.4	5607.2	5539.3	5420.9	5276.2	5114.0	4973.7	4875.1	4811.5	4791.8	4783.0
27.5°	5629.2	5609.4	5537.1	5401.2	5214.9	5028.5	4877.3	4794.0	4787.4	4864.1	4921.1
30°	5572.2	5559.0	5493.3	5357.3	5162.3	4967.2	4826.9	4783.0	4851.0	5013.2	5153.5
32.5°	5515.2	5508.6	5462.6	5339.8	5173.2	5008.8	4912.4	4916.7	5057.0	5306.9	5532.7
35°	5521.8	5530.5	5523.9	5458.2	5353.0	5267.5	5221.4	5317.9	5537.1	5839.6	6142.1
37.5°	5578.7	5611.6	5653.3	5659.8	5662.0	5648.9	5745.3	5949.2	6269.2	6663.8	7137.3
40°	5703.7	5741.0	5861.5	5966.7	6102.6	6264.9	6459.9	6742.7	7139.5	7626.1	8207.0
42.5°	6091.7	6144.3	6293.3	6488.4	6738.3	6992.6	7284.2	7670.0	8156.6	8669.5	9278.9
45°	6598.0	6707.6	6872.0	7089.1	7463.9	7821.2	8198.2	8630.1	9147.4	9789.7	10403.4
47.5°	7229.4	7339.0	7577.9	7810.2	8253.0	8698.0	9110.1	9561.7	10122.8	10780.5	11460.0
50°	7781.7	7906.7	8119.3	8432.8	8945.7	9491.5	9947.5	10436.3	10907.6	11600.3	12286.4
52.5°	8215.8	8305.6	8509.5	8796.7	9368.8	9967.2	10543.7	11087.3	11646.3	12339.0	12974.7
55°	8270.6	8353.9	8553.3	8882.1	9463.0	10127.2	10791.4	11435.9	12227.2	12983.5	13825.2
57.5°	8033.8	8101.8	8303.5	8597.2	9162.7	9919.0	10758.5	11584.9	12597.7	13619.1	14647.2
60°	7698.4	7766.4	7924.2	8158.8	8669.5	9485.0	10464.8	11595.9	12941.8	14417.1	15929.6
62.5°	7330.2	7389.4	7516.5	7683.1	8132.5	8884.3	10006.7	11523.6	13222.4	15210.6	17542.9
65°	6709.8	6852.3	6907.1	7078.1	7527.5	8237.7	9379.7	11034.7	13108.4	15563.5	18555.6
67°	6023.7	6168.4	6196.9	6370.1	6729.6	7411.3	8573.1	10129.4	12205.3	14954.1	18332.0
67.5°	5804.5	5927.3	5971.1	6144.3	6484.1	7126.3	8228.9	9802.8	11929.1	14620.9	18062.4
70°	4267.9	4403.8	4452.0	4524.4	4767.7	5302.5	6032.5	7398.1	9511.3	11931.3	15236.9
72.5°	2284.1	2393.7	2439.7	2547.2	2672.1	2963.6	3522.6	4502.5	5837.4	7983.4	10839.6
75°	1545.4	1589.2	1622.1	1696.6	1826.0	2058.3	2303.8	2648.0	3454.7	4504.6	6168.4
77.5°	881.2	900.9	905.3	918.5	1021.5	1242.9	1646.2	2229.3	2858.4	3263.9	3945.7
80°	381.4	420.9	451.6	431.8	425.3	471.3	589.7	879.0	1722.9	2735.7	3246.4
82.5°	206.1	223.6	249.9	252.1	265.2	280.6	304.7	361.7	508.6	1025.9	2238.1
85°	107.4	111.8	149.1	171.0	181.9	190.7	195.1	217.0	249.9	317.8	556.8
87.5°	15.3	21.9	26.3	35.1	39.5	41.6	48.2	61.4	72.3	87.7	149.1
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°	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0
2.5°	3676.1	3671.7	3658.5	3649.7	3641.0	3632.2	3621.3	3612.5	3597.1	3586.2	3573.0
5°	3812.0	3785.7	3768.1	3744.0	3739.6	3711.1	3682.6	3669.5	3643.2	3621.3	3594.9
7.5°	3950.1	3919.4	3890.9	3871.1	3860.2	3820.7	3792.2	3759.4	3728.7	3700.2	3669.5
10°	4112.3	4081.6	4050.9	4037.7	4018.0	3980.7	3956.6	3915.0	3884.3	3849.2	3807.6
12.5°	4281.1	4259.1	4237.2	4219.7	4210.9	4193.4	4158.3	4123.2	4081.6	4046.5	3998.3
15°	4430.1	4414.8	4406.0	4401.6	4401.6	4390.7	4357.8	4324.9	4281.1	4241.6	4189.0
17.5°	4535.3	4528.8	4535.3	4541.9	4550.7	4541.9	4535.3	4498.1	4469.6	4421.3	4368.7
20°	4596.7	4609.9	4642.7	4664.7	4684.4	4699.7	4706.3	4675.6	4638.4	4603.3	4568.2
22.5°	4662.5	4699.7	4756.7	4789.6	4822.5	4877.3	4890.4	4868.5	4840.0	4818.1	4780.8
25°	4772.1	4826.9	4925.5	4978.1	5024.2	5105.3	5116.2	5120.6	5114.0	5096.5	5050.5
27.5°	4943.1	5050.5	5182.0	5249.9	5300.4	5405.6	5447.2	5447.2	5429.7	5449.4	5449.4
30°	5241.2	5383.7	5554.6	5594.1	5673.0	5765.1	5833.0	5841.8	5844.0	5885.6	5947.0
32.5°	5699.3	5835.2	6025.9	6069.8	6137.7	6225.4	6302.1	6293.3	6313.1	6403.0	6484.1
35°	6365.7	6503.8	6628.7	6687.9	6718.6	6797.5	6826.0	6874.2	6933.4	7045.2	7034.3
37.5°	7352.1	7474.9	7492.4	7529.7	7492.4	7507.7	7529.7	7586.7	7744.5	7845.3	7683.1
40°	8540.2	8744.1	8724.3	8680.5	8597.2	8485.4	8524.8	8612.5	8783.5	8695.8	8259.6
42.5°	9660.3	9870.8	9831.3	9780.9	9596.8	9555.1	9550.7	9623.1	9715.1	9465.2	8711.2
45°	10762.9	10977.7	10909.8	10881.3	10758.5	10668.7	10743.2	10747.6	10723.5	10188.6	9105.7
47.5°	11900.6	12097.9	12054.0	12078.1	11951.0	11891.8	11898.4	11867.7	11641.9	10802.4	9412.6
50°	12819.1	13084.3	13110.6	13055.8	12987.8	12898.0	13128.1	13044.8	12542.9	11398.6	9708.5
52.5°	13533.7	13891.0	14026.9	13991.8	13937.0	13948.0	14379.8	14474.0	13643.3	12150.5	10035.2
55°	14379.8	14943.1	15164.5	15296.1	15239.1	15458.3	16446.9	16495.1	15173.3	13132.5	10460.4
57.5°	15600.8	16407.4	17106.7	17293.0	17472.8	18185.2	19789.7	19300.9	17159.3	14618.7	10999.7
60°	17457.4	19224.2	20359.7	20955.9	21376.8	22372.0	23897.6	22659.1	19634.1	16387.7	11677.0
62.5°	20057.2	22639.4	24537.7	25136.1	25309.3	25881.4	26986.2	24616.6	20982.2	17181.2	11736.2
65°	21992.7	25090.1	27363.2	27670.1	27464.1	27475.0	27764.4	24513.6	20480.2	16488.5	10719.1
67°	21865.6	25333.4	27661.4	28064.7	27779.7	27404.9	26953.3	23117.3	18866.9	15037.4	9386.3
67.5°	21670.5	25098.9	27532.0	27957.3	27696.4	27269.0	26609.2	22575.8	18364.9	14585.8	9114.5
70°	18733.2	22137.4	25414.5	26012.9	26122.6	25732.4	23880.1	19035.7	14910.3	11865.5	7078.1
72.5°	14581.5	17613.0	20855.1	21374.6	21795.5	20670.9	17380.7	13147.9	10868.1	8551.2	5125.0
75°	9627.4	12711.6	14346.9	14423.6	13886.6	11804.1	8492.0	6584.9	6061.0	5026.3	3171.9
77.5°	5151.3	7474.9	7520.9	6964.1	6709.8	5002.2	2029.8	1120.1	1247.3	1416.1	1262.6
80°	3842.6	4761.1	5517.4	5931.7	6054.4	4289.8	1050.0	594.0	519.5	473.5	466.9
82.5°	3465.6	4598.9	5155.7	5381.5	5324.5	3529.2	589.7	399.0	331.0	359.5	409.9
85°	1359.1	2455.1	3228.9	3125.9	2626.1	1315.2	322.2	214.8	214.8	311.3	403.3
87.5°	278.4	504.2	683.9	653.2	587.5	254.3	157.8	129.3	131.5	252.1	381.4
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°	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0	3584.0
2.5°	3559.9	3546.7	3538.0	3529.2	3520.4	3516.0	3509.5	3509.5	3496.3	3491.9	3487.5
5°	3575.2	3553.3	3538.0	3518.2	3502.9	3489.7	3472.2	3467.8	3452.5	3441.5	3437.1
7.5°	3641.0	3608.1	3575.2	3551.1	3529.2	3500.7	3481.0	3463.4	3448.1	3437.1	3424.0
10°	3765.9	3730.9	3684.8	3641.0	3612.5	3568.6	3538.0	3507.3	3489.7	3476.6	3459.0
12.5°	3950.1	3899.6	3844.8	3792.2	3744.0	3687.0	3656.3	3619.1	3597.1	3586.2	3573.0
15°	4138.6	4083.8	4015.8	3965.4	3910.6	3866.8	3838.3	3805.4	3787.8	3774.7	3765.9
17.5°	4331.5	4267.9	4219.7	4169.3	4143.0	4110.1	4072.8	4031.2	3980.7	3950.1	3908.4
20°	4528.8	4480.5	4452.0	4423.5	4392.8	4346.8	4272.3	4186.8	4092.5	4002.7	3917.2
22.5°	4758.9	4730.4	4726.0	4699.7	4636.2	4526.6	4388.5	4228.4	4068.4	3919.4	3803.2
25°	5083.3	5083.3	5061.4	4954.0	4805.0	4607.7	4375.3	4145.1	3932.5	3728.7	3575.2
27.5°	5491.1	5475.7	5368.3	5146.9	4879.5	4572.6	4261.3	3969.8	3698.0	3474.4	3277.1
30°	5940.4	5833.0	5602.9	5254.3	4853.2	4458.6	4077.2	3739.6	3419.6	3145.6	2913.2
32.5°	6407.3	6146.5	5732.2	5254.3	4761.1	4287.6	3847.0	3432.7	3066.7	2759.8	2483.6
35°	6830.4	6354.7	5762.9	5168.8	4581.4	4035.5	3524.8	3055.7	2617.3	2286.3	1983.8
37.5°	7214.0	6492.8	5730.0	5002.2	4320.5	3680.4	3082.0	2564.7	2069.3	1749.2	1490.6
40°	7463.9	6521.3	5594.1	4741.4	3947.9	3200.4	2538.4	1959.7	1567.3	1275.8	1102.6
42.5°	7619.5	6466.5	5374.9	4384.1	3445.9	2597.6	1904.9	1405.1	1113.6	951.3	885.6
45°	7707.2	6324.0	5050.5	3895.3	2838.7	1975.0	1352.5	1014.9	857.1	800.1	778.2
47.5°	7702.8	6093.9	4644.9	3329.7	2167.9	1376.6	957.9	791.3	747.5	729.9	725.6
50°	7656.8	5811.1	4169.3	2715.9	1565.1	960.1	758.4	710.2	699.3	688.3	683.9
52.5°	7593.2	5460.4	3643.2	2117.5	1111.4	767.2	688.3	675.1	666.4	655.4	651.0
55°	7474.9	5028.5	3073.2	1593.6	870.2	692.7	664.2	659.8	648.8	633.5	624.7
57.5°	7330.2	4590.1	2527.4	1245.1	769.4	675.1	659.8	653.2	637.9	620.3	602.8
60°	7277.6	4228.4	2100.0	1050.0	745.3	681.7	670.8	662.0	640.1	613.8	594.0
62.5°	6948.8	3820.7	1793.1	973.3	758.4	710.2	705.8	692.7	659.8	629.1	598.4
65°	6098.3	3231.1	1519.1	920.7	784.8	758.4	762.8	743.1	710.2	668.6	613.8
67°	5157.9	2634.8	1264.8	870.2	804.5	808.9	824.2	808.9	767.2	708.0	633.5
67.5°	4908.0	2483.6	1201.2	854.9	808.9	822.0	839.6	828.6	786.9	719.0	642.3
70°	3647.6	1749.2	896.5	773.8	808.9	861.5	900.9	911.9	865.9	771.6	659.8
72.5°	2569.1	1128.9	688.3	670.8	734.3	804.5	879.0	916.3	863.7	760.6	635.7
75°	1543.2	705.8	559.0	569.9	618.2	690.5	749.7	765.0	699.3	633.5	550.2
77.5°	714.6	469.1	438.4	453.8	499.8	532.7	532.7	502.0	451.6	412.1	394.6
80°	420.9	383.6	381.4	409.9	440.6	416.5	379.2	337.6	311.3	298.1	291.5
82.5°	394.6	409.9	436.2	442.8	418.7	359.5	313.5	271.8	258.7	252.1	245.5
85°	464.7	497.6	453.8	418.7	370.5	302.5	245.5	210.4	203.9	197.3	188.5
87.5°	429.6	409.9	357.3	306.9	254.3	184.1	133.7	120.6	129.3	127.1	122.8
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):

	160°	165°	170°	175°	180°
0°	3584.0	3584.0	3584.0	3584.0	3584.0
2.5°	3489.7	3489.7	3481.0	3476.6	3487.5
5°	3428.4	3430.5	3424.0	3421.8	3424.0
7.5°	3415.2	3413.0	3408.6	3404.2	3408.6
10°	3454.7	3452.5	3445.9	3450.3	3443.7
12.5°	3573.0	3586.2	3584.0	3588.4	3597.1
15°	3765.9	3763.7	3757.2	3761.5	3768.1
17.5°	3875.5	3858.0	3842.6	3836.1	3836.1
20°	3849.2	3798.8	3772.5	3757.2	3752.8
22.5°	3693.6	3621.3	3566.5	3553.3	3542.3
25°	3439.3	3349.4	3279.3	3263.9	3235.5
27.5°	3143.4	3022.8	2939.5	2922.0	2906.6
30°	2755.4	2617.3	2520.8	2459.5	2479.2
32.5°	2281.9	2150.4	2038.6	1940.0	1924.6
35°	1762.4	1617.7	1519.1	1475.2	1446.7
37.5°	1315.2	1194.7	1128.9	1087.3	1089.4
40°	1006.1	942.6	907.5	879.0	881.2
42.5°	839.6	811.1	802.3	789.1	782.6
45°	760.6	751.9	754.1	740.9	736.5
47.5°	716.8	710.2	712.4	703.6	701.5
50°	681.7	677.3	679.5	673.0	670.8
52.5°	646.7	648.8	646.7	642.3	642.3
55°	616.0	613.8	618.2	611.6	611.6
57.5°	591.9	589.7	589.7	587.5	587.5
60°	578.7	569.9	567.7	567.7	569.9
62.5°	572.1	556.8	554.6	554.6	556.8
65°	574.3	550.2	541.4	539.2	537.0
67°	576.5	541.4	523.9	515.1	512.9
67.5°	578.7	537.0	517.3	508.6	504.2
70°	565.5	506.4	477.9	462.5	458.1
72.5°	532.7	469.1	434.0	414.3	409.9
75°	473.5	425.3	394.6	372.6	363.9
77.5°	366.1	344.2	333.2	320.0	315.7
80°	285.0	274.0	269.6	260.9	258.7
82.5°	236.7	225.8	219.2	208.2	201.7
85°	184.1	171.0	166.6	157.8	153.4
87.5°	120.6	114.0	111.8	100.8	96.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)