

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: P158511

Luminaire Tested: **VST-E11-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158511
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-E11-LED-E-U-SL3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (231) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34051.9 lumens
Efficiency: N/A
Efficacy: 126.3 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 269.7
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



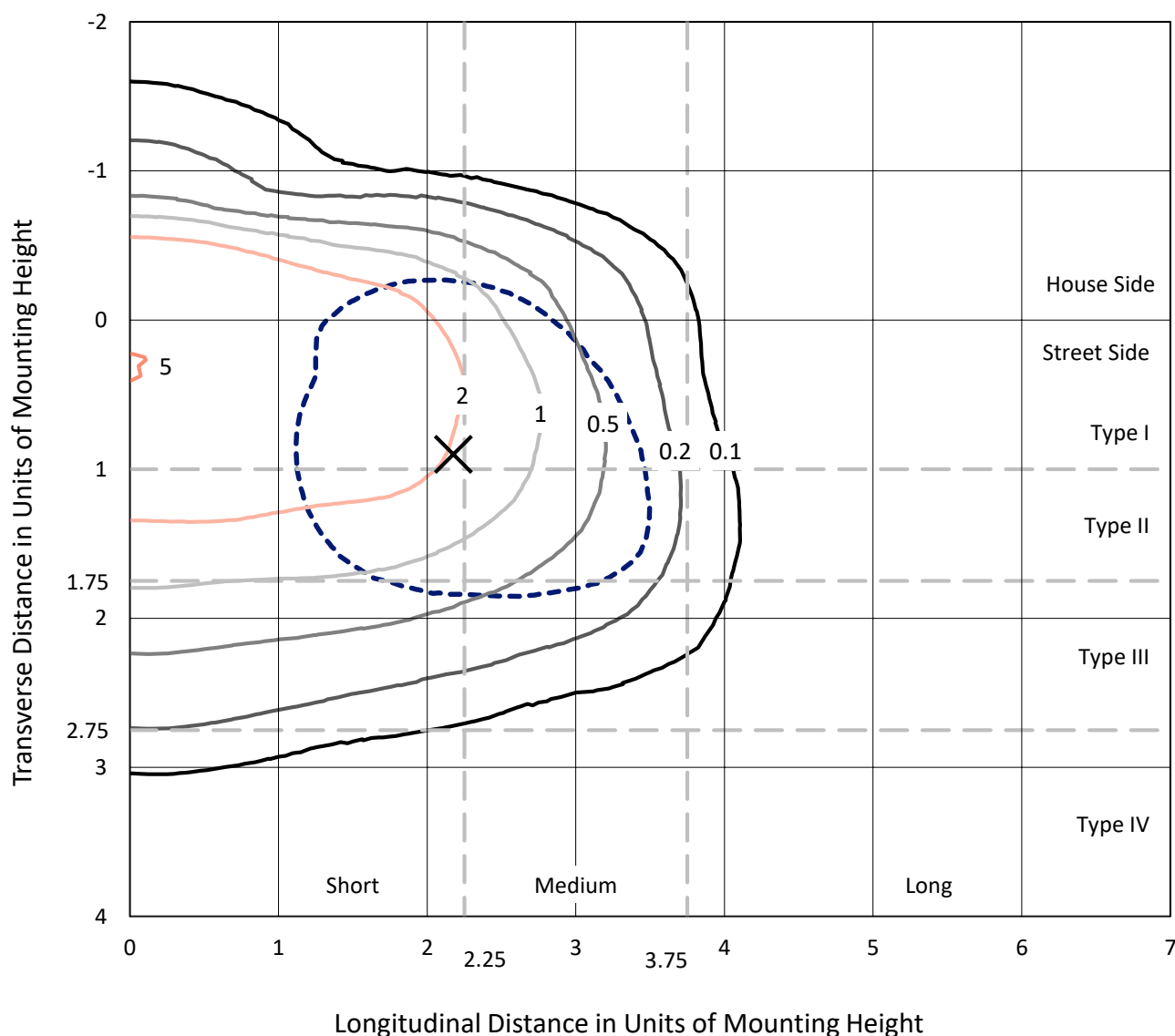
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

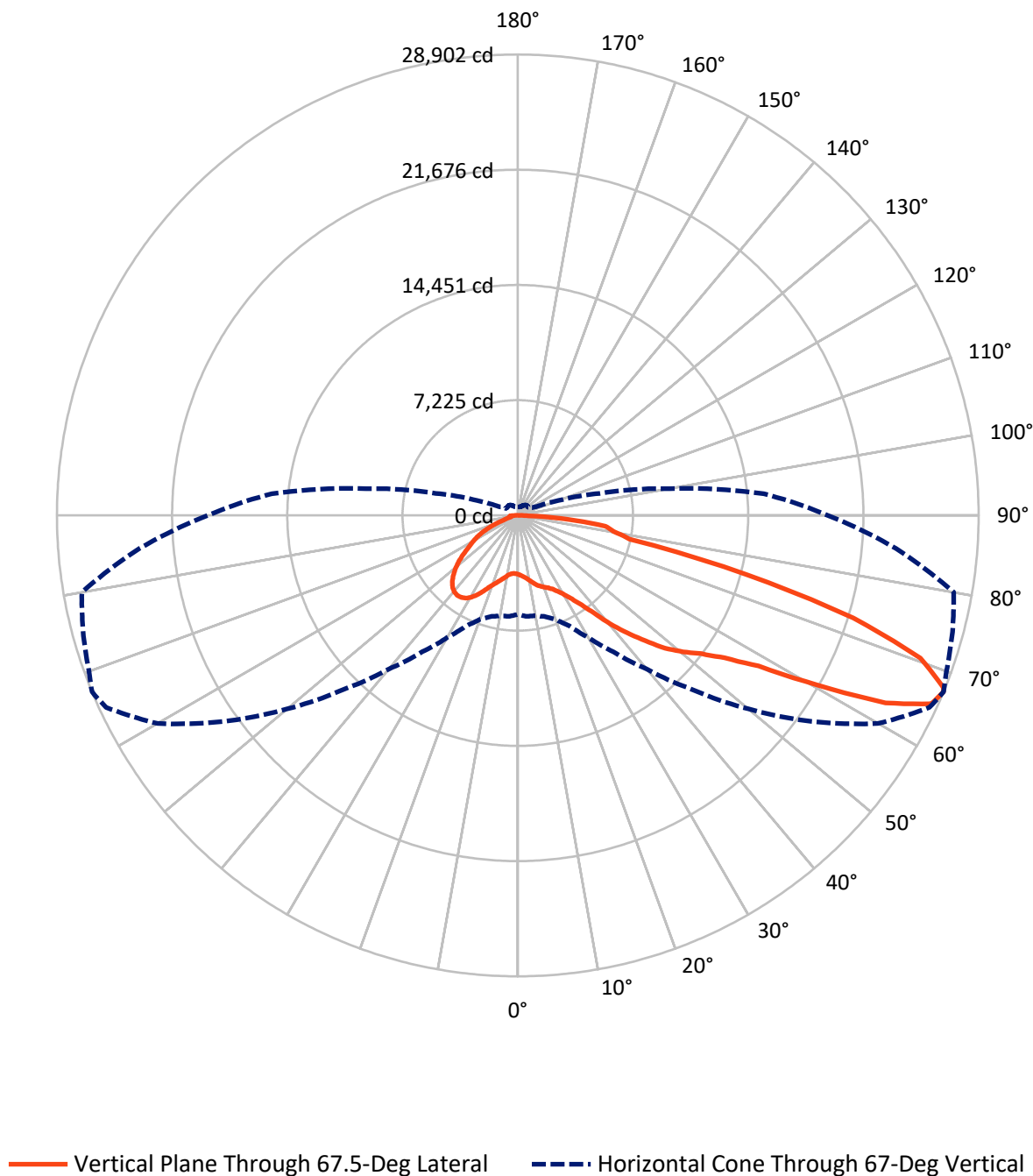


Based on 30 foot mounting height. Maximum calculated value = 5.2 fc
Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8169.1	0.0	8169.1
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	25882.8	0.0	25882.8
	% Fixture	76.0	0.0	76.0
Total	Lumens	34051.9	0.0	34051.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	366.8	1.1
10°-20°	1249.8	3.7
20°-30°	2231.3	6.6
30°-40°	3270.1	9.6
40°-50°	5052.7	14.8
50°-60°	7357.6	21.6
60°-70°	9584.5	28.1
70°-80°	4290.3	12.6
80°-90°	648.7	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°	34051.9	100.0
0°-180°	34051.9	100.0

Coefficient of Utilization



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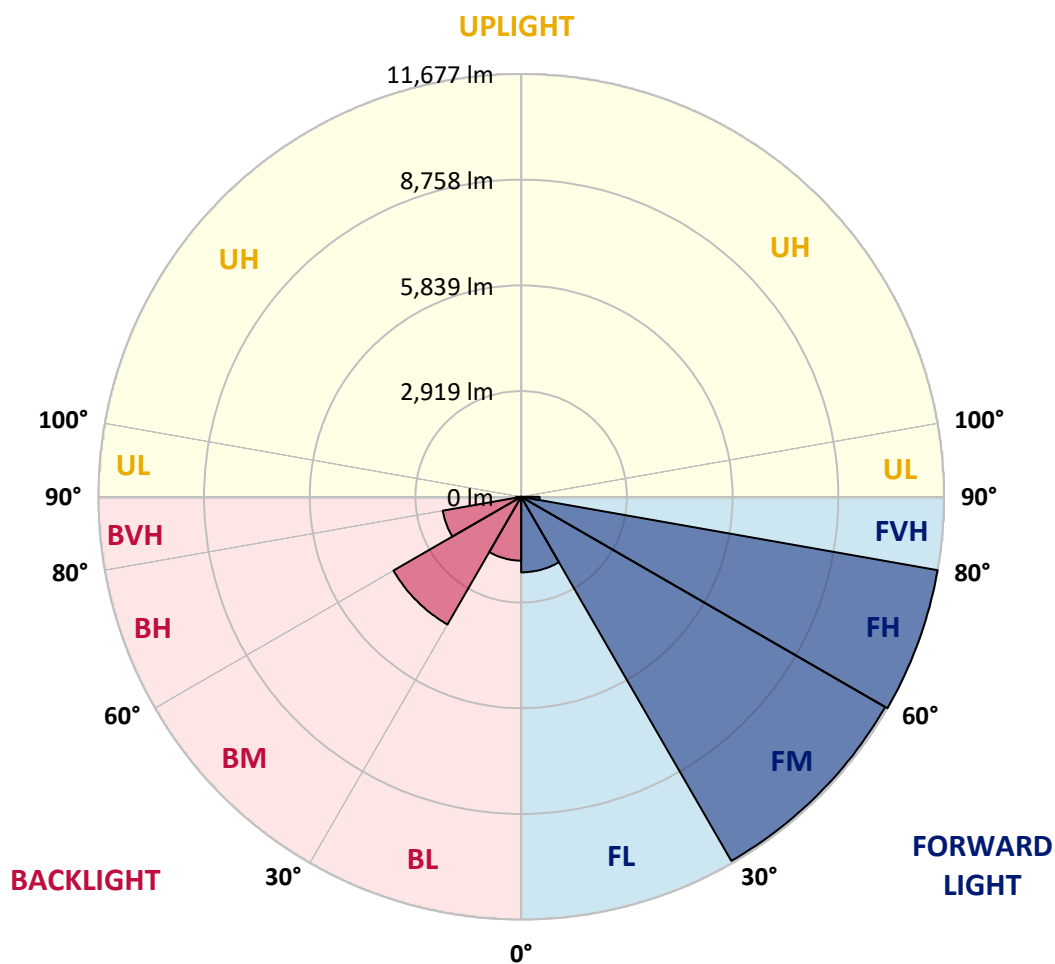
CATALOG NUMBER: VST-E11-LED-E-U-SL3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2086.4	6.1			
FM	(30°-60°)	11609.9	34.1			
FH	(60°-80°)	11677.1	34.3			G4/12000
FVH	(80°-90°)	509.4	1.5			G4/750
BL	(0°-30°)	1761.5	5.2	B3/2500		
BM	(30°-60°)	4070.5	12.0	B3/5000		
BH	(60°-80°)	2197.8	6.5	B3/2500		G3/2500
BVH	(80°-90°)	139.3	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°	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9
2.5°	3835.4	3844.4	3846.7	3844.4	3846.7	3837.6	3835.4	3821.8	3828.6	3810.5	3806.0
5°	4043.1	4049.8	4054.3	4036.3	4040.8	4031.8	4020.5	4006.9	3988.9	3964.1	3948.2
7.5°	4246.2	4257.5	4255.3	4248.5	4232.7	4223.7	4201.1	4180.8	4149.2	4119.8	4099.5
10°	4519.4	4517.1	4517.1	4478.7	4456.2	4435.9	4395.2	4363.6	4332.0	4289.1	4266.5
12.5°	4835.4	4819.6	4812.8	4785.8	4738.3	4702.2	4643.5	4582.6	4526.2	4481.0	4444.9
15°	5140.2	5140.2	5122.1	5079.2	5034.1	4986.7	4903.1	4815.1	4722.5	4650.3	4614.2
17.5°	5417.8	5393.0	5377.2	5320.8	5273.4	5196.6	5104.1	5009.2	4894.1	4792.5	4722.5
20°	5621.0	5600.7	5566.8	5496.8	5415.6	5325.3	5216.9	5106.3	4982.2	4871.5	4792.5
22.5°	5738.4	5713.6	5661.6	5569.1	5458.5	5332.1	5205.6	5101.8	4988.9	4905.4	4839.9
25°	5799.3	5774.5	5704.5	5582.6	5433.6	5266.6	5122.1	5020.5	4955.1	4934.7	4925.7
27.5°	5797.1	5776.8	5702.3	5562.3	5370.4	5178.5	5022.8	4937.0	4930.2	5009.2	5067.9
30°	5738.4	5724.8	5657.1	5517.2	5316.3	5115.3	4970.9	4925.7	4995.7	5162.7	5307.2
32.5°	5679.7	5672.9	5625.5	5499.1	5327.5	5158.2	5058.9	5063.4	5207.9	5465.2	5697.8
35°	5686.5	5695.5	5688.7	5621.0	5512.6	5424.6	5377.2	5476.5	5702.3	6013.8	6325.3
37.5°	5745.2	5779.0	5821.9	5828.7	5830.9	5817.4	5916.7	6126.7	6456.3	6862.6	7350.2
40°	5873.8	5912.2	6036.4	6144.7	6284.7	6451.7	6652.7	6943.9	7352.5	7853.6	8451.8
42.5°	6273.4	6327.6	6481.1	6682.0	6939.3	7201.2	7501.4	7898.8	8399.9	8928.1	9555.7
45°	6794.9	6907.7	7077.0	7300.5	7686.6	8054.5	8442.8	8887.5	9420.3	10081.7	10713.8
47.5°	7445.0	7557.9	7803.9	8043.2	8499.2	8957.5	9381.9	9846.9	10424.8	11102.1	11801.9
50°	8013.9	8142.6	8361.5	8684.3	9212.6	9774.7	10244.2	10747.6	11233.0	11946.3	12652.9
52.5°	8460.9	8553.4	8763.4	9059.1	9648.3	10264.5	10858.2	11418.1	11993.7	12707.1	13361.7
55°	8517.3	8603.1	8808.5	9147.1	9745.3	10429.3	11113.3	11777.0	12592.0	13370.8	14237.6
57.5°	8273.5	8343.5	8551.2	8853.6	9436.1	10214.9	11079.5	11930.5	12973.5	14025.4	15084.2
60°	7928.1	7998.1	8160.6	8402.2	8928.1	9767.9	10777.0	11941.8	13327.9	14847.1	16404.8
62.5°	7548.9	7609.8	7740.7	7912.3	8375.1	9149.4	10305.2	11867.3	13616.8	15664.3	18066.2
65°	6910.0	7056.7	7113.2	7289.2	7752.0	8483.4	9659.6	11363.9	13499.4	16027.8	19109.2
67°	6203.4	6352.4	6381.8	6560.1	6930.3	7632.4	8828.8	10431.6	12569.4	15400.2	18878.9
67.5°	5977.7	6104.1	6149.2	6327.6	6677.5	7338.9	8474.4	10095.2	12284.9	15057.1	18601.2
70°	4395.2	4535.2	4584.8	4659.3	4909.9	5460.7	6212.5	7618.8	9795.0	12287.2	15691.4
72.5°	2352.2	2465.1	2512.5	2623.1	2751.8	3052.0	3627.7	4636.8	6011.5	8221.6	11163.0
75°	1591.5	1636.6	1670.5	1747.3	1880.4	2119.7	2372.6	2727.0	3557.7	4639.0	6352.4
77.5°	907.5	927.8	932.3	945.9	1052.0	1280.0	1695.3	2295.8	2943.7	3361.3	4063.4
80°	392.8	433.4	465.0	444.7	437.9	485.3	607.2	905.2	1774.3	2817.3	3343.3
82.5°	212.2	230.3	257.3	259.6	273.1	289.0	313.8	372.5	523.7	1056.5	2304.8
85°	110.6	115.1	153.5	176.1	187.4	196.4	200.9	223.5	257.3	327.3	573.4
87.5°	15.8	22.6	27.1	36.1	40.6	42.9	49.7	63.2	74.5	90.3	153.5
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: VST-E11-LED-E-U-SL3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9
2.5°	3785.7	3781.2	3767.7	3758.6	3749.6	3740.6	3729.3	3720.2	3704.4	3693.2	3679.6
5°	3925.7	3898.6	3880.5	3855.7	3851.2	3821.8	3792.5	3778.9	3751.9	3729.3	3702.2
7.5°	4067.9	4036.3	4006.9	3986.6	3975.3	3934.7	3905.4	3871.5	3839.9	3810.5	3778.9
10°	4234.9	4203.3	4171.7	4158.2	4137.9	4099.5	4074.7	4031.8	4000.2	3964.1	3921.2
12.5°	4408.8	4386.2	4363.6	4345.6	4336.5	4318.5	4282.3	4246.2	4203.3	4167.2	4117.6
15°	4562.3	4546.5	4537.4	4532.9	4532.9	4521.6	4487.8	4453.9	4408.8	4368.1	4314.0
17.5°	4670.6	4663.9	4670.6	4677.4	4686.4	4677.4	4670.6	4632.3	4602.9	4553.2	4499.1
20°	4733.8	4747.4	4781.2	4803.8	4824.1	4839.9	4846.7	4815.1	4776.7	4740.6	4704.5
22.5°	4801.6	4839.9	4898.6	4932.5	4966.4	5022.8	5036.3	5013.8	4984.4	4961.8	4923.5
25°	4914.4	4970.9	5072.4	5126.6	5174.0	5257.6	5268.8	5273.4	5266.6	5248.5	5201.1
27.5°	5090.5	5201.1	5336.6	5406.5	5458.5	5566.8	5609.7	5609.7	5591.7	5612.0	5612.0
30°	5397.5	5544.3	5720.3	5761.0	5842.2	5937.0	6007.0	6016.1	6018.3	6061.2	6124.4
32.5°	5869.3	6009.3	6205.7	6250.8	6320.8	6411.1	6490.1	6481.1	6501.4	6594.0	6677.5
35°	6555.6	6697.8	6826.5	6887.4	6919.0	7000.3	7029.6	7079.3	7140.3	7255.4	7244.1
37.5°	7571.4	7697.8	7715.9	7754.3	7715.9	7731.7	7754.3	7813.0	7975.5	8079.3	7912.3
40°	8795.0	9004.9	8984.6	8939.4	8853.6	8738.5	8779.2	8869.5	9045.5	8955.2	8506.0
42.5°	9948.5	10165.2	10124.6	10072.7	9883.0	9840.1	9835.6	9910.1	10004.9	9747.6	8971.0
45°	11084.0	11305.2	11235.2	11205.9	11079.5	10986.9	11063.7	11068.2	11043.4	10492.5	9377.4
47.5°	12255.6	12458.8	12413.6	12438.5	12307.5	12246.6	12253.3	12221.7	11989.2	11124.6	9693.4
50°	13201.5	13474.6	13501.7	13445.3	13375.3	13282.7	13519.8	13434.0	12917.0	11738.6	9998.2
52.5°	13937.4	14305.3	14445.3	14409.2	14352.8	14364.0	14808.8	14905.8	14050.3	12512.9	10334.5
55°	14808.8	15388.9	15616.9	15752.4	15693.7	15919.4	16937.5	16987.2	15625.9	13524.3	10772.5
57.5°	16066.1	16896.9	17617.0	17808.9	17994.0	18727.7	20380.1	19876.7	17671.2	15054.8	11327.8
60°	17978.2	19797.7	20967.0	21581.0	22014.5	23039.4	24610.5	23335.1	20219.8	16876.6	12025.3
62.5°	20655.5	23314.8	25269.7	25886.0	26064.3	26653.5	27791.2	25351.0	21608.1	17693.8	12086.3
65°	22648.8	25838.6	28179.5	28495.6	28283.4	28294.7	28592.6	25244.9	21091.2	16980.4	11038.8
67°	22517.9	26089.1	28486.5	28901.9	28608.4	28222.4	27757.4	23806.9	19429.7	15486.0	9666.3
67.5°	22317.0	25847.6	28353.3	28791.3	28522.7	28082.5	27403.0	23249.3	18912.8	15021.0	9386.4
70°	19292.0	22797.8	26172.7	26788.9	26901.8	26500.0	24592.5	19603.5	15355.1	12219.5	7289.2
72.5°	15016.4	18138.5	21477.2	22012.2	22445.6	21287.6	17899.2	13540.1	11192.3	8806.2	5277.9
75°	9914.6	13090.8	14774.9	14853.9	14300.8	12156.3	8745.3	6781.3	6241.8	5176.3	3266.5
77.5°	5305.0	7697.8	7745.2	7171.9	6910.0	5151.5	2090.4	1153.5	1284.5	1458.3	1300.3
80°	3957.3	4903.1	5682.0	6108.6	6235.0	4417.8	1081.3	611.8	535.0	487.6	480.8
82.5°	3569.0	4736.1	5309.5	5542.0	5483.3	3634.5	607.2	410.9	340.9	370.2	422.1
85°	1399.6	2528.3	3325.2	3219.1	2704.4	1354.5	331.8	221.2	221.2	320.6	415.4
87.5°	286.7	519.2	704.3	672.7	605.0	261.9	162.5	133.2	135.4	259.6	392.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9	3690.9
2.5°	3666.1	3652.5	3643.5	3634.5	3625.4	3620.9	3614.1	3614.1	3600.6	3596.1	3591.6
5°	3681.9	3659.3	3643.5	3623.2	3607.4	3593.8	3575.8	3571.3	3555.5	3544.2	3539.7
7.5°	3749.6	3715.7	3681.9	3657.0	3634.5	3605.1	3584.8	3566.7	3550.9	3539.7	3526.1
10°	3878.3	3842.1	3794.7	3749.6	3720.2	3675.1	3643.5	3611.9	3593.8	3580.3	3562.2
12.5°	4067.9	4016.0	3959.5	3905.4	3855.7	3797.0	3765.4	3727.0	3704.4	3693.2	3679.6
15°	4262.0	4205.6	4135.6	4083.7	4027.3	3982.1	3952.8	3918.9	3900.8	3887.3	3878.3
17.5°	4460.7	4395.2	4345.6	4293.6	4266.5	4232.7	4194.3	4151.4	4099.5	4067.9	4025.0
20°	4663.9	4614.2	4584.8	4555.5	4523.9	4476.5	4399.7	4311.7	4214.6	4122.1	4034.0
22.5°	4900.9	4871.5	4867.0	4839.9	4774.5	4661.6	4519.4	4354.6	4189.8	4036.3	3916.6
25°	5235.0	5235.0	5212.4	5101.8	4948.3	4745.1	4505.8	4268.8	4049.8	3839.9	3681.9
27.5°	5654.9	5639.1	5528.5	5300.5	5025.0	4709.0	4388.4	4088.2	3808.3	3578.0	3374.9
30°	6117.6	6007.0	5770.0	5411.1	4998.0	4591.6	4198.8	3851.2	3521.6	3239.4	3000.1
32.5°	6598.5	6329.8	5903.2	5411.1	4903.1	4415.5	3961.8	3535.1	3158.1	2842.1	2557.7
35°	7034.2	6544.3	5934.8	5323.0	4718.0	4155.9	3630.0	3146.9	2695.4	2354.5	2043.0
37.5°	7429.2	6686.5	5900.9	5151.5	4449.4	3790.2	3173.9	2641.2	2131.0	1801.4	1535.1
40°	7686.6	6715.9	5761.0	4882.8	4065.6	3295.9	2614.1	2018.1	1614.1	1313.8	1135.5
42.5°	7846.8	6659.4	5535.2	4514.9	3548.7	2675.1	1961.7	1447.0	1146.8	979.7	912.0
45°	7937.1	6512.7	5201.1	4011.5	2923.4	2033.9	1392.8	1045.2	882.7	824.0	801.4
47.5°	7932.6	6275.7	4783.5	3429.0	2232.6	1417.7	986.5	814.9	769.8	751.7	747.2
50°	7885.2	5984.5	4293.6	2797.0	1611.8	988.8	781.1	731.4	720.1	708.8	704.3
52.5°	7819.7	5623.3	3751.9	2180.7	1144.5	790.1	708.8	695.3	686.3	675.0	670.5
55°	7697.8	5178.5	3164.9	1641.2	896.2	713.3	684.0	679.5	668.2	652.4	643.4
57.5°	7548.9	4727.1	2602.8	1282.2	792.4	695.3	679.5	672.7	656.9	638.9	620.8
60°	7494.7	4354.6	2162.6	1081.3	767.5	702.1	690.8	681.7	659.2	632.1	611.8
62.5°	7156.1	3934.7	1846.6	1002.3	781.1	731.4	726.9	713.3	679.5	647.9	616.3
65°	6280.2	3327.5	1564.4	948.1	808.2	781.1	785.6	765.3	731.4	688.5	632.1
67°	5311.7	2713.4	1302.5	896.2	828.5	833.0	848.8	833.0	790.1	729.2	652.4
67.5°	5054.4	2557.7	1237.1	880.4	833.0	846.5	864.6	853.3	810.4	740.4	661.4
70°	3756.4	1801.4	923.3	796.9	833.0	887.2	927.8	939.1	891.7	794.6	679.5
72.5°	2645.7	1162.6	708.8	690.8	756.2	828.5	905.2	943.6	889.4	783.3	654.7
75°	1589.2	726.9	575.6	586.9	636.6	711.1	772.0	787.8	720.1	652.4	566.6
77.5°	735.9	483.1	451.5	467.3	514.7	548.6	548.6	517.0	465.0	424.4	406.3
80°	433.4	395.1	392.8	422.1	453.7	428.9	390.5	347.6	320.6	307.0	300.2
82.5°	406.3	422.1	449.2	456.0	431.2	370.2	322.8	279.9	266.4	259.6	252.8
85°	478.6	512.4	467.3	431.2	381.5	311.5	252.8	216.7	209.9	203.2	194.1
87.5°	442.5	422.1	368.0	316.0	261.9	189.6	137.7	124.2	133.2	130.9	126.4
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):

	160°	165°	170°	175°	180°
0°	3690.9	3690.9	3690.9	3690.9	3690.9
2.5°	3593.8	3593.8	3584.8	3580.3	3591.6
5°	3530.6	3532.9	3526.1	3523.9	3526.1
7.5°	3517.1	3514.8	3510.3	3505.8	3510.3
10°	3557.7	3555.5	3548.7	3553.2	3546.4
12.5°	3679.6	3693.2	3690.9	3695.4	3704.4
15°	3878.3	3876.0	3869.2	3873.8	3880.5
17.5°	3991.1	3973.1	3957.3	3950.5	3950.5
20°	3964.1	3912.1	3885.0	3869.2	3864.7
22.5°	3803.8	3729.3	3672.8	3659.3	3648.0
25°	3541.9	3449.4	3377.1	3361.3	3332.0
27.5°	3237.2	3113.0	3027.2	3009.2	2993.4
30°	2837.6	2695.4	2596.0	2532.8	2553.2
32.5°	2350.0	2214.5	2099.4	1997.8	1982.0
35°	1815.0	1666.0	1564.4	1519.3	1489.9
37.5°	1354.5	1230.3	1162.6	1119.7	1121.9
40°	1036.2	970.7	934.6	905.2	907.5
42.5°	864.6	835.2	826.2	812.7	805.9
45°	783.3	774.3	776.6	763.0	758.5
47.5°	738.2	731.4	733.7	724.6	722.4
50°	702.1	697.5	699.8	693.0	690.8
52.5°	665.9	668.2	665.9	661.4	661.4
55°	634.3	632.1	636.6	629.8	629.8
57.5°	609.5	607.2	607.2	605.0	605.0
60°	596.0	586.9	584.7	584.7	586.9
62.5°	589.2	573.4	571.1	571.1	573.4
65°	591.4	566.6	557.6	555.3	553.1
67°	593.7	557.6	539.5	530.5	528.2
67.5°	596.0	553.1	532.8	523.7	519.2
70°	582.4	521.5	492.1	476.3	471.8
72.5°	548.6	483.1	447.0	426.7	422.1
75°	487.6	437.9	406.3	383.8	374.7
77.5°	377.0	354.4	343.1	329.6	325.1
80°	293.5	282.2	277.7	268.6	266.4
82.5°	243.8	232.5	225.7	214.5	207.7
85°	189.6	176.1	171.6	162.5	158.0
87.5°	124.2	117.4	115.1	103.8	99.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)