

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: P158731

Luminaire Tested: **VST-E11-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158731
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
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-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (231) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32743.3 lumens
Efficiency: N/A
Efficacy: 121.4 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

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

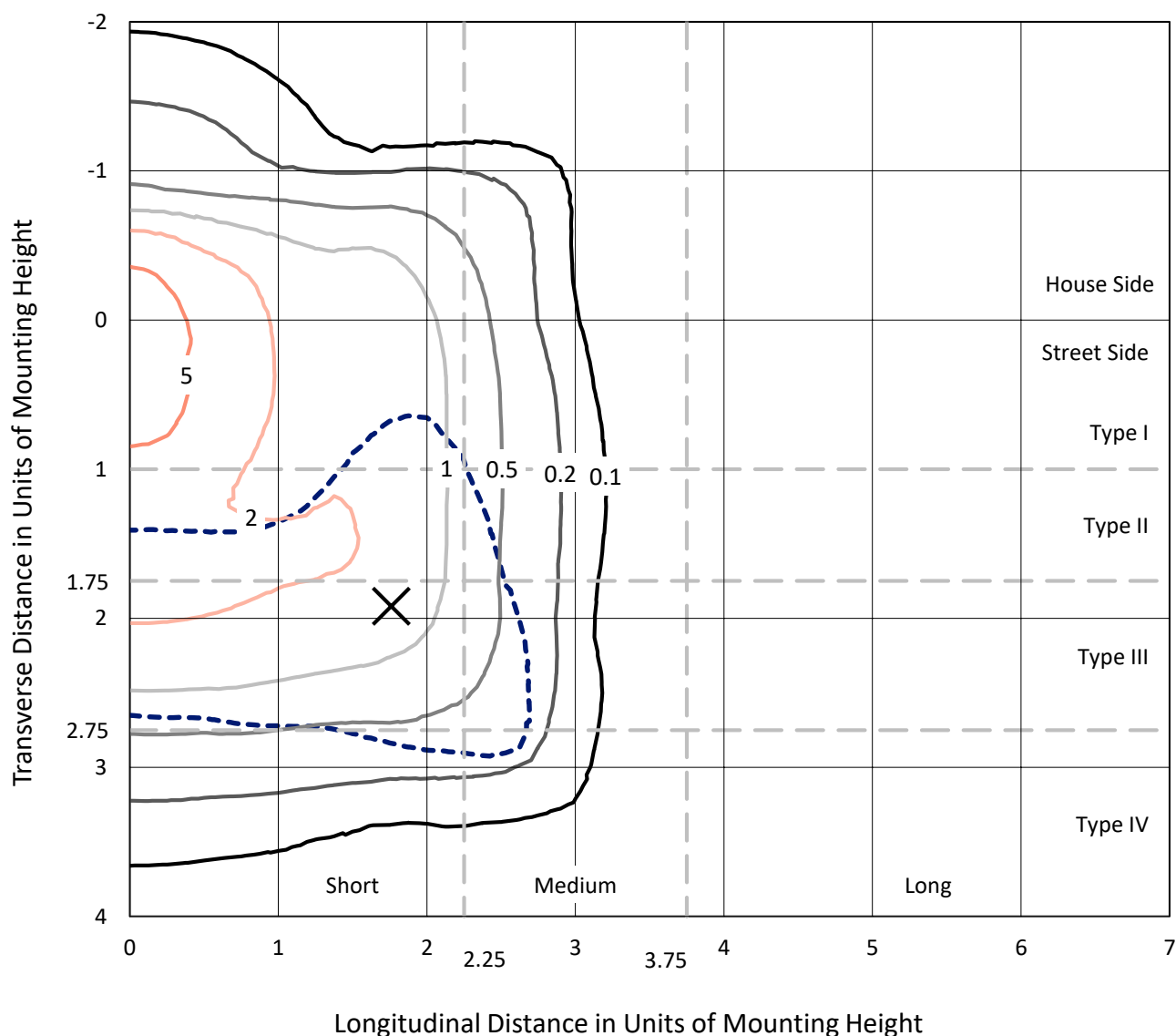


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

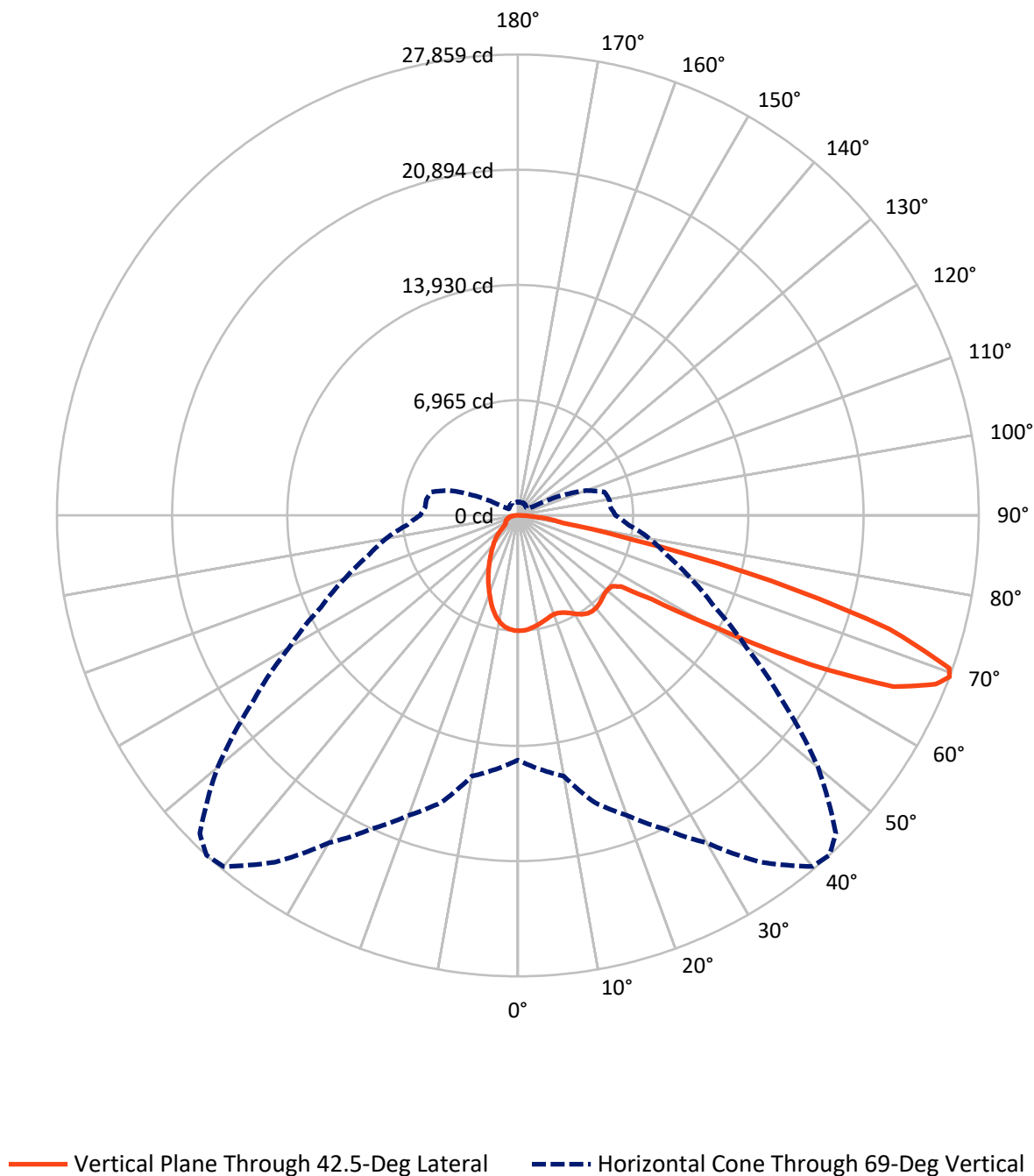


Based on 30 foot mounting height. Maximum calculated value = 7.7 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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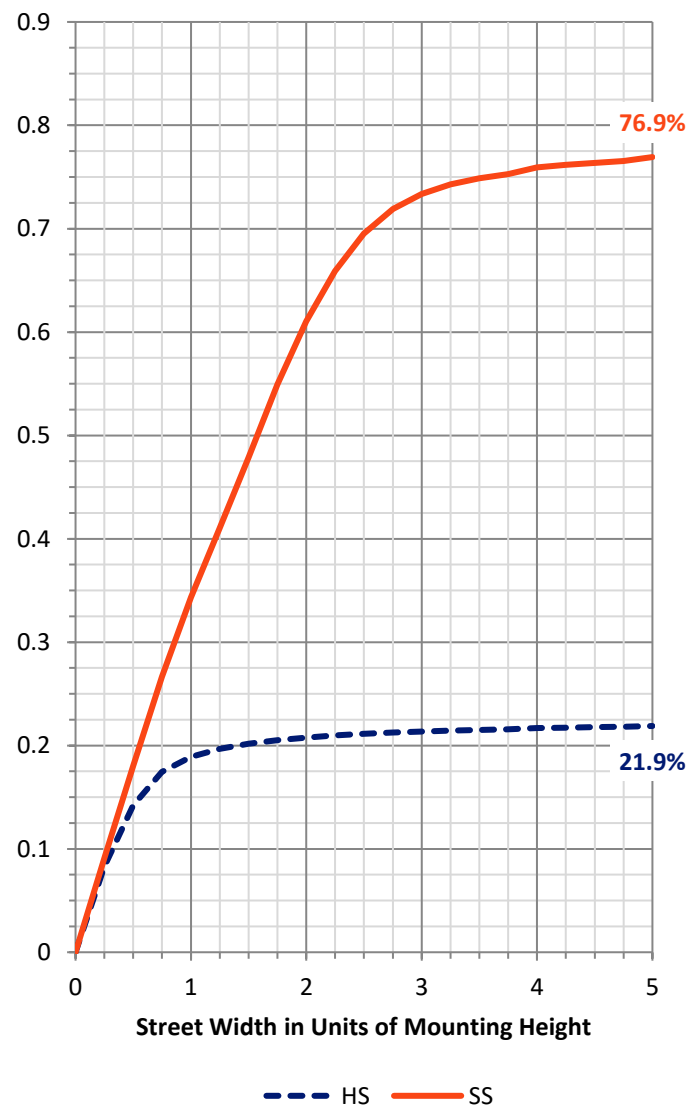
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7279.3	0.0	7279.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	25464.0	0.0	25464.0
	% Fixture	77.8	0.0	77.8
Total	Lumens	32743.3	0.0	32743.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	649.1	2.0
10°-20°	1749.5	5.3
20°-30°	2551.1	7.8
30°-40°	3252.1	9.9
40°-50°	3783.9	11.6
50°-60°	5757.2	17.6
60°-70°	10169.9	31.1
70°-80°	4196.7	12.8
80°-90°	633.7	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°	32743.3	100.0
0°-180°	32743.3	100.0

Coefficient of Utilization



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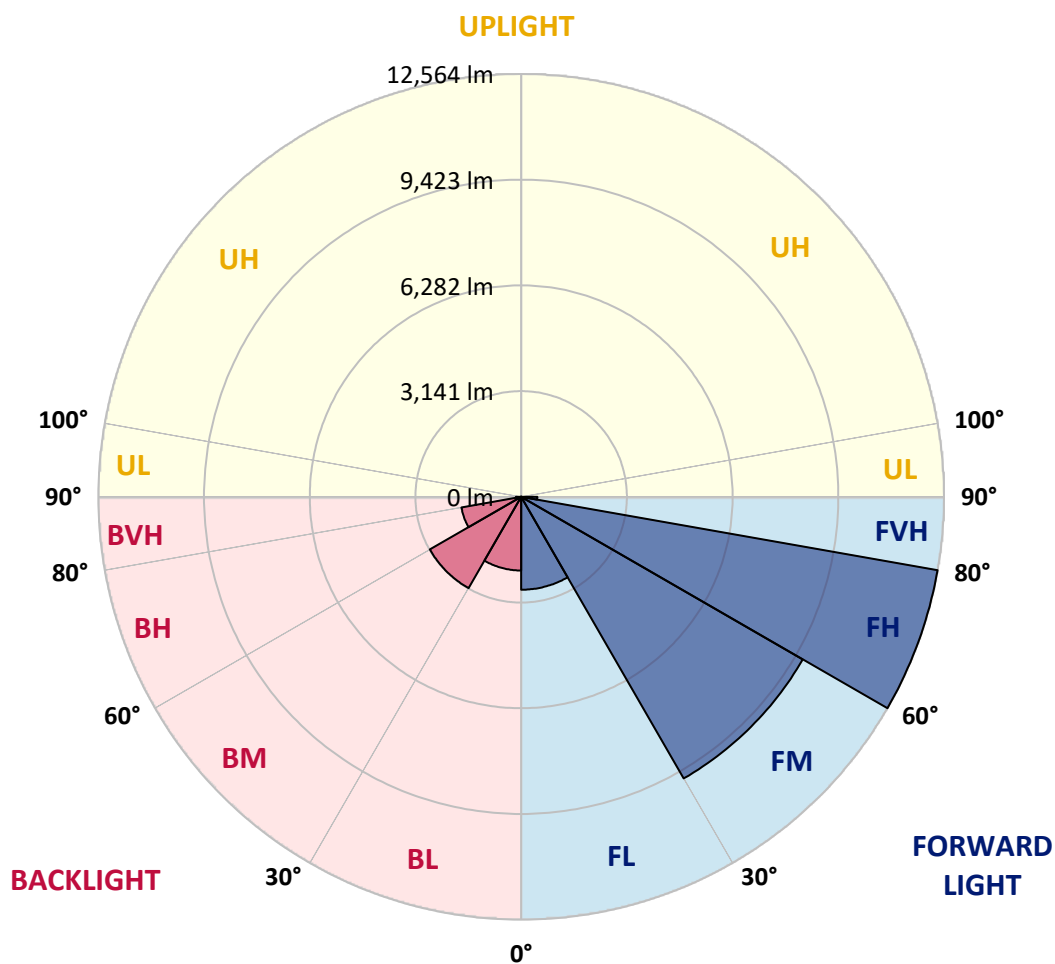
CATALOG NUMBER: VST-E11-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2761.1	8.4			
FM	(30°-60°)	9660.1	29.5			
FH	(60°-80°)	12563.6	38.4			G5
FVH	(80°-90°)	479.2	1.5			G3/500
BL	(0°-30°)	2188.6	6.7	B3/2500		
BM	(30°-60°)	3133.2	9.6	B3/5000		
BH	(60°-80°)	1803.1	5.5	B3/2500		G3/2500
BVH	(80°-90°)	154.5	0.5			G2/225
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°	42.5°	45°
0°	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2
2.5°	6950.6	6975.5	6966.4	6966.4	6973.2	6961.9	6961.9	6966.4	6955.1	6961.9	6959.7
5°	6925.8	6939.3	6934.8	6934.8	6934.8	6925.8	6921.3	6919.0	6903.2	6903.2	6896.5
7.5°	6871.6	6876.1	6882.9	6873.9	6871.6	6869.4	6853.6	6844.5	6826.5	6810.7	6815.2
10°	6799.4	6797.1	6808.4	6801.6	6792.6	6785.8	6772.3	6756.5	6736.2	6715.9	6713.6
12.5°	6718.1	6715.9	6724.9	6720.4	6713.6	6700.1	6688.8	6661.7	6630.1	6605.2	6603.0
15°	6666.2	6659.4	6668.5	6659.4	6648.1	6634.6	6614.3	6580.4	6524.0	6499.1	6478.8
17.5°	6715.9	6704.6	6709.1	6697.8	6682.0	6645.9	6598.5	6526.2	6445.0	6402.1	6370.5
20°	6889.7	6869.4	6873.9	6862.6	6826.5	6779.1	6688.8	6562.4	6424.7	6354.7	6305.0
22.5°	7138.0	7122.2	7129.0	7117.7	7081.6	7009.3	6873.9	6693.3	6496.9	6395.3	6316.3
25°	7515.0	7528.5	7533.1	7481.1	7460.8	7327.6	7140.3	6889.7	6627.8	6508.2	6399.8
27.5°	7939.4	7939.4	7959.7	7939.4	7898.8	7743.0	7478.9	7176.4	6840.0	6677.5	6546.6
30°	8352.5	8348.0	8386.4	8381.8	8316.4	8140.3	7840.1	7472.1	7088.3	6905.5	6738.4
32.5°	8790.4	8804.0	8828.8	8819.8	8734.0	8490.2	8129.0	7729.4	7325.4	7124.5	6937.1
35°	9264.5	9271.3	9280.3	9275.8	9102.0	8795.0	8341.2	7894.2	7474.4	7275.7	7081.6
37.5°	9738.6	9731.8	9720.5	9623.4	9424.8	8998.1	8469.9	7989.1	7548.9	7334.4	7133.5
40°	10163.0	10124.6	10088.5	9937.2	9632.5	9113.3	8519.5	8011.6	7542.1	7320.9	7124.5
42.5°	10395.5	10352.6	10278.1	10088.5	9718.2	9124.5	8485.7	7943.9	7472.1	7253.1	7059.0
45°	10438.4	10406.8	10334.5	10122.3	9697.9	9052.3	8381.8	7833.3	7368.3	7149.3	6966.4
47.5°	10336.8	10311.9	10242.0	10032.0	9609.9	8943.9	8262.2	7715.9	7266.7	7061.2	6885.2
50°	10181.0	10158.4	10104.3	9912.4	9510.6	8869.5	8201.3	7655.0	7232.8	7045.4	6882.9
52.5°	10433.9	10451.9	10293.9	10083.9	9616.7	8934.9	8269.0	7718.2	7293.8	7108.7	6939.3
55°	14364.0	14339.2	13388.8	12592.0	11167.5	9876.3	8912.3	8219.3	7765.6	7580.5	7422.4
57.5°	18664.4	18578.7	18188.1	17443.2	15912.6	13869.7	12011.8	10431.6	9808.5	9542.2	9560.2
60°	20068.6	20100.2	20016.6	19752.5	19204.0	18140.7	16727.6	15540.2	14370.8	13799.7	13865.1
62.5°	20847.4	20903.8	20976.1	20917.4	20739.0	20493.0	20314.6	20423.0	20260.5	19849.6	19522.3
65°	20955.7	21070.9	21310.2	21499.8	21592.3	21824.9	22371.2	23680.5	24876.9	24955.9	24380.3
67.5°	18811.2	19129.5	19648.7	20526.8	21278.6	22104.8	23423.1	25414.2	27179.5	27238.2	26700.9
69°	14790.7	15402.5	16009.7	17971.4	19292.0	20910.6	22861.0	25581.2	27696.4	27859.0	27181.7
70°	11851.5	12215.0	12738.7	14709.4	16682.4	18745.7	21572.0	25030.4	27342.0	27669.3	26922.1
72.5°	7115.4	7255.4	7436.0	8142.6	9158.4	10996.0	14743.3	20407.2	23064.2	23502.1	22551.7
75°	4600.6	4591.6	4607.4	4803.8	4862.5	5214.7	6395.3	10499.3	15045.8	15840.4	14702.7
77.5°	3465.2	3496.8	3447.1	3465.2	3449.4	3544.2	3580.3	3758.6	5939.3	7316.3	6542.0
80°	3058.8	3074.6	3076.9	3067.9	2957.2	2948.2	3006.9	2905.3	2699.9	2740.5	2625.4
82.5°	1745.0	1742.7	1763.1	1916.6	1979.8	2187.5	2273.2	2320.6	2142.3	2009.1	1817.2
85°	1131.0	1140.0	1162.6	1210.0	1162.6	1180.6	1160.3	1201.0	1101.6	1022.6	914.3
87.5°	462.8	462.8	492.1	535.0	498.9	489.9	419.9	415.4	352.2	318.3	248.3
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2
2.5°	6946.1	6959.7	6952.9	6961.9	6955.1	6955.1	6946.1	6943.9	6950.6	6941.6	6943.9
5°	6885.2	6887.4	6876.1	6880.7	6867.1	6862.6	6855.8	6837.8	6849.0	6837.8	6842.3
7.5°	6797.1	6790.4	6774.6	6752.0	6736.2	6729.4	6715.9	6691.0	6695.5	6675.2	6686.5
10°	6684.3	6661.7	6634.6	6600.7	6578.2	6557.8	6528.5	6499.1	6483.3	6465.3	6463.0
12.5°	6557.8	6530.8	6494.6	6442.7	6393.0	6359.2	6314.0	6262.1	6246.3	6217.0	6201.2
15°	6420.1	6377.2	6334.4	6275.7	6221.5	6169.6	6108.6	6043.1	6000.3	5955.1	5921.2
17.5°	6296.0	6246.3	6189.9	6133.4	6074.7	6011.5	5934.8	5853.5	5790.3	5706.8	5639.1
20°	6198.9	6135.7	6079.3	6020.6	5955.1	5878.4	5785.8	5682.0	5575.9	5483.3	5404.3
22.5°	6160.5	6061.2	5993.5	5934.8	5869.3	5779.0	5666.2	5544.3	5415.6	5286.9	5183.1
25°	6192.1	6045.4	5939.3	5869.3	5812.9	5720.3	5593.9	5444.9	5295.9	5142.4	5002.5
27.5°	6284.7	6097.3	5943.8	5833.2	5767.7	5675.2	5542.0	5384.0	5207.9	5036.3	4864.8
30°	6429.2	6185.4	5991.2	5835.5	5733.9	5627.8	5487.8	5305.0	5126.6	4930.2	4742.9
32.5°	6569.1	6277.9	6045.4	5844.5	5688.7	5551.0	5395.3	5214.7	5022.8	4817.4	4623.2
35°	6668.5	6338.9	6065.7	5824.2	5618.7	5447.2	5280.1	5099.5	4912.2	4702.2	4503.6
37.5°	6715.9	6372.7	6068.0	5770.0	5526.2	5336.6	5158.2	4979.9	4803.8	4605.2	4417.8
40°	6713.6	6370.5	6036.4	5700.0	5415.6	5214.7	5038.6	4864.8	4700.0	4526.2	4356.8
42.5°	6663.9	6334.4	5991.2	5632.3	5336.6	5113.1	4930.2	4763.2	4623.2	4469.7	4327.5
45°	6587.2	6273.4	5943.8	5600.7	5314.0	5090.5	4896.4	4733.8	4609.7	4469.7	4347.8
47.5°	6528.5	6239.5	5950.6	5657.1	5384.0	5151.5	4946.0	4767.7	4661.6	4548.7	4462.9
50°	6537.5	6255.3	5973.2	5691.0	5433.6	5198.9	5000.2	4837.7	4760.9	4731.6	4711.3
52.5°	6584.9	6280.2	6040.9	5871.6	5783.5	5607.5	5490.1	5388.5	5444.9	5334.3	5203.4
55°	7189.9	7090.6	7323.1	7542.1	7819.7	7923.6	7824.3	7806.2	7896.5	7521.8	6661.7
57.5°	9688.9	9946.2	10305.2	10494.8	10725.1	10664.1	10433.9	10242.0	10016.2	9578.3	8506.0
60°	13939.6	13745.5	13583.0	13124.7	12750.0	12312.0	11824.4	11406.8	11007.2	10377.4	9217.1
62.5°	18319.1	16971.4	15844.9	14756.8	13880.9	13154.1	12447.5	11819.9	11214.9	10336.8	9088.4
65°	22107.0	19269.4	17154.2	15558.2	14278.3	13174.4	12266.9	11400.0	10630.2	9600.9	8366.0
67.5°	23809.1	20253.7	17176.8	14890.0	13117.9	11619.0	10445.1	9135.8	8273.5	7614.3	6919.0
69°	23682.7	19502.0	15951.0	13136.0	11099.8	9352.5	8092.9	6727.1	5900.9	5621.0	5605.2
70°	23082.2	18228.8	14519.8	11711.6	9381.9	7645.9	6438.2	5212.4	4442.6	4250.7	4591.6
72.5°	18845.0	12880.9	9099.7	6948.4	5343.3	4223.7	3444.8	2733.8	2182.9	1891.7	1954.9
75°	10643.8	5964.1	3855.7	2914.3	2462.9	2036.2	1747.3	1489.9	1347.7	1094.9	866.9
77.5°	3869.2	2559.9	2036.2	1760.8	1248.4	860.1	720.1	629.8	571.1	571.1	544.0
80°	2447.1	1927.8	1345.4	921.0	681.7	593.7	519.2	456.0	419.9	410.9	419.9
82.5°	1528.3	1180.6	754.0	577.9	485.3	435.7	379.2	331.8	302.5	295.7	309.3
85°	754.0	584.7	458.3	408.6	383.8	356.7	313.8	268.6	259.6	277.7	325.1
87.5°	225.7	200.9	164.8	171.6	180.6	176.1	140.0	121.9	115.1	151.2	237.0
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°	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2	6973.2
2.5°	6948.4	6946.1	6950.6	6943.9	6948.4	6950.6	6946.1	6966.4	6952.9	6955.1	6964.2
5°	6846.8	6842.3	6860.3	6855.8	6864.9	6873.9	6869.4	6898.7	6887.4	6896.5	6914.5
7.5°	6677.5	6686.5	6688.8	6688.8	6706.8	6736.2	6742.9	6761.0	6761.0	6785.8	6803.9
10°	6451.7	6454.0	6467.5	6465.3	6487.9	6519.5	6524.0	6555.6	6566.9	6607.5	6632.3
12.5°	6189.9	6178.6	6176.3	6174.1	6203.4	6237.3	6241.8	6296.0	6318.6	6354.7	6395.3
15°	5896.4	5867.1	5858.0	5876.1	5869.3	5889.6	5910.0	5939.3	5970.9	6043.1	6079.3
17.5°	5609.7	5551.0	5535.2	5514.9	5494.6	5494.6	5503.6	5539.7	5605.2	5643.6	5724.8
20°	5316.3	5246.3	5189.8	5135.7	5088.3	5070.2	5072.4	5117.6	5165.0	5228.2	5305.0
22.5°	5070.2	4964.1	4867.0	4794.8	4697.7	4695.5	4681.9	4695.5	4747.4	4763.2	4806.1
25°	4858.0	4715.8	4584.8	4467.5	4372.6	4323.0	4309.4	4304.9	4280.1	4273.3	4241.7
27.5°	4693.2	4521.6	4352.3	4210.1	4092.7	4025.0	3939.2	3878.3	3790.2	3767.7	3711.2
30°	4557.8	4372.6	4187.5	4002.4	3869.2	3747.3	3602.9	3496.8	3361.3	3273.3	3196.5
32.5°	4426.8	4239.5	4052.1	3869.2	3663.8	3474.2	3284.6	3119.8	2968.5	2833.1	2720.2
35°	4318.5	4140.1	3950.5	3729.3	3467.4	3194.3	2966.3	2778.9	2571.2	2429.0	2286.8
37.5°	4248.5	4086.0	3896.3	3591.6	3255.2	2961.8	2702.1	2474.1	2261.9	2047.5	1887.2
40°	4216.9	4074.7	3837.6	3465.2	3070.1	2745.0	2458.3	2205.5	1934.6	1693.1	1521.5
42.5°	4214.6	4070.1	3756.4	3325.2	2916.6	2562.2	2243.9	1941.4	1641.2	1392.8	1223.5
45°	4255.3	4063.4	3670.6	3207.8	2781.2	2410.9	2031.7	1663.7	1327.4	1142.3	1052.0
47.5°	4363.6	4074.7	3600.6	3099.5	2652.5	2228.1	1787.9	1359.0	1081.3	995.5	995.5
50°	4557.8	4140.1	3582.5	3022.7	2523.8	2015.9	1489.9	1097.1	957.2	957.2	984.2
52.5°	4855.7	4277.8	3614.1	2968.5	2363.5	1736.0	1173.9	945.9	918.8	943.6	979.7
55°	5542.0	4521.6	3657.0	2876.0	2119.7	1377.0	968.4	893.9	905.2	934.6	968.4
57.5°	6801.6	5043.1	3702.2	2672.8	1726.9	1061.0	878.1	873.6	893.9	921.0	950.4
60°	7630.1	5706.8	3817.3	2365.8	1307.1	875.9	833.0	860.1	884.9	907.5	930.1
62.5°	7630.1	5894.2	3903.1	2022.7	982.0	796.9	803.6	846.5	875.9	887.2	900.7
65°	7142.5	5551.0	3611.9	1647.9	799.1	751.7	776.6	819.4	846.5	855.6	866.9
67.5°	6241.8	4903.1	3043.0	1241.6	713.3	713.3	745.0	776.6	799.1	817.2	835.2
69°	5426.9	4399.7	2679.6	1052.0	679.5	684.0	715.6	742.7	769.8	792.4	814.9
70°	4839.9	4022.7	2426.7	954.9	659.2	661.4	693.0	722.4	747.2	772.0	799.1
72.5°	2591.5	2778.9	1844.3	783.3	607.2	614.0	643.4	670.5	693.0	717.9	742.7
75°	882.7	1194.2	1173.9	641.1	548.6	566.6	584.7	609.5	638.9	654.7	668.2
77.5°	517.0	535.0	625.3	521.5	494.4	503.4	523.7	544.0	568.9	584.7	596.0
80°	433.4	431.2	433.4	424.4	431.2	451.5	465.0	492.1	514.7	519.2	517.0
82.5°	352.2	370.2	372.5	368.0	388.3	404.1	415.4	431.2	428.9	433.4	442.5
85°	313.8	311.5	327.3	329.6	329.6	318.3	320.6	320.6	320.6	327.3	329.6
87.5°	313.8	261.9	203.2	182.9	191.9	180.6	171.6	169.3	187.4	205.4	200.9
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°	6973.2	6973.2	6973.2	6973.2	6973.2
2.5°	6968.7	6975.5	6970.9	6970.9	6975.5
5°	6921.3	6932.6	6928.1	6932.6	6932.6
7.5°	6812.9	6828.7	6840.0	6851.3	6844.5
10°	6657.2	6684.3	6702.3	6715.9	6709.1
12.5°	6424.7	6449.5	6487.9	6510.4	6492.4
15°	6106.4	6176.3	6198.9	6230.5	6212.5
17.5°	5774.5	5817.4	5844.5	5873.8	5891.9
20°	5332.1	5365.9	5402.0	5415.6	5395.3
22.5°	4799.3	4817.4	4810.6	4830.9	4790.3
25°	4214.6	4225.9	4219.1	4237.2	4203.3
27.5°	3661.6	3659.3	3661.6	3639.0	3616.4
30°	3128.8	3108.5	3099.5	3065.6	3058.8
32.5°	2652.5	2582.5	2546.4	2496.7	2485.4
35°	2176.2	2076.8	2011.4	1954.9	1930.1
37.5°	1749.5	1629.9	1553.1	1503.4	1496.7
40°	1383.8	1273.2	1219.0	1191.9	1187.4
42.5°	1128.7	1081.3	1067.8	1067.8	1067.8
45°	1029.4	1027.1	1038.4	1047.4	1049.7
47.5°	1009.1	1022.6	1038.4	1052.0	1056.5
50°	1009.1	1022.6	1033.9	1047.4	1052.0
52.5°	1004.6	1015.8	1020.4	1029.4	1033.9
55°	991.0	997.8	997.8	1002.3	1006.8
57.5°	968.4	973.0	966.2	970.7	982.0
60°	945.9	950.4	939.1	950.4	957.2
62.5°	921.0	923.3	918.8	927.8	927.8
65°	880.4	875.9	882.7	889.4	891.7
67.5°	839.8	828.5	835.2	837.5	842.0
69°	808.2	801.4	803.6	808.2	812.7
70°	785.6	781.1	785.6	792.4	799.1
72.5°	729.2	731.4	747.2	760.8	774.3
75°	677.2	693.0	713.3	742.7	758.5
77.5°	614.0	625.3	641.1	672.7	702.1
80°	530.5	537.3	539.5	550.8	548.6
82.5°	431.2	424.4	419.9	415.4	413.1
85°	309.3	307.0	289.0	275.4	275.4
87.5°	185.1	176.1	167.0	155.8	149.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)