

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: P158740

Luminaire Tested: **VST-E12-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158740
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-E12-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34811.2 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

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



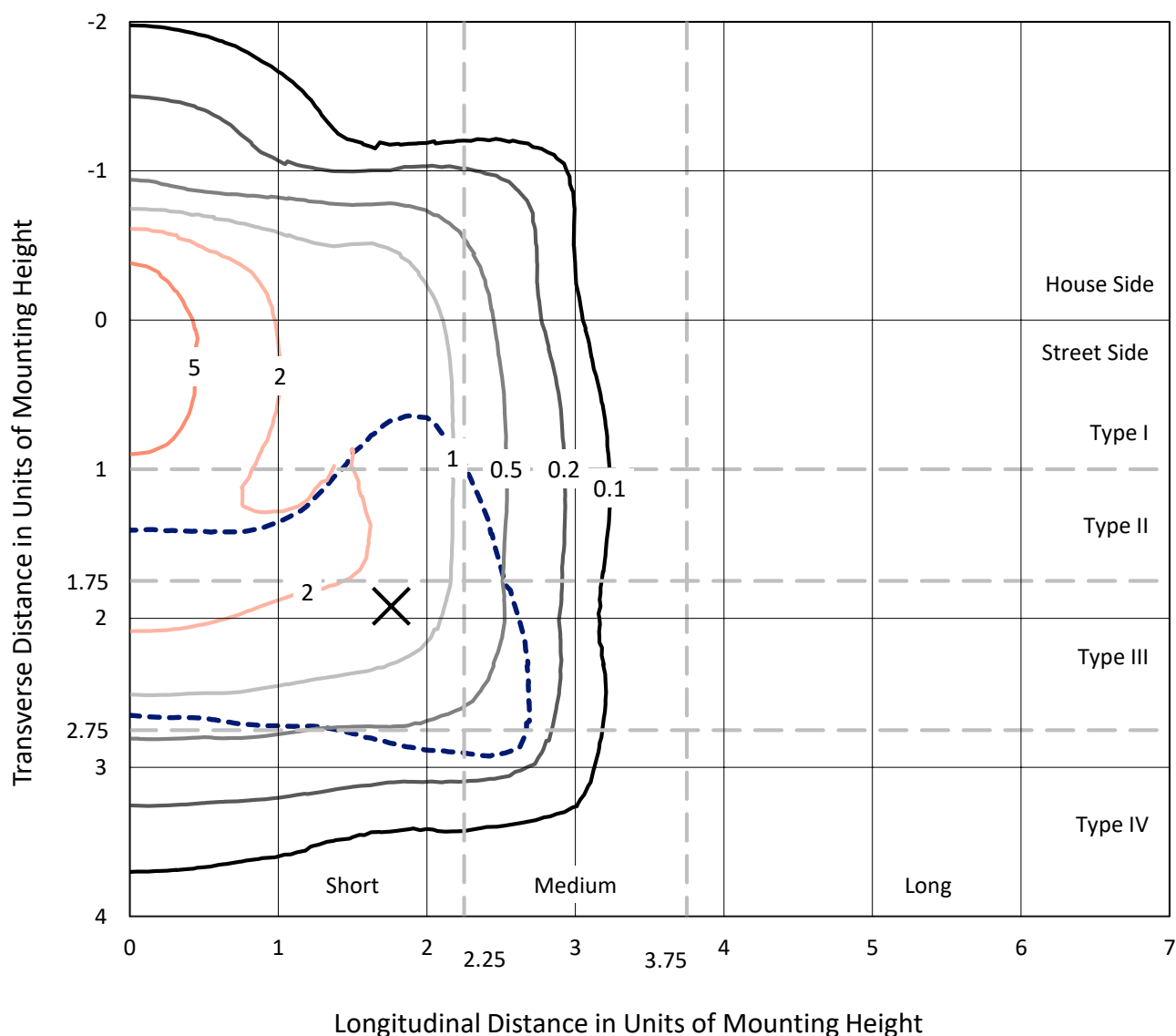
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CATALOG NUMBER: VST-E12-LED-E-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

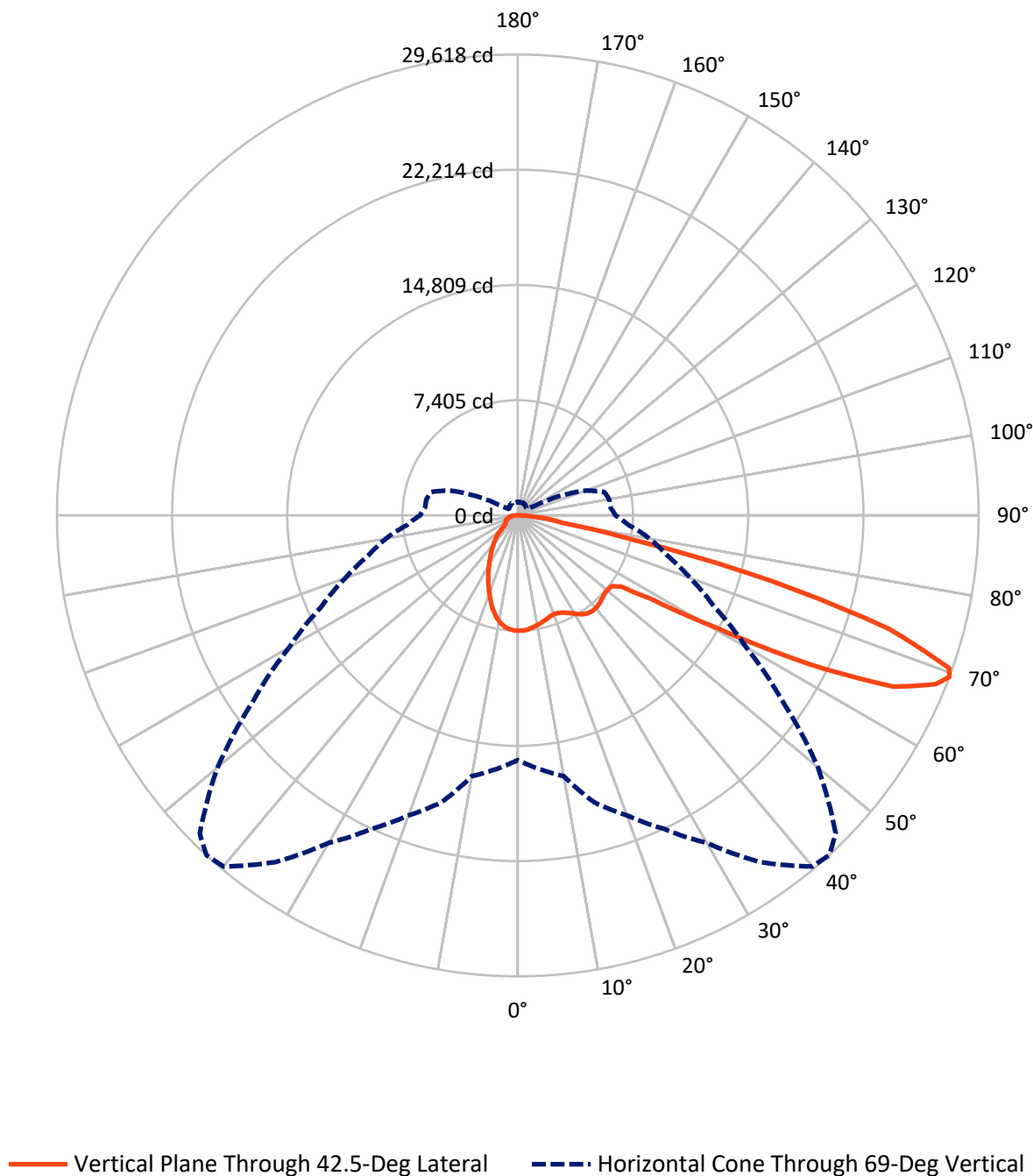


Based on 30 foot mounting height. Maximum calculated value = 8.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7739.1	0.0	7739.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	27072.1	0.0	27072.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	34811.2	0.0	34811.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	690.1	2.0
10°-20°	1860.0	5.3
20°-30°	2712.2	7.8
30°-40°	3457.5	9.9
40°-50°	4022.9	11.6
50°-60°	6120.8	17.6
60°-70°	10812.2	31.1
70°-80°	4461.8	12.8
80°-90°	673.7	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°	34811.2	100.0
0°-180°	34811.2	100.0

Coefficient of Utilization



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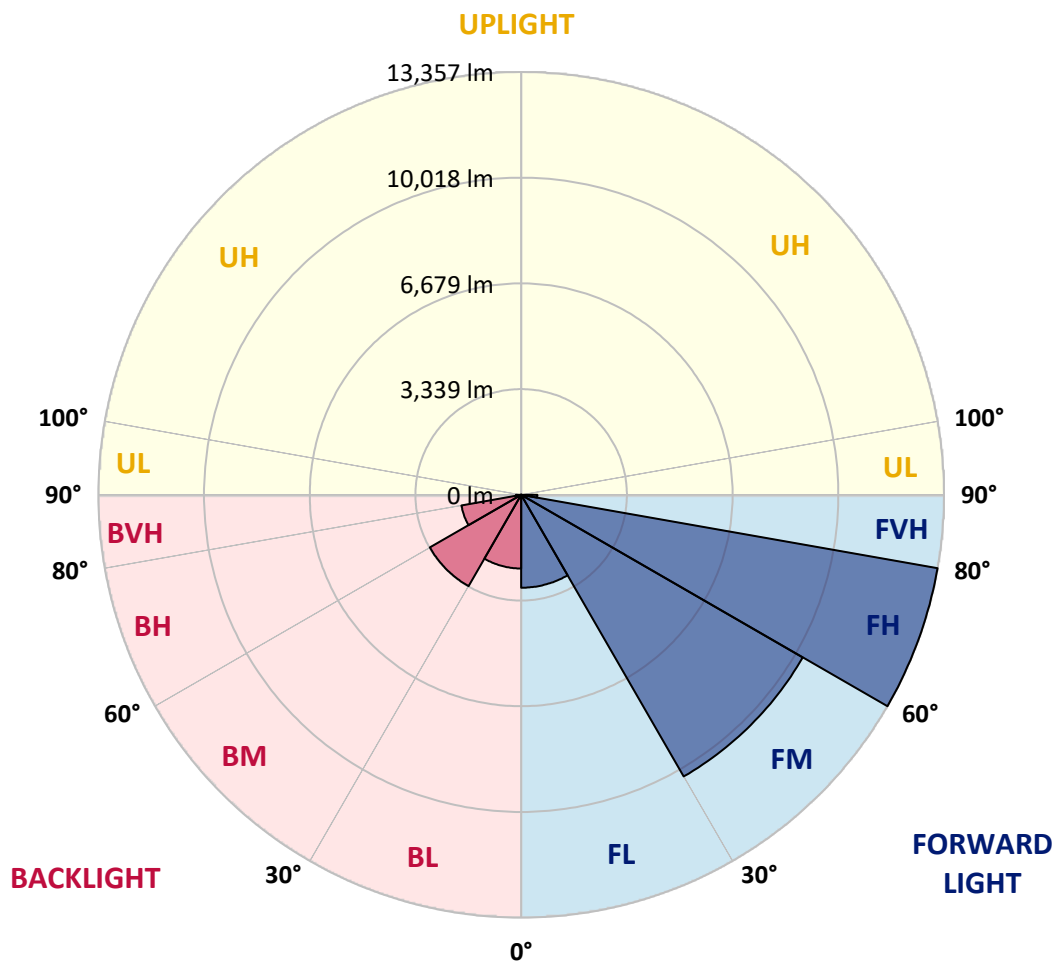
CATALOG NUMBER: VST-E12-LED-E-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2935.4	8.4			
FM	(30°-60°)	10270.2	29.5			
FH	(60°-80°)	13357.0	38.4			G5
FVH	(80°-90°)	509.5	1.5			G4/750
BL	(0°-30°)	2326.8	6.7	B3/2500		
BM	(30°-60°)	3331.0	9.6	B3/5000		
BH	(60°-80°)	1917.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	164.2	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°	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6
2.5°	7389.6	7416.0	7406.4	7406.4	7413.6	7401.6	7401.6	7406.4	7394.4	7401.6	7399.2
5°	7363.2	7377.6	7372.8	7372.8	7372.8	7363.2	7358.4	7356.0	7339.2	7339.2	7332.0
7.5°	7305.6	7310.4	7317.6	7308.0	7305.6	7303.2	7286.4	7276.8	7257.6	7240.8	7245.6
10°	7228.8	7226.4	7238.4	7231.2	7221.6	7214.4	7200.0	7183.2	7161.6	7140.0	7137.6
12.5°	7142.4	7140.0	7149.6	7144.8	7137.6	7123.2	7111.2	7082.4	7048.8	7022.4	7020.0
15°	7087.2	7080.0	7089.6	7080.0	7068.0	7053.6	7032.0	6996.0	6936.0	6909.6	6888.0
17.5°	7140.0	7128.0	7132.8	7120.8	7104.0	7065.6	7015.2	6938.4	6852.0	6806.4	6772.8
20°	7324.8	7303.2	7308.0	7296.0	7257.6	7207.2	7111.2	6976.8	6830.4	6756.0	6703.2
22.5°	7588.8	7572.0	7579.2	7567.2	7528.8	7452.0	7308.0	7116.0	6907.2	6799.2	6715.2
25°	7989.6	8004.0	8008.8	7953.6	7932.0	7790.4	7591.2	7324.8	7046.4	6919.2	6804.0
27.5°	8440.8	8440.8	8462.4	8440.8	8397.6	8232.0	7951.2	7629.6	7272.0	7099.2	6960.0
30°	8880.0	8875.2	8916.0	8911.2	8841.6	8654.4	8335.2	7944.0	7536.0	7341.6	7164.0
32.5°	9345.6	9360.0	9386.4	9376.8	9285.6	9026.4	8642.4	8217.6	7788.0	7574.4	7375.2
35°	9849.6	9856.8	9866.4	9861.6	9676.8	9350.4	8868.0	8392.8	7946.4	7735.2	7528.8
37.5°	10353.6	10346.4	10334.4	10231.2	10020.0	9566.4	9004.8	8493.6	8025.6	7797.6	7584.0
40°	10804.8	10764.0	10725.6	10564.8	10240.8	9688.8	9057.6	8517.6	8018.4	7783.2	7574.4
42.5°	11052.0	11006.4	10927.2	10725.6	10332.0	9700.8	9021.6	8445.6	7944.0	7711.2	7504.8
45°	11097.6	11064.0	10987.2	10761.6	10310.4	9624.0	8911.2	8328.0	7833.6	7600.8	7406.4
47.5°	10989.6	10963.2	10888.8	10665.6	10216.8	9508.8	8784.0	8203.2	7725.6	7507.2	7320.0
50°	10824.0	10800.0	10742.4	10538.4	10111.2	9429.6	8719.2	8138.4	7689.6	7490.4	7317.6
52.5°	11092.8	11112.0	10944.0	10720.8	10224.0	9499.2	8791.2	8205.6	7754.4	7557.6	7377.6
55°	15271.2	15244.8	14234.4	13387.2	11872.8	10500.0	9475.2	8738.4	8256.0	8059.2	7891.2
57.5°	19843.2	19752.0	19336.8	18544.8	16917.6	14745.6	12770.4	11090.4	10428.0	10144.8	10164.0
60°	21336.0	21369.6	21280.8	21000.0	20416.8	19286.4	17784.0	16521.6	15278.4	14671.2	14740.8
62.5°	22164.0	22224.0	22300.8	22238.4	22048.8	21787.2	21597.6	21712.8	21540.0	21103.2	20755.2
65°	22279.2	22401.6	22656.0	22857.6	22956.0	23203.2	23784.0	25176.0	26448.0	26532.0	25920.0
67.5°	19999.2	20337.6	20889.6	21823.2	22622.4	23500.8	24902.4	27019.2	28896.0	28958.4	28387.2
69°	15724.8	16375.2	17020.8	19106.4	20510.4	22231.2	24304.8	27196.8	29445.6	29618.4	28898.4
70°	12600.0	12986.4	13543.2	15638.4	17736.0	19929.6	22934.4	26611.2	29068.8	29416.8	28622.4
72.5°	7564.8	7713.6	7905.6	8656.8	9736.8	11690.4	15674.4	21696.0	24520.8	24986.4	23976.0
75°	4891.2	4881.6	4898.4	5107.2	5169.6	5544.0	6799.2	11162.4	15996.0	16840.8	15631.2
77.5°	3684.0	3717.6	3664.8	3684.0	3667.2	3768.0	3806.4	3996.0	6314.4	7778.4	6955.2
80°	3252.0	3268.8	3271.2	3261.6	3144.0	3134.4	3196.8	3088.8	2870.4	2913.6	2791.2
82.5°	1855.2	1852.8	1874.4	2037.6	2104.8	2325.6	2416.8	2467.2	2277.6	2136.0	1932.0
85°	1202.4	1212.0	1236.0	1286.4	1236.0	1255.2	1233.6	1276.8	1171.2	1087.2	972.0
87.5°	492.0	492.0	523.2	568.8	530.4	520.8	446.4	441.6	374.4	338.4	264.0
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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CATALOG NUMBER: VST-E12-LED-E-U-SL4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6
2.5°	7384.8	7399.2	7392.0	7401.6	7394.4	7394.4	7384.8	7382.4	7389.6	7380.0	7382.4
5°	7320.0	7322.4	7310.4	7315.2	7300.8	7296.0	7288.8	7269.6	7281.6	7269.6	7274.4
7.5°	7226.4	7219.2	7202.4	7178.4	7161.6	7154.4	7140.0	7113.6	7118.4	7096.8	7108.8
10°	7106.4	7082.4	7053.6	7017.6	6993.6	6972.0	6940.8	6909.6	6892.8	6873.6	6871.2
12.5°	6972.0	6943.2	6904.8	6849.6	6796.8	6760.8	6712.8	6657.6	6640.8	6609.6	6592.8
15°	6825.6	6780.0	6734.4	6672.0	6614.4	6559.2	6494.4	6424.8	6379.2	6331.2	6295.2
17.5°	6693.6	6640.8	6580.8	6520.8	6458.4	6391.2	6309.6	6223.2	6156.0	6067.2	5995.2
20°	6590.4	6523.2	6463.2	6400.8	6331.2	6249.6	6151.2	6040.8	5928.0	5829.6	5745.6
22.5°	6549.6	6444.0	6372.0	6309.6	6240.0	6144.0	6024.0	5894.4	5757.6	5620.8	5510.4
25°	6583.2	6427.2	6314.4	6240.0	6180.0	6081.6	5947.2	5788.8	5630.4	5467.2	5318.4
27.5°	6681.6	6482.4	6319.2	6201.6	6132.0	6033.6	5892.0	5724.0	5536.8	5354.4	5172.0
30°	6835.2	6576.0	6369.6	6204.0	6096.0	5983.2	5834.4	5640.0	5450.4	5241.6	5042.4
32.5°	6984.0	6674.4	6427.2	6213.6	6048.0	5901.6	5736.0	5544.0	5340.0	5121.6	4915.2
35°	7089.6	6739.2	6448.8	6192.0	5973.6	5791.2	5613.6	5421.6	5222.4	4999.2	4788.0
37.5°	7140.0	6775.2	6451.2	6134.4	5875.2	5673.6	5484.0	5294.4	5107.2	4896.0	4696.8
40°	7137.6	6772.8	6417.6	6060.0	5757.6	5544.0	5356.8	5172.0	4996.8	4812.0	4632.0
42.5°	7084.8	6734.4	6369.6	5988.0	5673.6	5436.0	5241.6	5064.0	4915.2	4752.0	4600.8
45°	7003.2	6669.6	6319.2	5954.4	5649.6	5412.0	5205.6	5032.8	4900.8	4752.0	4622.4
47.5°	6940.8	6633.6	6326.4	6014.4	5724.0	5476.8	5258.4	5068.8	4956.0	4836.0	4744.8
50°	6950.4	6650.4	6350.4	6050.4	5776.8	5527.2	5316.0	5143.2	5061.6	5030.4	5008.8
52.5°	7000.8	6676.8	6422.4	6242.4	6148.8	5961.6	5836.8	5728.8	5788.8	5671.2	5532.0
55°	7644.0	7538.4	7785.6	8018.4	8313.6	8424.0	8318.4	8299.2	8395.2	7996.8	7082.4
57.5°	10300.8	10574.4	10956.0	11157.6	11402.4	11337.6	11092.8	10888.8	10648.8	10183.2	9043.2
60°	14820.0	14613.6	14440.8	13953.6	13555.2	13089.6	12571.2	12127.2	11702.4	11032.8	9799.2
62.5°	19476.0	18043.2	16845.6	15688.8	14757.6	13984.8	13233.6	12566.4	11923.2	10989.6	9662.4
65°	23503.2	20486.4	18237.6	16540.8	15180.0	14006.4	13041.6	12120.0	11301.6	10207.2	8894.4
67.5°	25312.8	21532.8	18261.6	15830.4	13946.4	12352.8	11104.8	9712.8	8796.0	8095.2	7356.0
69°	25178.4	20733.6	16958.4	13965.6	11800.8	9943.2	8604.0	7152.0	6273.6	5976.0	5959.2
70°	24540.0	19380.0	15436.8	12451.2	9974.4	8128.8	6844.8	5541.6	4723.2	4519.2	4881.6
72.5°	20035.2	13694.4	9674.4	7387.2	5680.8	4490.4	3662.4	2906.4	2320.8	2011.2	2078.4
75°	11316.0	6340.8	4099.2	3098.4	2618.4	2164.8	1857.6	1584.0	1432.8	1164.0	921.6
77.5°	4113.6	2721.6	2164.8	1872.0	1327.2	914.4	765.6	669.6	607.2	607.2	578.4
80°	2601.6	2049.6	1430.4	979.2	724.8	631.2	552.0	484.8	446.4	436.8	446.4
82.5°	1624.8	1255.2	801.6	614.4	516.0	463.2	403.2	352.8	321.6	314.4	328.8
85°	801.6	621.6	487.2	434.4	408.0	379.2	333.6	285.6	276.0	295.2	345.6
87.5°	240.0	213.6	175.2	182.4	192.0	187.2	148.8	129.6	122.4	160.8	252.0
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°	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6	7413.6
2.5°	7387.2	7384.8	7389.6	7382.4	7387.2	7389.6	7384.8	7406.4	7392.0	7394.4	7404.0
5°	7279.2	7274.4	7293.6	7288.8	7298.4	7308.0	7303.2	7334.4	7322.4	7332.0	7351.2
7.5°	7099.2	7108.8	7111.2	7111.2	7130.4	7161.6	7168.8	7188.0	7188.0	7214.4	7233.6
10°	6859.2	6861.6	6876.0	6873.6	6897.6	6931.2	6936.0	6969.6	6981.6	7024.8	7051.2
12.5°	6580.8	6568.8	6566.4	6564.0	6595.2	6631.2	6636.0	6693.6	6717.6	6756.0	6799.2
15°	6268.8	6237.6	6228.0	6247.2	6240.0	6261.6	6283.2	6314.4	6348.0	6424.8	6463.2
17.5°	5964.0	5901.6	5884.8	5863.2	5841.6	5841.6	5851.2	5889.6	5959.2	6000.0	6086.4
20°	5652.0	5577.6	5517.6	5460.0	5409.6	5390.4	5392.8	5440.8	5491.2	5558.4	5640.0
22.5°	5390.4	5277.6	5174.4	5097.6	4994.4	4992.0	4977.6	4992.0	5047.2	5064.0	5109.6
25°	5164.8	5013.6	4874.4	4749.6	4648.8	4596.0	4581.6	4576.8	4550.4	4543.2	4509.6
27.5°	4989.6	4807.2	4627.2	4476.0	4351.2	4279.2	4188.0	4123.2	4029.6	4005.6	3945.6
30°	4845.6	4648.8	4452.0	4255.2	4113.6	3984.0	3830.4	3717.6	3573.6	3480.0	3398.4
32.5°	4706.4	4507.2	4308.0	4113.6	3895.2	3693.6	3492.0	3316.8	3156.0	3012.0	2892.0
35°	4591.2	4401.6	4200.0	3964.8	3686.4	3396.0	3153.6	2954.4	2733.6	2582.4	2431.2
37.5°	4516.8	4344.0	4142.4	3818.4	3460.8	3148.8	2872.8	2630.4	2404.8	2176.8	2006.4
40°	4483.2	4332.0	4080.0	3684.0	3264.0	2918.4	2613.6	2344.8	2056.8	1800.0	1617.6
42.5°	4480.8	4327.2	3993.6	3535.2	3100.8	2724.0	2385.6	2064.0	1744.8	1480.8	1300.8
45°	4524.0	4320.0	3902.4	3410.4	2956.8	2563.2	2160.0	1768.8	1411.2	1214.4	1118.4
47.5°	4639.2	4332.0	3828.0	3295.2	2820.0	2368.8	1900.8	1444.8	1149.6	1058.4	1058.4
50°	4845.6	4401.6	3808.8	3213.6	2683.2	2143.2	1584.0	1166.4	1017.6	1017.6	1046.4
52.5°	5162.4	4548.0	3842.4	3156.0	2512.8	1845.6	1248.0	1005.6	976.8	1003.2	1041.6
55°	5892.0	4807.2	3888.0	3057.6	2253.6	1464.0	1029.6	950.4	962.4	993.6	1029.6
57.5°	7231.2	5361.6	3936.0	2841.6	1836.0	1128.0	933.6	928.8	950.4	979.2	1010.4
60°	8112.0	6067.2	4058.4	2515.2	1389.6	931.2	885.6	914.4	940.8	964.8	988.8
62.5°	8112.0	6266.4	4149.6	2150.4	1044.0	847.2	854.4	900.0	931.2	943.2	957.6
65°	7593.6	5901.6	3840.0	1752.0	849.6	799.2	825.6	871.2	900.0	909.6	921.6
67.5°	6636.0	5212.8	3235.2	1320.0	758.4	758.4	792.0	825.6	849.6	868.8	888.0
69°	5769.6	4677.6	2848.8	1118.4	722.4	727.2	760.8	789.6	818.4	842.4	866.4
70°	5145.6	4276.8	2580.0	1015.2	700.8	703.2	736.8	768.0	794.4	820.8	849.6
72.5°	2755.2	2954.4	1960.8	832.8	645.6	652.8	684.0	712.8	736.8	763.2	789.6
75°	938.4	1269.6	1248.0	681.6	583.2	602.4	621.6	648.0	679.2	696.0	710.4
77.5°	549.6	568.8	664.8	554.4	525.6	535.2	556.8	578.4	604.8	621.6	633.6
80°	460.8	458.4	460.8	451.2	458.4	480.0	494.4	523.2	547.2	552.0	549.6
82.5°	374.4	393.6	396.0	391.2	412.8	429.6	441.6	458.4	456.0	460.8	470.4
85°	333.6	331.2	348.0	350.4	350.4	338.4	340.8	340.8	340.8	348.0	350.4
87.5°	333.6	278.4	216.0	194.4	204.0	192.0	182.4	180.0	199.2	218.4	213.6
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):

	160°	165°	170°	175°	180°
0°	7413.6	7413.6	7413.6	7413.6	7413.6
2.5°	7408.8	7416.0	7411.2	7411.2	7416.0
5°	7358.4	7370.4	7365.6	7370.4	7370.4
7.5°	7243.2	7260.0	7272.0	7284.0	7276.8
10°	7077.6	7106.4	7125.6	7140.0	7132.8
12.5°	6830.4	6856.8	6897.6	6921.6	6902.4
15°	6492.0	6566.4	6590.4	6624.0	6604.8
17.5°	6139.2	6184.8	6213.6	6244.8	6264.0
20°	5668.8	5704.8	5743.2	5757.6	5736.0
22.5°	5102.4	5121.6	5114.4	5136.0	5092.8
25°	4480.8	4492.8	4485.6	4504.8	4468.8
27.5°	3892.8	3890.4	3892.8	3868.8	3844.8
30°	3326.4	3304.8	3295.2	3259.2	3252.0
32.5°	2820.0	2745.6	2707.2	2654.4	2642.4
35°	2313.6	2208.0	2138.4	2078.4	2052.0
37.5°	1860.0	1732.8	1651.2	1598.4	1591.2
40°	1471.2	1353.6	1296.0	1267.2	1262.4
42.5°	1200.0	1149.6	1135.2	1135.2	1135.2
45°	1094.4	1092.0	1104.0	1113.6	1116.0
47.5°	1072.8	1087.2	1104.0	1118.4	1123.2
50°	1072.8	1087.2	1099.2	1113.6	1118.4
52.5°	1068.0	1080.0	1084.8	1094.4	1099.2
55°	1053.6	1060.8	1060.8	1065.6	1070.4
57.5°	1029.6	1034.4	1027.2	1032.0	1044.0
60°	1005.6	1010.4	998.4	1010.4	1017.6
62.5°	979.2	981.6	976.8	986.4	986.4
65°	936.0	931.2	938.4	945.6	948.0
67.5°	892.8	880.8	888.0	890.4	895.2
69°	859.2	852.0	854.4	859.2	864.0
70°	835.2	830.4	835.2	842.4	849.6
72.5°	775.2	777.6	794.4	808.8	823.2
75°	720.0	736.8	758.4	789.6	806.4
77.5°	652.8	664.8	681.6	715.2	746.4
80°	564.0	571.2	573.6	585.6	583.2
82.5°	458.4	451.2	446.4	441.6	439.2
85°	328.8	326.4	307.2	292.8	292.8
87.5°	196.8	187.2	177.6	165.6	158.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)