

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: P158741

Luminaire Tested: **VST-E12-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158741
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-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 35720 lumens
Efficiency: N/A
Efficacy: 122.5 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

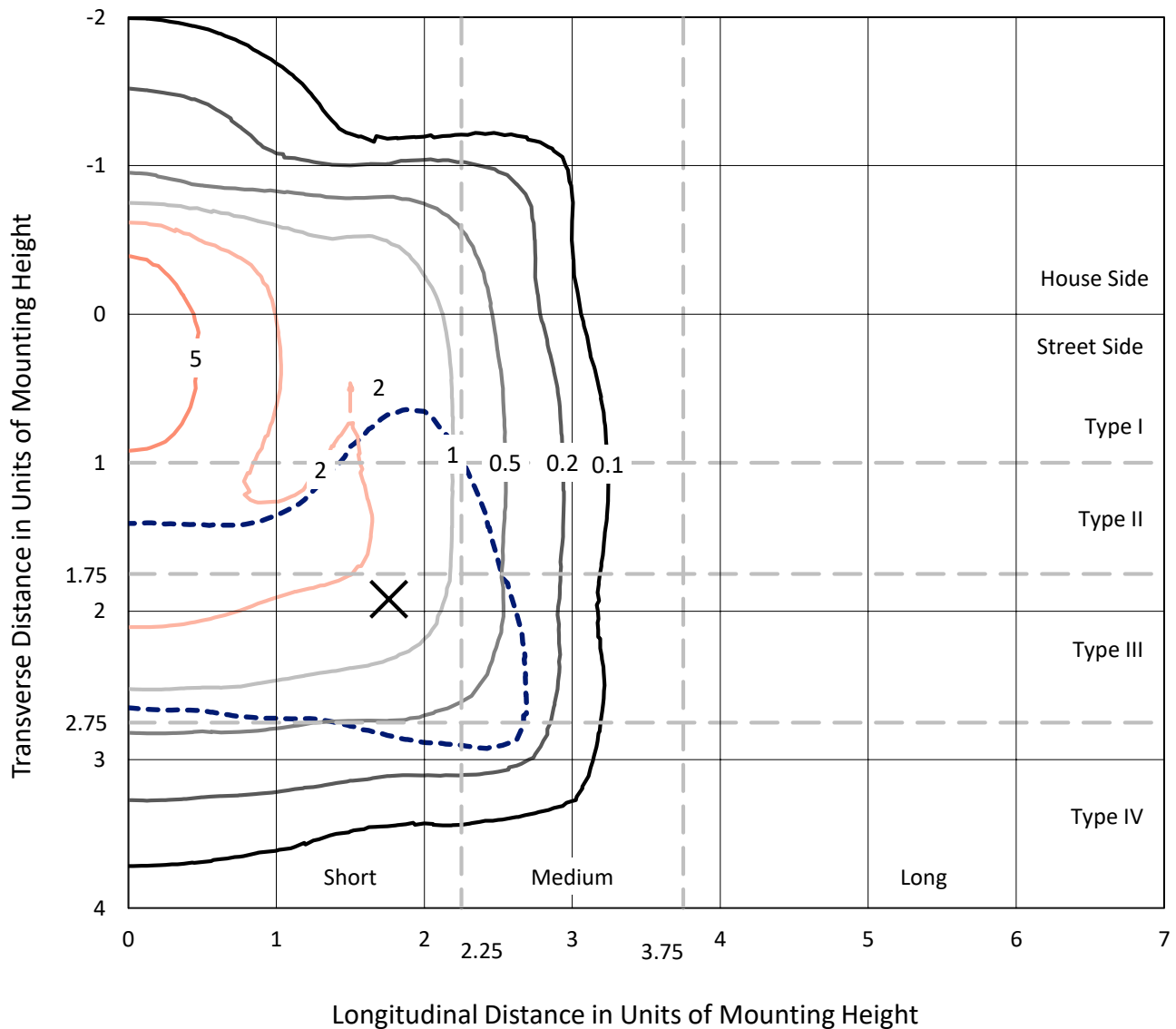


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

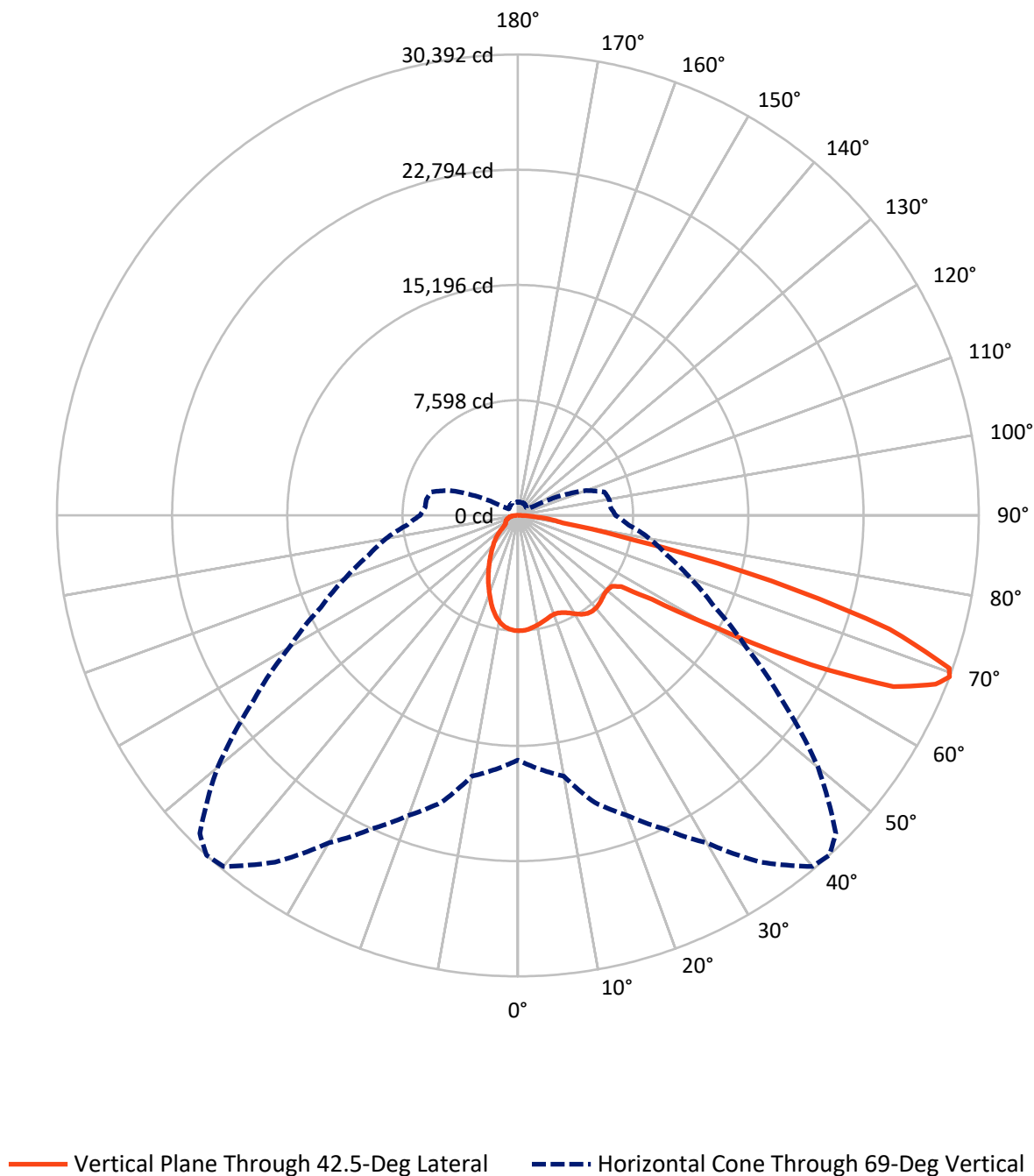


Based on 30 foot mounting height. Maximum calculated value = 8.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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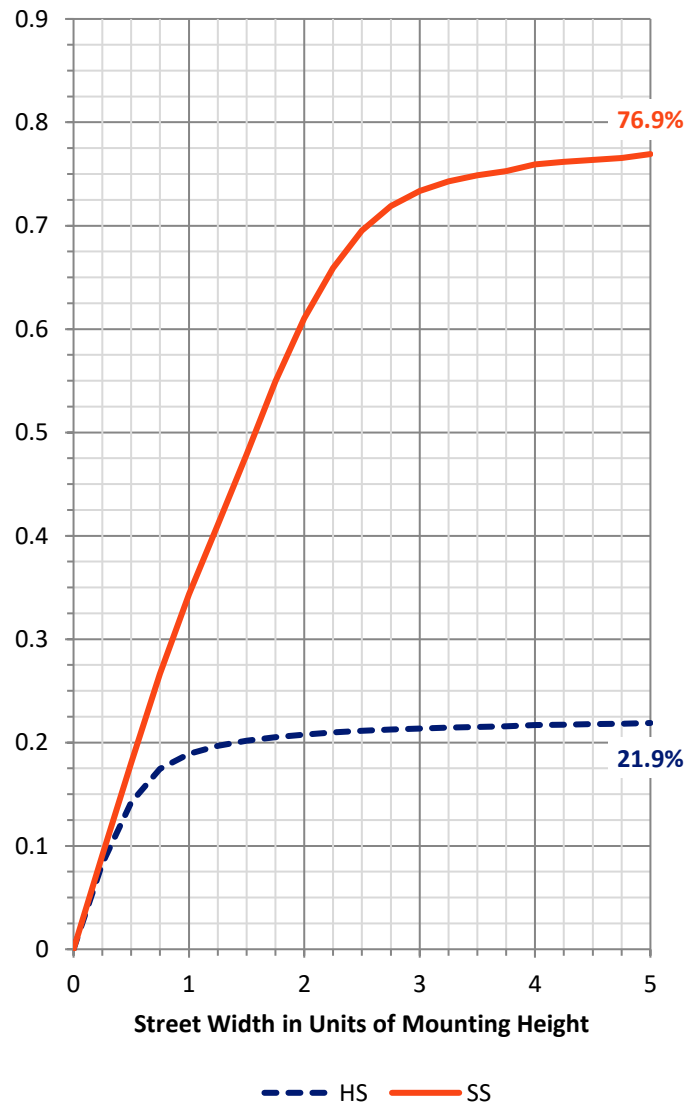
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7941.1	0.0	7941.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	27778.9	0.0	27778.9
	% Fixture	77.8	0.0	77.8
Total	Lumens	35720.0	0.0	35720.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	708.1	2.0
10°-20°	1908.5	5.3
20°-30°	2783.0	7.8
30°-40°	3547.8	9.9
40°-50°	4127.9	11.6
50°-60°	6280.6	17.6
60°-70°	11094.5	31.1
70°-80°	4578.2	12.8
80°-90°	691.3	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°	35720.0	100.0
0°-180°	35720.0	100.0

Coefficient of Utilization



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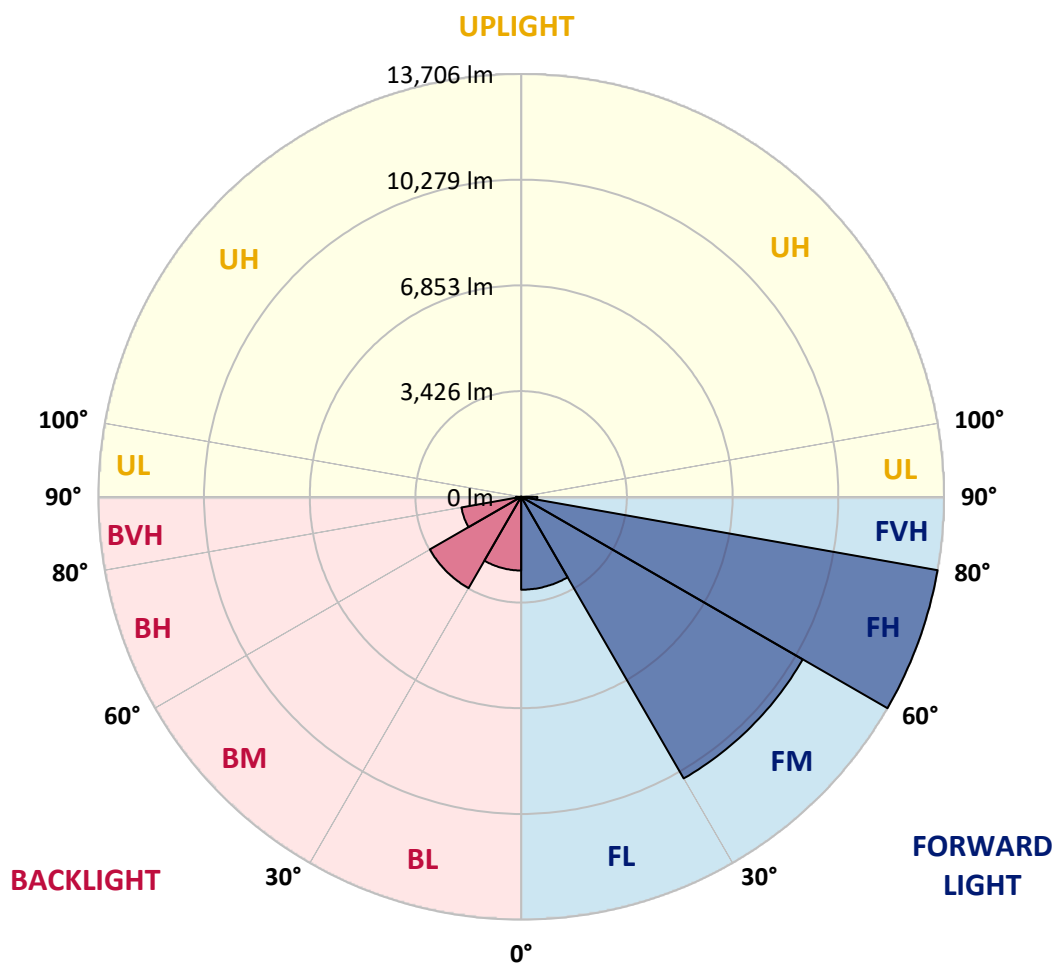
CATALOG NUMBER: VST-E12-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3012.1	8.4			
FM	(30°-60°)	10538.3	29.5			
FH	(60°-80°)	13705.7	38.4			G5
FVH	(80°-90°)	522.8	1.5			G4/750
BL	(0°-30°)	2387.6	6.7	B3/2500		
BM	(30°-60°)	3418.0	9.6	B3/5000		
BH	(60°-80°)	1967.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	168.5	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°	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1
2.5°	7582.5	7609.6	7599.7	7599.7	7607.1	7594.8	7594.8	7599.7	7587.4	7594.8	7592.4
5°	7555.4	7570.2	7565.3	7565.3	7565.3	7555.4	7550.5	7548.0	7530.8	7530.8	7523.4
7.5°	7496.3	7501.2	7508.6	7498.8	7496.3	7493.9	7476.6	7466.8	7447.1	7429.8	7434.7
10°	7417.5	7415.0	7427.4	7420.0	7410.1	7402.7	7388.0	7370.7	7348.6	7326.4	7323.9
12.5°	7328.9	7326.4	7336.2	7331.3	7323.9	7309.2	7296.8	7267.3	7232.8	7205.7	7203.3
15°	7272.2	7264.8	7274.7	7264.8	7252.5	7237.7	7215.6	7178.6	7117.1	7090.0	7067.8
17.5°	7326.4	7314.1	7319.0	7306.7	7289.5	7250.1	7198.3	7119.5	7030.9	6984.1	6949.6
20°	7516.0	7493.9	7498.8	7486.5	7447.1	7395.3	7296.8	7158.9	7008.7	6932.4	6878.2
22.5°	7786.9	7769.7	7777.1	7764.7	7725.3	7646.5	7498.8	7301.8	7087.5	6976.7	6890.5
25°	8198.2	8212.9	8217.9	8161.2	8139.1	7993.8	7789.4	7516.0	7230.3	7099.8	6981.6
27.5°	8661.2	8661.2	8683.3	8661.2	8616.8	8446.9	8158.8	7828.8	7461.8	7284.5	7141.7
30°	9111.8	9106.9	9148.8	9143.8	9072.4	8880.3	8552.8	8151.4	7732.7	7533.3	7351.0
32.5°	9589.6	9604.3	9631.4	9621.6	9528.0	9262.0	8868.0	8432.1	7991.3	7772.1	7567.7
35°	10106.7	10114.1	10124.0	10119.0	9929.4	9594.5	9099.5	8611.9	8153.8	7937.1	7725.3
37.5°	10623.9	10616.5	10604.2	10498.3	10281.6	9816.1	9239.9	8715.3	8235.1	8001.2	7782.0
40°	11086.9	11045.0	11005.6	10840.6	10508.1	9941.7	9294.1	8740.0	8227.7	7986.4	7772.1
42.5°	11340.5	11293.7	11212.5	11005.6	10601.7	9954.0	9257.1	8666.1	8151.4	7912.5	7700.7
45°	11387.3	11352.8	11274.0	11042.5	10579.6	9875.2	9143.8	8545.4	8038.1	7799.2	7599.7
47.5°	11276.5	11249.4	11173.1	10944.0	10483.5	9757.0	9013.3	8417.3	7927.3	7703.2	7511.1
50°	11106.6	11081.9	11022.8	10813.5	10375.2	9675.8	8946.8	8350.9	7890.3	7685.9	7508.6
52.5°	11382.4	11402.1	11229.7	11000.7	10490.9	9747.2	9020.7	8419.8	7956.8	7754.9	7570.2
55°	15669.9	15642.8	14606.0	13736.7	12182.7	10774.1	9722.6	8966.5	8471.5	8269.6	8097.2
57.5°	20361.2	20267.6	19841.6	19028.9	17359.2	15130.5	13103.8	11379.9	10700.2	10409.6	10429.3
60°	21893.0	21927.5	21836.3	21548.2	20949.8	19789.9	18248.3	16952.9	15677.2	15054.2	15125.6
62.5°	22742.6	22804.2	22883.0	22818.9	22624.4	22356.0	22161.4	22279.6	22102.3	21654.1	21297.0
65°	22860.8	22986.4	23247.4	23454.3	23555.3	23808.9	24404.9	25833.2	27138.4	27224.6	26596.7
67.5°	20521.3	20868.5	21434.9	22392.9	23213.0	24114.3	25552.5	27724.5	29650.3	29714.4	29128.3
69°	16135.3	16802.7	17465.1	19605.2	21045.8	22811.6	24939.3	27906.8	30214.3	30391.6	29652.8
70°	12928.9	13325.4	13896.8	16046.6	18199.0	20449.9	23533.1	27305.9	29827.7	30184.7	29369.6
72.5°	7762.3	7915.0	8112.0	8882.8	9991.0	11995.6	16083.6	22262.4	25160.9	25638.7	24601.9
75°	5018.9	5009.0	5026.3	5240.5	5304.6	5688.7	6976.7	11453.8	16413.6	17280.4	16039.3
77.5°	3780.2	3814.6	3760.5	3780.2	3762.9	3866.4	3905.8	4100.3	6479.2	7981.5	7136.8
80°	3336.9	3354.1	3356.6	3346.7	3226.1	3216.2	3280.3	3169.4	2945.3	2989.7	2864.1
82.5°	1903.6	1901.2	1923.3	2090.8	2159.7	2386.3	2479.9	2531.6	2337.1	2191.8	1982.4
85°	1233.8	1243.6	1268.3	1320.0	1268.3	1288.0	1265.8	1310.1	1201.8	1115.6	997.4
87.5°	504.8	504.8	536.9	583.6	544.2	534.4	458.1	453.1	384.2	347.2	270.9
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1
2.5°	7577.6	7592.4	7585.0	7594.8	7587.4	7587.4	7577.6	7575.1	7582.5	7572.7	7575.1
5°	7511.1	7513.6	7501.2	7506.2	7491.4	7486.5	7479.1	7459.4	7471.7	7459.4	7464.3
7.5°	7415.0	7407.7	7390.4	7365.8	7348.6	7341.2	7326.4	7299.3	7304.2	7282.1	7294.4
10°	7291.9	7267.3	7237.7	7200.8	7176.2	7154.0	7122.0	7090.0	7072.7	7053.0	7050.6
12.5°	7154.0	7124.5	7085.1	7028.4	6974.2	6937.3	6888.0	6831.4	6814.2	6782.1	6764.9
15°	7003.8	6957.0	6910.2	6846.2	6787.1	6730.4	6663.9	6592.5	6545.7	6496.5	6459.5
17.5°	6868.3	6814.2	6752.6	6691.0	6627.0	6558.0	6474.3	6385.7	6316.7	6225.6	6151.7
20°	6762.4	6693.5	6631.9	6567.9	6496.5	6412.7	6311.8	6198.5	6082.8	5981.8	5895.6
22.5°	6720.6	6612.2	6538.3	6474.3	6402.9	6304.4	6181.3	6048.3	5907.9	5767.5	5654.3
25°	6755.1	6595.0	6479.2	6402.9	6341.3	6240.4	6102.5	5939.9	5777.4	5609.9	5457.2
27.5°	6856.0	6651.6	6484.2	6363.5	6292.1	6191.1	6045.8	5873.4	5681.3	5494.2	5307.0
30°	7013.6	6747.7	6535.9	6366.0	6255.1	6139.4	5986.7	5787.2	5592.7	5378.4	5174.0
32.5°	7166.3	6848.6	6595.0	6375.8	6205.9	6055.7	5885.7	5688.7	5479.4	5255.3	5043.5
35°	7274.7	6915.1	6617.1	6353.6	6129.5	5942.4	5760.1	5563.1	5358.7	5129.7	4913.0
37.5°	7326.4	6952.1	6619.6	6294.5	6028.6	5821.7	5627.2	5432.6	5240.5	5023.8	4819.4
40°	7323.9	6949.6	6585.1	6218.2	5907.9	5688.7	5496.6	5307.0	5127.2	4937.6	4752.9
42.5°	7269.8	6910.2	6535.9	6144.3	5821.7	5577.9	5378.4	5196.2	5043.5	4876.1	4720.9
45°	7186.0	6843.7	6484.2	6109.8	5797.1	5553.3	5341.5	5164.2	5028.7	4876.1	4743.1
47.5°	7122.0	6806.8	6491.6	6171.4	5873.4	5619.8	5395.7	5201.1	5085.4	4962.2	4868.7
50°	7131.8	6824.0	6516.2	6208.3	5927.6	5671.5	5454.8	5277.5	5193.7	5161.7	5139.6
52.5°	7183.6	6851.1	6590.1	6405.4	6309.3	6117.2	5989.2	5878.4	5939.9	5819.2	5676.4
55°	7843.6	7735.2	7988.8	8227.7	8530.6	8643.9	8535.6	8515.9	8614.4	8205.6	7267.3
57.5°	10569.7	10850.4	11242.0	11448.9	11700.1	11633.6	11382.4	11173.1	10926.8	10449.0	9279.3
60°	15206.9	14995.1	14817.8	14317.9	13909.1	13431.3	12899.4	12443.8	12007.9	11320.8	10055.0
62.5°	19984.4	18514.2	17285.4	16098.4	15142.9	14349.9	13579.1	12894.5	12234.5	11276.5	9914.6
65°	24116.8	21021.2	18713.7	16972.6	15576.3	14372.0	13382.1	12436.4	11596.6	10473.7	9126.6
67.5°	25973.6	22094.9	18738.3	16243.7	14310.5	12675.3	11394.7	9966.4	9025.6	8306.5	7548.0
69°	25835.7	21274.9	17401.1	14330.2	12108.9	10202.8	8828.6	7338.7	6437.4	6132.0	6114.8
70°	25180.6	19885.9	15839.8	12776.2	10234.8	8341.0	7023.5	5686.3	4846.5	4637.2	5009.0
72.5°	20558.2	14051.9	9927.0	7580.0	5829.1	4607.6	3758.0	2982.3	2381.4	2063.7	2132.7
75°	11611.4	6506.3	4206.2	3179.3	2686.8	2221.3	1906.1	1625.4	1470.2	1194.4	945.7
77.5°	4221.0	2792.6	2221.3	1920.9	1361.8	938.3	785.6	687.1	623.1	623.1	593.5
80°	2669.5	2103.1	1467.7	1004.8	743.7	647.7	566.4	497.5	458.1	448.2	458.1
82.5°	1667.2	1288.0	822.5	630.4	529.5	475.3	413.7	362.0	330.0	322.6	337.4
85°	822.5	637.8	499.9	445.7	418.7	389.1	342.3	293.1	283.2	302.9	354.6
87.5°	246.3	219.2	179.8	187.2	197.0	192.1	152.7	133.0	125.6	165.0	258.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1	7607.1
2.5°	7580.0	7577.6	7582.5	7575.1	7580.0	7582.5	7577.6	7599.7	7585.0	7587.4	7597.3
5°	7469.2	7464.3	7484.0	7479.1	7488.9	7498.8	7493.9	7525.9	7513.6	7523.4	7543.1
7.5°	7284.5	7294.4	7296.8	7296.8	7316.5	7348.6	7355.9	7375.6	7375.6	7402.7	7422.4
10°	7038.3	7040.7	7055.5	7053.0	7077.7	7112.1	7117.1	7151.5	7163.9	7208.2	7235.3
12.5°	6752.6	6740.3	6737.8	6735.4	6767.4	6804.3	6809.2	6868.3	6893.0	6932.4	6976.7
15°	6432.4	6400.4	6390.6	6410.3	6402.9	6425.1	6447.2	6479.2	6513.7	6592.5	6631.9
17.5°	6119.7	6055.7	6038.4	6016.3	5994.1	5994.1	6003.9	6043.4	6114.8	6156.6	6245.3
20°	5799.5	5723.2	5661.6	5602.5	5550.8	5531.1	5533.6	5582.8	5634.6	5703.5	5787.2
22.5°	5531.1	5415.4	5309.5	5230.7	5124.8	5122.3	5107.5	5122.3	5179.0	5196.2	5243.0
25°	5299.6	5144.5	5001.6	4873.6	4770.2	4716.0	4701.2	4696.3	4669.2	4661.8	4627.3
27.5°	5119.9	4932.7	4748.0	4592.8	4464.8	4390.9	4297.3	4230.8	4134.8	4110.2	4048.6
30°	4972.1	4770.2	4568.2	4366.3	4221.0	4088.0	3930.4	3814.6	3666.9	3570.8	3487.1
32.5°	4829.3	4624.9	4420.5	4221.0	3996.9	3790.0	3583.2	3403.4	3238.4	3090.6	2967.5
35°	4711.1	4516.5	4309.6	4068.3	3782.6	3484.7	3235.9	3031.5	2805.0	2649.8	2494.7
37.5°	4634.7	4457.4	4250.5	3918.1	3551.1	3231.0	2947.8	2699.1	2467.6	2233.6	2058.8
40°	4600.2	4445.1	4186.5	3780.2	3349.2	2994.6	2681.8	2406.0	2110.5	1847.0	1659.8
42.5°	4597.8	4440.2	4097.9	3627.5	3181.7	2795.1	2447.9	2117.9	1790.3	1519.5	1334.8
45°	4642.1	4432.8	4004.3	3499.4	3034.0	2630.1	2216.4	1815.0	1448.0	1246.1	1147.6
47.5°	4760.3	4445.1	3927.9	3381.2	2893.6	2430.6	1950.4	1482.5	1179.6	1086.0	1086.0
50°	4972.1	4516.5	3908.2	3297.5	2753.2	2199.1	1625.4	1196.8	1044.2	1044.2	1073.7
52.5°	5297.2	4666.7	3942.7	3238.4	2578.4	1893.8	1280.6	1031.9	1002.3	1029.4	1068.8
55°	6045.8	4932.7	3989.5	3137.4	2312.4	1502.2	1056.5	975.2	987.5	1019.5	1056.5
57.5°	7420.0	5501.6	4038.8	2915.8	1883.9	1157.4	958.0	953.0	975.2	1004.8	1036.8
60°	8323.8	6225.6	4164.3	2580.9	1425.9	955.5	908.7	938.3	965.4	990.0	1014.6
62.5°	8323.8	6430.0	4257.9	2206.5	1071.3	869.3	876.7	923.5	955.5	967.8	982.6
65°	7791.8	6055.7	3940.2	1797.7	871.8	820.1	847.2	893.9	923.5	933.3	945.7
67.5°	6809.2	5348.9	3319.7	1354.5	778.2	778.2	812.7	847.2	871.8	891.5	911.2
69°	5920.2	4799.7	2923.2	1147.6	741.3	746.2	780.7	810.2	839.8	864.4	889.0
70°	5279.9	4388.4	2647.4	1041.7	719.1	721.6	756.0	788.0	815.1	842.2	871.8
72.5°	2827.1	3031.5	2012.0	854.5	662.5	669.8	701.9	731.4	756.0	783.1	810.2
75°	962.9	1302.7	1280.6	699.4	598.4	618.1	637.8	664.9	696.9	714.2	728.9
77.5°	563.9	583.6	682.2	568.9	539.3	549.2	571.3	593.5	620.6	637.8	650.1
80°	472.8	470.4	472.8	463.0	470.4	492.5	507.3	536.9	561.5	566.4	563.9
82.5°	384.2	403.9	406.3	401.4	423.6	440.8	453.1	470.4	467.9	472.8	482.7
85°	342.3	339.8	357.1	359.5	359.5	347.2	349.7	349.7	349.7	357.1	359.5
87.5°	342.3	285.7	221.6	199.5	209.3	197.0	187.2	184.7	204.4	224.1	219.2
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°	7607.1	7607.1	7607.1	7607.1	7607.1
2.5°	7602.2	7609.6	7604.7	7604.7	7609.6
5°	7550.5	7562.8	7557.9	7562.8	7562.8
7.5°	7432.3	7449.5	7461.8	7474.2	7466.8
10°	7262.4	7291.9	7311.6	7326.4	7319.0
12.5°	7008.7	7035.8	7077.7	7102.3	7082.6
15°	6661.5	6737.8	6762.4	6796.9	6777.2
17.5°	6299.5	6346.3	6375.8	6407.8	6427.5
20°	5816.8	5853.7	5893.1	5907.9	5885.7
22.5°	5235.6	5255.3	5247.9	5270.1	5225.7
25°	4597.8	4610.1	4602.7	4622.4	4585.5
27.5°	3994.4	3992.0	3994.4	3969.8	3945.2
30°	3413.2	3391.1	3381.2	3344.3	3336.9
32.5°	2893.6	2817.3	2777.9	2723.7	2711.4
35°	2374.0	2265.6	2194.2	2132.7	2105.6
37.5°	1908.6	1778.0	1694.3	1640.1	1632.7
40°	1509.6	1388.9	1329.8	1300.3	1295.4
42.5°	1231.3	1179.6	1164.8	1164.8	1164.8
45°	1123.0	1120.5	1132.8	1142.7	1145.1
47.5°	1100.8	1115.6	1132.8	1147.6	1152.5
50°	1100.8	1115.6	1127.9	1142.7	1147.6
52.5°	1095.9	1108.2	1113.1	1123.0	1127.9
55°	1081.1	1088.5	1088.5	1093.4	1098.3
57.5°	1056.5	1061.4	1054.0	1058.9	1071.3
60°	1031.9	1036.8	1024.5	1036.8	1044.2
62.5°	1004.8	1007.2	1002.3	1012.2	1012.2
65°	960.4	955.5	962.9	970.3	972.7
67.5°	916.1	903.8	911.2	913.6	918.6
69°	881.6	874.2	876.7	881.6	886.6
70°	857.0	852.1	857.0	864.4	871.8
72.5°	795.4	797.9	815.1	829.9	844.7
75°	738.8	756.0	778.2	810.2	827.5
77.5°	669.8	682.2	699.4	733.9	765.9
80°	578.7	586.1	588.6	600.9	598.4
82.5°	470.4	463.0	458.1	453.1	450.7
85°	337.4	334.9	315.2	300.4	300.4
87.5°	201.9	192.1	182.2	169.9	162.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)