

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: P158736

Luminaire Tested: **VST-F11-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158736
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-F11-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (77) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27030.4 lumens
Efficiency: N/A
Efficacy: 95.6 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 - G4

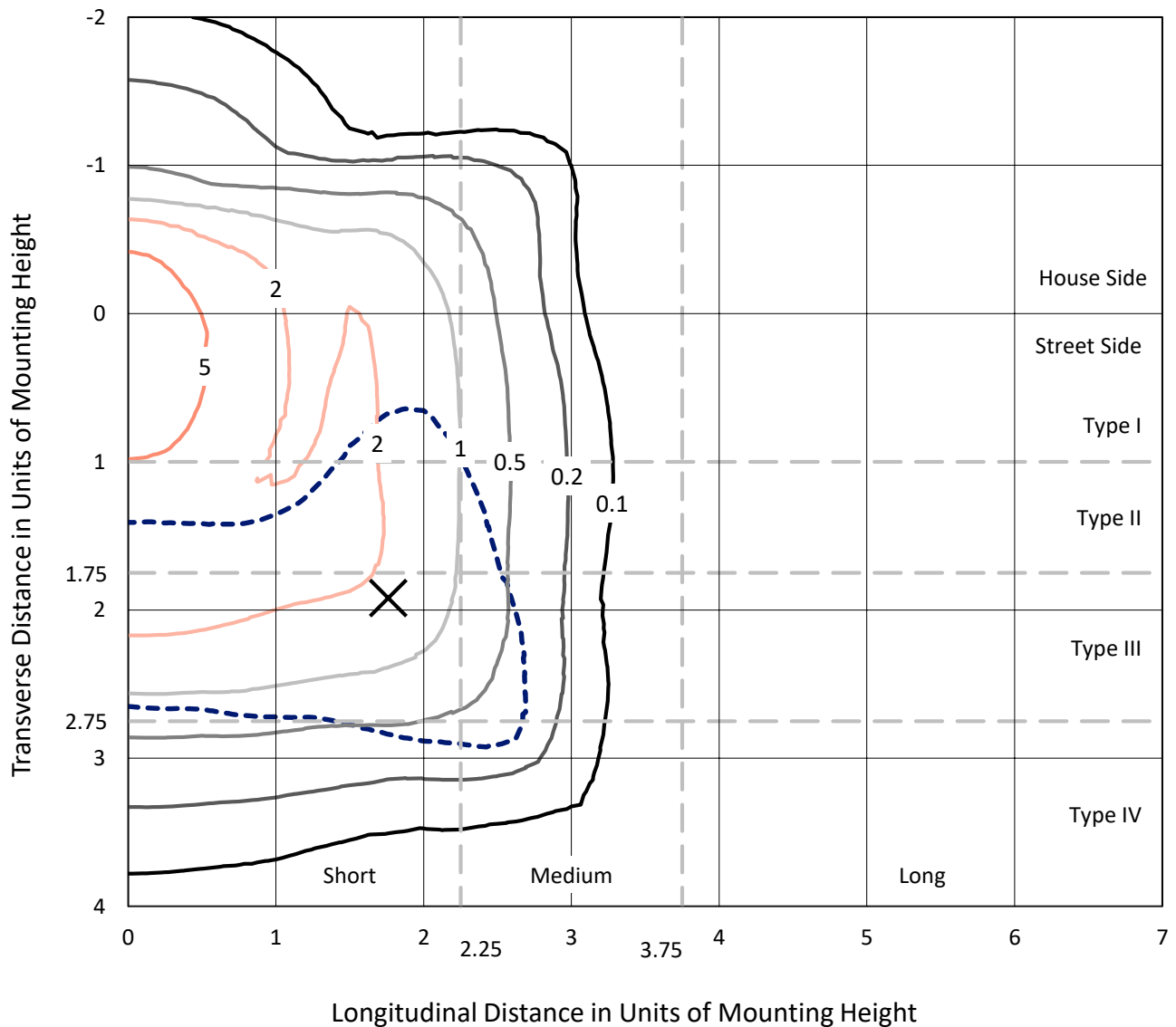
Input Watts (W): 282.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

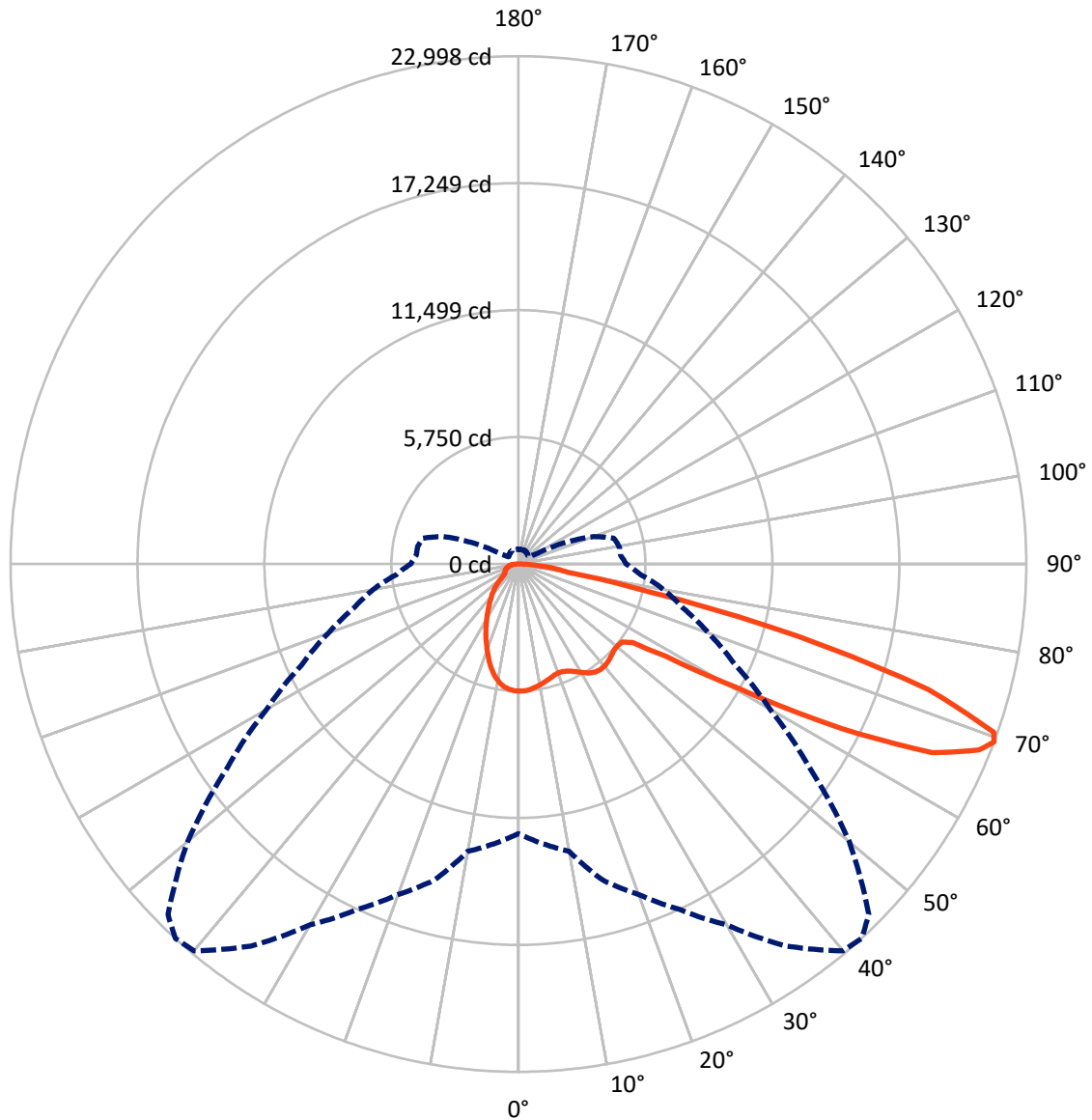
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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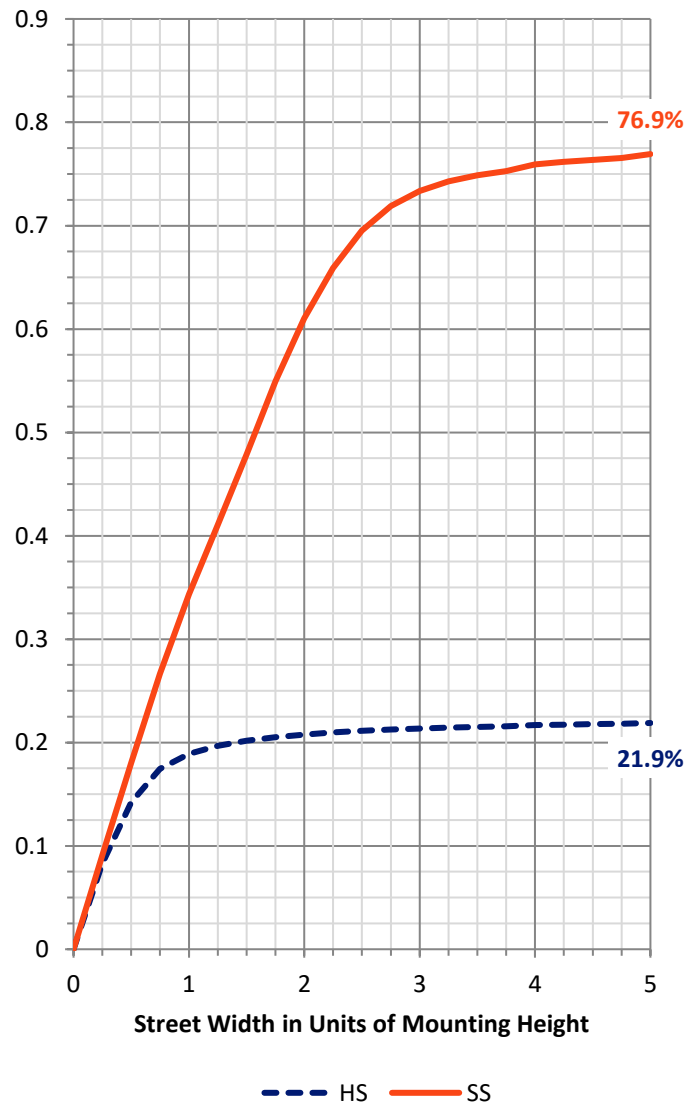
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6009.3	0.0	6009.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	21021.1	0.0	21021.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	27030.4	0.0	27030.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	535.9	2.0
10°-20°	1444.2	5.3
20°-30°	2106.0	7.8
30°-40°	2684.7	9.9
40°-50°	3123.7	11.6
50°-60°	4752.8	17.6
60°-70°	8395.5	31.1
70°-80°	3464.5	12.8
80°-90°	523.1	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°	27030.4	100.0
0°-180°	27030.4	100.0



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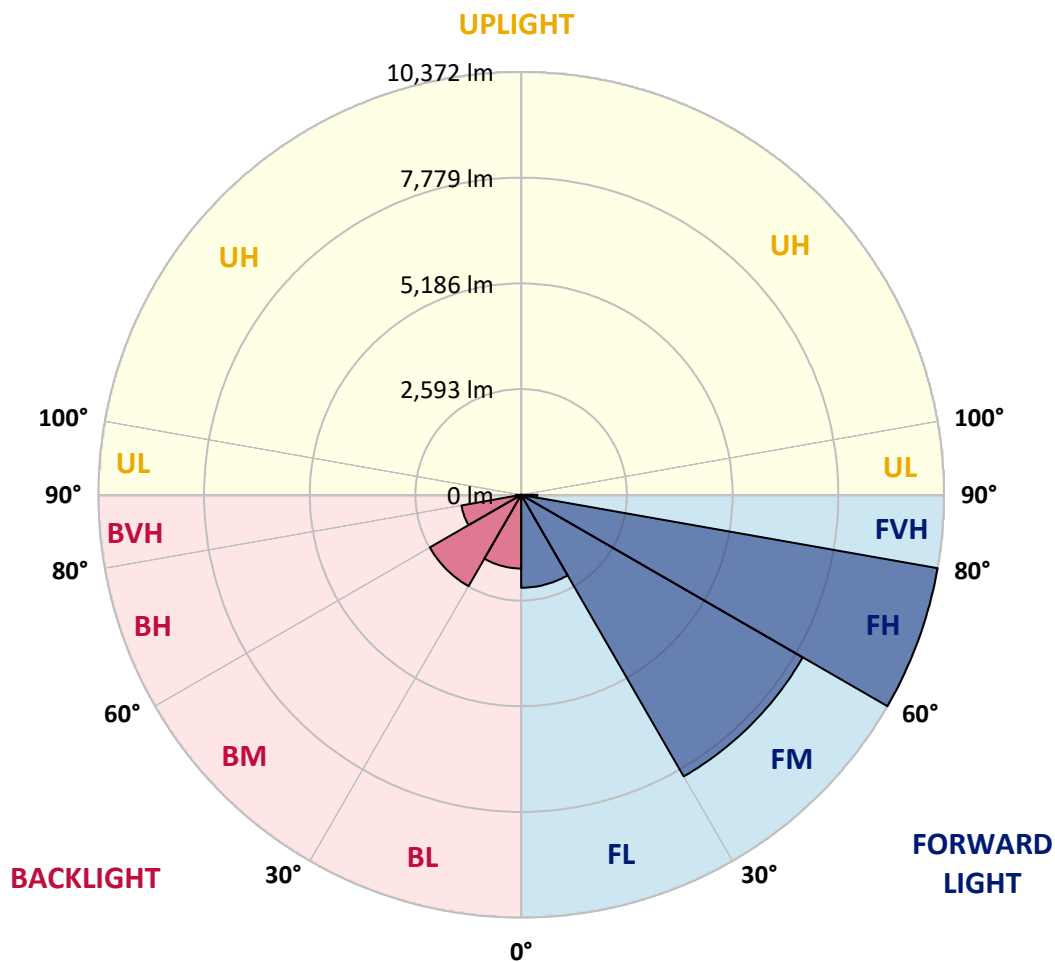
CATALOG NUMBER: VST-F11-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2279.3	8.4			
FM (30°-60°)	7974.7	29.5			
FH (60°-80°)	10371.5	38.4			G4/12000
FVH (80°-90°)	395.6	1.5			G3/500
BL (0°-30°)	1806.7	6.7	B3/2500		
BM (30°-60°)	2586.5	9.6	B3/5000		
BH (60°-80°)	1488.5	5.5	B3/2500		G3/2500
BVH (80°-90°)	127.5	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6
2.5°	5737.9	5758.4	5751.0	5751.0	5756.6	5747.2	5747.2	5751.0	5741.6	5747.2	5745.4
5°	5717.4	5728.6	5724.9	5724.9	5724.9	5717.4	5713.7	5711.8	5698.8	5698.8	5693.2
7.5°	5672.7	5676.4	5682.0	5674.6	5672.7	5670.8	5657.8	5650.3	5635.4	5622.4	5626.1
10°	5613.1	5611.2	5620.5	5614.9	5607.5	5601.9	5590.7	5577.7	5560.9	5544.1	5542.2
12.5°	5546.0	5544.1	5551.6	5547.8	5542.2	5531.1	5521.7	5499.4	5473.3	5452.8	5450.9
15°	5503.1	5497.5	5505.0	5497.5	5488.2	5477.0	5460.2	5432.3	5385.7	5365.2	5348.4
17.5°	5544.1	5534.8	5538.5	5529.2	5516.2	5486.3	5447.2	5387.6	5320.5	5285.1	5259.0
20°	5687.6	5670.8	5674.6	5665.2	5635.4	5596.3	5521.7	5417.4	5303.7	5245.9	5204.9
22.5°	5892.6	5879.6	5885.1	5875.8	5846.0	5786.4	5674.6	5525.5	5363.3	5279.5	5214.3
25°	6203.8	6215.0	6218.7	6175.9	6159.1	6049.1	5894.5	5687.6	5471.4	5372.7	5283.2
27.5°	6554.2	6554.2	6570.9	6554.2	6520.6	6392.0	6174.0	5924.3	5646.6	5512.4	5404.3
30°	6895.2	6891.5	6923.1	6919.4	6865.4	6720.0	6472.2	6168.4	5851.6	5700.6	5562.7
32.5°	7256.7	7267.9	7288.4	7281.0	7210.1	7008.9	6710.7	6380.9	6047.3	5881.4	5726.7
35°	7648.1	7653.7	7661.1	7657.4	7513.9	7260.5	6885.9	6516.9	6170.3	6006.3	5846.0
37.5°	8039.4	8033.8	8024.5	7944.4	7780.4	7428.2	6992.1	6595.2	6231.8	6054.7	5888.9
40°	8389.8	8358.1	8328.3	8203.4	7951.8	7523.2	7033.1	6613.8	6226.2	6043.5	5881.4
42.5°	8581.7	8546.3	8484.8	8328.3	8022.7	7532.5	7005.1	6557.9	6168.4	5987.6	5827.4
45°	8617.1	8591.0	8531.4	8356.2	8005.9	7472.9	6919.4	6466.6	6082.7	5901.9	5751.0
47.5°	8533.3	8512.8	8455.0	8281.7	7933.2	7383.4	6820.7	6369.7	5998.8	5829.2	5683.9
50°	8404.7	8386.0	8341.3	8182.9	7851.2	7322.0	6770.3	6319.4	5970.9	5816.2	5682.0
52.5°	8613.4	8628.3	8497.9	8324.6	7938.8	7376.0	6826.2	6371.5	6021.2	5868.4	5728.6
55°	11857.9	11837.4	11052.8	10395.0	9219.1	8153.1	7357.4	6785.2	6410.7	6257.9	6127.4
57.5°	15408.0	15337.2	15014.8	14399.8	13136.3	11449.8	9916.0	8611.5	8097.2	7877.3	7892.2
60°	16567.1	16593.2	16524.2	16306.2	15853.4	14975.6	13809.0	12828.8	11863.5	11392.0	11446.0
62.5°	17210.0	17256.6	17316.3	17267.8	17120.6	16917.5	16770.2	16859.7	16725.5	16386.3	16116.1
65°	17299.5	17394.5	17592.1	17748.6	17825.0	18017.0	18467.9	19548.8	20536.5	20601.7	20126.5
67.5°	15529.1	15791.9	16220.5	16945.4	17566.0	18248.0	19336.4	20980.0	22437.3	22485.8	22042.3
69°	12210.1	12715.1	13216.4	14835.9	15926.0	17262.2	18872.3	21117.9	22864.1	22998.3	22439.2
70°	9783.7	10083.8	10516.1	12143.0	13771.8	15475.1	17808.2	20663.2	22571.5	22841.7	22224.9
72.5°	5874.0	5989.5	6138.6	6721.9	7560.5	9077.4	12171.0	16846.6	19040.1	19401.6	18617.0
75°	3797.9	3790.5	3803.5	3965.7	4014.1	4304.8	5279.5	8667.4	12420.7	13076.6	12137.4
77.5°	2860.6	2886.7	2845.7	2860.6	2847.5	2925.8	2955.6	3102.8	4903.0	6039.8	5400.6
80°	2525.1	2538.2	2540.0	2532.6	2441.3	2433.8	2482.3	2398.4	2228.8	2262.4	2167.3
82.5°	1440.5	1438.7	1455.4	1582.2	1634.3	1805.8	1876.6	1915.7	1768.5	1658.6	1500.2
85°	933.6	941.1	959.7	998.9	959.7	974.6	957.9	991.4	909.4	844.2	754.7
87.5°	382.0	382.0	406.3	441.7	411.8	404.4	346.6	342.9	290.7	262.8	205.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6
2.5°	5734.2	5745.4	5739.8	5747.2	5741.6	5741.6	5734.2	5732.3	5737.9	5730.5	5732.3
5°	5683.9	5685.7	5676.4	5680.2	5669.0	5665.2	5659.7	5644.7	5654.1	5644.7	5648.5
7.5°	5611.2	5605.6	5592.6	5573.9	5560.9	5555.3	5544.1	5523.6	5527.3	5510.6	5519.9
10°	5518.0	5499.4	5477.0	5449.1	5430.4	5413.7	5389.4	5365.2	5352.2	5337.3	5335.4
12.5°	5413.7	5391.3	5361.5	5318.6	5277.6	5249.7	5212.4	5169.5	5156.5	5132.3	5119.2
15°	5300.0	5264.6	5229.2	5180.7	5136.0	5093.1	5042.8	4988.8	4953.4	4916.1	4888.1
17.5°	5197.5	5156.5	5109.9	5063.3	5014.9	4962.7	4899.3	4832.2	4780.0	4711.1	4655.2
20°	5117.4	5065.2	5018.6	4970.1	4916.1	4852.7	4776.3	4690.6	4603.0	4526.6	4461.4
22.5°	5085.7	5003.7	4947.8	4899.3	4845.3	4770.7	4677.6	4576.9	4470.7	4364.5	4278.7
25°	5111.8	4990.6	4903.0	4845.3	4798.7	4722.3	4617.9	4494.9	4371.9	4245.2	4129.7
27.5°	5188.2	5033.5	4906.8	4815.5	4761.4	4685.0	4575.1	4444.6	4299.2	4157.6	4016.0
30°	5307.4	5106.2	4945.9	4817.3	4733.5	4645.9	4530.3	4379.4	4232.2	4070.0	3915.4
32.5°	5423.0	5182.6	4990.6	4824.8	4696.2	4582.5	4453.9	4304.8	4146.4	3976.9	3816.6
35°	5505.0	5232.9	5007.4	4808.0	4638.4	4496.8	4358.9	4209.8	4055.1	3881.8	3717.8
37.5°	5544.1	5260.8	5009.3	4763.3	4562.0	4405.5	4258.2	4111.0	3965.7	3801.7	3647.0
40°	5542.2	5259.0	4983.2	4705.5	4470.7	4304.8	4159.5	4016.0	3879.9	3736.5	3596.7
42.5°	5501.2	5229.2	4945.9	4649.6	4405.5	4221.0	4070.0	3932.1	3816.6	3689.9	3572.5
45°	5437.9	5178.9	4906.8	4623.5	4386.8	4202.3	4042.1	3907.9	3805.4	3689.9	3589.2
47.5°	5389.4	5150.9	4912.4	4670.1	4444.6	4252.7	4083.1	3935.9	3848.3	3755.1	3684.3
50°	5396.9	5163.9	4931.0	4698.1	4485.6	4291.8	4127.8	3993.6	3930.3	3906.0	3889.3
52.5°	5436.0	5184.4	4986.9	4847.1	4774.5	4629.1	4532.2	4448.3	4494.9	4403.6	4295.5
55°	5935.5	5853.5	6045.4	6226.2	6455.4	6541.1	6459.1	6444.2	6518.8	6209.4	5499.4
57.5°	7998.4	8210.9	8507.2	8663.7	8853.8	8803.5	8613.4	8455.0	8268.6	7907.1	7021.9
60°	11507.5	11347.3	11213.1	10834.8	10525.4	10163.9	9761.4	9416.6	9086.7	8566.8	7608.9
62.5°	15122.8	14010.3	13080.4	12182.1	11459.1	10859.0	10275.7	9757.6	9258.2	8533.3	7502.7
65°	18249.9	15907.4	14161.2	12843.7	11787.1	10875.8	10126.6	9411.0	8775.5	7925.7	6906.4
67.5°	19655.0	16719.9	14179.9	12292.1	10829.2	9591.8	8622.7	7541.9	6830.0	6285.8	5711.8
69°	19550.7	16099.3	13168.0	10844.1	9163.2	7720.8	6680.9	5553.4	4871.4	4640.3	4627.2
70°	19055.0	15048.3	11986.5	9668.2	7745.0	6311.9	5314.9	4303.0	3667.5	3509.1	3790.5
72.5°	15557.1	10633.5	7512.0	5736.1	4411.1	3486.7	2843.8	2256.8	1802.1	1561.7	1613.8
75°	8786.7	4923.5	3183.0	2405.9	2033.2	1680.9	1442.4	1230.0	1112.5	903.8	715.6
77.5°	3194.2	2113.3	1680.9	1453.6	1030.6	710.0	594.5	519.9	471.5	471.5	449.1
80°	2020.1	1591.5	1110.7	760.3	562.8	490.1	428.6	376.4	346.6	339.2	346.6
82.5°	1261.6	974.6	622.4	477.1	400.7	359.7	313.1	273.9	249.7	244.1	255.3
85°	622.4	482.7	378.3	337.3	316.8	294.4	259.0	221.8	214.3	229.2	268.4
87.5°	186.4	165.9	136.0	141.6	149.1	145.4	115.5	100.6	95.0	124.9	195.7
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°	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6	5756.6
2.5°	5736.1	5734.2	5737.9	5732.3	5736.1	5737.9	5734.2	5751.0	5739.8	5741.6	5749.1
5°	5652.2	5648.5	5663.4	5659.7	5667.1	5674.6	5670.8	5695.1	5685.7	5693.2	5708.1
7.5°	5512.4	5519.9	5521.7	5521.7	5536.7	5560.9	5566.5	5581.4	5581.4	5601.9	5616.8
10°	5326.1	5327.9	5339.1	5337.3	5355.9	5382.0	5385.7	5411.8	5421.1	5454.7	5475.2
12.5°	5109.9	5100.6	5098.7	5096.9	5121.1	5149.0	5152.8	5197.5	5216.1	5245.9	5279.5
15°	4867.6	4843.4	4836.0	4850.9	4845.3	4862.0	4878.8	4903.0	4929.1	4988.8	5018.6
17.5°	4631.0	4582.5	4569.5	4552.7	4535.9	4535.9	4543.4	4573.2	4627.2	4658.9	4726.0
20°	4388.7	4330.9	4284.3	4239.6	4200.5	4185.6	4187.4	4224.7	4263.8	4316.0	4379.4
22.5°	4185.6	4098.0	4017.8	3958.2	3878.1	3876.2	3865.0	3876.2	3919.1	3932.1	3967.5
25°	4010.4	3893.0	3784.9	3688.0	3609.7	3568.7	3557.5	3553.8	3533.3	3527.7	3501.6
27.5°	3874.4	3732.7	3593.0	3475.6	3378.6	3322.7	3251.9	3201.6	3128.9	3110.3	3063.7
30°	3762.5	3609.7	3456.9	3304.1	3194.2	3093.5	2974.3	2886.7	2774.9	2702.2	2638.8
32.5°	3654.5	3499.8	3345.1	3194.2	3024.6	2868.0	2711.5	2575.4	2450.6	2338.8	2245.6
35°	3565.0	3417.8	3261.2	3078.6	2862.4	2636.9	2448.7	2294.1	2122.6	2005.2	1887.8
37.5°	3507.2	3373.1	3216.5	2964.9	2687.3	2445.0	2230.7	2042.5	1867.3	1690.3	1557.9
40°	3481.1	3363.7	3168.1	2860.6	2534.5	2266.1	2029.4	1820.7	1597.1	1397.7	1256.0
42.5°	3479.3	3360.0	3101.0	2745.0	2407.7	2115.1	1852.4	1602.7	1354.8	1149.8	1010.1
45°	3512.8	3354.4	3030.2	2648.1	2295.9	1990.3	1677.2	1373.4	1095.8	943.0	868.4
47.5°	3602.3	3363.7	2972.4	2558.7	2189.7	1839.3	1475.9	1121.9	892.6	821.8	821.8
50°	3762.5	3417.8	2957.5	2495.3	2083.5	1664.2	1230.0	905.7	790.2	790.2	812.5
52.5°	4008.5	3531.5	2983.6	2450.6	1951.2	1433.1	969.1	780.8	758.5	779.0	808.8
55°	4575.1	3732.7	3019.0	2374.2	1749.9	1136.8	799.5	738.0	747.3	771.5	799.5
57.5°	5614.9	4163.2	3056.2	2206.5	1425.6	875.9	724.9	721.2	738.0	760.3	784.6
60°	6298.9	4711.1	3151.3	1953.0	1079.0	723.1	687.7	710.0	730.5	749.2	767.8
62.5°	6298.9	4865.8	3222.1	1669.8	810.7	657.8	663.4	698.8	723.1	732.4	743.6
65°	5896.3	4582.5	2981.7	1360.4	659.7	620.6	641.1	676.5	698.8	706.3	715.6
67.5°	5152.8	4047.7	2512.1	1025.0	588.9	588.9	615.0	641.1	659.7	674.6	689.5
69°	4480.0	3632.1	2212.1	868.4	560.9	564.7	590.8	613.1	635.5	654.1	672.7
70°	3995.5	3320.9	2003.3	788.3	544.2	546.0	572.1	596.3	616.8	637.3	659.7
72.5°	2139.4	2294.1	1522.5	646.7	501.3	506.9	531.1	553.5	572.1	592.6	613.1
75°	728.7	985.8	969.1	529.3	452.8	467.8	482.7	503.2	527.4	540.4	551.6
77.5°	426.8	441.7	516.2	430.5	408.1	415.6	432.3	449.1	469.6	482.7	492.0
80°	357.8	355.9	357.8	350.4	355.9	372.7	383.9	406.3	424.9	428.6	426.8
82.5°	290.7	305.6	307.5	303.8	320.5	333.6	342.9	355.9	354.1	357.8	365.3
85°	259.0	257.2	270.2	272.1	272.1	262.8	264.6	264.6	264.6	270.2	272.1
87.5°	259.0	216.2	167.7	150.9	158.4	149.1	141.6	139.8	154.7	169.6	165.9
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°	5756.6	5756.6	5756.6	5756.6	5756.6
2.5°	5752.8	5758.4	5754.7	5754.7	5758.4
5°	5713.7	5723.0	5719.3	5723.0	5723.0
7.5°	5624.2	5637.3	5646.6	5655.9	5650.3
10°	5495.7	5518.0	5532.9	5544.1	5538.5
12.5°	5303.7	5324.2	5355.9	5374.5	5359.6
15°	5040.9	5098.7	5117.4	5143.4	5128.5
17.5°	4767.0	4802.4	4824.8	4849.0	4863.9
20°	4401.7	4429.7	4459.5	4470.7	4453.9
22.5°	3961.9	3976.9	3971.3	3988.0	3954.5
25°	3479.3	3488.6	3483.0	3497.9	3470.0
27.5°	3022.7	3020.8	3022.7	3004.1	2985.4
30°	2582.9	2566.1	2558.7	2530.7	2525.1
32.5°	2189.7	2131.9	2102.1	2061.1	2051.8
35°	1796.5	1714.5	1660.4	1613.8	1593.3
37.5°	1444.3	1345.5	1282.1	1241.1	1235.5
40°	1142.4	1051.1	1006.3	984.0	980.2
42.5°	931.8	892.6	881.5	881.5	881.5
45°	849.8	847.9	857.2	864.7	866.6
47.5°	833.0	844.2	857.2	868.4	872.1
50°	833.0	844.2	853.5	864.7	868.4
52.5°	829.3	838.6	842.3	849.8	853.5
55°	818.1	823.7	823.7	827.4	831.2
57.5°	799.5	803.2	797.6	801.3	810.7
60°	780.8	784.6	775.2	784.6	790.2
62.5°	760.3	762.2	758.5	765.9	765.9
65°	726.8	723.1	728.7	734.2	736.1
67.5°	693.2	683.9	689.5	691.4	695.1
69°	667.2	661.6	663.4	667.2	670.9
70°	648.5	644.8	648.5	654.1	659.7
72.5°	601.9	603.8	616.8	628.0	639.2
75°	559.1	572.1	588.9	613.1	626.2
77.5°	506.9	516.2	529.3	555.3	579.6
80°	437.9	443.5	445.4	454.7	452.8
82.5°	355.9	350.4	346.6	342.9	341.0
85°	255.3	253.4	238.5	227.4	227.4
87.5°	152.8	145.4	137.9	128.6	123.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)