

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: P158700

Luminaire Tested: **VST-E08-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158700
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-E08-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(8) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (168) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23207.5 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Luminous Opening: Rectangular (W 1.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 194.5
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

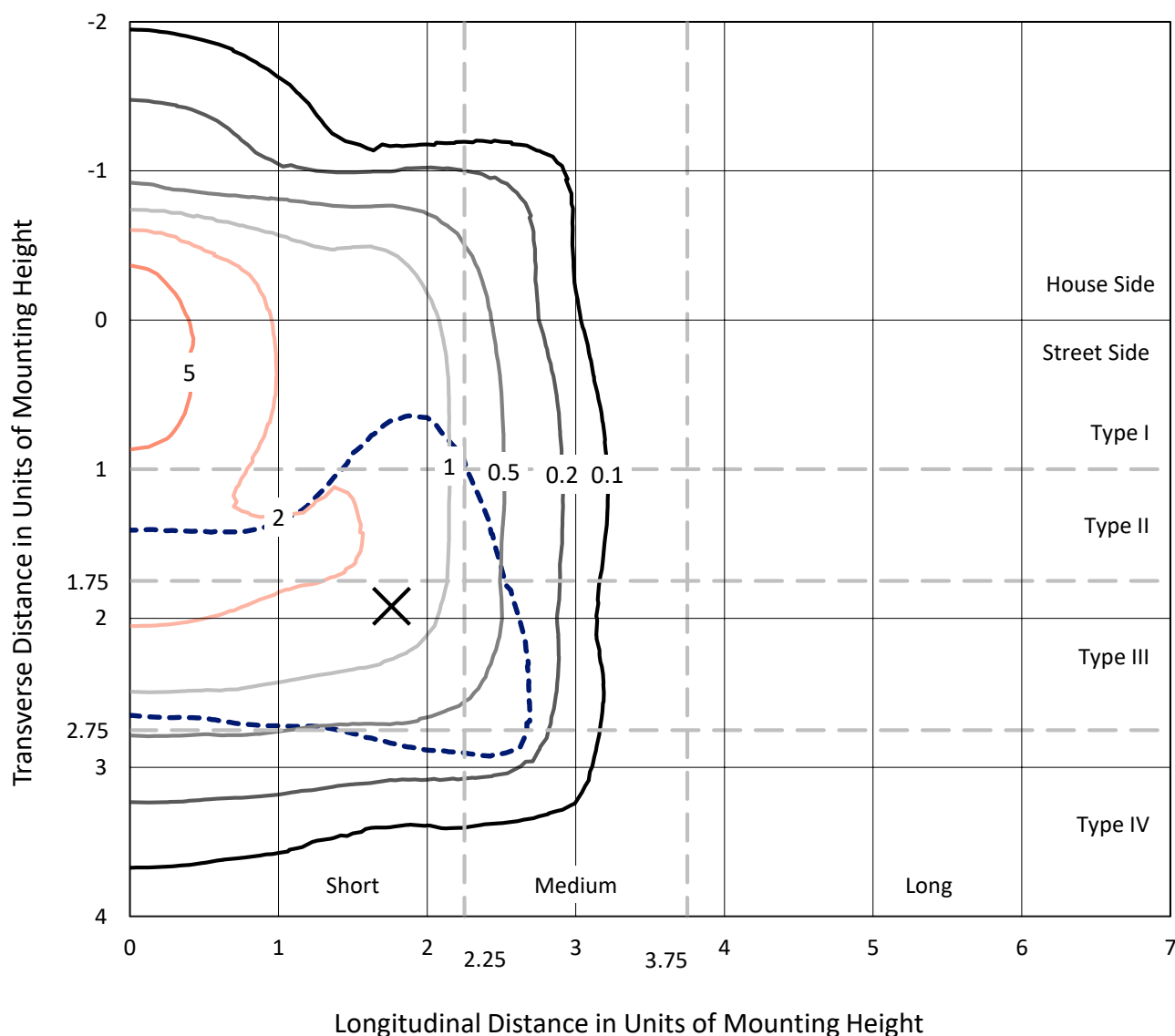


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

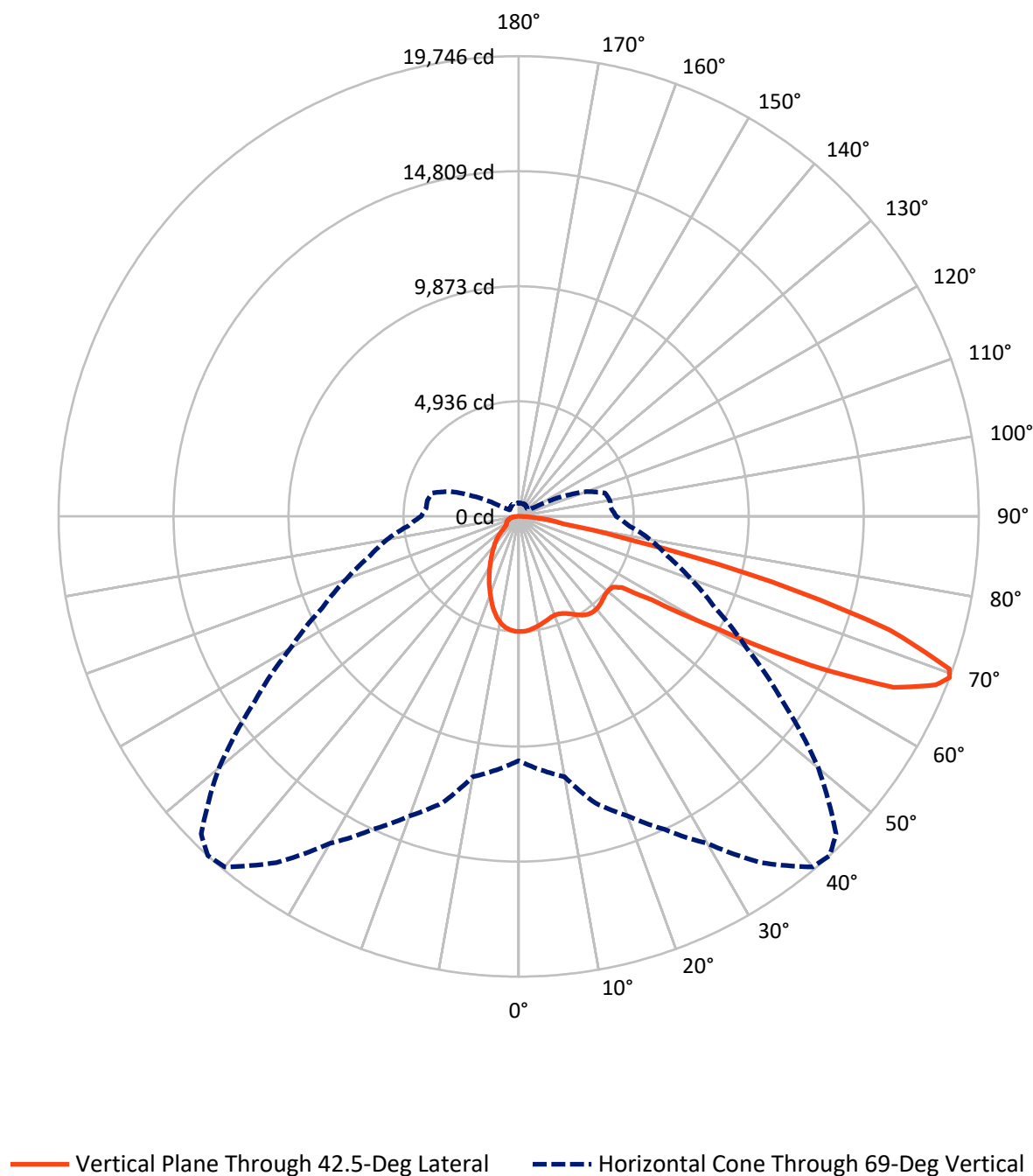


Based on 25 foot mounting height. Maximum calculated value = 7.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5159.4	0.0	5159.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	18048.1	0.0	18048.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	23207.5	0.0	23207.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.1	2.0
10°-20°	1240.0	5.3
20°-30°	1808.1	7.8
30°-40°	2305.0	9.9
40°-50°	2681.9	11.6
50°-60°	4080.6	17.6
60°-70°	7208.2	31.1
70°-80°	2974.5	12.8
80°-90°	449.1	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°	23207.5	100.0
0°-180°	23207.5	100.0

Coefficient of Utilization



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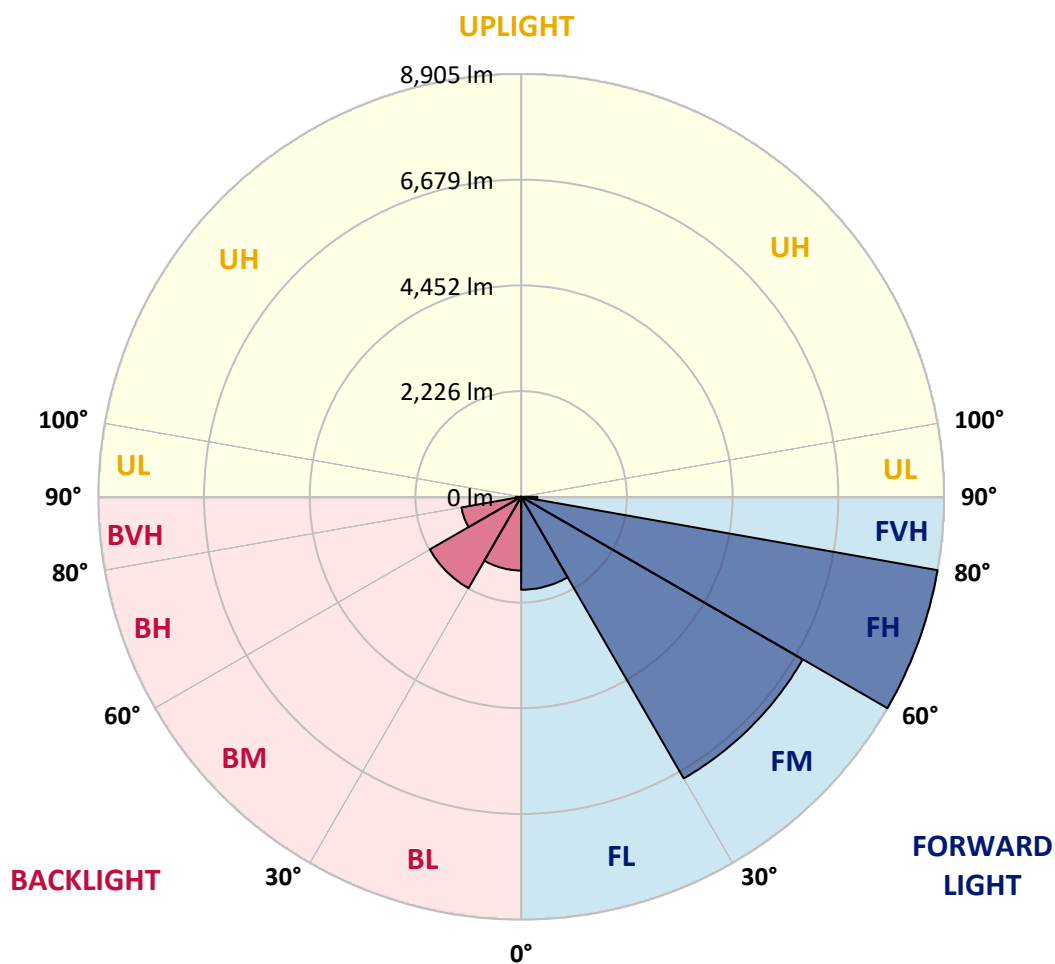
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1957.0	8.4			
FM	(30°-60°)	6846.8	29.5			
FH	(60°-80°)	8904.7	38.4			G4/12000
FVH	(80°-90°)	339.6	1.5			G3/500
BL	(0°-30°)	1551.2	6.7	B3/2500		
BM	(30°-60°)	2220.7	9.6	B2/2500		
BH	(60°-80°)	1278.0	5.5	B3/2500		G3/2500
BVH	(80°-90°)	109.5	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°	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4
2.5°	4926.4	4944.0	4937.6	4937.6	4942.4	4934.4	4934.4	4937.6	4929.6	4934.4	4932.8
5°	4908.8	4918.4	4915.2	4915.2	4915.2	4908.8	4905.6	4904.0	4892.8	4892.8	4888.0
7.5°	4870.4	4873.6	4878.4	4872.0	4870.4	4868.8	4857.6	4851.2	4838.4	4827.2	4830.4
10°	4819.2	4817.6	4825.6	4820.8	4814.4	4809.6	4800.0	4788.8	4774.4	4760.0	4758.4
12.5°	4761.6	4760.0	4766.4	4763.2	4758.4	4748.8	4740.8	4721.6	4699.2	4681.6	4680.0
15°	4724.8	4720.0	4726.4	4720.0	4712.0	4702.4	4688.0	4664.0	4624.0	4606.4	4592.0
17.5°	4760.0	4752.0	4755.2	4747.2	4736.0	4710.4	4676.8	4625.6	4568.0	4537.6	4515.2
20°	4883.2	4868.8	4872.0	4864.0	4838.4	4804.8	4740.8	4651.2	4553.6	4504.0	4468.8
22.5°	5059.2	5048.0	5052.8	5044.8	5019.2	4968.0	4872.0	4744.0	4604.8	4532.8	4476.8
25°	5326.4	5336.0	5339.2	5302.4	5288.0	5193.6	5060.8	4883.2	4697.6	4612.8	4536.0
27.5°	5627.2	5627.2	5641.6	5627.2	5598.4	5488.0	5300.8	5086.4	4848.0	4732.8	4640.0
30°	5920.0	5916.8	5944.0	5940.8	5894.4	5769.6	5556.8	5296.0	5024.0	4894.4	4776.0
32.5°	6230.4	6240.0	6257.6	6251.2	6190.4	6017.6	5761.6	5478.4	5192.0	5049.6	4916.8
35°	6566.4	6571.2	6577.6	6574.4	6451.2	6233.6	5912.0	5595.2	5297.6	5156.8	5019.2
37.5°	6902.4	6897.6	6889.6	6820.8	6680.0	6377.6	6003.2	5662.4	5350.4	5198.4	5056.0
40°	7203.2	7176.0	7150.4	7043.2	6827.2	6459.2	6038.4	5678.4	5345.6	5188.8	5049.6
42.5°	7368.0	7337.6	7284.8	7150.4	6888.0	6467.2	6014.4	5630.4	5296.0	5140.8	5003.2
45°	7398.4	7376.0	7324.8	7174.4	6873.6	6416.0	5940.8	5552.0	5222.4	5067.2	4937.6
47.5°	7326.4	7308.8	7259.2	7110.4	6811.2	6339.2	5856.0	5468.8	5150.4	5004.8	4880.0
50°	7216.0	7200.0	7161.6	7025.6	6740.8	6286.4	5812.8	5425.6	5126.4	4993.6	4878.4
52.5°	7395.2	7408.0	7296.0	7147.2	6816.0	6332.8	5860.8	5470.4	5169.6	5038.4	4918.4
55°	10180.8	10163.2	9489.6	8924.8	7915.2	7000.0	6316.8	5825.6	5504.0	5372.8	5260.8
57.5°	13228.8	13168.0	12891.2	12363.2	11278.4	9830.4	8513.6	7393.6	6952.0	6763.2	6776.0
60°	14224.0	14246.4	14187.2	14000.0	13611.2	12857.6	11856.0	11014.4	10185.6	9780.8	9827.2
62.5°	14776.0	14816.0	14867.2	14825.6	14699.2	14524.8	14398.4	14475.2	14360.0	14068.8	13836.8
65°	14852.8	14934.4	15104.0	15238.4	15304.0	15468.8	15856.0	16784.0	17632.0	17688.0	17280.0
67.5°	13332.8	13558.4	13926.4	14548.8	15081.6	15667.2	16601.6	18012.8	19264.0	19305.6	18924.8
69°	10483.2	10916.8	11347.2	12737.6	13673.6	14820.8	16203.2	18131.2	19630.4	19745.6	19265.6
70°	8400.0	8657.6	9028.8	10425.6	11824.0	13286.4	15289.6	17740.8	19379.2	19611.2	19081.6
72.5°	5043.2	5142.4	5270.4	5771.2	6491.2	7793.6	10449.6	14464.0	16347.2	16657.6	15984.0
75°	3260.8	3254.4	3265.6	3404.8	3446.4	3696.0	4532.8	7441.6	10664.0	11227.2	10420.8
77.5°	2456.0	2478.4	2443.2	2456.0	2444.8	2512.0	2537.6	2664.0	4209.6	5185.6	4636.8
80°	2168.0	2179.2	2180.8	2174.4	2096.0	2089.6	2131.2	2059.2	1913.6	1942.4	1860.8
82.5°	1236.8	1235.2	1249.6	1358.4	1403.2	1550.4	1611.2	1644.8	1518.4	1424.0	1288.0
85°	801.6	808.0	824.0	857.6	824.0	836.8	822.4	851.2	780.8	724.8	648.0
87.5°	328.0	328.0	348.8	379.2	353.6	347.2	297.6	294.4	249.6	225.6	176.0
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°	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4
2.5°	4923.2	4932.8	4928.0	4934.4	4929.6	4929.6	4923.2	4921.6	4926.4	4920.0	4921.6
5°	4880.0	4881.6	4873.6	4876.8	4867.2	4864.0	4859.2	4846.4	4854.4	4846.4	4849.6
7.5°	4817.6	4812.8	4801.6	4785.6	4774.4	4769.6	4760.0	4742.4	4745.6	4731.2	4739.2
10°	4737.6	4721.6	4702.4	4678.4	4662.4	4648.0	4627.2	4606.4	4595.2	4582.4	4580.8
12.5°	4648.0	4628.8	4603.2	4566.4	4531.2	4507.2	4475.2	4438.4	4427.2	4406.4	4395.2
15°	4550.4	4520.0	4489.6	4448.0	4409.6	4372.8	4329.6	4283.2	4252.8	4220.8	4196.8
17.5°	4462.4	4427.2	4387.2	4347.2	4305.6	4260.8	4206.4	4148.8	4104.0	4044.8	3996.8
20°	4393.6	4348.8	4308.8	4267.2	4220.8	4166.4	4100.8	4027.2	3952.0	3886.4	3830.4
22.5°	4366.4	4296.0	4248.0	4206.4	4160.0	4096.0	4016.0	3929.6	3838.4	3747.2	3673.6
25°	4388.8	4284.8	4209.6	4160.0	4120.0	4054.4	3964.8	3859.2	3753.6	3644.8	3545.6
27.5°	4454.4	4321.6	4212.8	4134.4	4088.0	4022.4	3928.0	3816.0	3691.2	3569.6	3448.0
30°	4556.8	4384.0	4246.4	4136.0	4064.0	3988.8	3889.6	3760.0	3633.6	3494.4	3361.6
32.5°	4656.0	4449.6	4284.8	4142.4	4032.0	3934.4	3824.0	3696.0	3560.0	3414.4	3276.8
35°	4726.4	4492.8	4299.2	4128.0	3982.4	3860.8	3742.4	3614.4	3481.6	3332.8	3192.0
37.5°	4760.0	4516.8	4300.8	4089.6	3916.8	3782.4	3656.0	3529.6	3404.8	3264.0	3131.2
40°	4758.4	4515.2	4278.4	4040.0	3838.4	3696.0	3571.2	3448.0	3331.2	3208.0	3088.0
42.5°	4723.2	4489.6	4246.4	3992.0	3782.4	3624.0	3494.4	3376.0	3276.8	3168.0	3067.2
45°	4668.8	4446.4	4212.8	3969.6	3766.4	3608.0	3470.4	3355.2	3267.2	3168.0	3081.6
47.5°	4627.2	4422.4	4217.6	4009.6	3816.0	3651.2	3505.6	3379.2	3304.0	3224.0	3163.2
50°	4633.6	4433.6	4233.6	4033.6	3851.2	3684.8	3544.0	3428.8	3374.4	3353.6	3339.2
52.5°	4667.2	4451.2	4281.6	4161.6	4099.2	3974.4	3891.2	3819.2	3859.2	3780.8	3688.0
55°	5096.0	5025.6	5190.4	5345.6	5542.4	5616.0	5545.6	5532.8	5596.8	5331.2	4721.6
57.5°	6867.2	7049.6	7304.0	7438.4	7601.6	7558.4	7395.2	7259.2	7099.2	6788.8	6028.8
60°	9880.0	9742.4	9627.2	9302.4	9036.8	8726.4	8380.8	8084.8	7801.6	7355.2	6532.8
62.5°	12984.0	12028.8	11230.4	10459.2	9838.4	9323.2	8822.4	8377.6	7948.8	7326.4	6441.6
65°	15668.8	13657.6	12158.4	11027.2	10120.0	9337.6	8694.4	8080.0	7534.4	6804.8	5929.6
67.5°	16875.2	14355.2	12174.4	10553.6	9297.6	8235.2	7403.2	6475.2	5864.0	5396.8	4904.0
69°	16785.6	13822.4	11305.6	9310.4	7867.2	6628.8	5736.0	4768.0	4182.4	3984.0	3972.8
70°	16360.0	12920.0	10291.2	8300.8	6649.6	5419.2	4563.2	3694.4	3148.8	3012.8	3254.4
72.5°	13356.8	9129.6	6449.6	4924.8	3787.2	2993.6	2441.6	1937.6	1547.2	1340.8	1385.6
75°	7544.0	4227.2	2732.8	2065.6	1745.6	1443.2	1238.4	1056.0	955.2	776.0	614.4
77.5°	2742.4	1814.4	1443.2	1248.0	884.8	609.6	510.4	446.4	404.8	404.8	385.6
80°	1734.4	1366.4	953.6	652.8	483.2	420.8	368.0	323.2	297.6	291.2	297.6
82.5°	1083.2	836.8	534.4	409.6	344.0	308.8	268.8	235.2	214.4	209.6	219.2
85°	534.4	414.4	324.8	289.6	272.0	252.8	222.4	190.4	184.0	196.8	230.4
87.5°	160.0	142.4	116.8	121.6	128.0	124.8	99.2	86.4	81.6	107.2	168.0
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°	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4	4942.4
2.5°	4924.8	4923.2	4926.4	4921.6	4924.8	4926.4	4923.2	4937.6	4928.0	4929.6	4936.0
5°	4852.8	4849.6	4862.4	4859.2	4865.6	4872.0	4868.8	4889.6	4881.6	4888.0	4900.8
7.5°	4732.8	4739.2	4740.8	4740.8	4753.6	4774.4	4779.2	4792.0	4792.0	4809.6	4822.4
10°	4572.8	4574.4	4584.0	4582.4	4598.4	4620.8	4624.0	4646.4	4654.4	4683.2	4700.8
12.5°	4387.2	4379.2	4377.6	4376.0	4396.8	4420.8	4424.0	4462.4	4478.4	4504.0	4532.8
15°	4179.2	4158.4	4152.0	4164.8	4160.0	4174.4	4188.8	4209.6	4232.0	4283.2	4308.8
17.5°	3976.0	3934.4	3923.2	3908.8	3894.4	3894.4	3900.8	3926.4	3972.8	4000.0	4057.6
20°	3768.0	3718.4	3678.4	3640.0	3606.4	3593.6	3595.2	3627.2	3660.8	3705.6	3760.0
22.5°	3593.6	3518.4	3449.6	3398.4	3329.6	3328.0	3318.4	3328.0	3364.8	3376.0	3406.4
25°	3443.2	3342.4	3249.6	3166.4	3099.2	3064.0	3054.4	3051.2	3033.6	3028.8	3006.4
27.5°	3326.4	3204.8	3084.8	2984.0	2900.8	2852.8	2792.0	2748.8	2686.4	2670.4	2630.4
30°	3230.4	3099.2	2968.0	2836.8	2742.4	2656.0	2553.6	2478.4	2382.4	2320.0	2265.6
32.5°	3137.6	3004.8	2872.0	2742.4	2596.8	2462.4	2328.0	2211.2	2104.0	2008.0	1928.0
35°	3060.8	2934.4	2800.0	2643.2	2457.6	2264.0	2102.4	1969.6	1822.4	1721.6	1620.8
37.5°	3011.2	2896.0	2761.6	2545.6	2307.2	2099.2	1915.2	1753.6	1603.2	1451.2	1337.6
40°	2988.8	2888.0	2720.0	2456.0	2176.0	1945.6	1742.4	1563.2	1371.2	1200.0	1078.4
42.5°	2987.2	2884.8	2662.4	2356.8	2067.2	1816.0	1590.4	1376.0	1163.2	987.2	867.2
45°	3016.0	2880.0	2601.6	2273.6	1971.2	1708.8	1440.0	1179.2	940.8	809.6	745.6
47.5°	3092.8	2888.0	2552.0	2196.8	1880.0	1579.2	1267.2	963.2	766.4	705.6	705.6
50°	3230.4	2934.4	2539.2	2142.4	1788.8	1428.8	1056.0	777.6	678.4	678.4	697.6
52.5°	3441.6	3032.0	2561.6	2104.0	1675.2	1230.4	832.0	670.4	651.2	668.8	694.4
55°	3928.0	3204.8	2592.0	2038.4	1502.4	976.0	686.4	633.6	641.6	662.4	686.4
57.5°	4820.8	3574.4	2624.0	1894.4	1224.0	752.0	622.4	619.2	633.6	652.8	673.6
60°	5408.0	4044.8	2705.6	1676.8	926.4	620.8	590.4	609.6	627.2	643.2	659.2
62.5°	5408.0	4177.6	2766.4	1433.6	696.0	564.8	569.6	600.0	620.8	628.8	638.4
65°	5062.4	3934.4	2560.0	1168.0	566.4	532.8	550.4	580.8	600.0	606.4	614.4
67.5°	4424.0	3475.2	2156.8	880.0	505.6	505.6	528.0	550.4	566.4	579.2	592.0
69°	3846.4	3118.4	1899.2	745.6	481.6	484.8	507.2	526.4	545.6	561.6	577.6
70°	3430.4	2851.2	1720.0	676.8	467.2	468.8	491.2	512.0	529.6	547.2	566.4
72.5°	1836.8	1969.6	1307.2	555.2	430.4	435.2	456.0	475.2	491.2	508.8	526.4
75°	625.6	846.4	832.0	454.4	388.8	401.6	414.4	432.0	452.8	464.0	473.6
77.5°	366.4	379.2	443.2	369.6	350.4	356.8	371.2	385.6	403.2	414.4	422.4
80°	307.2	305.6	307.2	300.8	305.6	320.0	329.6	348.8	364.8	368.0	366.4
82.5°	249.6	262.4	264.0	260.8	275.2	286.4	294.4	305.6	304.0	307.2	313.6
85°	222.4	220.8	232.0	233.6	233.6	225.6	227.2	227.2	227.2	232.0	233.6
87.5°	222.4	185.6	144.0	129.6	136.0	128.0	121.6	120.0	132.8	145.6	142.4
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°	4942.4	4942.4	4942.4	4942.4	4942.4
2.5°	4939.2	4944.0	4940.8	4940.8	4944.0
5°	4905.6	4913.6	4910.4	4913.6	4913.6
7.5°	4828.8	4840.0	4848.0	4856.0	4851.2
10°	4718.4	4737.6	4750.4	4760.0	4755.2
12.5°	4553.6	4571.2	4598.4	4614.4	4601.6
15°	4328.0	4377.6	4393.6	4416.0	4403.2
17.5°	4092.8	4123.2	4142.4	4163.2	4176.0
20°	3779.2	3803.2	3828.8	3838.4	3824.0
22.5°	3401.6	3414.4	3409.6	3424.0	3395.2
25°	2987.2	2995.2	2990.4	3003.2	2979.2
27.5°	2595.2	2593.6	2595.2	2579.2	2563.2
30°	2217.6	2203.2	2196.8	2172.8	2168.0
32.5°	1880.0	1830.4	1804.8	1769.6	1761.6
35°	1542.4	1472.0	1425.6	1385.6	1368.0
37.5°	1240.0	1155.2	1100.8	1065.6	1060.8
40°	980.8	902.4	864.0	844.8	841.6
42.5°	800.0	766.4	756.8	756.8	756.8
45°	729.6	728.0	736.0	742.4	744.0
47.5°	715.2	724.8	736.0	745.6	748.8
50°	715.2	724.8	732.8	742.4	745.6
52.5°	712.0	720.0	723.2	729.6	732.8
55°	702.4	707.2	707.2	710.4	713.6
57.5°	686.4	689.6	684.8	688.0	696.0
60°	670.4	673.6	665.6	673.6	678.4
62.5°	652.8	654.4	651.2	657.6	657.6
65°	624.0	620.8	625.6	630.4	632.0
67.5°	595.2	587.2	592.0	593.6	596.8
69°	572.8	568.0	569.6	572.8	576.0
70°	556.8	553.6	556.8	561.6	566.4
72.5°	516.8	518.4	529.6	539.2	548.8
75°	480.0	491.2	505.6	526.4	537.6
77.5°	435.2	443.2	454.4	476.8	497.6
80°	376.0	380.8	382.4	390.4	388.8
82.5°	305.6	300.8	297.6	294.4	292.8
85°	219.2	217.6	204.8	195.2	195.2
87.5°	131.2	124.8	118.4	110.4	105.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)