

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: P158522

Luminaire Tested: **VST-E12-LED-E-U-SL3-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158522
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
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-SL3-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (252) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37147.5 lumens
Efficiency: N/A
Efficacy: 127.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-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



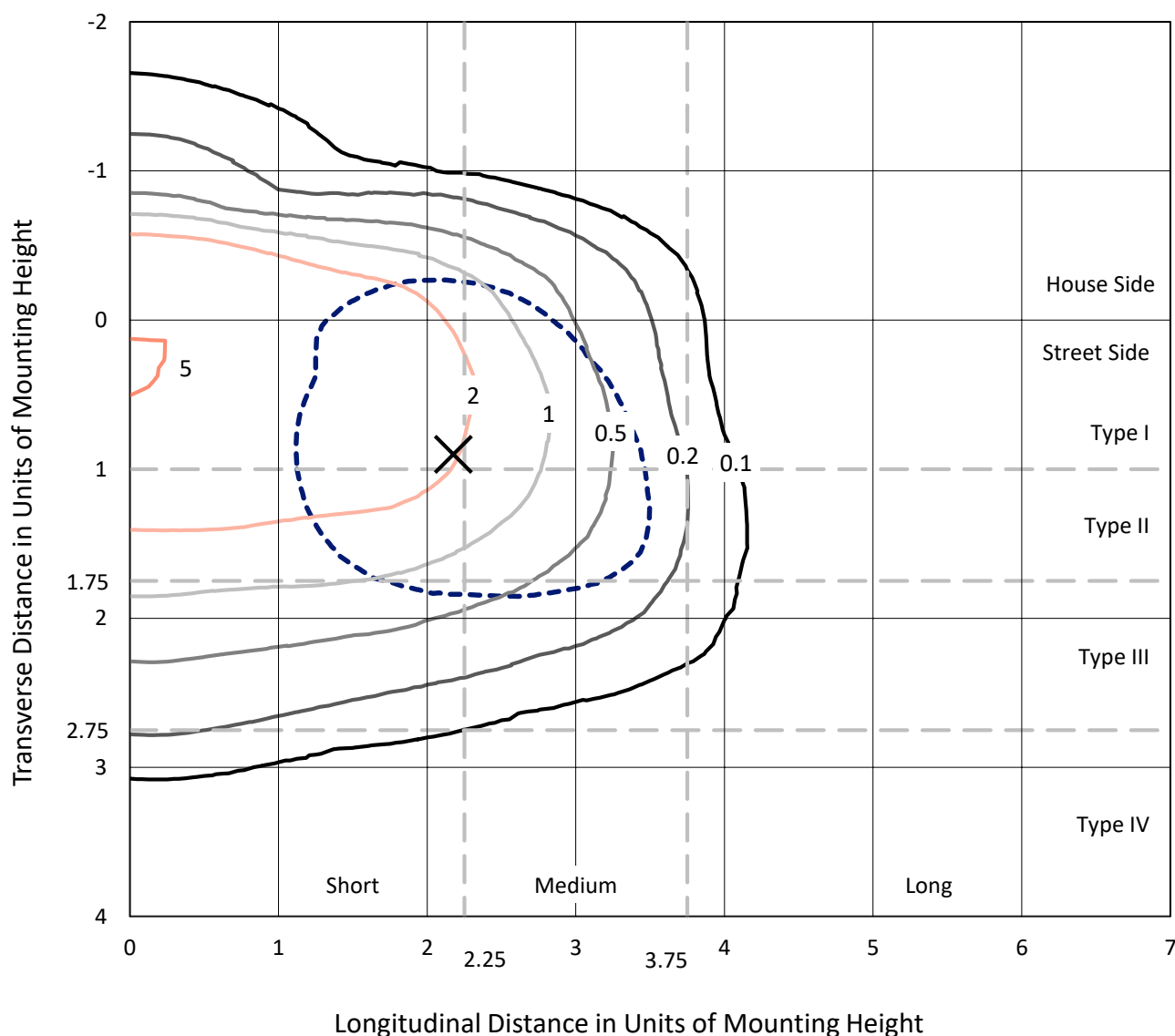
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

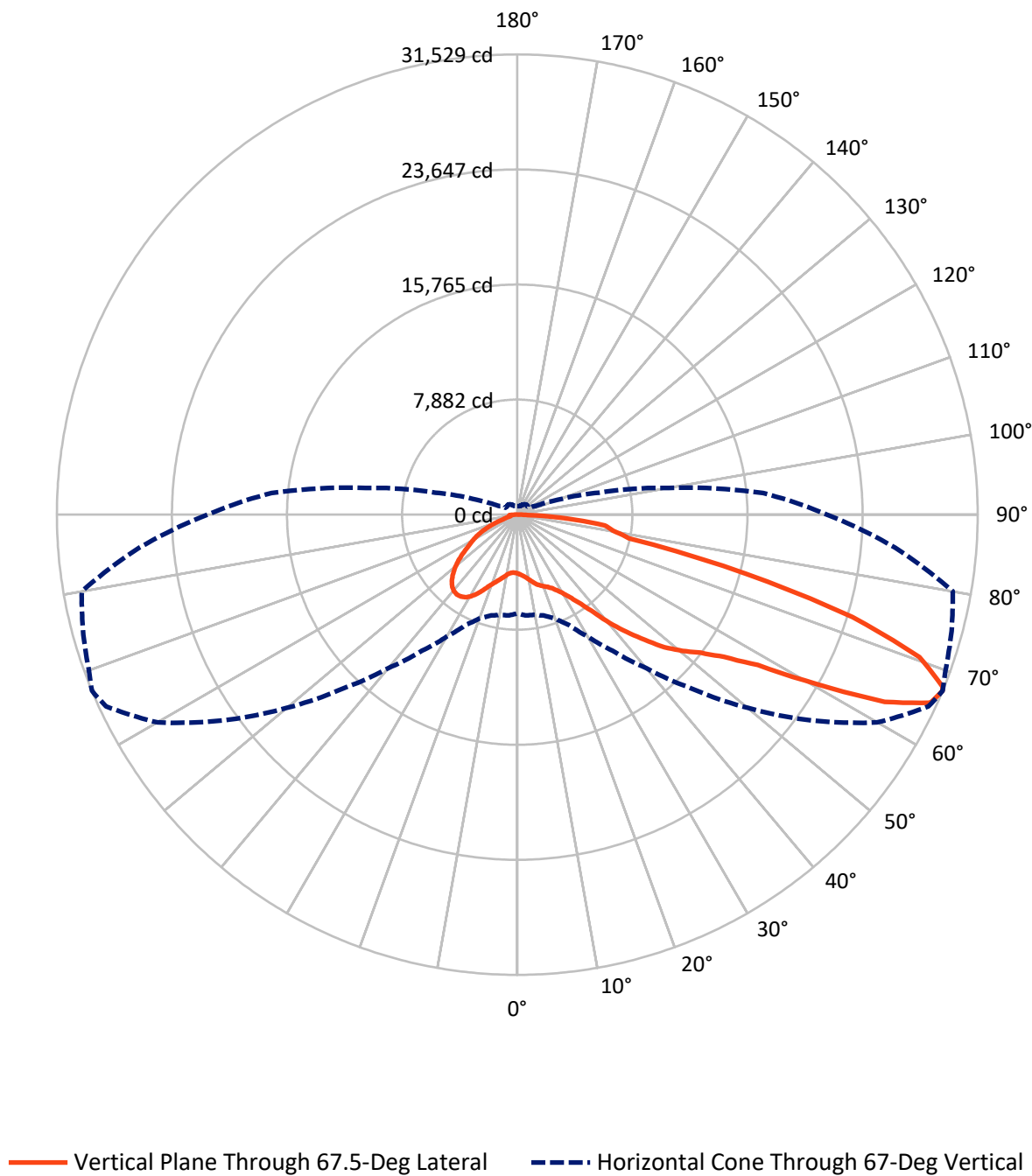


Based on 30 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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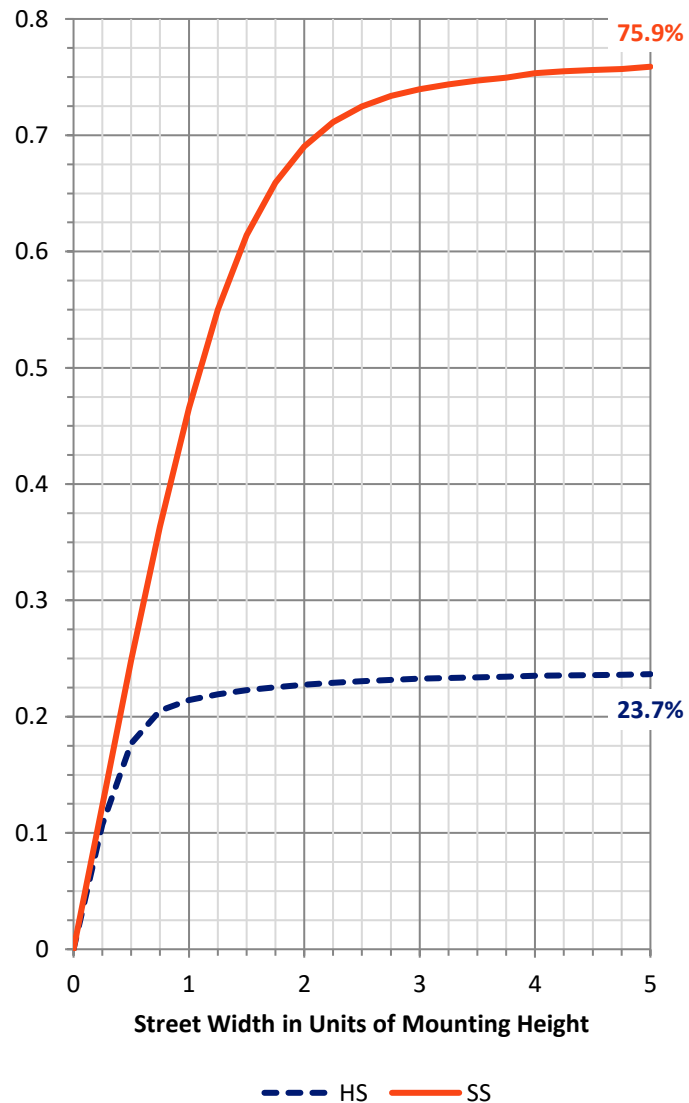
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8911.8	0.0	8911.8
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	28235.7	0.0	28235.7
	% Fixture	76.0	0.0	76.0
Total	Lumens	37147.5	0.0	37147.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	400.2	1.1
10°-20°	1363.4	3.7
20°-30°	2434.1	6.6
30°-40°	3567.3	9.6
40°-50°	5512.1	14.8
50°-60°	8026.5	21.6
60°-70°	10455.8	28.1
70°-80°	4680.4	12.6
80°-90°	707.7	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°	37147.5	100.0
0°-180°	37147.5	100.0

Coefficient of Utilization



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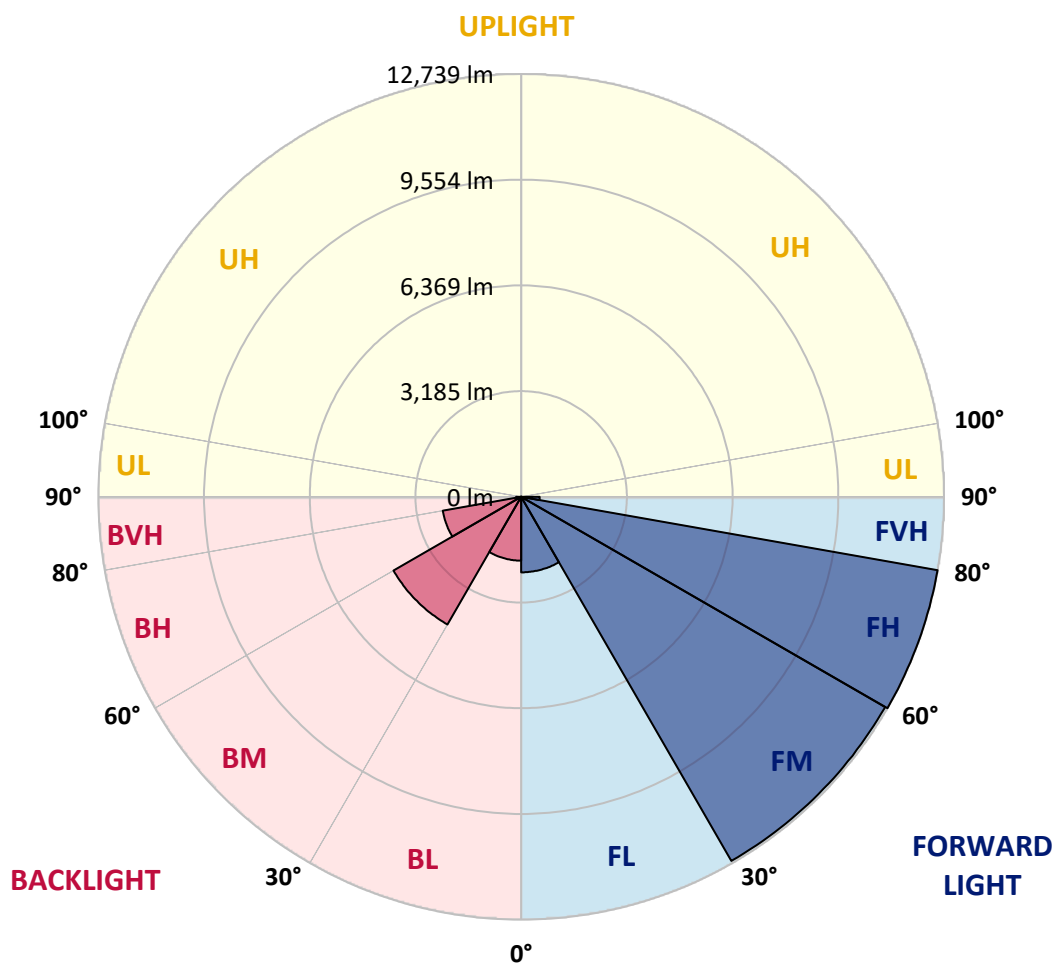
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2276.0	6.1			
FM	(30°-60°)	12665.4	34.1			
FH	(60°-80°)	12738.6	34.3			G5
FVH	(80°-90°)	555.7	1.5			G4/750
BL	(0°-30°)	1921.7	5.2	B3/2500		
BM	(30°-60°)	4440.5	12.0	B3/5000		
BH	(60°-80°)	2397.6	6.5	B3/2500		G3/2500
BVH	(80°-90°)	152.0	0.4			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4
2.5°	4184.0	4193.9	4196.4	4193.9	4196.4	4186.5	4184.0	4169.3	4176.7	4157.0	4152.0
5°	4410.6	4418.0	4422.9	4403.2	4408.1	4398.3	4386.0	4371.2	4351.5	4324.4	4307.2
7.5°	4632.3	4644.6	4642.1	4634.7	4617.5	4607.6	4583.0	4560.8	4526.4	4494.3	4472.2
10°	4930.2	4927.8	4927.8	4885.9	4861.3	4839.1	4794.8	4760.3	4725.8	4679.0	4654.4
12.5°	5275.0	5257.8	5250.4	5220.8	5169.1	5129.7	5065.7	4999.2	4937.6	4888.4	4849.0
15°	5607.5	5607.5	5587.8	5541.0	5491.7	5440.0	5348.9	5252.8	5151.9	5073.1	5033.7
17.5°	5910.4	5883.3	5866.0	5804.5	5752.8	5669.0	5568.1	5464.6	5339.0	5228.2	5151.9
20°	6132.0	6109.8	6072.9	5996.6	5907.9	5809.4	5691.2	5570.5	5435.1	5314.4	5228.2
22.5°	6260.1	6233.0	6176.3	6075.4	5954.7	5816.8	5678.9	5565.6	5442.5	5351.3	5279.9
25°	6326.6	6299.5	6223.1	6090.1	5927.6	5745.4	5587.8	5476.9	5405.5	5383.4	5373.5
27.5°	6324.1	6301.9	6220.7	6068.0	5858.7	5649.3	5479.4	5385.8	5378.4	5464.6	5528.7
30°	6260.1	6245.3	6171.4	6018.7	5799.5	5580.4	5422.8	5373.5	5449.9	5632.1	5789.7
32.5°	6196.0	6188.6	6136.9	5999.0	5811.9	5627.2	5518.8	5523.7	5681.3	5962.1	6215.7
35°	6203.4	6213.3	6205.9	6132.0	6013.8	5917.8	5866.0	5974.4	6220.7	6560.5	6900.4
37.5°	6267.5	6304.4	6351.2	6358.6	6361.0	6346.3	6454.6	6683.6	7043.2	7486.5	8018.4
40°	6407.8	6449.7	6585.1	6703.3	6856.0	7038.3	7257.4	7575.1	8020.9	8567.6	9220.2
42.5°	6843.7	6902.8	7070.3	7289.5	7570.2	7855.9	8183.4	8616.8	9163.5	9739.8	10424.4
45°	7412.6	7535.7	7720.4	7964.2	8385.3	8786.7	9210.3	9695.5	10276.7	10998.2	11687.8
47.5°	8121.8	8245.0	8513.4	8774.4	9271.9	9771.8	10234.8	10742.1	11372.5	12111.3	12874.8
50°	8742.4	8882.8	9121.7	9473.8	10050.1	10663.3	11175.5	11724.7	12254.2	13032.4	13803.2
52.5°	9230.0	9331.0	9560.0	9882.6	10525.4	11197.7	11845.4	12456.1	13084.1	13862.3	14576.4
55°	9291.6	9385.2	9609.3	9978.7	10631.3	11377.5	12123.6	12847.7	13736.7	14586.3	15532.0
57.5°	9025.6	9102.0	9328.5	9658.5	10293.9	11143.5	12086.7	13015.1	14152.9	15300.5	16455.4
60°	8648.8	8725.2	8902.5	9166.0	9739.8	10655.9	11756.7	13027.4	14539.5	16196.9	17896.1
62.5°	8235.1	8301.6	8444.4	8631.6	9136.4	9981.1	11242.0	12946.2	14854.7	17088.3	19708.6
65°	7538.2	7698.3	7759.8	7951.9	8456.8	9254.7	10537.7	12397.0	14726.7	17484.8	20846.4
67°	6767.4	6929.9	6961.9	7156.5	7560.3	8326.2	9631.4	11379.9	13712.1	16800.2	20595.2
67.5°	6521.1	6659.0	6708.3	6902.8	7284.5	8006.1	9244.8	11013.0	13401.8	16425.9	20292.3
70°	4794.8	4947.5	5001.6	5082.9	5356.3	5957.2	6777.2	8311.5	10685.5	13404.2	17117.9
72.5°	2566.1	2689.2	2740.9	2861.6	3002.0	3329.5	3957.5	5058.3	6558.0	8969.0	12177.8
75°	1736.2	1785.4	1822.4	1906.1	2051.4	2312.4	2588.2	2974.9	3881.1	5060.8	6929.9
77.5°	990.0	1012.2	1017.1	1031.9	1147.6	1396.3	1849.5	2504.5	3211.3	3666.9	4432.8
80°	428.5	472.8	507.3	485.1	477.8	529.5	662.5	987.5	1935.6	3073.4	3647.2
82.5°	231.5	251.2	280.7	283.2	298.0	315.2	342.3	406.3	571.3	1152.5	2514.4
85°	120.7	125.6	167.5	192.1	204.4	214.3	219.2	243.8	280.7	357.1	625.5
87.5°	17.2	24.6	29.6	39.4	44.3	46.8	54.2	69.0	81.3	98.5	167.5
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4
2.5°	4129.9	4124.9	4110.2	4100.3	4090.5	4080.6	4068.3	4058.5	4041.2	4028.9	4014.1
5°	4282.6	4253.0	4233.3	4206.2	4201.3	4169.3	4137.3	4122.5	4092.9	4068.3	4038.8
7.5°	4437.7	4403.2	4371.2	4349.0	4336.7	4292.4	4260.4	4223.4	4189.0	4157.0	4122.5
10°	4619.9	4585.5	4551.0	4536.2	4514.0	4472.2	4445.1	4398.3	4363.8	4324.4	4277.6
12.5°	4809.6	4784.9	4760.3	4740.6	4730.8	4711.1	4671.7	4632.3	4585.5	4546.1	4491.9
15°	4977.0	4959.8	4949.9	4945.0	4932.7	4895.8	4858.8	4809.6	4765.2	4706.1	
17.5°	5095.2	5087.8	5095.2	5102.6	5112.5	5102.6	5095.2	5053.4	5021.3	4967.2	4908.1
20°	5164.2	5179.0	5215.9	5240.5	5262.7	5279.9	5287.3	5252.8	5211.0	5171.6	5132.2
22.5°	5238.1	5279.9	5344.0	5380.9	5417.8	5479.4	5494.2	5469.6	5437.5	5412.9	5371.0
25°	5361.2	5422.8	5533.6	5592.7	5644.4	5735.5	5747.8	5752.8	5745.4	5725.7	5674.0
27.5°	5553.3	5674.0	5821.7	5898.1	5954.7	6072.9	6119.7	6119.7	6100.0	6122.2	6122.2
30°	5888.2	6048.3	6240.4	6284.7	6373.3	6476.8	6553.1	6563.0	6565.4	6612.2	6681.2
32.5°	6402.9	6555.6	6769.8	6819.1	6895.4	6993.9	7080.1	7070.3	7092.4	7193.4	7284.5
35°	7151.5	7306.7	7447.1	7513.6	7548.0	7636.7	7668.7	7722.9	7789.4	7915.0	7902.7
37.5°	8259.7	8397.6	8417.3	8459.2	8417.3	8434.6	8459.2	8523.2	8700.6	8813.8	8631.6
40°	9594.5	9823.5	9801.4	9752.1	9658.5	9532.9	9577.3	9675.8	9867.9	9769.3	9279.3
42.5°	10852.9	11089.3	11045.0	10988.4	10781.5	10734.7	10729.8	10811.0	10914.5	10633.7	9786.6
45°	12091.6	12333.0	12256.6	12224.6	12086.7	11985.7	12069.5	12074.4	12047.3	11446.4	10229.9
47.5°	13369.7	13591.4	13542.1	13569.2	13426.4	13359.9	13367.3	13332.8	13079.2	12136.0	10574.6
50°	14401.6	14699.6	14729.1	14667.6	14591.2	14490.3	14748.8	14655.2	14091.3	12805.8	10907.1
52.5°	15204.4	15605.8	15758.5	15719.1	15657.5	15669.9	16155.0	16260.9	15327.6	13650.5	11274.0
55°	16155.0	16787.9	17036.6	17184.4	17120.4	17366.6	18477.3	18531.5	17046.5	14753.8	11751.8
57.5°	17526.7	18433.0	19218.5	19427.9	19629.8	20430.2	22232.8	21683.7	19277.6	16423.4	12357.6
60°	19612.6	21597.5	22873.1	23543.0	24015.8	25133.8	26847.8	25456.4	22058.0	18410.8	13118.6
62.5°	22533.3	25434.3	27566.9	28239.2	28433.8	29076.5	30317.7	27655.6	23572.5	19302.3	13185.0
65°	24707.8	28187.5	30741.3	31086.1	30854.6	30866.9	31192.0	27539.8	23008.6	18524.1	12042.4
67°	24565.0	28460.9	31076.2	31529.3	31209.2	30788.1	30280.8	25971.1	21196.1	16893.8	10545.1
67.5°	24345.8	28197.4	30930.9	31408.7	31115.6	30635.4	29894.1	25362.9	20632.1	16386.5	10239.7
70°	21045.8	24870.3	28552.0	29224.3	29347.4	28909.1	26828.1	21385.7	16751.0	13330.3	7951.9
72.5°	16381.6	19787.4	23429.7	24013.3	24486.2	23222.8	19526.4	14771.0	12209.8	9606.8	5757.7
75°	10816.0	14280.9	16118.1	16204.3	15600.9	13261.4	9540.3	7397.8	6809.2	5646.9	3563.5
77.5°	5787.2	8397.6	8449.4	7823.8	7538.2	5619.8	2280.4	1258.4	1401.2	1590.9	1418.5
80°	4317.0	5348.9	6198.5	6663.9	6801.8	4819.4	1179.6	667.4	583.6	531.9	524.5
82.5°	3893.5	5166.6	5792.2	6045.8	5981.8	3964.9	662.5	448.2	371.9	403.9	460.5
85°	1526.8	2758.2	3627.5	3511.7	2950.3	1477.6	362.0	241.3	241.3	349.7	453.1
87.5°	312.8	566.4	768.3	733.9	660.0	285.7	177.3	145.3	147.8	283.2	428.5
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°	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4	4026.4
2.5°	3999.3	3984.6	3974.7	3964.9	3955.0	3950.1	3942.7	3942.7	3927.9	3923.0	3918.1
5°	4016.6	3992.0	3974.7	3952.6	3935.3	3920.5	3900.8	3895.9	3878.7	3866.4	3861.4
7.5°	4090.5	4053.5	4016.6	3989.5	3964.9	3932.9	3910.7	3891.0	3873.8	3861.4	3846.7
10°	4230.8	4191.4	4139.7	4090.5	4058.5	4009.2	3974.7	3940.2	3920.5	3905.8	3886.1
12.5°	4437.7	4381.1	4319.5	4260.4	4206.2	4142.2	4107.7	4065.8	4041.2	4028.9	4014.1
15°	4649.5	4587.9	4511.6	4454.9	4393.4	4344.1	4312.1	4275.2	4255.5	4240.7	4230.8
17.5°	4866.2	4794.8	4740.6	4684.0	4654.4	4617.5	4575.6	4528.8	4472.2	4437.7	4390.9
20°	5087.8	5033.7	5001.6	4969.6	4935.2	4883.4	4799.7	4703.7	4597.8	4496.8	4400.8
22.5°	5346.4	5314.4	5309.5	5279.9	5208.5	5085.4	4930.2	4750.5	4570.7	4403.2	4272.7
25°	5710.9	5710.9	5686.3	5565.6	5398.1	5176.5	4915.5	4656.9	4418.0	4189.0	4016.6
27.5°	6168.9	6151.7	6031.0	5782.3	5481.9	5137.1	4787.4	4459.9	4154.5	3903.3	3681.7
30°	6673.8	6553.1	6294.5	5903.0	5452.3	5009.0	4580.5	4201.3	3841.7	3533.9	3272.9
32.5°	7198.3	6905.3	6439.8	5903.0	5348.9	4816.9	4322.0	3856.5	3445.3	3100.5	2790.2
35°	7673.6	7139.2	6474.3	5806.9	5146.9	4533.7	3959.9	3432.9	2940.4	2568.5	2228.7
37.5°	8104.6	7294.4	6437.4	5619.8	4853.9	4134.8	3462.5	2881.3	2324.7	1965.2	1674.6
40°	8385.3	7326.4	6284.7	5326.7	4435.2	3595.5	2851.8	2201.6	1760.8	1433.3	1238.7
42.5°	8560.2	7264.8	6038.4	4925.3	3871.3	2918.2	2140.0	1578.6	1251.0	1068.8	994.9
45°	8658.7	7104.8	5674.0	4376.1	3189.1	2218.9	1519.5	1140.2	962.9	898.9	874.2
47.5°	8653.8	6846.2	5218.4	3740.8	2435.6	1546.5	1076.2	889.0	839.8	820.1	815.1
50°	8602.0	6528.5	4684.0	3051.2	1758.3	1078.6	852.1	797.9	785.6	773.3	768.3
52.5°	8530.6	6134.5	4092.9	2378.9	1248.6	861.9	773.3	758.5	748.6	736.3	731.4
55°	8397.6	5649.3	3452.6	1790.3	977.7	778.2	746.2	741.3	728.9	711.7	701.9
57.5°	8235.1	5156.8	2839.4	1398.8	864.4	758.5	741.3	733.9	716.6	696.9	677.2
60°	8176.0	4750.5	2359.2	1179.6	837.3	765.9	753.6	743.7	719.1	689.5	667.4
62.5°	7806.6	4292.4	2014.5	1093.4	852.1	797.9	793.0	778.2	741.3	706.8	672.3
65°	6851.1	3630.0	1706.6	1034.3	881.6	852.1	857.0	834.8	797.9	751.1	689.5
67°	5794.6	2960.1	1421.0	977.7	903.8	908.7	926.0	908.7	861.9	795.4	711.7
67.5°	5513.9	2790.2	1349.5	960.4	908.7	923.5	943.2	930.9	884.1	807.8	721.6
70°	4097.9	1965.2	1007.2	869.3	908.7	967.8	1012.2	1024.5	972.7	866.9	741.3
72.5°	2886.2	1268.3	773.3	753.6	825.0	903.8	987.5	1029.4	970.3	854.5	714.2
75°	1733.7	793.0	628.0	640.3	694.5	775.7	842.2	859.5	785.6	711.7	618.1
77.5°	802.8	527.0	492.5	509.8	561.5	598.4	598.4	563.9	507.3	463.0	443.3
80°	472.8	431.0	428.5	460.5	495.0	467.9	426.0	379.2	349.7	334.9	327.5
82.5°	443.3	460.5	490.1	497.5	470.4	403.9	352.2	305.4	290.6	283.2	275.8
85°	522.1	559.0	509.8	470.4	416.2	339.8	275.8	236.4	229.0	221.6	211.8
87.5°	482.7	460.5	401.4	344.8	285.7	206.9	150.2	135.4	145.3	142.8	137.9
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°	4026.4	4026.4	4026.4	4026.4	4026.4
2.5°	3920.5	3920.5	3910.7	3905.8	3918.1
5°	3851.6	3854.1	3846.7	3844.2	3846.7
7.5°	3836.8	3834.4	3829.4	3824.5	3829.4
10°	3881.1	3878.7	3871.3	3876.2	3868.8
12.5°	4014.1	4028.9	4026.4	4031.4	4041.2
15°	4230.8	4228.4	4221.0	4225.9	4233.3
17.5°	4354.0	4334.3	4317.0	4309.6	4309.6
20°	4324.4	4267.8	4238.2	4221.0	4216.1
22.5°	4149.6	4068.3	4006.7	3992.0	3979.6
25°	3863.9	3762.9	3684.1	3666.9	3634.9
27.5°	3531.4	3396.0	3302.4	3282.7	3265.5
30°	3095.6	2940.4	2832.1	2763.1	2785.3
32.5°	2563.6	2415.9	2290.3	2179.4	2162.2
35°	1980.0	1817.4	1706.6	1657.4	1625.4
37.5°	1477.6	1342.1	1268.3	1221.5	1223.9
40°	1130.4	1058.9	1019.5	987.5	990.0
42.5°	943.2	911.2	901.3	886.6	879.2
45°	854.5	844.7	847.2	832.4	827.5
47.5°	805.3	797.9	800.4	790.5	788.0
50°	765.9	761.0	763.4	756.0	753.6
52.5°	726.5	728.9	726.5	721.6	721.6
55°	692.0	689.5	694.5	687.1	687.1
57.5°	664.9	662.5	662.5	660.0	660.0
60°	650.1	640.3	637.8	637.8	640.3
62.5°	642.8	625.5	623.1	623.1	625.5
65°	645.2	618.1	608.3	605.8	603.4
67°	647.7	608.3	588.6	578.7	576.3
67.5°	650.1	603.4	581.2	571.3	566.4
70°	635.4	568.9	536.9	519.6	514.7
72.5°	598.4	527.0	487.6	465.4	460.5
75°	531.9	477.8	443.3	418.7	408.8
77.5°	411.3	386.6	374.3	359.5	354.6
80°	320.1	307.8	302.9	293.1	290.6
82.5°	266.0	253.7	246.3	234.0	226.6
85°	206.9	192.1	187.2	177.3	172.4
87.5°	135.4	128.1	125.6	113.3	108.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)