

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: P158518

Luminaire Tested: **VST-E12-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158518
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-SL3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (252) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30554.5 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

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



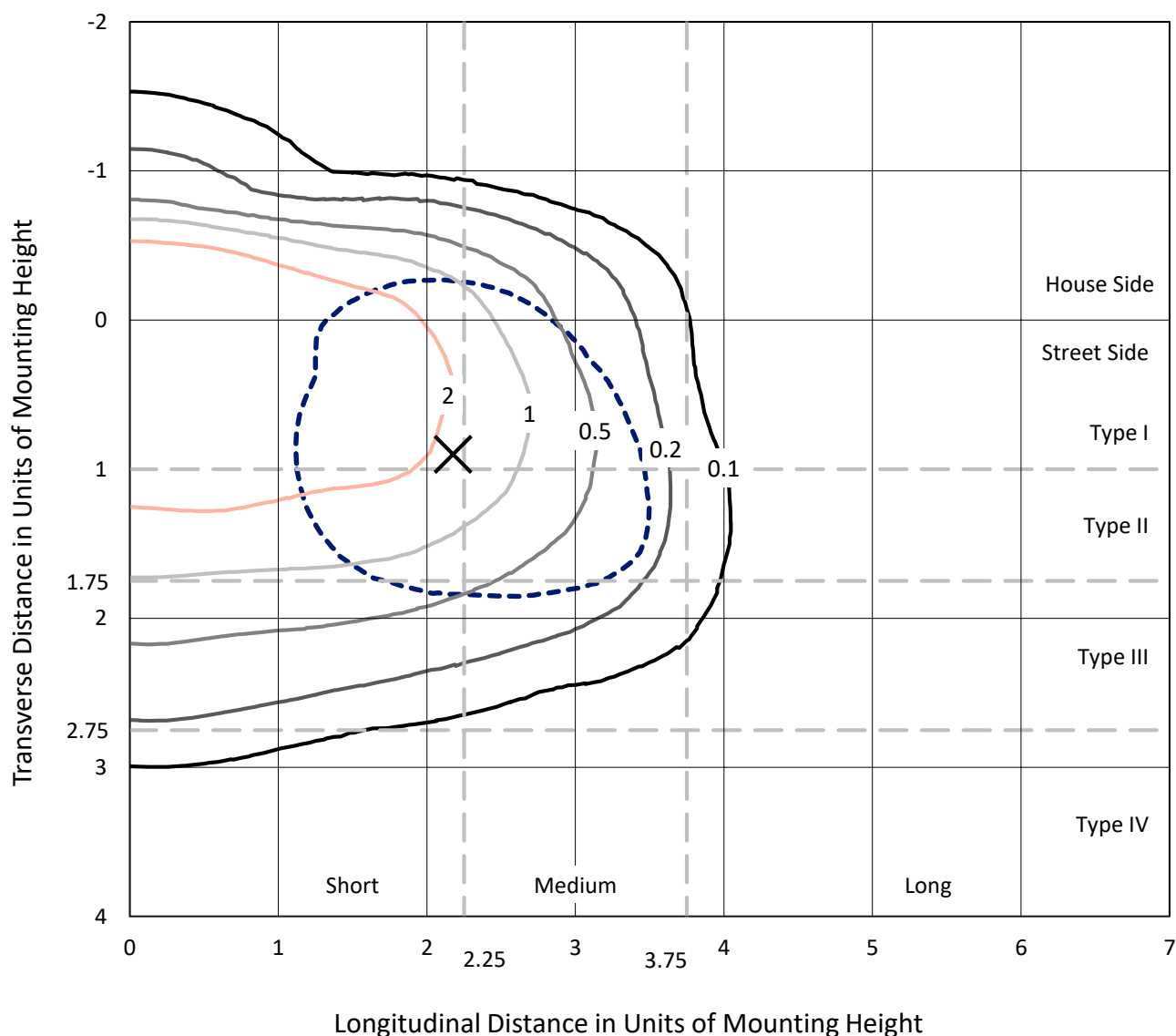
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

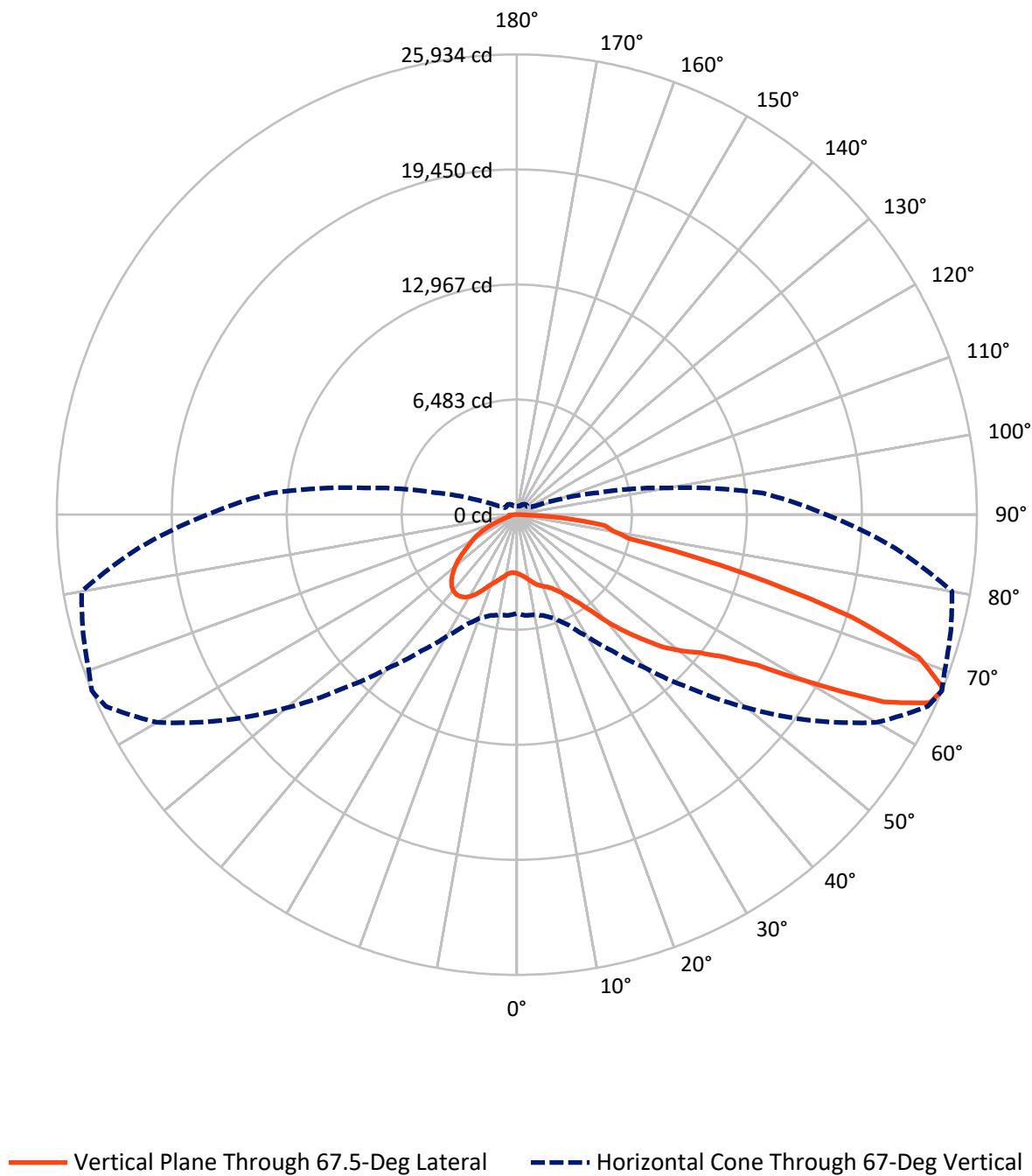


Based on 30 foot mounting height. Maximum calculated value = 4.6 fc
Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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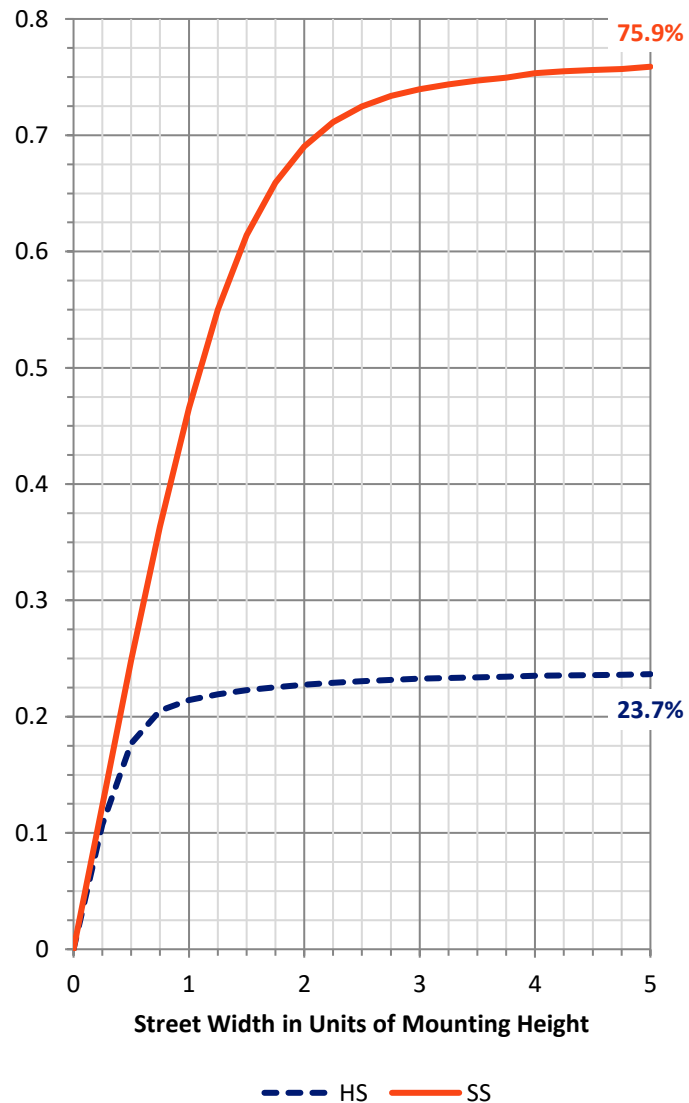
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7330.1	0.0	7330.1
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	23224.4	0.0	23224.4
	% Fixture	76.0	0.0	76.0
Total	Lumens	30554.5	0.0	30554.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.1	1.1
10°-20°	1121.4	3.7
20°-30°	2002.1	6.6
30°-40°	2934.2	9.6
40°-50°	4533.8	14.8
50°-60°	6602.0	21.6
60°-70°	8600.1	28.1
70°-80°	3849.7	12.6
80°-90°	582.1	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°	30554.5	100.0
0°-180°	30554.5	100.0

Coefficient of Utilization



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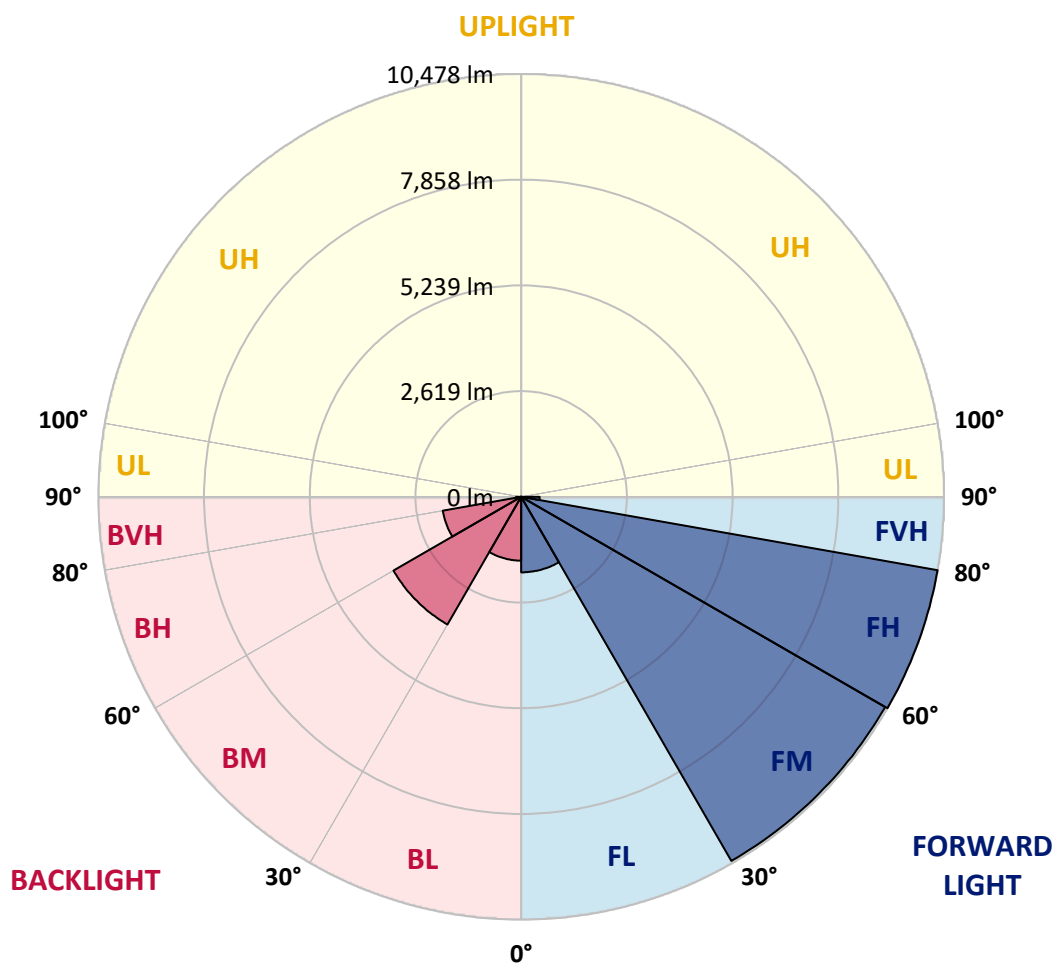
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1872.1	6.1			
FM	(30°-60°)	10417.5	34.1			
FH	(60°-80°)	10477.7	34.3			G4/12000
FVH	(80°-90°)	457.1	1.5			G3/500
BL	(0°-30°)	1580.6	5.2	B3/2500		
BM	(30°-60°)	3652.4	12.0	B3/5000		
BH	(60°-80°)	1972.1	6.5	B3/2500		G3/2500
BVH	(80°-90°)	125.0	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-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3441.5	3449.6	3451.6	3449.6	3451.6	3443.5	3441.5	3429.3	3435.4	3419.2	3415.1
5°	3627.8	3633.9	3637.9	3621.7	3625.8	3617.7	3607.6	3595.4	3579.2	3556.9	3542.7
7.5°	3810.1	3820.2	3818.2	3812.1	3798.0	3789.9	3769.6	3751.4	3723.0	3696.7	3678.5
10°	4055.2	4053.2	4053.2	4018.7	3998.5	3980.3	3943.8	3915.4	3887.1	3848.6	3828.3
12.5°	4338.8	4324.6	4318.5	4294.2	4251.7	4219.3	4166.6	4111.9	4061.3	4020.8	3988.4
15°	4612.2	4612.2	4596.0	4557.6	4517.0	4474.5	4399.6	4320.6	4237.5	4172.7	4140.3
17.5°	4861.4	4839.1	4824.9	4774.3	4731.8	4662.9	4579.8	4494.8	4391.5	4300.3	4237.5
20°	5043.7	5025.5	4995.1	4932.3	4859.4	4778.3	4681.1	4581.9	4470.5	4371.2	4300.3
22.5°	5149.0	5126.7	5080.2	4997.1	4897.8	4784.4	4671.0	4577.8	4476.5	4401.6	4342.8
25°	5203.7	5181.4	5118.6	5009.3	4875.6	4725.7	4596.0	4504.9	4446.1	4427.9	4419.8
27.5°	5201.7	5183.5	5116.6	4991.0	4818.9	4646.7	4506.9	4429.9	4423.9	4494.8	4547.4
30°	5149.0	5136.9	5076.1	4950.5	4770.2	4590.0	4460.3	4419.8	4482.6	4632.5	4762.1
32.5°	5096.4	5090.3	5047.7	4934.3	4780.4	4628.4	4539.3	4543.4	4673.0	4903.9	5112.6
35°	5102.4	5110.5	5104.5	5043.7	4946.5	4867.5	4824.9	4914.1	5116.6	5396.1	5675.7
37.5°	5155.1	5185.5	5224.0	5230.0	5232.1	5219.9	5309.0	5497.4	5793.2	6157.8	6595.3
40°	5270.6	5305.0	5416.4	5513.6	5639.2	5789.1	5969.4	6230.7	6597.3	7047.0	7583.8
42.5°	5629.1	5677.7	5815.4	5995.7	6226.6	6461.6	6731.0	7087.5	7537.2	8011.2	8574.3
45°	6097.0	6198.3	6350.2	6550.7	6897.1	7227.3	7575.7	7974.7	8452.7	9046.2	9613.4
47.5°	6680.4	6781.6	7002.4	7217.1	7626.3	8037.5	8418.3	8835.6	9354.1	9961.8	10589.7
50°	7190.8	7306.3	7502.7	7792.4	8266.4	8770.8	9192.1	9643.8	10079.3	10719.4	11353.4
52.5°	7591.9	7674.9	7863.3	8128.6	8657.3	9210.3	9743.0	10245.4	10761.9	11402.0	11989.4
55°	7642.5	7719.5	7903.8	8207.6	8744.4	9358.2	9971.9	10567.4	11298.7	11997.5	12775.3
57.5°	7423.7	7486.5	7672.9	7944.3	8466.9	9165.7	9941.5	10705.2	11641.0	12584.9	13534.9
60°	7113.8	7176.6	7322.5	7539.2	8011.2	8764.7	9670.1	10715.3	11959.0	13322.2	14719.9
62.5°	6773.5	6828.2	6945.7	7099.7	7514.9	8209.7	9246.8	10648.5	12218.3	14055.5	16210.7
65°	6200.3	6332.0	6382.6	6540.6	6955.8	7612.1	8667.4	10196.8	12113.0	14381.6	17146.5
67°	5566.3	5700.0	5726.3	5886.3	6218.5	6848.5	7922.0	9360.2	11278.4	13818.5	16939.9
67.5°	5363.7	5477.2	5517.7	5677.7	5991.7	6585.2	7604.0	9058.4	11023.2	13510.6	16690.8
70°	3943.8	4069.4	4113.9	4180.8	4405.6	4899.9	5574.4	6836.3	8789.0	11025.2	14079.8
72.5°	2110.7	2211.9	2254.5	2353.7	2469.2	2738.6	3255.1	4160.5	5394.1	7377.2	10016.5
75°	1428.0	1468.5	1498.9	1567.8	1687.3	1902.0	2128.9	2446.9	3192.3	4162.6	5700.0
77.5°	814.3	832.5	836.6	848.7	943.9	1148.5	1521.2	2060.0	2641.4	3016.1	3646.0
80°	352.5	388.9	417.3	399.0	393.0	435.5	544.9	812.3	1592.1	2527.9	2999.9
82.5°	190.4	206.6	230.9	232.9	245.1	259.3	281.6	334.2	469.9	948.0	2068.1
85°	99.3	103.3	137.7	158.0	168.1	176.2	180.3	200.5	230.9	293.7	514.5
87.5°	14.2	20.3	24.3	32.4	36.5	38.5	44.6	56.7	66.8	81.0	137.7
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3396.9	3392.8	3380.7	3372.6	3364.5	3356.4	3346.3	3338.2	3324.0	3313.8	3301.7
5°	3522.5	3498.2	3482.0	3459.7	3455.6	3429.3	3403.0	3390.8	3366.5	3346.3	3321.9
7.5°	3650.1	3621.7	3595.4	3577.2	3567.0	3530.6	3504.3	3473.9	3445.5	3419.2	3390.8
10°	3800.0	3771.6	3743.3	3731.1	3712.9	3678.5	3656.2	3617.7	3589.3	3556.9	3518.4
12.5°	3956.0	3935.7	3915.4	3899.2	3891.1	3874.9	3842.5	3810.1	3771.6	3739.2	3694.7
15°	4093.7	4079.5	4071.4	4067.4	4067.4	4057.2	4026.8	3996.5	3956.0	3919.5	3870.9
17.5°	4190.9	4184.8	4190.9	4197.0	4205.1	4197.0	4190.9	4156.5	4130.2	4085.6	4037.0
20°	4247.6	4259.8	4290.2	4310.4	4328.7	4342.8	4348.9	4320.6	4286.1	4253.7	4221.3
22.5°	4308.4	4342.8	4395.5	4425.9	4456.3	4506.9	4519.1	4498.8	4472.5	4452.2	4417.8
25°	4409.7	4460.3	4551.5	4600.1	4642.6	4717.6	4727.7	4731.8	4725.7	4709.5	4666.9
27.5°	4567.7	4666.9	4788.5	4851.3	4897.8	4995.1	5033.6	5033.6	5017.4	5035.6	5035.6
30°	4843.2	4974.8	5132.8	5169.3	5242.2	5327.3	5390.1	5398.2	5400.2	5438.7	5495.4
32.5°	5266.5	5392.1	5568.3	5608.8	5671.6	5752.6	5823.5	5815.4	5833.7	5916.7	5991.7
35°	5882.3	6009.9	6125.3	6180.0	6208.4	6281.3	6307.7	6352.2	6406.9	6510.2	6500.1
37.5°	6793.8	6907.2	6923.4	6957.9	6923.4	6937.6	6957.9	7010.5	7156.4	7249.5	7099.7
40°	7891.7	8080.0	8061.8	8021.3	7944.3	7841.0	7877.5	7958.5	8116.5	8035.5	7632.4
42.5°	8926.7	9121.2	9084.7	9038.1	8868.0	8829.5	8825.4	8892.3	8977.4	8746.4	8049.6
45°	9945.6	10144.1	10081.3	10055.0	9941.5	9858.5	9927.4	9931.4	9909.1	9414.9	8414.3
47.5°	10996.9	11179.2	11138.7	11160.9	11043.5	10988.8	10994.8	10966.5	10757.8	9982.0	8697.8
50°	11845.6	12090.7	12115.0	12064.3	12001.6	11918.5	12131.2	12054.2	11590.4	10533.0	8971.3
52.5°	12505.9	12836.1	12961.7	12929.3	12878.6	12888.8	13287.8	13374.9	12607.2	11227.8	9273.1
55°	13287.8	13808.4	14013.0	14134.5	14081.8	14284.4	15197.9	15242.5	14021.1	12135.2	9666.1
57.5°	14416.0	15161.5	15807.6	15979.8	16145.9	16804.2	18286.9	17835.2	15856.2	13508.6	10164.4
60°	16131.7	17764.3	18813.6	19364.5	19753.4	20673.1	22082.9	20938.4	18143.1	15143.2	10790.3
62.5°	18534.0	20920.2	22674.3	23227.3	23387.3	23916.0	24936.9	22747.2	19388.8	15876.5	10844.9
65°	20322.6	23184.8	25285.3	25568.9	25378.5	25388.6	25656.0	22652.0	18925.0	15236.4	9905.1
67°	20205.1	23409.6	25560.8	25933.5	25670.2	25323.8	24906.5	21361.7	17434.2	13895.5	8673.5
67.5°	20024.9	23192.9	25441.3	25834.2	25593.2	25198.2	24588.5	20861.4	16970.3	13478.2	8422.4
70°	17310.6	20456.3	23484.6	24037.5	24138.8	23778.3	22066.6	17590.1	13778.0	10964.5	6540.6
72.5°	13474.1	16275.5	19271.4	19751.4	20140.3	19101.2	16060.8	12149.4	10042.8	7901.8	4735.8
75°	8896.3	11746.3	13257.4	13328.3	12832.0	10907.7	7847.1	6084.8	5600.7	4644.7	2931.0
77.5°	4760.1	6907.2	6949.8	6435.3	6200.3	4622.4	1875.7	1035.1	1152.6	1308.5	1166.7
80°	3550.8	4399.6	5098.4	5481.2	5594.6	3964.1	970.3	548.9	480.1	437.5	431.4
82.5°	3202.4	4249.7	4764.2	4972.8	4920.1	3261.2	544.9	368.7	305.9	332.2	378.8
85°	1255.9	2268.6	2983.7	2888.5	2426.6	1215.3	297.8	198.5	198.5	287.6	372.7
87.5°	257.2	465.9	632.0	603.6	542.9	235.0	145.8	119.5	121.5	232.9	352.5
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°	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3289.5	3277.4	3269.3	3261.2	3253.1	3249.0	3243.0	3243.0	3230.8	3226.7	3222.7
5°	3303.7	3283.5	3269.3	3251.1	3236.9	3224.7	3208.5	3204.5	3190.3	3180.2	3176.1
7.5°	3364.5	3334.1	3303.7	3281.4	3261.2	3234.8	3216.6	3200.4	3186.2	3176.1	3164.0
10°	3479.9	3447.5	3405.0	3364.5	3338.2	3297.6	3269.3	3240.9	3224.7	3212.6	3196.4
12.5°	3650.1	3603.5	3552.9	3504.3	3459.7	3407.0	3378.7	3344.2	3324.0	3313.8	3301.7
15°	3824.3	3773.7	3710.9	3664.3	3613.6	3573.1	3546.8	3516.4	3500.2	3488.0	3479.9
17.5°	4002.5	3943.8	3899.2	3852.6	3828.3	3798.0	3763.5	3725.0	3678.5	3650.1	3611.6
20°	4184.8	4140.3	4113.9	4087.6	4059.3	4016.7	3947.9	3868.9	3781.8	3698.7	3619.7
22.5°	4397.5	4371.2	4367.1	4342.8	4284.1	4182.8	4055.2	3907.3	3759.5	3621.7	3514.4
25°	4697.3	4697.3	4677.1	4577.8	4440.1	4257.8	4043.1	3830.4	3633.9	3445.5	3303.7
27.5°	5074.1	5059.9	4960.6	4756.1	4508.9	4225.4	3937.7	3668.3	3417.2	3210.5	3028.2
30°	5489.3	5390.1	5177.4	4855.3	4484.6	4120.0	3767.6	3455.6	3159.9	2906.7	2692.0
32.5°	5920.8	5679.7	5296.9	4855.3	4399.6	3962.0	3554.9	3172.1	2833.8	2550.2	2295.0
35°	6311.7	5872.2	5325.2	4776.3	4233.5	3729.1	3257.1	2823.7	2418.5	2112.7	1833.1
37.5°	6666.2	5999.8	5294.9	4622.4	3992.4	3400.9	2848.0	2369.9	1912.1	1616.4	1377.4
40°	6897.1	6026.1	5169.3	4381.3	3648.1	2957.3	2345.6	1810.9	1448.3	1178.9	1018.9
42.5°	7040.9	5975.5	4966.7	4051.2	3184.2	2400.3	1760.2	1298.4	1029.0	879.1	818.3
45°	7121.9	5843.8	4666.9	3599.5	2623.1	1825.0	1249.8	937.8	792.0	739.3	719.1
47.5°	7117.9	5631.1	4292.2	3076.9	2003.3	1272.1	885.2	731.2	690.7	674.5	670.5
50°	7075.3	5369.8	3852.6	2509.7	1446.3	887.2	700.9	656.3	646.2	636.0	632.0
52.5°	7016.6	5045.7	3366.5	1956.7	1027.0	709.0	636.0	623.9	615.8	605.6	601.6
55°	6907.2	4646.7	2839.9	1472.6	804.2	640.1	613.8	609.7	599.6	585.4	577.3
57.5°	6773.5	4241.6	2335.5	1150.5	711.0	623.9	609.7	603.6	589.4	573.2	557.0
60°	6724.9	3907.3	1940.5	970.3	688.7	630.0	619.8	611.7	591.5	567.2	548.9
62.5°	6421.1	3530.6	1656.9	899.4	700.9	656.3	652.2	640.1	609.7	581.3	553.0
65°	5635.2	2985.7	1403.7	850.7	725.2	700.9	704.9	686.7	656.3	617.8	567.2
67°	4766.2	2434.7	1168.8	804.2	743.4	747.4	761.6	747.4	709.0	654.3	585.4
67.5°	4535.3	2295.0	1110.0	790.0	747.4	759.6	775.8	765.7	727.2	664.4	593.5
70°	3370.6	1616.4	828.5	715.0	747.4	796.1	832.5	842.6	800.1	713.0	609.7
72.5°	2374.0	1043.2	636.0	619.8	678.6	743.4	812.3	846.7	798.1	702.9	587.4
75°	1426.0	652.2	516.5	526.7	571.2	638.1	692.7	706.9	646.2	585.4	508.4
77.5°	660.3	433.5	405.1	419.3	461.8	492.2	492.2	463.9	417.3	380.8	364.6
80°	388.9	354.5	352.5	378.8	407.1	384.9	350.4	311.9	287.6	275.5	269.4
82.5°	364.6	378.8	403.1	409.2	386.9	332.2	289.7	251.2	239.0	232.9	226.9
85°	429.4	459.8	419.3	386.9	342.3	279.5	226.9	194.5	188.4	182.3	174.2
87.5°	397.0	378.8	330.2	283.6	235.0	170.1	123.6	111.4	119.5	117.5	113.4
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°	3311.8	3311.8	3311.8	3311.8	3311.8
2.5°	3224.7	3224.7	3216.6	3212.6	3222.7
5°	3168.0	3170.0	3164.0	3161.9	3164.0
7.5°	3155.9	3153.8	3149.8	3145.7	3149.8
10°	3192.3	3190.3	3184.2	3188.3	3182.2
12.5°	3301.7	3313.8	3311.8	3315.9	3324.0
15°	3479.9	3477.9	3471.8	3475.9	3482.0
17.5°	3581.2	3565.0	3550.8	3544.8	3544.8
20°	3556.9	3510.3	3486.0	3471.8	3467.8
22.5°	3413.1	3346.3	3295.6	3283.5	3273.3
25°	3178.1	3095.1	3030.3	3016.1	2989.8
27.5°	2904.7	2793.3	2716.3	2700.1	2685.9
30°	2546.2	2418.5	2329.4	2272.7	2290.9
32.5°	2108.6	1987.1	1883.8	1792.6	1778.5
35°	1628.6	1494.9	1403.7	1363.2	1336.9
37.5°	1215.3	1103.9	1043.2	1004.7	1006.7
40°	929.7	871.0	838.6	812.3	814.3
42.5°	775.8	749.5	741.4	729.2	723.1
45°	702.9	694.8	696.8	684.6	680.6
47.5°	662.4	656.3	658.3	650.2	648.2
50°	630.0	625.9	627.9	621.9	619.8
52.5°	597.5	599.6	597.5	593.5	593.5
55°	569.2	567.2	571.2	565.1	565.1
57.5°	546.9	544.9	544.9	542.9	542.9
60°	534.8	526.7	524.6	524.6	526.7
62.5°	528.7	514.5	512.5	512.5	514.5
65°	530.7	508.4	500.3	498.3	496.3
67°	532.7	500.3	484.1	476.0	474.0
67.5°	534.8	496.3	478.0	469.9	465.9
70°	522.6	467.9	441.6	427.4	423.3
72.5°	492.2	433.5	401.1	382.8	378.8
75°	437.5	393.0	364.6	344.3	336.2
77.5°	338.3	318.0	307.9	295.7	291.7
80°	263.3	253.2	249.1	241.0	239.0
82.5°	218.8	208.6	202.6	192.4	186.4
85°	170.1	158.0	153.9	145.8	141.8
87.5°	111.4	105.3	103.3	93.2	89.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)