

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: P158744

Luminaire Tested: **VST-F12-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158744
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-F12-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26247.4 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 306.6
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

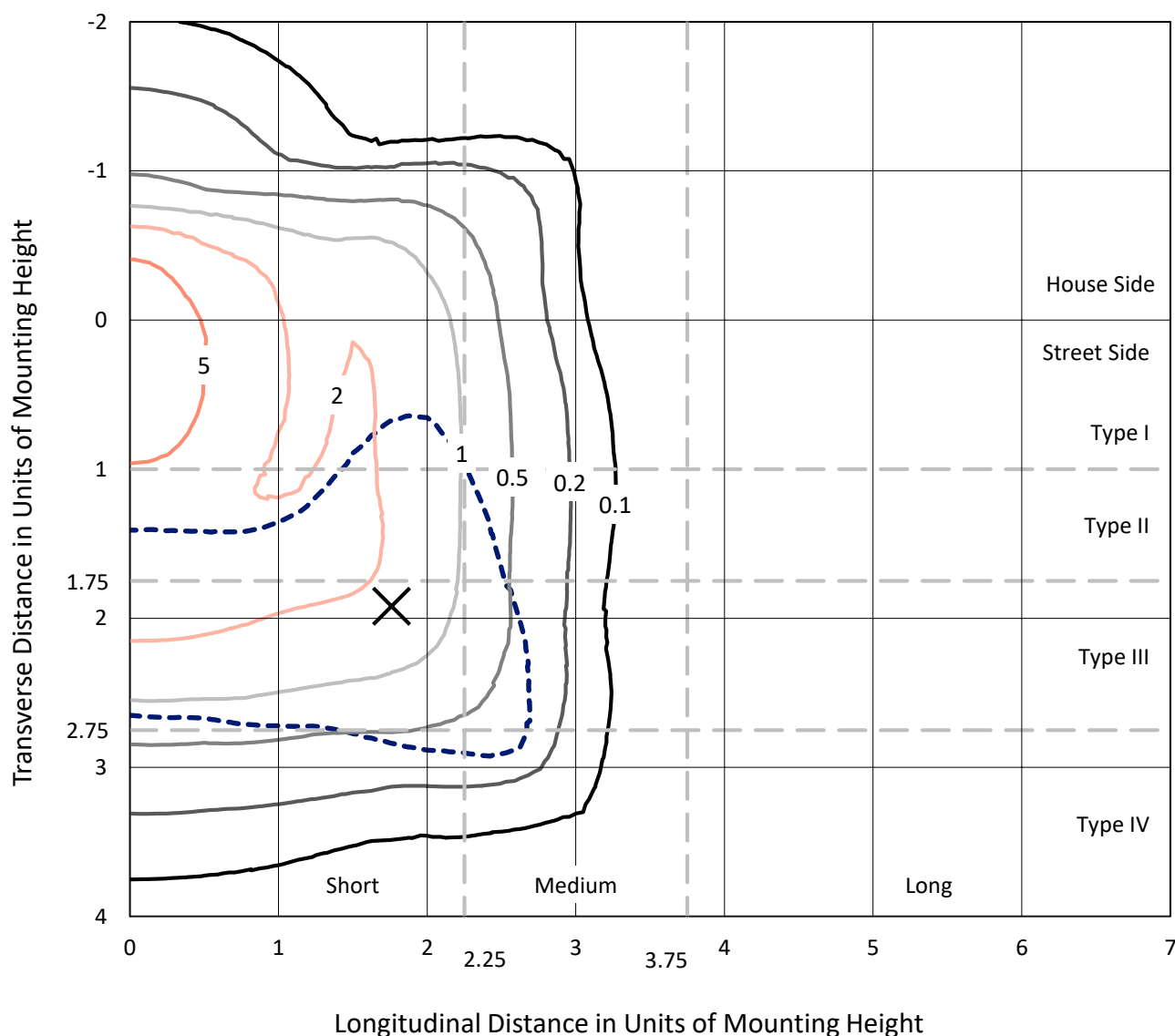


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

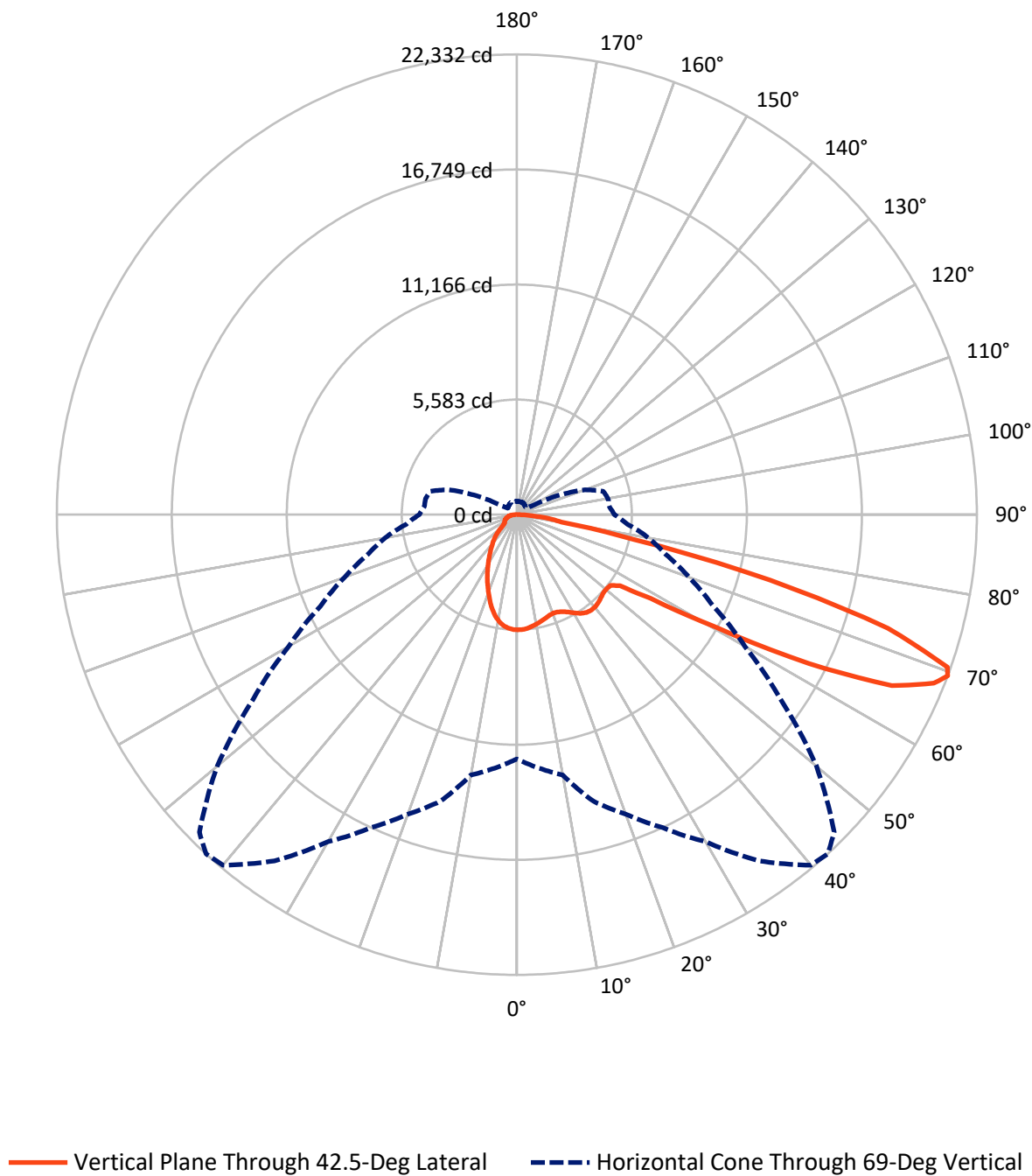


Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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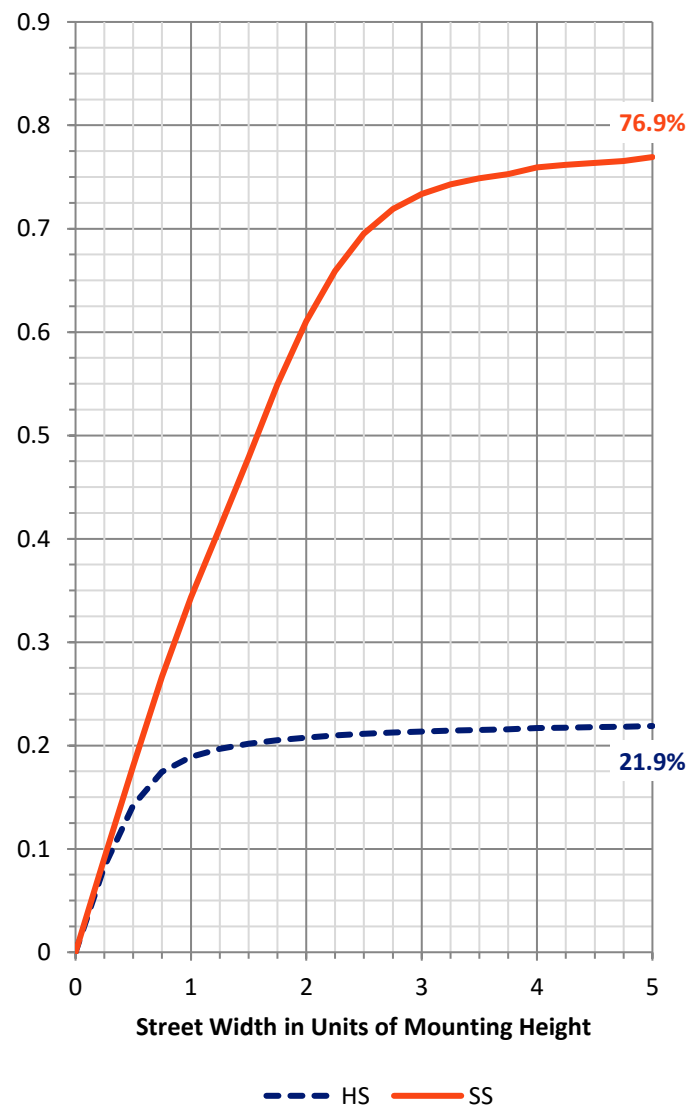
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5835.2	0.0	5835.2
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	20412.2	0.0	20412.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	26247.4	0.0	26247.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	520.3	2.0
10°-20°	1402.4	5.3
20°-30°	2045.0	7.8
30°-40°	2606.9	9.9
40°-50°	3033.2	11.6
50°-60°	4615.1	17.6
60°-70°	8152.3	31.1
70°-80°	3364.1	12.8
80°-90°	508.0	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°	26247.4	100.0
0°-180°	26247.4	100.0

Coefficient of Utilization



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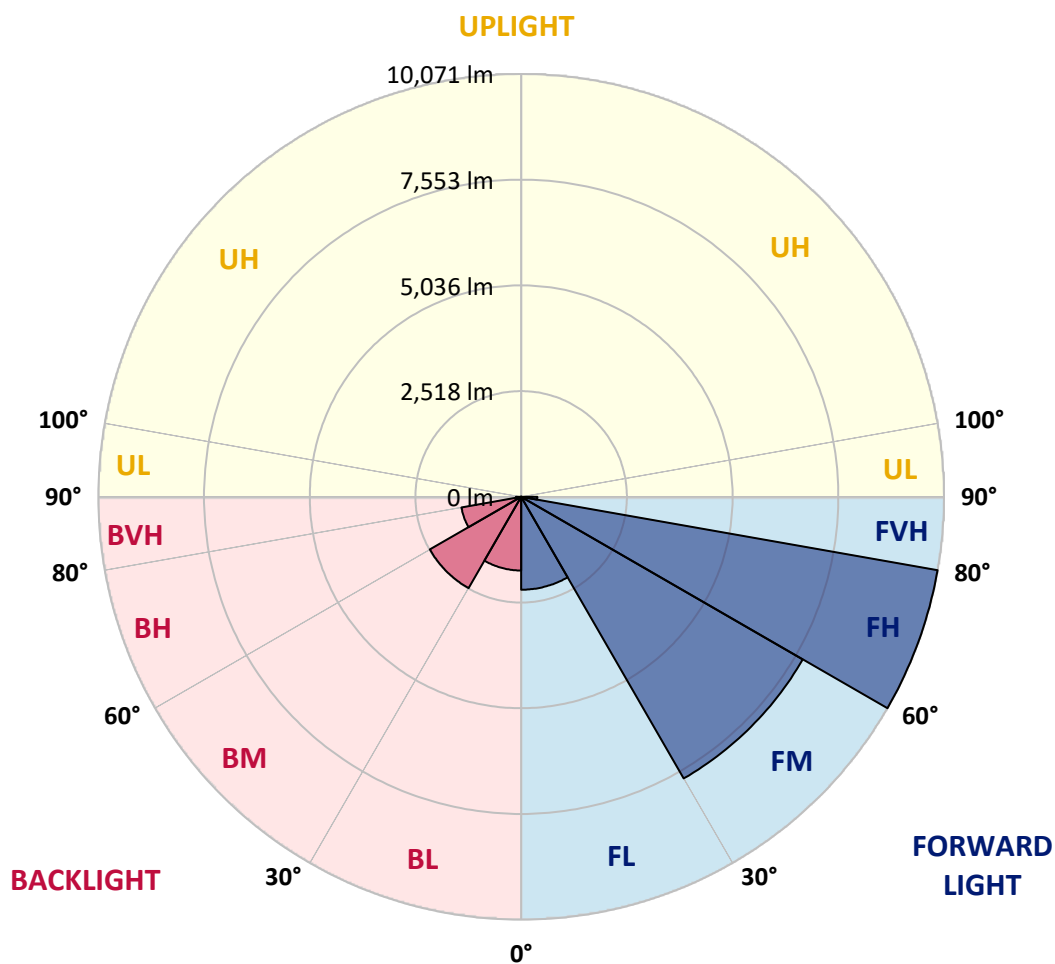
CATALOG NUMBER: VST-F12-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2213.3	8.4			
FM	(30°-60°)	7743.7	29.5			
FH	(60°-80°)	10071.1	38.4			G4/12000
FVH	(80°-90°)	384.1	1.5			G3/500
BL	(0°-30°)	1754.4	6.7	B3/2500		
BM	(30°-60°)	2511.6	9.6	B3/5000		
BH	(60°-80°)	1445.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	123.8	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°	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8
2.5°	5571.7	5591.6	5584.4	5584.4	5589.8	5580.8	5580.8	5584.4	5575.3	5580.8	5578.9
5°	5551.8	5562.7	5559.0	5559.0	5559.0	5551.8	5548.2	5546.4	5533.7	5533.7	5528.3
7.5°	5508.4	5512.0	5517.4	5510.2	5508.4	5506.6	5493.9	5486.7	5472.2	5459.5	5463.1
10°	5450.5	5448.7	5457.7	5452.3	5445.0	5439.6	5428.8	5416.1	5399.8	5383.5	5381.7
12.5°	5385.3	5383.5	5390.8	5387.1	5381.7	5370.8	5361.8	5340.1	5314.7	5294.8	5293.0
15°	5343.7	5338.3	5345.5	5338.3	5329.2	5318.4	5302.1	5274.9	5229.7	5209.8	5193.5
17.5°	5383.5	5374.5	5378.1	5369.0	5356.4	5327.4	5289.4	5231.5	5166.4	5132.0	5106.6
20°	5522.9	5506.6	5510.2	5501.1	5472.2	5434.2	5361.8	5260.5	5150.1	5094.0	5054.2
22.5°	5721.9	5709.2	5714.7	5705.6	5676.7	5618.8	5510.2	5365.4	5208.0	5126.6	5063.2
25°	6024.1	6035.0	6038.6	5997.0	5980.7	5873.9	5723.7	5522.9	5312.9	5217.0	5130.2
27.5°	6364.3	6364.3	6380.6	6364.3	6331.7	6206.9	5995.2	5752.7	5483.0	5352.8	5247.8
30°	6695.5	6691.8	6722.6	6719.0	6666.5	6525.4	6284.7	5989.7	5682.1	5535.5	5401.6
32.5°	7046.5	7057.4	7077.3	7070.0	7001.3	6805.8	6516.3	6196.0	5872.1	5711.0	5560.9
35°	7426.5	7432.0	7439.2	7435.6	7296.2	7050.1	6686.4	6328.1	5991.5	5832.3	5676.7
37.5°	7806.5	7801.1	7792.1	7714.3	7555.0	7213.0	6789.6	6404.1	6051.2	5879.3	5718.3
40°	8146.7	8116.0	8087.0	7965.8	7721.5	7305.3	6829.4	6422.2	6045.8	5868.5	5711.0
42.5°	8333.1	8298.8	8239.0	8087.0	7790.3	7314.3	6802.2	6367.9	5989.7	5814.2	5658.6
45°	8367.5	8342.2	8284.3	8114.2	7774.0	7256.4	6719.0	6279.3	5906.5	5731.0	5584.4
47.5°	8286.1	8266.2	8210.1	8041.8	7703.4	7169.6	6623.1	6185.2	5825.1	5660.4	5519.2
50°	8161.2	8143.1	8099.7	7945.9	7623.8	7109.9	6574.2	6136.3	5797.9	5647.7	5517.4
52.5°	8363.9	8378.4	8251.7	8083.4	7708.8	7162.3	6628.5	6187.0	5846.8	5698.4	5562.7
55°	11514.4	11494.5	10732.6	10093.9	8952.0	7916.9	7144.2	6588.7	6225.0	6076.6	5949.9
57.5°	14961.6	14892.9	14579.8	13982.7	12755.8	11118.1	9628.8	8362.1	7862.6	7649.1	7663.6
60°	16087.2	16112.5	16045.6	15833.9	15394.1	14541.8	13409.0	12457.2	11519.8	11062.0	11114.5
62.5°	16711.5	16756.8	16814.7	16767.6	16624.7	16427.4	16284.4	16371.3	16241.0	15911.7	15649.3
65°	16798.4	16890.7	17082.5	17234.5	17308.7	17495.1	17933.0	18982.5	19941.6	20005.0	19543.5
67.5°	15079.3	15334.4	15750.6	16454.6	17057.1	17719.4	18776.2	20372.3	21787.4	21834.4	21403.8
69°	11856.4	12346.8	12833.6	14406.1	15464.7	16762.2	18325.7	20506.2	22201.8	22332.1	21789.2
70°	9500.3	9791.7	10211.5	11791.3	13372.8	15026.8	17292.4	20064.7	21917.7	22180.1	21581.1
72.5°	5703.8	5816.0	5960.8	6527.2	7341.5	8814.5	11818.4	16358.6	18488.5	18839.6	18077.7
75°	3687.9	3680.7	3693.4	3850.8	3897.8	4180.1	5126.6	8416.4	12060.9	12697.9	11785.8
77.5°	2777.7	2803.0	2763.2	2777.7	2765.0	2841.0	2870.0	3013.0	4761.0	5864.9	5244.2
80°	2452.0	2464.7	2466.5	2459.2	2370.6	2363.3	2410.4	2328.9	2164.3	2196.8	2104.5
82.5°	1398.8	1397.0	1413.3	1536.3	1587.0	1753.5	1822.3	1860.3	1717.3	1610.5	1456.7
85°	906.6	913.8	931.9	969.9	931.9	946.4	930.1	962.7	883.1	819.7	732.9
87.5°	371.0	371.0	394.5	428.9	399.9	392.7	336.6	333.0	282.3	255.2	199.1
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°	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8
2.5°	5568.1	5578.9	5573.5	5580.8	5575.3	5575.3	5568.1	5566.3	5571.7	5564.5	5566.3
5°	5519.2	5521.0	5512.0	5515.6	5504.8	5501.1	5495.7	5481.2	5490.3	5481.2	5484.9
7.5°	5448.7	5443.2	5430.6	5412.5	5399.8	5394.4	5383.5	5363.6	5367.2	5350.9	5360.0
10°	5358.2	5340.1	5318.4	5291.2	5273.1	5256.8	5233.3	5209.8	5197.1	5182.6	5180.8
12.5°	5256.8	5235.1	5206.2	5164.6	5124.7	5097.6	5061.4	5019.8	5007.1	4983.6	4970.9
15°	5146.5	5112.1	5077.7	5030.6	4987.2	4945.6	4896.7	4844.3	4809.9	4773.7	4746.5
17.5°	5046.9	5007.1	4961.9	4916.6	4869.6	4818.9	4757.4	4692.3	4641.6	4574.6	4520.3
20°	4969.1	4918.5	4873.2	4826.2	4773.7	4712.2	4638.0	4554.7	4469.7	4395.5	4332.1
22.5°	4938.4	4858.7	4804.4	4757.4	4704.9	4632.5	4542.1	4444.3	4341.2	4238.0	4154.8
25°	4963.7	4846.1	4761.0	4704.9	4659.7	4585.5	4484.1	4364.7	4245.3	4122.2	4010.0
27.5°	5037.9	4887.7	4764.6	4676.0	4623.5	4549.3	4442.5	4315.9	4174.7	4037.2	3899.7
30°	5153.7	4958.3	4802.6	4677.8	4596.3	4511.3	4399.1	4252.5	4109.6	3952.1	3801.9
32.5°	5265.9	5032.5	4846.1	4685.0	4560.2	4449.8	4324.9	4180.1	4026.3	3861.7	3706.0
35°	5345.5	5081.3	4862.4	4668.7	4504.1	4366.5	4232.6	4087.9	3937.7	3769.4	3610.1
37.5°	5383.5	5108.5	4864.2	4625.3	4429.9	4277.9	4134.9	3991.9	3850.8	3691.6	3541.4
40°	5381.7	5106.6	4838.8	4569.2	4341.2	4180.1	4039.0	3899.7	3767.6	3628.2	3492.5
42.5°	5341.9	5077.7	4802.6	4514.9	4277.9	4098.7	3952.1	3818.2	3706.0	3583.0	3469.0
45°	5280.4	5028.8	4764.6	4489.6	4259.8	4080.6	3925.0	3794.7	3695.2	3583.0	3485.3
47.5°	5233.3	5001.7	4770.1	4534.8	4315.9	4129.5	3964.8	3821.8	3736.8	3646.3	3577.5
50°	5240.6	5014.4	4788.2	4562.0	4355.7	4167.5	4008.2	3877.9	3816.4	3792.9	3776.6
52.5°	5278.6	5034.3	4842.4	4706.7	4636.2	4495.0	4400.9	4319.5	4364.7	4276.0	4171.1
55°	5763.5	5683.9	5870.3	6045.8	6268.4	6351.6	6272.0	6257.5	6329.9	6029.5	5340.1
57.5°	7766.7	7973.0	8260.8	8412.8	8597.3	8548.5	8363.9	8210.1	8029.1	7678.1	6818.5
60°	11174.2	11018.6	10888.3	10520.9	10220.5	9869.5	9478.6	9143.8	8823.5	8318.7	7388.5
62.5°	14684.8	13604.5	12701.5	11829.3	11127.1	10544.4	9978.0	9475.0	8990.0	8286.1	7285.4
65°	17721.3	15446.6	13751.0	12471.7	11445.6	10560.7	9833.3	9138.4	8521.3	7696.2	6706.3
67.5°	19085.7	16235.6	13769.1	11936.0	10515.5	9313.9	8372.9	7323.4	6632.1	6103.7	5546.4
69°	18984.3	15633.0	12786.5	10530.0	8897.7	7497.1	6487.4	5392.6	4730.3	4505.9	4493.2
70°	18503.0	14612.4	11639.2	9388.1	7520.6	6129.1	5160.9	4178.3	3561.3	3407.4	3680.7
72.5°	15106.4	10325.5	7294.4	5569.9	4283.3	3385.7	2761.4	2191.4	1749.9	1516.4	1567.1
75°	8532.2	4780.9	3090.8	2336.2	1974.3	1632.2	1400.6	1194.3	1080.3	877.6	694.9
77.5°	3101.6	2052.1	1632.2	1411.5	1000.7	689.5	577.3	504.9	457.8	457.8	436.1
80°	1961.6	1545.4	1078.5	738.3	546.5	475.9	416.2	365.5	336.6	329.3	336.6
82.5°	1225.1	946.4	604.4	463.3	389.1	349.2	304.0	266.0	242.5	237.1	247.9
85°	604.4	468.7	367.3	327.5	307.6	285.9	251.5	215.3	208.1	222.6	260.6
87.5°	181.0	161.1	132.1	137.5	144.8	141.1	112.2	97.7	92.3	121.2	190.0
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°	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8	5589.8
2.5°	5569.9	5568.1	5571.7	5566.3	5569.9	5571.7	5568.1	5584.4	5573.5	5575.3	5582.6
5°	5488.5	5484.9	5499.3	5495.7	5502.9	5510.2	5506.6	5530.1	5521.0	5528.3	5542.8
7.5°	5352.8	5360.0	5361.8	5361.8	5376.3	5399.8	5405.2	5419.7	5419.7	5439.6	5454.1
10°	5171.8	5173.6	5184.5	5182.6	5200.7	5226.1	5229.7	5255.0	5264.1	5296.7	5316.6
12.5°	4961.9	4952.8	4951.0	4949.2	4972.7	4999.9	5003.5	5046.9	5065.0	5094.0	5126.6
15°	4726.6	4703.1	4695.9	4710.3	4704.9	4721.2	4737.5	4761.0	4786.4	4844.3	4873.2
17.5°	4496.8	4449.8	4437.1	4420.8	4404.5	4404.5	4411.8	4440.7	4493.2	4524.0	4589.1
20°	4261.6	4205.5	4160.2	4116.8	4078.8	4064.3	4066.1	4102.3	4140.3	4191.0	4252.5
22.5°	4064.3	3979.3	3901.5	3843.6	3765.7	3763.9	3753.1	3763.9	3805.6	3818.2	3852.6
25°	3894.2	3780.2	3675.3	3581.2	3505.2	3465.4	3454.5	3450.9	3431.0	3425.5	3400.2
27.5°	3762.1	3624.6	3488.9	3374.9	3280.8	3226.5	3157.7	3108.9	3038.3	3020.2	2975.0
30°	3653.6	3505.2	3356.8	3208.4	3101.6	3003.9	2888.1	2803.0	2694.5	2623.9	2562.4
32.5°	3548.6	3398.4	3248.2	3101.6	2937.0	2785.0	2632.9	2500.8	2379.6	2271.0	2180.5
35°	3461.7	3318.8	3166.8	2989.4	2779.5	2560.6	2377.8	2227.6	2061.1	1947.1	1833.1
37.5°	3405.6	3275.3	3123.3	2879.0	2609.4	2374.2	2166.1	1983.3	1813.2	1641.3	1512.8
40°	3380.3	3266.3	3076.3	2777.7	2461.0	2200.5	1970.6	1768.0	1550.8	1357.2	1219.7
42.5°	3378.5	3262.7	3011.1	2665.5	2338.0	2053.9	1798.7	1556.2	1315.6	1116.5	980.8
45°	3411.1	3257.3	2942.4	2571.4	2229.4	1932.6	1628.6	1333.7	1064.0	915.6	843.3
47.5°	3497.9	3266.3	2886.3	2484.6	2126.3	1786.1	1433.2	1089.4	866.8	798.0	798.0
50°	3653.6	3318.8	2871.8	2423.0	2023.1	1616.0	1194.3	879.5	767.3	767.3	789.0
52.5°	3892.4	3429.2	2897.1	2379.6	1894.6	1391.6	941.0	758.2	736.5	756.4	785.4
55°	4442.5	3624.6	2931.5	2305.4	1699.2	1103.8	776.3	716.6	725.6	749.2	776.3
57.5°	5452.3	4042.6	2967.7	2142.5	1384.3	850.5	703.9	700.3	716.6	738.3	761.8
60°	6116.4	4574.6	3060.0	1896.4	1047.7	702.1	667.7	689.5	709.4	727.5	745.5
62.5°	6116.4	4724.8	3128.8	1621.4	787.2	638.8	644.2	678.6	702.1	711.2	722.0
65°	5725.5	4449.8	2895.3	1321.0	640.6	602.6	622.5	656.9	678.6	685.8	694.9
67.5°	5003.5	3930.4	2439.3	995.3	571.8	571.8	597.2	622.5	640.6	655.1	669.5
69°	4350.2	3526.9	2148.0	843.3	544.7	548.3	573.6	595.4	617.1	635.2	653.3
70°	3879.7	3224.7	1945.3	765.5	528.4	530.2	555.5	579.1	599.0	618.9	640.6
72.5°	2077.4	2227.6	1478.4	627.9	486.8	492.2	515.7	537.4	555.5	575.4	595.4
75°	707.5	957.3	941.0	513.9	439.7	454.2	468.7	488.6	512.1	524.8	535.6
77.5°	414.4	428.9	501.3	418.0	396.3	403.5	419.8	436.1	456.0	468.7	477.7
80°	347.4	345.6	347.4	340.2	345.6	361.9	372.8	394.5	412.6	416.2	414.4
82.5°	282.3	296.8	298.6	295.0	311.2	323.9	333.0	345.6	343.8	347.4	354.7
85°	251.5	249.7	262.4	264.2	264.2	255.2	257.0	257.0	257.0	262.4	264.2
87.5°	251.5	209.9	162.9	146.6	153.8	144.8	137.5	135.7	150.2	164.7	161.1
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°	5589.8	5589.8	5589.8	5589.8	5589.8
2.5°	5586.2	5591.6	5588.0	5588.0	5591.6
5°	5548.2	5557.2	5553.6	5557.2	5557.2
7.5°	5461.3	5474.0	5483.0	5492.1	5486.7
10°	5336.5	5358.2	5372.7	5383.5	5378.1
12.5°	5150.1	5170.0	5200.7	5218.8	5204.4
15°	4894.9	4951.0	4969.1	4994.5	4980.0
17.5°	4628.9	4663.3	4685.0	4708.5	4723.0
20°	4274.2	4301.4	4330.3	4341.2	4324.9
22.5°	3847.2	3861.7	3856.2	3872.5	3839.9
25°	3378.5	3387.5	3382.1	3396.6	3369.4
27.5°	2935.1	2933.3	2935.1	2917.0	2899.0
30°	2508.1	2491.8	2484.6	2457.4	2452.0
32.5°	2126.3	2070.2	2041.2	2001.4	1992.4
35°	1744.4	1664.8	1612.3	1567.1	1547.2
37.5°	1402.4	1306.5	1245.0	1205.2	1199.8
40°	1109.3	1020.6	977.2	955.5	951.8
42.5°	904.8	866.8	855.9	855.9	855.9
45°	825.2	823.4	832.4	839.6	841.5
47.5°	808.9	819.7	832.4	843.3	846.9
50°	808.9	819.7	828.8	839.6	843.3
52.5°	805.3	814.3	817.9	825.2	828.8
55°	794.4	799.8	799.8	803.5	807.1
57.5°	776.3	779.9	774.5	778.1	787.2
60°	758.2	761.8	752.8	761.8	767.3
62.5°	738.3	740.1	736.5	743.7	743.7
65°	705.7	702.1	707.5	713.0	714.8
67.5°	673.2	664.1	669.5	671.4	675.0
69°	647.8	642.4	644.2	647.8	651.5
70°	629.7	626.1	629.7	635.2	640.6
72.5°	584.5	586.3	599.0	609.8	620.7
75°	542.9	555.5	571.8	595.4	608.0
77.5°	492.2	501.3	513.9	539.3	562.8
80°	425.3	430.7	432.5	441.5	439.7
82.5°	345.6	340.2	336.6	333.0	331.2
85°	247.9	246.1	231.6	220.8	220.8
87.5°	148.4	141.1	133.9	124.9	119.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)