

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: P158513

Luminaire Tested: **VST-F11-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158513
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-F11-LED-E-U-SL3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (77) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23121.6 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-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



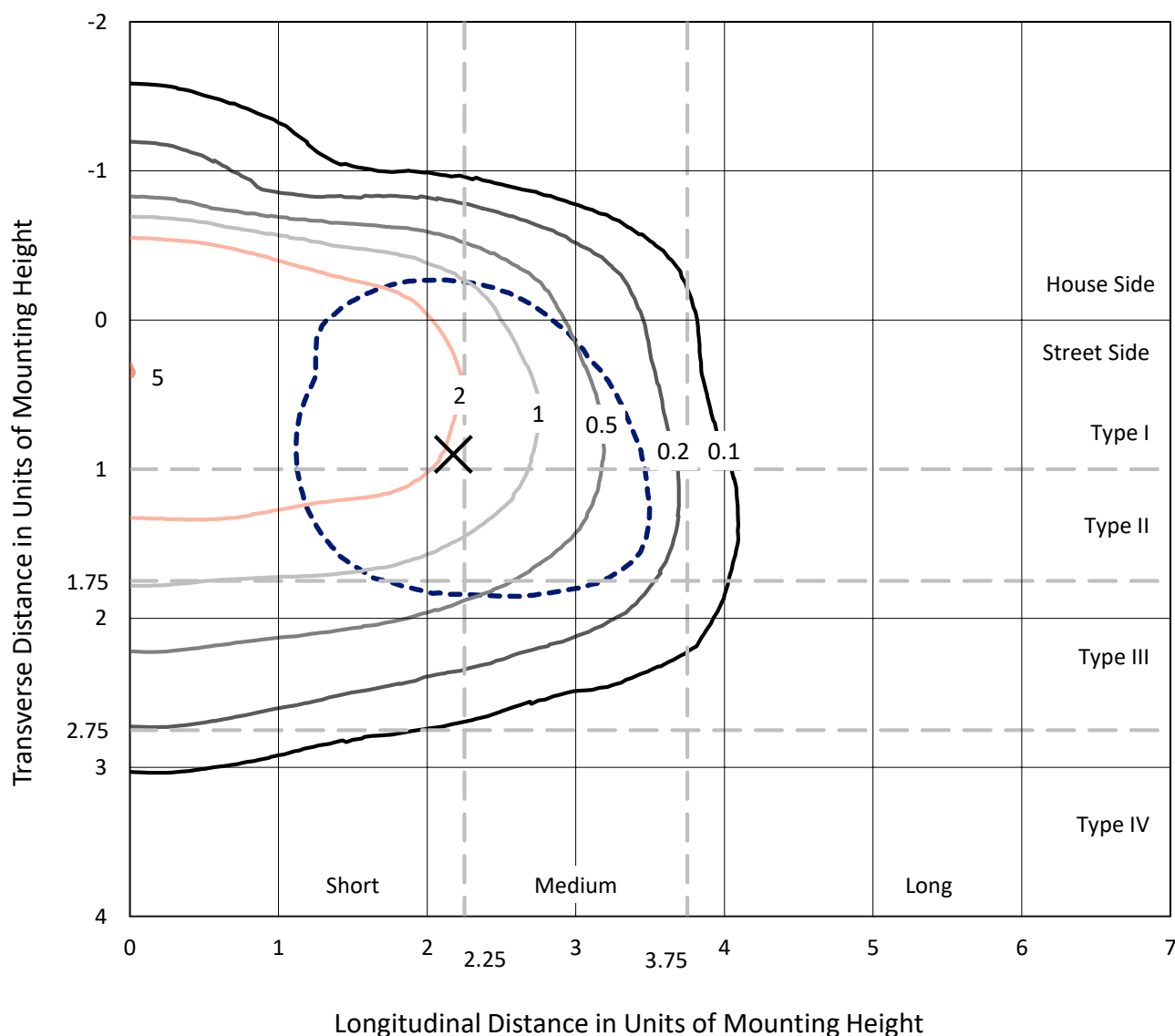
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

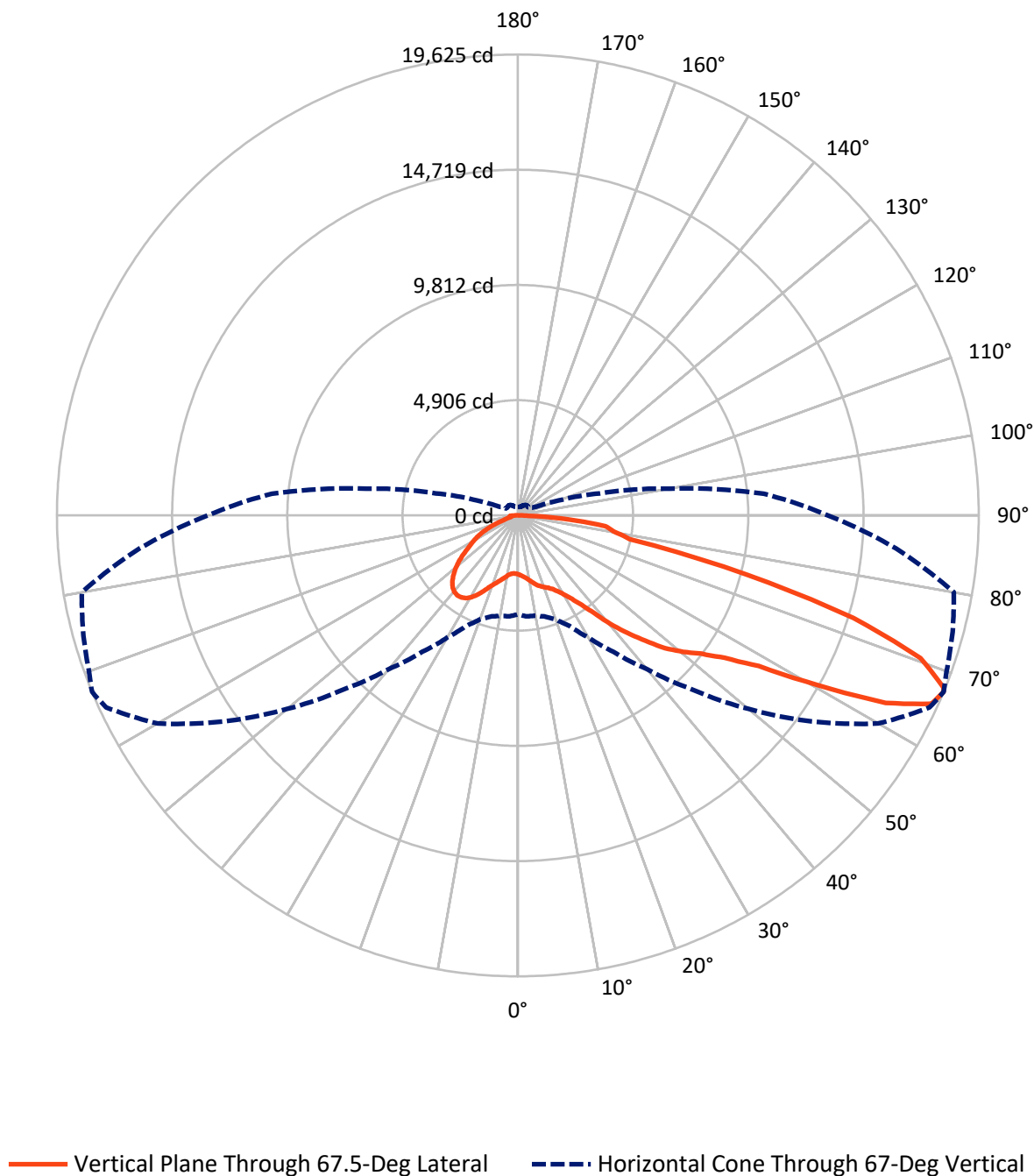


Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5546.9	0.0	5546.9
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	17574.6	0.0	17574.6
	% Fixture	76.0	0.0	76.0
Total	Lumens	23121.6	0.0	23121.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.1	1.1
10°-20°	848.6	3.7
20°-30°	1515.1	6.6
30°-40°	2220.4	9.6
40°-50°	3430.8	14.8
50°-60°	4995.9	21.6
60°-70°	6508.0	28.1
70°-80°	2913.2	12.6
80°-90°	440.5	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°	23121.6	100.0
0°-180°	23121.6	100.0

Coefficient of Utilization



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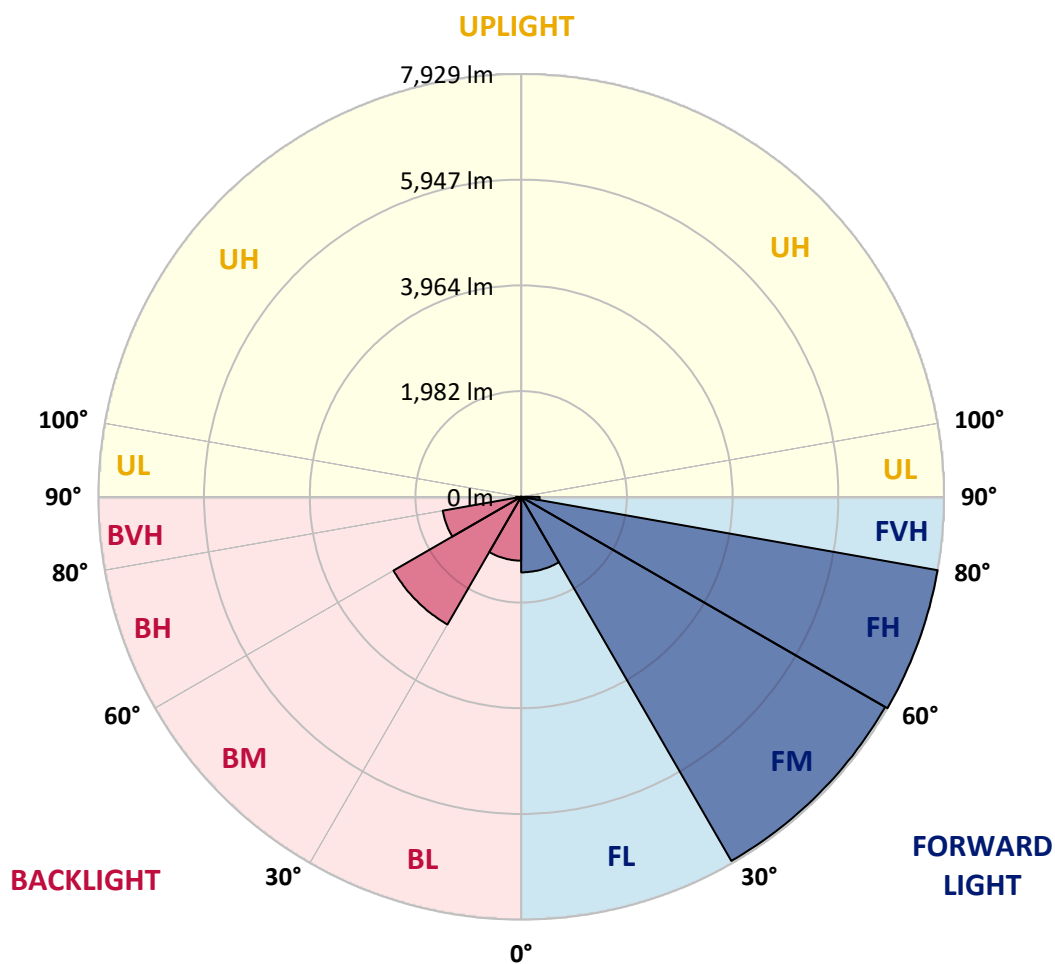
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1416.7	6.1			
FM	(30°-60°)	7883.2	34.1			
FH	(60°-80°)	7928.8	34.3			G4/12000
FVH	(80°-90°)	345.9	1.5			G3/500
BL	(0°-30°)	1196.1	5.2	B3/2500		
BM	(30°-60°)	2763.9	12.0	B3/5000		
BH	(60°-80°)	1492.3	6.5	B3/2500		G3/2500
BVH	(80°-90°)	94.6	0.4			G1/100
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°	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2
2.5°	2604.3	2610.4	2611.9	2610.4	2611.9	2605.8	2604.3	2595.1	2599.7	2587.4	2584.3
5°	2745.3	2749.9	2752.9	2740.7	2743.7	2737.6	2729.9	2720.8	2708.5	2691.6	2680.9
7.5°	2883.2	2890.9	2889.4	2884.8	2874.0	2867.9	2852.6	2838.8	2817.3	2797.4	2783.6
10°	3068.7	3067.2	3067.2	3041.1	3025.8	3012.0	2984.4	2962.9	2941.5	2912.4	2897.0
12.5°	3283.3	3272.6	3268.0	3249.6	3217.4	3192.9	3153.0	3111.6	3073.3	3042.6	3018.1
15°	3490.2	3490.2	3478.0	3448.8	3418.2	3386.0	3329.3	3269.5	3206.7	3157.6	3133.1
17.5°	3678.8	3661.9	3651.2	3612.9	3580.7	3528.5	3465.7	3401.3	3323.1	3254.2	3206.7
20°	3816.7	3802.9	3779.9	3732.4	3677.2	3615.9	3542.3	3467.2	3382.9	3307.8	3254.2
22.5°	3896.4	3879.6	3844.3	3781.5	3706.4	3620.5	3534.7	3464.2	3387.5	3330.8	3286.4
25°	3937.8	3920.9	3873.4	3790.7	3689.5	3576.1	3478.0	3409.0	3364.5	3350.7	3344.6
27.5°	3936.3	3922.5	3871.9	3776.9	3646.6	3516.3	3410.5	3352.3	3347.7	3401.3	3441.2
30°	3896.4	3887.2	3841.2	3746.2	3609.8	3473.4	3375.3	3344.6	3392.1	3505.6	3603.7
32.5°	3856.6	3852.0	3819.8	3733.9	3617.5	3502.5	3435.0	3438.1	3536.2	3711.0	3868.8
35°	3861.2	3867.3	3862.7	3816.7	3743.1	3683.4	3651.2	3718.6	3871.9	4083.4	4295.0
37.5°	3901.0	3924.0	3953.1	3957.7	3959.3	3950.1	4017.5	4160.1	4383.9	4659.8	4990.9
40°	3988.4	4014.5	4098.8	4172.3	4267.4	4380.8	4517.2	4714.9	4992.4	5332.7	5738.9
42.5°	4259.7	4296.5	4400.7	4537.1	4711.9	4889.7	5093.6	5363.3	5703.6	6062.3	6488.4
45°	4613.8	4690.4	4805.4	4957.1	5219.2	5469.1	5732.7	6034.7	6396.5	6845.6	7274.8
47.5°	5055.2	5131.9	5299.0	5461.4	5771.1	6082.2	6370.4	6686.2	7078.6	7538.4	8013.6
50°	5441.5	5528.9	5677.6	5896.8	6255.4	6637.1	6955.9	7297.7	7627.3	8111.7	8591.4
52.5°	5745.0	5807.8	5950.4	6151.2	6551.3	6969.7	7372.9	7753.0	8143.9	8628.2	9072.8
55°	5783.3	5841.6	5981.1	6211.0	6617.2	7081.6	7546.1	7996.7	8550.1	9078.9	9667.5
57.5°	5617.8	5665.3	5806.3	6011.7	6407.2	6936.0	7523.1	8100.9	8809.1	9523.4	10242.3
60°	5383.3	5430.8	5541.1	5705.1	6062.3	6632.5	7317.7	8108.6	9049.8	10081.3	11139.0
62.5°	5125.7	5167.1	5256.0	5372.5	5686.8	6212.5	6997.3	8058.0	9246.0	10636.2	12267.1
65°	4692.0	4791.6	4829.9	4949.5	5263.7	5760.3	6558.9	7716.2	9166.3	10883.0	12975.3
67°	4212.2	4313.4	4333.3	4454.4	4705.8	5182.5	5994.9	7083.2	8534.7	10456.9	12819.0
67.5°	4058.9	4144.7	4175.4	4296.5	4534.1	4983.2	5754.2	6854.8	8341.6	10223.9	12630.4
70°	2984.4	3079.4	3113.2	3163.7	3333.9	3707.9	4218.3	5173.3	6650.9	8343.1	10654.6
72.5°	1597.2	1673.8	1706.0	1781.1	1868.5	2072.4	2463.2	3148.4	4081.9	5582.5	7579.8
75°	1080.6	1111.3	1134.3	1186.4	1276.8	1439.3	1611.0	1851.6	2415.7	3149.9	4313.4
77.5°	616.2	630.0	633.1	642.3	714.3	869.1	1151.1	1558.9	1998.8	2282.4	2759.1
80°	266.7	294.3	315.8	302.0	297.4	329.6	412.3	614.7	1204.8	1913.0	2270.1
82.5°	144.1	156.3	174.7	176.3	185.5	196.2	213.1	252.9	355.6	717.4	1565.0
85°	75.1	78.2	104.2	119.6	127.2	133.4	136.4	151.7	174.7	222.3	389.3
87.5°	10.7	15.3	18.4	24.5	27.6	29.1	33.7	42.9	50.6	61.3	104.2
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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CATALOG NUMBER: VST-F11-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2
2.5°	2570.5	2567.5	2558.3	2552.1	2546.0	2539.9	2532.2	2526.1	2515.4	2507.7	2498.5
5°	2665.6	2647.2	2634.9	2618.1	2615.0	2595.1	2575.1	2565.9	2547.5	2532.2	2513.8
7.5°	2762.1	2740.7	2720.8	2707.0	2699.3	2671.7	2651.8	2628.8	2607.3	2587.4	2565.9
10°	2875.6	2854.1	2832.6	2823.5	2809.7	2783.6	2766.7	2737.6	2716.2	2691.6	2662.5
12.5°	2993.6	2978.3	2962.9	2950.7	2944.5	2932.3	2907.8	2883.2	2854.1	2829.6	2795.9
15°	3097.8	3087.1	3081.0	3077.9	3077.9	3070.2	3047.2	3024.3	2993.6	2966.0	2929.2
17.5°	3171.4	3166.8	3171.4	3176.0	3182.1	3176.0	3171.4	3145.3	3125.4	3091.7	3054.9
20°	3214.3	3223.5	3246.5	3261.8	3275.6	3286.4	3291.0	3269.5	3243.4	3218.9	3194.4
22.5°	3260.3	3286.4	3326.2	3349.2	3372.2	3410.5	3419.7	3404.4	3384.5	3369.1	3343.1
25°	3336.9	3375.3	3444.2	3481.0	3513.2	3569.9	3577.6	3580.7	3576.1	3563.8	3531.6
27.5°	3456.5	3531.6	3623.6	3671.1	3706.4	3779.9	3809.1	3809.1	3796.8	3810.6	3810.6
30°	3665.0	3764.6	3884.2	3911.8	3966.9	4031.3	4078.8	4085.0	4086.5	4115.6	4158.5
32.5°	3985.3	4080.4	4213.7	4244.4	4291.9	4353.2	4406.9	4400.7	4414.5	4477.4	4534.1
35°	4451.3	4547.9	4635.2	4676.6	4698.1	4753.3	4773.2	4806.9	4848.3	4926.5	4918.8
37.5°	5141.1	5226.9	5239.2	5265.2	5239.2	5249.9	5265.2	5305.1	5415.4	5486.0	5372.5
40°	5971.9	6114.4	6100.6	6070.0	6011.7	5933.5	5961.1	6022.4	6142.0	6080.7	5775.7
42.5°	6755.1	6902.3	6874.7	6839.4	6710.7	6681.6	6678.5	6729.1	6793.5	6618.7	6091.4
45°	7526.1	7676.4	7628.8	7608.9	7523.1	7460.2	7512.3	7515.4	7498.5	7124.5	6367.3
47.5°	8321.7	8459.6	8429.0	8445.8	8356.9	8315.5	8320.1	8298.7	8140.8	7553.7	6581.9
50°	8963.9	9149.4	9167.8	9129.5	9081.9	9019.1	9180.0	9121.8	8770.8	7970.7	6788.9
52.5°	9463.6	9713.5	9808.5	9784.0	9745.7	9753.3	10055.3	10121.2	9540.3	8496.4	7017.2
55°	10055.3	10449.2	10604.0	10696.0	10656.2	10809.4	11500.7	11534.5	10610.2	9183.1	7314.6
57.5°	10909.1	11473.1	11962.1	12092.4	12218.1	12716.3	13838.3	13496.5	11998.9	10222.4	7691.7
60°	12207.4	13442.8	14236.8	14653.7	14948.0	15643.9	16710.8	15844.7	13729.5	11459.3	8165.3
62.5°	14025.3	15830.9	17158.4	17576.8	17697.9	18098.0	18870.5	17213.5	14672.1	12014.2	8206.7
65°	15378.8	17544.6	19134.2	19348.8	19204.7	19212.3	19414.7	17141.5	14321.1	11529.9	7495.5
67°	15289.9	17714.8	19342.6	19624.7	19425.4	19163.3	18847.5	16165.1	13193.0	10515.1	6563.5
67.5°	15153.4	17550.8	19252.2	19549.6	19367.2	19068.3	18606.9	15786.5	12842.0	10199.4	6373.5
70°	13099.5	15479.9	17771.5	18190.0	18266.6	17993.8	16698.5	13311.0	10426.2	8297.1	4949.5
72.5°	10196.3	12316.2	14583.2	14946.5	15240.8	14454.5	12153.7	9193.8	7599.7	5979.5	3583.7
75°	6732.1	8888.8	10032.3	10085.9	9710.4	8254.2	5938.1	4604.6	4238.2	3514.8	2218.0
77.5°	3602.1	5226.9	5259.1	4869.8	4692.0	3497.9	1419.4	783.3	872.2	990.2	882.9
80°	2687.0	3329.3	3858.1	4147.8	4233.6	2999.7	734.2	415.4	363.3	331.1	326.5
82.5°	2423.4	3215.9	3605.2	3763.1	3723.2	2467.8	412.3	279.0	231.5	251.4	286.6
85°	950.3	1716.8	2257.8	2185.8	1836.3	919.7	225.3	150.2	150.2	217.7	282.0
87.5°	194.7	352.5	478.2	456.8	410.8	177.8	110.4	90.4	92.0	176.3	266.7
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°	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2	2506.2
2.5°	2489.3	2480.1	2474.0	2467.8	2461.7	2458.6	2454.0	2454.0	2444.8	2441.8	2438.7
5°	2500.0	2484.7	2474.0	2460.2	2449.4	2440.2	2428.0	2424.9	2414.2	2406.5	2403.5
7.5°	2546.0	2523.0	2500.0	2483.2	2467.8	2447.9	2434.1	2421.9	2411.1	2403.5	2394.3
10°	2633.4	2608.9	2576.7	2546.0	2526.1	2495.4	2474.0	2452.5	2440.2	2431.0	2418.8
12.5°	2762.1	2726.9	2688.6	2651.8	2618.1	2578.2	2556.7	2530.7	2515.4	2507.7	2498.5
15°	2894.0	2855.6	2808.1	2772.9	2734.5	2703.9	2684.0	2661.0	2648.7	2639.5	2633.4
17.5°	3028.8	2984.4	2950.7	2915.4	2897.0	2874.0	2848.0	2818.9	2783.6	2762.1	2733.0
20°	3166.8	3133.1	3113.2	3093.2	3071.8	3039.6	2987.5	2927.7	2861.8	2798.9	2739.1
22.5°	3327.7	3307.8	3304.8	3286.4	3241.9	3165.3	3068.7	2956.8	2844.9	2740.7	2659.4
25°	3554.6	3554.6	3539.3	3464.2	3359.9	3222.0	3059.5	2898.6	2749.9	2607.3	2500.0
27.5°	3839.7	3829.0	3753.9	3599.1	3412.1	3197.5	2979.8	2775.9	2585.9	2429.5	2291.6
30°	4153.9	4078.8	3917.9	3674.2	3393.7	3117.8	2851.0	2615.0	2391.2	2199.6	2037.1
32.5°	4480.4	4298.0	4008.3	3674.2	3329.3	2998.2	2690.1	2400.4	2144.4	1929.8	1736.7
35°	4776.3	4443.6	4029.8	3614.4	3203.6	2821.9	2464.8	2136.7	1830.2	1598.7	1387.2
37.5°	5044.5	4540.2	4006.8	3497.9	3021.2	2573.6	2155.1	1793.4	1447.0	1223.2	1042.3
40°	5219.2	4560.1	3911.8	3315.5	2760.6	2237.9	1775.0	1370.3	1096.0	892.1	771.0
42.5°	5328.1	4521.8	3758.5	3065.6	2409.6	1816.4	1332.0	982.5	778.7	665.2	619.3
45°	5389.4	4422.2	3531.6	2723.8	1985.0	1381.1	945.7	709.7	599.3	559.5	544.2
47.5°	5386.3	4261.2	3248.0	2328.4	1516.0	962.6	669.8	553.3	522.7	510.4	507.4
50°	5354.1	4063.5	2915.4	1899.2	1094.4	671.4	530.4	496.6	489.0	481.3	478.2
52.5°	5309.7	3818.3	2547.5	1480.7	777.1	536.5	481.3	472.1	466.0	458.3	455.2
55°	5226.9	3516.3	2149.0	1114.4	608.5	484.4	464.4	461.4	453.7	443.0	436.9
57.5°	5125.7	3209.7	1767.3	870.6	538.0	472.1	461.4	456.8	446.1	433.8	421.5
60°	5089.0	2956.8	1468.4	734.2	521.2	476.7	469.0	462.9	447.6	429.2	415.4
62.5°	4859.0	2671.7	1253.8	680.6	530.4	496.6	493.6	484.4	461.4	439.9	418.5
65°	4264.3	2259.4	1062.2	643.8	548.7	530.4	533.4	519.6	496.6	467.5	429.2
67°	3606.7	1842.4	884.4	608.5	562.5	565.6	576.3	565.6	536.5	495.1	443.0
67.5°	3432.0	1736.7	840.0	597.8	565.6	574.8	587.1	579.4	550.3	502.8	449.1
70°	2550.6	1223.2	626.9	541.1	565.6	602.4	630.0	637.7	605.5	539.6	461.4
72.5°	1796.5	789.4	481.3	469.0	513.5	562.5	614.7	640.7	603.9	531.9	444.5
75°	1079.1	493.6	390.9	398.5	432.3	482.8	524.2	535.0	489.0	443.0	384.7
77.5°	499.7	328.0	306.6	317.3	349.5	372.5	372.5	351.0	315.8	288.2	275.9
80°	294.3	268.2	266.7	286.6	308.1	291.2	265.2	236.1	217.7	208.5	203.9
82.5°	275.9	286.6	305.0	309.6	292.8	251.4	219.2	190.1	180.9	176.3	171.7
85°	325.0	347.9	317.3	292.8	259.0	211.5	171.7	147.2	142.6	138.0	131.8
87.5°	300.4	286.6	249.8	214.6	177.8	128.8	93.5	84.3	90.4	88.9	85.8
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°	2506.2	2506.2	2506.2	2506.2	2506.2
2.5°	2440.2	2440.2	2434.1	2431.0	2438.7
5°	2397.3	2398.9	2394.3	2392.7	2394.3
7.5°	2388.1	2386.6	2383.5	2380.5	2383.5
10°	2415.7	2414.2	2409.6	2412.7	2408.1
12.5°	2498.5	2507.7	2506.2	2509.2	2515.4
15°	2633.4	2631.8	2627.3	2630.3	2634.9
17.5°	2710.0	2697.8	2687.0	2682.4	2682.4
20°	2691.6	2656.4	2638.0	2627.3	2624.2
22.5°	2582.8	2532.2	2493.9	2484.7	2477.0
25°	2405.0	2342.1	2293.1	2282.4	2262.4
27.5°	2198.1	2113.8	2055.5	2043.2	2032.5
30°	1926.8	1830.2	1762.7	1719.8	1733.6
32.5°	1595.7	1503.7	1425.5	1356.5	1345.8
35°	1232.4	1131.2	1062.2	1031.6	1011.7
37.5°	919.7	835.4	789.4	760.3	761.8
40°	703.6	659.1	634.6	614.7	616.2
42.5°	587.1	567.1	561.0	551.8	547.2
45°	531.9	525.8	527.3	518.1	515.0
47.5°	501.2	496.6	498.2	492.0	490.5
50°	476.7	473.6	475.2	470.6	469.0
52.5°	452.2	453.7	452.2	449.1	449.1
55°	430.7	429.2	432.3	427.7	427.7
57.5°	413.9	412.3	412.3	410.8	410.8
60°	404.7	398.5	397.0	397.0	398.5
62.5°	400.1	389.3	387.8	387.8	389.3
65°	401.6	384.7	378.6	377.1	375.5
67°	403.1	378.6	366.3	360.2	358.7
67.5°	404.7	375.5	361.7	355.6	352.5
70°	395.5	354.1	334.2	323.4	320.4
72.5°	372.5	328.0	303.5	289.7	286.6
75°	331.1	297.4	275.9	260.6	254.4
77.5°	256.0	240.7	233.0	223.8	220.7
80°	199.3	191.6	188.5	182.4	180.9
82.5°	165.5	157.9	153.3	145.6	141.0
85°	128.8	119.6	116.5	110.4	107.3
87.5°	84.3	79.7	78.2	70.5	67.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)