

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: P158696

Luminaire Tested: **VST-F07-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158696
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-F07-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (49) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17201.2 lumens
Efficiency: N/A
Efficacy: 95.3 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 180.5
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

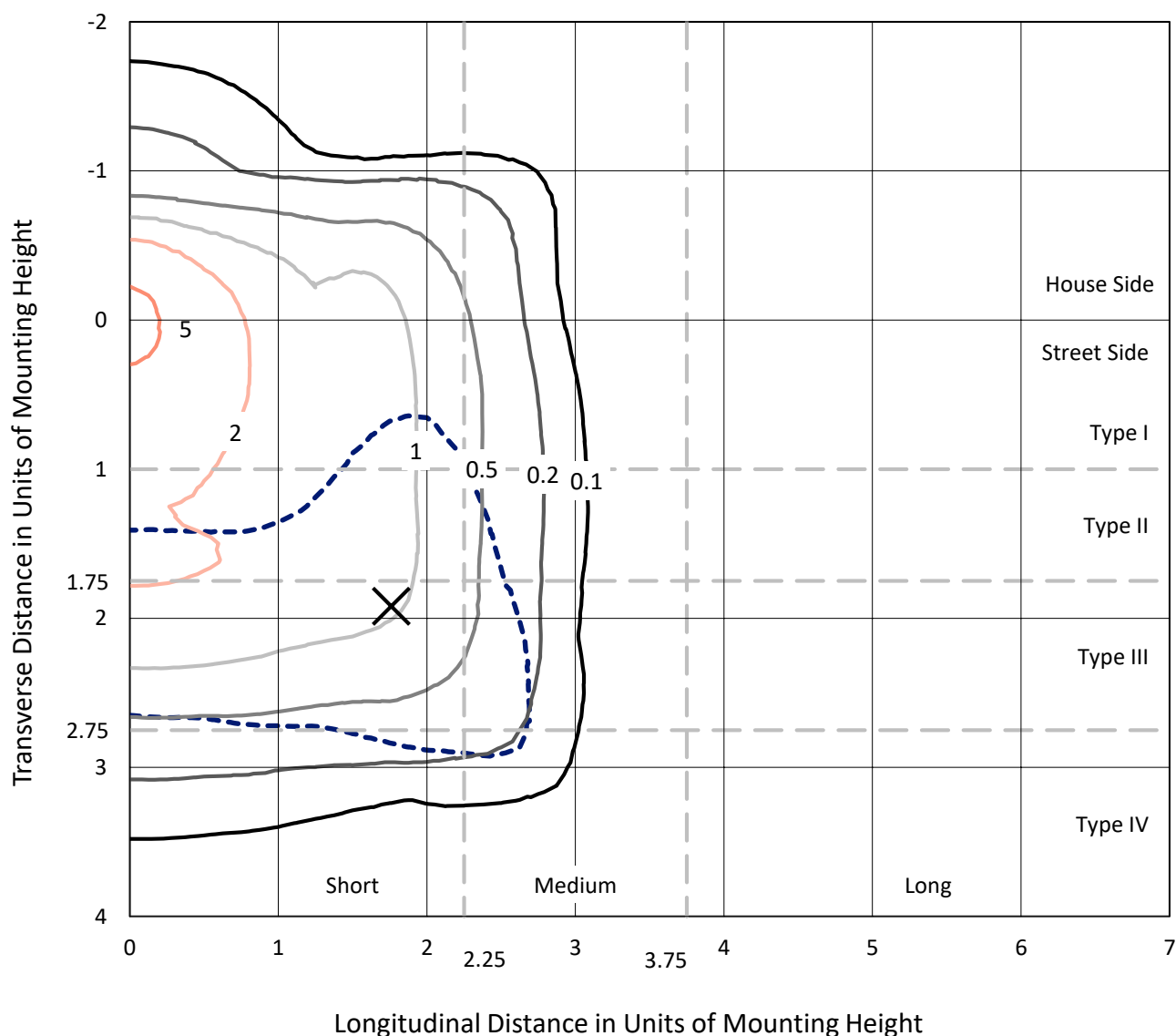


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

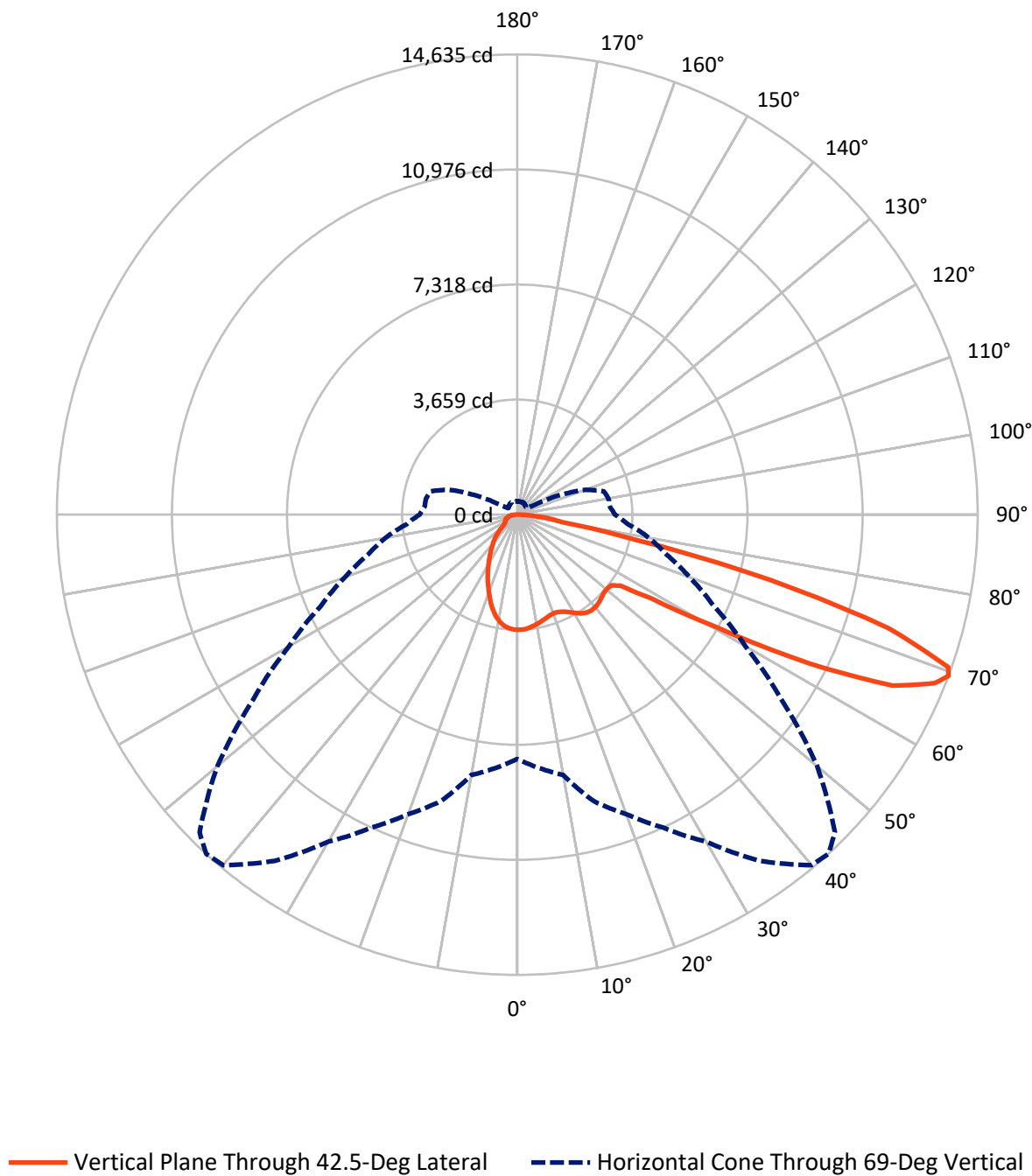


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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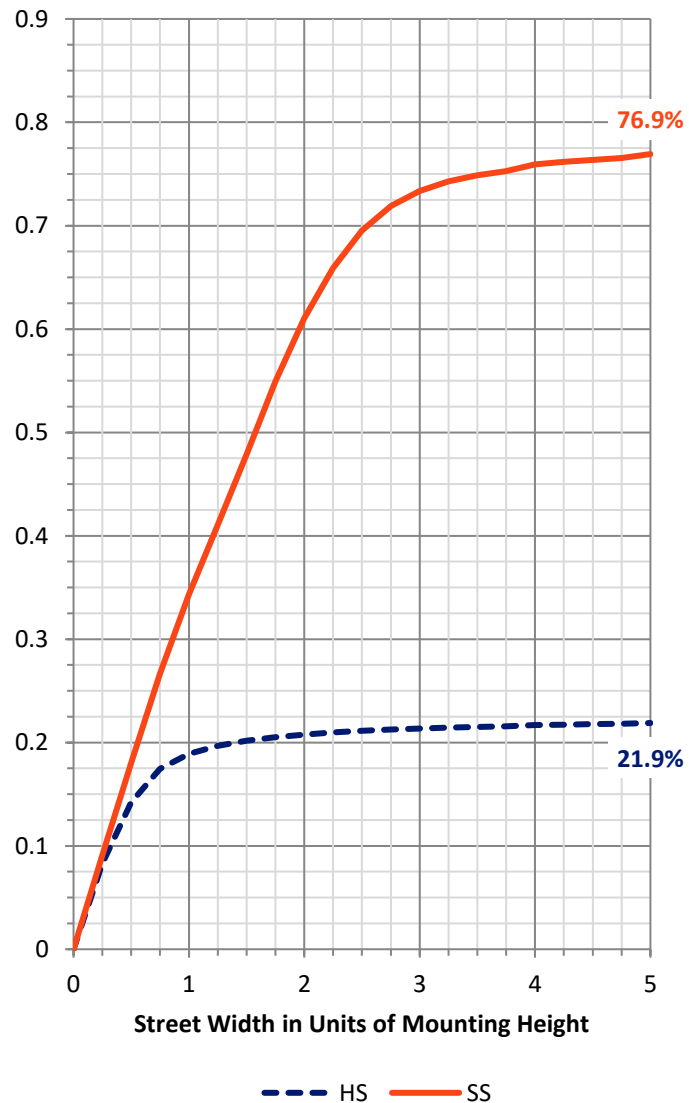
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3824.1	0.0	3824.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	13377.1	0.0	13377.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	17201.2	0.0	17201.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	341.0	2.0
10°-20°	919.1	5.3
20°-30°	1340.2	7.8
30°-40°	1708.4	9.9
40°-50°	1987.8	11.6
50°-60°	3024.5	17.6
60°-70°	5342.6	31.1
70°-80°	2204.7	12.8
80°-90°	332.9	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°	17201.2	100.0
0°-180°	17201.2	100.0

Coefficient of Utilization



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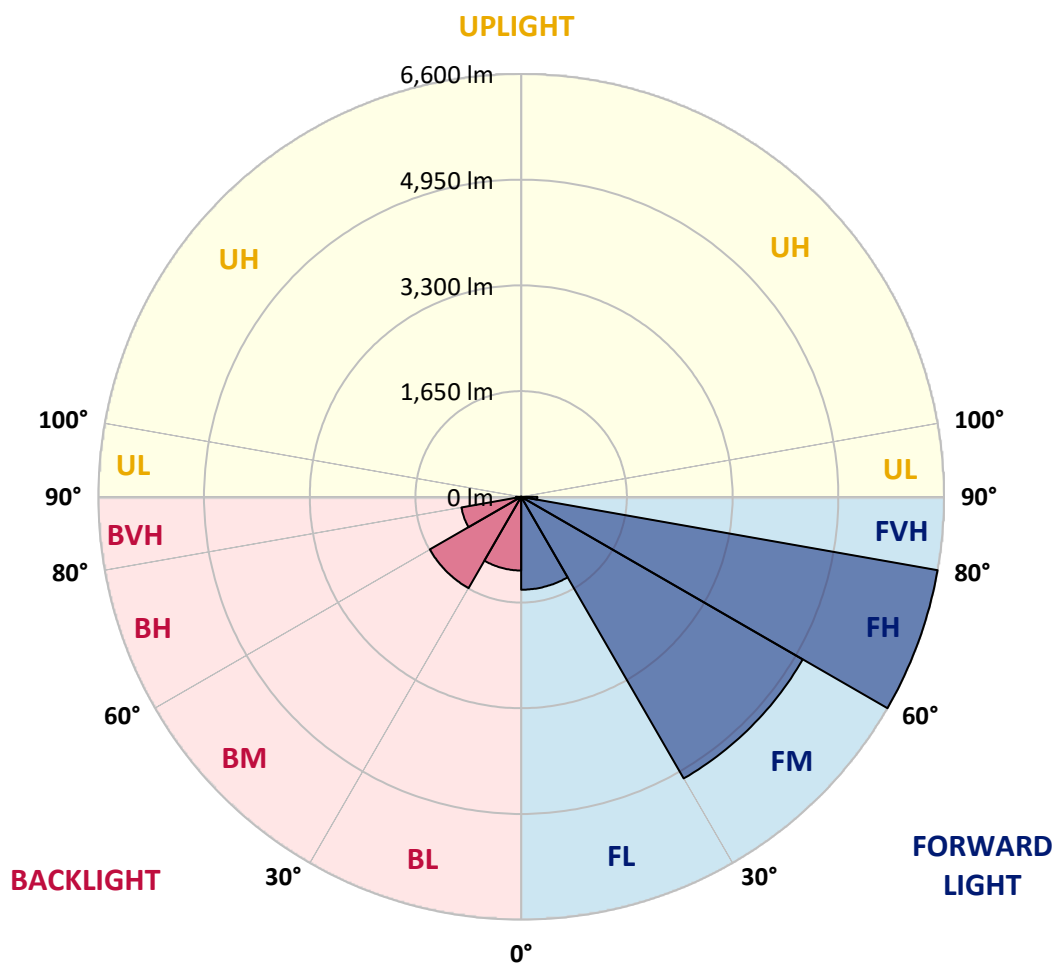
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1450.5	8.4			
FM	(30°-60°)	5074.8	29.5			
FH	(60°-80°)	6600.1	38.4			G3/7500
FVH	(80°-90°)	251.7	1.5			G3/500
BL	(0°-30°)	1149.7	6.7	B3/2500		
BM	(30°-60°)	1646.0	9.6	B2/2500		
BH	(60°-80°)	947.2	5.5	B2/1000		G2/1000
BVH	(80°-90°)	81.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3
2.5°	3651.4	3664.4	3659.7	3659.7	3663.3	3657.3	3657.3	3659.7	3653.8	3657.3	3656.1
5°	3638.4	3645.5	3643.1	3643.1	3643.1	3638.4	3636.0	3634.8	3626.5	3626.5	3622.9
7.5°	3609.9	3612.3	3615.8	3611.1	3609.9	3608.7	3600.4	3595.7	3586.2	3577.9	3580.2
10°	3571.9	3570.8	3576.7	3573.1	3568.4	3564.8	3557.7	3549.4	3538.7	3528.1	3526.9
12.5°	3529.3	3528.1	3532.8	3530.4	3526.9	3519.8	3513.8	3499.6	3483.0	3470.0	3468.8
15°	3502.0	3498.4	3503.2	3498.4	3492.5	3485.4	3474.7	3456.9	3427.3	3414.2	3403.5
17.5°	3528.1	3522.1	3524.5	3518.6	3510.3	3491.3	3466.4	3428.5	3385.8	3363.2	3346.6
20°	3619.4	3608.7	3611.1	3605.2	3586.2	3561.3	3513.8	3447.4	3375.1	3338.3	3312.2
22.5°	3749.8	3741.5	3745.1	3739.2	3720.2	3682.2	3611.1	3516.2	3413.0	3359.7	3318.2
25°	3947.9	3955.0	3957.4	3930.1	3919.4	3849.5	3751.0	3619.4	3481.8	3419.0	3362.0
27.5°	4170.8	4170.8	4181.5	4170.8	4149.5	4067.7	3928.9	3770.0	3593.3	3507.9	3439.1
30°	4387.9	4385.5	4405.6	4403.3	4368.9	4276.4	4118.7	3925.3	3723.7	3627.7	3539.9
32.5°	4617.9	4625.0	4638.1	4633.3	4588.3	4460.2	4270.4	4060.5	3848.3	3742.7	3644.3
35°	4867.0	4870.5	4875.3	4872.9	4781.6	4620.3	4381.9	4147.1	3926.5	3822.2	3720.2
37.5°	5116.0	5112.4	5106.5	5055.5	4951.2	4727.0	4449.5	4196.9	3965.7	3853.0	3747.5
40°	5338.9	5318.8	5299.8	5220.4	5060.3	4787.5	4475.6	4208.8	3962.1	3845.9	3742.7
42.5°	5461.1	5438.6	5399.4	5299.8	5105.3	4793.4	4457.8	4173.2	3925.3	3810.3	3708.3
45°	5483.6	5467.0	5429.1	5317.6	5094.7	4755.5	4403.3	4115.1	3870.8	3755.8	3659.7
47.5°	5430.3	5417.2	5380.5	5270.2	5048.4	4698.6	4340.4	4053.4	3817.4	3709.5	3617.0
50°	5348.4	5336.6	5308.1	5207.3	4996.2	4659.4	4308.4	4021.4	3799.6	3701.2	3615.8
52.5°	5481.3	5490.7	5407.7	5297.4	5052.0	4693.8	4344.0	4054.6	3831.7	3734.4	3645.5
55°	7545.9	7532.9	7033.6	6615.0	5866.7	5188.3	4682.0	4317.9	4079.5	3982.3	3899.3
57.5°	9805.1	9760.0	9554.8	9163.5	8359.5	7286.2	6310.2	5480.1	5152.8	5012.8	5022.3
60°	10542.7	10559.3	10515.4	10376.7	10088.5	9529.9	8787.6	8163.8	7549.5	7249.4	7283.8
62.5°	10951.8	10981.5	11019.4	10988.6	10894.9	10765.7	10672.0	10728.9	10643.5	10427.7	10255.7
65°	11008.8	11069.2	11195.0	11294.6	11343.2	11465.3	11752.3	12440.2	13068.7	13110.2	12807.8
67.5°	9882.2	10049.4	10322.1	10783.4	11178.3	11612.4	12305.0	13350.9	14278.3	14309.1	14026.9
69°	7770.1	8091.4	8410.4	9441.0	10134.8	10985.0	12009.7	13438.7	14549.9	14635.3	14279.5
70°	6226.0	6416.9	6692.1	7727.4	8763.8	9847.8	11332.5	13149.3	14363.7	14535.6	14143.1
72.5°	3738.0	3811.5	3906.4	4277.6	4811.2	5776.5	7745.2	10720.6	12116.4	12346.5	11847.2
75°	2416.9	2412.1	2420.4	2523.6	2554.4	2739.4	3359.7	5515.6	7904.1	8321.5	7723.8
77.5°	1820.4	1837.0	1810.9	1820.4	1812.1	1861.9	1880.8	1974.5	3120.1	3843.5	3436.8
80°	1606.9	1615.2	1616.4	1611.6	1553.5	1548.8	1579.6	1526.3	1418.3	1439.7	1379.2
82.5°	916.7	915.5	926.2	1006.8	1040.0	1149.1	1194.2	1219.1	1125.4	1055.5	954.7
85°	594.1	598.9	610.7	635.6	610.7	620.2	609.6	630.9	578.7	537.2	480.3
87.5°	243.1	243.1	258.5	281.1	262.1	257.3	220.6	218.2	185.0	167.2	130.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3
2.5°	3649.0	3656.1	3652.6	3657.3	3653.8	3653.8	3649.0	3647.8	3651.4	3646.7	3647.8
5°	3617.0	3618.2	3612.3	3614.6	3607.5	3605.2	3601.6	3592.1	3598.0	3592.1	3594.5
7.5°	3570.8	3567.2	3558.9	3547.0	3538.7	3535.2	3528.1	3515.0	3517.4	3506.7	3512.7
10°	3511.5	3499.6	3485.4	3467.6	3455.7	3445.1	3429.6	3414.2	3405.9	3396.4	3395.2
12.5°	3445.1	3430.8	3411.9	3384.6	3358.5	3340.7	3317.0	3289.7	3281.4	3266.0	3257.7
15°	3372.7	3350.2	3327.7	3296.8	3268.4	3241.1	3209.1	3174.7	3152.1	3128.4	3110.6
17.5°	3307.5	3281.4	3251.8	3222.1	3191.3	3158.1	3117.7	3075.1	3041.8	2998.0	2962.4
20°	3256.5	3223.3	3193.6	3162.8	3128.4	3088.1	3039.5	2984.9	2929.2	2880.6	2839.1
22.5°	3236.3	3184.2	3148.6	3117.7	3083.4	3035.9	2976.6	2912.6	2845.0	2777.4	2722.8
25°	3252.9	3175.9	3120.1	3083.4	3053.7	3005.1	2938.7	2860.4	2782.1	2701.5	2628.0
27.5°	3301.6	3203.1	3122.5	3064.4	3030.0	2981.4	2911.4	2828.4	2735.9	2645.8	2555.6
30°	3377.5	3249.4	3147.4	3065.6	3012.2	2956.5	2882.9	2786.9	2693.2	2590.0	2491.6
32.5°	3451.0	3298.0	3175.9	3070.3	2988.5	2916.1	2834.3	2739.4	2638.6	2530.7	2428.7
35°	3503.2	3330.0	3186.5	3059.6	2951.7	2861.6	2773.8	2679.0	2580.5	2470.2	2365.9
37.5°	3528.1	3347.8	3187.7	3031.2	2903.1	2803.5	2709.8	2616.1	2523.6	2419.2	2320.8
40°	3526.9	3346.6	3171.1	2994.4	2845.0	2739.4	2646.9	2555.6	2469.1	2377.7	2288.8
42.5°	3500.8	3327.7	3147.4	2958.8	2803.5	2686.1	2590.0	2502.3	2428.7	2348.1	2273.4
45°	3460.5	3295.6	3122.5	2942.2	2791.6	2674.2	2572.2	2486.8	2421.6	2348.1	2284.1
47.5°	3429.6	3277.8	3126.0	2971.9	2828.4	2706.2	2598.3	2504.6	2448.9	2389.6	2344.5
50°	3434.4	3286.1	3137.9	2989.7	2854.5	2731.1	2626.8	2541.4	2501.1	2485.7	2475.0
52.5°	3459.3	3299.2	3173.5	3084.5	3038.3	2945.8	2884.1	2830.8	2860.4	2802.3	2733.5
55°	3777.1	3724.9	3847.1	3962.1	4108.0	4162.5	4110.3	4100.9	4148.3	3951.4	3499.6
57.5°	5089.9	5225.1	5413.7	5513.3	5634.2	5602.2	5481.3	5380.5	5261.9	5031.8	4468.5
60°	7323.0	7221.0	7135.6	6894.9	6698.0	6467.9	6211.8	5992.4	5782.5	5451.6	4842.1
62.5°	9623.6	8915.6	8323.9	7752.3	7292.1	6910.3	6539.1	6209.4	5891.6	5430.3	4774.5
65°	11613.6	10122.9	9011.7	8173.3	7500.9	6920.9	6444.2	5988.8	5584.4	5043.7	4395.0
67.5°	12507.7	10639.9	9023.6	7822.2	6891.3	6103.9	5487.2	4799.4	4346.3	4000.1	3634.8
69°	12441.3	10245.0	8379.6	6900.8	5831.1	4913.2	4251.5	3534.0	3100.0	2952.9	2944.6
70°	12125.9	9576.2	7627.7	6152.5	4928.6	4016.7	3382.2	2738.3	2333.9	2233.1	2412.1
72.5°	9899.9	6766.8	4780.4	3650.2	2807.0	2218.8	1809.7	1436.1	1146.8	993.8	1027.0
75°	5591.5	3133.2	2025.5	1531.0	1293.8	1069.7	917.9	782.7	708.0	575.2	455.4
77.5°	2032.6	1344.8	1069.7	925.0	655.8	451.8	378.3	330.9	300.0	300.0	285.8
80°	1285.5	1012.8	706.8	483.8	358.1	311.9	272.8	239.6	220.6	215.8	220.6
82.5°	802.9	620.2	396.1	303.6	255.0	228.9	199.2	174.3	158.9	155.4	162.5
85°	396.1	307.1	240.7	214.6	201.6	187.4	164.8	141.1	136.4	145.9	170.8
87.5°	118.6	105.5	86.6	90.1	94.9	92.5	73.5	64.0	60.5	79.5	124.5
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°	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3	3663.3
2.5°	3650.2	3649.0	3651.4	3647.8	3650.2	3651.4	3649.0	3659.7	3652.6	3653.8	3658.5
5°	3596.9	3594.5	3604.0	3601.6	3606.3	3611.1	3608.7	3624.1	3618.2	3622.9	3632.4
7.5°	3507.9	3512.7	3513.8	3513.8	3523.3	3538.7	3542.3	3551.8	3551.8	3564.8	3574.3
10°	3389.3	3390.5	3397.6	3396.4	3408.3	3424.9	3427.3	3443.9	3449.8	3471.1	3484.2
12.5°	3251.8	3245.8	3244.6	3243.5	3258.9	3276.7	3279.0	3307.5	3319.4	3338.3	3359.7
15°	3097.6	3082.2	3077.4	3086.9	3083.4	3094.0	3104.7	3120.1	3136.7	3174.7	3193.6
17.5°	2947.0	2916.1	2907.8	2897.2	2886.5	2886.5	2891.2	2910.2	2944.6	2964.8	3007.5
20°	2792.8	2756.0	2726.4	2697.9	2673.0	2663.5	2664.7	2688.4	2713.4	2746.6	2786.9
22.5°	2663.5	2607.8	2556.8	2518.9	2467.9	2466.7	2459.6	2466.7	2494.0	2502.3	2524.8
25°	2552.1	2477.4	2408.6	2346.9	2297.1	2271.0	2263.9	2261.5	2248.5	2244.9	2228.3
27.5°	2465.5	2375.4	2286.4	2211.7	2150.0	2114.5	2069.4	2037.4	1991.1	1979.3	1949.6
30°	2394.3	2297.1	2199.9	2102.6	2032.6	1968.6	1892.7	1837.0	1765.8	1719.6	1679.2
32.5°	2325.6	2227.1	2128.7	2032.6	1924.7	1825.1	1725.5	1638.9	1559.5	1488.3	1429.0
35°	2268.6	2175.0	2075.3	1959.1	1821.6	1678.1	1558.3	1459.9	1350.7	1276.0	1201.3
37.5°	2231.9	2146.5	2046.9	1886.8	1710.1	1555.9	1419.5	1299.8	1188.3	1075.6	991.4
40°	2215.3	2140.6	2016.0	1820.4	1612.8	1442.1	1291.5	1158.6	1016.3	889.4	799.3
42.5°	2214.1	2138.2	1973.3	1746.8	1532.2	1346.0	1178.8	1019.9	862.2	731.7	642.8
45°	2235.4	2134.6	1928.3	1685.2	1461.0	1266.5	1067.3	874.0	697.3	600.1	552.6
47.5°	2292.4	2140.6	1891.5	1628.2	1393.4	1170.5	939.2	713.9	568.0	523.0	523.0
50°	2394.3	2175.0	1882.0	1587.9	1325.8	1059.0	782.7	576.4	502.8	502.8	517.1
52.5°	2550.9	2247.3	1898.6	1559.5	1241.6	912.0	616.7	496.9	482.7	495.7	514.7
55°	2911.4	2375.4	1921.2	1510.8	1113.6	723.4	508.8	469.6	475.5	491.0	508.8
57.5°	3573.1	2649.3	1944.9	1404.1	907.2	557.4	461.3	458.9	469.6	483.8	499.3
60°	4008.4	2998.0	2005.4	1242.8	686.6	460.1	437.6	451.8	464.9	476.7	488.6
62.5°	4008.4	3096.4	2050.4	1062.6	515.9	418.6	422.2	444.7	460.1	466.1	473.2
65°	3752.2	2916.1	1897.4	865.7	419.8	394.9	408.0	430.5	444.7	449.5	455.4
67.5°	3279.0	2575.8	1598.6	652.2	374.7	374.7	391.3	408.0	419.8	429.3	438.8
69°	2850.9	2311.3	1407.7	552.6	357.0	359.3	375.9	390.2	404.4	416.3	428.1
70°	2542.6	2113.3	1274.8	501.6	346.3	347.5	364.1	379.5	392.5	405.6	419.8
72.5°	1361.4	1459.9	968.9	411.5	319.0	322.6	338.0	352.2	364.1	377.1	390.2
75°	463.7	627.3	616.7	336.8	288.2	297.7	307.1	320.2	335.6	343.9	351.0
77.5°	271.6	281.1	328.5	273.9	259.7	264.5	275.1	285.8	298.8	307.1	313.1
80°	227.7	226.5	227.7	223.0	226.5	237.2	244.3	258.5	270.4	272.8	271.6
82.5°	185.0	194.5	195.7	193.3	204.0	212.3	218.2	226.5	225.3	227.7	232.4
85°	164.8	163.7	172.0	173.1	173.1	167.2	168.4	168.4	168.4	172.0	173.1
87.5°	164.8	137.6	106.7	96.1	100.8	94.9	90.1	88.9	98.4	107.9	105.5
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):

	160°	165°	170°	175°	180°
0°	3663.3	3663.3	3663.3	3663.3	3663.3
2.5°	3660.9	3664.4	3662.1	3662.1	3664.4
5°	3636.0	3641.9	3639.5	3641.9	3641.9
7.5°	3579.1	3587.4	3593.3	3599.2	3595.7
10°	3497.2	3511.5	3521.0	3528.1	3524.5
12.5°	3375.1	3388.1	3408.3	3420.2	3410.7
15°	3207.9	3244.6	3256.5	3273.1	3263.6
17.5°	3033.5	3056.1	3070.3	3085.7	3095.2
20°	2801.1	2818.9	2837.9	2845.0	2834.3
22.5°	2521.2	2530.7	2527.2	2537.8	2516.5
25°	2214.1	2220.0	2216.5	2225.9	2208.2
27.5°	1923.5	1922.4	1923.5	1911.7	1899.8
30°	1643.7	1633.0	1628.2	1610.5	1606.9
32.5°	1393.4	1356.7	1337.7	1311.6	1305.7
35°	1143.2	1091.0	1056.6	1027.0	1013.9
37.5°	919.1	856.2	815.9	789.8	786.3
40°	727.0	668.9	640.4	626.2	623.8
42.5°	593.0	568.0	560.9	560.9	560.9
45°	540.8	539.6	545.5	550.3	551.4
47.5°	530.1	537.2	545.5	552.6	555.0
50°	530.1	537.2	543.1	550.3	552.6
52.5°	527.7	533.7	536.0	540.8	543.1
55°	520.6	524.2	524.2	526.5	528.9
57.5°	508.8	511.1	507.6	509.9	515.9
60°	496.9	499.3	493.3	499.3	502.8
62.5°	483.8	485.0	482.7	487.4	487.4
65°	462.5	460.1	463.7	467.2	468.4
67.5°	441.2	435.2	438.8	440.0	442.3
69°	424.6	421.0	422.2	424.6	426.9
70°	412.7	410.3	412.7	416.3	419.8
72.5°	383.0	384.2	392.5	399.7	406.8
75°	355.8	364.1	374.7	390.2	398.5
77.5°	322.6	328.5	336.8	353.4	368.8
80°	278.7	282.2	283.4	289.4	288.2
82.5°	226.5	223.0	220.6	218.2	217.0
85°	162.5	161.3	151.8	144.7	144.7
87.5°	97.2	92.5	87.8	81.8	78.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)