

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: P158691

Luminaire Tested: **VST-E07-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158691
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-E07-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (147) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20836.6 lumens
Efficiency: N/A
Efficacy: 120.8 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 - G4

Input Watts (W): 172.5
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

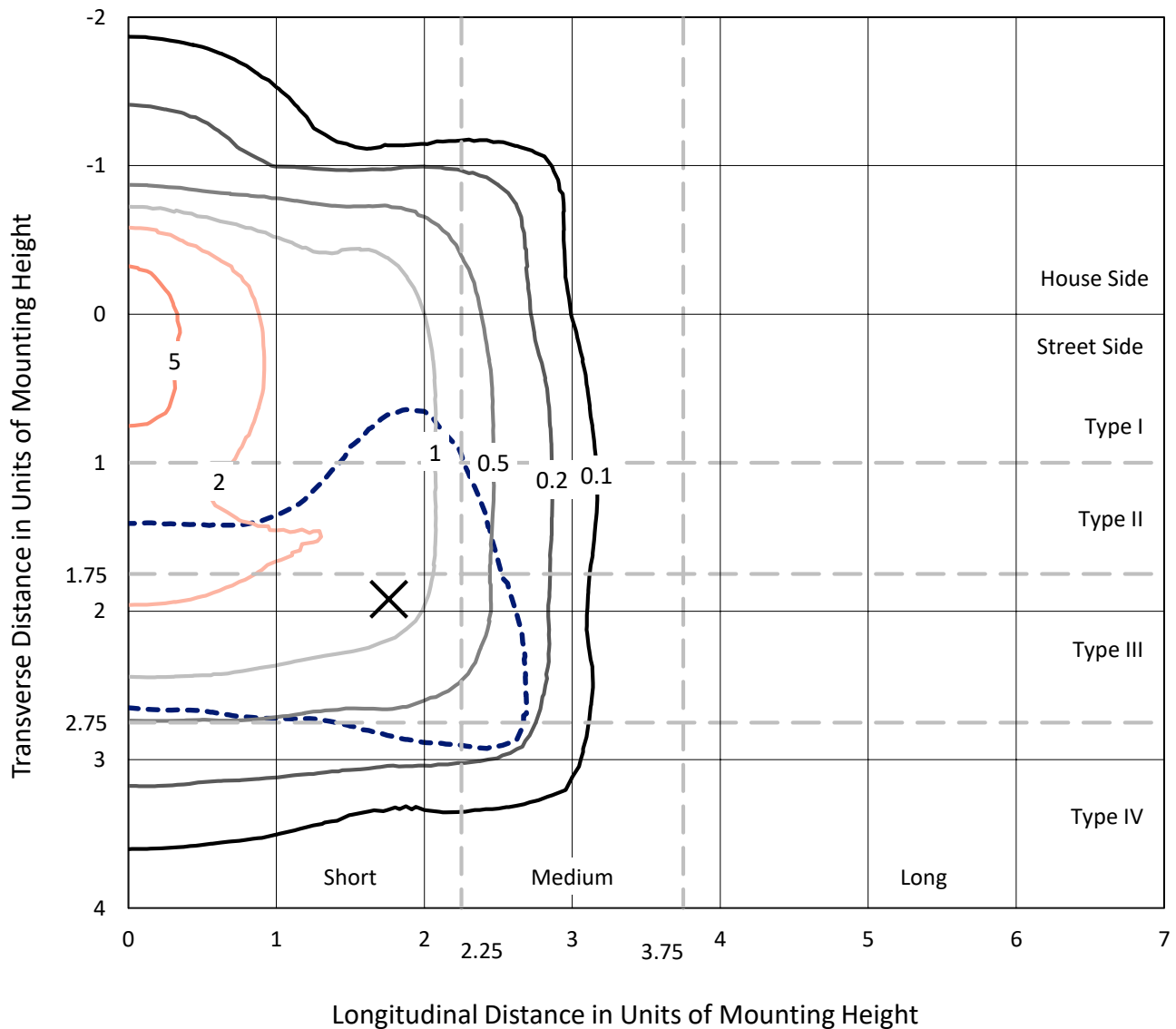


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

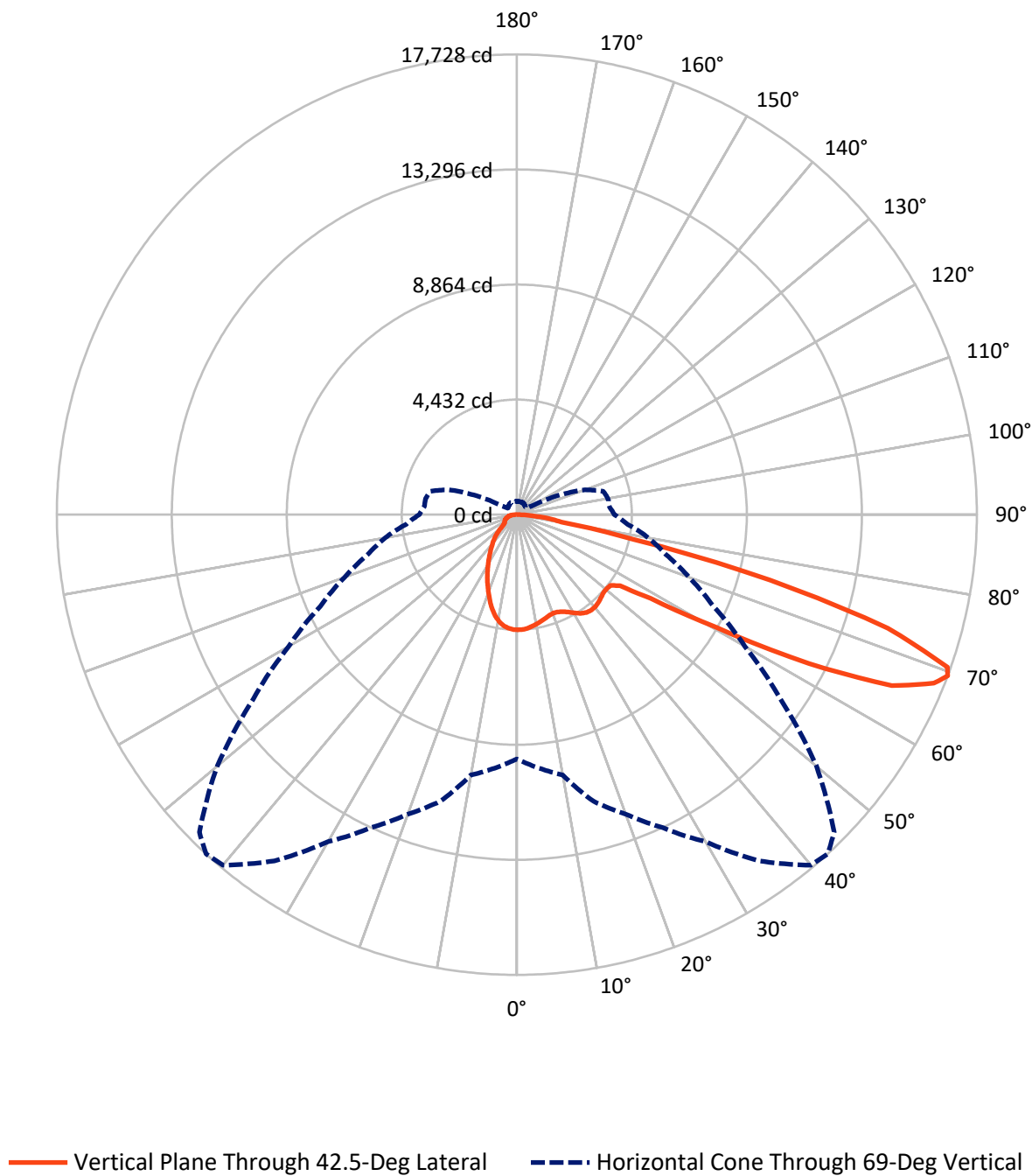


Based on 25 foot mounting height. Maximum calculated value = 7.1 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4632.3	0.0	4632.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	16204.3	0.0	16204.3
	% Fixture	77.8	0.0	77.8
Total	Lumens	20836.6	0.0	20836.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.1	2.0
10°-20°	1113.3	5.3
20°-30°	1623.4	7.8
30°-40°	2069.5	9.9
40°-50°	2408.0	11.6
50°-60°	3663.7	17.6
60°-70°	6471.8	31.1
70°-80°	2670.6	12.8
80°-90°	403.3	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°	20836.6	100.0
0°-180°	20836.6	100.0

Coefficient of Utilization



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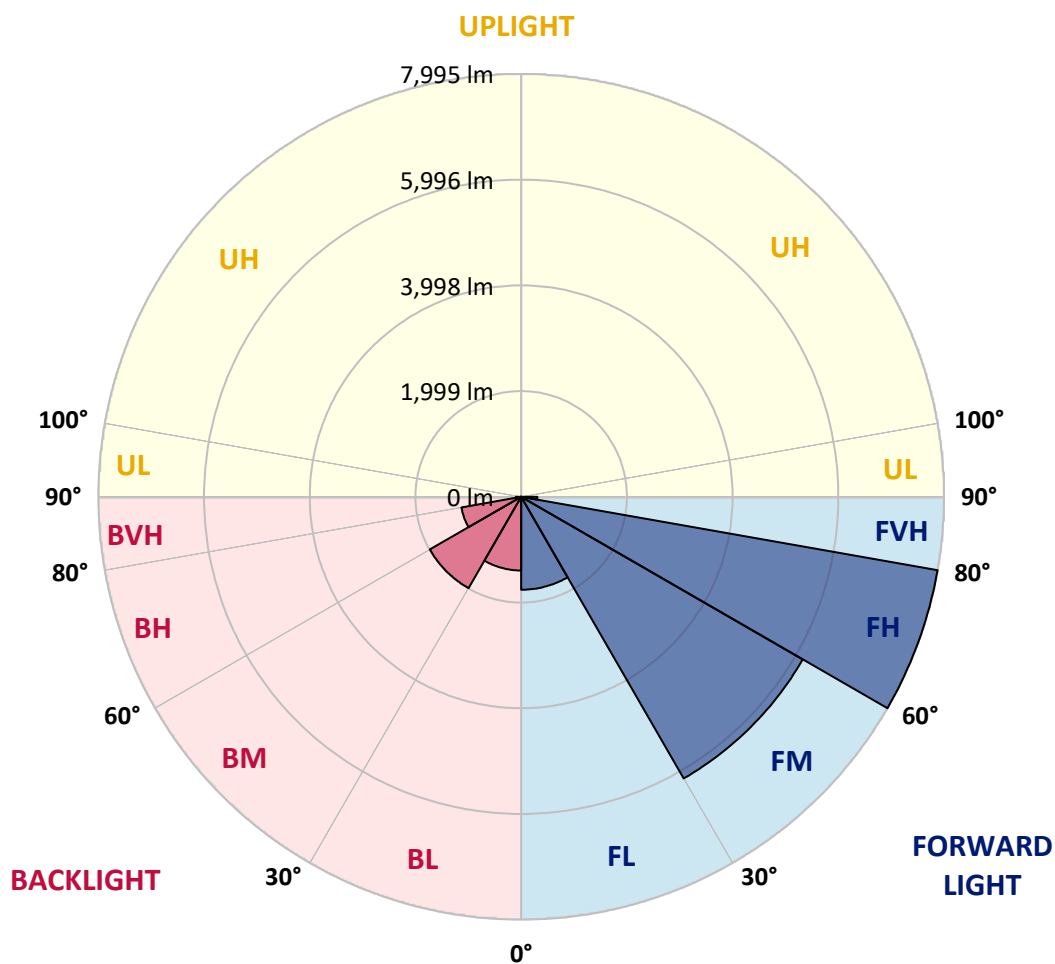
CATALOG NUMBER: VST-E07-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1757.0	8.4			
FM	(30°-60°)	6147.4	29.5			
FH	(60°-80°)	7995.0	38.4			G4/12000
FVH	(80°-90°)	304.9	1.5			G3/500
BL	(0°-30°)	1392.8	6.7	B3/2500		
BM	(30°-60°)	1993.8	9.6	B2/2500		
BH	(60°-80°)	1147.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	98.3	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-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4423.1	4438.9	4433.2	4433.2	4437.5	4430.3	4430.3	4433.2	4426.0	4430.3	4428.9
5°	4407.3	4415.9	4413.1	4413.1	4413.1	4407.3	4404.5	4403.0	4393.0	4393.0	4388.7
7.5°	4372.9	4375.7	4380.0	4374.3	4372.9	4371.4	4361.4	4355.6	4344.1	4334.1	4336.9
10°	4326.9	4325.4	4332.6	4328.3	4322.6	4318.3	4309.6	4299.6	4286.7	4273.7	4272.3
12.5°	4275.2	4273.7	4279.5	4276.6	4272.3	4263.7	4256.5	4239.3	4219.1	4203.3	4201.9
15°	4242.1	4237.8	4243.6	4237.8	4230.6	4222.0	4209.1	4187.5	4151.6	4135.8	4122.9
17.5°	4273.7	4266.5	4269.4	4262.2	4252.2	4229.2	4199.0	4153.1	4101.3	4074.0	4053.9
20°	4384.3	4371.4	4374.3	4367.1	4344.1	4314.0	4256.5	4176.0	4088.4	4043.9	4012.3
22.5°	4542.4	4532.3	4536.6	4529.4	4506.4	4460.5	4374.3	4259.4	4134.4	4069.7	4019.5
25°	4782.3	4790.9	4793.8	4760.7	4747.8	4663.0	4543.8	4384.3	4217.7	4141.6	4072.6
27.5°	5052.3	5052.3	5065.3	5052.3	5026.5	4927.4	4759.3	4566.8	4352.7	4249.3	4166.0
30°	5315.2	5312.4	5336.8	5333.9	5292.2	5180.2	4989.1	4755.0	4510.8	4394.4	4288.1
32.5°	5593.9	5602.5	5618.3	5612.6	5558.0	5402.9	5173.0	4918.7	4661.6	4533.7	4414.5
35°	5895.6	5899.9	5905.6	5902.8	5792.2	5596.8	5308.0	5023.6	4756.4	4630.0	4506.4
37.5°	6197.3	6193.0	6185.8	6124.0	5997.6	5726.1	5389.9	5083.9	4803.8	4667.3	4539.5
40°	6467.3	6442.9	6419.9	6323.7	6129.7	5799.3	5421.5	5098.3	4799.5	4658.7	4533.7
42.5°	6615.3	6588.0	6540.6	6419.9	6184.3	5806.5	5400.0	5055.2	4755.0	4615.6	4492.1
45°	6642.6	6622.5	6576.5	6441.5	6171.4	5760.6	5333.9	4984.8	4688.9	4549.5	4433.2
47.5°	6578.0	6562.1	6517.6	6384.0	6115.4	5691.6	5257.8	4910.1	4624.2	4493.5	4381.5
50°	6478.8	6464.5	6430.0	6307.9	6052.2	5644.2	5219.0	4871.3	4602.7	4483.5	4380.0
52.5°	6639.7	6651.2	6550.7	6417.1	6119.7	5685.9	5262.1	4911.6	4641.5	4523.7	4415.9
55°	9140.8	9125.0	8520.2	8013.1	7106.6	6284.9	5671.5	5230.5	4941.7	4823.9	4723.4
57.5°	11877.4	11822.8	11574.3	11100.2	10126.2	8826.1	7643.9	6638.3	6241.8	6072.3	6083.8
60°	12770.9	12791.0	12737.9	12569.8	12220.7	11544.1	10644.8	9889.2	9145.1	8781.6	8823.3
62.5°	13266.5	13302.4	13348.4	13311.1	13197.6	13041.0	12927.5	12996.4	12893.0	12631.6	12423.3
65°	13335.5	13408.7	13561.0	13681.7	13740.6	13888.5	14236.2	15069.4	15830.8	15881.0	15514.7
67.5°	11970.8	12173.3	12503.7	13062.5	13540.9	14066.7	14905.6	16172.7	17296.0	17333.4	16991.5
69°	9412.3	9801.6	10188.0	11436.4	12276.7	13306.7	14547.9	16279.0	17625.0	17728.4	17297.5
70°	7541.9	7773.2	8106.4	9360.5	10616.1	11929.1	13727.6	15928.4	17399.5	17607.8	17132.3
72.5°	4528.0	4617.1	4732.0	5181.6	5828.1	6997.4	9382.1	12986.4	14677.2	14955.9	14351.1
75°	2927.7	2921.9	2932.0	3057.0	3094.3	3318.4	4069.7	6681.4	9574.6	10080.3	9356.2
77.5°	2205.1	2225.2	2193.6	2205.1	2195.0	2255.4	2278.4	2391.9	3779.6	4655.9	4163.1
80°	1946.5	1956.6	1958.0	1952.3	1881.9	1876.1	1913.5	1848.8	1718.1	1744.0	1670.7
82.5°	1110.5	1109.0	1121.9	1219.6	1259.9	1392.0	1446.6	1476.8	1363.3	1278.5	1156.4
85°	719.7	725.5	739.8	770.0	739.8	751.3	738.4	764.2	701.0	650.8	581.8
87.5°	294.5	294.5	313.2	340.5	317.5	311.7	267.2	264.3	224.1	202.6	158.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4420.3	4428.9	4424.6	4430.3	4426.0	4426.0	4420.3	4418.8	4423.1	4417.4	4418.8
5°	4381.5	4382.9	4375.7	4378.6	4370.0	4367.1	4362.8	4351.3	4358.5	4351.3	4354.2
7.5°	4325.4	4321.1	4311.1	4296.7	4286.7	4282.3	4273.7	4257.9	4260.8	4247.9	4255.1
10°	4253.6	4239.3	4222.0	4200.5	4186.1	4173.2	4154.5	4135.8	4125.8	4114.3	4112.8
12.5°	4173.2	4155.9	4132.9	4099.9	4068.3	4046.8	4018.0	3985.0	3974.9	3956.3	3946.2
15°	4085.5	4058.2	4031.0	3993.6	3959.1	3926.1	3887.3	3845.6	3818.3	3789.6	3768.1
17.5°	4006.5	3974.9	3939.0	3903.1	3865.7	3825.5	3776.7	3725.0	3684.7	3631.6	3588.5
20°	3944.8	3904.5	3868.6	3831.3	3789.6	3740.8	3681.9	3615.8	3548.3	3489.4	3439.1
22.5°	3920.3	3857.1	3814.0	3776.7	3735.0	3677.6	3605.7	3528.2	3446.3	3364.4	3298.3
25°	3940.5	3847.1	3779.6	3735.0	3699.1	3640.2	3559.8	3465.0	3370.1	3272.5	3183.4
27.5°	3999.3	3880.1	3782.4	3712.0	3670.4	3611.5	3526.7	3426.2	3314.1	3204.9	3095.8
30°	4091.3	3936.1	3812.6	3713.5	3648.8	3581.3	3492.2	3375.9	3262.4	3137.4	3018.2
32.5°	4180.4	3995.0	3847.1	3719.2	3620.1	3532.5	3433.3	3318.4	3196.3	3065.6	2942.0
35°	4243.6	4033.8	3860.0	3706.3	3575.6	3466.4	3360.1	3245.2	3125.9	2992.3	2865.9
37.5°	4273.7	4055.4	3861.4	3671.8	3516.7	3396.0	3282.5	3169.0	3057.0	2930.6	2811.3
40°	4272.3	4053.9	3841.3	3627.3	3446.3	3318.4	3206.4	3095.8	2990.9	2880.3	2772.5
42.5°	4240.7	4031.0	3812.6	3584.2	3396.0	3253.8	3137.4	3031.1	2942.0	2844.4	2753.9
45°	4191.8	3992.2	3782.4	3564.1	3381.6	3239.4	3115.9	3012.4	2933.4	2844.4	2766.8
47.5°	4154.5	3970.6	3786.7	3600.0	3426.2	3278.2	3147.5	3034.0	2966.5	2894.6	2840.1
50°	4160.2	3980.7	3801.1	3621.5	3457.8	3308.4	3182.0	3078.5	3029.7	3011.0	2998.1
52.5°	4190.4	3996.5	3844.2	3736.5	3680.4	3568.4	3493.7	3429.0	3465.0	3394.6	3311.2
55°	4575.4	4512.2	4660.2	4799.5	4976.2	5042.3	4979.1	4967.6	5025.0	4786.6	4239.3
57.5°	6165.7	6329.4	6557.8	6678.5	6825.0	6786.3	6639.7	6517.6	6374.0	6095.3	5412.9
60°	8870.7	8747.1	8643.7	8352.1	8113.6	7834.9	7524.6	7258.9	7004.6	6603.8	5865.4
62.5°	11657.6	10800.0	10083.1	9390.7	8833.3	8370.8	7921.1	7521.8	7136.8	6578.0	5783.5
65°	14068.1	12262.4	10916.3	9900.7	9086.2	8383.7	7806.2	7254.6	6764.7	6109.6	5323.8
67.5°	15151.3	12888.7	10930.7	9475.5	8347.8	7393.9	6646.9	5813.7	5264.9	4845.5	4403.0
69°	15070.8	12410.3	10150.6	8359.3	7063.5	5951.6	5150.0	4280.9	3755.1	3577.0	3566.9
70°	14688.7	11600.1	9239.9	7452.8	5970.3	4865.6	4097.0	3317.0	2827.1	2705.0	2921.9
72.5°	11992.3	8196.9	5790.7	4421.7	3400.3	2687.8	2192.2	1739.7	1389.1	1203.8	1244.1
75°	6773.3	3795.4	2453.6	1854.6	1567.3	1295.8	1111.9	948.1	857.6	696.7	551.6
77.5°	2462.2	1629.0	1295.8	1120.5	794.4	547.3	458.3	400.8	363.4	363.4	346.2
80°	1557.2	1226.8	856.2	586.1	433.8	377.8	330.4	290.2	267.2	261.5	267.2
82.5°	972.5	751.3	479.8	367.8	308.9	277.3	241.3	211.2	192.5	188.2	196.8
85°	479.8	372.1	291.6	260.0	244.2	227.0	199.7	170.9	165.2	176.7	206.9
87.5°	143.7	127.9	104.9	109.2	114.9	112.1	89.1	77.6	73.3	96.2	150.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4421.7	4420.3	4423.1	4418.8	4421.7	4423.1	4420.3	4433.2	4424.6	4426.0	4431.7
5°	4357.0	4354.2	4365.7	4362.8	4368.5	4374.3	4371.4	4390.1	4382.9	4388.7	4400.1
7.5°	4249.3	4255.1	4256.5	4256.5	4268.0	4286.7	4291.0	4302.5	4302.5	4318.3	4329.8
10°	4105.7	4107.1	4115.7	4114.3	4128.6	4148.7	4151.6	4171.7	4178.9	4204.8	4220.6
12.5°	3939.0	3931.8	3930.4	3929.0	3947.6	3969.2	3972.1	4006.5	4020.9	4043.9	4069.7
15°	3752.3	3733.6	3727.8	3739.3	3735.0	3748.0	3760.9	3779.6	3799.7	3845.6	3868.6
17.5°	3569.8	3532.5	3522.4	3509.5	3496.6	3496.6	3502.3	3525.3	3566.9	3591.4	3643.1
20°	3383.1	3338.5	3302.6	3268.1	3238.0	3226.5	3227.9	3256.7	3286.8	3327.0	3375.9
22.5°	3226.5	3159.0	3097.2	3051.2	2989.5	2988.0	2979.4	2988.0	3021.1	3031.1	3058.4
25°	3091.5	3000.9	2917.6	2842.9	2782.6	2751.0	2742.4	2739.5	2723.7	2719.4	2699.3
27.5°	2986.6	2877.4	2769.7	2679.2	2604.5	2561.4	2506.8	2468.0	2412.0	2397.6	2361.7
30°	2900.4	2782.6	2664.8	2547.0	2462.2	2384.7	2292.7	2225.2	2139.0	2083.0	2034.2
32.5°	2817.1	2697.8	2578.6	2462.2	2331.5	2210.8	2090.2	1985.3	1889.1	1802.9	1731.0
35°	2748.1	2634.6	2514.0	2373.2	2206.5	2032.7	1887.6	1768.4	1636.2	1545.7	1455.2
37.5°	2703.6	2600.2	2479.5	2285.5	2071.5	1884.8	1719.5	1574.5	1439.4	1302.9	1201.0
40°	2683.5	2593.0	2442.1	2205.1	1953.7	1746.8	1564.4	1403.5	1231.1	1077.4	968.2
42.5°	2682.0	2590.1	2390.4	2116.0	1856.0	1630.5	1427.9	1235.4	1044.4	886.3	778.6
45°	2707.9	2585.8	2335.8	2041.3	1769.8	1534.2	1292.9	1058.7	844.7	726.9	669.4
47.5°	2776.8	2593.0	2291.3	1972.4	1687.9	1417.9	1137.7	864.8	688.1	633.5	633.5
50°	2900.4	2634.6	2279.8	1923.5	1606.1	1282.8	948.1	698.2	609.1	609.1	626.3
52.5°	3090.0	2722.3	2299.9	1889.1	1504.1	1104.7	747.0	601.9	584.7	600.5	623.5
55°	3526.7	2877.4	2327.2	1830.2	1348.9	876.3	616.3	568.9	576.1	594.7	616.3
57.5°	4328.3	3209.2	2355.9	1700.9	1099.0	675.2	558.8	555.9	568.9	586.1	604.8
60°	4855.5	3631.6	2429.2	1505.5	831.8	557.4	530.1	547.3	563.1	577.5	591.9
62.5°	4855.5	3750.8	2483.8	1287.1	624.9	507.1	511.4	538.7	557.4	564.6	573.2
65°	4545.2	3532.5	2298.5	1048.7	508.5	478.4	494.2	521.5	538.7	544.5	551.6
67.5°	3972.1	3120.2	1936.5	790.1	453.9	453.9	474.1	494.2	508.5	520.0	531.5
69°	3453.5	2799.8	1705.2	669.4	432.4	435.3	455.4	472.6	489.9	504.2	518.6
70°	3080.0	2559.9	1544.3	607.7	419.5	420.9	441.0	459.7	475.5	491.3	508.5
72.5°	1649.2	1768.4	1173.7	498.5	386.4	390.7	409.4	426.7	441.0	456.8	472.6
75°	561.7	759.9	747.0	408.0	349.1	360.6	372.1	387.9	406.5	416.6	425.2
77.5°	329.0	340.5	397.9	331.8	314.6	320.4	333.3	346.2	362.0	372.1	379.2
80°	275.8	274.4	275.8	270.1	274.4	287.3	295.9	313.2	327.5	330.4	329.0
82.5°	224.1	235.6	237.0	234.2	247.1	257.1	264.3	274.4	272.9	275.8	281.6
85°	199.7	198.2	208.3	209.7	209.7	202.6	204.0	204.0	204.0	208.3	209.7
87.5°	199.7	166.6	129.3	116.4	122.1	114.9	109.2	107.7	119.2	130.7	127.9
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°	4437.5	4437.5	4437.5	4437.5	4437.5
2.5°	4434.6	4438.9	4436.1	4436.1	4438.9
5°	4404.5	4411.6	4408.8	4411.6	4411.6
7.5°	4335.5	4345.6	4352.7	4359.9	4355.6
10°	4236.4	4253.6	4265.1	4273.7	4269.4
12.5°	4088.4	4104.2	4128.6	4143.0	4131.5
15°	3885.9	3930.4	3944.8	3964.9	3953.4
17.5°	3674.7	3702.0	3719.2	3737.9	3749.4
20°	3393.1	3414.7	3437.7	3446.3	3433.3
22.5°	3054.1	3065.6	3061.3	3074.2	3048.4
25°	2682.0	2689.2	2684.9	2696.4	2674.9
27.5°	2330.1	2328.6	2330.1	2315.7	2301.3
30°	1991.1	1978.1	1972.4	1950.8	1946.5
32.5°	1687.9	1643.4	1620.4	1588.8	1581.6
35°	1384.8	1321.6	1280.0	1244.1	1228.2
37.5°	1113.3	1037.2	988.3	956.7	952.4
40°	880.6	810.2	775.7	758.5	755.6
42.5°	718.3	688.1	679.5	679.5	679.5
45°	655.1	653.6	660.8	666.6	668.0
47.5°	642.1	650.8	660.8	669.4	672.3
50°	642.1	650.8	657.9	666.6	669.4
52.5°	639.3	646.4	649.3	655.1	657.9
55°	630.6	635.0	635.0	637.8	640.7
57.5°	616.3	619.2	614.8	617.7	624.9
60°	601.9	604.8	597.6	604.8	609.1
62.5°	586.1	587.5	584.7	590.4	590.4
65°	560.3	557.4	561.7	566.0	567.4
67.5°	534.4	527.2	531.5	533.0	535.8
69°	514.3	510.0	511.4	514.3	517.2
70°	499.9	497.0	499.9	504.2	508.5
72.5°	464.0	465.4	475.5	484.1	492.7
75°	431.0	441.0	453.9	472.6	482.7
77.5°	390.7	397.9	408.0	428.1	446.8
80°	337.6	341.9	343.3	350.5	349.1
82.5°	274.4	270.1	267.2	264.3	262.9
85°	196.8	195.4	183.9	175.3	175.3
87.5°	117.8	112.1	106.3	99.1	94.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)