

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: P158471

Luminaire Tested: **VST-E07-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158471
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-E07-LED-E-U-SL3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (147) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21669.4 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

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



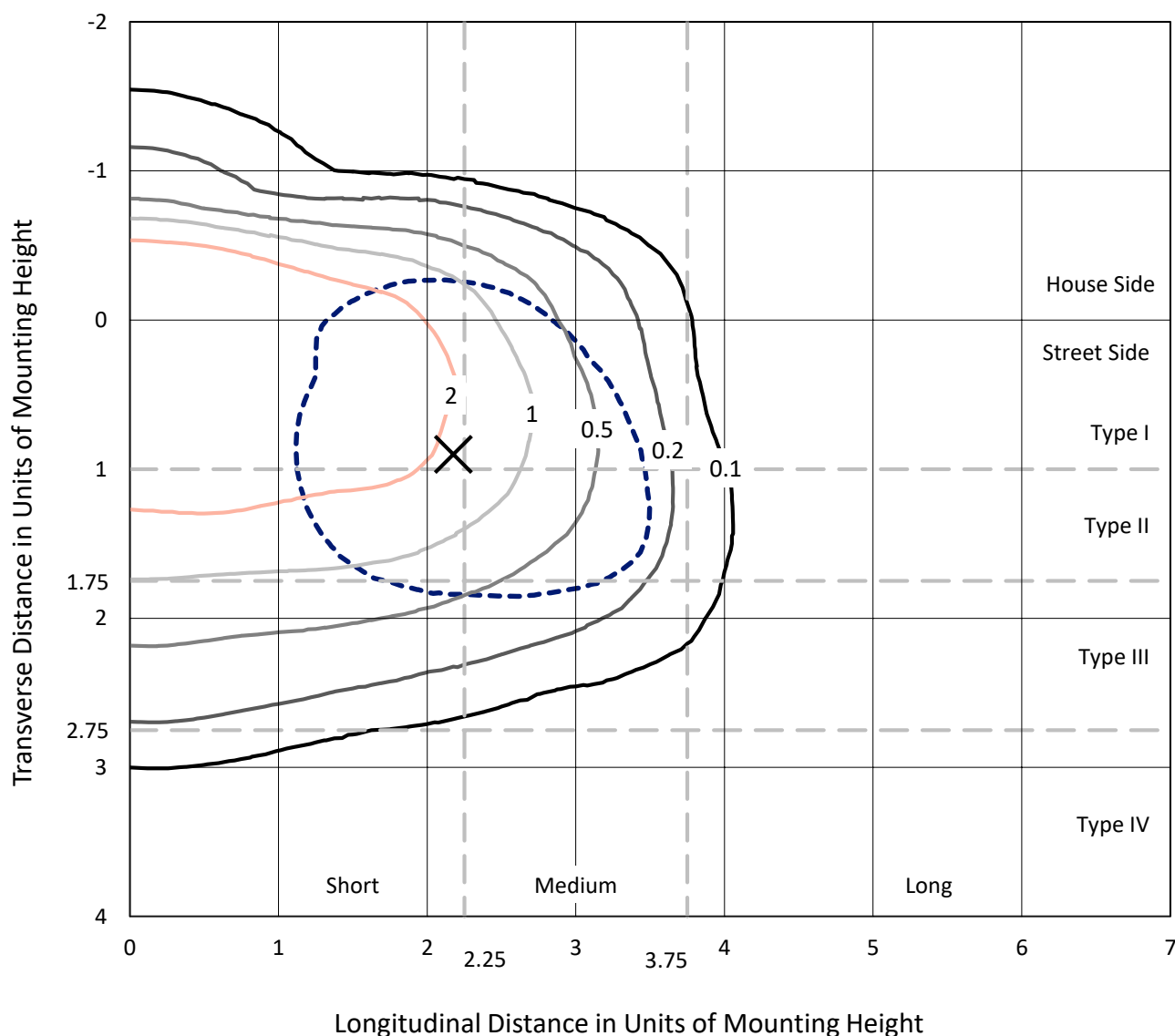
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

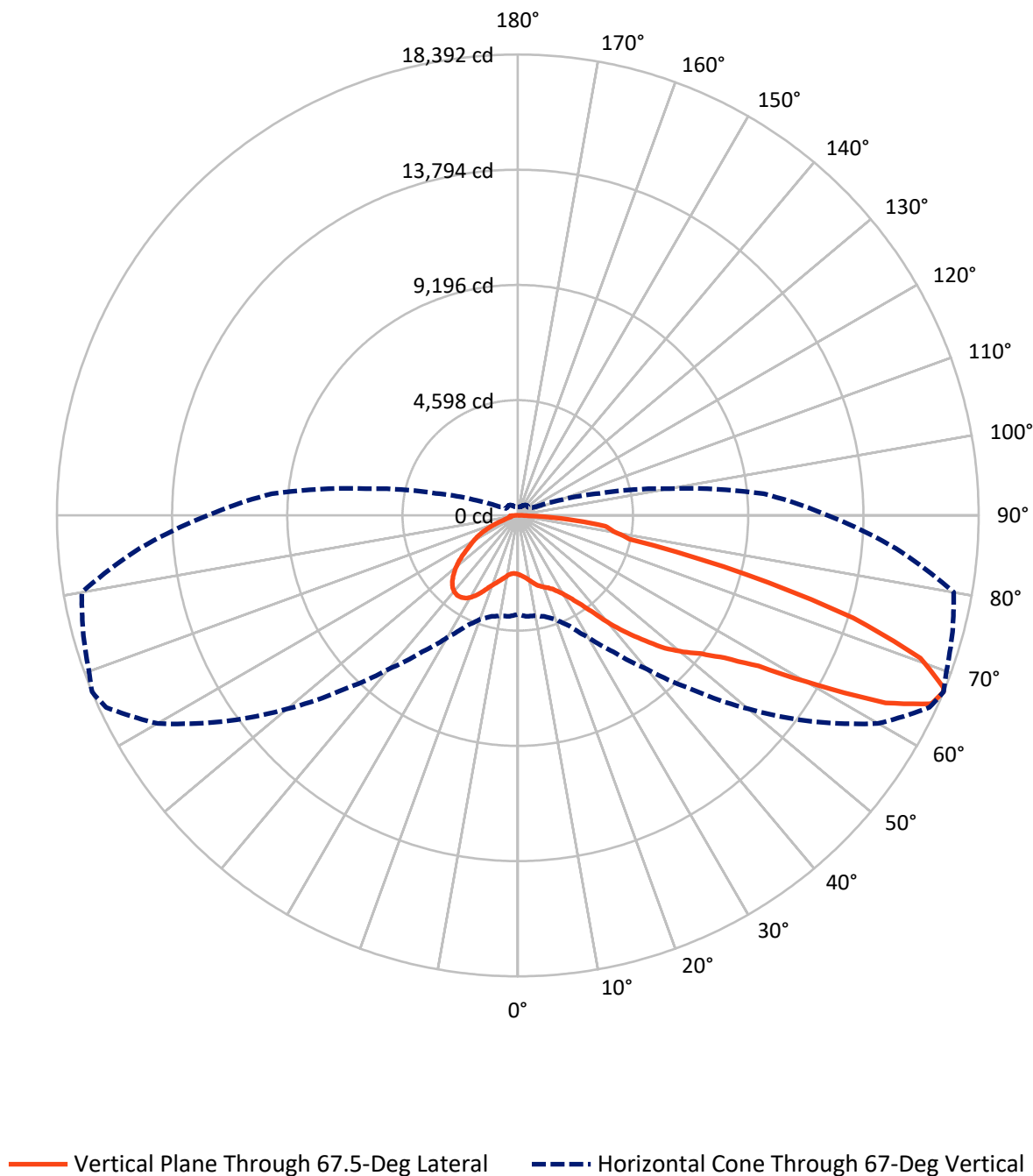


Based on 25 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5198.5	0.0	5198.5
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	16470.8	0.0	16470.8
	% Fixture	76.0	0.0	76.0
Total	Lumens	21669.4	0.0	21669.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	233.4	1.1
10°-20°	795.3	3.7
20°-30°	1419.9	6.6
30°-40°	2081.0	9.6
40°-50°	3215.4	14.8
50°-60°	4682.1	21.6
60°-70°	6099.2	28.1
70°-80°	2730.2	12.6
80°-90°	412.8	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°	21669.4	100.0
0°-180°	21669.4	100.0

Coefficient of Utilization



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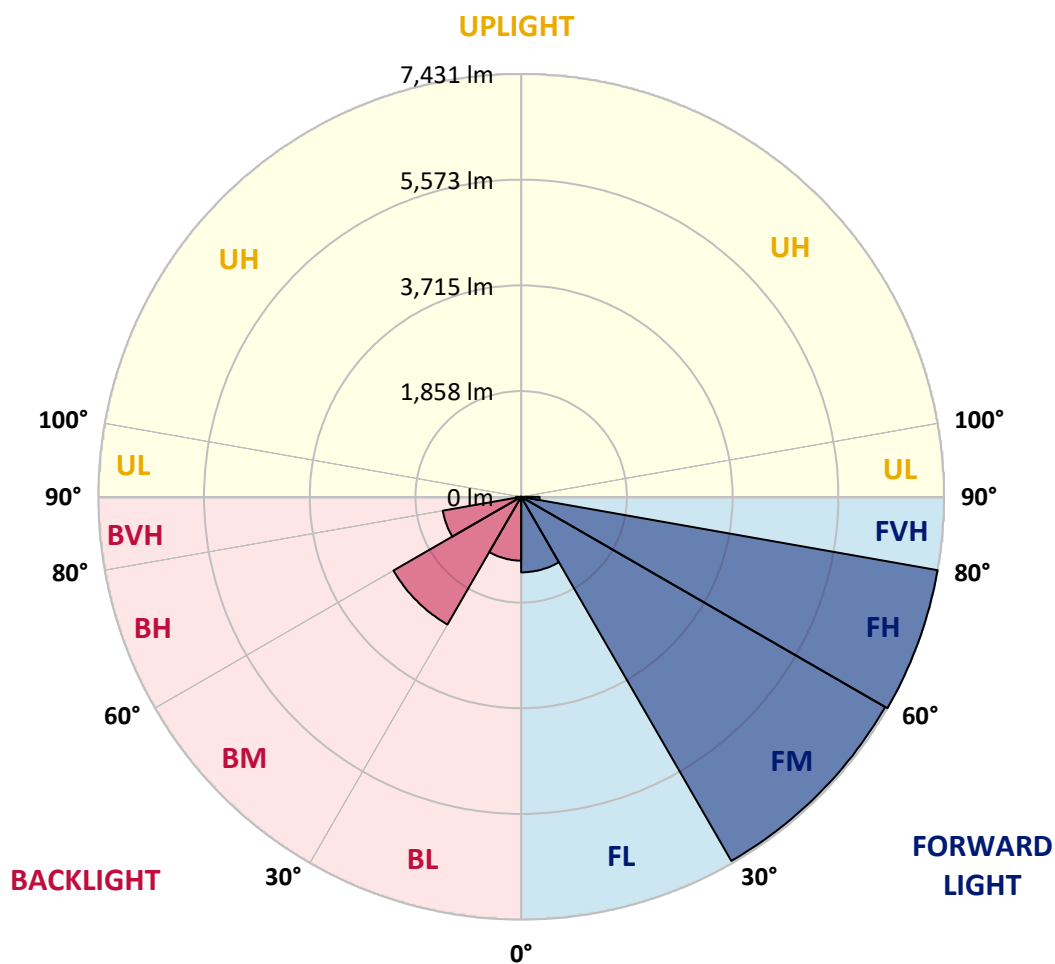
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1327.7	6.1			
FM	(30°-60°)	7388.1	34.1			
FH	(60°-80°)	7430.8	34.3			G3/7500
FVH	(80°-90°)	324.2	1.5			G3/500
BL	(0°-30°)	1121.0	5.2	B3/2500		
BM	(30°-60°)	2590.3	12.0	B3/5000		
BH	(60°-80°)	1398.6	6.5	B3/2500		G3/2500
BVH	(80°-90°)	88.6	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-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2440.7	2446.4	2447.9	2446.4	2447.9	2442.1	2440.7	2432.1	2436.4	2424.9	2422.0
5°	2572.9	2577.2	2580.0	2568.5	2571.4	2565.7	2558.5	2549.9	2538.4	2522.6	2512.5
7.5°	2702.1	2709.3	2707.9	2703.6	2693.5	2687.8	2673.4	2660.5	2640.4	2621.7	2608.8
10°	2876.0	2874.5	2874.5	2850.1	2835.7	2822.8	2797.0	2776.8	2756.7	2729.4	2715.1
12.5°	3077.1	3067.0	3062.7	3045.5	3015.3	2992.3	2955.0	2916.2	2880.3	2851.5	2828.6
15°	3271.0	3271.0	3259.5	3232.2	3203.5	3173.3	3120.2	3064.2	3005.3	2959.3	2936.3
17.5°	3447.7	3431.9	3421.9	3385.9	3355.8	3306.9	3248.0	3187.7	3114.4	3049.8	3005.3
20°	3577.0	3564.1	3542.5	3498.0	3446.3	3388.8	3319.9	3249.5	3170.5	3100.1	3049.8
22.5°	3651.7	3635.9	3602.9	3544.0	3473.6	3393.1	3312.7	3246.6	3174.8	3121.6	3080.0
25°	3690.5	3674.7	3630.2	3552.6	3457.8	3351.5	3259.5	3194.9	3153.2	3140.3	3134.5
27.5°	3689.1	3676.1	3628.7	3539.7	3417.5	3295.4	3196.3	3141.7	3137.4	3187.7	3225.0
30°	3651.7	3643.1	3600.0	3510.9	3383.1	3255.2	3163.3	3134.5	3179.1	3285.4	3377.3
32.5°	3614.4	3610.0	3579.9	3499.4	3390.3	3282.5	3219.3	3222.2	3314.1	3477.9	3625.8
35°	3618.7	3624.4	3620.1	3577.0	3508.0	3452.0	3421.9	3485.1	3628.7	3827.0	4025.2
37.5°	3656.0	3677.6	3704.9	3709.2	3710.6	3702.0	3765.2	3898.8	4108.5	4367.1	4677.4
40°	3737.9	3762.3	3841.3	3910.3	3999.3	4105.7	4233.5	4418.8	4678.8	4997.7	5378.4
42.5°	3992.2	4026.6	4124.3	4252.2	4415.9	4582.6	4773.6	5026.5	5345.4	5681.5	6080.9
45°	4324.0	4395.8	4503.6	4645.8	4891.4	5125.6	5372.7	5655.7	5994.7	6415.6	6817.9
47.5°	4737.7	4809.6	4966.1	5118.4	5408.6	5700.2	5970.3	6266.2	6634.0	7064.9	7510.3
50°	5099.7	5181.6	5321.0	5526.4	5862.6	6220.3	6519.1	6839.4	7148.3	7602.2	8051.8
52.5°	5384.2	5443.1	5576.7	5764.9	6139.8	6532.0	6909.8	7266.1	7632.4	8086.3	8502.9
55°	5420.1	5474.7	5605.4	5820.9	6201.6	6636.8	7072.1	7494.5	8013.1	8508.7	9060.3
57.5°	5264.9	5309.5	5441.6	5634.1	6004.8	6500.4	7050.6	7592.2	8255.8	8925.3	9599.0
60°	5045.2	5089.7	5193.1	5346.8	5681.5	6215.9	6858.1	7599.3	8481.4	9448.2	10439.4
62.5°	4803.8	4842.6	4925.9	5035.1	5329.6	5822.3	6557.8	7551.9	8665.3	9968.2	11496.7
65°	4397.3	4490.6	4526.6	4638.6	4933.1	5398.5	6147.0	7231.6	8590.6	10199.5	12160.4
67°	3947.6	4042.4	4061.1	4174.6	4410.2	4857.0	5618.3	6638.3	7998.7	9800.1	12013.8
67.5°	3804.0	3884.4	3913.2	4026.6	4249.3	4670.2	5392.8	6424.2	7817.7	9581.8	11837.2
70°	2797.0	2886.0	2917.6	2965.0	3124.5	3475.0	3953.4	4848.3	6233.2	7819.1	9985.4
72.5°	1496.9	1568.7	1598.9	1669.3	1751.2	1942.2	2308.5	2950.7	3825.5	5231.9	7103.7
75°	1012.8	1041.5	1063.0	1111.9	1196.6	1348.9	1509.8	1735.3	2264.0	2952.1	4042.4
77.5°	577.5	590.4	593.3	601.9	669.4	814.5	1078.8	1461.0	1873.3	2139.0	2585.8
80°	250.0	275.8	295.9	283.0	278.7	308.9	386.4	576.1	1129.1	1792.8	2127.5
82.5°	135.0	146.5	163.8	165.2	173.8	183.9	199.7	237.0	333.3	672.3	1466.7
85°	70.4	73.3	97.7	112.1	119.2	125.0	127.9	142.2	163.8	208.3	364.9
87.5°	10.1	14.4	17.2	23.0	25.9	27.3	31.6	40.2	47.4	57.5	97.7
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°	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2409.1	2406.2	2397.6	2391.9	2386.1	2380.4	2373.2	2367.4	2357.4	2350.2	2341.6
5°	2498.2	2480.9	2469.4	2453.6	2450.8	2432.1	2413.4	2404.8	2387.5	2373.2	2355.9
7.5°	2588.7	2568.5	2549.9	2536.9	2529.8	2503.9	2485.2	2463.7	2443.6	2424.9	2404.8
10°	2695.0	2674.9	2654.7	2646.1	2633.2	2608.8	2593.0	2565.7	2545.6	2522.6	2495.3
12.5°	2805.6	2791.2	2776.8	2765.4	2759.6	2748.1	2725.1	2702.1	2674.9	2651.9	2620.3
15°	2903.3	2893.2	2887.5	2884.6	2884.6	2877.4	2855.9	2834.3	2805.6	2779.7	2745.2
17.5°	2972.2	2967.9	2972.2	2976.5	2982.3	2976.5	2972.2	2947.8	2929.1	2897.5	2863.0
20°	3012.4	3021.1	3042.6	3057.0	3069.9	3080.0	3084.3	3064.2	3039.7	3016.8	2993.8
22.5°	3055.5	3080.0	3117.3	3138.9	3160.4	3196.3	3204.9	3190.6	3171.9	3157.5	3133.1
25°	3127.4	3163.3	3227.9	3262.4	3292.6	3345.7	3352.9	3355.8	3351.5	3340.0	3309.8
27.5°	3239.4	3309.8	3396.0	3440.5	3473.6	3542.5	3569.8	3569.8	3558.3	3571.3	3571.3
30°	3434.8	3528.2	3640.2	3666.1	3717.8	3778.1	3822.7	3828.4	3829.8	3857.1	3897.4
32.5°	3735.0	3824.1	3949.1	3977.8	4022.3	4079.8	4130.1	4124.3	4137.3	4196.2	4249.3
35°	4171.7	4262.2	4344.1	4382.9	4403.0	4454.7	4473.4	4505.0	4543.8	4617.1	4609.9
37.5°	4818.2	4898.6	4910.1	4934.5	4910.1	4920.2	4934.5	4971.9	5075.3	5141.4	5035.1
40°	5596.8	5730.4	5717.5	5688.7	5634.1	5560.9	5586.7	5644.2	5756.2	5698.8	5412.9
42.5°	6330.9	6468.8	6442.9	6409.9	6289.2	6261.9	6259.0	6306.4	6366.8	6203.0	5708.8
45°	7053.4	7194.2	7149.7	7131.0	7050.6	6991.7	7040.5	7043.4	7027.6	6677.1	5967.4
47.5°	7799.0	7928.3	7899.6	7915.4	7832.1	7793.3	7797.6	7777.5	7629.5	7079.3	6168.5
50°	8400.9	8574.8	8592.0	8556.1	8511.5	8452.6	8603.5	8548.9	8219.9	7470.0	6362.5
52.5°	8869.2	9103.4	9192.5	9169.5	9133.6	9140.8	9423.8	9485.5	8941.1	7962.8	6576.5
55°	9423.8	9792.9	9938.0	10024.2	9986.9	10130.5	10778.4	10810.0	9943.8	8606.4	6855.2
57.5°	10223.9	10752.6	11210.8	11332.9	11450.7	11917.6	12969.2	12648.8	11245.3	9580.3	7208.6
60°	11440.7	12598.5	13342.7	13733.4	14009.2	14661.4	15661.2	14849.6	12867.2	10739.6	7652.5
62.5°	13144.4	14836.7	16080.7	16472.9	16586.4	16961.3	17685.3	16132.4	13750.6	11259.7	7691.3
65°	14412.9	16442.7	17932.4	18133.5	17998.5	18005.7	18195.3	16064.9	13421.7	10805.7	7024.7
67°	14329.6	16602.2	18127.8	18392.1	18205.4	17959.7	17663.8	15149.8	12364.4	9854.7	6151.3
67.5°	14201.7	16448.5	18043.0	18321.7	18150.8	17870.7	17438.3	14795.0	12035.4	9558.8	5973.2
70°	12276.7	14507.7	16655.3	17047.5	17119.3	16863.6	15649.7	12475.0	9771.4	7776.0	4638.6
72.5°	9555.9	11542.7	13667.3	14007.8	14283.6	13546.6	11390.4	8616.4	7122.4	5604.0	3358.6
75°	6309.3	8330.5	9402.2	9452.5	9100.5	7735.8	5565.2	4315.4	3972.1	3294.0	2078.7
77.5°	3375.9	4898.6	4928.8	4563.9	4397.3	3278.2	1330.2	734.1	817.4	928.0	827.5
80°	2518.3	3120.2	3615.8	3887.3	3967.7	2811.3	688.1	389.3	340.5	310.3	306.0
82.5°	2271.2	3013.9	3378.8	3526.7	3489.4	2312.8	386.4	261.5	216.9	235.6	268.6
85°	890.7	1608.9	2116.0	2048.5	1721.0	861.9	211.2	140.8	140.8	204.0	264.3
87.5°	182.4	330.4	448.2	428.1	385.0	166.6	103.4	84.8	86.2	165.2	250.0
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°	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2333.0	2324.3	2318.6	2312.8	2307.1	2304.2	2299.9	2299.9	2291.3	2288.4	2285.5
5°	2343.0	2328.6	2318.6	2305.7	2295.6	2287.0	2275.5	2272.6	2262.6	2255.4	2252.5
7.5°	2386.1	2364.6	2343.0	2327.2	2312.8	2294.2	2281.2	2269.7	2259.7	2252.5	2243.9
10°	2468.0	2445.0	2414.8	2386.1	2367.4	2338.7	2318.6	2298.5	2287.0	2278.4	2266.9
12.5°	2588.7	2555.6	2519.7	2485.2	2453.6	2416.3	2396.2	2371.7	2357.4	2350.2	2341.6
15°	2712.2	2676.3	2631.8	2598.7	2562.8	2534.1	2515.4	2493.8	2482.4	2473.7	2468.0
17.5°	2838.6	2797.0	2765.4	2732.3	2715.1	2693.5	2669.1	2641.8	2608.8	2588.7	2561.4
20°	2967.9	2936.3	2917.6	2899.0	2878.8	2848.7	2799.8	2743.8	2682.0	2623.1	2567.1
22.5°	3118.7	3100.1	3097.2	3080.0	3038.3	2966.5	2876.0	2771.1	2666.2	2568.5	2492.4
25°	3331.4	3331.4	3317.0	3246.6	3148.9	3019.6	2867.3	2716.5	2577.2	2443.6	2343.0
27.5°	3598.6	3588.5	3518.1	3373.0	3197.8	2996.6	2792.6	2601.6	2423.5	2276.9	2147.6
30°	3893.0	3822.7	3671.8	3443.4	3180.5	2921.9	2672.0	2450.8	2241.0	2061.4	1909.2
32.5°	4199.0	4028.1	3756.6	3443.4	3120.2	2809.9	2521.1	2249.6	2009.7	1808.6	1627.6
35°	4476.3	4164.6	3776.7	3387.4	3002.4	2644.7	2310.0	2002.5	1715.2	1498.3	1300.1
37.5°	4727.7	4255.1	3755.1	3278.2	2831.4	2412.0	2019.8	1680.8	1356.1	1146.4	976.9
40°	4891.4	4273.7	3666.1	3107.3	2587.2	2097.4	1663.5	1284.3	1027.1	836.1	722.6
42.5°	4993.4	4237.8	3522.4	2873.1	2258.3	1702.3	1248.4	920.8	729.8	623.5	580.4
45°	5050.9	4144.4	3309.8	2552.7	1860.3	1294.3	886.3	665.1	561.7	524.3	510.0
47.5°	5048.0	3993.6	3044.0	2182.1	1420.7	902.2	627.8	518.6	489.9	478.4	475.5
50°	5017.9	3808.3	2732.3	1779.9	1025.7	629.2	497.0	465.4	458.3	451.1	448.2
52.5°	4976.2	3578.4	2387.5	1387.7	728.3	502.8	451.1	442.5	436.7	429.5	426.7
55°	4898.6	3295.4	2014.0	1044.4	570.3	453.9	435.3	432.4	425.2	415.2	409.4
57.5°	4803.8	3008.1	1656.3	816.0	504.2	442.5	432.4	428.1	418.0	406.5	395.1
60°	4769.3	2771.1	1376.2	688.1	488.4	446.8	439.6	433.8	419.5	402.2	389.3
62.5°	4553.9	2503.9	1175.1	637.8	497.0	465.4	462.6	453.9	432.4	412.3	392.2
65°	3996.5	2117.5	995.5	603.4	514.3	497.0	499.9	487.0	465.4	438.1	402.2
67°	3380.2	1726.7	828.9	570.3	527.2	530.1	540.1	530.1	502.8	464.0	415.2
67.5°	3216.4	1627.6	787.2	560.3	530.1	538.7	550.2	543.0	515.7	471.2	420.9
70°	2390.4	1146.4	587.5	507.1	530.1	564.6	590.4	597.6	567.4	505.7	432.4
72.5°	1683.6	739.8	451.1	439.6	481.2	527.2	576.1	600.5	566.0	498.5	416.6
75°	1011.3	462.6	366.3	373.5	405.1	452.5	491.3	501.4	458.3	415.2	360.6
77.5°	468.3	307.4	287.3	297.4	327.5	349.1	349.1	329.0	295.9	270.1	258.6
80°	275.8	251.4	250.0	268.6	288.7	272.9	248.5	221.2	204.0	195.4	191.1
82.5°	258.6	268.6	285.9	290.2	274.4	235.6	205.4	178.1	169.5	165.2	160.9
85°	304.5	326.1	297.4	274.4	242.8	198.2	160.9	137.9	133.6	129.3	123.5
87.5°	281.6	268.6	234.2	201.1	166.6	120.7	87.6	79.0	84.8	83.3	80.4
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°	2348.8	2348.8	2348.8	2348.8	2348.8
2.5°	2287.0	2287.0	2281.2	2278.4	2285.5
5°	2246.8	2248.2	2243.9	2242.5	2243.9
7.5°	2238.1	2236.7	2233.8	2231.0	2233.8
10°	2264.0	2262.6	2258.3	2261.1	2256.8
12.5°	2341.6	2350.2	2348.8	2351.6	2357.4
15°	2468.0	2466.6	2462.2	2465.1	2469.4
17.5°	2539.8	2528.3	2518.3	2514.0	2514.0
20°	2522.6	2489.5	2472.3	2462.2	2459.4
22.5°	2420.6	2373.2	2337.3	2328.6	2321.5
25°	2253.9	2195.0	2149.1	2139.0	2120.3
27.5°	2060.0	1981.0	1926.4	1914.9	1904.9
30°	1805.7	1715.2	1652.0	1611.8	1624.7
32.5°	1495.4	1409.3	1336.0	1271.3	1261.3
35°	1155.0	1060.2	995.5	966.8	948.1
37.5°	861.9	782.9	739.8	712.5	714.0
40°	659.4	617.7	594.7	576.1	577.5
42.5°	550.2	531.5	525.8	517.2	512.8
45°	498.5	492.7	494.2	485.6	482.7
47.5°	469.8	465.4	466.9	461.1	459.7
50°	446.8	443.9	445.3	441.0	439.6
52.5°	423.8	425.2	423.8	420.9	420.9
55°	403.7	402.2	405.1	400.8	400.8
57.5°	387.9	386.4	386.4	385.0	385.0
60°	379.2	373.5	372.1	372.1	373.5
62.5°	374.9	364.9	363.4	363.4	364.9
65°	376.4	360.6	354.8	353.4	352.0
67°	377.8	354.8	343.3	337.6	336.2
67.5°	379.2	352.0	339.0	333.3	330.4
70°	370.6	331.8	313.2	303.1	300.2
72.5°	349.1	307.4	284.4	271.5	268.6
75°	310.3	278.7	258.6	244.2	238.5
77.5°	239.9	225.5	218.4	209.7	206.9
80°	186.8	179.6	176.7	170.9	169.5
82.5°	155.1	148.0	143.7	136.5	132.2
85°	120.7	112.1	109.2	103.4	100.6
87.5°	79.0	74.7	73.3	66.1	63.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)