

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: P158488

Luminaire Tested: **VST-E09-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158488
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-E09-LED-E-U-SL3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (189) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22915.9 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 225.7
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



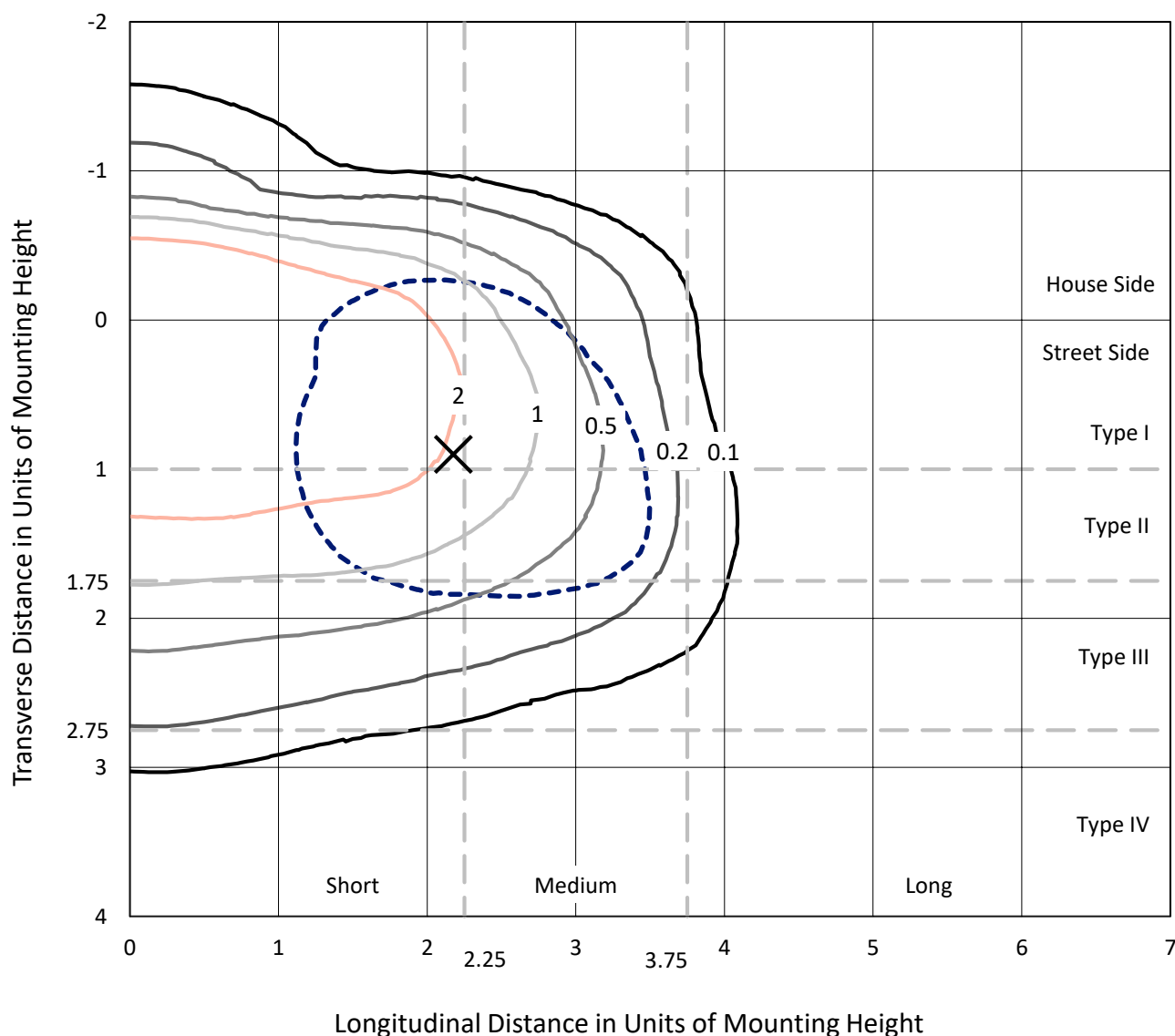
REPORT NUMBER: P158488

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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

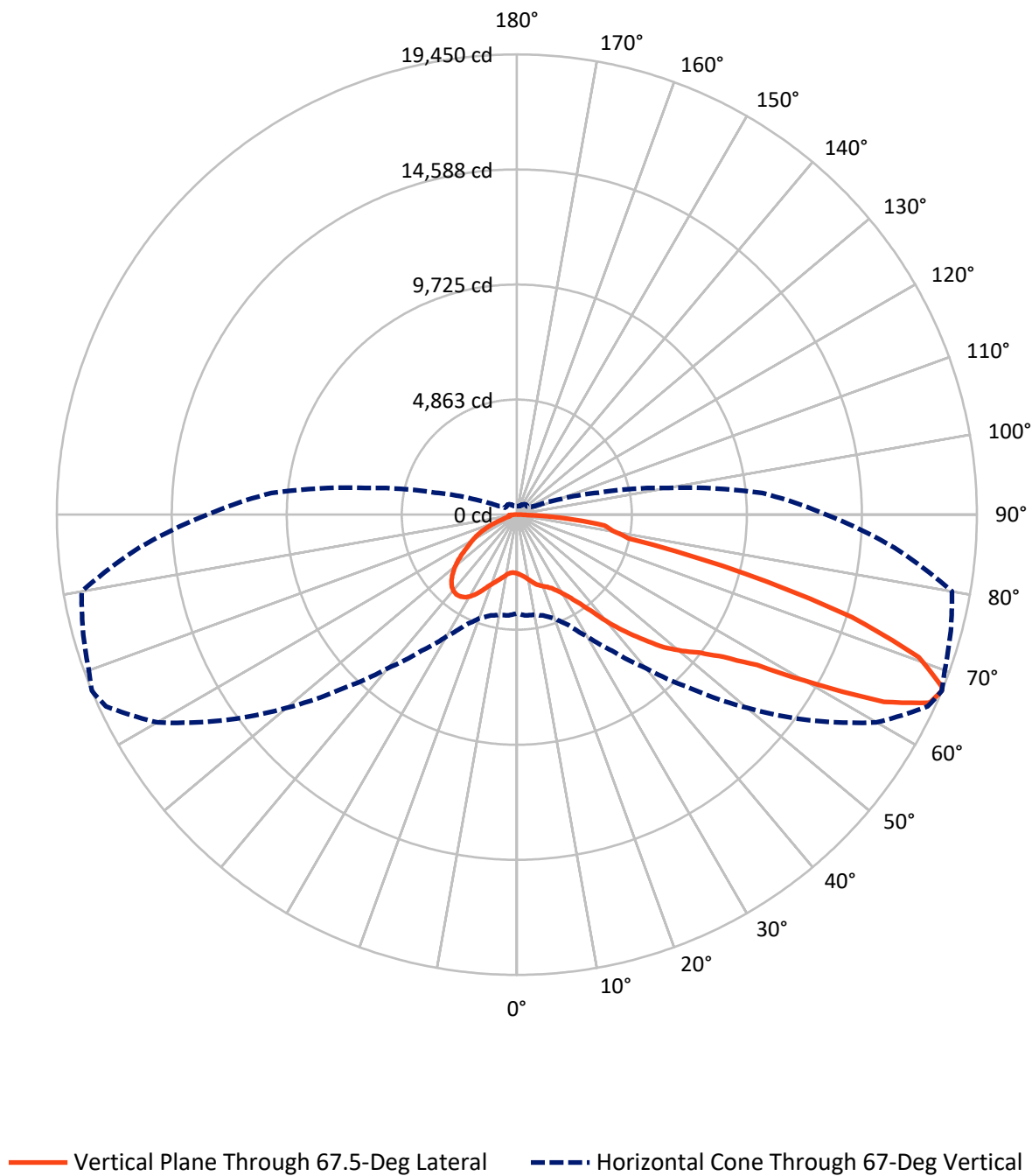


Based on 25 foot mounting height. Maximum calculated value = 5 fc
Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5497.6	0.0	5497.6
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	17418.3	0.0	17418.3
	% Fixture	76.0	0.0	76.0
Total	Lumens	22915.9	0.0	22915.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.9	1.1
10°-20°	841.1	3.7
20°-30°	1501.6	6.6
30°-40°	2200.7	9.6
40°-50°	3400.3	14.8
50°-60°	4951.5	21.6
60°-70°	6450.1	28.1
70°-80°	2887.3	12.6
80°-90°	436.6	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°	22915.9	100.0
0°-180°	22915.9	100.0

Coefficient of Utilization



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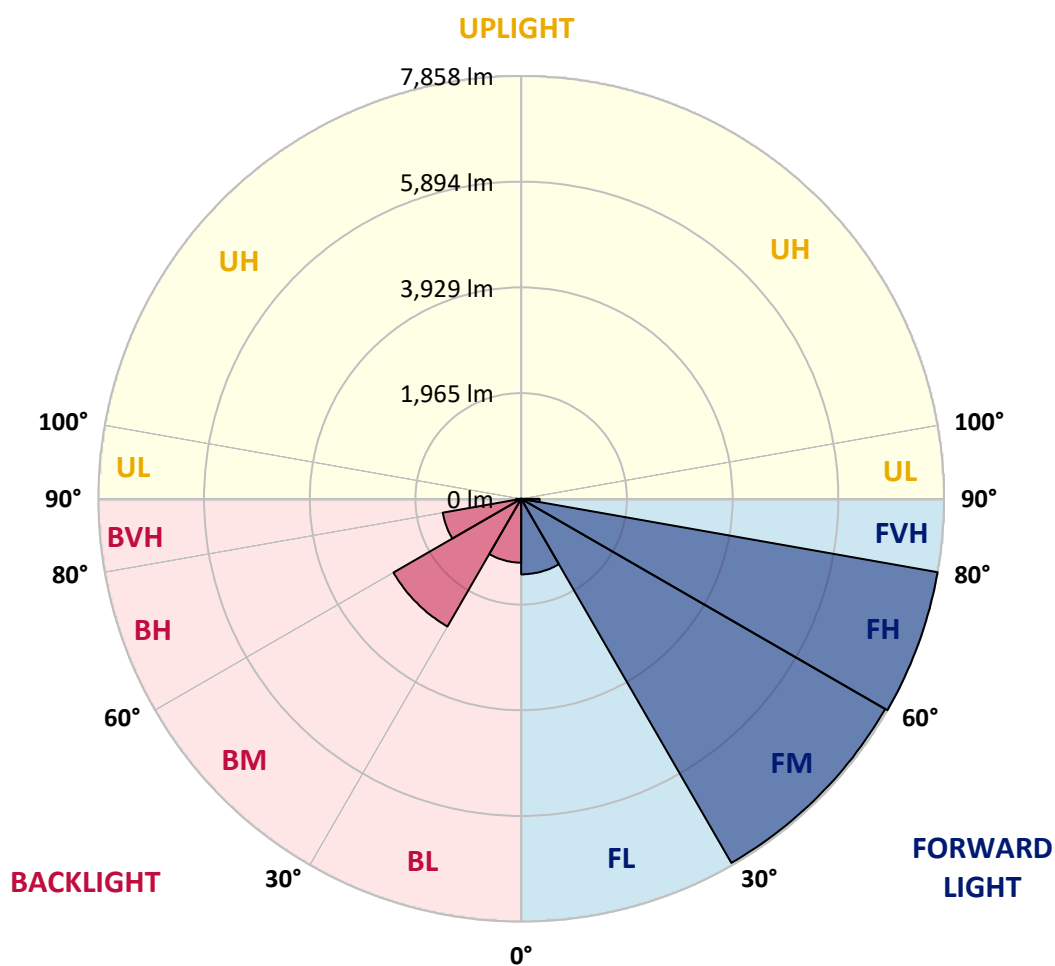
CATALOG NUMBER: VST-E09-LED-E-U-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1404.1	6.1			
FM	(30°-60°)	7813.1	34.1			
FH	(60°-80°)	7858.3	34.3			G4/12000
FVH	(80°-90°)	342.8	1.5			G3/500
BL	(0°-30°)	1185.5	5.2	B3/2500		
BM	(30°-60°)	2739.3	12.0	B3/5000		
BH	(60°-80°)	1479.1	6.5	B3/2500		G3/2500
BVH	(80°-90°)	93.7	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°	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9
2.5°	2581.1	2587.2	2588.7	2587.2	2588.7	2582.6	2581.1	2572.0	2576.5	2564.4	2561.3
5°	2720.9	2725.4	2728.5	2716.3	2719.3	2713.3	2705.7	2696.6	2684.4	2667.7	2657.1
7.5°	2857.6	2865.2	2863.7	2859.1	2848.5	2842.4	2827.2	2813.5	2792.3	2772.5	2758.8
10°	3041.4	3039.9	3039.9	3014.1	2998.9	2985.2	2957.9	2936.6	2915.3	2886.4	2871.3
12.5°	3254.1	3243.5	3238.9	3220.7	3188.8	3164.5	3125.0	3083.9	3046.0	3015.6	2991.3
15°	3459.2	3459.2	3447.0	3418.2	3387.8	3355.9	3299.7	3240.4	3178.1	3129.5	3105.2
17.5°	3646.0	3629.3	3618.7	3580.7	3548.8	3497.2	3434.9	3371.1	3293.6	3225.2	3178.1
20°	3782.8	3769.1	3746.3	3699.2	3644.5	3583.8	3510.8	3436.4	3352.8	3278.4	3225.2
22.5°	3861.8	3845.1	3810.1	3747.8	3673.4	3588.3	3503.2	3433.4	3357.4	3301.2	3257.1
25°	3902.8	3886.1	3839.0	3756.9	3656.7	3544.3	3447.0	3378.7	3334.6	3320.9	3314.9
27.5°	3901.3	3887.6	3837.5	3743.3	3614.1	3485.0	3380.2	3322.5	3317.9	3371.1	3410.6
30°	3861.8	3852.6	3807.1	3712.9	3577.7	3442.5	3345.2	3314.9	3362.0	3474.4	3571.6
32.5°	3822.3	3817.7	3785.8	3700.7	3585.3	3471.3	3404.5	3407.5	3504.8	3677.9	3834.4
35°	3826.8	3832.9	3828.3	3782.8	3709.8	3650.6	3618.7	3685.5	3837.5	4047.1	4256.8
37.5°	3866.3	3889.1	3918.0	3922.5	3924.1	3914.9	3981.8	4123.1	4344.9	4618.3	4946.5
40°	3952.9	3978.7	4062.3	4135.2	4229.4	4341.8	4477.0	4673.0	4948.0	5285.2	5687.8
42.5°	4221.8	4258.3	4361.6	4496.8	4670.0	4846.2	5048.2	5315.6	5652.9	6008.4	6430.7
45°	4572.7	4648.7	4762.6	4913.0	5172.8	5420.4	5681.7	5981.0	6339.6	6784.7	7210.0
47.5°	5010.3	5086.2	5251.8	5412.9	5719.7	6028.1	6313.7	6626.7	7015.6	7471.3	7942.3
50°	5393.1	5479.7	5627.1	5844.3	6199.8	6578.1	6894.1	7232.8	7559.5	8039.5	8515.0
52.5°	5693.9	5756.2	5897.5	6096.5	6493.0	6907.7	7307.3	7684.0	8071.4	8551.5	8992.0
55°	5731.9	5789.6	5927.9	6155.7	6558.3	7018.6	7478.9	7925.6	8474.0	8998.1	9581.5
57.5°	5567.8	5614.9	5754.7	5958.2	6350.2	6874.3	7456.2	8028.9	8730.7	9438.7	10151.2
60°	5335.4	5382.5	5491.8	5654.4	6008.4	6573.5	7252.6	8036.5	8969.3	9991.7	11039.9
62.5°	5080.2	5121.2	5209.3	5324.7	5636.2	6157.3	6935.1	7986.3	9163.7	10541.6	12158.0
65°	4650.2	4749.0	4786.9	4905.4	5216.9	5709.1	6500.6	7647.6	9084.7	10786.2	12859.9
67°	4174.7	4275.0	4294.7	4414.7	4663.9	5136.4	5941.5	7020.1	8458.8	10363.9	12704.9
67.5°	4022.8	4107.9	4138.3	4258.3	4493.7	4938.9	5703.0	6793.8	8267.4	10133.0	12518.1
70°	2957.9	3052.0	3085.5	3135.6	3304.2	3674.9	4180.8	5127.2	6591.7	8268.9	10559.8
72.5°	1583.0	1658.9	1690.9	1765.3	1851.9	2053.9	2441.3	3120.4	4045.6	5532.9	7512.4
75°	1071.0	1101.4	1124.2	1175.8	1265.5	1426.5	1596.7	1835.2	2394.2	3121.9	4275.0
77.5°	610.7	624.4	627.4	636.5	707.9	861.4	1140.9	1545.0	1981.0	2262.1	2734.5
80°	264.3	291.7	313.0	299.3	294.7	326.6	408.7	609.2	1194.1	1895.9	2249.9
82.5°	142.8	155.0	173.2	174.7	183.8	194.5	211.2	250.7	352.5	711.0	1551.1
85°	74.4	77.5	103.3	118.5	126.1	132.2	135.2	150.4	173.2	220.3	385.9
87.5°	10.6	15.2	18.2	24.3	27.3	28.9	33.4	42.5	50.1	60.8	103.3
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-E09-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9
2.5°	2547.7	2544.6	2535.5	2529.4	2523.4	2517.3	2509.7	2503.6	2493.0	2485.4	2476.3
5°	2641.9	2623.6	2611.5	2594.8	2591.7	2572.0	2552.2	2543.1	2524.9	2509.7	2491.5
7.5°	2737.6	2716.3	2696.6	2682.9	2675.3	2647.9	2628.2	2605.4	2584.1	2564.4	2543.1
10°	2850.0	2828.7	2807.5	2798.3	2784.7	2758.8	2742.1	2713.3	2692.0	2667.7	2638.8
12.5°	2967.0	2951.8	2936.6	2924.4	2918.4	2906.2	2881.9	2857.6	2828.7	2804.4	2771.0
15°	3070.3	3059.6	3053.6	3050.5	3050.5	3042.9	3020.1	2997.3	2967.0	2939.6	2903.2
17.5°	3143.2	3138.6	3143.2	3147.7	3153.8	3147.7	3143.2	3117.4	3097.6	3064.2	3027.7
20°	3185.7	3194.8	3217.6	3232.8	3246.5	3257.1	3261.7	3240.4	3214.6	3190.3	3166.0
22.5°	3231.3	3257.1	3296.6	3319.4	3342.2	3380.2	3389.3	3374.1	3354.4	3339.2	3313.3
25°	3307.3	3345.2	3413.6	3450.1	3482.0	3538.2	3545.8	3548.8	3544.3	3532.1	3500.2
27.5°	3425.8	3500.2	3591.4	3638.4	3673.4	3746.3	3775.2	3775.2	3763.0	3776.7	3776.7
30°	3632.4	3731.1	3849.6	3877.0	3931.6	3995.5	4042.5	4048.6	4050.1	4079.0	4121.5
32.5°	3949.9	4044.1	4176.2	4206.6	4253.7	4314.5	4367.7	4361.6	4375.2	4437.5	4493.7
35°	4411.7	4507.4	4594.0	4635.0	4656.3	4711.0	4730.7	4764.2	4805.2	4882.7	4875.1
37.5°	5095.3	5180.4	5192.6	5218.4	5192.6	5203.2	5218.4	5257.9	5367.3	5437.2	5324.7
40°	5918.7	6060.0	6046.4	6016.0	5958.2	5880.8	5908.1	5968.9	6087.4	6026.6	5724.3
42.5°	6695.0	6840.9	6813.5	6778.6	6651.0	6622.1	6619.1	6669.2	6733.0	6559.8	6037.2
45°	7459.2	7608.1	7561.0	7541.2	7456.2	7393.9	7445.5	7448.6	7431.8	7061.2	6310.7
47.5°	8247.6	8384.4	8354.0	8370.7	8282.6	8241.6	8246.1	8224.9	8068.4	7486.5	6523.4
50°	8884.2	9068.0	9086.2	9048.3	9001.2	8938.9	9098.4	9040.7	8692.8	7899.8	6728.5
52.5°	9379.4	9627.1	9721.3	9696.9	9659.0	9666.6	9965.8	10031.2	9455.4	8420.8	6954.8
55°	9965.8	10356.3	10509.7	10600.9	10561.4	10713.3	11398.4	11431.9	10515.8	9101.4	7249.5
57.5°	10812.0	11371.1	11855.7	11984.8	12109.4	12603.1	13715.2	13376.4	11892.2	10131.4	7623.3
60°	12098.8	13323.2	14110.2	14523.4	14815.1	15504.8	16562.1	15703.8	13607.3	11357.4	8092.7
62.5°	13900.5	15690.1	17005.7	17420.5	17540.5	17937.0	18702.7	17060.4	14541.6	11907.4	8133.7
65°	15242.0	17388.6	18964.0	19176.7	19033.9	19041.4	19242.0	16989.0	14193.7	11427.3	7428.8
67°	15153.9	17557.2	19170.6	19450.1	19252.6	18992.8	18679.9	16021.3	13075.6	10421.6	6505.1
67.5°	15018.6	17394.7	19080.9	19375.7	19194.9	18898.6	18441.4	15646.1	12727.7	10108.6	6316.8
70°	12982.9	15342.2	17613.4	18028.2	18104.1	17833.7	16550.0	13192.6	10333.5	8223.3	4905.4
72.5°	10105.6	12206.6	14453.5	14813.6	15105.2	14325.9	12045.6	9112.1	7532.1	5926.3	3551.9
75°	6672.3	8809.7	9943.1	9996.2	9624.0	8180.8	5885.3	4563.6	4200.5	3483.5	2198.3
77.5°	3570.1	5180.4	5212.3	4826.4	4650.2	3466.8	1406.8	776.3	864.4	981.4	875.0
80°	2663.1	3299.7	3823.8	4110.9	4196.0	2973.0	727.7	411.7	360.0	328.1	323.6
82.5°	2401.8	3187.2	3573.1	3729.6	3690.1	2445.9	408.7	276.5	229.4	249.1	284.1
85°	941.9	1701.5	2237.8	2166.4	1820.0	911.5	223.3	148.9	148.9	215.7	279.5
87.5°	192.9	349.4	474.0	452.7	407.1	176.2	109.4	89.6	91.2	174.7	264.3
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°	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9	2483.9
2.5°	2467.2	2458.0	2452.0	2445.9	2439.8	2436.8	2432.2	2432.2	2423.1	2420.1	2417.0
5°	2477.8	2462.6	2452.0	2438.3	2427.7	2418.5	2406.4	2403.3	2392.7	2385.1	2382.1
7.5°	2523.4	2500.6	2477.8	2461.1	2445.9	2426.1	2412.5	2400.3	2389.7	2382.1	2373.0
10°	2610.0	2585.7	2553.7	2523.4	2503.6	2473.2	2452.0	2430.7	2418.5	2409.4	2397.3
12.5°	2737.6	2702.6	2664.6	2628.2	2594.8	2555.3	2534.0	2508.2	2493.0	2485.4	2476.3
15°	2868.2	2830.2	2783.1	2748.2	2710.2	2679.8	2660.1	2637.3	2625.1	2616.0	2610.0
17.5°	3001.9	2957.9	2924.4	2889.5	2871.3	2848.5	2822.6	2793.8	2758.8	2737.6	2708.7
20°	3138.6	3105.2	3085.5	3065.7	3044.4	3012.5	2960.9	2901.6	2836.3	2774.0	2714.8
22.5°	3298.1	3278.4	3275.4	3257.1	3213.1	3137.1	3041.4	2930.5	2819.6	2716.3	2635.8
25°	3523.0	3523.0	3507.8	3433.4	3330.1	3193.3	3032.3	2872.8	2725.4	2584.1	2477.8
27.5°	3805.6	3794.9	3720.5	3567.0	3381.7	3169.0	2953.3	2751.2	2562.9	2407.9	2271.2
30°	4117.0	4042.5	3883.0	3641.5	3363.5	3090.0	2825.7	2591.7	2369.9	2180.0	2019.0
32.5°	4440.6	4259.8	3972.7	3641.5	3299.7	2971.5	2666.2	2379.0	2125.3	1912.7	1721.2
35°	4733.8	4404.1	3993.9	3582.2	3175.1	2796.8	2442.8	2117.7	1813.9	1584.5	1374.9
37.5°	4999.6	4499.8	3971.1	3466.8	2994.3	2550.7	2136.0	1777.4	1434.1	1212.3	1033.0
40°	5172.8	4519.6	3877.0	3286.0	2736.0	2218.0	1759.2	1358.2	1086.2	884.2	764.1
42.5°	5280.7	4481.6	3725.0	3038.4	2388.2	1800.2	1320.2	973.8	771.7	659.3	613.8
45°	5341.4	4382.8	3500.2	2699.6	1967.3	1368.8	937.3	703.4	594.0	554.5	539.3
47.5°	5338.4	4223.3	3219.2	2307.6	1502.5	954.0	663.9	548.4	518.0	505.9	502.8
50°	5306.5	4027.4	2889.5	1882.3	1084.7	665.4	525.6	492.2	484.6	477.0	474.0
52.5°	5262.5	3784.3	2524.9	1467.5	770.2	531.7	477.0	467.9	461.8	454.2	451.2
55°	5180.4	3485.0	2129.9	1104.4	603.1	480.1	460.3	457.3	449.7	439.0	433.0
57.5°	5080.2	3181.2	1751.6	862.9	533.2	467.9	457.3	452.7	442.1	429.9	417.8
60°	5043.7	2930.5	1455.4	727.7	516.5	472.5	464.9	458.8	443.6	425.4	411.7
62.5°	4815.8	2647.9	1242.7	674.5	525.6	492.2	489.2	480.1	457.3	436.0	414.7
65°	4226.4	2239.3	1052.8	638.1	543.9	525.6	528.7	515.0	492.2	463.4	425.4
67°	3574.6	1826.1	876.6	603.1	557.5	560.6	571.2	560.6	531.7	490.7	439.0
67.5°	3401.5	1721.2	832.5	592.5	560.6	569.7	581.8	574.3	545.4	498.3	445.1
70°	2527.9	1212.3	621.3	536.3	560.6	597.0	624.4	632.0	600.1	534.8	457.3
72.5°	1780.5	782.4	477.0	464.9	508.9	557.5	609.2	635.0	598.6	527.2	440.6
75°	1069.5	489.2	387.4	395.0	428.4	478.5	519.6	530.2	484.6	439.0	381.3
77.5°	495.3	325.1	303.8	314.5	346.4	369.2	369.2	347.9	313.0	285.6	273.5
80°	291.7	265.9	264.3	284.1	305.4	288.6	262.8	234.0	215.7	206.6	202.1
82.5°	273.5	284.1	302.3	306.9	290.2	249.1	217.2	188.4	179.3	174.7	170.1
85°	322.1	344.9	314.5	290.2	256.7	209.6	170.1	145.8	141.3	136.7	130.6
87.5°	297.8	284.1	247.6	212.7	176.2	127.6	92.7	83.6	89.6	88.1	85.1
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°	2483.9	2483.9	2483.9	2483.9	2483.9
2.5°	2418.5	2418.5	2412.5	2409.4	2417.0
5°	2376.0	2377.5	2373.0	2371.4	2373.0
7.5°	2366.9	2365.4	2362.3	2359.3	2362.3
10°	2394.2	2392.7	2388.2	2391.2	2386.6
12.5°	2476.3	2485.4	2483.9	2486.9	2493.0
15°	2610.0	2608.4	2603.9	2606.9	2611.5
17.5°	2685.9	2673.8	2663.1	2658.6	2658.6
20°	2667.7	2632.7	2614.5	2603.9	2600.8
22.5°	2559.8	2509.7	2471.7	2462.6	2455.0
25°	2383.6	2321.3	2272.7	2262.1	2242.3
27.5°	2178.5	2095.0	2037.2	2025.1	2014.4
30°	1909.6	1813.9	1747.1	1704.5	1718.2
32.5°	1581.5	1490.3	1412.8	1344.5	1333.8
35°	1221.4	1121.2	1052.8	1022.4	1002.7
37.5°	911.5	828.0	782.4	753.5	755.0
40°	697.3	653.2	628.9	609.2	610.7
42.5°	581.8	562.1	556.0	546.9	542.3
45°	527.2	521.1	522.6	513.5	510.4
47.5°	496.8	492.2	493.7	487.7	486.1
50°	472.5	469.4	470.9	466.4	464.9
52.5°	448.2	449.7	448.2	445.1	445.1
55°	426.9	425.4	428.4	423.9	423.9
57.5°	410.2	408.7	408.7	407.1	407.1
60°	401.1	395.0	393.5	393.5	395.0
62.5°	396.5	385.9	384.4	384.4	385.9
65°	398.0	381.3	375.2	373.7	372.2
67°	399.5	375.2	363.1	357.0	355.5
67.5°	401.1	372.2	358.5	352.5	349.4
70°	391.9	350.9	331.2	320.5	317.5
72.5°	369.2	325.1	300.8	287.1	284.1
75°	328.1	294.7	273.5	258.3	252.2
77.5°	253.7	238.5	230.9	221.8	218.8
80°	197.5	189.9	186.9	180.8	179.3
82.5°	164.1	156.5	151.9	144.3	139.8
85°	127.6	118.5	115.5	109.4	106.3
87.5°	83.6	79.0	77.5	69.9	66.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)