

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: P159605

Luminaire Tested: **VST-F10-LED-E-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159605
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F10-LED-E-U-T3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (70) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25247.5 lumens
Efficiency: N/A
Efficacy: 97.6 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 258.7
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



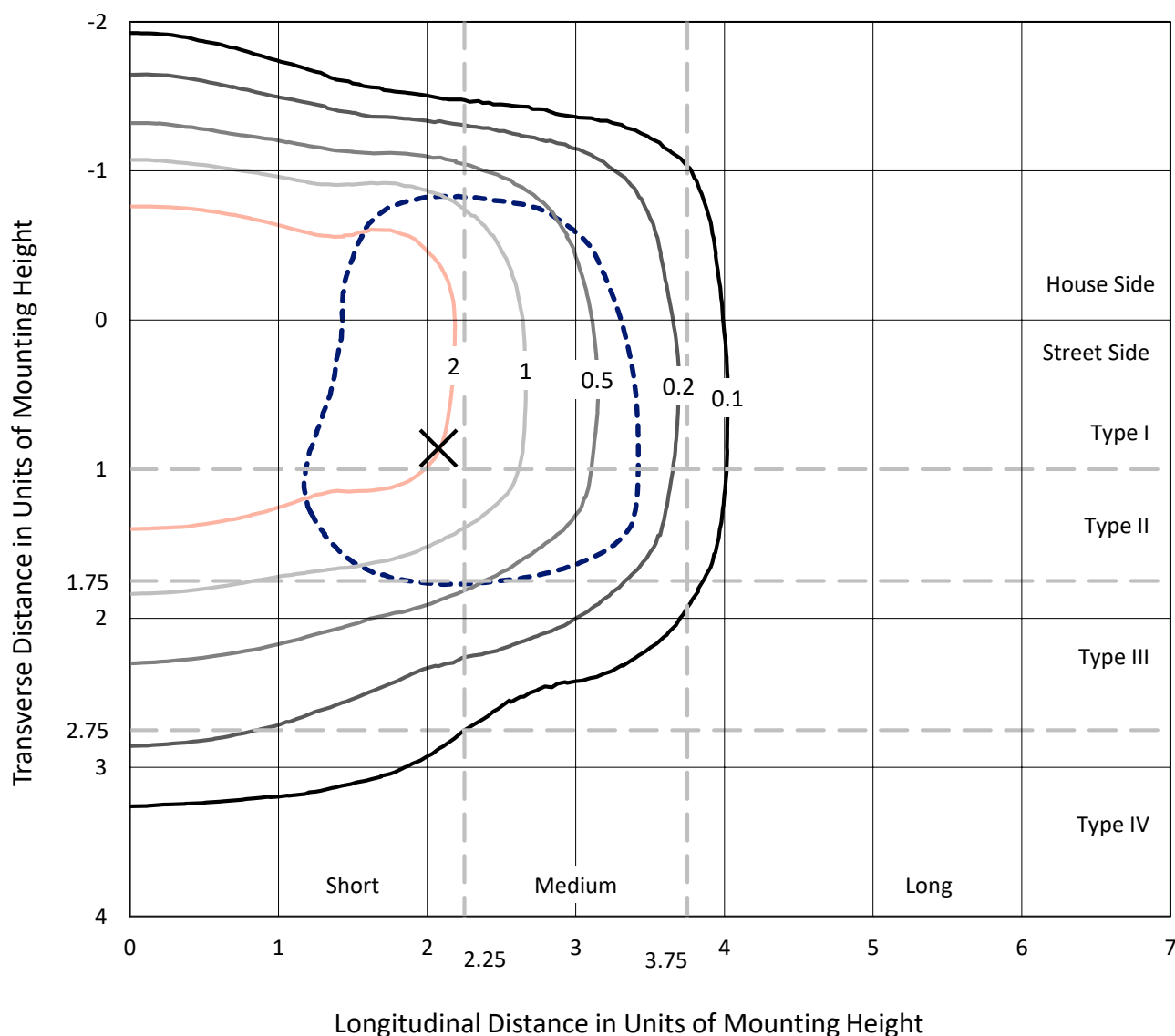
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

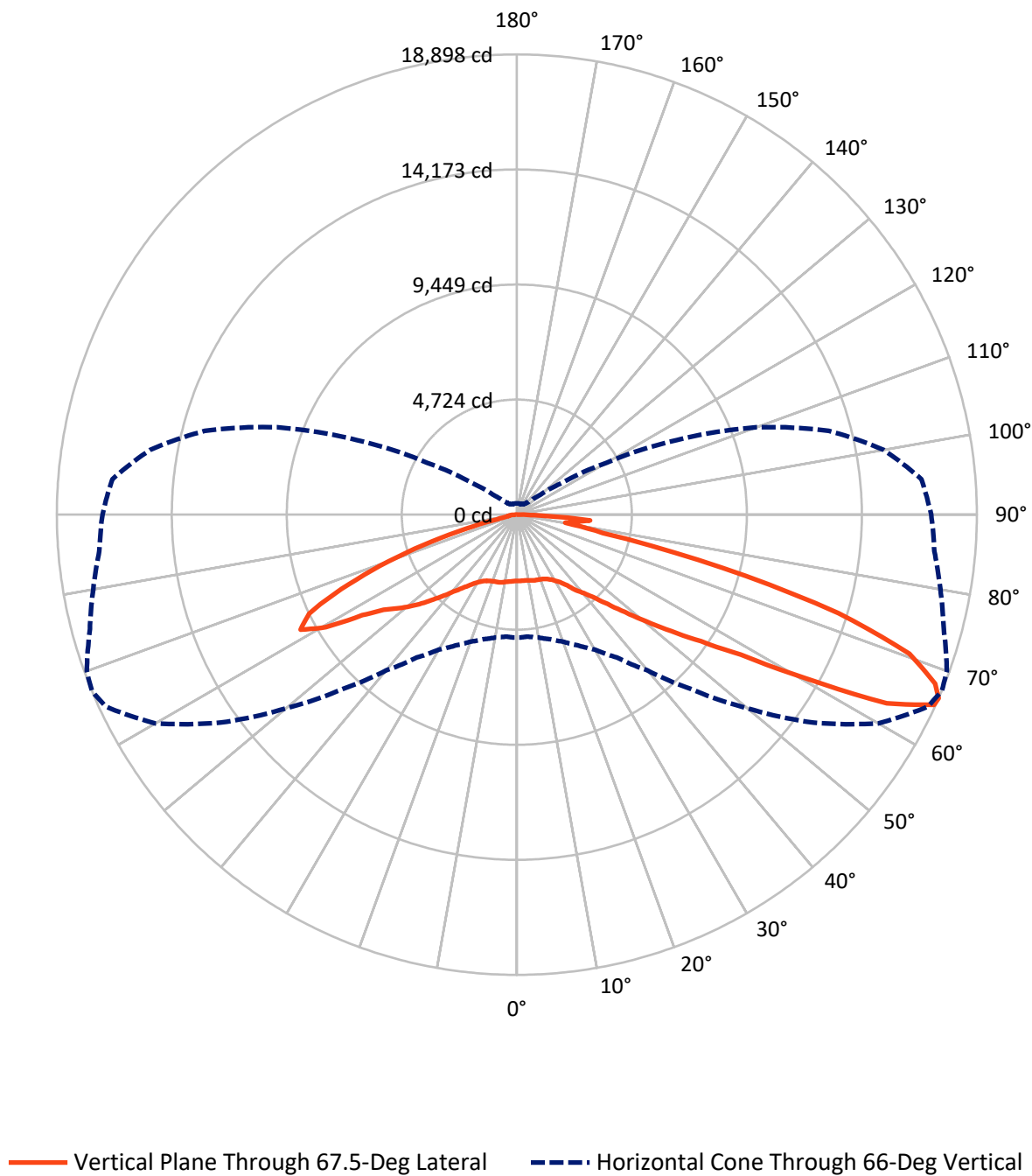


Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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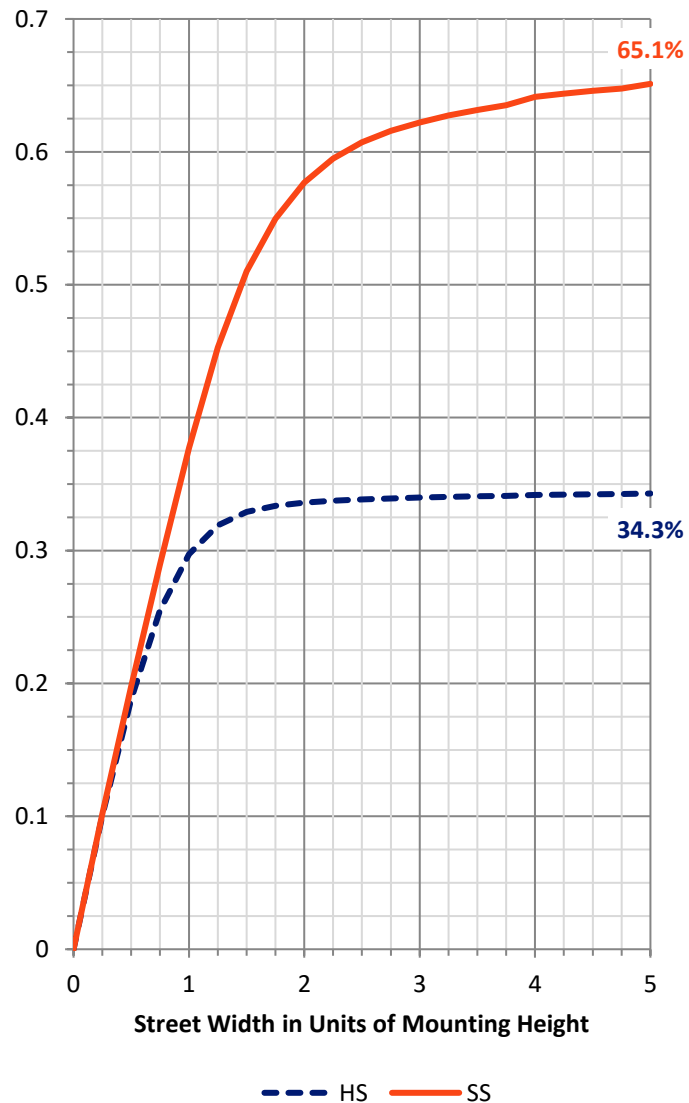
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8736.8	0.0	8736.8
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	16510.8	0.0	16510.8
	% Fixture	65.4	0.0	65.4
Total	Lumens	25247.5	0.0	25247.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	261.4	1.0
10°-20°	774.1	3.1
20°-30°	1330.7	5.3
30°-40°	2150.6	8.5
40°-50°	3564.1	14.1
50°-60°	5593.5	22.2
60°-70°	7647.4	30.3
70°-80°	3363.0	13.3
80°-90°	562.9	2.2
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°	25247.5	100.0
0°-180°	25247.5	100.0

Coefficient of Utilization



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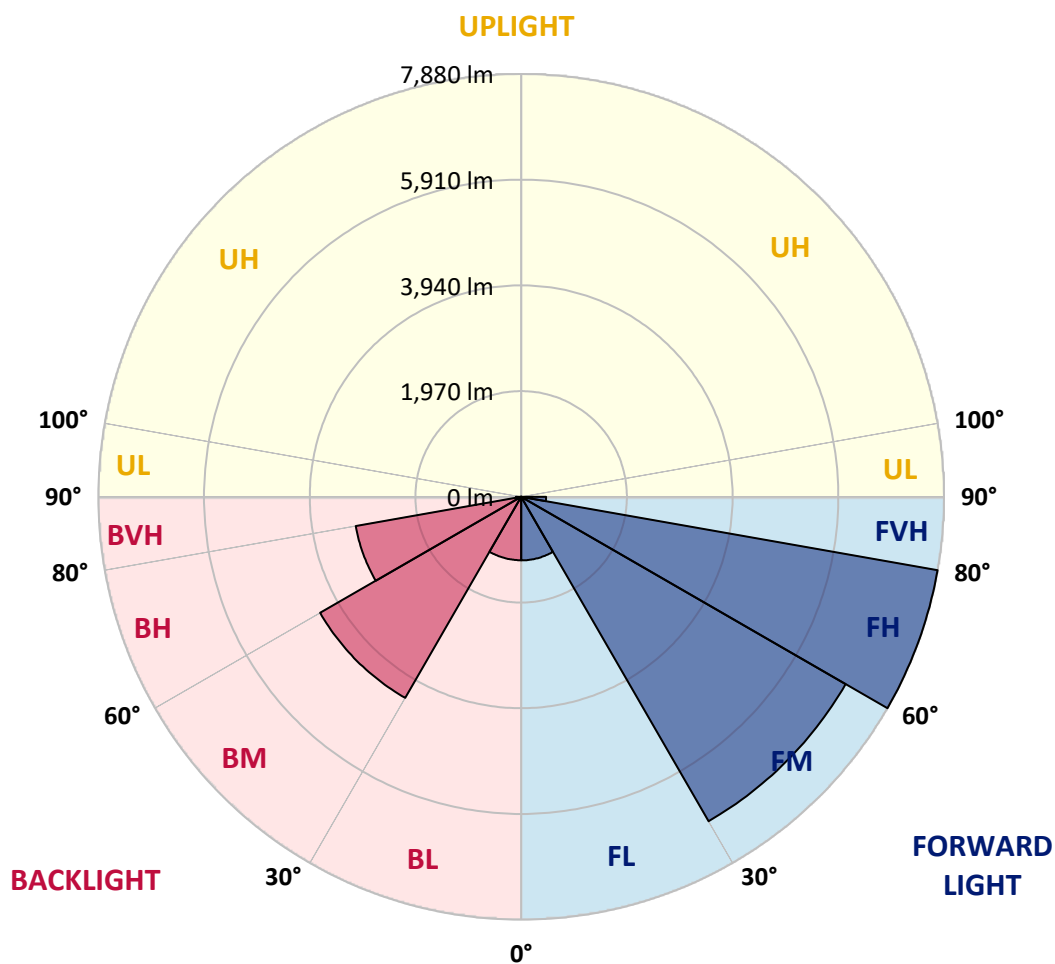
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1184.3	4.7			
FM	(30°-60°)	6981.7	27.7			
FH	(60°-80°)	7880.3	31.2			G4/12000
FVH	(80°-90°)	464.4	1.8			G3/500
BL	(0°-30°)	1181.9	4.7	B3/2500		
BM	(30°-60°)	4326.4	17.1	B3/5000		
BH	(60°-80°)	3130.0	12.4	B4/5000		G4/5000
BVH	(80°-90°)	98.5	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2
2.5°	2719.3	2719.3	2720.9	2719.3	2719.3	2717.6	2724.2	2724.2	2724.2	2722.6	2727.5
5°	2712.7	2712.7	2714.3	2714.3	2716.0	2714.3	2719.3	2720.9	2720.9	2720.9	2725.9
7.5°	2696.2	2701.1	2697.8	2699.5	2701.1	2706.1	2712.7	2716.0	2719.3	2724.2	2725.9
10°	2661.5	2669.7	2668.1	2673.0	2674.7	2689.6	2694.5	2701.1	2712.7	2719.3	2724.2
12.5°	2613.6	2618.6	2620.2	2626.8	2633.4	2651.6	2664.8	2676.4	2692.9	2709.4	2725.9
15°	2575.6	2578.9	2578.9	2585.5	2595.5	2612.0	2628.5	2648.3	2673.0	2701.1	2727.5
17.5°	2587.2	2595.5	2588.8	2587.2	2590.5	2600.4	2615.3	2631.8	2661.5	2692.9	2724.2
20°	2663.1	2664.8	2661.5	2653.2	2646.6	2648.3	2648.3	2651.6	2669.7	2694.5	2719.3
22.5°	2725.9	2732.5	2730.8	2732.5	2730.8	2737.4	2734.1	2727.5	2720.9	2722.6	2734.1
25°	2780.4	2787.0	2787.0	2791.9	2800.2	2813.4	2823.3	2821.6	2811.7	2798.5	2793.6
27.5°	2869.5	2869.5	2869.5	2874.5	2886.0	2902.5	2919.1	2929.0	2937.2	2924.0	2895.9
30°	3009.9	3011.5	3006.6	3008.2	3016.5	3037.9	3057.7	3072.6	3089.1	3087.5	3051.1
32.5°	3163.4	3170.0	3168.4	3175.0	3186.5	3206.3	3227.8	3250.9	3272.4	3285.6	3262.5
35°	3361.5	3368.1	3369.8	3379.7	3392.9	3422.6	3452.3	3482.1	3505.2	3515.1	3510.1
37.5°	3686.8	3688.4	3681.8	3667.0	3671.9	3695.0	3729.7	3777.6	3792.5	3802.4	3825.5
40°	4173.9	4168.9	4142.5	4129.3	4121.0	4130.9	4124.3	4162.3	4197.0	4198.6	4197.0
42.5°	4764.9	4750.1	4725.3	4722.0	4718.7	4715.4	4697.2	4698.9	4730.3	4738.5	4728.6
45°	5352.7	5334.5	5316.4	5332.9	5313.1	5364.3	5379.1	5418.7	5423.7	5440.2	5415.4
47.5°	5834.8	5836.5	5836.5	5859.6	5899.2	5996.6	6084.1	6160.1	6188.1	6227.8	6232.7
50°	6199.7	6209.6	6241.0	6315.3	6399.5	6562.9	6709.9	6846.9	6970.7	7017.0	7139.1
52.5°	6412.7	6439.1	6505.1	6629.0	6779.2	6990.5	7221.7	7454.5	7669.1	7850.7	7996.0
55°	6374.7	6394.5	6510.1	6703.3	6937.7	7221.7	7545.3	7882.1	8217.3	8524.4	8762.1
57.5°	6130.3	6143.6	6259.1	6477.1	6769.3	7150.7	7608.0	8108.3	8578.9	9074.2	9480.3
60°	5810.0	5829.9	5937.2	6108.9	6414.3	6820.5	7350.5	8029.1	8780.3	9559.6	10319.1
62.5°	5605.3	5600.4	5694.5	5848.0	6077.5	6445.7	6955.9	7759.9	8800.1	10117.6	11618.4
65°	5265.2	5250.3	5347.8	5522.8	5772.1	6128.7	6612.5	7385.1	8592.1	10329.0	12457.2
66°	5053.9	5024.1	5121.6	5298.2	5547.5	5927.3	6391.2	7154.0	8339.5	10122.6	12368.0
67.5°	4684.0	4669.2	4715.4	4854.1	5039.0	5395.6	5879.4	6647.1	7741.8	9501.8	11714.2
70°	3807.3	3774.3	3810.6	3873.4	3944.4	4031.9	4329.1	4938.3	5864.5	7570.1	9437.4
72.5°	2593.8	2577.3	2645.0	2740.7	2930.6	3019.8	3137.0	3236.1	3563.0	4771.5	6582.7
75°	1973.0	1982.9	2068.8	2227.3	2471.6	2735.8	2993.4	3087.5	2978.5	2884.4	3736.3
77.5°	1106.2	1164.0	1268.0	1469.4	1728.6	2101.8	2550.9	3046.2	3293.8	3232.8	3023.1
80°	455.7	447.4	498.6	609.2	698.4	1003.8	1535.5	2156.3	2853.0	3293.8	3224.5
82.5°	127.1	130.4	168.4	216.3	279.0	355.0	554.8	891.6	1452.9	2260.3	2958.7
85°	39.6	39.6	54.5	80.9	95.8	110.6	140.3	231.1	394.6	787.6	1596.6
87.5°	8.3	8.3	11.6	23.1	24.8	24.8	31.4	42.9	38.0	34.7	155.2
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-F10-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2
2.5°	2722.6	2719.3	2720.9	2722.6	2720.9	2720.9	2719.3	2717.6	2719.3	2719.3	2724.2
5°	2720.9	2719.3	2720.9	2720.9	2720.9	2722.6	2722.6	2722.6	2727.5	2727.5	2735.8
7.5°	2724.2	2724.2	2727.5	2727.5	2727.5	2727.5	2729.2	2732.5	2740.7	2739.1	2754.0
10°	2730.8	2734.1	2742.4	2744.0	2744.0	2749.0	2752.3	2758.9	2767.2	2770.5	2783.7
12.5°	2739.1	2755.6	2770.5	2773.8	2778.7	2787.0	2791.9	2795.2	2810.1	2815.0	2831.6
15°	2749.0	2772.1	2790.3	2796.9	2803.5	2813.4	2820.0	2824.9	2838.2	2844.8	2864.6
17.5°	2750.6	2777.1	2798.5	2808.4	2816.7	2828.2	2838.2	2848.1	2862.9	2872.8	2892.6
20°	2749.0	2783.7	2816.7	2829.9	2838.2	2859.6	2874.5	2887.7	2905.8	2915.8	2935.6
22.5°	2767.2	2806.8	2851.4	2867.9	2881.1	2910.8	2930.6	2952.1	2975.2	2981.8	2996.7
25°	2810.1	2851.4	2907.5	2930.6	2953.7	2993.4	3021.4	3052.8	3075.9	3079.2	3084.2
27.5°	2882.7	2920.7	2988.4	3023.1	3061.0	3117.2	3158.5	3189.8	3222.8	3222.8	3219.5
30°	3029.7	3037.9	3108.9	3153.5	3209.6	3292.2	3353.3	3388.0	3412.7	3412.7	3384.7
32.5°	3219.5	3209.6	3274.0	3321.9	3399.5	3515.1	3597.6	3624.1	3650.5	3642.2	3594.3
35°	3493.6	3465.6	3501.9	3574.5	3662.0	3820.5	3906.4	3965.8	3982.3	3959.2	3883.3
37.5°	3838.7	3835.4	3853.6	3934.5	4031.9	4236.6	4324.1	4362.1	4348.9	4307.6	4173.9
40°	4203.6	4193.7	4182.1	4236.6	4345.6	4591.6	4746.8	4766.6	4748.4	4687.3	4518.9
42.5°	4690.6	4690.6	4636.1	4651.0	4741.8	5017.5	5200.8	5263.5	5265.2	5176.0	4951.5
45°	5361.0	5354.4	5258.6	5235.5	5304.8	5575.6	5811.7	5846.4	5846.4	5729.1	5483.1
47.5°	6166.7	6158.4	6064.3	5983.4	5996.6	6288.8	6485.3	6538.2	6491.9	6404.4	6112.2
50°	7074.7	7059.9	6964.1	6888.2	6855.2	7150.7	7317.5	7342.2	7274.5	7170.5	6853.5
52.5°	7996.0	8040.6	7984.5	7943.2	7954.8	8146.3	8318.0	8200.8	8166.1	8053.8	7735.2
55°	8955.3	9092.3	9216.2	9179.8	9222.8	9409.3	9442.4	9287.2	9224.4	9143.5	8788.5
57.5°	9921.2	10320.7	10726.9	10840.8	10946.5	11213.9	11176.0	10921.7	10969.6	11090.1	10690.5
60°	11270.1	12424.2	13454.4	13644.3	13972.8	14200.7	14251.9	14202.3	14425.2	14362.5	14009.2
62.5°	13342.1	15265.6	16698.7	17055.3	17385.6	17374.0	17200.6	17022.3	17241.9	17241.9	16319.0
65°	14821.5	17004.2	18538.0	18833.5	18820.3	18422.4	18013.0	17656.3	17625.0	17380.6	16031.7
66°	14890.8	17137.9	18640.4	18897.9	18798.9	18158.2	17667.9	17215.5	17022.3	16682.2	15300.3
67.5°	14266.7	16759.8	18306.8	18531.4	18270.5	17352.5	16677.3	16071.3	15790.6	15217.7	13916.7
70°	11702.6	14403.8	16654.1	17113.1	16817.6	15655.3	14730.7	13911.7	13375.2	12548.0	11610.2
72.5°	8542.5	10634.4	13071.4	13817.6	13771.4	12701.5	11956.9	11207.3	10502.3	9749.4	9064.3
75°	5552.5	6917.9	8276.7	8712.6	8502.9	7883.8	7350.5	6912.9	6244.3	5720.9	5593.8
77.5°	3170.0	3873.4	3663.7	3609.2	3346.7	2701.1	1796.3	1259.8	1137.6	1419.9	1556.9
80°	3016.5	2734.1	2238.8	2019.2	1855.8	1264.7	663.7	467.2	409.5	419.4	450.7
82.5°	3401.2	3544.8	2899.2	2422.1	2108.4	1538.8	840.4	391.3	285.6	338.5	379.7
85°	2549.2	3589.4	3558.0	3014.8	2473.3	1773.2	993.9	298.8	171.7	237.8	310.4
87.5°	516.8	850.3	818.9	719.9	612.5	427.6	166.8	94.1	85.9	117.2	178.3
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°	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2	2724.2
2.5°	2727.5	2727.5	2730.8	2735.8	2737.4	2737.4	2740.7	2737.4	2744.0	2745.7	2747.3
5°	2742.4	2747.3	2750.6	2758.9	2763.9	2767.2	2772.1	2768.8	2775.4	2777.1	2780.4
7.5°	2758.9	2767.2	2773.8	2777.1	2783.7	2783.7	2785.3	2782.0	2780.4	2775.4	2773.8
10°	2788.6	2793.6	2801.8	2798.5	2795.2	2783.7	2773.8	2758.9	2750.6	2735.8	2727.5
12.5°	2836.5	2839.8	2839.8	2824.9	2803.5	2777.1	2752.3	2727.5	2707.7	2691.2	2681.3
15°	2869.5	2876.1	2867.9	2846.4	2815.0	2778.7	2745.7	2712.7	2686.3	2664.8	2651.6
17.5°	2894.3	2892.6	2877.8	2848.1	2818.3	2787.0	2757.3	2722.6	2689.6	2658.2	2638.4
20°	2932.3	2915.8	2889.3	2858.0	2826.6	2800.2	2777.1	2744.0	2709.4	2666.4	2636.7
22.5°	2983.4	2953.7	2915.8	2882.7	2853.0	2828.2	2801.8	2773.8	2737.4	2689.6	2648.3
25°	3056.1	3004.9	2962.0	2929.0	2902.5	2874.5	2844.8	2808.4	2772.1	2722.6	2673.0
27.5°	3166.7	3090.8	3036.3	3006.6	2981.8	2943.8	2905.8	2862.9	2816.7	2765.5	2709.4
30°	3300.4	3209.6	3146.9	3120.5	3090.8	3047.8	3006.6	2947.1	2882.7	2821.6	2752.3
32.5°	3457.3	3364.8	3302.1	3282.3	3234.4	3184.9	3127.1	3047.8	2963.6	2872.8	2790.3
35°	3695.0	3577.8	3520.0	3473.8	3407.8	3348.3	3250.9	3146.9	3026.4	2905.8	2803.5
37.5°	3939.4	3820.5	3761.1	3696.7	3610.8	3501.9	3371.4	3222.8	3062.7	2914.1	2788.6
40°	4266.3	4137.5	4061.6	3962.5	3823.8	3653.8	3460.6	3257.5	3062.7	2877.8	2725.9
42.5°	4647.7	4528.8	4411.6	4248.2	4025.3	3777.6	3506.8	3246.0	3009.9	2796.9	2636.7
45°	5176.0	4973.0	4786.4	4523.9	4198.6	3850.2	3511.8	3191.5	2919.1	2683.0	2504.6
47.5°	5770.4	5507.9	5177.7	4766.6	4322.4	3878.3	3463.9	3089.1	2775.4	2519.5	2324.7
50°	6455.6	6052.7	5545.9	4959.8	4385.2	3840.3	3350.0	2917.4	2577.3	2283.4	2075.4
52.5°	7239.9	6625.7	5879.4	5096.8	4375.3	3724.8	3161.8	2691.2	2311.5	1999.4	1794.7
55°	8110.0	7249.8	6198.0	5184.3	4286.1	3500.2	2866.2	2372.6	1981.3	1674.2	1494.2
57.5°	9643.8	8344.4	6805.6	5301.5	4099.6	3160.1	2491.4	1969.7	1616.4	1355.5	1183.8
60°	12493.5	10258.0	7956.4	5577.2	3818.9	2734.1	2019.2	1545.4	1249.8	1060.0	932.8
62.5°	14256.8	11605.2	8517.8	5537.6	3363.2	2151.3	1499.2	1145.8	913.0	787.6	708.3
65°	13839.1	11076.9	7832.6	4756.7	2616.9	1525.6	992.3	749.6	627.4	563.0	525.0
66°	13271.1	10485.8	7253.1	4259.7	2280.1	1274.6	818.9	629.0	539.9	492.0	472.2
67.5°	12080.7	9406.0	6255.8	3411.1	1708.8	949.4	604.3	493.7	439.2	414.4	401.2
70°	10111.0	7578.3	4424.8	2014.3	926.2	515.1	386.3	343.4	330.2	322.0	317.0
72.5°	7817.7	5486.4	2585.5	990.6	467.2	333.5	293.9	275.7	270.8	270.8	272.4
75°	4925.1	3153.5	1157.4	477.2	317.0	269.1	251.0	242.7	244.4	246.0	244.4
77.5°	1636.2	1088.0	482.1	338.5	275.7	244.4	229.5	226.2	229.5	231.1	231.1
80°	470.5	411.1	348.4	298.8	252.6	227.8	214.6	213.0	221.2	222.9	219.6
82.5°	361.6	338.5	315.4	288.9	242.7	214.6	209.7	211.3	216.3	213.0	198.1
85°	331.9	328.6	236.1	234.4	211.3	204.7	199.8	201.4	196.5	178.3	161.8
87.5°	186.6	173.4	133.7	135.4	156.8	161.8	133.7	142.0	132.1	115.6	105.7
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):

	160°	165°	170°	175°	180°
0°	2724.2	2724.2	2724.2	2724.2	2724.2
2.5°	2750.6	2749.0	2749.0	2754.0	2747.3
5°	2782.0	2780.4	2780.4	2785.3	2780.4
7.5°	2767.2	2762.2	2758.9	2757.3	2757.3
10°	2717.6	2712.7	2702.8	2699.5	2696.2
12.5°	2666.4	2661.5	2649.9	2649.9	2646.6
15°	2635.1	2628.5	2620.2	2615.3	2612.0
17.5°	2618.6	2608.7	2598.8	2593.8	2590.5
20°	2612.0	2598.8	2587.2	2578.9	2578.9
22.5°	2613.6	2597.1	2583.9	2574.0	2570.7
25°	2630.1	2605.4	2588.8	2578.9	2575.6
27.5°	2653.2	2623.5	2602.1	2588.8	2583.9
30°	2684.6	2643.3	2613.6	2597.1	2590.5
32.5°	2706.1	2648.3	2610.3	2587.2	2578.9
35°	2704.4	2630.1	2583.9	2554.2	2544.3
37.5°	2674.7	2587.2	2526.1	2489.8	2473.3
40°	2608.7	2507.9	2443.6	2408.9	2389.1
42.5°	2512.9	2403.9	2346.1	2308.2	2286.7
45°	2362.7	2255.3	2184.3	2154.6	2126.6
47.5°	2154.6	2045.7	1984.6	1941.6	1923.5
50°	1910.3	1801.3	1736.9	1702.2	1685.7
52.5°	1642.8	1538.8	1492.5	1459.5	1436.4
55°	1365.4	1269.7	1249.8	1213.5	1192.1
57.5°	1104.6	1048.4	1030.3	993.9	975.8
60°	863.5	845.3	825.5	802.4	792.5
62.5°	668.7	652.2	647.2	632.4	630.7
65°	510.2	511.8	508.5	505.2	501.9
66°	463.9	462.3	463.9	460.6	459.0
67.5°	394.6	401.2	406.2	404.5	404.5
70°	320.3	325.3	331.9	330.2	330.2
72.5°	274.1	282.3	285.6	284.0	284.0
75°	247.7	255.9	255.9	252.6	251.0
77.5°	231.1	234.4	231.1	227.8	224.5
80°	214.6	211.3	206.4	201.4	198.1
82.5°	186.6	178.3	173.4	165.1	165.1
85°	150.2	143.6	132.1	123.8	115.6
87.5°	97.4	94.1	85.9	64.4	51.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)