

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: P159369

Luminaire Tested: **VST-E09-LED-E-U-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159369
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
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-T2-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (189) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25373.3 lumens
Efficiency: N/A
Efficacy: 112.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - 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



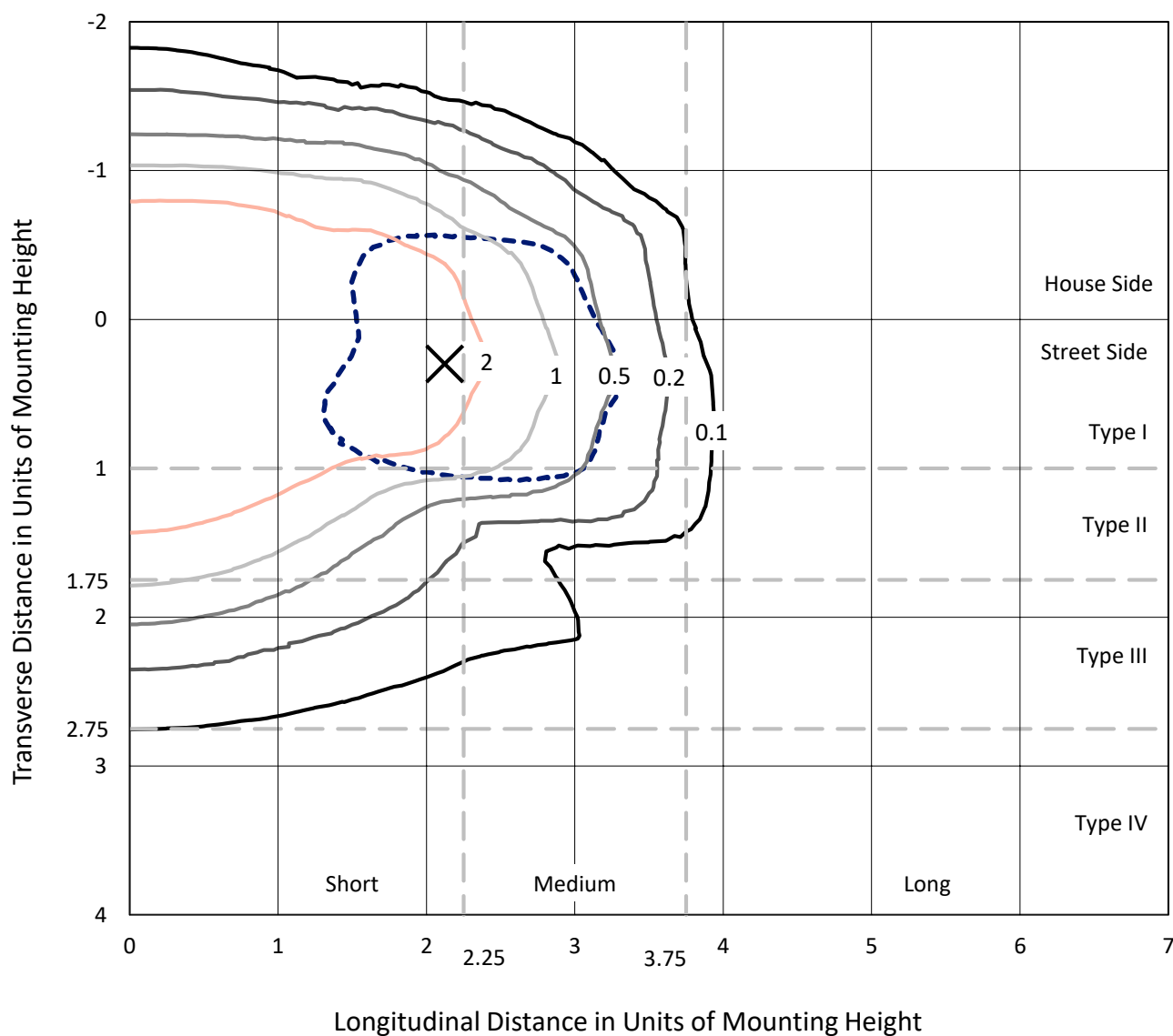
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

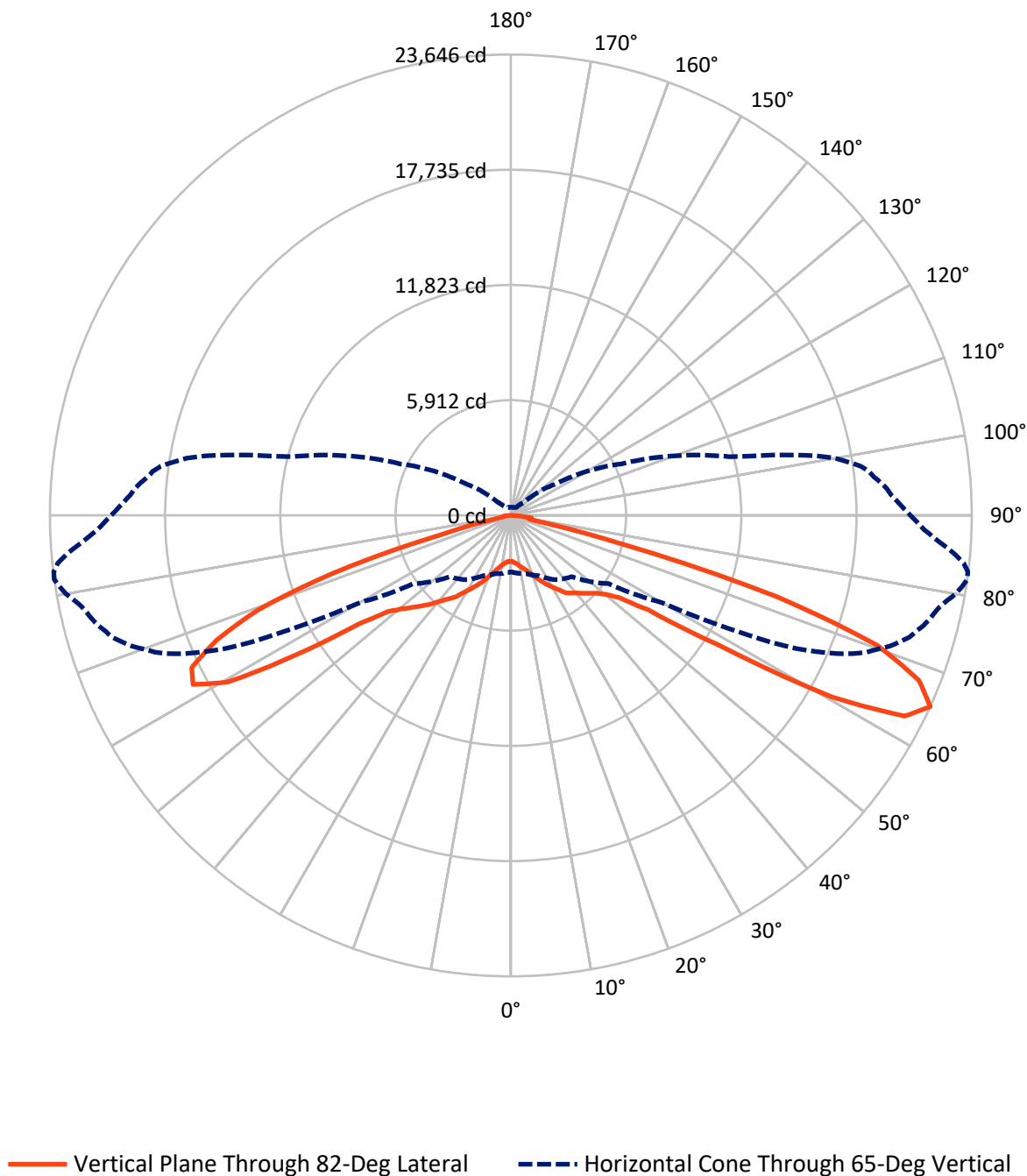


Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9447.3	0.0	9447.3
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	15926.0	0.0	15926.0
	% Fixture	62.8	0.0	62.8
Total	Lumens	25373.3	0.0	25373.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.0	0.9
10°-20°	839.8	3.3
20°-30°	1664.0	6.6
30°-40°	2852.5	11.2
40°-50°	4285.1	16.9
50°-60°	5953.4	23.5
60°-70°	6791.9	26.8
70°-80°	2339.7	9.2
80°-90°	407.8	1.6
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°	25373.3	100.0
0°-180°	25373.3	100.0

Coefficient of Utilization



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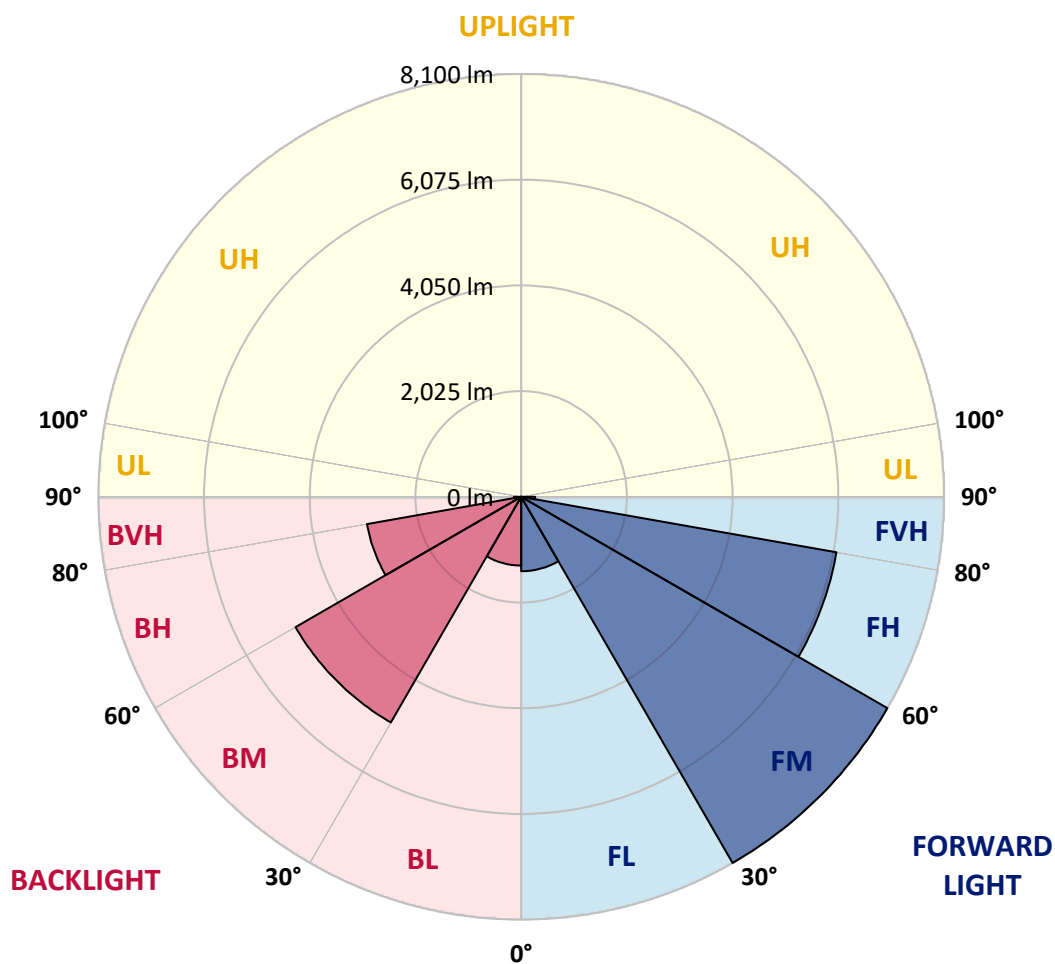
CATALOG NUMBER: VST-E09-LED-E-U-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1425.4	5.6			
FM	(30°-60°)	8099.7	31.9			
FH	(60°-80°)	6132.4	24.2			G3/7500
FVH	(80°-90°)	268.4	1.1			G3/500
BL	(0°-30°)	1317.4	5.2	B3/2500		
BM	(30°-60°)	4991.3	19.7	B3/5000		
BH	(60°-80°)	2999.2	11.8	B4/5000		G4/5000
BVH	(80°-90°)	139.3	0.5			G2/225
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°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2489.1	2490.7	2489.1	2484.1	2482.5	2467.7	2451.2	2443.0	2441.4	2434.8	2436.5
5°	2643.6	2638.7	2632.1	2623.9	2615.7	2591.0	2563.0	2548.2	2543.3	2538.4	2531.8
7.5°	2781.7	2785.0	2781.7	2770.2	2748.8	2717.6	2681.4	2658.4	2656.8	2651.8	2646.9
10°	2959.3	2967.5	2947.7	2928.0	2898.4	2850.7	2809.6	2780.1	2775.1	2768.5	2765.3
12.5°	3151.6	3153.3	3146.7	3102.3	3053.0	2987.2	2928.0	2898.4	2891.8	2883.6	2880.3
15°	3357.1	3358.8	3322.6	3279.8	3204.2	3125.3	3043.1	3010.2	3002.0	3003.6	2990.5
17.5°	3519.9	3523.2	3488.6	3434.4	3344.0	3250.2	3161.5	3135.2	3130.2	3131.9	3125.3
20°	3590.6	3595.5	3574.1	3533.0	3447.5	3365.3	3301.2	3284.8	3283.1	3279.8	3293.0
22.5°	3587.3	3588.9	3580.7	3564.3	3513.3	3465.6	3457.4	3467.3	3465.6	3468.9	3480.4
25°	3557.7	3562.6	3561.0	3567.5	3559.3	3577.4	3615.2	3649.7	3654.7	3661.3	3682.6
27.5°	3633.3	3643.2	3631.7	3638.2	3651.4	3712.2	3789.5	3842.1	3852.0	3870.0	3888.1
30°	3929.2	3916.1	3901.3	3884.8	3893.1	3930.9	4018.0	4064.0	4069.0	4082.1	4106.8
32.5°	4368.2	4353.4	4340.2	4313.9	4307.4	4290.9	4320.5	4332.0	4330.4	4343.5	4350.1
35°	4863.0	4864.7	4861.4	4881.1	4897.6	4813.7	4710.1	4682.2	4693.7	4678.9	4682.2
37.5°	5285.6	5290.5	5377.6	5486.1	5517.4	5464.8	5237.9	5126.1	5088.3	5083.3	5045.5
40°	5754.1	5754.1	5885.6	6018.8	6105.9	6171.7	5902.1	5704.8	5624.2	5601.2	5507.5
42.5°	6268.7	6242.4	6362.4	6508.7	6669.8	6819.4	6679.7	6457.8	6342.7	6301.6	6137.2
45°	6691.2	6674.8	6733.9	6870.4	7131.8	7424.4	7444.2	7330.7	7261.7	7176.2	7024.9
47.5°	6951.0	6942.7	6977.3	7125.2	7452.4	7925.9	8190.6	8248.1	8207.0	8141.2	7994.9
50°	7052.9	7041.4	7066.0	7230.4	7597.1	8221.8	8807.1	9078.3	9098.1	9112.9	9066.8
52.5°	7016.7	7001.9	7052.9	7191.0	7572.4	8325.4	9288.8	9809.9	9897.1	9971.0	10122.3
55°	6669.8	6646.8	6784.9	7044.7	7465.5	8287.6	9640.6	10513.6	10697.7	10895.0	11230.4
57.5°	6138.8	6119.1	6318.0	6674.8	7276.5	8184.0	9877.3	11403.0	11817.3	12172.4	13124.3
60°	5627.5	5611.1	5727.8	6073.0	6663.3	7679.3	9584.7	11702.2	12397.6	13163.8	14901.5
62.5°	4713.4	4669.0	4825.2	5116.2	5489.4	6352.5	8307.3	11036.4	12108.3	13234.4	15590.3
65°	2896.8	2960.9	3095.7	3417.9	4029.5	4440.5	6101.0	8928.7	10342.6	11754.8	14811.1
67.5°	1839.7	1857.8	1958.0	2181.6	2655.1	3067.8	3697.4	5602.9	6692.8	8082.1	11628.2
70°	1576.6	1588.1	1673.6	1907.1	2234.2	2742.2	2798.1	2926.4	3317.7	4202.1	6835.9
72.5°	1242.9	1262.6	1330.0	1532.2	1926.8	2472.6	3454.1	2313.2	2234.2	2308.2	3335.7
75°	739.8	762.8	818.7	928.9	1238.0	1890.6	3618.5	2691.3	2508.8	2365.8	2301.6
77.5°	391.3	374.8	412.7	476.8	636.2	1007.8	2719.2	3297.9	3169.7	2998.7	2635.4
80°	194.0	200.6	212.1	225.2	284.4	409.4	1359.6	3411.4	3781.3	3945.7	3623.4
82.5°	77.3	87.1	123.3	131.5	156.2	174.3	437.3	1890.6	2707.7	3672.8	4795.6
85°	39.5	37.8	65.8	78.9	92.1	82.2	154.5	705.3	1269.2	1977.8	3204.2
87.5°	4.9	6.6	14.8	19.7	27.9	26.3	44.4	152.9	243.3	345.2	485.0
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2428.2	2426.6	2426.6	2420.0	2420.0	2421.7	2416.7	2413.4	2413.4	2415.1	2408.5
5°	2526.9	2521.9	2521.9	2515.4	2507.1	2507.1	2500.6	2498.9	2495.6	2489.1	2484.1
7.5°	2642.0	2637.0	2628.8	2623.9	2620.6	2615.7	2607.4	2604.1	2597.6	2591.0	2584.4
10°	2760.3	2753.8	2750.5	2742.2	2739.0	2729.1	2724.2	2725.8	2712.7	2707.7	2709.4
12.5°	2878.7	2872.1	2860.6	2857.3	2855.7	2845.8	2840.9	2837.6	2827.7	2826.1	2821.2
15°	2983.9	2987.2	2982.3	2974.1	2967.5	2965.8	2960.9	2957.6	2951.0	2944.5	2937.9
17.5°	3120.4	3125.3	3118.7	3107.2	3107.2	3105.6	3107.2	3105.6	3094.1	3099.0	3095.7
20°	3294.6	3297.9	3281.5	3286.4	3289.7	3288.1	3293.0	3297.9	3294.6	3294.6	3299.6
22.5°	3495.2	3500.1	3490.3	3496.9	3506.7	3498.5	3513.3	3511.6	3514.9	3519.9	3521.5
25°	3700.7	3710.6	3702.4	3720.4	3713.9	3720.4	3738.5	3733.6	3741.8	3755.0	3759.9
27.5°	3906.2	3912.8	3914.4	3925.9	3937.5	3947.3	3970.3	3970.3	3976.9	3999.9	3999.9
30°	4121.6	4128.2	4134.7	4151.2	4157.8	4175.8	4198.9	4205.4	4202.1	4235.0	4244.9
32.5°	4369.8	4376.4	4387.9	4407.6	4415.9	4434.0	4434.0	4452.0	4465.2	4493.1	4494.8
35°	4700.3	4705.2	4700.3	4698.6	4710.1	4734.8	4736.5	4762.8	4774.3	4802.2	4810.4
37.5°	5030.7	5029.1	5007.7	4984.7	4986.3	4976.5	4969.9	4981.4	4986.3	4988.0	5006.1
40°	5476.3	5433.5	5400.6	5343.1	5316.8	5275.7	5251.0	5249.4	5223.1	5219.8	5224.7
42.5°	6059.9	6010.6	5933.3	5836.3	5762.3	5686.7	5630.8	5597.9	5540.4	5510.8	5486.1
45°	6875.3	6753.7	6661.6	6546.5	6403.5	6272.0	6133.9	6071.4	5961.3	5893.8	5818.2
47.5°	7871.6	7751.6	7610.2	7491.8	7304.4	7121.9	6932.9	6766.8	6574.5	6421.6	6296.6
50°	8953.4	8882.7	8780.8	8670.6	8428.9	8308.9	8070.5	7845.3	7638.2	7365.3	7126.9
52.5°	10063.1	10104.2	10081.2	10041.7	9888.8	9842.8	9637.3	9362.8	9154.0	8966.5	8552.2
55°	11430.9	11480.3	11578.9	11636.4	11618.4	11735.1	11684.1	11470.4	11386.6	11299.4	11005.1
57.5°	13523.8	13875.6	14252.1	14582.6	14659.8	15074.1	14985.3	15199.1	15350.3	15241.8	15146.5
60°	15754.7	16465.0	17104.5	17773.6	18317.8	18725.5	19264.8	19628.1	19856.6	20267.6	20300.5
62.5°	16654.0	17619.1	18431.2	19207.2	19853.3	20418.9	20905.5	21406.9	21817.9	22189.5	22457.5
65°	16160.8	17168.6	18153.4	18940.9	19562.3	20049.0	20578.3	20976.2	21380.6	21619.0	21900.1
67.5°	13435.0	14770.0	15981.6	16869.4	17719.4	18214.2	18840.6	19231.9	19661.0	19912.5	20093.3
70°	8759.4	10497.1	12152.7	13499.1	14646.7	15223.7	15980.0	16514.3	17030.5	17043.7	17344.5
72.5°	4726.6	6179.9	7565.8	8941.9	10250.5	11018.3	11764.7	12414.1	12927.0	12708.4	13007.6
75°	2632.1	3312.7	4070.6	4897.6	5694.9	6133.9	6691.2	6694.5	6959.2	6543.2	6648.5
77.5°	2531.8	2500.6	2512.1	2535.1	2574.6	2490.7	2489.1	2438.1	2359.2	2216.2	2240.8
80°	3325.9	2928.0	2642.0	2193.1	1765.7	1440.2	1349.7	1371.1	1435.2	1563.5	1726.2
82.5°	4808.8	4473.4	3993.4	3286.4	2579.5	1989.3	1634.2	1450.0	1441.8	1570.0	1816.7
85°	3501.8	3704.0	3672.8	3066.1	2528.5	2053.4	1494.4	1262.6	1045.6	994.6	1081.8
87.5°	516.2	427.4	481.7	402.8	292.6	226.9	198.9	159.5	152.9	156.2	171.0
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2410.1	2403.6	2397.0	2401.9	2397.0	2395.4	2390.4	2387.1	2385.5	2385.5	2385.5
5°	2484.1	2475.9	2471.0	2469.3	2464.4	2459.5	2457.8	2449.6	2448.0	2448.0	2443.0
7.5°	2584.4	2577.8	2569.6	2564.7	2561.4	2553.2	2545.0	2543.3	2541.7	2535.1	2530.2
10°	2701.1	2691.3	2681.4	2681.4	2674.8	2673.2	2665.0	2653.5	2651.8	2642.0	2638.7
12.5°	2811.3	2808.0	2796.5	2793.2	2788.3	2783.3	2778.4	2773.5	2768.5	2760.3	2763.6
15°	2942.8	2934.6	2924.7	2926.4	2924.7	2918.2	2911.6	2906.6	2903.4	2900.1	2900.1
17.5°	3100.6	3097.4	3095.7	3087.5	3080.9	3085.8	3085.8	3085.8	3077.6	3079.3	3080.9
20°	3301.2	3304.5	3301.2	3294.6	3293.0	3297.9	3286.4	3304.5	3294.6	3288.1	3291.3
22.5°	3523.2	3534.7	3521.5	3523.2	3531.4	3534.7	3523.2	3538.0	3533.0	3523.2	3531.4
25°	3764.8	3773.1	3766.5	3764.8	3769.8	3781.3	3779.6	3778.0	3789.5	3779.6	3784.6
27.5°	4013.1	4018.0	4021.3	4026.2	4029.5	4027.9	4034.5	4034.5	4041.0	4029.5	4034.5
30°	4259.7	4259.7	4266.3	4272.8	4272.8	4272.8	4286.0	4287.6	4277.8	4281.1	4269.5
32.5°	4522.7	4524.4	4530.9	4530.9	4544.1	4545.7	4560.5	4540.8	4560.5	4544.1	4547.4
35°	4831.8	4853.2	4856.5	4872.9	4886.1	4891.0	4891.0	4892.6	4910.7	4897.6	4902.5
37.5°	5012.6	5017.6	5030.7	5039.0	5039.0	5045.5	5050.5	5045.5	5050.5	5048.8	5053.8
40°	5226.4	5221.4	5236.2	5239.5	5232.9	5241.2	5239.5	5234.6	5247.7	5237.9	5244.5
42.5°	5486.1	5458.2	5456.5	5469.7	5456.5	5463.1	5461.5	5450.0	5466.4	5471.3	5466.4
45°	5764.0	5749.2	5719.6	5719.6	5706.4	5701.5	5703.1	5701.5	5703.1	5722.9	5729.4
47.5°	6216.1	6125.7	6074.7	6027.0	5987.6	5985.9	5967.8	5977.7	5990.8	6023.7	6053.3
50°	6974.0	6765.2	6637.0	6518.6	6433.1	6403.5	6369.0	6365.7	6377.2	6415.0	6466.0
52.5°	8325.4	8036.0	7763.1	7509.9	7289.6	7120.3	7036.5	6992.1	6975.6	7013.4	7062.8
55°	10798.0	10252.2	9867.5	9611.0	9063.5	8831.7	8534.2	8397.7	8264.5	8277.7	8361.5
57.5°	15023.2	14728.9	14406.6	13957.8	13622.4	13218.0	12474.9	12060.6	12078.7	12175.7	11873.2
60°	20560.2	20262.7	20129.5	19721.8	19488.3	19325.6	18931.0	18243.8	18000.5	17954.5	17398.8
62.5°	22663.0	22733.7	22838.9	22954.0	22947.4	23018.1	22672.8	22449.2	22168.1	21803.1	21254.0
65°	22113.9	22293.1	22506.8	22815.9	23167.7	23427.4	23646.1	23619.8	23356.7	22870.1	22289.8
67.5°	20254.5	20432.0	20588.2	21002.5	21579.5	22107.3	22574.2	22891.5	22715.6	22312.8	21635.4
70°	17459.6	17587.8	17686.5	18046.5	18679.5	19323.9	19933.9	20466.5	20412.3	19924.0	19383.1
72.5°	12650.8	12961.5	13129.2	13104.6	13495.8	14217.6	14303.1	14758.5	14885.1	14359.0	13497.5
75°	6163.5	6168.4	5974.4	5910.3	5930.0	6055.0	5816.6	5831.4	5749.2	5376.0	5068.5
77.5°	2153.7	2094.5	1953.1	1785.4	1545.4	1320.2	1091.6	993.0	960.1	863.1	795.7
80°	1856.1	1943.2	1915.3	1777.2	1524.0	1214.9	907.5	672.4	573.8	539.2	506.4
82.5°	2107.6	2443.0	2656.8	2645.2	2298.4	1726.2	1076.8	618.2	440.6	386.3	355.1
85°	1175.5	1264.3	1288.9	1173.8	974.9	665.8	371.6	261.4	221.9	202.2	182.5
87.5°	187.4	171.0	167.7	146.3	138.1	126.6	111.8	105.2	97.0	92.1	92.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P159369

CATALOG NUMBER: VST-E09-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2383.8	2382.2	2377.3	2372.3	2369.0	2367.4	2365.8	2362.5	2360.8	2359.2	2355.9
5°	2439.7	2436.5	2428.2	2420.0	2416.7	2411.8	2406.9	2403.6	2400.3	2398.6	2392.1
7.5°	2526.9	2523.6	2513.7	2507.1	2505.5	2492.4	2490.7	2485.8	2477.6	2475.9	2466.0
10°	2632.1	2630.4	2622.2	2617.3	2614.0	2607.4	2597.6	2589.3	2581.1	2581.1	2574.6
12.5°	2753.8	2747.2	2752.1	2740.6	2737.3	2730.7	2725.8	2724.2	2714.3	2706.1	2704.4
15°	2896.8	2888.6	2888.6	2885.3	2882.0	2875.4	2873.8	2875.4	2865.5	2868.8	2859.0
17.5°	3074.3	3077.6	3076.0	3076.0	3067.8	3067.8	3054.6	3071.0	3059.5	3067.8	3064.5
20°	3296.3	3297.9	3294.6	3299.6	3302.9	3301.2	3299.6	3297.9	3302.9	3309.4	3304.5
22.5°	3533.0	3533.0	3531.4	3549.5	3529.7	3544.5	3549.5	3539.6	3565.9	3562.6	3567.5
25°	3789.5	3789.5	3802.6	3817.4	3820.7	3809.2	3815.8	3807.6	3824.0	3837.2	3840.5
27.5°	4027.9	4049.2	4059.1	4049.2	4057.5	4075.6	4073.9	4073.9	4085.4	4082.1	4113.4
30°	4272.8	4286.0	4299.1	4292.6	4295.9	4318.9	4320.5	4322.2	4337.0	4358.3	4381.3
32.5°	4552.3	4565.5	4558.9	4580.3	4578.6	4606.6	4611.5	4616.4	4662.5	4654.3	4701.9
35°	4895.9	4909.1	4902.5	4925.5	4922.2	4932.1	4950.2	4969.9	4978.1	5025.8	5063.6
37.5°	5057.0	5057.0	5071.8	5098.1	5108.0	5124.4	5152.4	5177.1	5218.2	5269.1	5328.3
40°	5251.0	5256.0	5275.7	5303.6	5321.7	5359.5	5410.5	5445.0	5507.5	5563.4	5632.4
42.5°	5486.1	5507.5	5530.5	5568.3	5607.8	5667.0	5739.3	5783.7	5865.9	5938.2	6023.7
45°	5760.7	5782.1	5836.3	5905.4	5962.9	6028.7	6087.8	6193.1	6267.0	6342.7	6416.7
47.5°	6092.8	6155.3	6199.6	6281.8	6352.5	6439.7	6513.6	6612.3	6692.8	6784.9	6847.4
50°	6518.6	6595.9	6653.4	6760.3	6829.3	6926.3	7020.0	7094.0	7176.2	7266.6	7317.6
52.5°	7130.2	7209.1	7281.4	7414.6	7500.1	7565.8	7690.8	7782.8	7858.5	7924.2	7980.1
55°	8455.2	8432.2	8632.8	8890.9	8920.5	9158.9	9203.3	9280.6	9420.3	9440.0	9596.2
57.5°	12241.5	12123.1	12414.1	12792.2	12726.4	12606.4	13107.9	13139.1	13068.4	13257.5	13043.7
60°	17481.0	17273.8	17352.7	17456.3	17306.7	17236.0	17260.7	17331.4	17262.3	17186.7	16979.5
62.5°	20979.5	20660.5	20432.0	20239.7	19996.3	19820.4	19623.1	19379.8	19314.1	19037.9	18806.1
65°	21725.9	21229.4	20867.7	20504.3	20169.0	19858.2	19560.7	19351.9	19075.7	18748.5	18506.9
67.5°	20905.5	20290.6	19761.2	19233.5	18853.7	18396.7	18173.1	17832.8	17492.5	17117.6	16895.7
70°	18521.6	17880.5	17214.6	16698.4	16182.2	15616.6	15506.5	15103.7	14908.1	14396.8	14308.0
72.5°	12784.0	12356.5	12059.0	11421.1	11107.1	10817.7	10725.7	10352.5	10391.9	9831.3	10035.2
75°	4545.7	4484.9	4397.8	4037.7	3973.6	3861.8	3832.2	3805.9	4072.3	3702.4	3970.3
77.5°	780.9	776.0	731.6	710.2	751.3	725.0	731.6	718.4	795.7	807.2	789.1
80°	485.0	471.8	457.0	447.2	448.8	439.0	440.6	443.9	448.8	447.2	452.1
82.5°	332.1	320.6	314.0	307.4	317.3	320.6	328.8	337.0	350.2	358.4	368.3
85°	180.8	166.0	166.0	164.4	177.6	187.4	200.6	217.0	240.0	259.8	281.1
87.5°	92.1	88.8	90.4	93.7	105.2	113.4	129.9	144.7	164.4	185.8	205.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P159369

CATALOG NUMBER: VST-E09-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2354.3	2354.3	2352.6	2352.6	2351.0	2349.3	2347.7	2342.7	2324.7	2308.2	2296.7
5°	2390.4	2385.5	2383.8	2378.9	2377.3	2374.0	2369.0	2364.1	2331.2	2301.6	2280.3
7.5°	2464.4	2457.8	2454.5	2449.6	2444.7	2438.1	2431.5	2426.6	2387.1	2352.6	2326.3
10°	2561.4	2558.1	2556.5	2549.9	2549.9	2540.0	2538.4	2526.9	2484.1	2452.9	2429.9
12.5°	2696.2	2689.6	2688.0	2679.8	2683.1	2679.8	2676.5	2669.9	2638.7	2602.5	2571.3
15°	2863.9	2863.9	2855.7	2849.1	2850.7	2847.5	2854.0	2845.8	2826.1	2793.2	2742.2
17.5°	3066.1	3062.8	3066.1	3061.2	3064.5	3067.8	3059.5	3061.2	3051.3	3010.2	2934.6
20°	3301.2	3296.3	3316.0	3307.8	3325.9	3309.4	3312.7	3317.7	3317.7	3263.4	3161.5
22.5°	3570.8	3567.5	3567.5	3584.0	3590.6	3592.2	3598.8	3603.7	3616.9	3547.8	3385.1
25°	3840.5	3852.0	3853.6	3875.0	3884.8	3884.8	3889.8	3907.9	3947.3	3852.0	3641.5
27.5°	4115.0	4143.0	4149.5	4164.3	4179.1	4193.9	4205.4	4218.6	4282.7	4179.1	3904.6
30°	4389.6	4420.8	4443.8	4460.3	4478.3	4514.5	4521.1	4547.4	4654.3	4527.7	4154.5
32.5°	4711.8	4756.2	4785.8	4807.1	4835.1	4869.6	4889.3	4922.2	5025.8	4818.7	4337.0
35°	5096.5	5122.8	5165.5	5201.7	5218.2	5277.3	5308.6	5316.8	5395.7	5070.2	4471.8
37.5°	5362.8	5407.2	5481.2	5532.2	5561.8	5594.6	5647.2	5681.8	5757.4	5298.7	4539.2
40°	5701.5	5768.9	5828.1	5903.7	5951.4	5976.1	6028.7	6056.6	6066.5	5494.4	4517.8
42.5°	6114.1	6175.0	6253.9	6314.7	6350.9	6378.8	6421.6	6433.1	6304.9	5586.4	4402.7
45°	6502.1	6595.9	6663.3	6707.6	6733.9	6748.7	6775.1	6776.7	6502.1	5540.4	4205.4
47.5°	6919.7	6987.1	7049.6	7080.8	7077.6	7080.8	7071.0	7064.4	6600.8	5380.9	3952.2
50°	7381.7	7426.1	7452.4	7467.2	7475.4	7444.2	7399.8	7370.2	6609.0	5154.0	3695.8
52.5°	8001.5	8057.4	8052.5	8050.8	7985.1	7955.5	7837.1	7776.3	6561.3	4887.7	3406.4
55°	9571.5	9517.3	9410.4	9463.0	9195.1	9055.3	8871.2	8700.2	6623.8	4634.5	3071.0
57.5°	13129.2	13150.6	12846.5	12683.7	12231.6	11666.0	11210.6	10768.4	7186.1	4480.0	2633.7
60°	16841.4	16562.0	16175.6	15587.1	15005.1	14165.0	13354.5	12588.3	7746.7	4318.9	2115.9
62.5°	18462.5	18064.6	17481.0	16719.8	15805.7	14778.2	13768.8	12834.9	7475.4	3797.7	1538.8
65°	18133.7	17525.4	16880.9	15989.8	14878.5	13752.3	12573.5	11620.0	6253.9	2832.7	948.6
67.5°	16414.0	15897.8	15217.1	14160.0	12971.4	11799.2	10719.1	9650.5	4646.0	1765.7	531.0
70°	13854.2	13349.5	12659.0	11577.3	10390.3	9269.0	8124.8	7253.5	2960.9	851.6	383.1
72.5°	9611.0	9201.6	8713.4	7942.3	6901.6	5882.3	5108.0	4438.9	1640.7	452.1	350.2
75°	3902.9	3904.6	3815.8	3490.3	2949.4	2543.3	2168.5	1839.7	685.6	384.7	345.2
77.5°	884.5	899.3	983.1	932.2	840.1	785.8	703.6	621.4	417.6	396.2	348.5
80°	447.2	448.8	443.9	445.5	440.6	442.2	435.7	430.7	391.3	407.7	348.5
82.5°	373.2	381.4	379.8	379.8	381.4	381.4	381.4	379.8	406.1	429.1	337.0
85°	295.9	312.4	325.5	338.7	353.5	363.3	368.3	373.2	394.6	422.5	305.8
87.5°	223.6	243.3	259.8	272.9	295.9	295.9	312.4	323.9	323.9	330.5	161.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P159369

CATALOG NUMBER: VST-E09-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2360.8	2360.8	2360.8	2360.8	2360.8
2.5°	2280.3	2273.7	2267.1	2263.8	2257.3
5°	2263.8	2250.7	2242.5	2242.5	2235.9
7.5°	2311.5	2306.6	2295.1	2288.5	2295.1
10°	2413.4	2405.2	2392.1	2382.2	2387.1
12.5°	2549.9	2517.0	2490.7	2479.2	2471.0
15°	2691.3	2625.5	2572.9	2543.3	2535.1
17.5°	2842.5	2727.4	2648.5	2604.1	2595.9
20°	2997.1	2854.0	2742.2	2684.7	2683.1
22.5°	3182.8	2992.1	2849.1	2773.5	2768.5
25°	3378.5	3115.4	2926.4	2829.4	2819.5
27.5°	3547.8	3214.1	2974.1	2859.0	2849.1
30°	3689.2	3288.1	3013.5	2880.3	2867.2
32.5°	3791.1	3330.8	3029.9	2886.9	2872.1
35°	3824.0	3314.4	2983.9	2827.7	2811.3
37.5°	3779.6	3207.5	2855.7	2683.1	2663.3
40°	3646.5	3020.1	2646.9	2469.3	2444.7
42.5°	3442.6	2789.9	2395.4	2226.0	2194.8
45°	3191.1	2530.2	2145.5	1956.4	1941.6
47.5°	2928.0	2257.3	1864.3	1693.4	1675.3
50°	2643.6	1941.6	1589.8	1404.0	1404.0
52.5°	2304.9	1634.2	1270.8	1131.1	1119.6
55°	1915.3	1287.3	1012.7	905.9	891.1
57.5°	1496.1	989.7	808.9	746.4	729.9
60°	1099.9	743.1	651.0	616.5	609.9
62.5°	746.4	565.5	524.4	509.6	508.0
65°	504.7	440.6	429.1	424.2	425.8
67.5°	388.0	366.6	361.7	360.0	360.0
70°	337.0	323.9	318.9	320.6	318.9
72.5°	317.3	299.2	300.9	304.1	302.5
75°	310.7	287.7	294.3	295.9	289.3
77.5°	305.8	274.6	291.0	295.9	277.8
80°	295.9	263.0	302.5	304.1	272.9
82.5°	271.3	233.5	302.5	279.5	246.6
85°	230.2	177.6	342.0	243.3	182.5
87.5°	146.3	105.2	231.8	166.0	110.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)