

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: P157845

Luminaire Tested: **VST-F10-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157845
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)
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-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (70) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26108 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

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

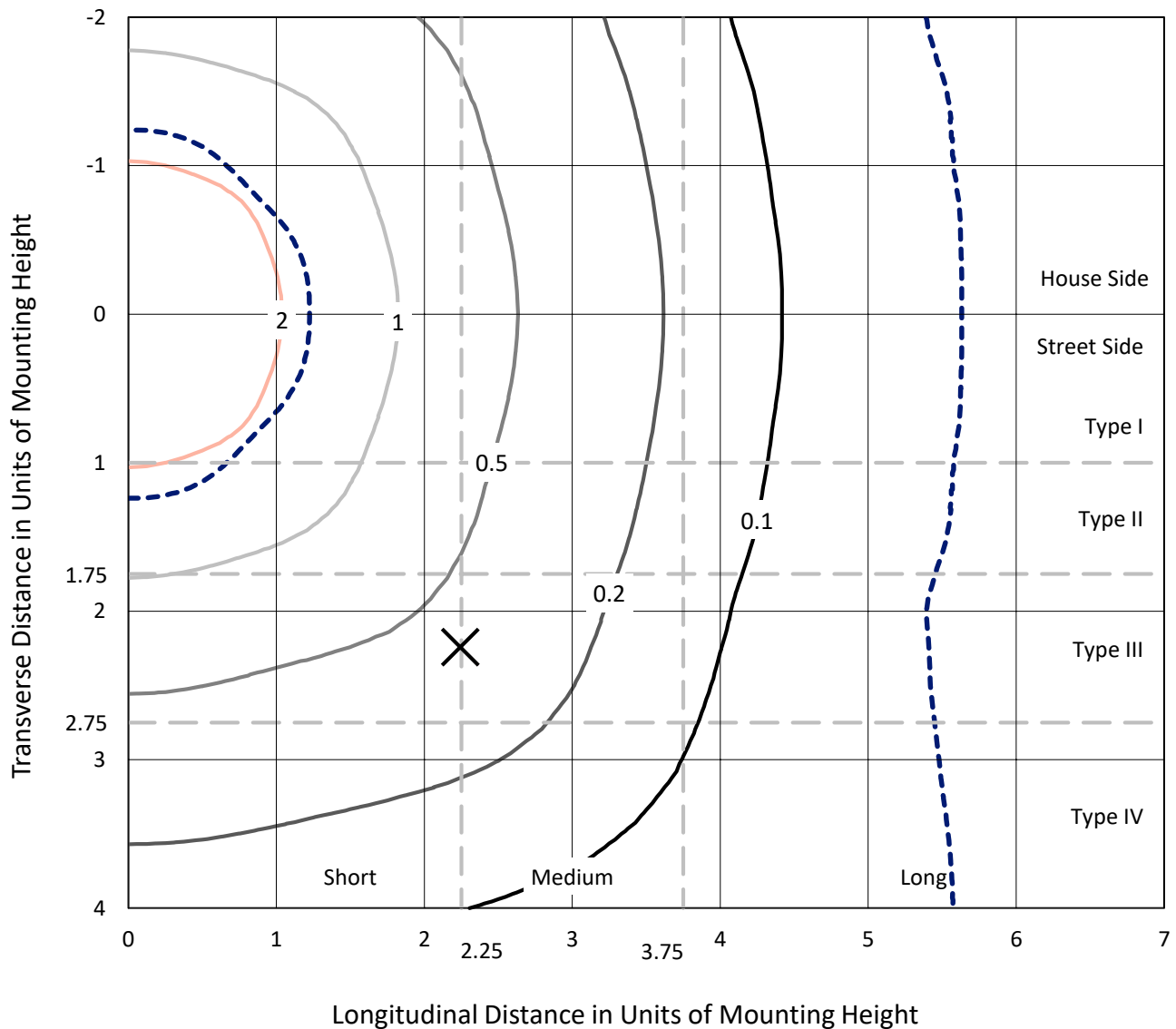


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

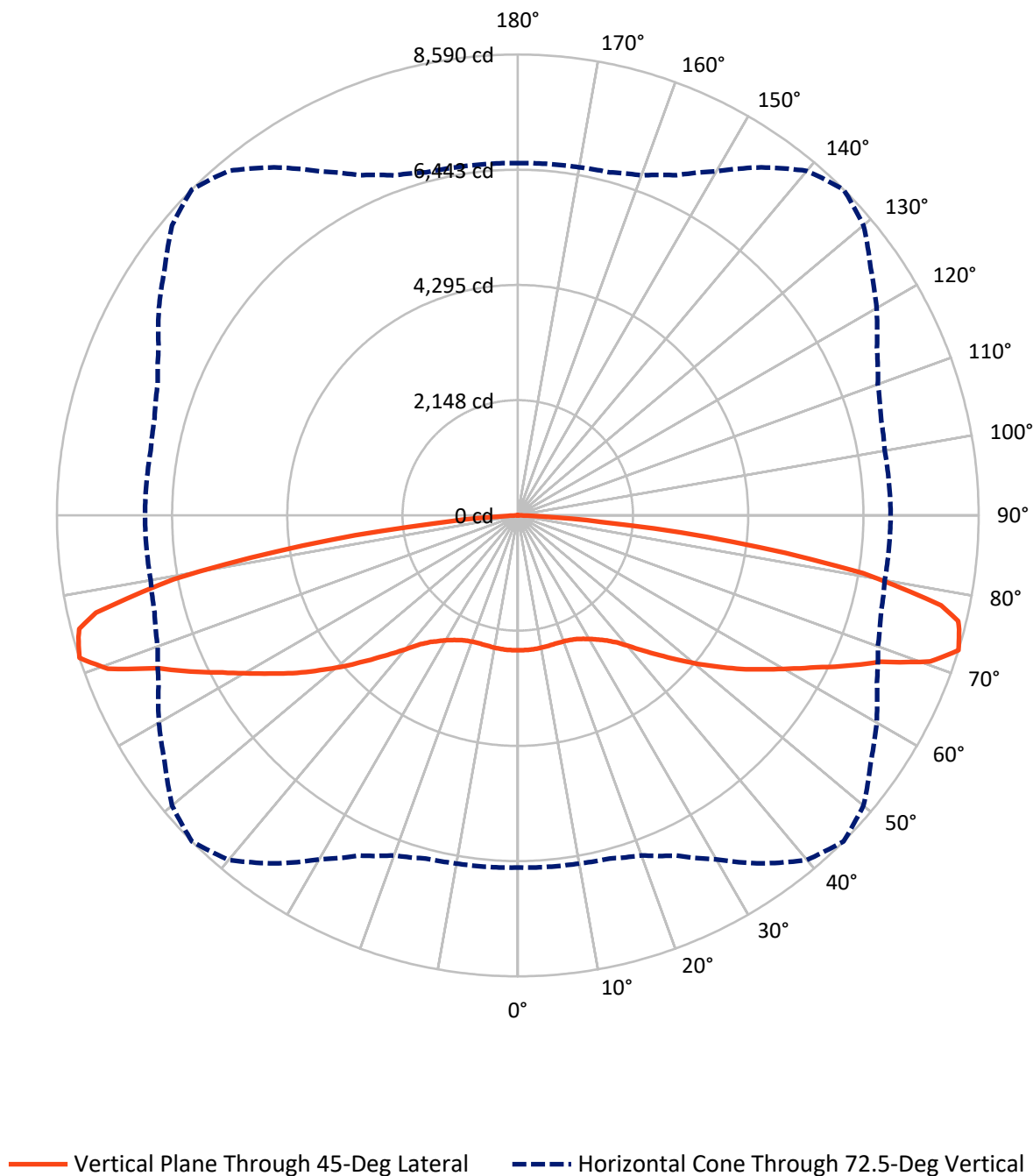


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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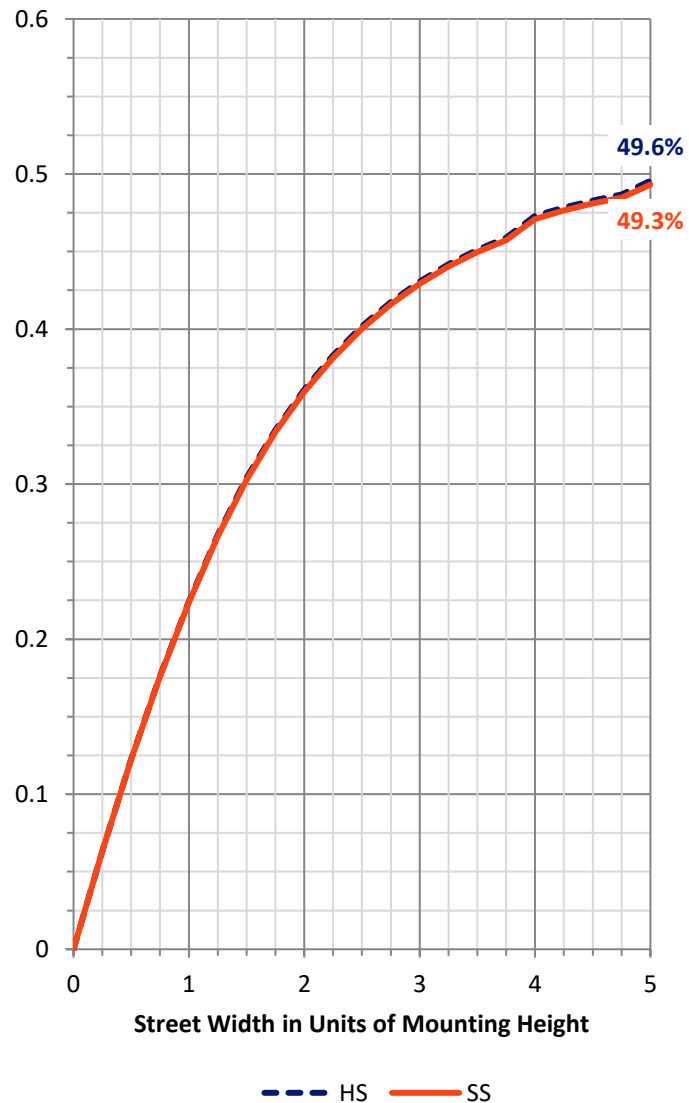
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	13047.6	6.4	13054.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	13047.6	6.4	13054.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	26095.1	12.9	26108.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.8	0.9
10°-20°	708.1	2.7
20°-30°	1184.1	4.5
30°-40°	1799.8	6.9
40°-50°	2850.6	10.9
50°-60°	4360.4	16.7
60°-70°	6240.4	23.9
70°-80°	7140.4	27.3
80°-90°	1571.5	6.0
90°-100°	1.3	0.0
100°-110°	2.7	0.0
110°-120°	1.9	0.0
120°-130°	2.1	0.0
130°-140°	1.9	0.0
140°-150°	1.5	0.0
150°-160°	1.0	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	26095.1	100.0
0°-180°	26108.0	100.0

Coefficient of Utilization



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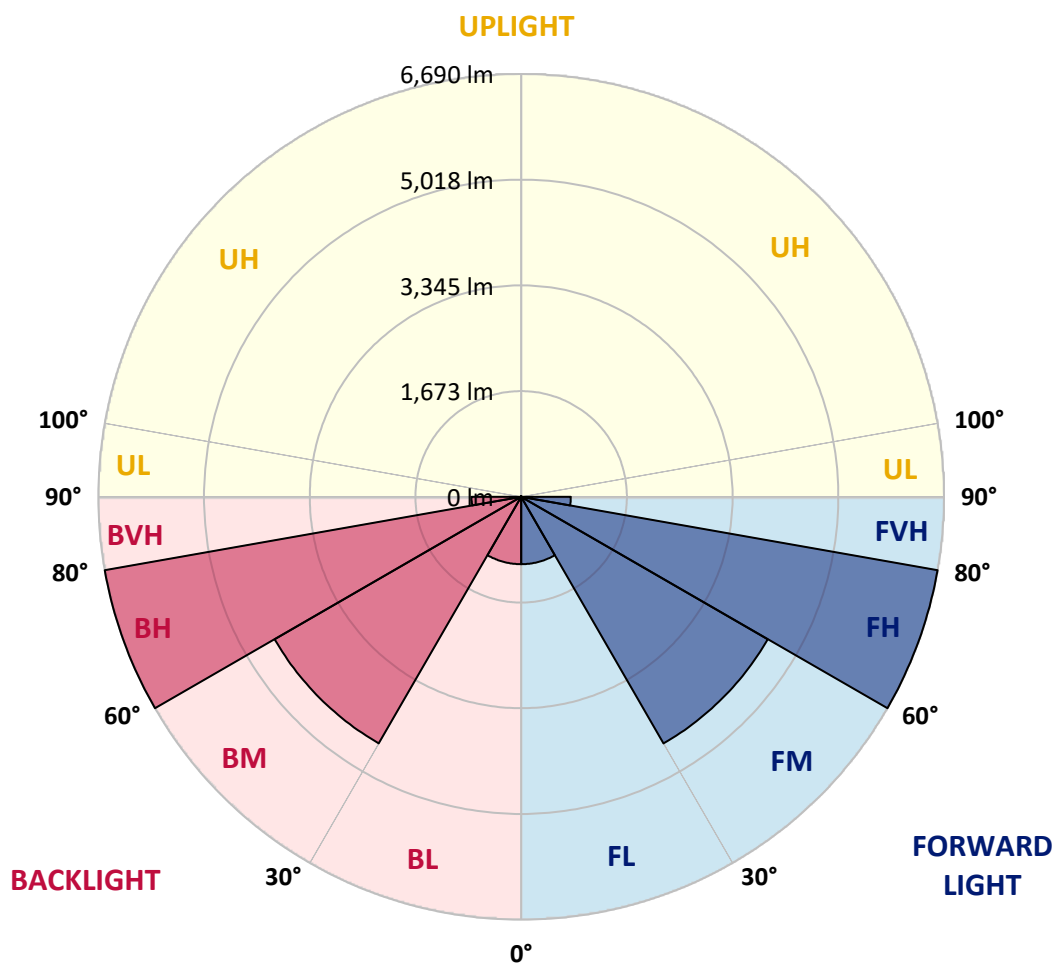
CATALOG NUMBER: VST-F10-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1066.0	4.1			
FM	(30°-60°)	4505.4	17.3			
FH	(60°-80°)	6690.4	25.6			G3/7500
FVH	(80°-90°)	785.8	3.0			G5
BL	(0°-30°)	1066.0	4.1	B3/2500		
BM	(30°-60°)	4505.4	17.3	B3/5000		
BH	(60°-80°)	6690.4	25.6	B5		G3/7500
BVH	(80°-90°)	785.8	3.0			G5
UL	(90°-100°)	1.3	0.0		U1/10	
UH	(100°-180°)	6.4	0.0		U1/10	

BUG Rating: B5-U2-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9
2.5°	2514.5	2511.2	2512.9	2516.2	2514.5	2514.5	2512.9	2512.9	2516.2	2512.9	2514.5
5°	2516.2	2512.9	2514.5	2516.2	2514.5	2516.2	2514.5	2514.5	2514.5	2512.9	2516.2
7.5°	2509.6	2509.6	2511.2	2511.2	2509.6	2511.2	2511.2	2511.2	2509.6	2509.6	2512.9
10°	2506.3	2504.6	2504.6	2506.3	2504.6	2504.6	2506.3	2506.3	2503.0	2503.0	2506.3
12.5°	2501.3	2499.7	2499.7	2499.7	2498.0	2498.0	2499.7	2499.7	2498.0	2496.4	2501.3
15°	2498.0	2496.4	2496.4	2496.4	2493.1	2494.7	2494.7	2494.7	2493.1	2491.4	2496.4
17.5°	2496.4	2494.7	2494.7	2494.7	2493.1	2493.1	2493.1	2493.1	2491.4	2491.4	2494.7
20°	2499.7	2499.7	2499.7	2499.7	2498.0	2498.0	2498.0	2499.7	2499.7	2499.7	2503.0
22.5°	2507.9	2507.9	2509.6	2511.2	2511.2	2514.5	2516.2	2517.9	2517.9	2519.5	2522.8
25°	2529.4	2529.4	2531.1	2532.7	2537.7	2541.0	2547.6	2550.9	2552.5	2552.5	2554.2
27.5°	2569.0	2570.7	2574.0	2577.3	2583.9	2588.8	2595.5	2602.1	2603.7	2605.4	2607.0
30°	2618.6	2620.2	2626.8	2630.1	2638.4	2648.3	2656.5	2663.1	2668.1	2671.4	2669.7
32.5°	2689.6	2692.9	2701.1	2706.1	2717.6	2727.5	2739.1	2749.0	2754.0	2758.9	2757.3
35°	2788.6	2796.9	2805.1	2810.1	2821.6	2829.9	2844.8	2854.7	2864.6	2861.3	2862.9
37.5°	2935.6	2942.2	2943.8	2947.1	2958.7	2965.3	2981.8	2995.0	3000.0	3003.3	3004.9
40°	3133.7	3133.7	3141.9	3135.3	3150.2	3151.9	3171.7	3189.8	3194.8	3208.0	3198.1
42.5°	3364.8	3363.2	3368.1	3363.2	3363.2	3379.7	3396.2	3429.2	3432.5	3449.0	3439.1
45°	3615.8	3615.8	3610.8	3612.5	3615.8	3634.0	3653.8	3690.1	3706.6	3716.5	3709.9
47.5°	3888.2	3881.6	3880.0	3878.3	3888.2	3908.0	3937.8	3972.4	4013.7	4017.0	4013.7
50°	4163.9	4162.3	4150.7	4160.6	4167.2	4177.2	4233.3	4279.5	4322.4	4348.9	4340.6
52.5°	4454.5	4439.7	4439.7	4439.7	4456.2	4487.6	4537.1	4599.8	4657.6	4685.7	4680.7
55°	4748.4	4743.5	4728.6	4722.0	4743.5	4788.0	4859.0	4935.0	5010.9	5053.9	5037.4
57.5°	5017.5	5009.3	5010.9	5012.6	5037.4	5096.8	5179.3	5280.1	5362.6	5408.8	5397.3
60°	5228.9	5219.0	5237.1	5242.1	5286.7	5385.7	5517.8	5644.9	5753.9	5800.1	5782.0
62.5°	5468.3	5461.7	5473.2	5471.6	5519.5	5630.1	5806.7	6009.8	6174.9	6234.4	6207.9
65°	5854.6	5834.8	5829.9	5811.7	5843.1	5928.9	6105.6	6341.7	6605.9	6757.7	6721.4
67.5°	6316.9	6312.0	6295.5	6285.5	6297.1	6404.4	6574.5	6802.3	7071.4	7281.1	7327.4
70°	6622.4	6629.0	6645.5	6670.2	6766.0	6974.0	7284.4	7629.5	7999.3	8156.2	8128.1
72.5°	6564.6	6574.5	6587.7	6619.1	6744.5	6993.8	7403.3	7918.4	8382.4	8590.4	8412.1
75°	6282.2	6290.5	6320.2	6368.1	6521.6	6823.8	7264.6	7811.1	8289.9	8498.0	8311.4
76°	6021.4	6047.8	6102.3	6158.4	6343.3	6671.9	7142.4	7725.3	8232.1	8443.5	8263.5
77.5°	5430.3	5453.4	5498.0	5595.4	5805.1	6226.1	6775.9	7348.8	7877.2	8067.0	7915.1
80°	4086.3	4106.2	4147.4	4264.7	4446.3	4707.1	5133.1	5692.8	6272.3	6521.6	6422.6
82.5°	1725.3	1748.5	1911.9	2082.0	2281.8	2564.1	2841.5	3336.8	3762.7	4046.7	3894.8
85°	189.9	234.4	288.9	392.9	482.1	642.3	799.1	1099.6	1390.2	1566.8	1385.2
87.5°	33.0	38.0	54.5	69.3	77.6	89.2	107.3	150.2	204.7	176.7	180.0
90°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.3	3.3	3.3	3.3
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	1.7	1.7	1.7
97.5°	0.0	0.0	0.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
100°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3	3.3
102.5°	1.7	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3	3.3
105°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
107.5°	1.7	1.7	1.7	1.7	3.3	3.3	1.7	1.7	1.7	3.3	1.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
112.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
115°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
117.5°	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
120°	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
122.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
125°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
127.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
130°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
132.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
135°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
137.5°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
140°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
142.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
145°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	1.7
147.5°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7	1.7
150°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	0.0	0.0	0.0
152.5°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0
155°	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	1.7
157.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0	0.0
160°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0	0.0
162.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0	0.0
165°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	70°	75°	80°	85°	90°
0°	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9	2512.9
2.5°	2512.9	2512.9	2516.2	2514.5	2514.5	2516.2	2519.5	2517.9
5°	2514.5	2516.2	2512.9	2514.5	2516.2	2516.2	2517.9	2516.2
7.5°	2511.2	2511.2	2511.2	2512.9	2514.5	2512.9	2514.5	2514.5
10°	2504.6	2506.3	2504.6	2507.9	2509.6	2509.6	2511.2	2511.2
12.5°	2499.7	2499.7	2499.7	2503.0	2504.6	2504.6	2506.3	2504.6
15°	2494.7	2494.7	2493.1	2496.4	2499.7	2499.7	2501.3	2501.3
17.5°	2493.1	2493.1	2491.4	2494.7	2498.0	2498.0	2499.7	2499.7
20°	2498.0	2499.7	2496.4	2499.7	2503.0	2504.6	2504.6	2504.6
22.5°	2517.9	2516.2	2511.2	2512.9	2514.5	2514.5	2514.5	2514.5
25°	2547.6	2544.3	2539.3	2537.7	2536.0	2534.4	2534.4	2534.4
27.5°	2598.8	2593.8	2585.5	2583.9	2582.2	2578.9	2578.9	2578.9
30°	2659.8	2653.2	2643.3	2640.0	2635.1	2631.8	2630.1	2628.5
32.5°	2747.3	2734.1	2722.6	2714.3	2709.4	2699.5	2697.8	2694.5
35°	2848.1	2838.2	2821.6	2816.7	2808.4	2803.5	2801.8	2793.6
37.5°	2986.7	2975.2	2960.3	2957.0	2955.4	2950.4	2950.4	2948.8
40°	3179.9	3168.4	3155.2	3141.9	3145.2	3146.9	3146.9	3140.3
42.5°	3416.0	3397.9	3371.4	3379.7	3374.7	3368.1	3381.4	3373.1
45°	3685.1	3660.4	3640.6	3632.3	3632.3	3624.1	3637.3	3637.3
47.5°	3984.0	3944.4	3908.0	3909.7	3896.5	3899.8	3908.0	3919.6
50°	4299.3	4246.5	4211.8	4195.3	4182.1	4187.1	4201.9	4205.2
52.5°	4626.2	4561.9	4515.6	4490.9	4474.3	4480.9	4492.5	4502.4
55°	4966.4	4895.4	4826.0	4799.6	4779.8	4793.0	4794.6	4807.9
57.5°	5321.3	5223.9	5143.0	5103.4	5083.6	5096.8	5106.7	5119.9
60°	5679.6	5567.3	5471.6	5425.3	5397.3	5415.4	5438.6	5445.2
62.5°	6095.7	5940.5	5833.2	5767.1	5753.9	5772.1	5778.7	5798.5
65°	6587.7	6401.1	6252.5	6171.6	6168.3	6178.2	6193.1	6198.0
67.5°	7149.0	6941.0	6741.2	6660.3	6629.0	6658.7	6673.5	6693.4
70°	7941.5	7655.9	7367.0	7187.0	7111.1	7088.0	7094.6	7116.0
72.5°	8030.7	7723.6	7386.8	7142.4	7008.7	6947.6	6946.0	6949.3
75°	7835.9	7345.5	7107.8	6827.1	6637.2	6538.2	6524.9	6523.3
76°	7738.5	7159.0	6815.5	6592.6	6364.8	6264.1	6249.2	6241.0
77.5°	7327.4	6704.9	6188.1	6052.7	5834.8	5707.7	5734.1	5712.6
80°	5874.4	5256.9	4769.9	4388.5	4400.0	4307.6	4269.6	4258.1
82.5°	3462.3	2955.4	2417.1	2101.8	1801.3	1722.0	1482.6	1428.2
85°	1106.2	784.2	475.5	345.1	234.4	196.5	153.5	140.3
87.5°	146.9	115.6	94.1	90.8	82.6	71.0	46.2	33.0
90°	1.7	1.7	1.7	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.7	1.7	1.7	1.7	0.0	0.0	0.0	0.0
97.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
100°	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
102.5°	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7
105°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
107.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3



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CATALOG NUMBER: VST-F10-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.7	1.7	1.7	1.7	1.7	3.3	3.3	3.3
112.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3
115°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3
117.5°	1.7	1.7	1.7	1.7	1.7	3.3	3.3	3.3
120°	1.7	1.7	1.7	1.7	1.7	3.3	3.3	3.3
122.5°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
125°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
127.5°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
130°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
132.5°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
135°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
137.5°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
140°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
142.5°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
145°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
150°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
152.5°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
155°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
157.5°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
160°	1.7	1.7	1.7	1.7	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)