

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: P157856

Luminaire Tested: **VST-F11-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157856
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-F11-LED-E-U-5XQ-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (77) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29468.5 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

Input Watts (W): 282.7
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

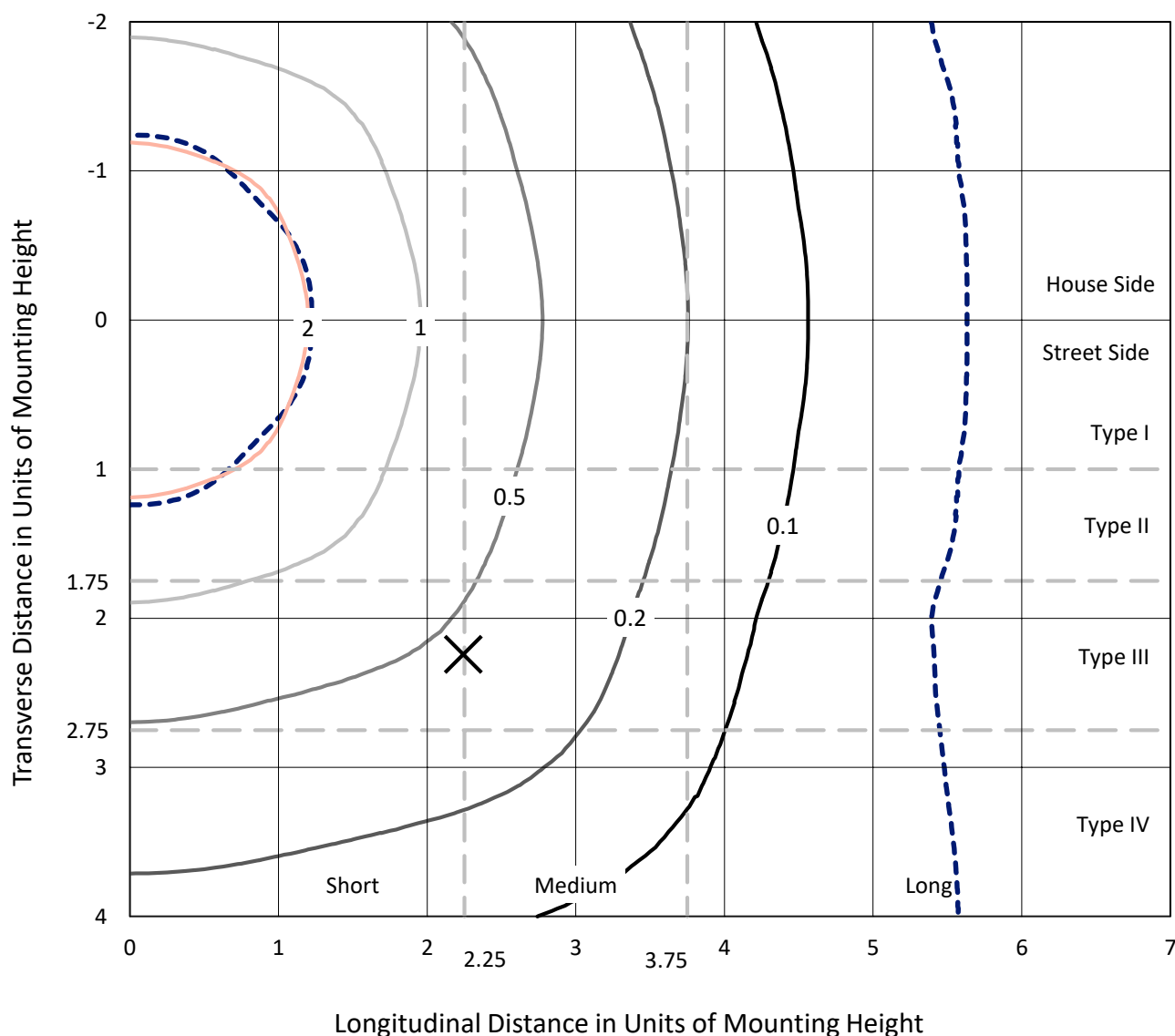


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

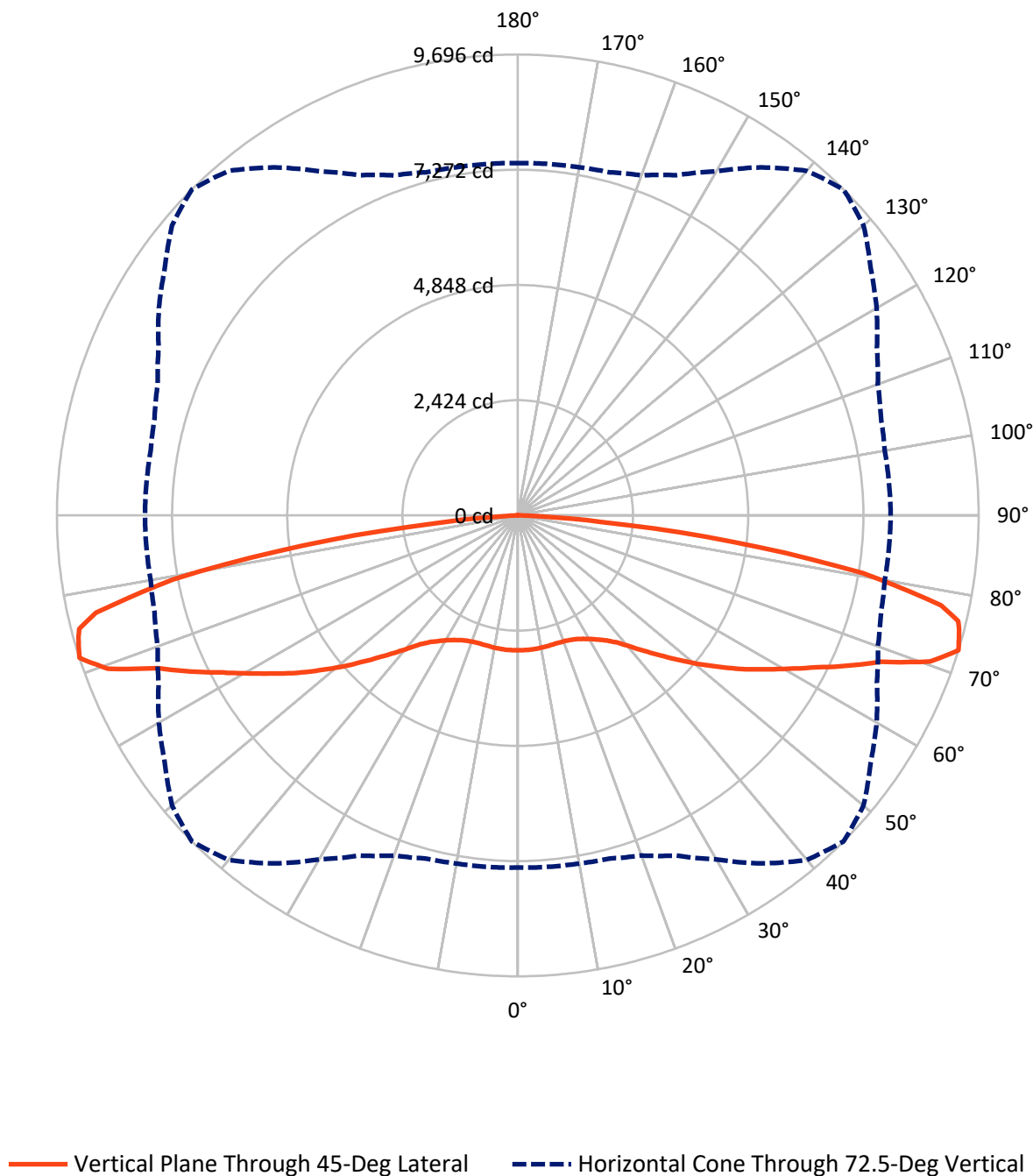


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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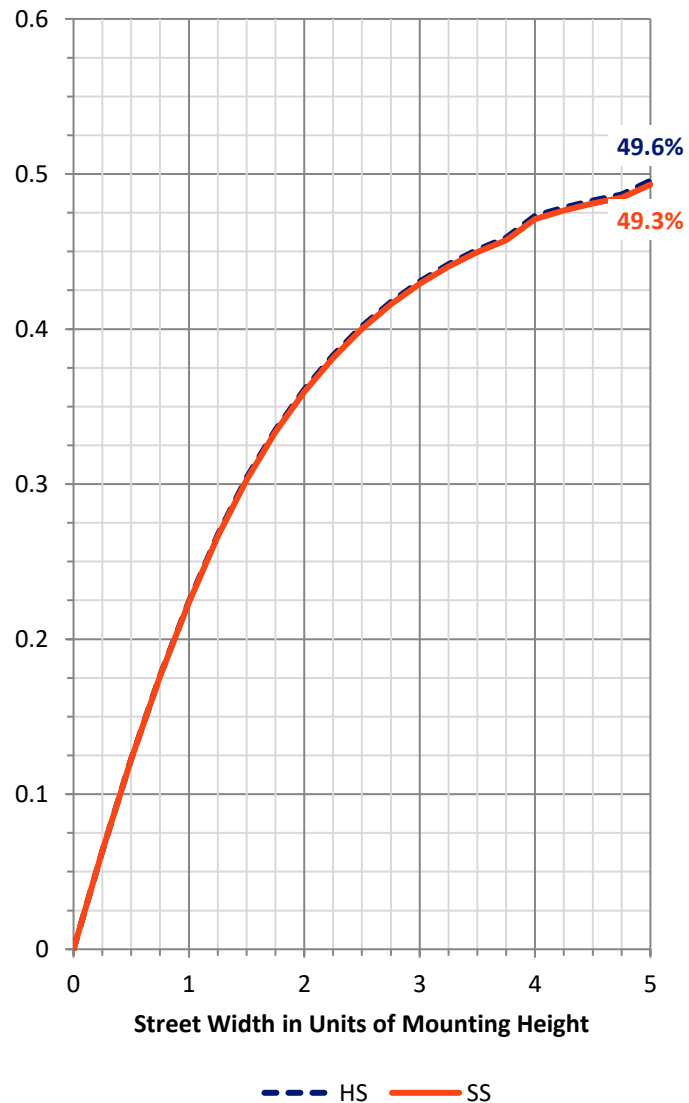
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14727.0	7.2	14734.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	14727.0	7.2	14734.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	29454.0	14.4	29468.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.6	0.9
10°-20°	799.3	2.7
20°-30°	1336.5	4.5
30°-40°	2031.5	6.9
40°-50°	3217.5	10.9
50°-60°	4921.6	16.7
60°-70°	7043.7	23.9
70°-80°	8059.5	27.3
80°-90°	1773.8	6.0
90°-100°	1.5	0.0
100°-110°	3.0	0.0
110°-120°	2.1	0.0
120°-130°	2.3	0.0
130°-140°	2.1	0.0
140°-150°	1.7	0.0
150°-160°	1.1	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	29454.0	100.0
0°-180°	29468.5	100.0

Coefficient of Utilization



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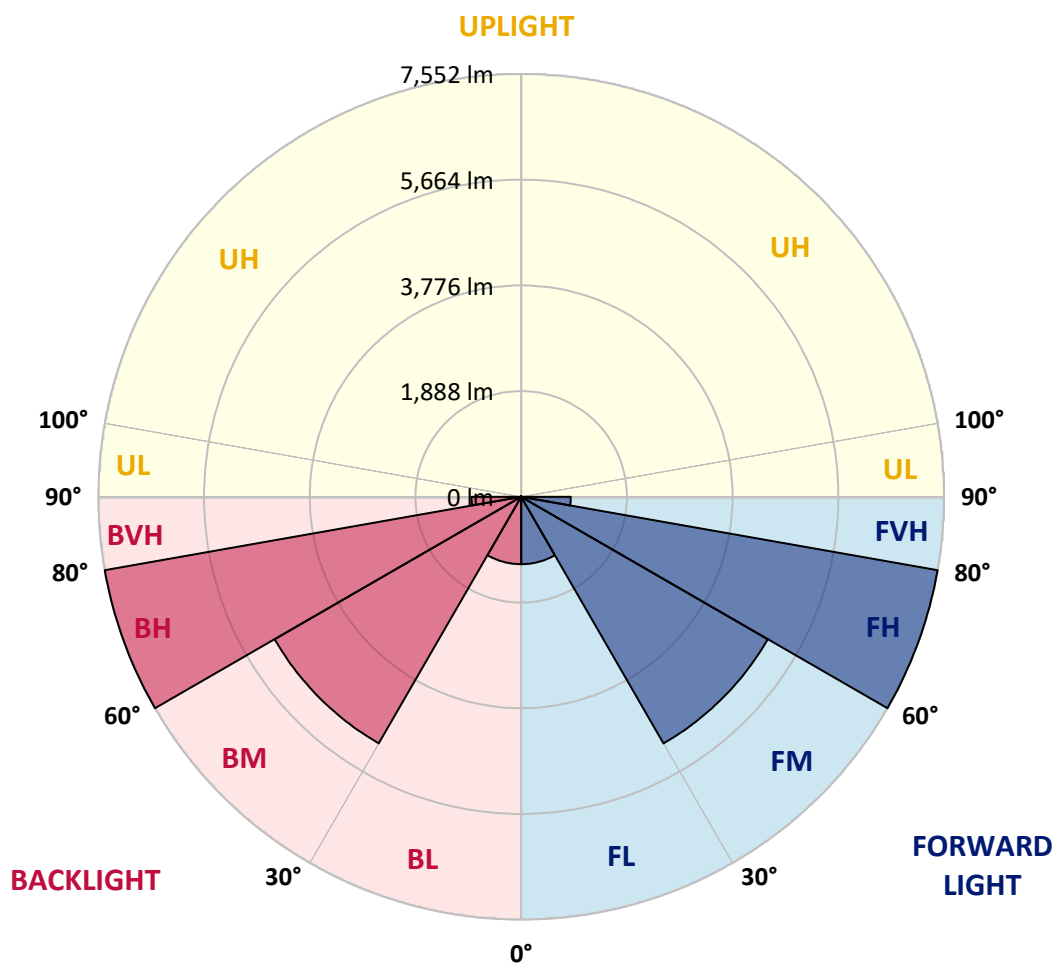
CATALOG NUMBER: VST-F11-LED-E-U-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1203.2	4.1			
FM	(30°-60°)	5085.3	17.3			
FH	(60°-80°)	7551.6	25.6			G4/12000
FVH	(80°-90°)	886.9	3.0			G5
BL	(0°-30°)	1203.2	4.1	B3/2500		
BM	(30°-60°)	5085.3	17.3	B4/8500		
BH	(60°-80°)	7551.6	25.6	B5		G4/12000
BVH	(80°-90°)	886.9	3.0			G5
UL	(90°-100°)	1.5	0.0		U1/10	
UH	(100°-180°)	7.2	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°	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3
2.5°	2838.2	2834.5	2836.3	2840.1	2838.2	2838.2	2836.3	2836.3	2840.1	2836.3	2838.2
5°	2840.1	2836.3	2838.2	2840.1	2838.2	2840.1	2838.2	2838.2	2838.2	2836.3	2840.1
7.5°	2832.6	2832.6	2834.5	2834.5	2832.6	2834.5	2834.5	2834.5	2832.6	2832.6	2836.3
10°	2828.9	2827.0	2827.0	2828.9	2827.0	2827.0	2828.9	2828.9	2825.2	2825.2	2828.9
12.5°	2823.3	2821.4	2821.4	2821.4	2819.6	2819.6	2821.4	2821.4	2819.6	2817.7	2823.3
15°	2819.6	2817.7	2817.7	2817.7	2814.0	2815.8	2815.8	2815.8	2814.0	2812.1	2817.7
17.5°	2817.7	2815.8	2815.8	2815.8	2814.0	2814.0	2814.0	2814.0	2812.1	2812.1	2815.8
20°	2821.4	2821.4	2821.4	2821.4	2819.6	2819.6	2819.6	2821.4	2821.4	2821.4	2825.2
22.5°	2830.8	2830.8	2832.6	2834.5	2834.5	2838.2	2840.1	2841.9	2841.9	2843.8	2847.5
25°	2855.0	2855.0	2856.8	2858.7	2864.3	2868.0	2875.5	2879.2	2881.1	2881.1	2882.9
27.5°	2899.7	2901.6	2905.3	2909.0	2916.5	2922.1	2929.5	2937.0	2938.8	2940.7	2942.6
30°	2955.6	2957.5	2964.9	2968.7	2978.0	2989.2	2998.5	3005.9	3011.5	3015.3	3013.4
32.5°	3035.7	3039.5	3048.8	3054.4	3067.4	3078.6	3091.7	3102.8	3108.4	3114.0	3112.2
35°	3147.6	3156.9	3166.2	3171.8	3184.8	3194.2	3210.9	3222.1	3233.3	3229.6	3231.4
37.5°	3313.4	3320.9	3322.7	3326.5	3339.5	3347.0	3365.6	3380.5	3386.1	3389.8	3391.7
40°	3537.0	3537.0	3546.4	3538.9	3555.7	3557.5	3579.9	3600.4	3606.0	3620.9	3609.7
42.5°	3797.9	3796.1	3801.7	3796.1	3796.1	3814.7	3833.4	3870.6	3874.4	3893.0	3881.8
45°	4081.2	4081.2	4075.6	4077.5	4081.2	4101.7	4124.1	4165.1	4183.7	4194.9	4187.4
47.5°	4388.7	4381.2	4379.4	4377.5	4388.7	4411.1	4444.6	4483.7	4530.3	4534.1	4530.3
50°	4699.9	4698.1	4685.0	4696.2	4703.6	4714.8	4778.2	4830.4	4878.8	4908.6	4899.3
52.5°	5027.9	5011.1	5011.1	5011.1	5029.8	5065.2	5121.1	5191.9	5257.1	5288.8	5283.2
55°	5359.6	5354.0	5337.3	5329.8	5354.0	5404.3	5484.5	5570.2	5655.9	5704.4	5685.7
57.5°	5663.4	5654.1	5655.9	5657.8	5685.7	5752.8	5846.0	5959.7	6052.9	6105.0	6092.0
60°	5901.9	5890.7	5911.2	5916.8	5967.1	6079.0	6228.0	6371.5	6494.5	6546.7	6526.2
62.5°	6172.1	6164.7	6177.7	6175.9	6229.9	6354.8	6554.2	6783.4	6969.7	7036.8	7007.0
65°	6608.2	6585.8	6580.3	6559.8	6595.2	6692.1	6891.5	7158.0	7456.1	7627.6	7586.6
67.5°	7130.0	7124.4	7105.8	7094.6	7107.6	7228.8	7420.7	7677.9	7981.7	8218.3	8270.5
70°	7474.8	7482.2	7500.9	7528.8	7636.9	7871.7	8222.1	8611.5	9029.0	9206.0	9174.3
72.5°	7409.5	7420.7	7435.6	7471.0	7612.7	7894.1	8356.2	8937.7	9461.3	9696.1	9494.9
75°	7090.9	7100.2	7133.7	7187.8	7361.1	7702.1	8199.7	8816.5	9357.0	9591.8	9381.2
76°	6796.4	6826.2	6887.7	6951.1	7159.8	7530.7	8061.8	8719.6	9291.7	9530.3	9327.1
77.5°	6129.3	6155.4	6205.7	6315.6	6552.3	7027.5	7648.1	8294.7	8891.1	9105.4	8933.9
80°	4612.3	4634.7	4681.3	4813.6	5018.6	5313.0	5793.8	6425.6	7079.7	7361.1	7249.3
82.5°	1947.4	1973.5	2158.0	2350.0	2575.4	2894.1	3207.2	3766.3	4247.1	4567.6	4396.2
85°	214.3	264.6	326.1	443.5	544.2	724.9	902.0	1241.1	1569.1	1768.5	1563.5
87.5°	37.3	42.9	61.5	78.3	87.6	100.6	121.1	169.6	231.1	199.4	203.1
90°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	3.7	3.7	3.7	3.7
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9
97.5°	0.0	0.0	0.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
100°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7
102.5°	1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7	3.7
105°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
107.5°	1.9	1.9	1.9	1.9	3.7	3.7	1.9	1.9	1.9	3.7	1.9



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CATALOG NUMBER: VST-F11-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
112.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
115°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
117.5°	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
120°	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
122.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
125°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
127.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
130°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
132.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
135°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
137.5°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
140°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
142.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
145°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	1.9
147.5°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	1.9	1.9
150°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	0.0	0.0	0.0
152.5°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	0.0
155°	3.7	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	1.9
157.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	0.0	0.0
160°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	0.0	0.0
162.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	0.0	0.0	0.0
165°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9	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°	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3	2836.3
2.5°	2836.3	2836.3	2840.1	2838.2	2838.2	2840.1	2843.8	2841.9
5°	2838.2	2840.1	2836.3	2838.2	2840.1	2840.1	2841.9	2840.1
7.5°	2834.5	2834.5	2834.5	2836.3	2838.2	2836.3	2838.2	2838.2
10°	2827.0	2828.9	2827.0	2830.8	2832.6	2832.6	2834.5	2834.5
12.5°	2821.4	2821.4	2821.4	2825.2	2827.0	2827.0	2828.9	2827.0
15°	2815.8	2815.8	2814.0	2817.7	2821.4	2821.4	2823.3	2823.3
17.5°	2814.0	2814.0	2812.1	2815.8	2819.6	2819.6	2821.4	2821.4
20°	2819.6	2821.4	2817.7	2821.4	2825.2	2827.0	2827.0	2827.0
22.5°	2841.9	2840.1	2834.5	2836.3	2838.2	2838.2	2838.2	2838.2
25°	2875.5	2871.8	2866.2	2864.3	2862.4	2860.6	2860.6	2860.6
27.5°	2933.3	2927.7	2918.3	2916.5	2914.6	2910.9	2910.9	2910.9
30°	3002.2	2994.8	2983.6	2979.8	2974.3	2970.5	2968.7	2966.8
32.5°	3101.0	3086.1	3073.0	3063.7	3058.1	3046.9	3045.1	3041.3
35°	3214.7	3203.5	3184.8	3179.2	3169.9	3164.3	3162.5	3153.2
37.5°	3371.2	3358.1	3341.4	3337.6	3335.8	3330.2	3330.2	3328.3
40°	3589.2	3576.2	3561.3	3546.4	3550.1	3552.0	3552.0	3544.5
42.5°	3855.7	3835.2	3805.4	3814.7	3809.1	3801.7	3816.6	3807.3
45°	4159.5	4131.5	4109.2	4099.8	4099.8	4090.5	4105.4	4105.4
47.5°	4496.8	4452.1	4411.1	4412.9	4398.0	4401.7	4411.1	4424.1
50°	4852.7	4793.1	4754.0	4735.3	4720.4	4726.0	4742.8	4746.5
52.5°	5221.7	5149.0	5096.9	5068.9	5050.3	5057.7	5070.8	5081.9
55°	5605.6	5525.5	5447.2	5417.4	5395.0	5409.9	5411.8	5426.7
57.5°	6006.3	5896.3	5805.0	5760.3	5737.9	5752.8	5764.0	5778.9
60°	6410.7	6283.9	6175.9	6123.7	6092.0	6112.5	6138.6	6146.0
62.5°	6880.3	6705.1	6584.0	6509.4	6494.5	6515.0	6522.5	6544.8
65°	7435.6	7225.0	7057.3	6966.0	6962.3	6973.5	6990.2	6995.8
67.5°	8069.2	7834.4	7608.9	7517.6	7482.2	7515.8	7532.5	7554.9
70°	8963.8	8641.4	8315.2	8112.1	8026.4	8000.3	8007.7	8032.0
72.5°	9064.4	8717.8	8337.6	8061.8	7910.8	7841.9	7840.0	7843.8
75°	8844.5	8291.0	8022.7	7705.8	7491.5	7379.7	7364.8	7363.0
76°	8734.5	8080.4	7692.8	7441.2	7184.0	7070.4	7053.6	7044.3
77.5°	8270.5	7567.9	6984.6	6831.8	6585.8	6442.3	6472.2	6447.9
80°	6630.6	5933.6	5383.8	4953.4	4966.4	4862.0	4819.2	4806.1
82.5°	3907.9	3335.8	2728.3	2372.3	2033.2	1943.7	1673.5	1612.0
85°	1248.6	885.2	536.7	389.5	264.6	221.8	173.3	158.4
87.5°	165.9	130.4	106.2	102.5	93.2	80.1	52.2	37.3
90°	1.9	1.9	1.9	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°	1.9	1.9	1.9	1.9	0.0	0.0	0.0	0.0
97.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
100°	3.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
102.5°	3.7	3.7	3.7	3.7	1.9	1.9	1.9	1.9
105°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
107.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7



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CATALOG NUMBER: VST-F11-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7
112.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7
115°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	3.7
117.5°	1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7
120°	1.9	1.9	1.9	1.9	1.9	3.7	3.7	3.7
122.5°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
125°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
127.5°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
130°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
132.5°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
135°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
137.5°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
140°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
142.5°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
145°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
150°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
152.5°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
155°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
157.5°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
160°	1.9	1.9	1.9	1.9	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	3.7	3.7	3.7	3.7	3.7
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)