

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: P157853

Luminaire Tested: **VST-F11-LED-E-U-5XQ-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157853
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-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (77) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24238.3 lumens
Efficiency: N/A
Efficacy: 85.7 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 - G4

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

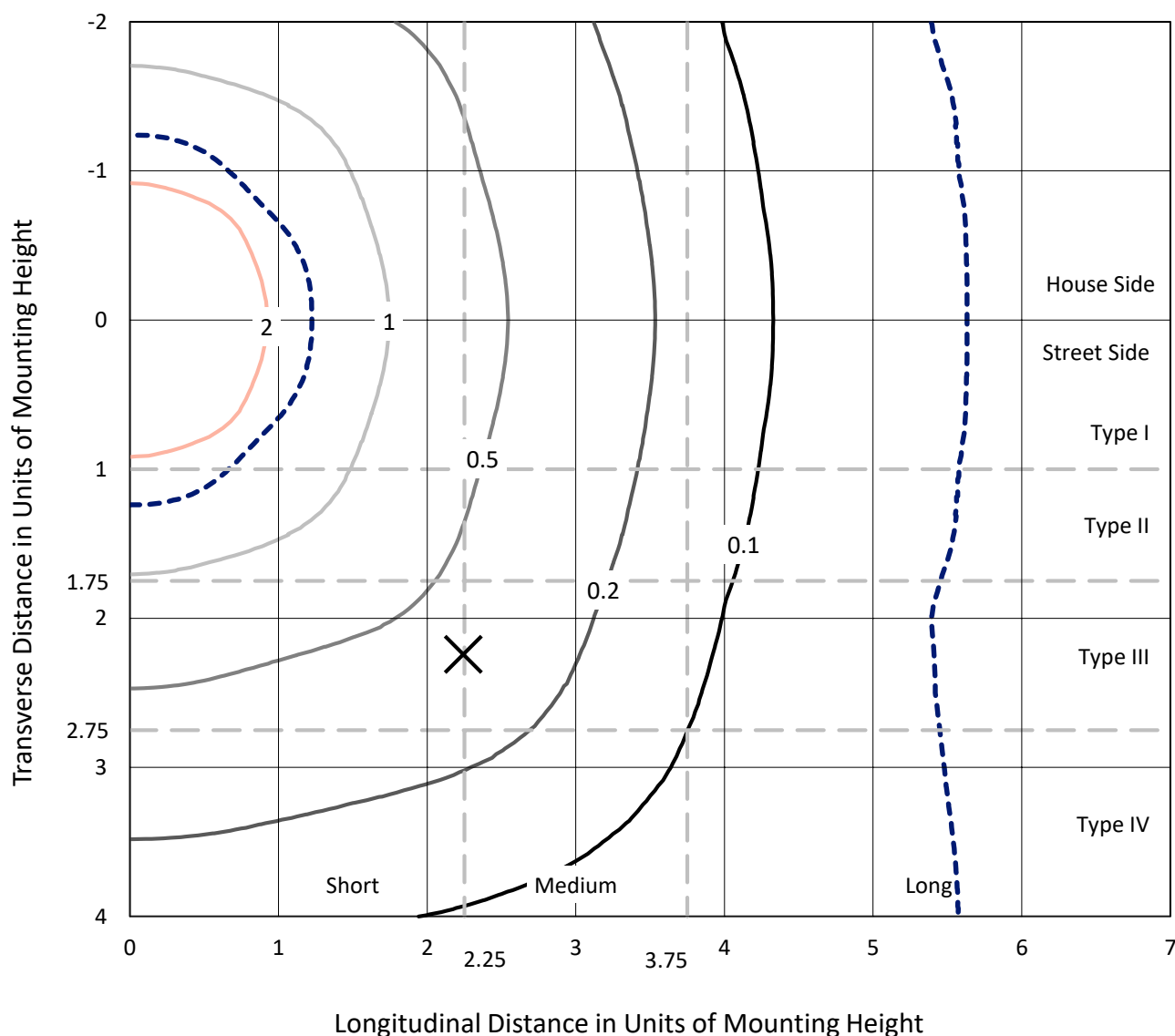


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

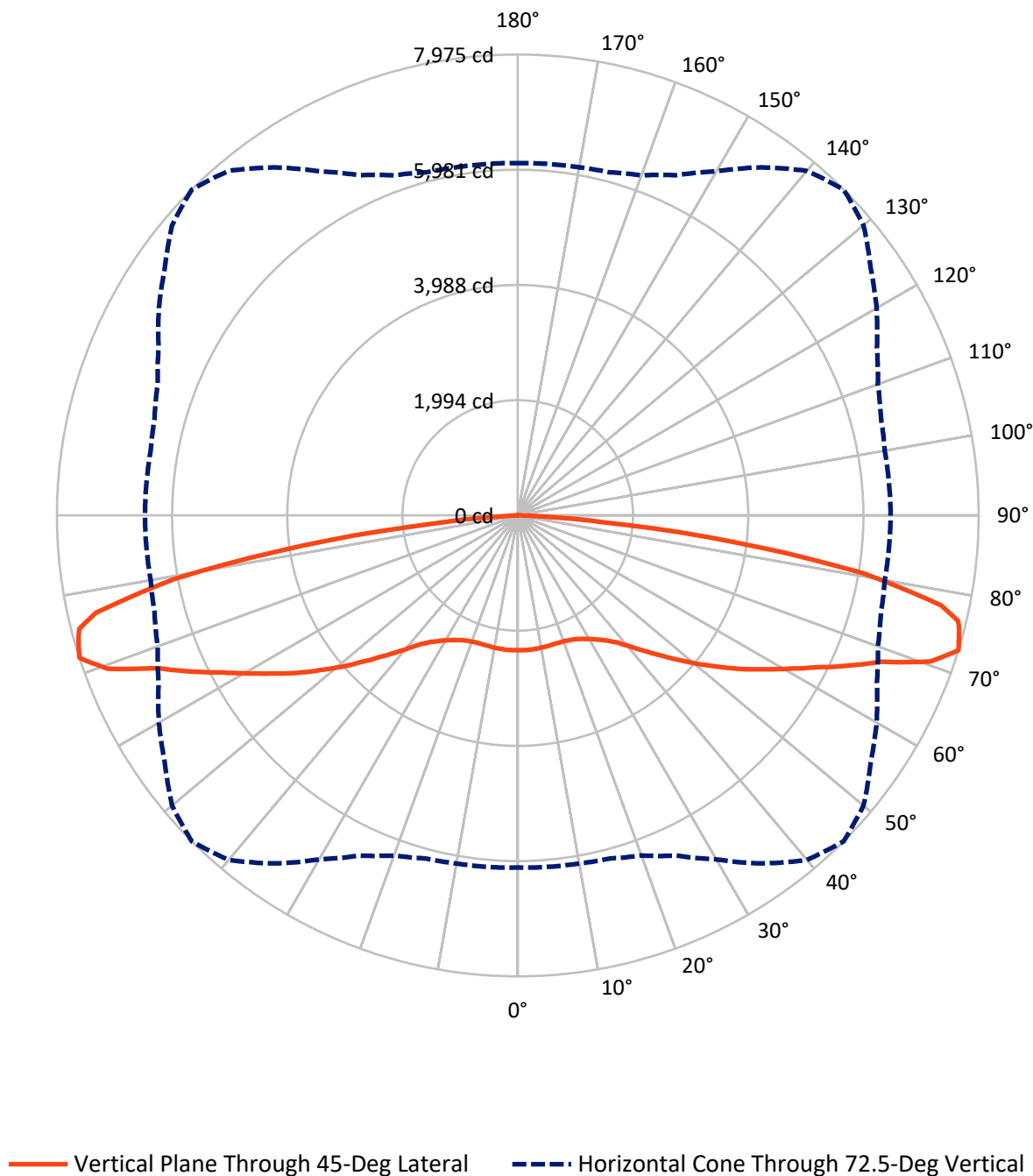


Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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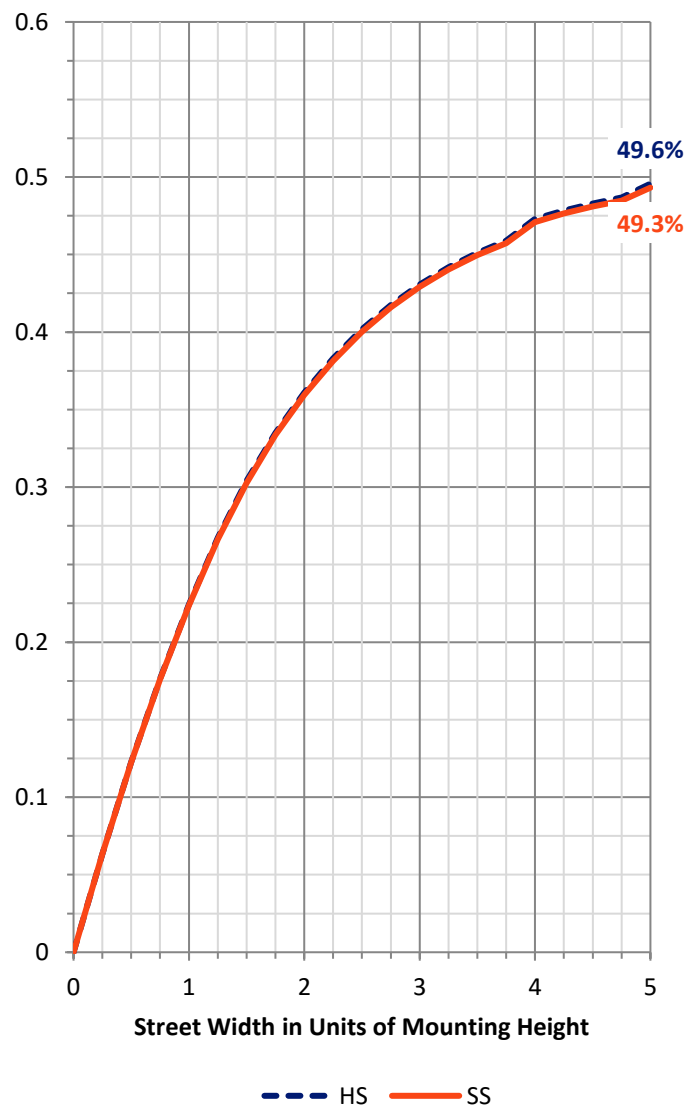
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12113.3	5.9	12119.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12113.3	5.9	12119.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	24226.5	11.8	24238.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.6	0.9
10°-20°	657.4	2.7
20°-30°	1099.3	4.5
30°-40°	1670.9	6.9
40°-50°	2646.4	10.9
50°-60°	4048.1	16.7
60°-70°	5793.6	23.9
70°-80°	6629.1	27.3
80°-90°	1459.0	6.0
90°-100°	1.2	0.0
100°-110°	2.5	0.0
110°-120°	1.7	0.0
120°-130°	1.9	0.0
130°-140°	1.8	0.0
140°-150°	1.4	0.0
150°-160°	0.9	0.0
160°-170°	0.4	0.0
170°-180°	0.0	0.0
0°-90°	24226.5	100.0
0°-180°	24238.3	100.0

Coefficient of Utilization



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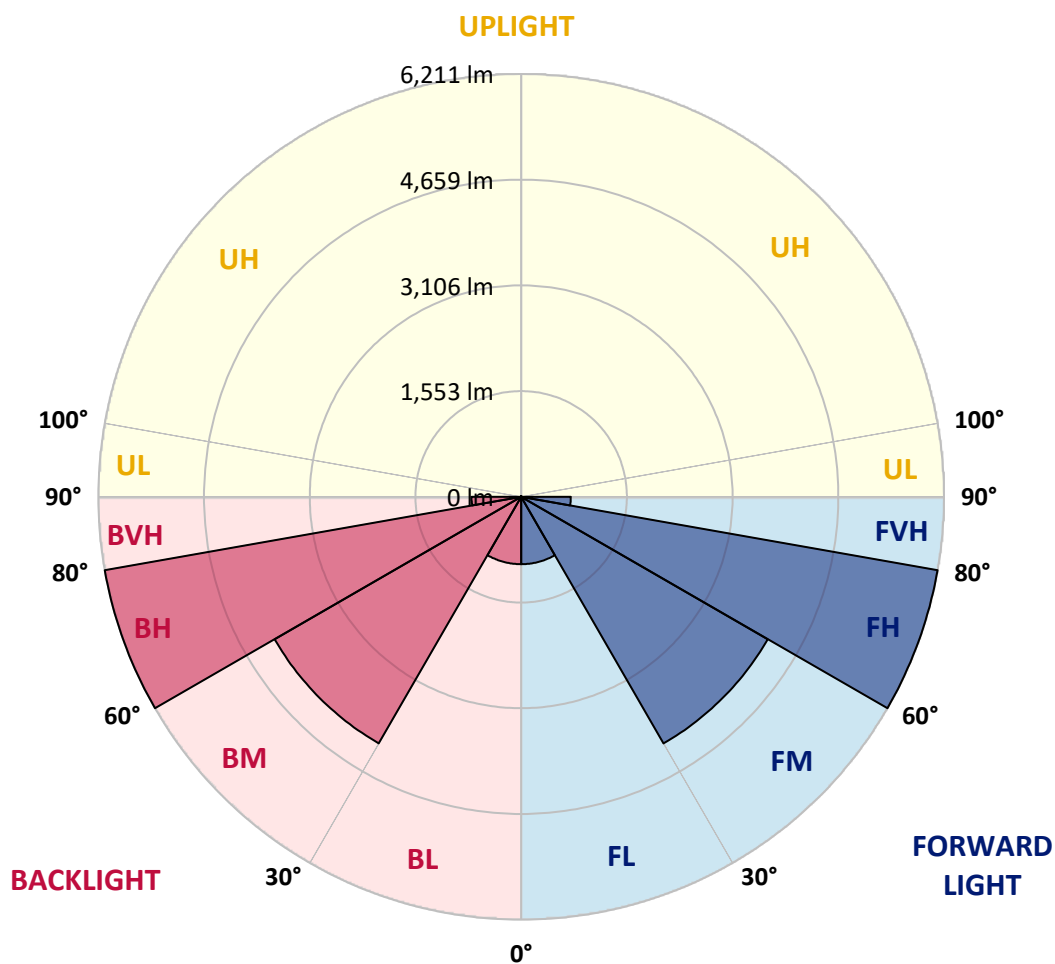
CATALOG NUMBER: VST-F11-LED-E-U-5XQ-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	989.7	4.1			
FM	(30°-60°)	4182.7	17.3			
FH	(60°-80°)	6211.3	25.6			G3/7500
FVH	(80°-90°)	729.5	3.0			G4/750
BL	(0°-30°)	989.7	4.1	B2/1000		
BM	(30°-60°)	4182.7	17.3	B3/5000		
BH	(60°-80°)	6211.3	25.6	B5		G3/7500
BVH	(80°-90°)	729.5	3.0			G4/750
UL	(90°-100°)	1.2	0.0		U1/10	
UH	(100°-180°)	5.9	0.0		U1/10	

BUG Rating: B5-U2-G4

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9
2.5°	2334.5	2331.4	2332.9	2336.0	2334.5	2334.5	2332.9	2332.9	2336.0	2332.9	2334.5
5°	2336.0	2332.9	2334.5	2336.0	2334.5	2336.0	2334.5	2334.5	2334.5	2332.9	2336.0
7.5°	2329.9	2329.9	2331.4	2331.4	2329.9	2331.4	2331.4	2331.4	2329.9	2329.9	2332.9
10°	2326.8	2325.3	2325.3	2326.8	2325.3	2325.3	2326.8	2326.8	2323.8	2323.8	2326.8
12.5°	2322.2	2320.7	2320.7	2320.7	2319.2	2319.2	2320.7	2320.7	2319.2	2317.6	2322.2
15°	2319.2	2317.6	2317.6	2317.6	2314.6	2316.1	2316.1	2316.1	2314.6	2313.0	2317.6
17.5°	2317.6	2316.1	2316.1	2316.1	2314.6	2314.6	2314.6	2314.6	2313.0	2313.0	2316.1
20°	2320.7	2320.7	2320.7	2320.7	2319.2	2319.2	2319.2	2320.7	2320.7	2320.7	2323.8
22.5°	2328.4	2328.4	2329.9	2331.4	2331.4	2334.5	2336.0	2337.5	2337.5	2339.1	2342.1
25°	2348.3	2348.3	2349.8	2351.3	2355.9	2359.0	2365.1	2368.2	2369.7	2369.7	2371.3
27.5°	2385.1	2386.6	2389.7	2392.7	2398.9	2403.5	2409.6	2415.7	2417.3	2418.8	2420.3
30°	2431.0	2432.6	2438.7	2441.8	2449.4	2458.6	2466.3	2472.4	2477.0	2480.1	2478.6
32.5°	2497.0	2500.0	2507.7	2512.3	2523.0	2532.2	2542.9	2552.1	2556.7	2561.3	2559.8
35°	2588.9	2596.6	2604.3	2608.9	2619.6	2627.3	2641.0	2650.2	2659.4	2656.4	2657.9
37.5°	2725.4	2731.5	2733.0	2736.1	2746.8	2752.9	2768.3	2780.5	2785.1	2788.2	2789.7
40°	2909.3	2909.3	2917.0	2910.8	2924.6	2926.1	2944.5	2961.4	2966.0	2978.3	2969.1
42.5°	3123.9	3122.4	3126.9	3122.4	3122.4	3137.7	3153.0	3183.7	3186.7	3202.1	3192.9
45°	3356.9	3356.9	3352.3	3353.8	3356.9	3373.7	3392.1	3425.8	3441.2	3450.4	3444.2
47.5°	3609.8	3603.7	3602.1	3600.6	3609.8	3628.2	3655.8	3688.0	3726.3	3729.3	3726.3
50°	3865.8	3864.2	3853.5	3862.7	3868.8	3878.0	3930.1	3973.1	4012.9	4037.4	4029.8
52.5°	4135.5	4121.7	4121.7	4121.7	4137.1	4166.2	4212.2	4270.4	4324.1	4350.1	4345.5
55°	4408.4	4403.8	4390.0	4383.9	4403.8	4445.2	4511.1	4581.6	4652.1	4692.0	4676.6
57.5°	4658.2	4650.6	4652.1	4653.6	4676.6	4731.8	4808.5	4902.0	4978.6	5021.5	5010.8
60°	4854.4	4845.2	4862.1	4866.7	4908.1	5000.1	5122.7	5240.7	5341.9	5384.8	5367.9
62.5°	5076.7	5070.6	5081.3	5079.8	5124.2	5226.9	5390.9	5579.5	5732.7	5787.9	5763.4
65°	5435.4	5417.0	5412.4	5395.5	5424.6	5504.4	5668.4	5887.6	6132.8	6273.8	6240.1
67.5°	5864.6	5860.0	5844.6	5835.4	5846.2	5945.8	6103.7	6315.2	6565.1	6759.7	6802.6
70°	6148.1	6154.3	6169.6	6192.6	6281.5	6474.6	6762.8	7083.2	7426.5	7572.1	7546.1
72.5°	6094.5	6103.7	6115.9	6145.1	6261.6	6493.0	6873.2	7351.4	7782.1	7975.3	7809.7
75°	5832.4	5840.0	5867.6	5912.1	6054.6	6335.1	6744.4	7251.8	7696.3	7889.4	7716.2
76°	5590.2	5614.7	5665.3	5717.4	5889.1	6194.1	6631.0	7172.1	7642.6	7838.8	7671.8
77.5°	5041.4	5062.9	5104.3	5194.7	5389.4	5780.3	6290.7	6822.6	7313.1	7489.3	7348.3
80°	3793.7	3812.1	3850.4	3959.3	4127.9	4370.1	4765.5	5285.2	5823.2	6054.6	5962.7
82.5°	1601.8	1623.3	1775.0	1932.9	2118.4	2380.5	2638.0	3097.8	3493.3	3756.9	3615.9
85°	176.3	217.7	268.2	364.8	447.6	596.3	741.9	1020.9	1290.6	1454.6	1286.0
87.5°	30.7	35.3	50.6	64.4	72.0	82.8	99.6	139.5	190.1	164.0	167.1
90°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	3.1	3.1	3.1	3.1
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5
97.5°	0.0	0.0	0.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.1	3.1	3.1
102.5°	1.5	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1	3.1
105°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
107.5°	1.5	1.5	1.5	1.5	3.1	3.1	1.5	1.5	1.5	3.1	1.5



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CATALOG NUMBER: VST-F11-LED-E-U-5XQ-8030

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
117.5°	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
120°	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
122.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
125°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
127.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
130°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5
132.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
135°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5
137.5°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5
140°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5
142.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
145°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	1.5
147.5°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5
150°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	0.0	0.0	0.0
152.5°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	0.0
155°	3.1	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	1.5
157.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	0.0	0.0
160°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	0.0	0.0
162.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	0.0	0.0	0.0
165°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	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°	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9	2332.9
2.5°	2332.9	2332.9	2336.0	2334.5	2334.5	2336.0	2339.1	2337.5
5°	2334.5	2336.0	2332.9	2334.5	2336.0	2336.0	2337.5	2336.0
7.5°	2331.4	2331.4	2331.4	2332.9	2334.5	2332.9	2334.5	2334.5
10°	2325.3	2326.8	2325.3	2328.4	2329.9	2329.9	2331.4	2331.4
12.5°	2320.7	2320.7	2320.7	2323.8	2325.3	2325.3	2326.8	2325.3
15°	2316.1	2316.1	2314.6	2317.6	2320.7	2320.7	2322.2	2322.2
17.5°	2314.6	2314.6	2313.0	2316.1	2319.2	2319.2	2320.7	2320.7
20°	2319.2	2320.7	2317.6	2320.7	2323.8	2325.3	2325.3	2325.3
22.5°	2337.5	2336.0	2331.4	2332.9	2334.5	2334.5	2334.5	2334.5
25°	2365.1	2362.1	2357.5	2355.9	2354.4	2352.9	2352.9	2352.9
27.5°	2412.7	2408.1	2400.4	2398.9	2397.3	2394.3	2394.3	2394.3
30°	2469.4	2463.2	2454.0	2451.0	2446.4	2443.3	2441.8	2440.2
32.5°	2550.6	2538.3	2527.6	2520.0	2515.4	2506.2	2504.6	2501.6
35°	2644.1	2634.9	2619.6	2615.0	2607.3	2602.7	2601.2	2593.5
37.5°	2772.9	2762.1	2748.3	2745.3	2743.7	2739.1	2739.1	2737.6
40°	2952.2	2941.5	2929.2	2917.0	2920.0	2921.6	2921.6	2915.4
42.5°	3171.4	3154.5	3130.0	3137.7	3133.1	3126.9	3139.2	3131.5
45°	3421.3	3398.3	3379.9	3372.2	3372.2	3364.5	3376.8	3376.8
47.5°	3698.7	3661.9	3628.2	3629.7	3617.5	3620.5	3628.2	3638.9
50°	3991.5	3942.4	3910.2	3894.9	3882.6	3887.2	3901.0	3904.1
52.5°	4295.0	4235.2	4192.3	4169.3	4153.9	4160.1	4170.8	4180.0
55°	4610.7	4544.8	4480.4	4455.9	4437.5	4449.8	4451.3	4463.6
57.5°	4940.3	4849.8	4774.7	4737.9	4719.5	4731.8	4741.0	4753.3
60°	5272.9	5168.7	5079.8	5036.8	5010.8	5027.6	5049.1	5055.2
62.5°	5659.2	5515.1	5415.4	5354.1	5341.9	5358.7	5364.9	5383.3
65°	6115.9	5942.7	5804.8	5729.7	5726.6	5735.8	5749.6	5754.2
67.5°	6637.1	6444.0	6258.5	6183.4	6154.3	6181.9	6195.7	6214.0
70°	7372.9	7107.7	6839.4	6672.4	6601.8	6580.4	6586.5	6606.4
72.5°	7455.6	7170.5	6857.8	6631.0	6506.8	6450.1	6448.6	6451.6
75°	7274.8	6819.5	6598.8	6338.2	6161.9	6070.0	6057.7	6056.2
76°	7184.3	6646.3	6327.5	6120.5	5909.0	5815.5	5801.7	5794.1
77.5°	6802.6	6224.8	5745.0	5619.3	5417.0	5299.0	5323.5	5303.6
80°	5453.8	4880.5	4428.3	4074.2	4085.0	3999.1	3963.9	3953.1
82.5°	3214.3	2743.7	2244.0	1951.3	1672.3	1598.7	1376.5	1325.9
85°	1027.0	728.1	441.5	320.4	217.7	182.4	142.6	130.3
87.5°	136.4	107.3	87.4	84.3	76.6	65.9	42.9	30.7
90°	1.5	1.5	1.5	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°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
100°	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5
102.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5
105°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
107.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1



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CATALOG NUMBER: VST-F11-LED-E-U-5XQ-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.5	1.5	1.5	1.5	1.5	3.1	3.1	3.1
112.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.1
115°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.1
117.5°	1.5	1.5	1.5	1.5	1.5	3.1	3.1	3.1
120°	1.5	1.5	1.5	1.5	1.5	3.1	3.1	3.1
122.5°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
125°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
127.5°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
130°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
132.5°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
135°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
137.5°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
140°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
142.5°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
145°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
147.5°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
150°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
152.5°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
155°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
157.5°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
160°	1.5	1.5	1.5	1.5	3.1	3.1	3.1	3.1
162.5°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
165°	1.5	1.5	1.5	3.1	3.1	3.1	3.1	3.1
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)