

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: P157865

Luminaire Tested: **VST-F12-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157865
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-F12-LED-E-U-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31329.6 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

Input Watts (W): 306.6
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



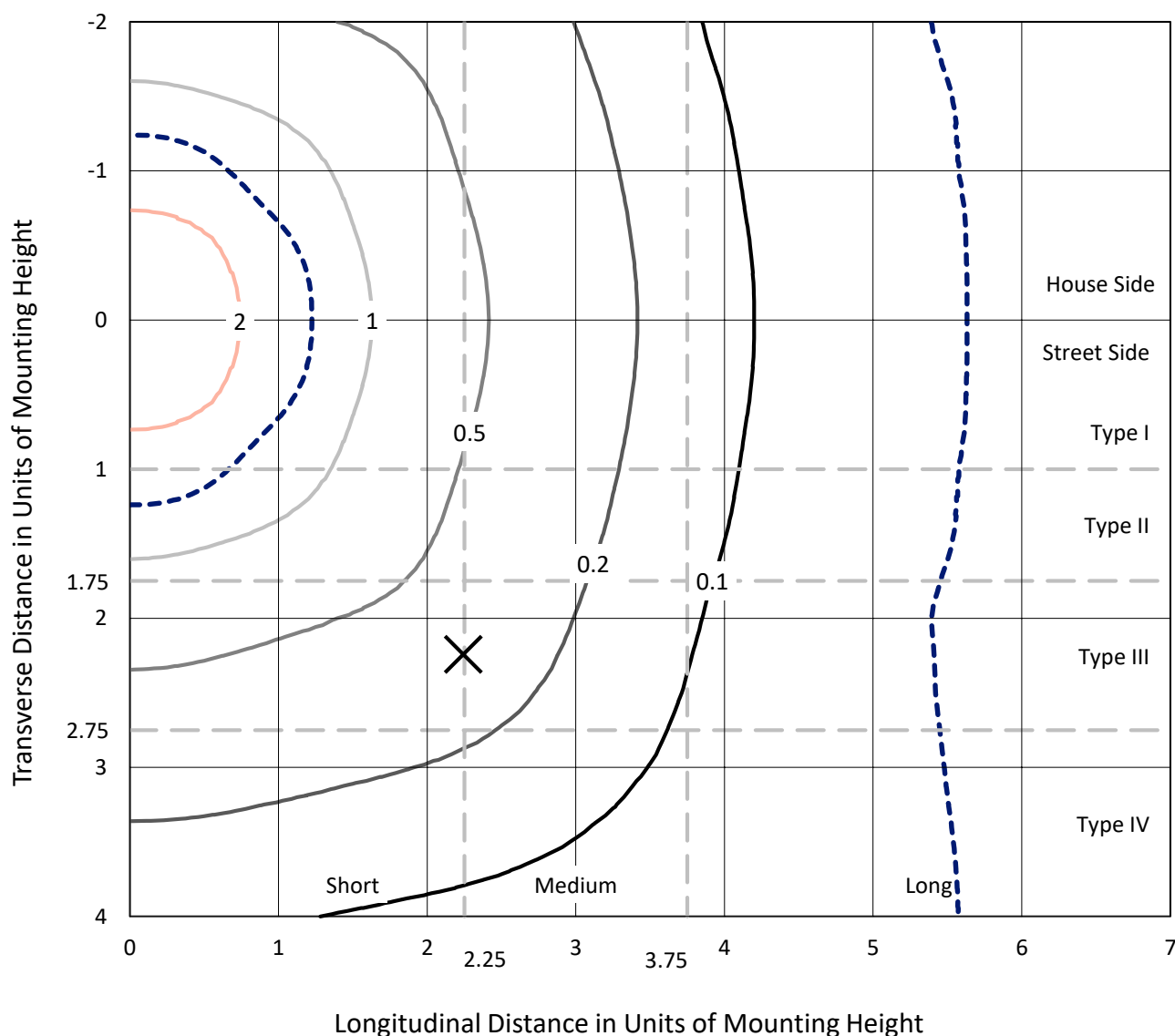
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

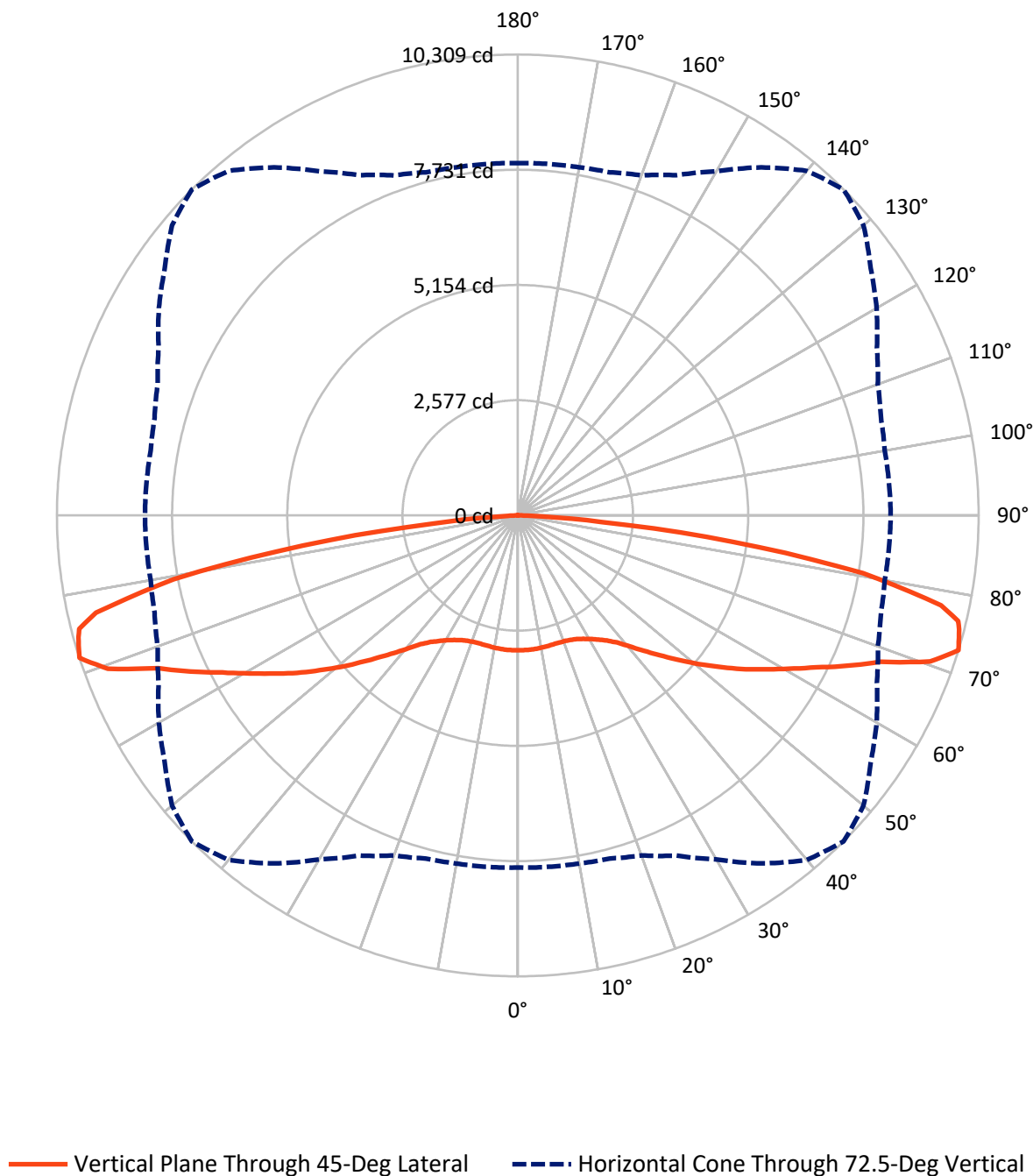


Based on 30 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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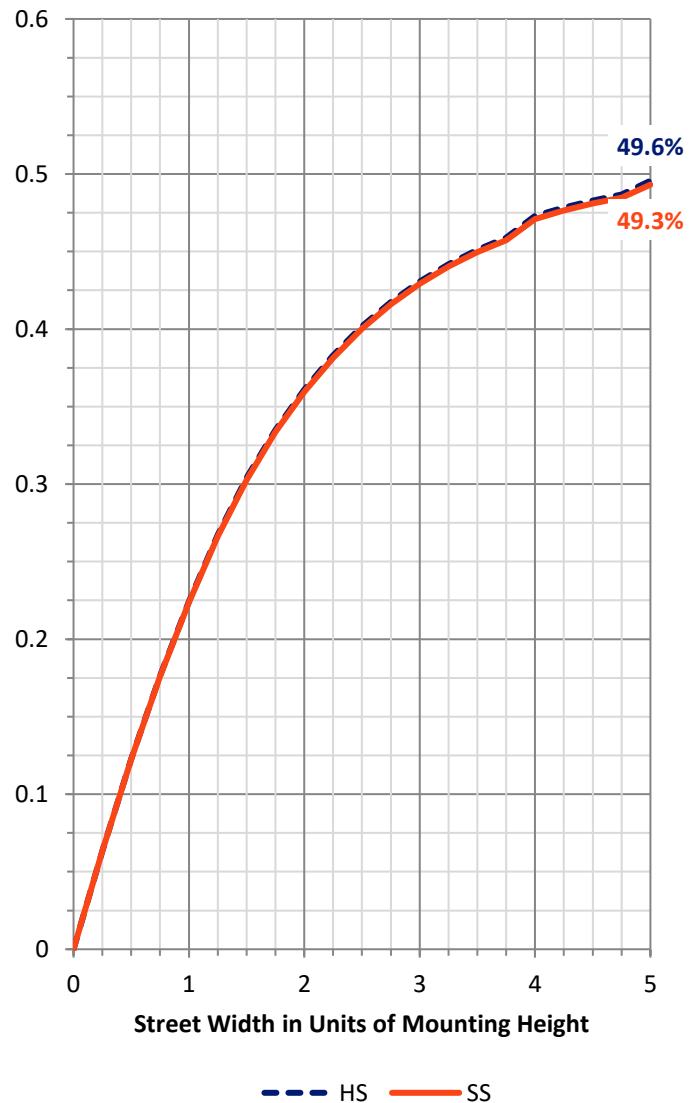
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	15657.1	7.7	15664.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	15657.1	7.7	15664.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	31314.2	15.4	31329.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.7	0.9
10°-20°	849.8	2.7
20°-30°	1420.9	4.5
30°-40°	2159.8	6.9
40°-50°	3420.7	10.9
50°-60°	5232.4	16.7
60°-70°	7488.5	23.9
70°-80°	8568.5	27.3
80°-90°	1885.8	6.0
90°-100°	1.6	0.0
100°-110°	3.3	0.0
110°-120°	2.3	0.0
120°-130°	2.5	0.0
130°-140°	2.3	0.0
140°-150°	1.8	0.0
150°-160°	1.2	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	31314.2	100.0
0°-180°	31329.6	100.0

Coefficient of Utilization



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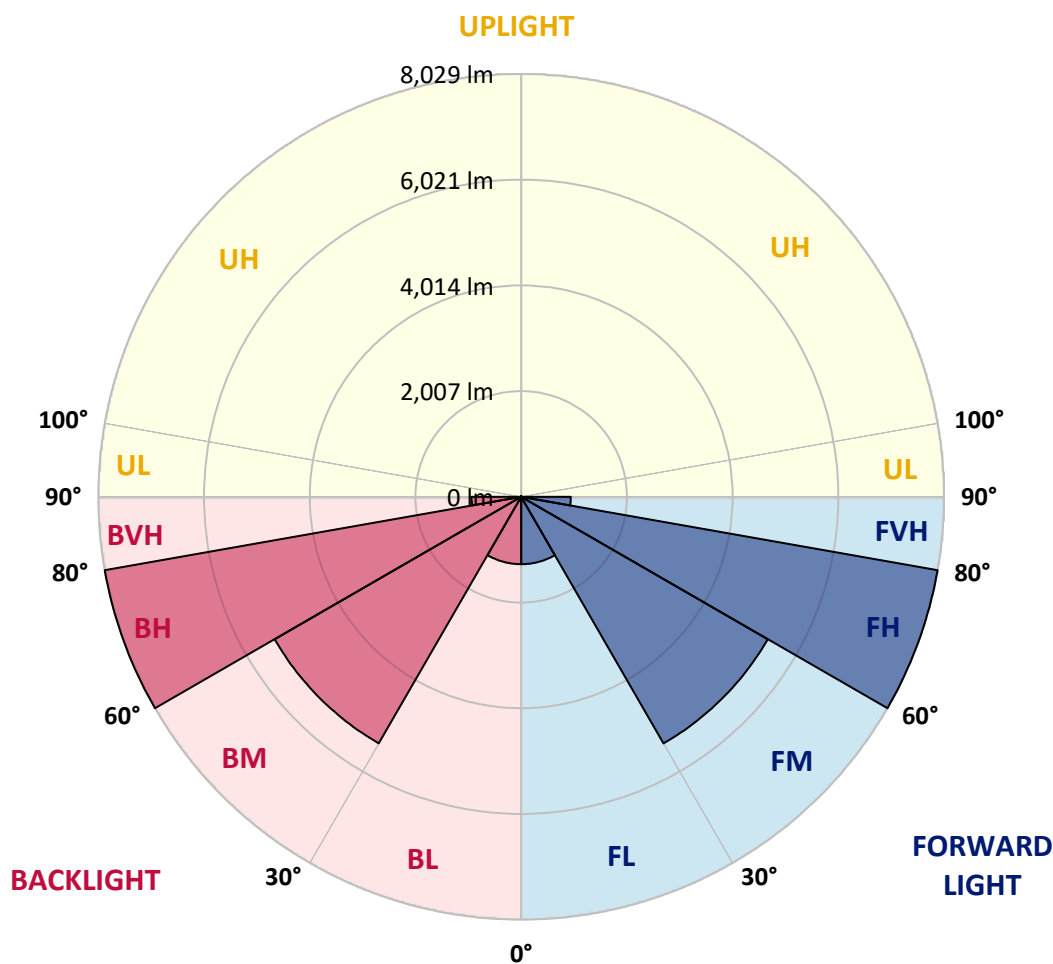
CATALOG NUMBER: VST-F12-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1279.2	4.1			
FM	(30°-60°)	5406.4	17.3			
FH	(60°-80°)	8028.5	25.6			G4/12000
FVH	(80°-90°)	942.9	3.0			G5
BL	(0°-30°)	1279.2	4.1	B3/2500		
BM	(30°-60°)	5406.4	17.3	B4/8500		
BH	(60°-80°)	8028.5	25.6	B5		G4/12000
BVH	(80°-90°)	942.9	3.0			G5
UL	(90°-100°)	1.6	0.0		U1/10	
UH	(100°-180°)	7.7	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°	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5
2.5°	3017.5	3013.5	3015.5	3019.4	3017.5	3017.5	3015.5	3015.5	3019.4	3015.5	3017.5
5°	3019.4	3015.5	3017.5	3019.4	3017.5	3019.4	3017.5	3017.5	3017.5	3015.5	3019.4
7.5°	3011.5	3011.5	3013.5	3013.5	3011.5	3013.5	3013.5	3013.5	3011.5	3011.5	3015.5
10°	3007.6	3005.6	3005.6	3007.6	3005.6	3005.6	3007.6	3007.6	3003.6	3003.6	3007.6
12.5°	3001.6	2999.6	2999.6	2999.6	2997.6	2997.6	2999.6	2999.6	2997.6	2995.7	3001.6
15°	2997.6	2995.7	2995.7	2995.7	2991.7	2993.7	2993.7	2993.7	2991.7	2989.7	2995.7
17.5°	2995.7	2993.7	2993.7	2993.7	2991.7	2991.7	2991.7	2991.7	2989.7	2989.7	2993.7
20°	2999.6	2999.6	2999.6	2999.6	2997.6	2997.6	2997.6	2999.6	2999.6	2999.6	3003.6
22.5°	3009.5	3009.5	3011.5	3013.5	3013.5	3017.5	3019.4	3021.4	3021.4	3023.4	3027.4
25°	3035.3	3035.3	3037.3	3039.3	3045.2	3049.2	3057.1	3061.0	3063.0	3063.0	3065.0
27.5°	3082.8	3084.8	3088.8	3092.7	3100.7	3106.6	3114.5	3122.5	3124.4	3126.4	3128.4
30°	3142.3	3144.3	3152.2	3156.1	3166.1	3177.9	3187.8	3195.8	3201.7	3205.7	3203.7
32.5°	3227.5	3231.4	3241.3	3247.3	3261.2	3273.0	3286.9	3298.8	3304.7	3310.7	3308.7
35°	3346.3	3356.3	3366.2	3372.1	3386.0	3395.9	3413.7	3425.6	3437.5	3433.5	3435.5
37.5°	3522.7	3530.6	3532.6	3536.5	3550.4	3558.3	3578.2	3594.0	3599.9	3603.9	3605.9
40°	3760.4	3760.4	3770.3	3762.4	3780.2	3782.2	3806.0	3827.8	3833.7	3849.6	3837.7
42.5°	4037.8	4035.8	4041.8	4035.8	4035.8	4055.6	4075.5	4115.1	4119.0	4138.9	4127.0
45°	4339.0	4339.0	4333.0	4335.0	4339.0	4360.8	4384.5	4428.1	4447.9	4459.8	4451.9
47.5°	4665.9	4657.9	4656.0	4654.0	4665.9	4689.6	4725.3	4766.9	4816.4	4820.4	4816.4
50°	4996.7	4994.8	4980.9	4992.8	5000.7	5012.6	5080.0	5135.4	5186.9	5218.6	5208.7
52.5°	5345.4	5327.6	5327.6	5327.6	5347.4	5385.1	5444.5	5519.8	5589.1	5622.8	5616.9
55°	5698.1	5692.2	5674.3	5666.4	5692.2	5745.7	5830.8	5922.0	6013.1	6064.6	6044.8
57.5°	6021.0	6011.1	6013.1	6015.1	6044.8	6116.1	6215.2	6336.1	6435.1	6490.6	6476.7
60°	6274.6	6262.8	6284.6	6290.5	6344.0	6462.9	6621.4	6773.9	6904.7	6960.2	6938.4
62.5°	6561.9	6554.0	6567.9	6565.9	6623.4	6756.1	6968.1	7211.8	7409.9	7481.2	7449.5
65°	7025.5	7001.8	6995.8	6974.0	7011.7	7114.7	7326.7	7610.0	7927.0	8109.3	8065.7
67.5°	7580.3	7574.4	7554.5	7542.7	7556.5	7685.3	7889.4	8162.8	8485.7	8737.4	8792.8
70°	7946.8	7954.8	7974.6	8004.3	8119.2	8368.8	8741.3	9155.4	9599.2	9787.4	9753.7
72.5°	7877.5	7889.4	7905.2	7942.9	8093.4	8392.6	8884.0	9502.1	10058.9	10308.5	10094.5
75°	7538.7	7548.6	7584.3	7641.7	7826.0	8188.5	8717.5	9373.3	9947.9	10197.5	9973.7
76°	7225.7	7257.4	7322.7	7390.1	7612.0	8006.3	8570.9	9270.3	9878.6	10132.2	9916.2
77.5°	6516.4	6544.1	6597.6	6714.5	6966.1	7471.3	8131.1	8818.6	9452.6	9680.4	9498.2
80°	4903.6	4927.4	4976.9	5117.6	5335.5	5648.6	6159.7	6831.4	7526.8	7826.0	7707.1
82.5°	2070.4	2098.2	2294.3	2498.4	2738.1	3076.9	3409.7	4004.1	4515.3	4856.1	4673.8
85°	227.8	281.3	346.7	471.5	578.5	770.7	958.9	1319.5	1668.2	1880.2	1662.3
87.5°	39.6	45.6	65.4	83.2	93.1	107.0	128.8	180.3	245.7	212.0	216.0
90°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	4.0	4.0	4.0	4.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0
97.5°	0.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
100°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0
102.5°	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0
105°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
107.5°	2.0	2.0	2.0	2.0	4.0	4.0	2.0	2.0	2.0	4.0	2.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
112.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
115°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
117.5°	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
120°	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
122.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
125°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
127.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
130°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
132.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
135°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
137.5°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
140°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
142.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
145°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	2.0
147.5°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	2.0	2.0
150°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	0.0	0.0	0.0
152.5°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	0.0
155°	4.0	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	2.0
157.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0
160°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0
162.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0
165°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0	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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CATALOG NUMBER: VST-F12-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5	3015.5
2.5°	3015.5	3015.5	3019.4	3017.5	3017.5	3019.4	3023.4	3021.4
5°	3017.5	3019.4	3015.5	3017.5	3019.4	3019.4	3021.4	3019.4
7.5°	3013.5	3013.5	3013.5	3015.5	3017.5	3015.5	3017.5	3017.5
10°	3005.6	3007.6	3005.6	3009.5	3011.5	3011.5	3013.5	3013.5
12.5°	2999.6	2999.6	2999.6	3003.6	3005.6	3005.6	3007.6	3005.6
15°	2993.7	2993.7	2991.7	2995.7	2999.6	2999.6	3001.6	3001.6
17.5°	2991.7	2991.7	2989.7	2993.7	2997.6	2997.6	2999.6	2999.6
20°	2997.6	2999.6	2995.7	2999.6	3003.6	3005.6	3005.6	3005.6
22.5°	3021.4	3019.4	3013.5	3015.5	3017.5	3017.5	3017.5	3017.5
25°	3057.1	3053.1	3047.2	3045.2	3043.2	3041.2	3041.2	3041.2
27.5°	3118.5	3112.6	3102.7	3100.7	3098.7	3094.7	3094.7	3094.7
30°	3191.8	3183.9	3172.0	3168.0	3162.1	3158.1	3156.1	3154.2
32.5°	3296.8	3281.0	3267.1	3257.2	3251.2	3239.4	3237.4	3233.4
35°	3417.7	3405.8	3386.0	3380.0	3370.1	3364.2	3362.2	3352.3
37.5°	3584.1	3570.2	3552.4	3548.4	3546.5	3540.5	3540.5	3538.5
40°	3815.9	3802.0	3786.2	3770.3	3774.3	3776.3	3776.3	3768.4
42.5°	4099.2	4077.4	4045.7	4055.6	4049.7	4041.8	4057.6	4047.7
45°	4422.2	4392.5	4368.7	4358.8	4358.8	4348.9	4364.7	4364.7
47.5°	4780.8	4733.2	4689.6	4691.6	4675.8	4679.7	4689.6	4703.5
50°	5159.2	5095.8	5054.2	5034.4	5018.5	5024.5	5042.3	5046.3
52.5°	5551.5	5474.2	5418.7	5389.0	5369.2	5377.1	5391.0	5402.9
55°	5959.6	5874.4	5791.2	5759.5	5735.7	5751.6	5753.6	5769.4
57.5°	6385.6	6268.7	6171.6	6124.1	6100.3	6116.1	6128.0	6143.9
60°	6815.5	6680.8	6565.9	6510.4	6476.7	6498.5	6526.3	6534.2
62.5°	7314.8	7128.6	6999.8	6920.5	6904.7	6926.5	6934.4	6958.2
65°	7905.2	7681.3	7503.0	7405.9	7402.0	7413.9	7431.7	7437.6
67.5°	8578.9	8329.2	8089.5	7992.4	7954.8	7990.4	8008.3	8032.0
70°	9529.9	9187.1	8840.4	8624.4	8533.3	8505.5	8513.5	8539.2
72.5°	9636.8	9268.3	8864.2	8570.9	8410.4	8337.1	8335.2	8339.1
75°	9403.1	8814.6	8529.3	8192.5	7964.7	7845.8	7829.9	7828.0
76°	9286.2	8590.7	8178.6	7911.2	7637.8	7516.9	7499.1	7489.2
77.5°	8792.8	8045.9	7425.8	7263.3	7001.8	6849.2	6880.9	6855.2
80°	7049.3	6308.3	5723.9	5266.2	5280.1	5169.1	5123.5	5109.7
82.5°	4154.7	3546.5	2900.6	2522.1	2161.6	2066.5	1779.2	1713.8
85°	1327.4	941.1	570.6	414.1	281.3	235.8	184.3	168.4
87.5°	176.3	138.7	112.9	109.0	99.1	85.2	55.5	39.6
90°	2.0	2.0	2.0	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°	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0
97.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
100°	4.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
102.5°	4.0	4.0	4.0	4.0	2.0	2.0	2.0	2.0
105°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
107.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0



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CATALOG NUMBER: VST-F12-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0
112.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0
115°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	4.0
117.5°	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0
120°	2.0	2.0	2.0	2.0	2.0	4.0	4.0	4.0
122.5°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
125°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
127.5°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
130°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
132.5°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
135°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
137.5°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
140°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
142.5°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
145°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
150°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
152.5°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
157.5°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
160°	2.0	2.0	2.0	2.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	4.0	4.0	4.0	4.0	4.0
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)