

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: P157860

Luminaire Tested: **VST-E12-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157860
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-E12-LED-E-U-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 37951 lumens
Efficiency: N/A
Efficacy: 130.1 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): 291.7
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

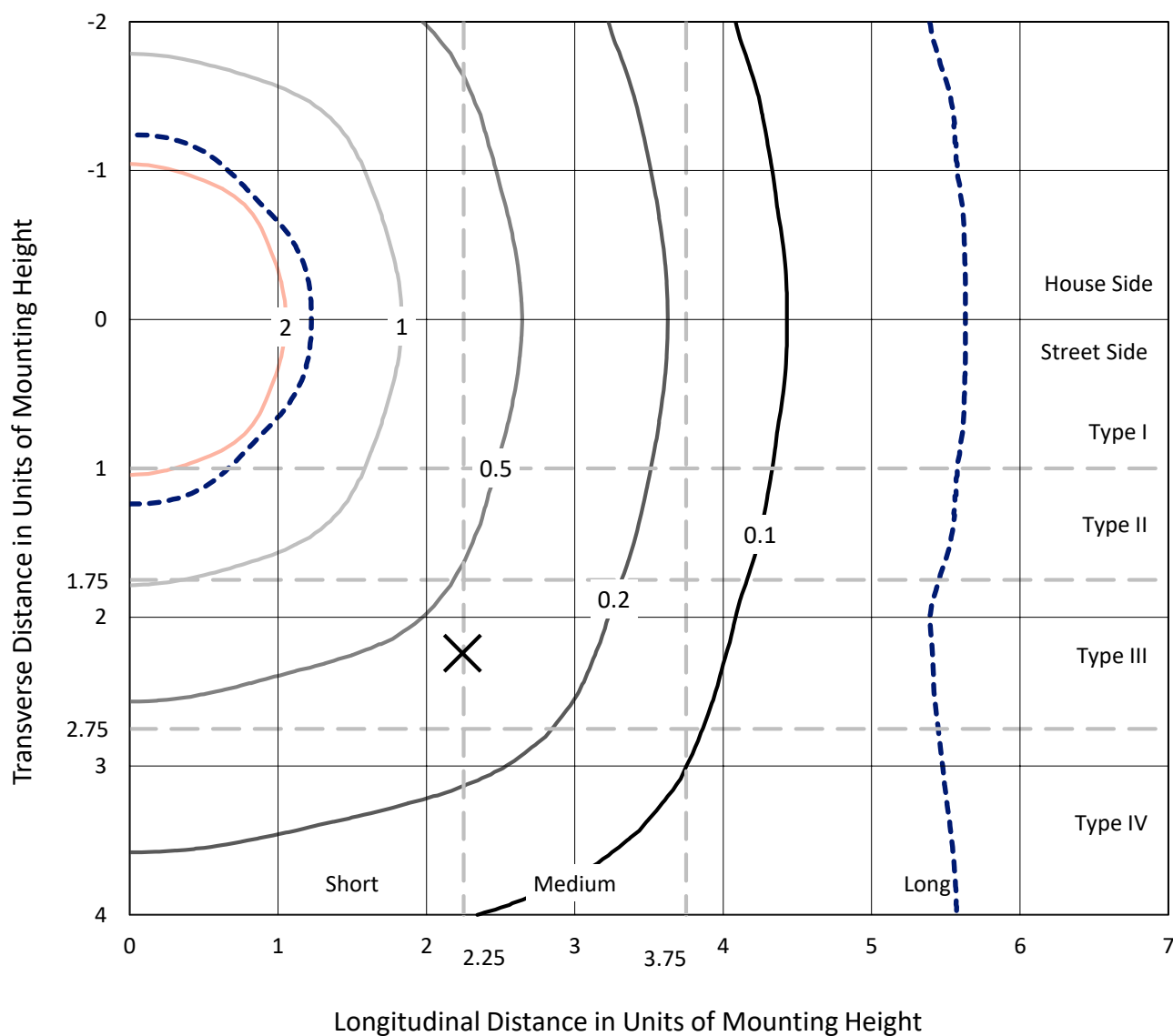


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

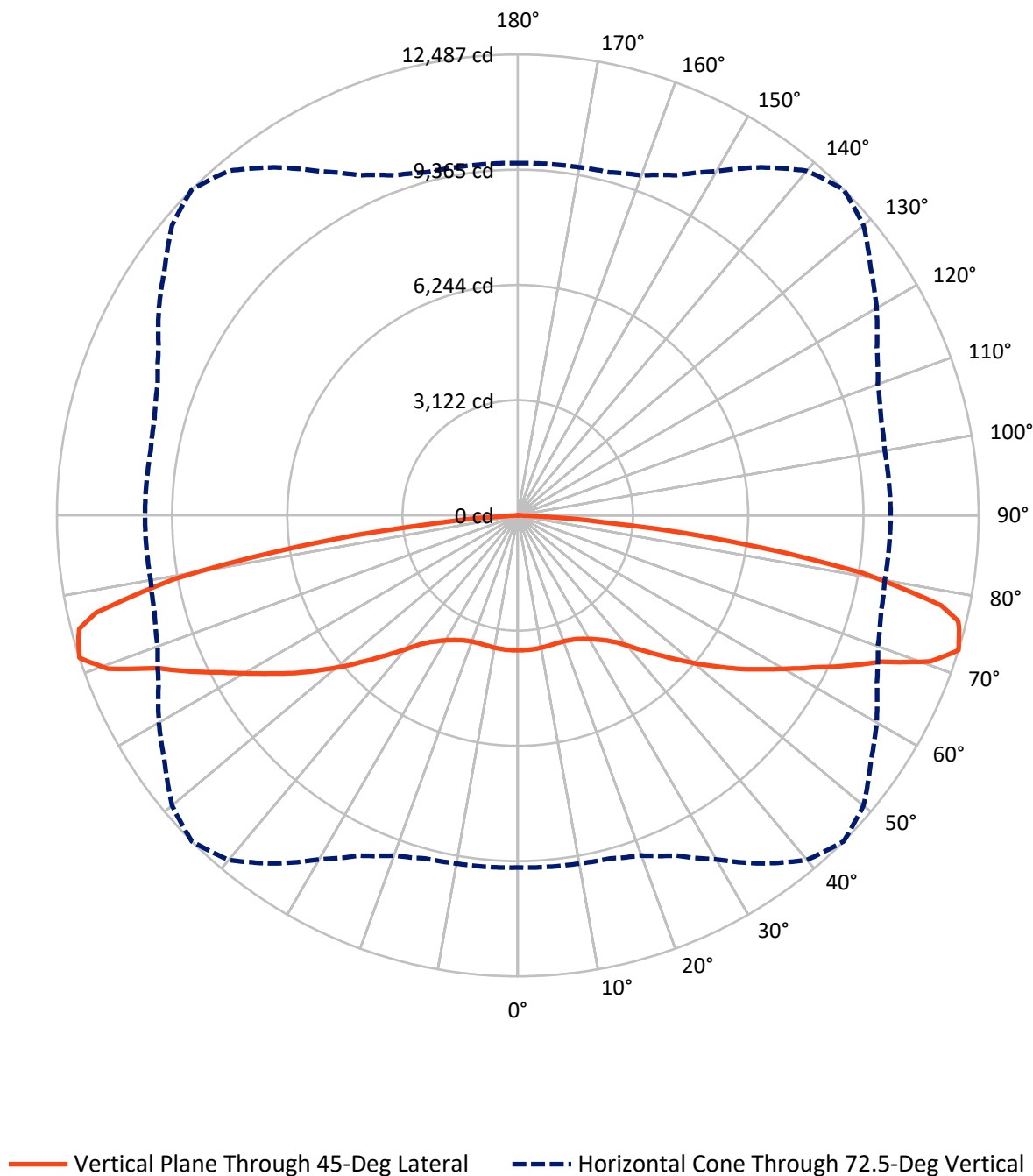


Based on 30 foot mounting height. Maximum calculated value = 4.1 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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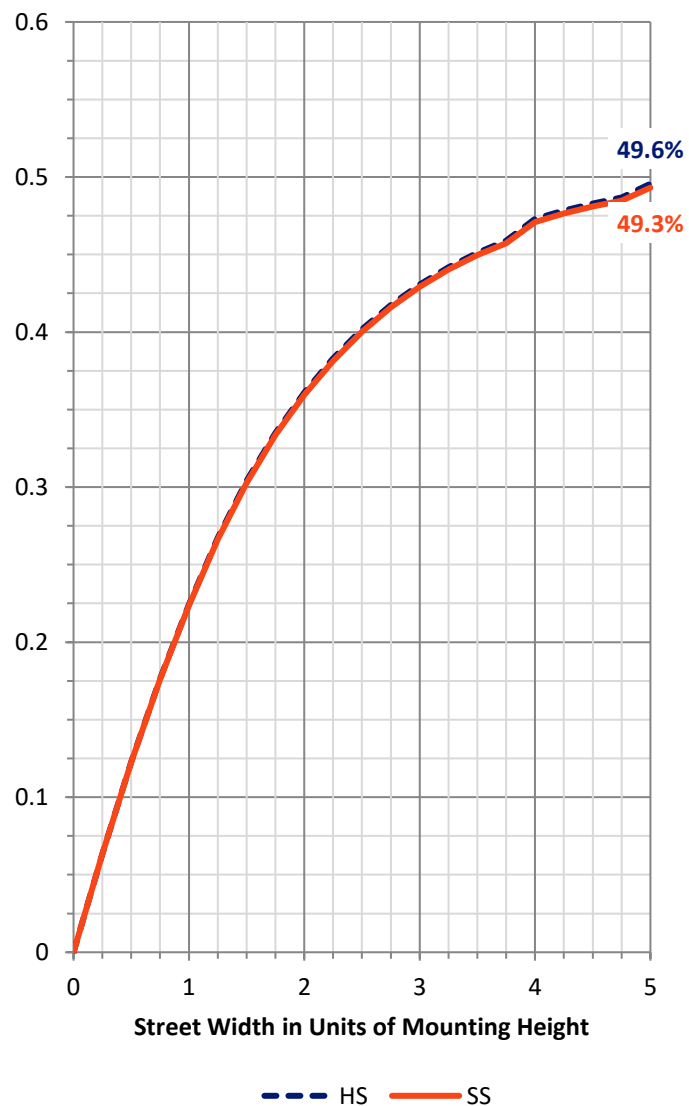
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18966.2	9.3	18975.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	18966.2	9.3	18975.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	37932.5	18.5	37951.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.5	0.9
10°-20°	1029.4	2.7
20°-30°	1721.3	4.5
30°-40°	2616.2	6.9
40°-50°	4143.6	10.9
50°-60°	6338.3	16.7
60°-70°	9071.2	23.9
70°-80°	10379.5	27.3
80°-90°	2284.4	6.0
90°-100°	1.9	0.0
100°-110°	3.9	0.0
110°-120°	2.7	0.0
120°-130°	3.0	0.0
130°-140°	2.8	0.0
140°-150°	2.2	0.0
150°-160°	1.5	0.0
160°-170°	0.6	0.0
170°-180°	0.0	0.0
0°-90°	37932.5	100.0
0°-180°	37951.0	100.0

Coefficient of Utilization



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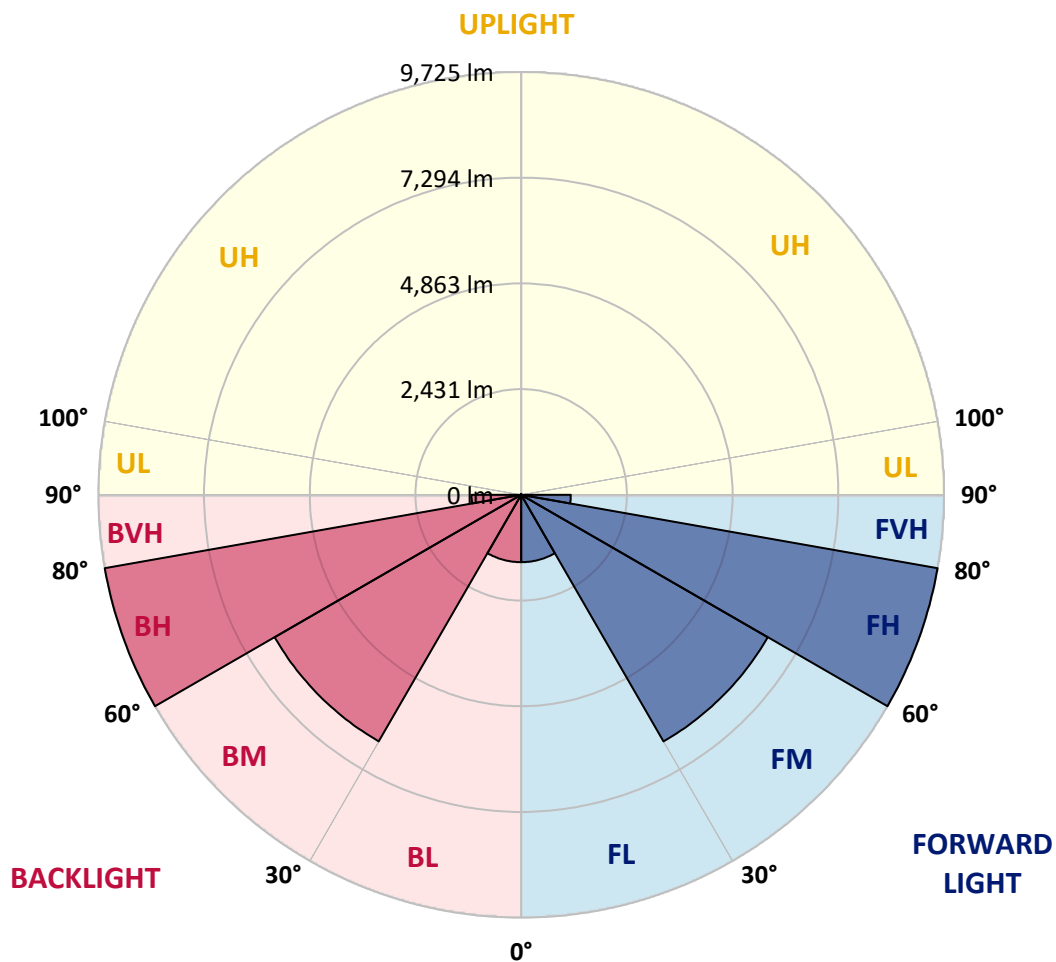
CATALOG NUMBER: VST-E12-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1549.6	4.1			
FM	(30°-60°)	6549.1	17.3			
FH	(60°-80°)	9725.4	25.6			G4/12000
FVH	(80°-90°)	1142.2	3.0			G5
BL	(0°-30°)	1549.6	4.1	B3/2500		
BM	(30°-60°)	6549.1	17.3	B4/8500		
BH	(60°-80°)	9725.4	25.6	B5		G4/12000
BVH	(80°-90°)	1142.2	3.0			G5
UL	(90°-100°)	1.9	0.0		U1/10	
UH	(100°-180°)	9.3	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°	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8
2.5°	3655.2	3650.4	3652.8	3657.6	3655.2	3655.2	3652.8	3652.8	3657.6	3652.8	3655.2
5°	3657.6	3652.8	3655.2	3657.6	3655.2	3657.6	3655.2	3655.2	3655.2	3652.8	3657.6
7.5°	3648.0	3648.0	3650.4	3650.4	3648.0	3650.4	3650.4	3650.4	3648.0	3648.0	3652.8
10°	3643.2	3640.8	3640.8	3643.2	3640.8	3640.8	3643.2	3643.2	3638.4	3638.4	3643.2
12.5°	3636.0	3633.6	3633.6	3633.6	3631.2	3631.2	3633.6	3633.6	3631.2	3628.8	3636.0
15°	3631.2	3628.8	3628.8	3628.8	3624.0	3626.4	3626.4	3626.4	3624.0	3621.6	3628.8
17.5°	3628.8	3626.4	3626.4	3626.4	3624.0	3624.0	3624.0	3624.0	3621.6	3621.6	3626.4
20°	3633.6	3633.6	3633.6	3633.6	3631.2	3631.2	3631.2	3633.6	3633.6	3633.6	3638.4
22.5°	3645.6	3645.6	3648.0	3650.4	3650.4	3655.2	3657.6	3660.0	3660.0	3662.4	3667.2
25°	3676.8	3676.8	3679.2	3681.6	3688.8	3693.6	3703.2	3708.0	3710.4	3710.4	3712.8
27.5°	3734.4	3736.8	3741.6	3746.4	3756.0	3763.2	3772.8	3782.4	3784.8	3787.2	3789.6
30°	3806.4	3808.8	3818.4	3823.2	3835.2	3849.6	3861.6	3871.2	3878.4	3883.2	3880.8
32.5°	3909.6	3914.4	3926.4	3933.6	3950.4	3964.8	3981.6	3996.0	4003.2	4010.4	4008.0
35°	4053.6	4065.6	4077.6	4084.8	4101.6	4113.6	4135.2	4149.6	4164.0	4159.2	4161.6
37.5°	4267.2	4276.8	4279.2	4284.0	4300.8	4310.4	4334.4	4353.6	4360.8	4365.6	4368.0
40°	4555.2	4555.2	4567.2	4557.6	4579.2	4581.6	4610.4	4636.8	4644.0	4663.2	4648.8
42.5°	4891.2	4888.8	4896.0	4888.8	4888.8	4912.8	4936.8	4984.8	4989.6	5013.6	4999.2
45°	5256.0	5256.0	5248.8	5251.2	5256.0	5282.4	5311.2	5364.0	5388.0	5402.4	5392.8
47.5°	5652.0	5642.4	5640.0	5637.6	5652.0	5680.8	5724.0	5774.4	5834.4	5839.2	5834.4
50°	6052.8	6050.4	6033.6	6048.0	6057.6	6072.0	6153.6	6220.8	6283.2	6321.6	6309.6
52.5°	6475.2	6453.6	6453.6	6453.6	6477.6	6523.2	6595.2	6686.4	6770.4	6811.2	6804.0
55°	6902.4	6895.2	6873.6	6864.0	6895.2	6960.0	7063.2	7173.6	7284.0	7346.4	7322.4
57.5°	7293.6	7281.6	7284.0	7286.4	7322.4	7408.8	7528.8	7675.2	7795.2	7862.4	7845.6
60°	7600.8	7586.4	7612.8	7620.0	7684.8	7828.8	8020.8	8205.6	8364.0	8431.2	8404.8
62.5°	7948.8	7939.2	7956.0	7953.6	8023.2	8184.0	8440.8	8736.0	8976.0	9062.4	9024.0
65°	8510.4	8481.6	8474.4	8448.0	8493.6	8618.4	8875.2	9218.4	9602.4	9823.2	9770.4
67.5°	9182.4	9175.2	9151.2	9136.8	9153.6	9309.6	9556.8	9888.0	10279.2	10584.0	10651.2
70°	9626.4	9636.0	9660.0	9696.0	9835.2	10137.6	10588.8	11090.4	11628.0	11856.0	11815.2
72.5°	9542.4	9556.8	9576.0	9621.6	9804.0	10166.4	10761.6	11510.4	12184.8	12487.2	12228.0
75°	9132.0	9144.0	9187.2	9256.8	9480.0	9919.2	10560.0	11354.4	12050.4	12352.8	12081.6
76°	8752.8	8791.2	8870.4	8952.0	9220.8	9698.4	10382.4	11229.6	11966.4	12273.6	12012.0
77.5°	7893.6	7927.2	7992.0	8133.6	8438.4	9050.4	9849.6	10682.4	11450.4	11726.4	11505.6
80°	5940.0	5968.8	6028.8	6199.2	6463.2	6842.4	7461.6	8275.2	9117.6	9480.0	9336.0
82.5°	2508.0	2541.6	2779.2	3026.4	3316.8	3727.2	4130.4	4850.4	5469.6	5882.4	5661.6
85°	276.0	340.8	420.0	571.2	700.8	933.6	1161.6	1598.4	2020.8	2277.6	2013.6
87.5°	48.0	55.2	79.2	100.8	112.8	129.6	156.0	218.4	297.6	256.8	261.6
90°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	4.8	4.8	4.8	4.8
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4
97.5°	0.0	0.0	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
100°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8
102.5°	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8	4.8
105°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
107.5°	2.4	2.4	2.4	2.4	4.8	4.8	2.4	2.4	2.4	4.8	2.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
112.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
115°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
117.5°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
120°	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
122.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
125°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
127.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
130°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
132.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
135°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
137.5°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
140°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
142.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
145°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	2.4
147.5°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	2.4	2.4
150°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	0.0	0.0	0.0
152.5°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	0.0
155°	4.8	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	2.4
157.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	0.0	0.0
160°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	0.0	0.0
162.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	0.0	0.0	0.0
165°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4	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°	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8	3652.8
2.5°	3652.8	3652.8	3657.6	3655.2	3655.2	3657.6	3662.4	3660.0
5°	3655.2	3657.6	3652.8	3655.2	3657.6	3657.6	3660.0	3657.6
7.5°	3650.4	3650.4	3650.4	3652.8	3655.2	3652.8	3655.2	3655.2
10°	3640.8	3643.2	3640.8	3645.6	3648.0	3648.0	3650.4	3650.4
12.5°	3633.6	3633.6	3633.6	3638.4	3640.8	3640.8	3643.2	3640.8
15°	3626.4	3626.4	3624.0	3628.8	3633.6	3633.6	3636.0	3636.0
17.5°	3624.0	3624.0	3621.6	3626.4	3631.2	3631.2	3633.6	3633.6
20°	3631.2	3633.6	3628.8	3633.6	3638.4	3640.8	3640.8	3640.8
22.5°	3660.0	3657.6	3650.4	3652.8	3655.2	3655.2	3655.2	3655.2
25°	3703.2	3698.4	3691.2	3688.8	3686.4	3684.0	3684.0	3684.0
27.5°	3777.6	3770.4	3758.4	3756.0	3753.6	3748.8	3748.8	3748.8
30°	3866.4	3856.8	3842.4	3837.6	3830.4	3825.6	3823.2	3820.8
32.5°	3993.6	3974.4	3957.6	3945.6	3938.4	3924.0	3921.6	3916.8
35°	4140.0	4125.6	4101.6	4094.4	4082.4	4075.2	4072.8	4060.8
37.5°	4341.6	4324.8	4303.2	4298.4	4296.0	4288.8	4288.8	4286.4
40°	4622.4	4605.6	4586.4	4567.2	4572.0	4574.4	4574.4	4564.8
42.5°	4965.6	4939.2	4900.8	4912.8	4905.6	4896.0	4915.2	4903.2
45°	5356.8	5320.8	5292.0	5280.0	5280.0	5268.0	5287.2	5287.2
47.5°	5791.2	5733.6	5680.8	5683.2	5664.0	5668.8	5680.8	5697.6
50°	6249.6	6172.8	6122.4	6098.4	6079.2	6086.4	6108.0	6112.8
52.5°	6724.8	6631.2	6564.0	6528.0	6504.0	6513.6	6530.4	6544.8
55°	7219.2	7116.0	7015.2	6976.8	6948.0	6967.2	6969.6	6988.8
57.5°	7735.2	7593.6	7476.0	7418.4	7389.6	7408.8	7423.2	7442.4
60°	8256.0	8092.8	7953.6	7886.4	7845.6	7872.0	7905.6	7915.2
62.5°	8860.8	8635.2	8479.2	8383.2	8364.0	8390.4	8400.0	8428.8
65°	9576.0	9304.8	9088.8	8971.2	8966.4	8980.8	9002.4	9009.6
67.5°	10392.0	10089.6	9799.2	9681.6	9636.0	9679.2	9700.8	9729.6
70°	11544.0	11128.8	10708.8	10447.2	10336.8	10303.2	10312.8	10344.0
72.5°	11673.6	11227.2	10737.6	10382.4	10188.0	10099.2	10096.8	10101.6
75°	11390.4	10677.6	10332.0	9924.0	9648.0	9504.0	9484.8	9482.4
76°	11248.8	10406.4	9907.2	9583.2	9252.0	9105.6	9084.0	9072.0
77.5°	10651.2	9746.4	8995.2	8798.4	8481.6	8296.8	8335.2	8304.0
80°	8539.2	7641.6	6933.6	6379.2	6396.0	6261.6	6206.4	6189.6
82.5°	5032.8	4296.0	3513.6	3055.2	2618.4	2503.2	2155.2	2076.0
85°	1608.0	1140.0	691.2	501.6	340.8	285.6	223.2	204.0
87.5°	213.6	168.0	136.8	132.0	120.0	103.2	67.2	48.0
90°	2.4	2.4	2.4	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°	2.4	2.4	2.4	2.4	0.0	0.0	0.0	0.0
97.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
100°	4.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
102.5°	4.8	4.8	4.8	4.8	2.4	2.4	2.4	2.4
105°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
107.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8



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CATALOG NUMBER: VST-E12-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8
112.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	4.8
115°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	4.8
117.5°	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8
120°	2.4	2.4	2.4	2.4	2.4	4.8	4.8	4.8
122.5°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
125°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
127.5°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
130°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
132.5°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
135°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
137.5°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
140°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
142.5°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
145°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
147.5°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
150°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
152.5°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
155°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
157.5°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
160°	2.4	2.4	2.4	2.4	4.8	4.8	4.8	4.8
162.5°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
165°	2.4	2.4	2.4	4.8	4.8	4.8	4.8	4.8
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)