

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: P157850

Luminaire Tested: **VST-E11-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157850
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-E11-LED-E-U-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (231) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34788.4 lumens
Efficiency: N/A
Efficacy: 129.0 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): 269.7
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

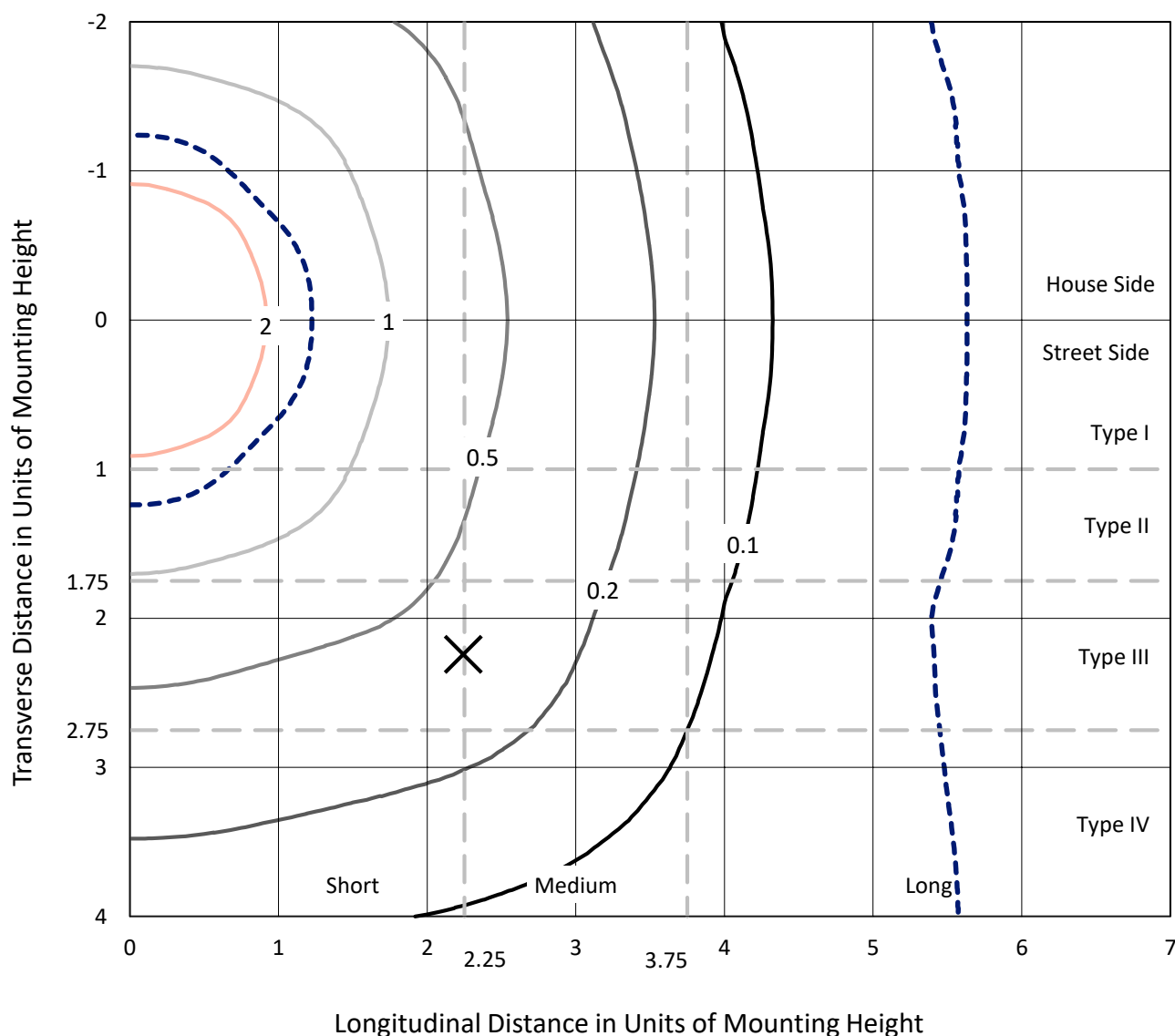


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

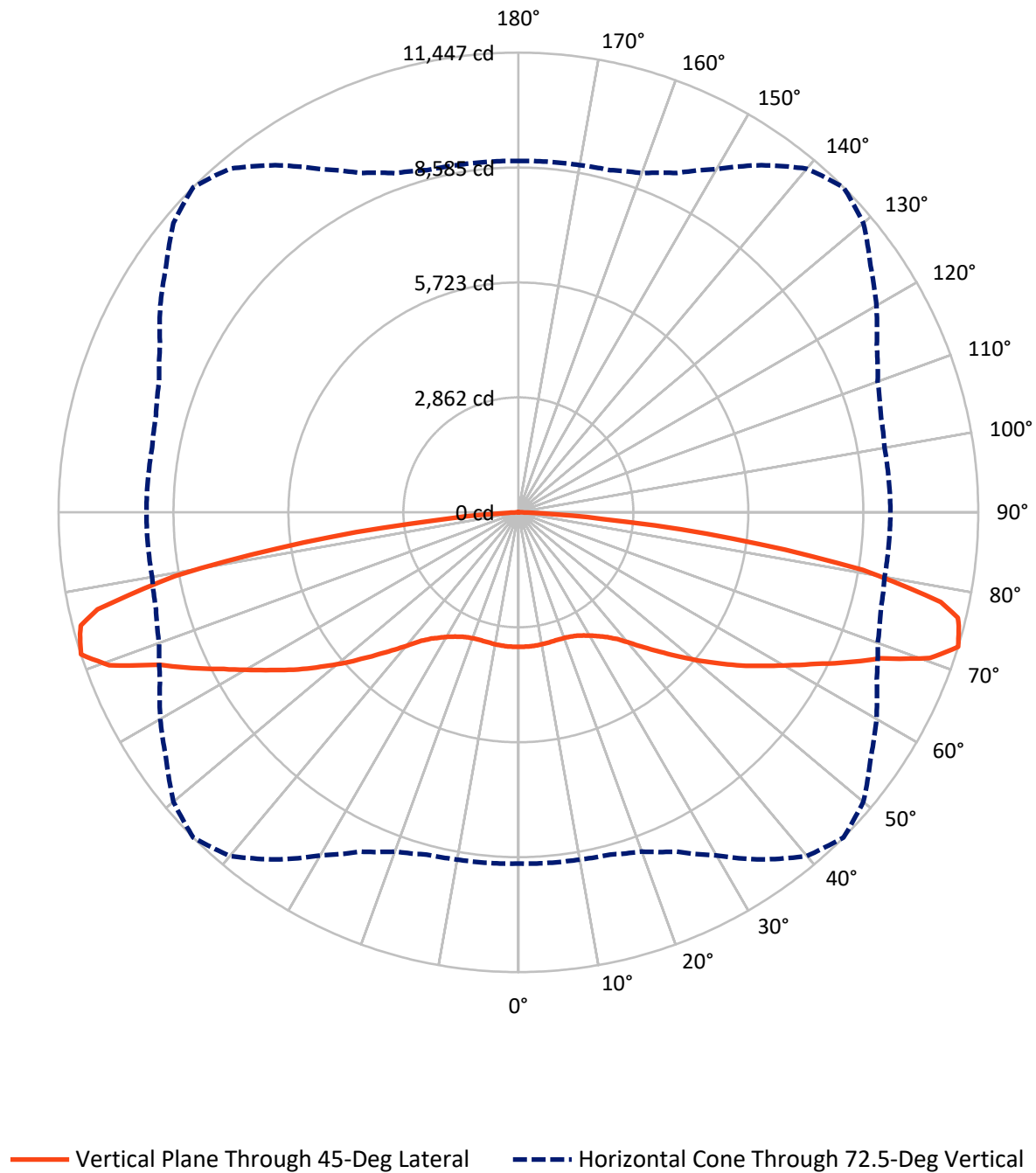


Based on 30 foot mounting height. Maximum calculated value = 3.7 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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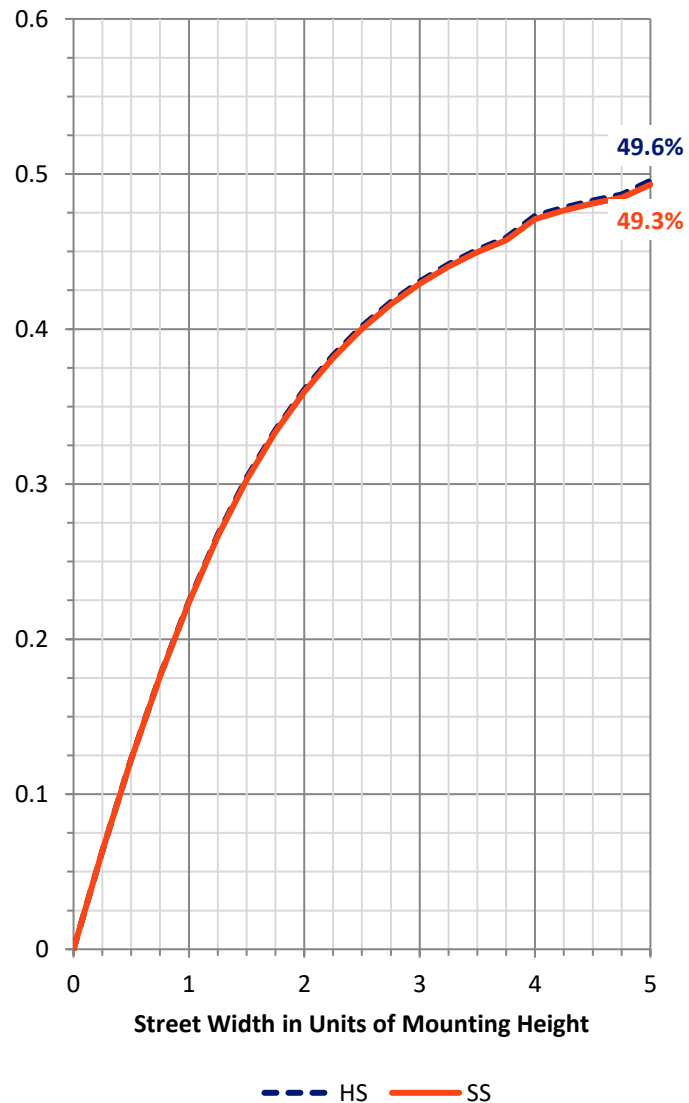
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	17385.7	8.5	17394.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	17385.7	8.5	17394.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	34771.4	17.0	34788.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	319.5	0.9
10°-20°	943.6	2.7
20°-30°	1577.8	4.5
30°-40°	2398.2	6.9
40°-50°	3798.3	10.9
50°-60°	5810.1	16.7
60°-70°	8315.3	23.9
70°-80°	9514.5	27.3
80°-90°	2094.0	6.0
90°-100°	1.8	0.0
100°-110°	3.6	0.0
110°-120°	2.5	0.0
120°-130°	2.7	0.0
130°-140°	2.5	0.0
140°-150°	2.0	0.0
150°-160°	1.3	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	34771.4	100.0
0°-180°	34788.4	100.0

Coefficient of Utilization



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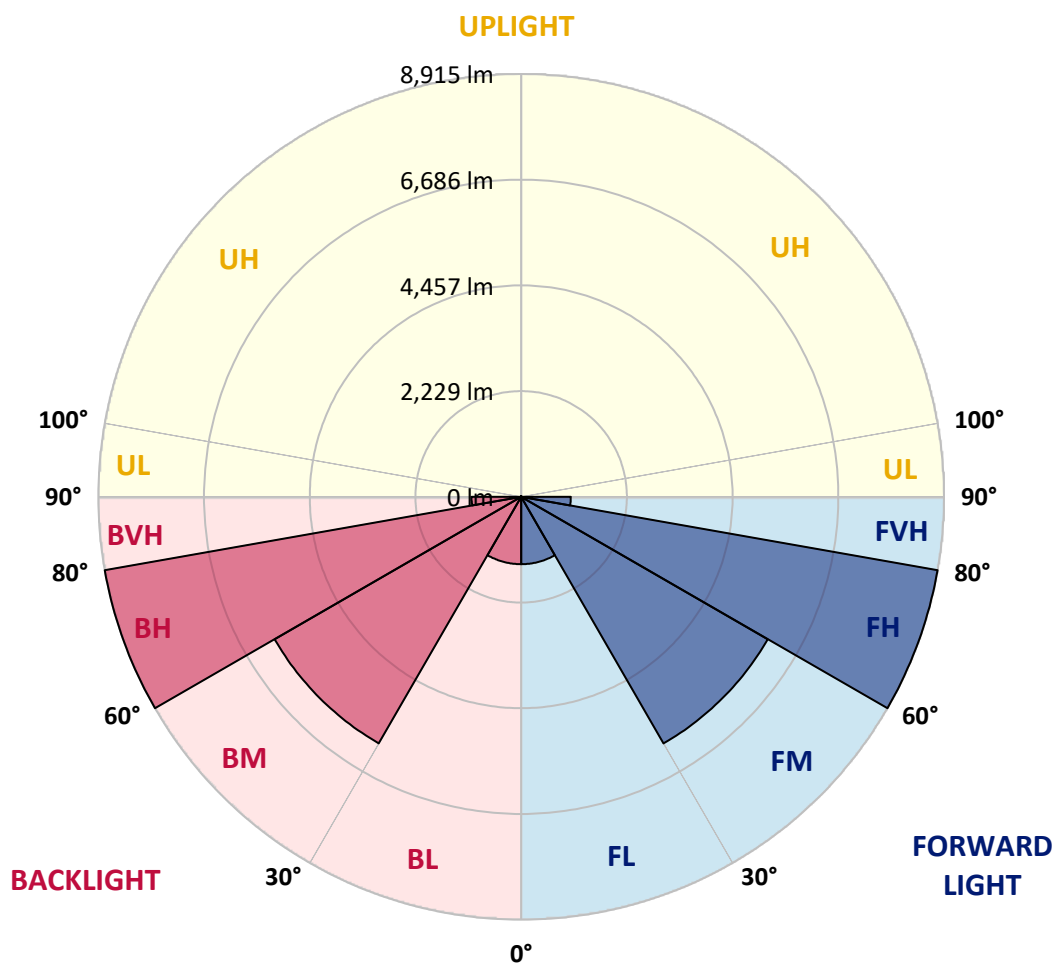
CATALOG NUMBER: VST-E11-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1420.4	4.1			
FM	(30°-60°)	6003.3	17.3			
FH	(60°-80°)	8914.9	25.6			G4/12000
FVH	(80°-90°)	1047.0	3.0			G5
BL	(0°-30°)	1420.4	4.1	B3/2500		
BM	(30°-60°)	6003.3	17.3	B4/8500		
BH	(60°-80°)	8914.9	25.6	B5		G4/12000
BVH	(80°-90°)	1047.0	3.0			G5
UL	(90°-100°)	1.8	0.0		U1/10	
UH	(100°-180°)	8.5	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°	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4
2.5°	3350.6	3346.2	3348.4	3352.8	3350.6	3350.6	3348.4	3348.4	3352.8	3348.4	3350.6
5°	3352.8	3348.4	3350.6	3352.8	3350.6	3352.8	3350.6	3350.6	3350.6	3348.4	3352.8
7.5°	3344.0	3344.0	3346.2	3346.2	3344.0	3346.2	3346.2	3346.2	3344.0	3344.0	3348.4
10°	3339.6	3337.4	3337.4	3339.6	3337.4	3337.4	3339.6	3339.6	3335.2	3335.2	3339.6
12.5°	3333.0	3330.8	3330.8	3330.8	3328.6	3328.6	3330.8	3330.8	3328.6	3326.4	3333.0
15°	3328.6	3326.4	3326.4	3326.4	3322.0	3324.2	3324.2	3324.2	3322.0	3319.8	3326.4
17.5°	3326.4	3324.2	3324.2	3324.2	3322.0	3322.0	3322.0	3322.0	3319.8	3319.8	3324.2
20°	3330.8	3330.8	3330.8	3330.8	3328.6	3328.6	3328.6	3330.8	3330.8	3330.8	3335.2
22.5°	3341.8	3341.8	3344.0	3346.2	3346.2	3350.6	3352.8	3355.0	3355.0	3357.2	3361.6
25°	3370.4	3370.4	3372.6	3374.8	3381.4	3385.8	3394.6	3399.0	3401.2	3401.2	3403.4
27.5°	3423.2	3425.4	3429.8	3434.2	3443.0	3449.6	3458.4	3467.2	3469.4	3471.6	3473.8
30°	3489.2	3491.4	3500.2	3504.6	3515.6	3528.8	3539.8	3548.6	3555.2	3559.6	3557.4
32.5°	3583.8	3588.2	3599.2	3605.8	3621.2	3634.4	3649.8	3663.0	3669.6	3676.2	3674.0
35°	3715.8	3726.8	3737.8	3744.4	3759.8	3770.8	3790.6	3803.8	3817.0	3812.6	3814.8
37.5°	3911.6	3920.4	3922.6	3927.0	3942.4	3951.2	3973.2	3990.8	3997.4	4001.8	4004.0
40°	4175.6	4175.6	4186.6	4177.8	4197.6	4199.8	4226.2	4250.4	4257.0	4274.6	4261.4
42.5°	4483.6	4481.4	4488.0	4481.4	4481.4	4503.4	4525.4	4569.4	4573.8	4595.8	4582.6
45°	4818.0	4818.0	4811.4	4813.6	4818.0	4842.2	4868.6	4917.0	4939.0	4952.2	4943.4
47.5°	5181.0	5172.2	5170.0	5167.8	5181.0	5207.4	5247.0	5293.2	5348.2	5352.6	5348.2
50°	5548.4	5546.2	5530.8	5544.0	5552.8	5566.0	5640.8	5702.4	5759.6	5794.8	5783.8
52.5°	5935.6	5915.8	5915.8	5915.8	5937.8	5979.6	6045.6	6129.2	6206.2	6243.6	6237.0
55°	6327.2	6320.6	6300.8	6292.0	6320.6	6380.0	6474.6	6575.8	6677.0	6734.2	6712.2
57.5°	6685.8	6674.8	6677.0	6679.2	6712.2	6791.4	6901.4	7035.6	7145.6	7207.2	7191.8
60°	6967.4	6954.2	6978.4	6985.0	7044.4	7176.4	7352.4	7521.8	7667.0	7728.6	7704.4
62.5°	7286.4	7277.6	7293.0	7290.8	7354.6	7502.0	7737.4	8008.0	8228.0	8307.2	8272.0
65°	7801.2	7774.8	7768.2	7744.0	7785.8	7900.2	8135.6	8450.2	8802.2	9004.6	8956.2
67.5°	8417.2	8410.6	8388.6	8375.4	8390.8	8533.8	8760.4	9064.0	9422.6	9702.0	9763.6
70°	8824.2	8833.0	8855.0	8888.0	9015.6	9292.8	9706.4	10166.2	10659.0	10868.0	10830.6
72.5°	8747.2	8760.4	8778.0	8819.8	8987.0	9319.2	9864.8	10551.2	11169.4	11446.6	11209.0
75°	8371.0	8382.0	8421.6	8485.4	8690.0	9092.6	9680.0	10408.2	11046.2	11323.4	11074.8
76°	8023.4	8058.6	8131.2	8206.0	8452.4	8890.2	9517.2	10293.8	10969.2	11250.8	11011.0
77.5°	7235.8	7266.6	7326.0	7455.8	7735.2	8296.2	9028.8	9792.2	10496.2	10749.2	10546.8
80°	5445.0	5471.4	5526.4	5682.6	5924.6	6272.2	6839.8	7585.6	8357.8	8690.0	8558.0
82.5°	2299.0	2329.8	2547.6	2774.2	3040.4	3416.6	3786.2	4446.2	5013.8	5392.2	5189.8
85°	253.0	312.4	385.0	523.6	642.4	855.8	1064.8	1465.2	1852.4	2087.8	1845.8
87.5°	44.0	50.6	72.6	92.4	103.4	118.8	143.0	200.2	272.8	235.4	239.8
90°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	4.4	4.4	4.4	4.4
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2
97.5°	0.0	0.0	0.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
100°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
102.5°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4	4.4
105°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
107.5°	2.2	2.2	2.2	2.2	4.4	4.4	2.2	2.2	2.2	4.4	2.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
112.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
115°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
117.5°	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
120°	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
122.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
125°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
127.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
130°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
132.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
135°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
137.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
140°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
142.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
145°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	2.2
147.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	2.2	2.2
150°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	0.0	0.0	0.0
152.5°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0
155°	4.4	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	2.2
157.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
160°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
162.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	0.0	0.0	0.0
165°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2	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°	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4	3348.4
2.5°	3348.4	3348.4	3352.8	3350.6	3350.6	3352.8	3357.2	3355.0
5°	3350.6	3352.8	3348.4	3350.6	3352.8	3352.8	3355.0	3352.8
7.5°	3346.2	3346.2	3346.2	3348.4	3350.6	3348.4	3350.6	3350.6
10°	3337.4	3339.6	3337.4	3341.8	3344.0	3344.0	3346.2	3346.2
12.5°	3330.8	3330.8	3330.8	3335.2	3337.4	3337.4	3339.6	3337.4
15°	3324.2	3324.2	3322.0	3326.4	3330.8	3330.8	3333.0	3333.0
17.5°	3322.0	3322.0	3319.8	3324.2	3328.6	3328.6	3330.8	3330.8
20°	3328.6	3330.8	3326.4	3330.8	3335.2	3337.4	3337.4	3337.4
22.5°	3355.0	3352.8	3346.2	3348.4	3350.6	3350.6	3350.6	3350.6
25°	3394.6	3390.2	3383.6	3381.4	3379.2	3377.0	3377.0	3377.0
27.5°	3462.8	3456.2	3445.2	3443.0	3440.8	3436.4	3436.4	3436.4
30°	3544.2	3535.4	3522.2	3517.8	3511.2	3506.8	3504.6	3502.4
32.5°	3660.8	3643.2	3627.8	3616.8	3610.2	3597.0	3594.8	3590.4
35°	3795.0	3781.8	3759.8	3753.2	3742.2	3735.6	3733.4	3722.4
37.5°	3979.8	3964.4	3944.6	3940.2	3938.0	3931.4	3931.4	3929.2
40°	4237.2	4221.8	4204.2	4186.6	4191.0	4193.2	4193.2	4184.4
42.5°	4551.8	4527.6	4492.4	4503.4	4496.8	4488.0	4505.6	4494.6
45°	4910.4	4877.4	4851.0	4840.0	4840.0	4829.0	4846.6	4846.6
47.5°	5308.6	5255.8	5207.4	5209.6	5192.0	5196.4	5207.4	5222.8
50°	5728.8	5658.4	5612.2	5590.2	5572.6	5579.2	5599.0	5603.4
52.5°	6164.4	6078.6	6017.0	5984.0	5962.0	5970.8	5986.2	5999.4
55°	6617.6	6523.0	6430.6	6395.4	6369.0	6386.6	6388.8	6406.4
57.5°	7090.6	6960.8	6853.0	6800.2	6773.8	6791.4	6804.6	6822.2
60°	7568.0	7418.4	7290.8	7229.2	7191.8	7216.0	7246.8	7255.6
62.5°	8122.4	7915.6	7772.6	7684.6	7667.0	7691.2	7700.0	7726.4
65°	8778.0	8529.4	8331.4	8223.6	8219.2	8232.4	8252.2	8258.8
67.5°	9526.0	9248.8	8982.6	8874.8	8833.0	8872.6	8892.4	8918.8
70°	10582.0	10201.4	9816.4	9576.6	9475.4	9444.6	9453.4	9482.0
72.5°	10700.8	10291.6	9842.8	9517.2	9339.0	9257.6	9255.4	9259.8
75°	10441.2	9787.8	9471.0	9097.0	8844.0	8712.0	8694.4	8692.2
76°	10311.4	9539.2	9081.6	8784.6	8481.0	8346.8	8327.0	8316.0
77.5°	9763.6	8934.2	8245.6	8065.2	7774.8	7605.4	7640.6	7612.0
80°	7827.6	7004.8	6355.8	5847.6	5863.0	5739.8	5689.2	5673.8
82.5°	4613.4	3938.0	3220.8	2800.6	2400.2	2294.6	1975.6	1903.0
85°	1474.0	1045.0	633.6	459.8	312.4	261.8	204.6	187.0
87.5°	195.8	154.0	125.4	121.0	110.0	94.6	61.6	44.0
90°	2.2	2.2	2.2	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°	2.2	2.2	2.2	2.2	0.0	0.0	0.0	0.0
97.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
100°	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2
102.5°	4.4	4.4	4.4	4.4	2.2	2.2	2.2	2.2
105°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
107.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4



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CATALOG NUMBER: VST-E11-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
112.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4
115°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4
117.5°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
120°	2.2	2.2	2.2	2.2	2.2	4.4	4.4	4.4
122.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
125°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
127.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
130°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
132.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
135°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
137.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
140°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
142.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
145°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
147.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
150°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
152.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
155°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
157.5°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
160°	2.2	2.2	2.2	2.2	4.4	4.4	4.4	4.4
162.5°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
165°	2.2	2.2	2.2	4.4	4.4	4.4	4.4	4.4
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)