

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: P157861

Luminaire Tested: **VST-E12-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157861
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-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38941.8 lumens
Efficiency: N/A
Efficacy: 133.5 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

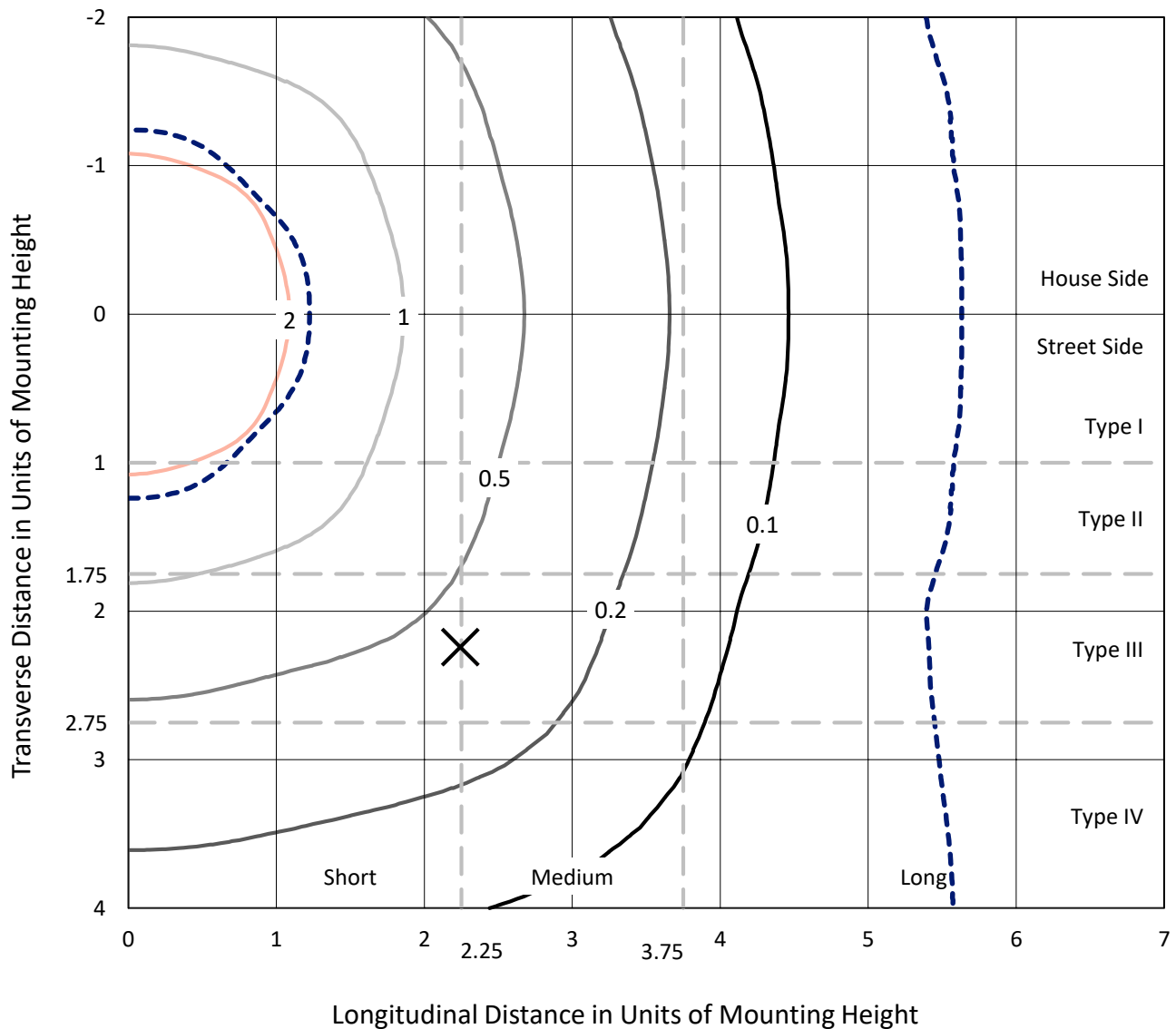


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

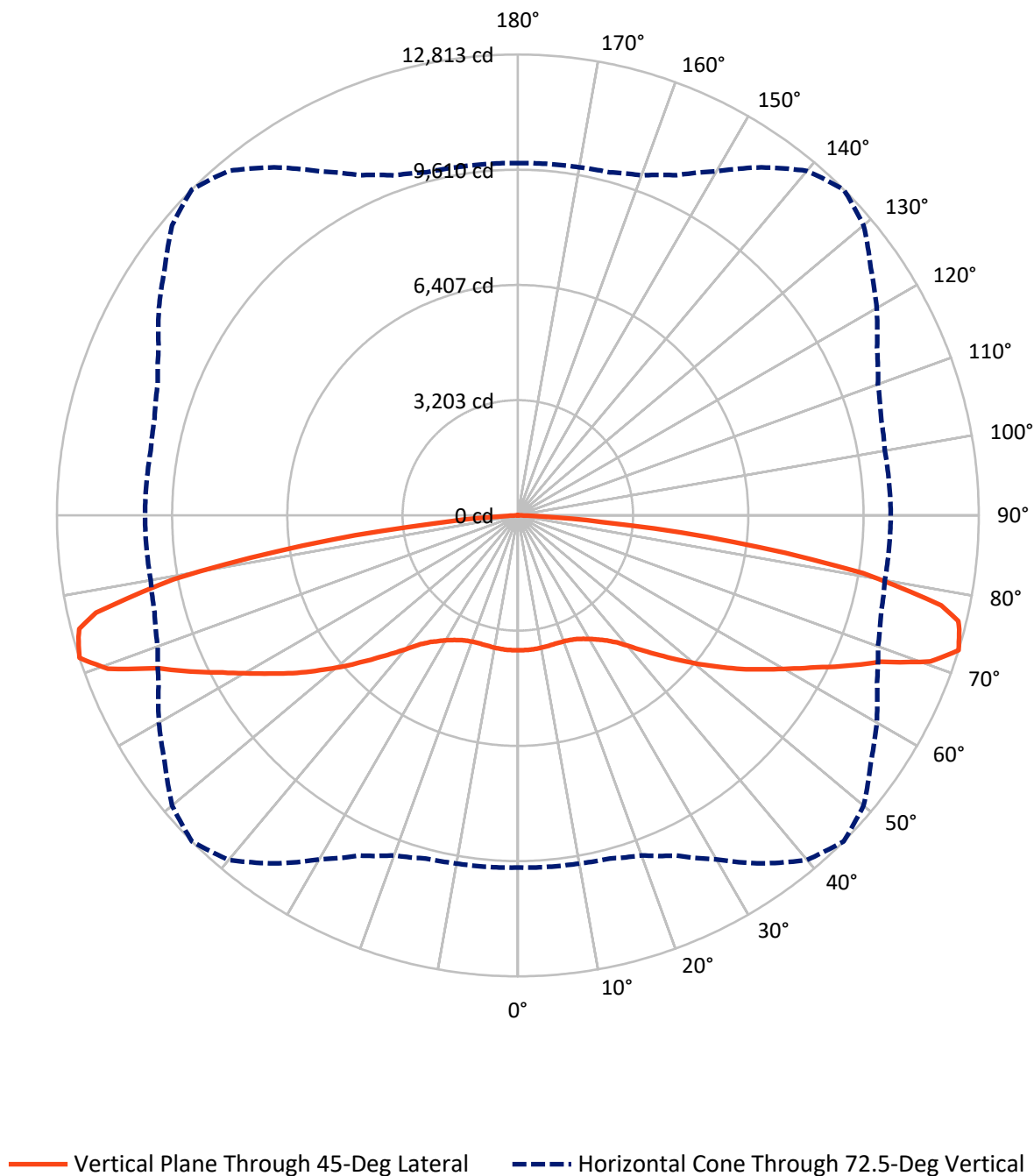


Based on 30 foot mounting height. Maximum calculated value = 4.2 fc
Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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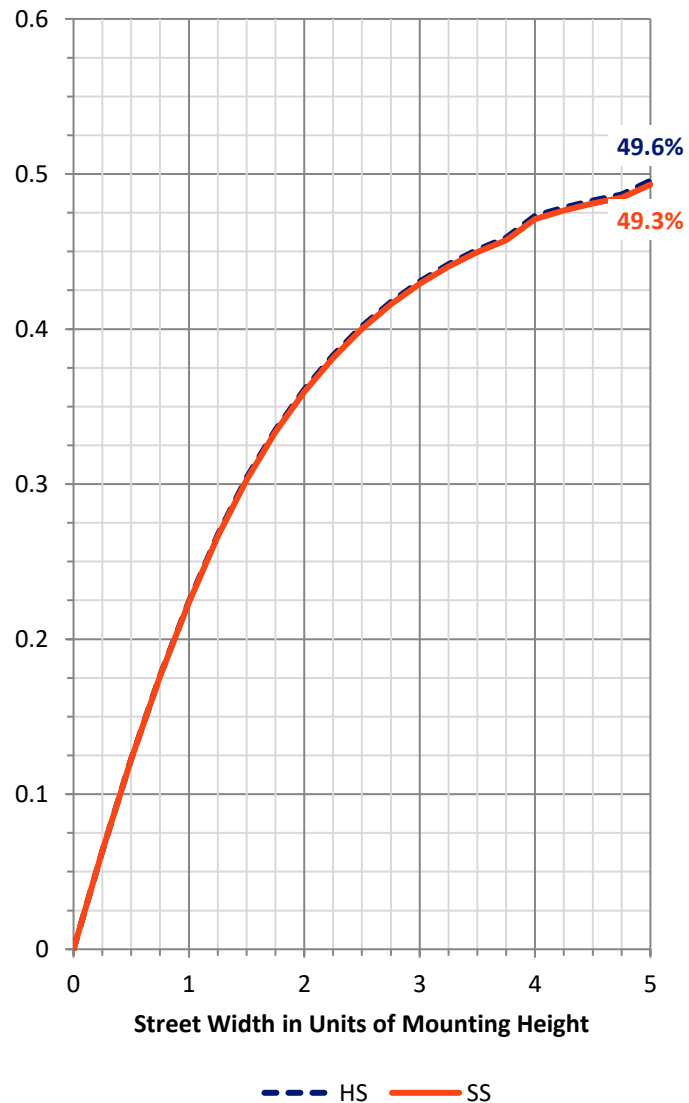
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	19461.4	9.5	19470.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	19461.4	9.5	19470.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	38922.7	19.1	38941.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.6	0.9
10°-20°	1056.2	2.7
20°-30°	1766.2	4.5
30°-40°	2684.5	6.9
40°-50°	4251.8	10.9
50°-60°	6503.8	16.7
60°-70°	9308.0	23.9
70°-80°	10650.5	27.3
80°-90°	2344.1	6.0
90°-100°	2.0	0.0
100°-110°	4.0	0.0
110°-120°	2.8	0.0
120°-130°	3.1	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°	38922.7	100.0
0°-180°	38941.8	100.0

Coefficient of Utilization



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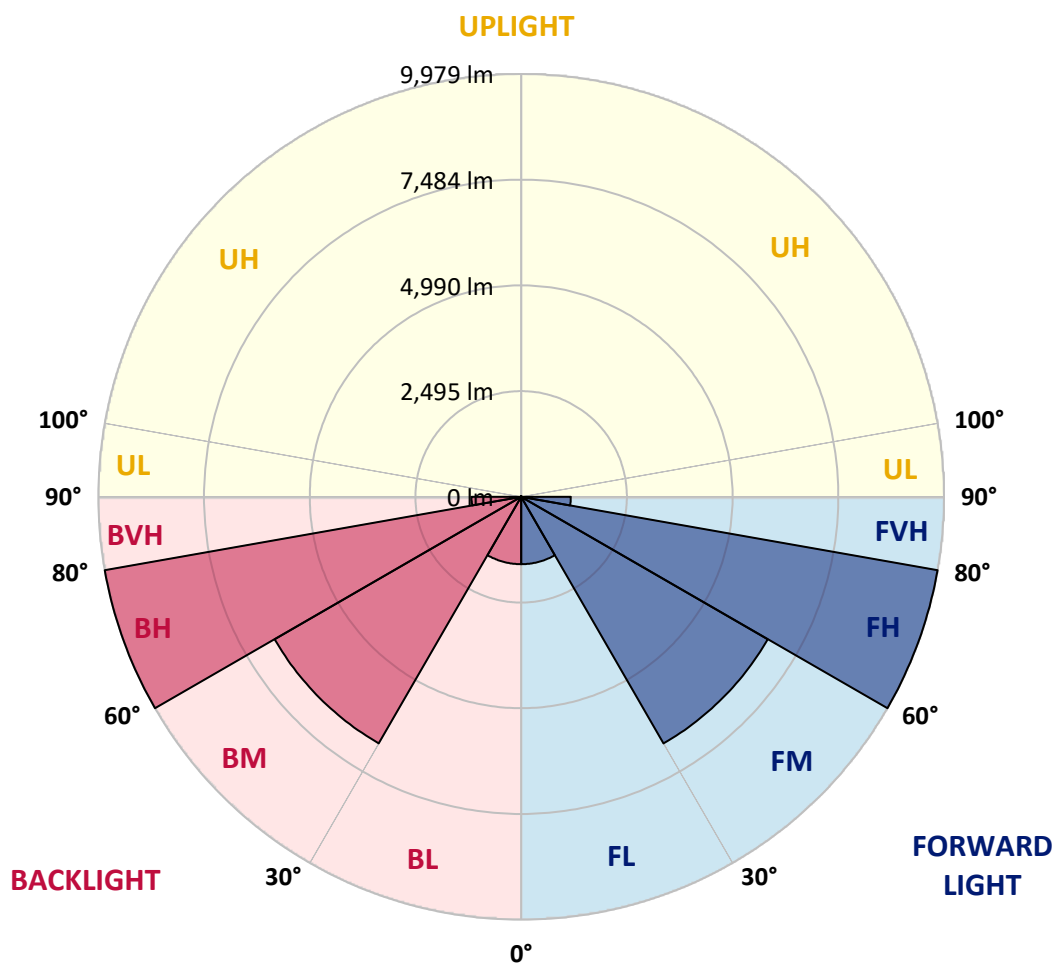
CATALOG NUMBER: VST-E12-LED-E-U-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1590.0	4.1			
FM	(30°-60°)	6720.1	17.3			
FH	(60°-80°)	9979.2	25.6			G4/12000
FVH	(80°-90°)	1172.0	3.0			G5
BL	(0°-30°)	1590.0	4.1	B3/2500		
BM	(30°-60°)	6720.1	17.3	B4/8500		
BH	(60°-80°)	9979.2	25.6	B5		G4/12000
BVH	(80°-90°)	1172.0	3.0			G5
UL	(90°-100°)	2.0	0.0		U1/10	
UH	(100°-180°)	9.5	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°	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2
2.5°	3750.6	3745.7	3748.2	3753.1	3750.6	3750.6	3748.2	3748.2	3753.1	3748.2	3750.6
5°	3753.1	3748.2	3750.6	3753.1	3750.6	3753.1	3750.6	3750.6	3750.6	3748.2	3753.1
7.5°	3743.2	3743.2	3745.7	3745.7	3743.2	3745.7	3745.7	3745.7	3743.2	3743.2	3748.2
10°	3738.3	3735.8	3735.8	3738.3	3735.8	3735.8	3738.3	3738.3	3733.4	3733.4	3738.3
12.5°	3730.9	3728.5	3728.5	3728.5	3726.0	3726.0	3728.5	3728.5	3726.0	3723.5	3730.9
15°	3726.0	3723.5	3723.5	3723.5	3718.6	3721.1	3721.1	3721.1	3718.6	3716.1	3723.5
17.5°	3723.5	3721.1	3721.1	3721.1	3718.6	3718.6	3718.6	3718.6	3716.1	3716.1	3721.1
20°	3728.5	3728.5	3728.5	3728.5	3726.0	3726.0	3726.0	3728.5	3728.5	3728.5	3733.4
22.5°	3740.8	3740.8	3743.2	3745.7	3745.7	3750.6	3753.1	3755.5	3755.5	3758.0	3762.9
25°	3772.8	3772.8	3775.2	3777.7	3785.1	3790.0	3799.9	3804.8	3807.3	3807.3	3809.7
27.5°	3831.9	3834.4	3839.3	3844.2	3854.1	3861.4	3871.3	3881.1	3883.6	3886.1	3888.5
30°	3905.8	3908.2	3918.1	3923.0	3935.3	3950.1	3962.4	3972.3	3979.6	3984.6	3982.1
32.5°	4011.7	4016.6	4028.9	4036.3	4053.5	4068.3	4085.5	4100.3	4107.7	4115.1	4112.6
35°	4159.4	4171.7	4184.0	4191.4	4208.7	4221.0	4243.2	4257.9	4272.7	4267.8	4270.2
37.5°	4378.6	4388.4	4390.9	4395.8	4413.1	4422.9	4447.6	4467.3	4474.6	4479.6	4482.0
40°	4674.1	4674.1	4686.4	4676.6	4698.7	4701.2	4730.8	4757.8	4765.2	4784.9	4770.2
42.5°	5018.9	5016.4	5023.8	5016.4	5016.4	5041.1	5065.7	5114.9	5119.9	5144.5	5129.7
45°	5393.2	5393.2	5385.8	5388.3	5393.2	5420.3	5449.9	5504.0	5528.7	5543.4	5533.6
47.5°	5799.5	5789.7	5787.2	5784.8	5799.5	5829.1	5873.4	5925.1	5986.7	5991.6	5986.7
50°	6210.8	6208.3	6191.1	6205.9	6215.7	6230.5	6314.2	6383.2	6447.2	6486.6	6474.3
52.5°	6644.2	6622.1	6622.1	6622.1	6646.7	6693.5	6767.4	6861.0	6947.1	6989.0	6981.6
55°	7082.6	7075.2	7053.0	7043.2	7075.2	7141.7	7247.6	7360.9	7474.2	7538.2	7513.6
57.5°	7484.0	7471.7	7474.2	7476.6	7513.6	7602.2	7725.3	7875.6	7998.7	8067.7	8050.4
60°	7799.2	7784.4	7811.5	7818.9	7885.4	8033.2	8230.2	8419.8	8582.3	8651.3	8624.2
62.5°	8156.3	8146.5	8163.7	8161.2	8232.6	8397.6	8661.2	8964.1	9210.3	9299.0	9259.6
65°	8732.6	8703.0	8695.6	8668.5	8715.3	8843.4	9106.9	9459.1	9853.1	10079.6	10025.5
67.5°	9422.1	9414.7	9390.1	9375.3	9392.6	9552.6	9806.3	10146.1	10547.5	10860.3	10929.3
70°	9877.7	9887.6	9912.2	9949.1	10092.0	10402.2	10865.2	11379.9	11931.6	12165.5	12123.6
72.5°	9791.5	9806.3	9826.0	9872.8	10059.9	10431.8	11042.5	11810.9	12502.9	12813.2	12547.2
75°	9370.4	9382.7	9427.0	9498.5	9727.5	10178.1	10835.7	11650.8	12365.0	12675.3	12397.0
76°	8981.3	9020.7	9102.0	9185.7	9461.5	9951.6	10653.4	11522.8	12278.8	12594.0	12325.6
77.5°	8099.7	8134.1	8200.6	8345.9	8658.7	9286.7	10106.7	10961.3	11749.3	12032.5	11806.0
80°	6095.1	6124.6	6186.2	6361.0	6631.9	7021.0	7656.4	8491.2	9355.6	9727.5	9579.7
82.5°	2573.5	2607.9	2851.8	3105.4	3403.4	3824.5	4238.2	4977.0	5612.4	6036.0	5809.4
85°	283.2	349.7	431.0	586.1	719.1	958.0	1191.9	1640.1	2073.6	2337.1	2066.2
87.5°	49.3	56.6	81.3	103.4	115.7	133.0	160.1	224.1	305.4	263.5	268.4
90°	7.4	7.4	7.4	7.4	7.4	7.4	7.4	4.9	4.9	4.9	4.9
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5
97.5°	0.0	0.0	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
100°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.9	4.9	4.9
102.5°	2.5	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9	4.9
105°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
107.5°	2.5	2.5	2.5	2.5	4.9	4.9	2.5	2.5	2.5	4.9	2.5



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CATALOG NUMBER: VST-E12-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
112.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
115°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
117.5°	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
120°	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
122.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
125°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
127.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
130°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5
132.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
135°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5
137.5°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5
140°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5
142.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
145°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	2.5
147.5°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	2.5	2.5
150°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	0.0	0.0	0.0
152.5°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	0.0
155°	4.9	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	2.5
157.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	0.0	0.0
160°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	0.0	0.0
162.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	0.0	0.0	0.0
165°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5	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°	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2	3748.2
2.5°	3748.2	3748.2	3753.1	3750.6	3750.6	3753.1	3758.0	3755.5
5°	3750.6	3753.1	3748.2	3750.6	3753.1	3753.1	3755.5	3753.1
7.5°	3745.7	3745.7	3745.7	3748.2	3750.6	3748.2	3750.6	3750.6
10°	3735.8	3738.3	3735.8	3740.8	3743.2	3743.2	3745.7	3745.7
12.5°	3728.5	3728.5	3728.5	3733.4	3735.8	3735.8	3738.3	3735.8
15°	3721.1	3721.1	3718.6	3723.5	3728.5	3728.5	3730.9	3730.9
17.5°	3718.6	3718.6	3716.1	3721.1	3726.0	3726.0	3728.5	3728.5
20°	3726.0	3728.5	3723.5	3728.5	3733.4	3735.8	3735.8	3735.8
22.5°	3755.5	3753.1	3745.7	3748.2	3750.6	3750.6	3750.6	3750.6
25°	3799.9	3794.9	3787.6	3785.1	3782.6	3780.2	3780.2	3780.2
27.5°	3876.2	3868.8	3856.5	3854.1	3851.6	3846.7	3846.7	3846.7
30°	3967.3	3957.5	3942.7	3937.8	3930.4	3925.5	3923.0	3920.5
32.5°	4097.9	4078.2	4060.9	4048.6	4041.2	4026.4	4024.0	4019.0
35°	4248.1	4233.3	4208.7	4201.3	4189.0	4181.6	4179.1	4166.8
37.5°	4454.9	4437.7	4415.5	4410.6	4408.1	4400.8	4400.8	4398.3
40°	4743.1	4725.8	4706.1	4686.4	4691.4	4693.8	4693.8	4684.0
42.5°	5095.2	5068.1	5028.7	5041.1	5033.7	5023.8	5043.5	5031.2
45°	5496.6	5459.7	5430.2	5417.8	5417.8	5405.5	5425.2	5425.2
47.5°	5942.4	5883.3	5829.1	5831.6	5811.9	5816.8	5829.1	5846.3
50°	6412.7	6333.9	6282.2	6257.6	6237.9	6245.3	6267.5	6272.4
52.5°	6900.4	6804.3	6735.4	6698.4	6673.8	6683.6	6700.9	6715.7
55°	7407.7	7301.8	7198.3	7158.9	7129.4	7149.1	7151.5	7171.2
57.5°	7937.1	7791.8	7671.2	7612.1	7582.5	7602.2	7617.0	7636.7
60°	8471.5	8304.1	8161.2	8092.3	8050.4	8077.5	8112.0	8121.8
62.5°	9092.1	8860.6	8700.6	8602.0	8582.3	8609.4	8619.3	8648.8
65°	9826.0	9547.7	9326.1	9205.4	9200.5	9215.2	9237.4	9244.8
67.5°	10663.3	10353.0	10055.0	9934.3	9887.6	9931.9	9954.0	9983.6
70°	11845.4	11419.3	10988.4	10719.9	10606.6	10572.2	10582.0	10614.0
72.5°	11978.3	11520.3	11017.9	10653.4	10454.0	10362.8	10360.4	10365.3
75°	11687.8	10956.3	10601.7	10183.1	9899.9	9752.1	9732.4	9729.9
76°	11542.5	10678.1	10165.8	9833.4	9493.5	9343.3	9321.1	9308.8
77.5°	10929.3	10000.8	9230.0	9028.1	8703.0	8513.4	8552.8	8520.8
80°	8762.1	7841.1	7114.6	6545.7	6563.0	6425.1	6368.4	6351.2
82.5°	5164.2	4408.1	3605.3	3135.0	2686.8	2568.5	2211.5	2130.2
85°	1650.0	1169.8	709.2	514.7	349.7	293.1	229.0	209.3
87.5°	219.2	172.4	140.4	135.4	123.1	105.9	69.0	49.3
90°	2.5	2.5	2.5	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°	2.5	2.5	2.5	2.5	0.0	0.0	0.0	0.0
97.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
100°	4.9	2.5	2.5	2.5	2.5	2.5	2.5	2.5
102.5°	4.9	4.9	4.9	4.9	2.5	2.5	2.5	2.5
105°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
107.5°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9



REPORT NUMBER: P157861

CATALOG NUMBER: VST-E12-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.5	2.5	2.5	2.5	2.5	4.9	4.9	4.9
112.5°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.9
115°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.9
117.5°	2.5	2.5	2.5	2.5	2.5	4.9	4.9	4.9
120°	2.5	2.5	2.5	2.5	2.5	4.9	4.9	4.9
122.5°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
125°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
127.5°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
130°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
132.5°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
135°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
137.5°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
140°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
142.5°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
145°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
147.5°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
150°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
152.5°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
155°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
157.5°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
160°	2.5	2.5	2.5	2.5	4.9	4.9	4.9	4.9
162.5°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
165°	2.5	2.5	2.5	4.9	4.9	4.9	4.9	4.9
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)