

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: P157841

Luminaire Tested: **VST-E10-LED-E-U-5XQ-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157841
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-E10-LED-E-U-5XQ-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (210) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32451.6 lumens
Efficiency: N/A
Efficacy: 131.0 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U2 - G5

Input Watts (W): 247.7
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

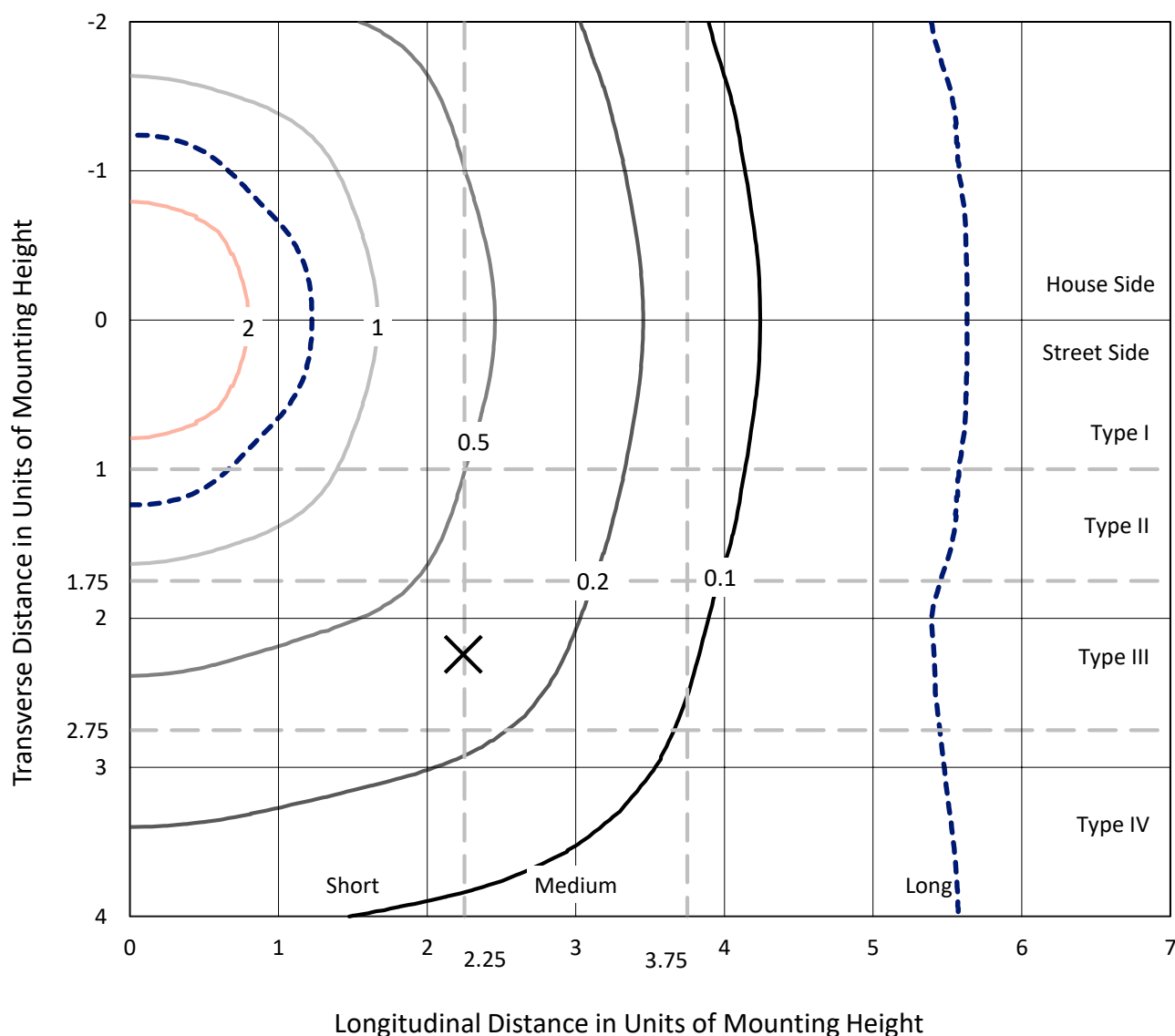


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

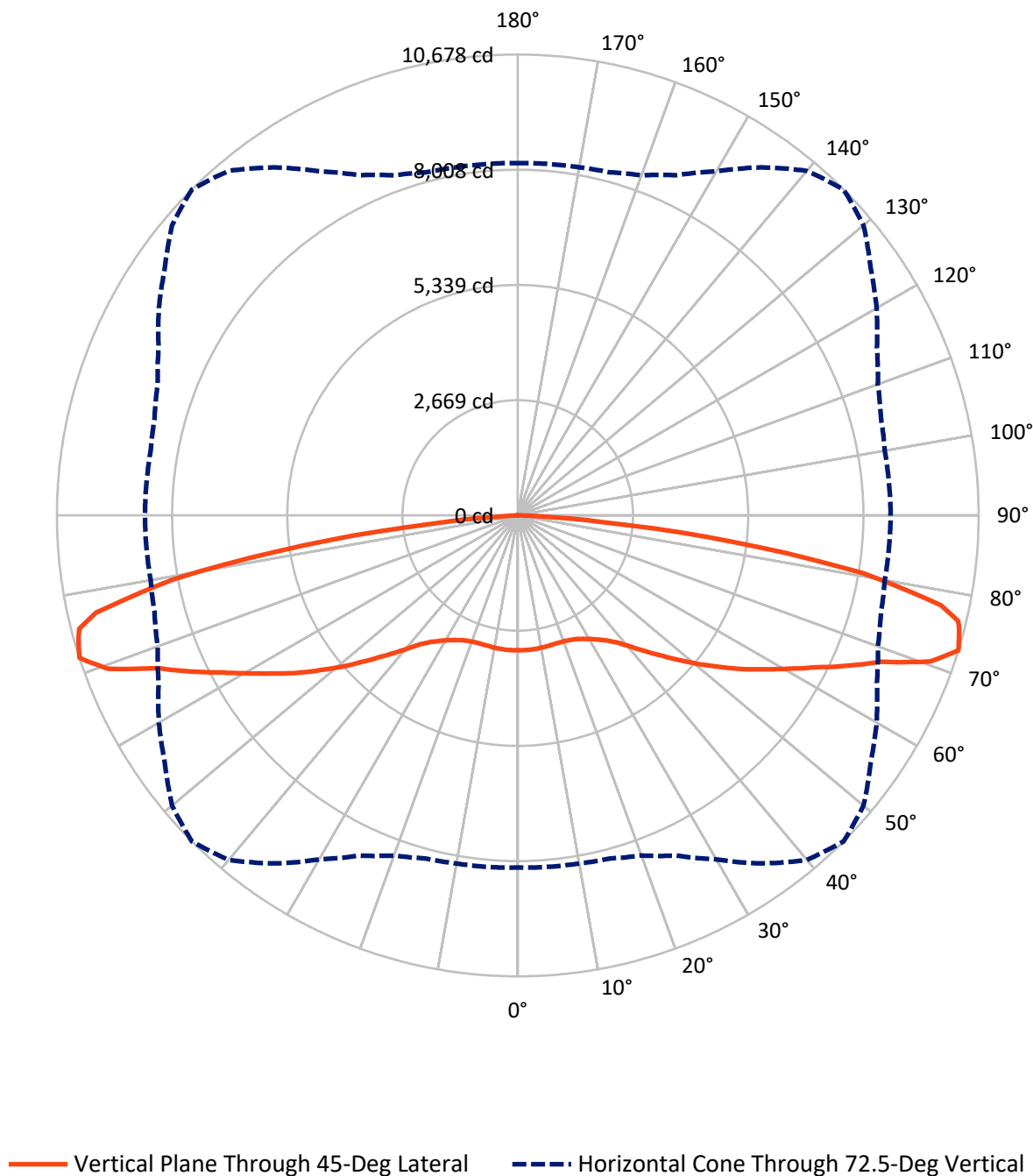


Based on 30 foot mounting height. Maximum calculated value = 3.5 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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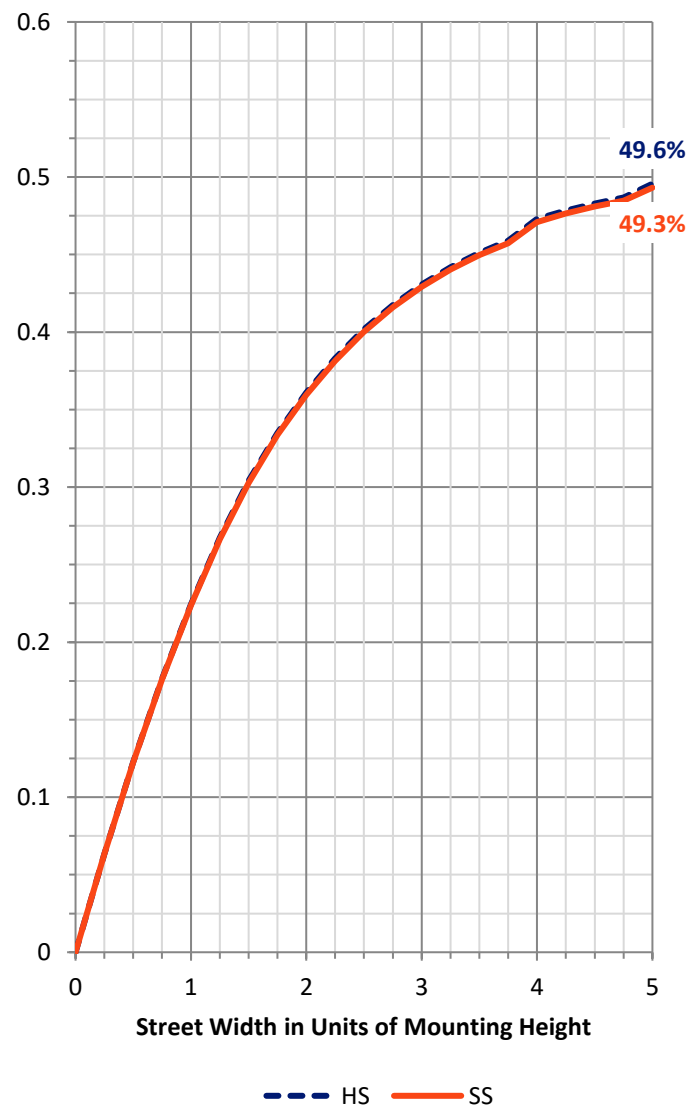
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	16217.8	8.0	16225.8
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	16217.8	8.0	16225.8
	% Fixture	50.0	0.0	50.0
Total	Lumens	32435.6	16.0	32451.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	298.0	0.9
10°-20°	880.2	2.7
20°-30°	1471.8	4.5
30°-40°	2237.1	6.9
40°-50°	3543.2	10.9
50°-60°	5419.8	16.7
60°-70°	7756.7	23.9
70°-80°	8875.4	27.3
80°-90°	1953.4	6.0
90°-100°	1.7	0.0
100°-110°	3.4	0.0
110°-120°	2.3	0.0
120°-130°	2.6	0.0
130°-140°	2.4	0.0
140°-150°	1.9	0.0
150°-160°	1.3	0.0
160°-170°	0.5	0.0
170°-180°	0.0	0.0
0°-90°	32435.6	100.0
0°-180°	32451.6	100.0

Coefficient of Utilization



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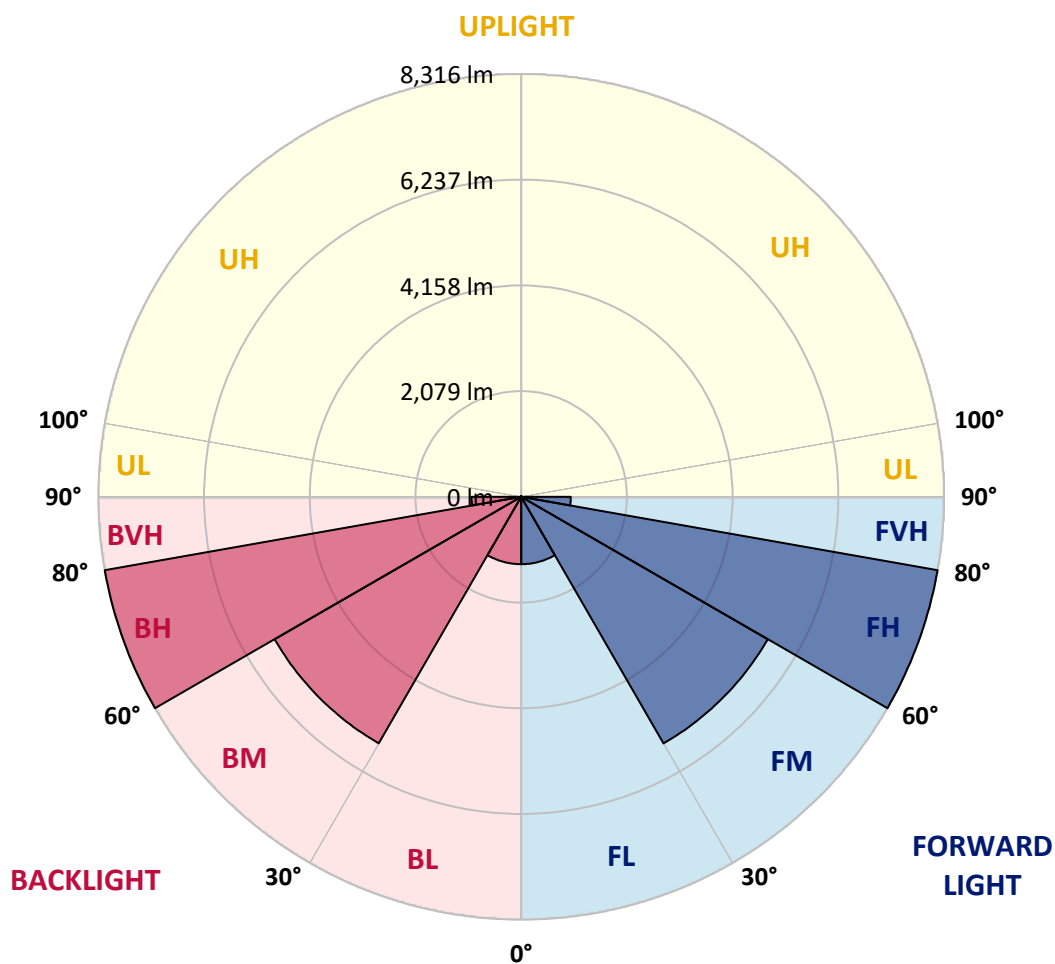
CATALOG NUMBER: VST-E10-LED-E-U-5XQ-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1325.0	4.1			
FM	(30°-60°)	5600.1	17.3			
FH	(60°-80°)	8316.0	25.6			G4/12000
FVH	(80°-90°)	976.7	3.0			G5
BL	(0°-30°)	1325.0	4.1	B3/2500		
BM	(30°-60°)	5600.1	17.3	B4/8500		
BH	(60°-80°)	8316.0	25.6	B5		G4/12000
BVH	(80°-90°)	976.7	3.0			G5
UL	(90°-100°)	1.7	0.0		U1/10	
UH	(100°-180°)	8.0	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°	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5
2.5°	3125.5	3121.4	3123.5	3127.6	3125.5	3125.5	3123.5	3123.5	3127.6	3123.5	3125.5
5°	3127.6	3123.5	3125.5	3127.6	3125.5	3127.6	3125.5	3125.5	3125.5	3123.5	3127.6
7.5°	3119.4	3119.4	3121.4	3121.4	3119.4	3121.4	3121.4	3121.4	3119.4	3119.4	3123.5
10°	3115.3	3113.2	3113.2	3115.3	3113.2	3113.2	3115.3	3115.3	3111.2	3111.2	3115.3
12.5°	3109.1	3107.0	3107.0	3107.0	3105.0	3105.0	3107.0	3107.0	3105.0	3102.9	3109.1
15°	3105.0	3102.9	3102.9	3102.9	3098.8	3100.9	3100.9	3100.9	3098.8	3096.8	3102.9
17.5°	3102.9	3100.9	3100.9	3100.9	3098.8	3098.8	3098.8	3098.8	3096.8	3096.8	3100.9
20°	3107.0	3107.0	3107.0	3107.0	3105.0	3105.0	3105.0	3107.0	3107.0	3107.0	3111.2
22.5°	3117.3	3117.3	3119.4	3121.4	3121.4	3125.5	3127.6	3129.6	3129.6	3131.7	3135.8
25°	3144.0	3144.0	3146.0	3148.1	3154.2	3158.4	3166.6	3170.7	3172.7	3172.7	3174.8
27.5°	3193.2	3195.3	3199.4	3203.5	3211.7	3217.9	3226.1	3234.3	3236.3	3238.4	3240.4
30°	3254.8	3256.9	3265.1	3269.2	3279.4	3291.7	3302.0	3310.2	3316.4	3320.5	3318.4
32.5°	3343.1	3347.2	3357.4	3363.6	3377.9	3390.3	3404.6	3416.9	3423.1	3429.2	3427.2
35°	3466.2	3476.4	3486.7	3492.9	3507.2	3517.5	3536.0	3548.3	3560.6	3556.5	3558.5
37.5°	3648.8	3657.0	3659.1	3663.2	3677.6	3685.8	3706.3	3722.7	3728.9	3733.0	3735.0
40°	3895.1	3895.1	3905.4	3897.1	3915.6	3917.7	3942.3	3964.9	3971.0	3987.4	3975.1
42.5°	4182.4	4180.4	4186.5	4180.4	4180.4	4200.9	4221.4	4262.4	4266.5	4287.1	4274.8
45°	4494.3	4494.3	4488.2	4490.2	4494.3	4516.9	4541.5	4586.7	4607.2	4619.5	4611.3
47.5°	4833.0	4824.7	4822.7	4820.6	4833.0	4857.6	4894.5	4937.6	4988.9	4993.0	4988.9
50°	5175.7	5173.6	5159.3	5171.6	5179.8	5192.1	5261.9	5319.3	5372.7	5405.5	5395.3
52.5°	5536.9	5518.4	5518.4	5518.4	5538.9	5577.9	5639.5	5717.5	5789.3	5824.2	5818.0
55°	5902.2	5896.0	5877.5	5869.3	5896.0	5951.4	6039.7	6134.1	6228.5	6281.8	6261.3
57.5°	6236.7	6226.4	6228.5	6230.5	6261.3	6335.2	6437.8	6563.0	6665.6	6723.0	6708.7
60°	6499.4	6487.0	6509.6	6515.8	6571.2	6694.3	6858.5	7016.5	7152.0	7209.4	7186.8
62.5°	6796.9	6788.7	6803.1	6801.0	6860.5	6998.0	7217.6	7470.0	7675.3	7749.1	7716.3
65°	7277.1	7252.5	7246.4	7223.8	7262.8	7369.5	7589.1	7882.5	8210.9	8399.7	8354.6
67.5°	7851.8	7845.6	7825.1	7812.8	7827.1	7960.5	8171.9	8455.1	8789.6	9050.2	9107.7
70°	8231.4	8239.6	8260.1	8290.9	8410.0	8668.5	9054.4	9483.3	9943.0	10137.9	10103.0
72.5°	8159.6	8171.9	8188.3	8227.3	8383.3	8693.2	9202.1	9842.4	10419.1	10677.7	10456.0
75°	7808.7	7818.9	7855.9	7915.4	8106.2	8481.8	9029.7	9709.0	10304.2	10562.7	10330.8
76°	7484.4	7517.2	7585.0	7654.7	7884.6	8293.0	8877.9	9602.3	10232.3	10495.0	10271.3
77.5°	6749.7	6778.5	6833.9	6954.9	7215.6	7738.9	8422.3	9134.4	9791.1	10027.1	9838.3
80°	5079.2	5103.8	5155.2	5300.9	5526.6	5850.9	6380.3	7076.0	7796.3	8106.2	7983.1
82.5°	2144.6	2173.3	2376.5	2587.8	2836.2	3187.1	3531.9	4147.5	4677.0	5030.0	4841.2
85°	236.0	291.4	359.1	488.4	599.2	798.3	993.3	1366.8	1728.0	1947.5	1721.8
87.5°	41.0	47.2	67.7	86.2	96.5	110.8	133.4	186.8	254.5	219.6	223.7
90°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	4.1	4.1	4.1	4.1
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1
95°	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1
97.5°	0.0	0.0	0.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
100°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1	4.1	4.1
102.5°	2.1	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1	4.1
105°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
107.5°	2.1	2.1	2.1	2.1	4.1	4.1	2.1	2.1	2.1	4.1	2.1



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CATALOG NUMBER: VST-E10-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
112.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
115°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
117.5°	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
120°	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
122.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
125°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
127.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
130°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1
132.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
135°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1
137.5°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1
140°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1
142.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
145°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	2.1
147.5°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1
150°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	0.0	0.0	0.0
152.5°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	0.0
155°	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	2.1
157.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0
160°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0
162.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	0.0	0.0	0.0
165°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	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°	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5	3123.5
2.5°	3123.5	3123.5	3127.6	3125.5	3125.5	3127.6	3131.7	3129.6
5°	3125.5	3127.6	3123.5	3125.5	3127.6	3127.6	3129.6	3127.6
7.5°	3121.4	3121.4	3121.4	3123.5	3125.5	3123.5	3125.5	3125.5
10°	3113.2	3115.3	3113.2	3117.3	3119.4	3119.4	3121.4	3121.4
12.5°	3107.0	3107.0	3107.0	3111.2	3113.2	3113.2	3115.3	3113.2
15°	3100.9	3100.9	3098.8	3102.9	3107.0	3107.0	3109.1	3109.1
17.5°	3098.8	3098.8	3096.8	3100.9	3105.0	3105.0	3107.0	3107.0
20°	3105.0	3107.0	3102.9	3107.0	3111.2	3113.2	3113.2	3113.2
22.5°	3129.6	3127.6	3121.4	3123.5	3125.5	3125.5	3125.5	3125.5
25°	3166.6	3162.5	3156.3	3154.2	3152.2	3150.1	3150.1	3150.1
27.5°	3230.2	3224.0	3213.8	3211.7	3209.7	3205.6	3205.6	3205.6
30°	3306.1	3297.9	3285.6	3281.5	3275.3	3271.2	3269.2	3267.1
32.5°	3414.9	3398.5	3384.1	3373.8	3367.7	3355.4	3353.3	3349.2
35°	3540.1	3527.8	3507.2	3501.1	3490.8	3484.7	3482.6	3472.3
37.5°	3712.4	3698.1	3679.6	3675.5	3673.5	3667.3	3667.3	3665.2
40°	3952.6	3938.2	3921.8	3905.4	3909.5	3911.5	3911.5	3903.3
42.5°	4246.0	4223.4	4190.6	4200.9	4194.7	4186.5	4202.9	4192.7
45°	4580.5	4549.8	4525.1	4514.9	4514.9	4504.6	4521.0	4521.0
47.5°	4952.0	4902.7	4857.6	4859.6	4843.2	4847.3	4857.6	4871.9
50°	5344.0	5278.3	5235.2	5214.7	5198.3	5204.4	5222.9	5227.0
52.5°	5750.3	5670.3	5612.8	5582.0	5561.5	5569.7	5584.1	5596.4
55°	6173.1	6084.8	5998.6	5965.8	5941.2	5957.6	5959.6	5976.0
57.5°	6614.3	6493.2	6392.6	6343.4	6318.8	6335.2	6347.5	6363.9
60°	7059.6	6920.1	6801.0	6743.6	6708.7	6731.3	6760.0	6768.2
62.5°	7576.8	7383.9	7250.5	7168.4	7152.0	7174.5	7182.7	7207.4
65°	8188.3	7956.4	7771.7	7671.2	7667.1	7679.4	7697.8	7704.0
67.5°	8886.1	8627.5	8379.2	8278.6	8239.6	8276.6	8295.0	8319.7
70°	9871.1	9516.1	9157.0	8933.3	8838.9	8810.1	8818.4	8845.0
72.5°	9982.0	9600.2	9181.6	8877.9	8711.6	8635.7	8633.7	8637.8
75°	9739.8	9130.3	8834.8	8485.9	8249.9	8126.8	8110.3	8108.3
76°	9618.7	8898.4	8471.5	8194.5	7911.3	7786.1	7767.6	7757.4
77.5°	9107.7	8334.0	7691.7	7523.4	7252.5	7094.5	7127.3	7100.6
80°	7301.8	6534.2	5928.8	5454.8	5469.1	5354.2	5307.0	5292.7
82.5°	4303.5	3673.5	3004.4	2612.5	2239.0	2140.5	1842.9	1775.2
85°	1375.0	974.8	591.0	428.9	291.4	244.2	190.9	174.4
87.5°	182.6	143.7	117.0	112.9	102.6	88.2	57.5	41.0
90°	2.1	2.1	2.1	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°	2.1	2.1	2.1	2.1	0.0	0.0	0.0	0.0
97.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
100°	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
102.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1
105°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
107.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1



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CATALOG NUMBER: VST-E10-LED-E-U-5XQ-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	2.1	2.1	2.1	2.1	2.1	4.1	4.1	4.1
112.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1
115°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	4.1
117.5°	2.1	2.1	2.1	2.1	2.1	4.1	4.1	4.1
120°	2.1	2.1	2.1	2.1	2.1	4.1	4.1	4.1
122.5°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
125°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
127.5°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
130°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
132.5°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
135°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
137.5°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
140°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
142.5°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
145°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
147.5°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
150°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
152.5°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
155°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
157.5°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
160°	2.1	2.1	2.1	2.1	4.1	4.1	4.1	4.1
162.5°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
165°	2.1	2.1	2.1	4.1	4.1	4.1	4.1	4.1
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)