

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: P157810

Luminaire Tested: **VST-E07-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157810
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-E07-LED-E-U-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(7) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (147) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22138.1 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Luminous Opening: Rectangular (W 1.17' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B5 - U1 - G4

Input Watts (W): 172.5
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

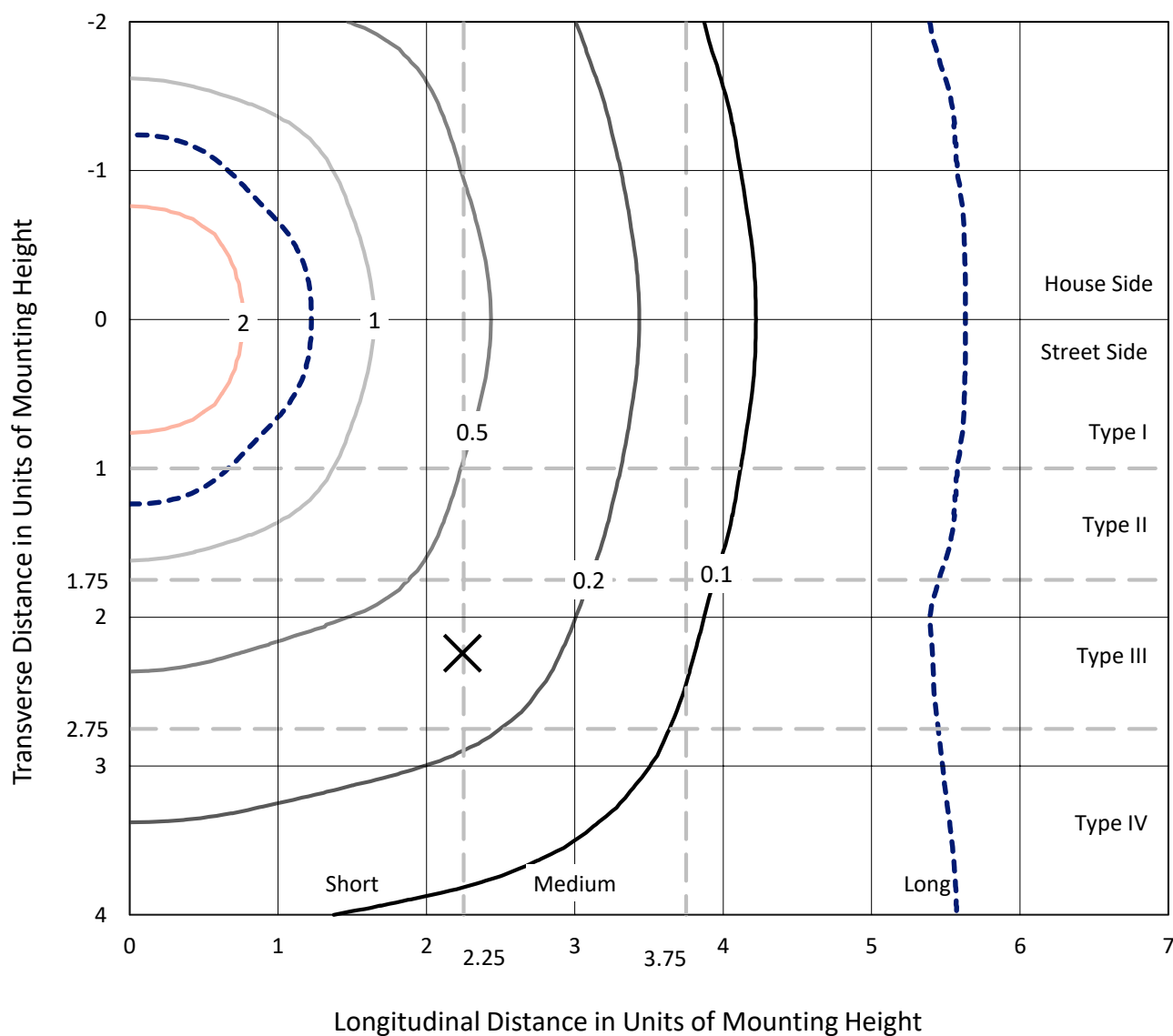


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

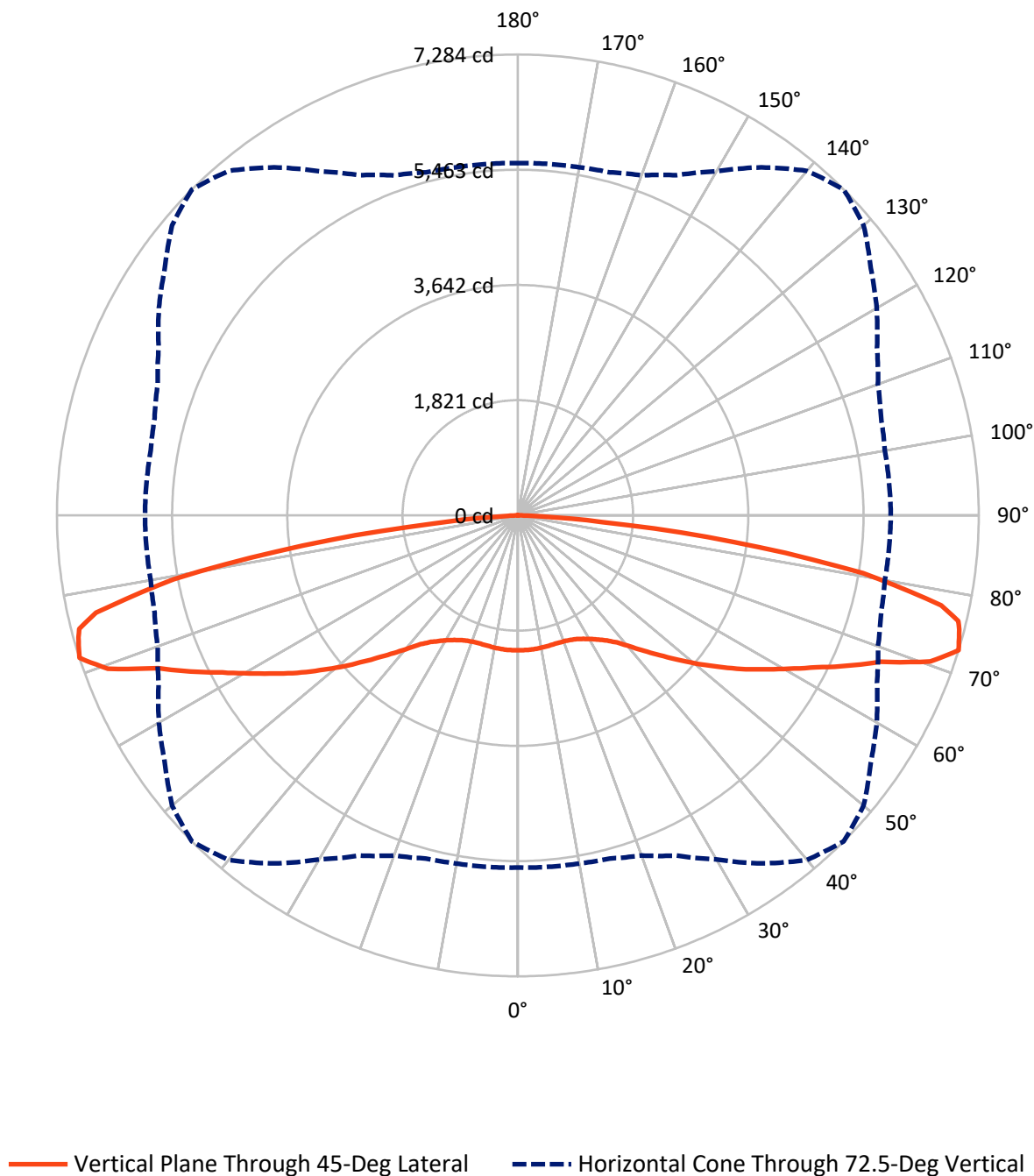


Based on 25 foot mounting height. Maximum calculated value = 3.4 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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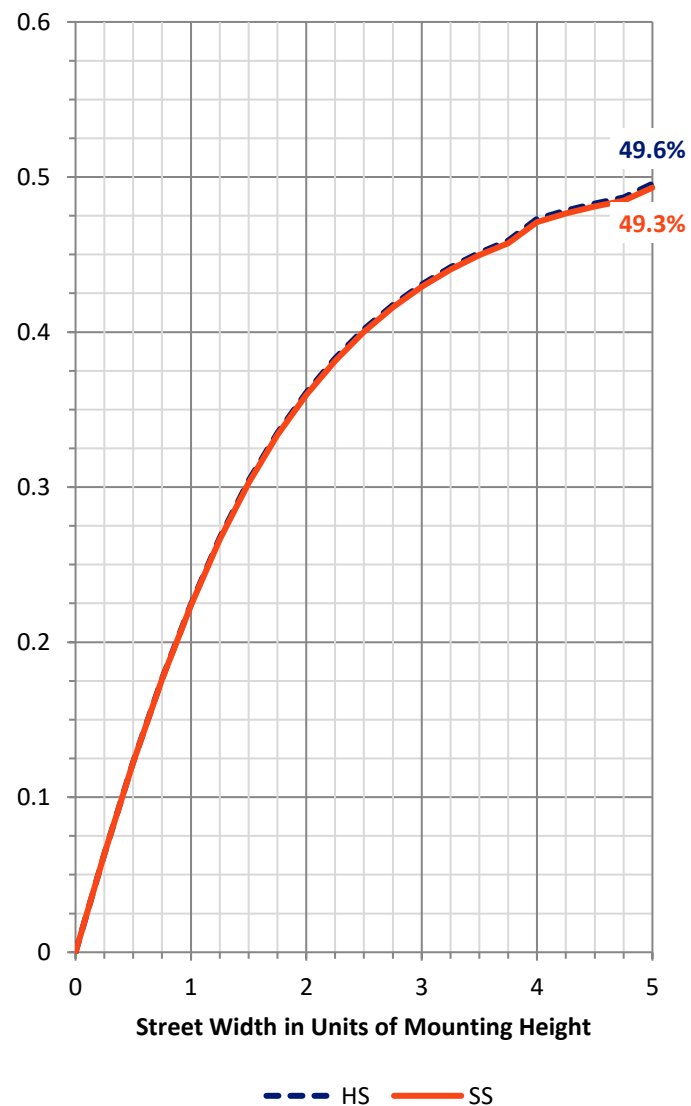
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11063.6	5.4	11069.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	11063.6	5.4	11069.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	22127.3	10.8	22138.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.3	0.9
10°-20°	600.5	2.7
20°-30°	1004.1	4.5
30°-40°	1526.1	6.9
40°-50°	2417.1	10.9
50°-60°	3697.4	16.7
60°-70°	5291.5	23.9
70°-80°	6054.7	27.3
80°-90°	1332.6	6.0
90°-100°	1.1	0.0
100°-110°	2.3	0.0
110°-120°	1.6	0.0
120°-130°	1.7	0.0
130°-140°	1.6	0.0
140°-150°	1.3	0.0
150°-160°	0.9	0.0
160°-170°	0.3	0.0
170°-180°	0.0	0.0
0°-90°	22127.3	100.0
0°-180°	22138.1	100.0

Coefficient of Utilization



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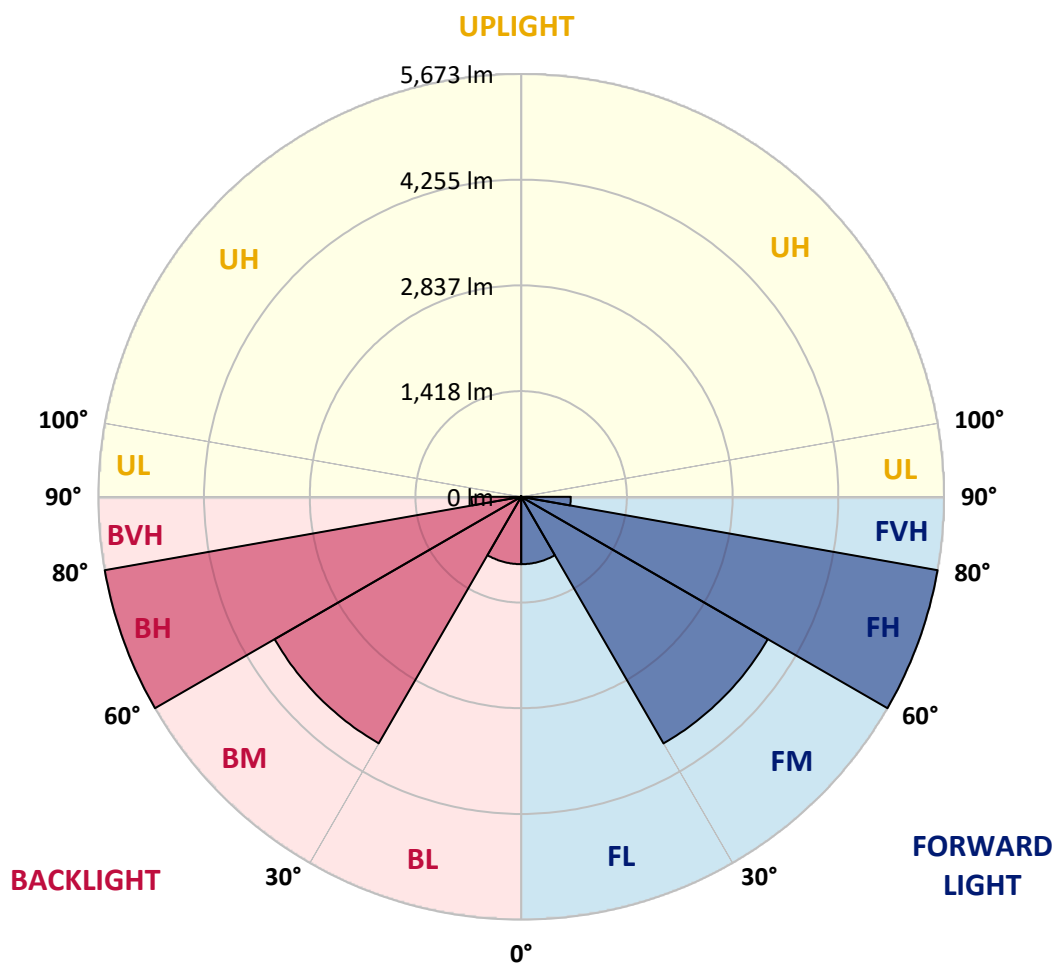
CATALOG NUMBER: VST-E07-LED-E-U-5XQ

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	903.9	4.1			
FM	(30°-60°)	3820.3	17.3			
FH	(60°-80°)	5673.1	25.6			G3/7500
FVH	(80°-90°)	666.3	3.0			G4/750
BL	(0°-30°)	903.9	4.1	B2/1000		
BM	(30°-60°)	3820.3	17.3	B3/5000		
BH	(60°-80°)	5673.1	25.6	B5		G3/7500
BVH	(80°-90°)	666.3	3.0			G4/750
UL	(90°-100°)	1.1	0.0		U1/10	
UH	(100°-180°)	5.4	0.0		U1/10	

BUG Rating: B5-U1-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8
2.5°	2132.2	2129.4	2130.8	2133.6	2132.2	2132.2	2130.8	2130.8	2133.6	2130.8	2132.2
5°	2133.6	2130.8	2132.2	2133.6	2132.2	2133.6	2132.2	2132.2	2132.2	2130.8	2133.6
7.5°	2128.0	2128.0	2129.4	2129.4	2128.0	2129.4	2129.4	2129.4	2128.0	2128.0	2130.8
10°	2125.2	2123.8	2123.8	2125.2	2123.8	2123.8	2125.2	2125.2	2122.4	2122.4	2125.2
12.5°	2121.0	2119.6	2119.6	2119.6	2118.2	2118.2	2119.6	2119.6	2118.2	2116.8	2121.0
15°	2118.2	2116.8	2116.8	2116.8	2114.0	2115.4	2115.4	2115.4	2114.0	2112.6	2116.8
17.5°	2116.8	2115.4	2115.4	2115.4	2114.0	2114.0	2114.0	2114.0	2112.6	2112.6	2115.4
20°	2119.6	2119.6	2119.6	2119.6	2118.2	2118.2	2118.2	2119.6	2119.6	2119.6	2122.4
22.5°	2126.6	2126.6	2128.0	2129.4	2129.4	2132.2	2133.6	2135.0	2135.0	2136.4	2139.2
25°	2144.8	2144.8	2146.2	2147.6	2151.8	2154.6	2160.2	2163.0	2164.4	2164.4	2165.8
27.5°	2178.4	2179.8	2182.6	2185.4	2191.0	2195.2	2200.8	2206.4	2207.8	2209.2	2210.6
30°	2220.4	2221.8	2227.4	2230.2	2237.2	2245.6	2252.6	2258.2	2262.4	2265.2	2263.8
32.5°	2280.6	2283.4	2290.4	2294.6	2304.4	2312.8	2322.6	2331.0	2335.2	2339.4	2338.0
35°	2364.6	2371.6	2378.6	2382.8	2392.6	2399.6	2412.2	2420.6	2429.0	2426.2	2427.6
37.5°	2489.2	2494.8	2496.2	2499.0	2508.8	2514.4	2528.4	2539.6	2543.8	2546.6	2548.0
40°	2657.2	2657.2	2664.2	2658.6	2671.2	2672.6	2689.4	2704.8	2709.0	2720.2	2711.8
42.5°	2853.2	2851.8	2856.0	2851.8	2851.8	2865.8	2879.8	2907.8	2910.6	2924.6	2916.2
45°	3066.0	3066.0	3061.8	3063.2	3066.0	3081.4	3098.2	3129.0	3143.0	3151.4	3145.8
47.5°	3297.0	3291.4	3290.0	3288.6	3297.0	3313.8	3339.0	3368.4	3403.4	3406.2	3403.4
50°	3530.8	3529.4	3519.6	3528.0	3533.6	3542.0	3589.6	3628.8	3665.2	3687.6	3680.6
52.5°	3777.2	3764.6	3764.6	3764.6	3778.6	3805.2	3847.2	3900.4	3949.4	3973.2	3969.0
55°	4026.4	4022.2	4009.6	4004.0	4022.2	4060.0	4120.2	4184.6	4249.0	4285.4	4271.4
57.5°	4254.6	4247.6	4249.0	4250.4	4271.4	4321.8	4391.8	4477.2	4547.2	4586.4	4576.6
60°	4433.8	4425.4	4440.8	4445.0	4482.8	4566.8	4678.8	4786.6	4879.0	4918.2	4902.8
62.5°	4636.8	4631.2	4641.0	4639.6	4680.2	4774.0	4923.8	5096.0	5236.0	5286.4	5264.0
65°	4964.4	4947.6	4943.4	4928.0	4954.6	5027.4	5177.2	5377.4	5601.4	5730.2	5699.4
67.5°	5356.4	5352.2	5338.2	5329.8	5339.6	5430.6	5574.8	5768.0	5996.2	6174.0	6213.2
70°	5615.4	5621.0	5635.0	5656.0	5737.2	5913.6	6176.8	6469.4	6783.0	6916.0	6892.2
72.5°	5566.4	5574.8	5586.0	5612.6	5719.0	5930.4	6277.6	6714.4	7107.8	7284.2	7133.0
75°	5327.0	5334.0	5359.2	5399.8	5530.0	5786.2	6160.0	6623.4	7029.4	7205.8	7047.6
76°	5105.8	5128.2	5174.4	5222.0	5378.8	5657.4	6056.4	6550.6	6980.4	7159.6	7007.0
77.5°	4604.6	4624.2	4662.0	4744.6	4922.4	5279.4	5745.6	6231.4	6679.4	6840.4	6711.6
80°	3465.0	3481.8	3516.8	3616.2	3770.2	3991.4	4352.6	4827.2	5318.6	5530.0	5446.0
82.5°	1463.0	1482.6	1621.2	1765.4	1934.8	2174.2	2409.4	2829.4	3190.6	3431.4	3302.6
85°	161.0	198.8	245.0	333.2	408.8	544.6	677.6	932.4	1178.8	1328.6	1174.6
87.5°	28.0	32.2	46.2	58.8	65.8	75.6	91.0	127.4	173.6	149.8	152.6
90°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.8	2.8	2.8	2.8
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4
95°	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4
97.5°	0.0	0.0	0.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
100°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8	2.8	2.8
102.5°	1.4	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8	2.8
105°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
107.5°	1.4	1.4	1.4	1.4	2.8	2.8	1.4	1.4	1.4	2.8	1.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
112.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
115°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
117.5°	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
120°	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
122.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
125°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
127.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
130°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4
132.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
135°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4
137.5°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4
140°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4
142.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
145°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	1.4
147.5°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4
150°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	0.0	0.0	0.0
152.5°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	0.0
155°	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	1.4
157.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	0.0	0.0
160°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	0.0	0.0
162.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	0.0	0.0	0.0
165°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	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°	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8	2130.8
2.5°	2130.8	2130.8	2133.6	2132.2	2132.2	2133.6	2136.4	2135.0
5°	2132.2	2133.6	2130.8	2132.2	2133.6	2133.6	2135.0	2133.6
7.5°	2129.4	2129.4	2129.4	2130.8	2132.2	2130.8	2132.2	2132.2
10°	2123.8	2125.2	2123.8	2126.6	2128.0	2128.0	2129.4	2129.4
12.5°	2119.6	2119.6	2119.6	2122.4	2123.8	2123.8	2125.2	2123.8
15°	2115.4	2115.4	2114.0	2116.8	2119.6	2119.6	2121.0	2121.0
17.5°	2114.0	2114.0	2112.6	2115.4	2118.2	2118.2	2119.6	2119.6
20°	2118.2	2119.6	2116.8	2119.6	2122.4	2123.8	2123.8	2123.8
22.5°	2135.0	2133.6	2129.4	2130.8	2132.2	2132.2	2132.2	2132.2
25°	2160.2	2157.4	2153.2	2151.8	2150.4	2149.0	2149.0	2149.0
27.5°	2203.6	2199.4	2192.4	2191.0	2189.6	2186.8	2186.8	2186.8
30°	2255.4	2249.8	2241.4	2238.6	2234.4	2231.6	2230.2	2228.8
32.5°	2329.6	2318.4	2308.6	2301.6	2297.4	2289.0	2287.6	2284.8
35°	2415.0	2406.6	2392.6	2388.4	2381.4	2377.2	2375.8	2368.8
37.5°	2532.6	2522.8	2510.2	2507.4	2506.0	2501.8	2501.8	2500.4
40°	2696.4	2686.6	2675.4	2664.2	2667.0	2668.4	2668.4	2662.8
42.5°	2896.6	2881.2	2858.8	2865.8	2861.6	2856.0	2867.2	2860.2
45°	3124.8	3103.8	3087.0	3080.0	3080.0	3073.0	3084.2	3084.2
47.5°	3378.2	3344.6	3313.8	3315.2	3304.0	3306.8	3313.8	3323.6
50°	3645.6	3600.8	3571.4	3557.4	3546.2	3550.4	3563.0	3565.8
52.5°	3922.8	3868.2	3829.0	3808.0	3794.0	3799.6	3809.4	3817.8
55°	4211.2	4151.0	4092.2	4069.8	4053.0	4064.2	4065.6	4076.8
57.5°	4512.2	4429.6	4361.0	4327.4	4310.6	4321.8	4330.2	4341.4
60°	4816.0	4720.8	4639.6	4600.4	4576.6	4592.0	4611.6	4617.2
62.5°	5168.8	5037.2	4946.2	4890.2	4879.0	4894.4	4900.0	4916.8
65°	5586.0	5427.8	5301.8	5233.2	5230.4	5238.8	5251.4	5255.6
67.5°	6062.0	5885.6	5716.2	5647.6	5621.0	5646.2	5658.8	5675.6
70°	6734.0	6491.8	6246.8	6094.2	6029.8	6010.2	6015.8	6034.0
72.5°	6809.6	6549.2	6263.6	6056.4	5943.0	5891.2	5889.8	5892.6
75°	6644.4	6228.6	6027.0	5789.0	5628.0	5544.0	5532.8	5531.4
76°	6561.8	6070.4	5779.2	5590.2	5397.0	5311.6	5299.0	5292.0
77.5°	6213.2	5685.4	5247.2	5132.4	4947.6	4839.8	4862.2	4844.0
80°	4981.2	4457.6	4044.6	3721.2	3731.0	3652.6	3620.4	3610.6
82.5°	2935.8	2506.0	2049.6	1782.2	1527.4	1460.2	1257.2	1211.0
85°	938.0	665.0	403.2	292.6	198.8	166.6	130.2	119.0
87.5°	124.6	98.0	79.8	77.0	70.0	60.2	39.2	28.0
90°	1.4	1.4	1.4	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°	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0
97.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
100°	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4
102.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4
105°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
107.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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CATALOG NUMBER: VST-E07-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	1.4	1.4	1.4	1.4	1.4	2.8	2.8	2.8
112.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8
115°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8
117.5°	1.4	1.4	1.4	1.4	1.4	2.8	2.8	2.8
120°	1.4	1.4	1.4	1.4	1.4	2.8	2.8	2.8
122.5°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
125°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
127.5°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
130°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
132.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
135°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
137.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
140°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
142.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
145°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
147.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
150°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
152.5°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
155°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
157.5°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
160°	1.4	1.4	1.4	1.4	2.8	2.8	2.8	2.8
162.5°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
165°	1.4	1.4	1.4	2.8	2.8	2.8	2.8	2.8
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)