

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: P165558

Luminaire Tested: **VST-E12-LED-E-U-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165558
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33728)
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-SL4-HSS-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (252) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24755.7 lumens
Efficiency: N/A
Efficacy: 84.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - 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

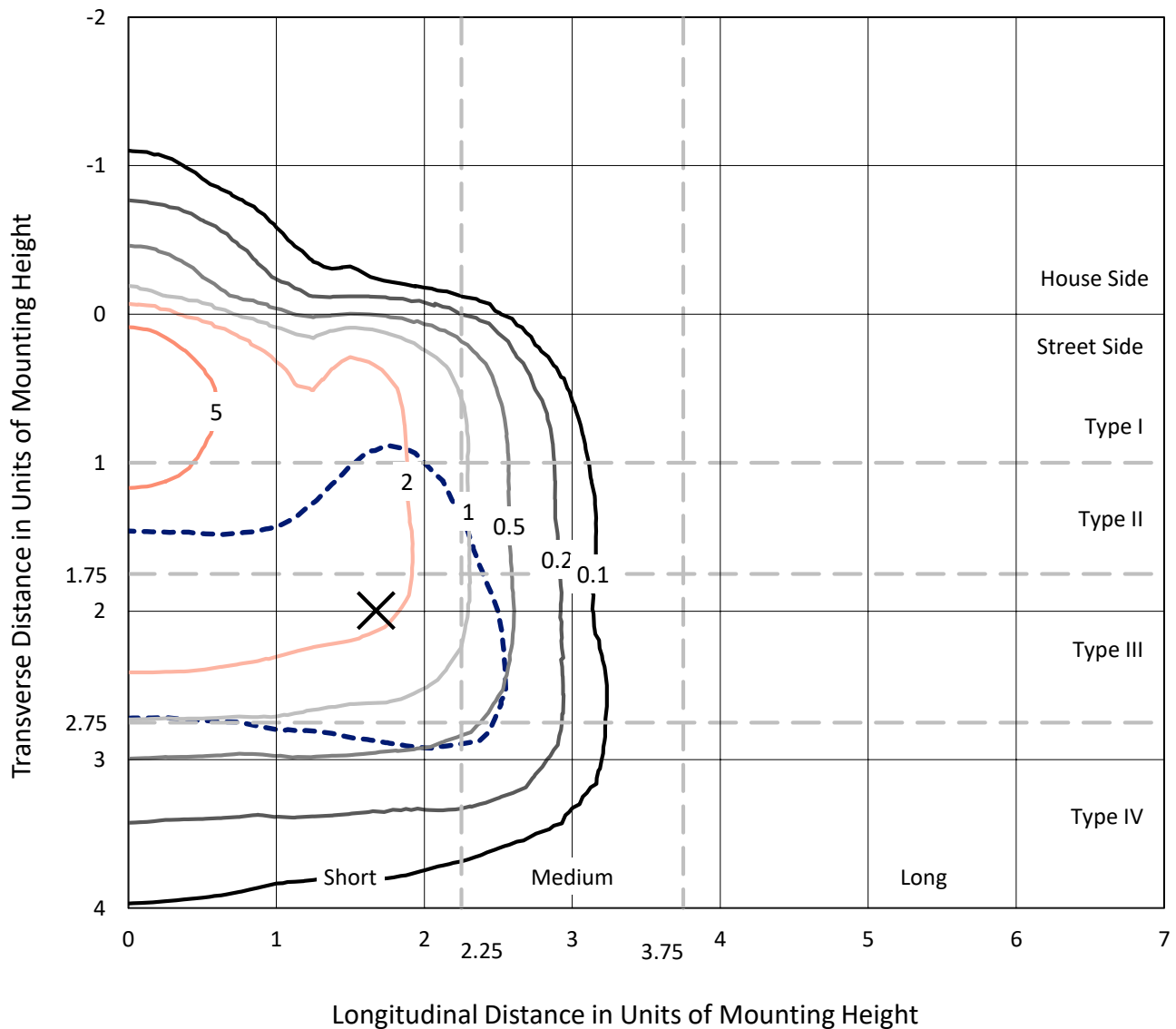


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

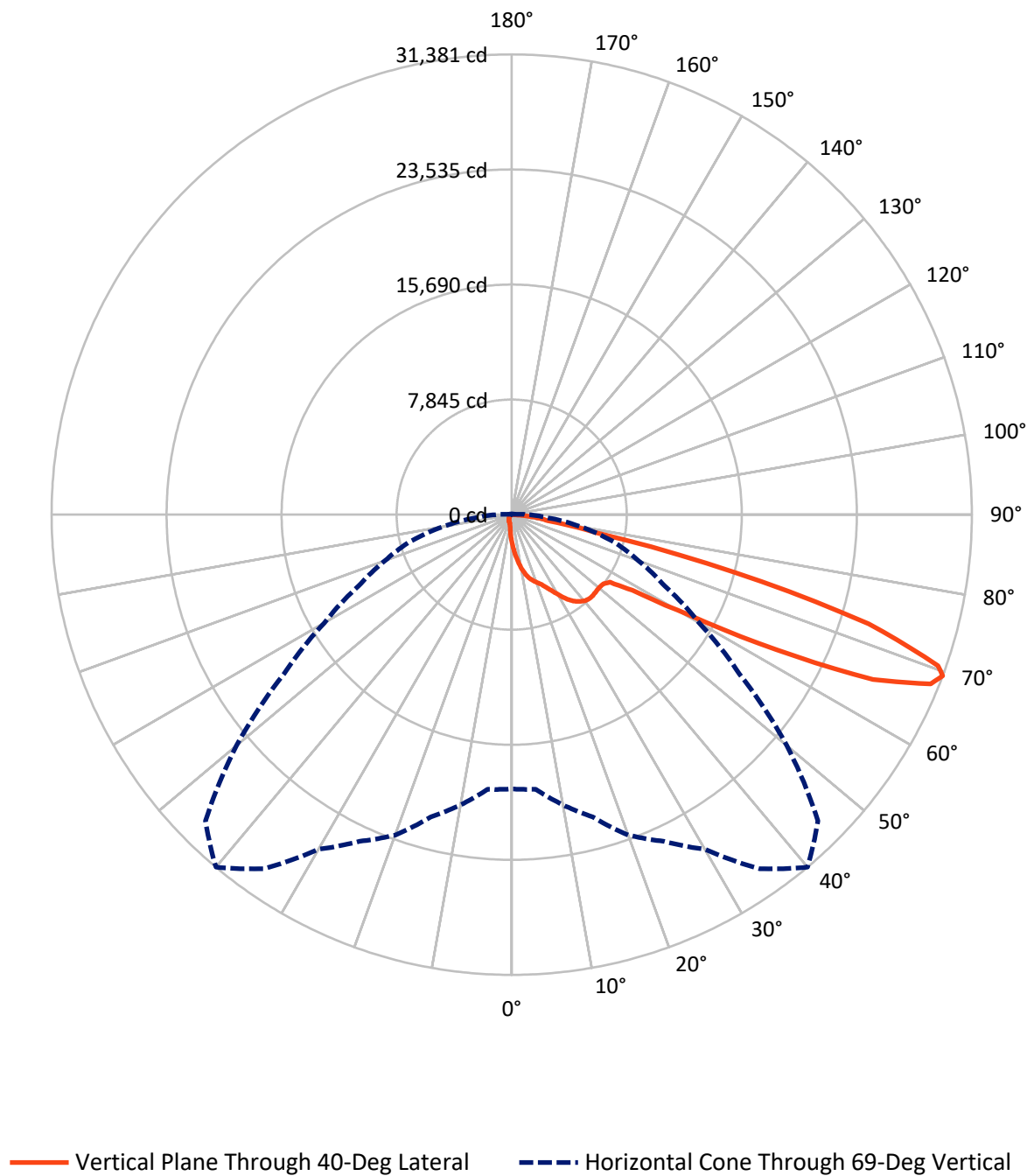


Based on 25 foot mounting height. Maximum calculated value = 8.9 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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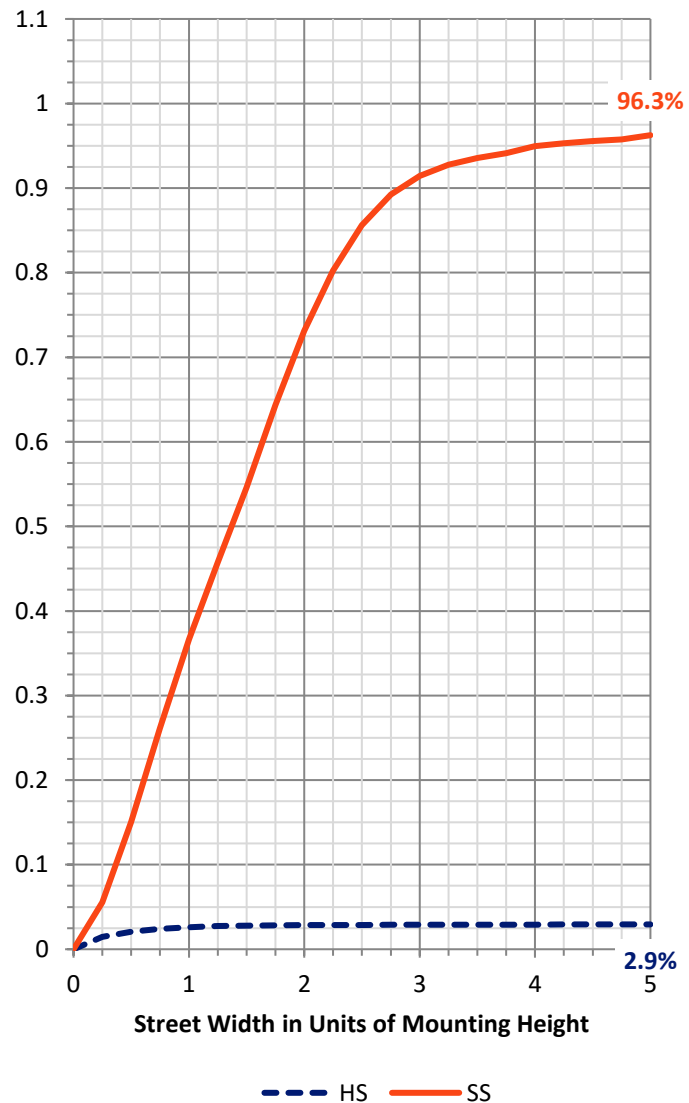
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	737.2	0.0	737.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	24018.5	0.0	24018.5
	% Fixture	97.0	0.0	97.0
Total	Lumens	24755.7	0.0	24755.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.2	0.8
10°-20°	662.5	2.7
20°-30°	1268.0	5.1
30°-40°	2108.8	8.5
40°-50°	2853.5	11.5
50°-60°	4462.5	18.0
60°-70°	9174.9	37.1
70°-80°	3691.8	14.9
80°-90°	341.5	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	24755.7	100.0
0°-180°	24755.7	100.0

Coefficient of Utilization



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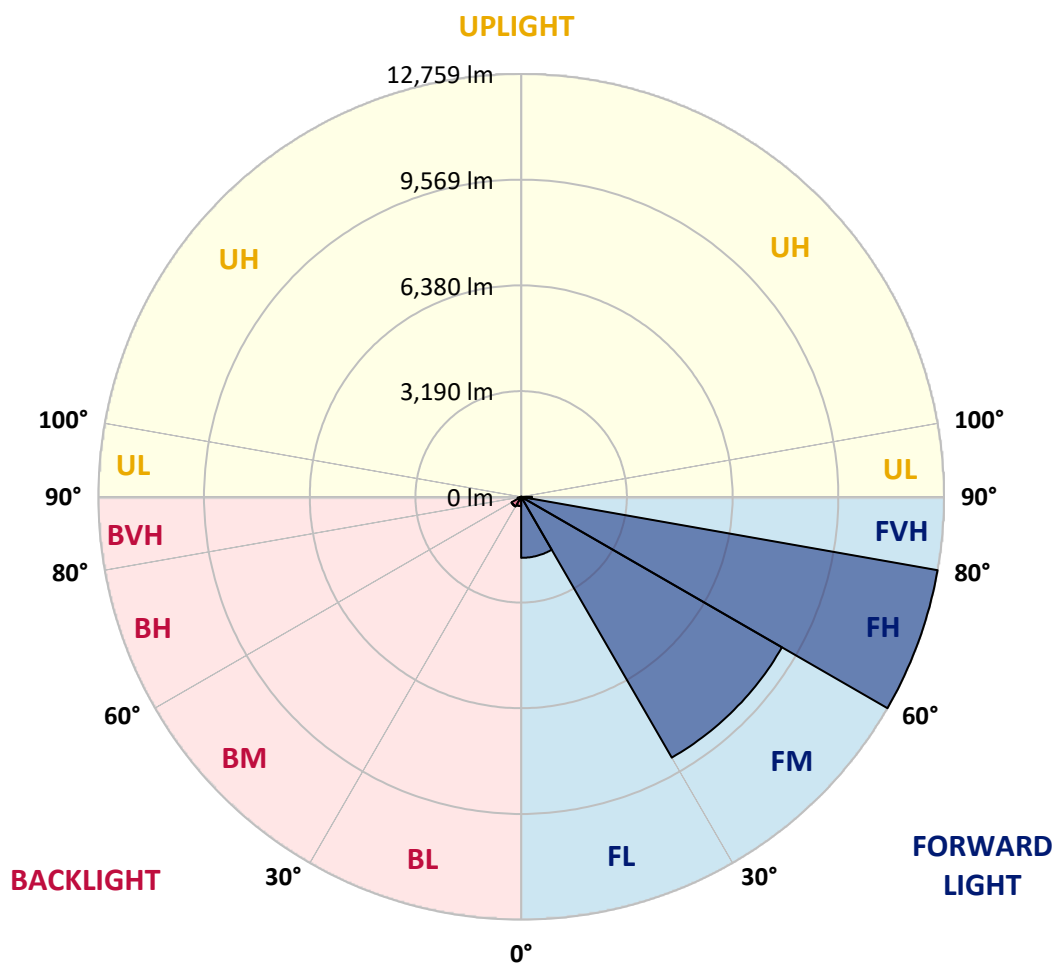
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1842.3	7.4			
FM	(30°-60°)	9088.2	36.7			
FH	(60°-80°)	12759.2	51.5			G5
FVH	(80°-90°)	328.8	1.3			G3/500
BL	(0°-30°)	280.4	1.1	B1/500		
BM	(30°-60°)	336.6	1.4	B1/1000		
BH	(60°-80°)	107.5	0.4	B0/110		G0/110
BVH	(80°-90°)	12.7	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6
2.5°	2494.2	2465.6	2433.1	2433.1	2392.7	2392.7	2368.3	2303.6	2295.4	2258.7	2222.3
5°	3183.5	3159.1	3118.7	3082.0	3049.7	2992.9	2952.2	2875.1	2790.2	2708.9	2636.0
7.5°	3856.8	3844.4	3771.6	3759.2	3706.5	3613.5	3532.2	3418.7	3272.6	3159.1	3025.4
10°	4481.3	4452.7	4436.5	4367.5	4290.7	4189.2	4063.4	3925.7	3755.3	3576.8	3386.1
12.5°	4976.0	4959.8	4886.6	4858.3	4777.3	4675.8	4517.7	4339.2	4169.0	3937.8	3714.7
15°	5344.9	5316.6	5267.9	5223.3	5126.0	5036.9	4890.8	4696.0	4489.4	4238.0	3970.3
17.5°	5653.3	5600.6	5588.3	5519.3	5418.1	5312.4	5150.4	4971.9	4728.5	4477.1	4185.0
20°	6066.7	5993.9	5969.5	5868.0	5750.5	5604.5	5418.1	5195.0	4939.3	4663.8	4363.6
22.5°	6553.4	6500.7	6448.0	6358.8	6208.8	6002.0	5730.3	5487.0	5162.5	4858.3	4534.0
25°	7242.9	7198.3	7113.1	6991.5	6804.8	6557.6	6229.0	5872.2	5491.0	5101.6	4720.4
27.5°	7912.0	7871.4	7810.6	7717.5	7506.4	7234.8	6829.2	6375.1	5892.4	5422.0	5000.2
30°	8540.7	8504.0	8443.2	8350.1	8163.4	7895.8	7437.5	6950.8	6350.7	5803.2	5296.4
32.5°	9218.0	9205.6	9136.7	9003.0	8840.7	8479.9	7981.0	7457.9	6849.6	6217.0	5624.7
35°	9984.3	9891.0	9826.2	9692.3	9416.7	9031.3	8447.4	7875.6	7234.8	6585.9	5924.9
37.5°	10633.2	10544.1	10462.8	10292.7	9956.0	9465.2	8804.2	8175.5	7514.5	6853.6	6180.3
40°	11107.6	11063.0	10965.7	10742.6	10365.6	9781.7	9067.7	8382.4	7717.5	7052.3	6387.1
42.5°	11460.4	11391.5	11282.2	11050.9	10604.9	9939.8	9173.1	8467.6	7810.6	7174.0	6521.1
45°	11590.2	11533.6	11432.1	11180.7	10698.0	9984.3	9169.2	8443.2	7814.7	7210.4	6610.3
47.5°	11513.1	11456.5	11367.1	11131.9	10657.6	9931.6	9096.3	8374.3	7774.1	7222.7	6691.3
50°	11257.8	11225.3	11156.3	10957.6	10531.8	9830.2	9031.3	8337.8	7766.0	7283.5	6804.8
52.5°	11233.4	11213.2	11128.0	10929.3	10495.3	9797.7	9023.2	8358.2	7834.9	7360.6	6886.1
55°	13727.3	13439.4	12794.7	12247.3	11346.9	10276.4	9432.7	8686.5	8127.0	7664.8	7332.1
57.5°	19510.4	19080.6	18233.0	17190.8	15122.4	13090.7	11464.6	10288.5	9708.5	9497.7	9623.3
60°	22219.3	22142.5	22008.5	21513.7	20455.3	18707.5	16760.8	14656.2	13812.5	13739.6	13995.0
62.5°	23505.0	23456.3	23496.9	23436.1	23107.6	22596.6	22036.8	21128.6	20293.0	19753.7	18610.0
65°	24097.1	24129.6	24360.6	24543.0	24583.7	24717.4	25127.2	26258.5	27085.7	25694.8	22519.5
67.5°	22592.4	22783.0	23314.4	23979.3	24758.0	25512.3	26728.9	29113.5	30812.7	29178.5	24668.9
69°	18703.4	18796.7	20094.3	21347.5	23249.4	24579.7	26343.7	29470.3	31380.6	29535.3	24498.5
70°	14724.9	14810.1	16201.3	17904.5	21120.5	22831.7	25139.3	28866.2	30849.2	29060.8	23622.5
72.5°	6642.8	6521.1	7011.7	7924.1	11419.8	14137.1	18172.2	23387.3	25451.5	23281.9	17673.2
75°	4639.4	4586.7	4639.4	4643.3	5186.8	6691.3	8443.2	12677.0	15678.0	13528.8	8443.2
77.5°	3593.0	3556.6	3520.1	3479.5	3544.5	3970.3	4140.5	4497.3	5839.7	5523.5	3219.9
80°	2842.9	2810.4	2899.5	2871.2	2871.2	2920.0	2887.5	2753.5	2502.1	2319.6	2076.3
82.5°	1322.0	1330.1	1330.1	1443.6	1739.9	2031.7	2125.0	1991.3	1768.2	1504.4	1212.6
85°	125.6	141.8	239.4	369.2	734.1	827.2	831.4	689.3	689.3	543.5	437.9
87.5°	0.0	3.9	3.9	3.9	36.4	101.5	85.2	24.4	12.1	12.1	20.2
90°	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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CATALOG NUMBER: VST-E12-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6
2.5°	2157.5	2145.2	2096.7	2047.9	2003.4	1954.6	1910.0	1865.5	1816.7	1780.3	1735.7
5°	2522.5	2433.1	2331.9	2234.6	2137.1	2035.9	1930.5	1837.1	1739.9	1650.5	1565.3
7.5°	2891.4	2717.0	2579.1	2404.8	2246.7	2088.6	1942.5	1792.6	1654.7	1524.9	1403.2
10°	3203.7	2992.9	2777.9	2555.0	2327.7	2116.9	1914.2	1735.7	1553.2	1395.1	1245.1
12.5°	3459.3	3191.6	2928.1	2648.1	2392.7	2125.0	1873.6	1658.6	1443.6	1265.3	1111.1
15°	3690.3	3382.2	3065.8	2741.4	2417.1	2113.0	1833.0	1565.3	1346.3	1143.7	969.3
17.5°	3877.0	3524.1	3167.2	2802.3	2453.5	2096.7	1780.3	1500.5	1245.1	1034.1	863.9
20°	4039.2	3670.1	3284.9	2875.1	2477.9	2092.5	1735.7	1419.5	1155.7	932.9	766.4
22.5°	4189.2	3820.1	3406.6	2968.5	2514.4	2088.6	1695.0	1358.6	1078.6	855.8	689.3
25°	4359.6	3970.3	3536.4	3065.8	2579.1	2104.8	1670.9	1309.9	1009.7	782.6	628.5
27.5°	4550.2	4140.5	3690.3	3187.4	2664.3	2137.1	1662.8	1257.2	948.9	713.7	580.0
30°	4817.7	4343.4	3844.4	3309.1	2741.4	2173.8	1654.7	1224.7	888.0	661.0	531.2
32.5°	5053.1	4542.1	4014.9	3434.9	2826.6	2210.2	1650.5	1180.1	831.4	608.3	494.7
35°	5300.4	4724.6	4160.9	3556.6	2899.5	2250.6	1646.5	1147.6	778.7	555.6	458.3
37.5°	5515.4	4878.5	4274.4	3662.0	2980.8	2287.3	1650.5	1119.3	729.9	511.0	425.8
40°	5697.8	5036.9	4400.0	3759.2	3065.8	2344.0	1654.7	1091.0	681.4	470.4	397.5
42.5°	5860.1	5186.8	4534.0	3868.8	3163.3	2409.0	1679.0	1066.6	640.8	433.9	369.2
45°	5985.7	5324.7	4679.8	4023.0	3321.4	2514.4	1723.6	1050.3	600.1	401.4	344.8
47.5°	6115.5	5527.4	4927.3	4266.3	3552.6	2680.6	1800.7	1046.4	567.6	377.0	324.3
50°	6294.0	5730.3	5146.2	4513.6	3763.4	2851.0	1893.8	1050.3	527.3	352.9	304.1
52.5°	6423.8	5937.0	5430.2	4943.5	4266.3	3369.9	2254.8	1123.2	506.8	332.5	279.8
55°	7190.2	7105.0	7117.1	7198.3	6675.3	5734.3	3771.6	1622.1	596.2	377.0	275.8
57.5°	10138.5	10438.4	10612.8	10608.9	9745.0	8082.4	5065.2	2084.4	665.2	437.9	328.5
60°	14015.5	13788.4	13468.0	12677.0	11529.4	9226.1	5665.3	2242.7	575.8	348.7	300.2
62.5°	17442.2	16111.9	14931.8	13650.5	12145.8	9623.3	5787.0	2230.4	502.9	263.5	210.8
65°	19579.3	17186.6	15280.8	13674.6	11902.5	9290.9	5474.7	2047.9	425.8	215.0	174.4
67.5°	20090.3	16606.7	13910.0	11861.9	9943.7	7230.8	4018.8	1541.1	332.5	178.5	154.2
69°	18975.0	14761.6	11525.5	9201.7	7234.8	4797.5	2486.0	973.2	255.4	162.3	141.8
70°	17454.3	12839.3	9388.1	7384.8	5357.3	3369.9	1739.9	685.4	206.9	150.0	129.8
72.5°	11229.5	6744.0	4615.0	3211.8	2210.2	1342.4	681.4	308.3	158.1	125.6	105.4
75°	4355.4	2494.2	1808.8	1374.7	1074.7	746.2	413.7	198.7	133.7	105.4	81.0
77.5°	2145.2	1642.3	1342.4	920.5	535.4	332.5	223.1	154.2	109.6	77.1	52.7
80°	1695.0	1127.4	673.3	417.7	316.2	239.4	170.4	125.6	81.0	48.8	36.4
82.5°	867.8	474.6	348.7	283.9	235.2	186.7	137.9	89.1	52.7	32.5	28.3
85°	271.6	198.7	178.5	174.4	162.3	133.7	97.3	56.9	32.5	20.2	20.2
87.5°	20.2	28.3	36.4	28.3	32.5	28.3	36.4	24.4	16.3	16.3	12.1
90°	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6	1869.6
2.5°	1703.2	1654.7	1610.1	1581.5	1528.8	1508.6	1488.4	1480.3	1443.6	1451.7	1419.5
5°	1488.4	1403.2	1338.2	1273.4	1212.6	1168.0	1131.3	1086.8	1050.3	1034.1	1001.6
7.5°	1293.6	1184.3	1099.1	1030.1	957.0	900.3	851.6	819.1	786.8	754.3	738.1
10°	1123.2	1005.7	908.5	839.5	770.6	721.8	685.4	661.0	640.8	628.5	624.5
12.5°	965.1	851.6	762.4	701.6	648.9	624.5	608.3	596.2	592.0	588.1	588.1
15°	843.5	729.9	661.0	616.4	592.0	580.0	575.8	567.6	559.8	555.6	555.6
17.5°	729.9	644.7	596.2	571.8	559.8	551.6	543.5	535.4	527.3	523.1	523.1
20°	652.8	583.9	559.8	543.5	531.2	523.1	511.0	502.9	498.9	494.7	490.8
22.5°	592.0	547.4	531.2	519.1	502.9	490.8	482.7	474.6	466.4	462.2	458.3
25°	547.4	519.1	506.8	490.8	474.6	462.2	450.2	437.9	430.0	425.8	417.7
27.5°	514.9	494.7	478.5	458.3	442.0	430.0	417.7	405.6	397.5	389.3	385.2
30°	486.6	466.4	446.0	430.0	409.5	397.5	381.2	369.2	365.0	356.8	348.7
32.5°	458.3	437.9	417.7	397.5	377.0	361.0	352.9	336.6	328.5	324.3	316.2
35°	425.8	405.6	381.2	365.0	344.8	328.5	316.2	304.1	296.0	287.9	283.9
37.5°	397.5	373.1	348.7	328.5	312.3	296.0	283.9	271.6	263.5	255.4	251.4
40°	365.0	340.6	316.2	296.0	279.8	267.7	255.4	243.3	235.2	231.2	231.2
42.5°	336.6	308.3	283.9	267.7	255.4	239.4	227.1	215.0	210.8	206.9	210.8
45°	308.3	279.8	259.6	243.3	231.2	215.0	202.7	194.5	190.6	194.5	198.7
47.5°	283.9	255.4	235.2	223.1	210.8	198.7	186.7	178.5	178.5	186.7	194.5
50°	259.6	231.2	215.0	206.9	194.5	182.5	166.2	162.3	166.2	174.4	182.5
52.5°	235.2	202.7	190.6	186.7	174.4	162.3	150.0	146.0	150.0	158.1	154.2
55°	210.8	178.5	174.4	170.4	158.1	141.8	129.8	129.8	129.8	125.6	117.7
57.5°	202.7	158.1	154.2	150.0	137.9	121.7	113.5	105.4	101.5	89.1	85.2
60°	210.8	141.8	141.8	133.7	121.7	105.4	93.3	81.0	72.9	64.8	64.8
62.5°	170.4	129.8	125.6	117.7	101.5	85.2	72.9	60.8	56.9	52.7	52.7
65°	137.9	117.7	109.6	97.3	85.2	69.0	56.9	48.8	44.6	44.6	48.8
67.5°	125.6	105.4	93.3	81.0	69.0	52.7	44.6	40.6	40.6	44.6	44.6
69°	117.7	97.3	85.2	72.9	60.8	48.8	40.6	40.6	40.6	40.6	44.6
70°	109.6	93.3	81.0	69.0	52.7	40.6	36.4	36.4	40.6	40.6	44.6
72.5°	85.2	72.9	69.0	56.9	40.6	36.4	32.5	36.4	36.4	40.6	40.6
75°	64.8	52.7	52.7	44.6	32.5	28.3	28.3	32.5	32.5	36.4	36.4
77.5°	44.6	36.4	36.4	32.5	28.3	24.4	24.4	28.3	32.5	32.5	36.4
80°	32.5	28.3	24.4	28.3	24.4	20.2	24.4	28.3	28.3	32.5	32.5
82.5°	24.4	24.4	24.4	24.4	20.2	20.2	24.4	24.4	28.3	32.5	32.5
85°	20.2	20.2	20.2	20.2	20.2	20.2	20.2	24.4	24.4	28.3	28.3
87.5°	12.1	12.1	12.1	16.3	16.3	20.2	20.2	20.2	20.2	24.4	24.4
90°	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):

	165°	170°	175°	180°
0°	1869.6	1869.6	1869.6	1869.6
2.5°	1411.3	1407.2	1390.9	1395.1
5°	989.5	965.1	981.4	977.4
7.5°	726.0	721.8	717.9	726.0
10°	620.6	620.6	616.4	620.6
12.5°	583.9	583.9	583.9	583.9
15°	555.6	555.6	551.6	551.6
17.5°	523.1	523.1	523.1	519.1
20°	490.8	486.6	486.6	486.6
22.5°	454.1	450.2	450.2	450.2
25°	417.7	413.7	413.7	413.7
27.5°	381.2	377.0	373.1	373.1
30°	344.8	340.6	336.6	336.6
32.5°	308.3	304.1	300.2	300.2
35°	275.8	275.8	271.6	267.7
37.5°	247.5	247.5	247.5	247.5
40°	227.1	231.2	231.2	231.2
42.5°	215.0	218.9	223.1	227.1
45°	206.9	215.0	218.9	218.9
47.5°	202.7	206.9	210.8	210.8
50°	186.7	182.5	182.5	182.5
52.5°	150.0	141.8	137.9	133.7
55°	109.6	105.4	97.3	97.3
57.5°	77.1	77.1	72.9	72.9
60°	60.8	60.8	56.9	60.8
62.5°	52.7	52.7	52.7	52.7
65°	48.8	48.8	48.8	48.8
67.5°	48.8	48.8	48.8	48.8
69°	44.6	44.6	44.6	44.6
70°	44.6	44.6	44.6	44.6
72.5°	40.6	40.6	40.6	40.6
75°	36.4	40.6	40.6	40.6
77.5°	36.4	36.4	36.4	36.4
80°	32.5	32.5	36.4	36.4
82.5°	32.5	32.5	32.5	32.5
85°	28.3	28.3	32.5	32.5
87.5°	24.4	24.4	28.3	28.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)