

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: P165536

Luminaire Tested: **VST-E10-LED-E-U-SL4-HSS-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165536
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-E10-LED-E-U-SL4-HSS-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (210) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18362.8 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G4

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



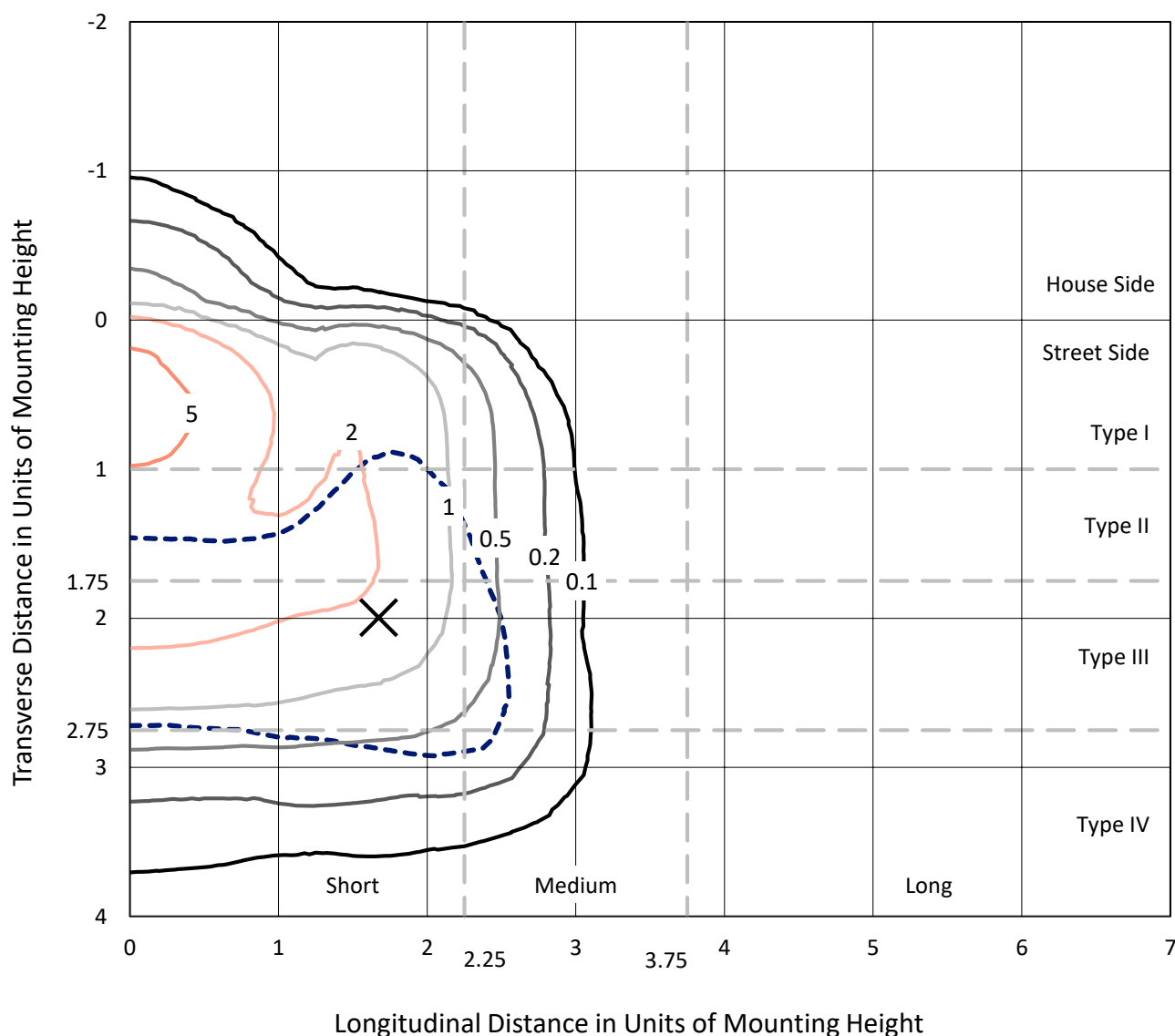
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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

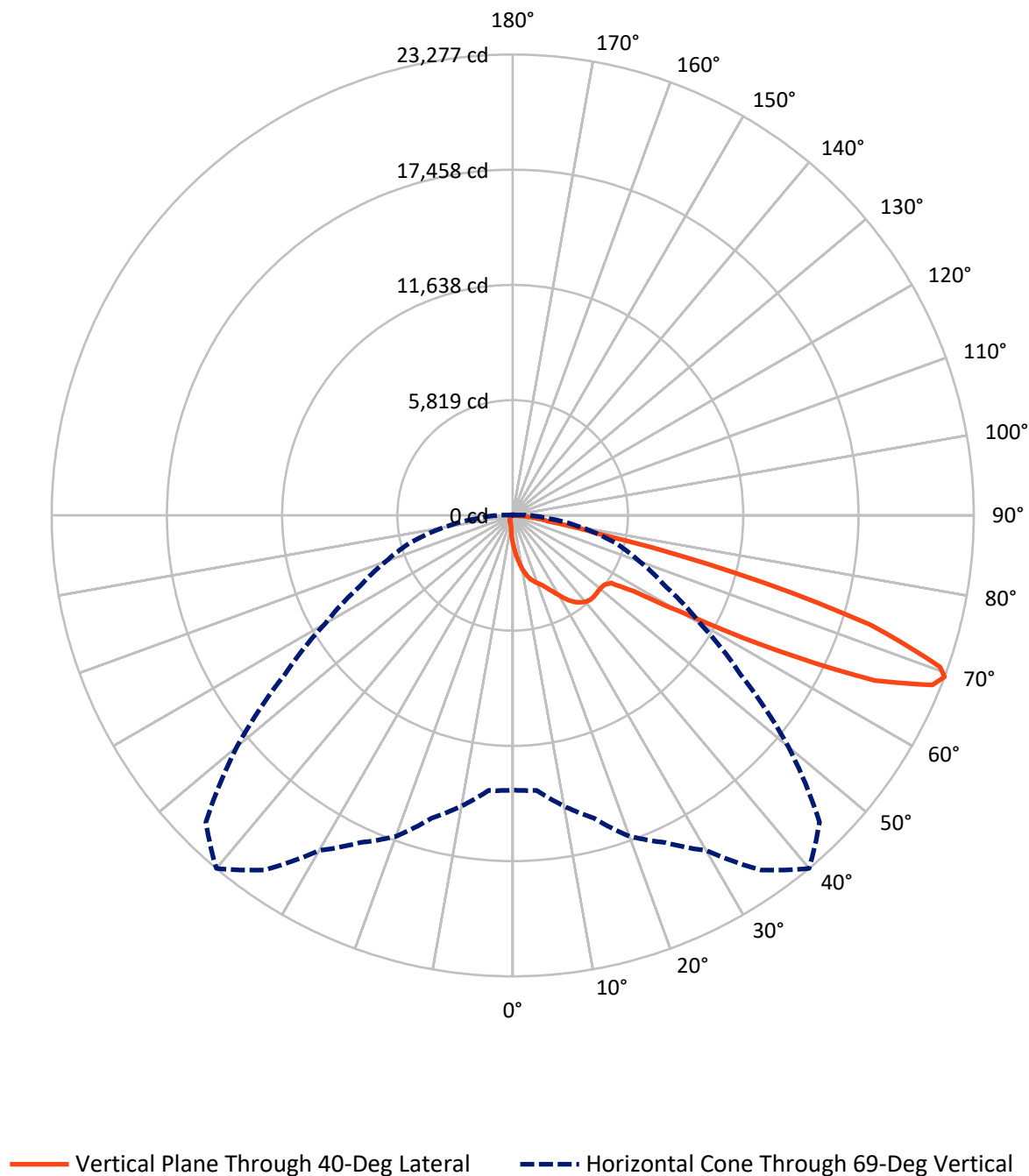


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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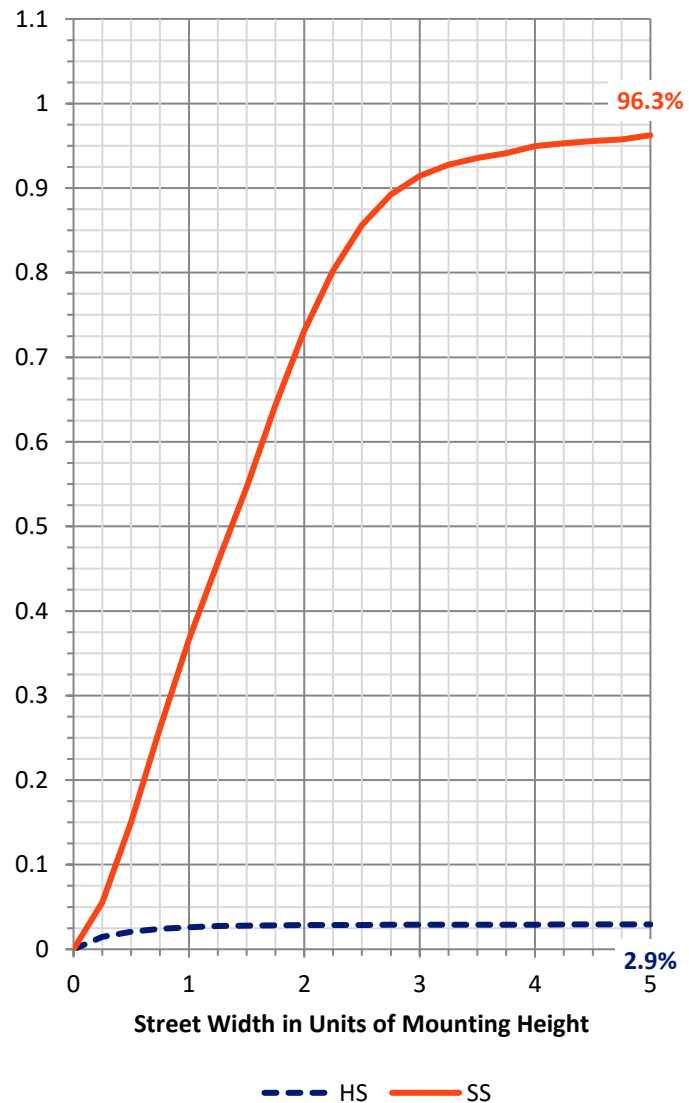
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	546.8	0.0	546.8
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	17816.0	0.0	17816.0
	% Fixture	97.0	0.0	97.0
Total	Lumens	18362.8	0.0	18362.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.5	0.8
10°-20°	491.4	2.7
20°-30°	940.6	5.1
30°-40°	1564.2	8.5
40°-50°	2116.6	11.5
50°-60°	3310.1	18.0
60°-70°	6805.6	37.1
70°-80°	2738.4	14.9
80°-90°	253.3	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°	18362.8	100.0
0°-180°	18362.8	100.0

Coefficient of Utilization



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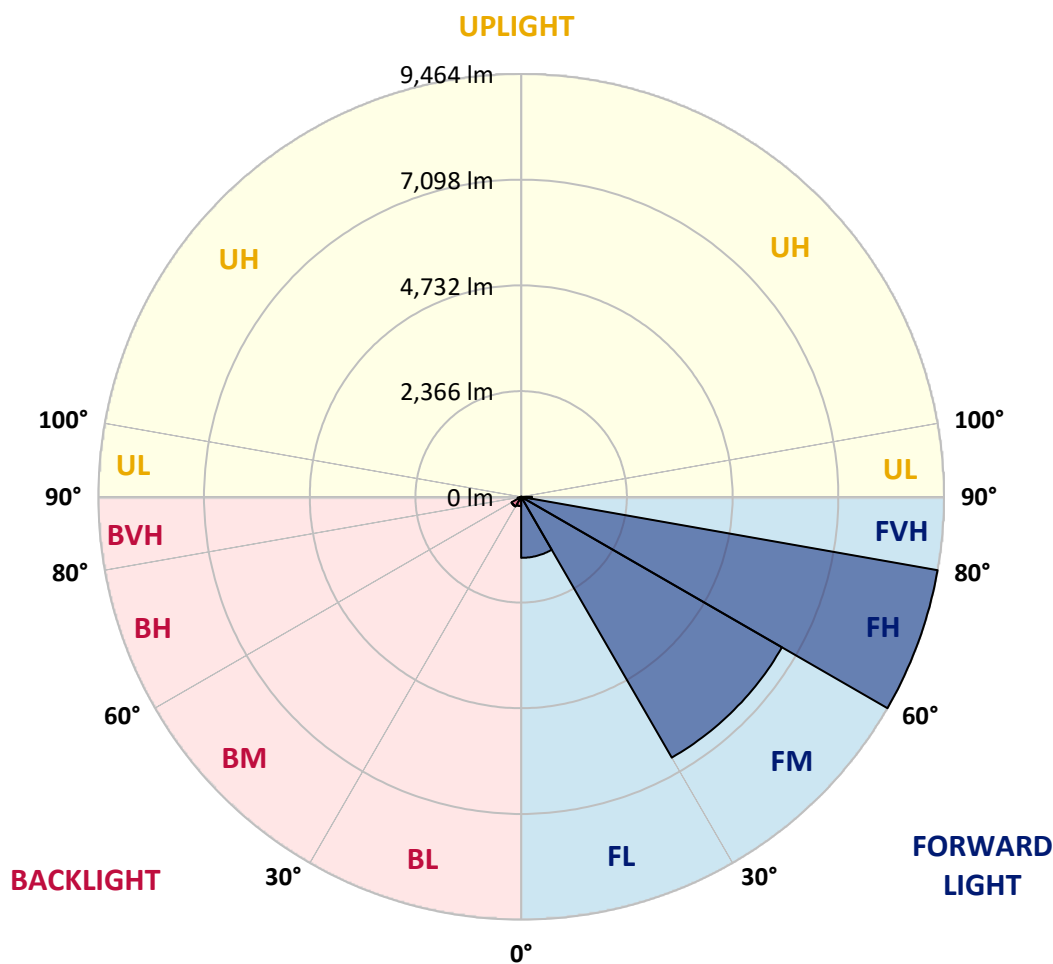
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1366.6	7.4			
FM	(30°-60°)	6741.3	36.7			
FH	(60°-80°)	9464.3	51.5			G4/12000
FVH	(80°-90°)	243.9	1.3			G3/500
BL	(0°-30°)	208.0	1.1	B1/500		
BM	(30°-60°)	249.7	1.4	B1/1000		
BH	(60°-80°)	79.8	0.4	B0/110		G0/110
BVH	(80°-90°)	9.4	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8
2.5°	1850.1	1828.9	1804.8	1804.8	1774.8	1774.8	1756.7	1708.7	1702.7	1675.4	1648.4
5°	2361.4	2343.3	2313.3	2286.1	2262.2	2220.0	2189.8	2132.7	2069.7	2009.4	1955.3
7.5°	2860.8	2851.7	2797.6	2788.5	2749.4	2680.3	2620.0	2535.8	2427.5	2343.3	2244.1
10°	3324.0	3302.9	3290.8	3239.7	3182.7	3107.4	3014.1	2911.9	2785.5	2653.1	2511.7
12.5°	3691.0	3679.0	3624.7	3603.7	3543.6	3468.4	3351.1	3218.6	3092.4	2920.9	2755.4
15°	3964.7	3943.7	3907.5	3874.4	3802.3	3736.2	3627.8	3483.3	3330.1	3143.6	2945.0
17.5°	4193.4	4154.3	4145.1	4094.0	4018.9	3940.6	3820.4	3687.9	3507.4	3320.9	3104.3
20°	4500.1	4446.0	4427.9	4352.7	4265.5	4157.2	4018.9	3853.4	3663.8	3459.4	3236.7
22.5°	4861.0	4821.9	4782.9	4716.7	4605.5	4452.0	4250.5	4070.1	3829.3	3603.7	3363.1
25°	5372.5	5339.4	5276.2	5186.0	5047.5	4864.1	4620.5	4355.8	4073.0	3784.2	3501.4
27.5°	5868.8	5838.7	5793.6	5724.5	5568.0	5366.5	5065.6	4728.8	4370.7	4021.8	3708.9
30°	6335.2	6308.0	6262.8	6193.8	6055.3	5856.8	5516.8	5155.9	4710.7	4304.6	3928.7
32.5°	6837.5	6828.4	6777.2	6678.1	6557.7	6290.1	5920.0	5532.0	5080.8	4611.5	4172.2
35°	7406.0	7336.8	7288.7	7189.3	6984.9	6699.1	6265.9	5841.8	5366.5	4885.1	4394.9
37.5°	7887.3	7821.2	7760.9	7634.7	7385.0	7020.9	6530.6	6064.3	5574.0	5083.7	4584.3
40°	8239.2	8206.1	8133.9	7968.4	7688.8	7255.7	6726.1	6217.7	5724.5	5231.1	4737.7
42.5°	8500.9	8449.8	8368.7	8197.1	7866.3	7372.9	6804.3	6280.9	5793.6	5321.4	4837.1
45°	8597.2	8555.2	8479.9	8293.4	7935.4	7406.0	6801.4	6262.8	5796.7	5348.4	4903.2
47.5°	8540.0	8498.0	8431.7	8257.2	7905.4	7366.9	6747.3	6211.7	5766.5	5357.5	4963.3
50°	8350.6	8326.5	8275.3	8127.9	7812.1	7291.6	6699.1	6184.7	5760.5	5402.6	5047.5
52.5°	8332.5	8317.5	8254.3	8106.9	7785.0	7267.5	6693.0	6199.8	5811.6	5459.8	5107.8
55°	10182.4	9968.9	9490.6	9084.5	8416.7	7622.6	6996.8	6443.3	6028.3	5685.4	5438.6
57.5°	14472.0	14153.3	13524.5	12751.5	11217.2	9710.2	8504.0	7631.6	7201.4	7045.0	7138.2
60°	16481.4	16424.4	16325.0	15958.1	15172.9	13876.5	12432.5	10871.4	10245.6	10191.5	10381.0
62.5°	17435.1	17399.0	17429.1	17384.0	17140.3	16761.3	16346.0	15672.4	15052.6	14652.5	13804.2
65°	17874.3	17898.4	18069.7	18205.1	18235.2	18334.4	18638.4	19477.6	20091.2	19059.4	16704.1
67.5°	16758.2	16899.5	17293.7	17786.9	18364.6	18924.1	19826.5	21595.3	22855.7	21643.5	18298.4
69°	13873.4	13942.7	14905.1	15834.8	17245.5	18232.3	19540.8	21859.9	23276.9	21908.2	18172.0
70°	10922.4	10985.6	12017.5	13280.8	15666.3	16935.7	18647.3	21411.9	22882.7	21556.2	17522.3
72.5°	4927.3	4837.1	5201.0	5877.8	8470.8	10486.4	13479.4	17347.8	18879.0	17269.6	13109.3
75°	3441.3	3402.2	3441.3	3444.2	3847.4	4963.3	6262.8	9403.3	11629.3	10035.2	6262.8
77.5°	2665.2	2638.1	2611.1	2580.9	2629.2	2945.0	3071.2	3335.9	4331.7	4097.1	2388.4
80°	2108.7	2084.6	2150.8	2129.8	2129.8	2165.9	2141.8	2042.4	1855.9	1720.6	1540.1
82.5°	980.6	986.6	986.6	1070.8	1290.6	1507.0	1576.3	1477.1	1311.6	1115.9	899.5
85°	93.2	105.2	177.6	273.8	544.5	613.6	616.7	511.3	511.3	403.2	324.8
87.5°	0.0	2.9	2.9	2.9	27.0	75.3	63.2	18.1	9.0	9.0	15.0
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-E10-LED-E-U-SL4-HSS-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8
2.5°	1600.4	1591.2	1555.3	1519.1	1486.0	1449.9	1416.8	1383.7	1347.6	1320.5	1287.5
5°	1871.1	1804.8	1729.7	1657.5	1585.2	1510.1	1432.0	1362.7	1290.6	1224.3	1161.1
7.5°	2144.7	2015.4	1913.1	1783.8	1666.5	1549.2	1440.9	1329.7	1227.4	1131.1	1040.9
10°	2376.4	2220.0	2060.5	1895.2	1726.6	1570.2	1419.9	1287.5	1152.1	1034.8	923.6
12.5°	2566.0	2367.4	2171.9	1964.3	1774.8	1576.3	1389.8	1230.3	1070.8	938.6	824.2
15°	2737.3	2508.8	2274.1	2033.5	1792.9	1567.3	1359.6	1161.1	998.7	848.3	719.0
17.5°	2875.8	2614.0	2349.3	2078.6	1819.9	1555.3	1320.5	1113.0	923.6	767.0	640.8
20°	2996.2	2722.3	2436.6	2132.7	1838.0	1552.1	1287.5	1052.9	857.3	692.0	568.5
22.5°	3107.4	2833.6	2526.9	2201.9	1865.1	1549.2	1257.3	1007.8	800.1	634.8	511.3
25°	3233.8	2945.0	2623.1	2274.1	1913.1	1561.3	1239.4	971.6	748.9	580.5	466.2
27.5°	3375.2	3071.2	2737.3	2364.3	1976.3	1585.2	1233.4	932.5	703.8	529.4	430.2
30°	3573.6	3221.8	2851.7	2454.5	2033.5	1612.4	1227.4	908.4	658.7	490.3	394.0
32.5°	3748.2	3369.2	2978.1	2547.9	2096.7	1639.5	1224.3	875.4	616.7	451.2	367.0
35°	3931.6	3504.5	3086.4	2638.1	2150.8	1669.4	1221.3	851.2	577.6	412.1	339.9
37.5°	4091.1	3618.7	3170.6	2716.3	2211.0	1696.6	1224.3	830.2	541.4	379.0	315.8
40°	4226.4	3736.2	3263.8	2788.5	2274.1	1738.7	1227.4	809.2	505.4	348.9	294.8
42.5°	4346.8	3847.4	3363.1	2869.7	2346.4	1786.9	1245.4	791.1	475.3	321.9	273.8
45°	4440.0	3949.7	3471.3	2984.1	2463.7	1865.1	1278.5	779.1	445.2	297.8	255.7
47.5°	4536.2	4100.0	3654.9	3164.6	2635.2	1988.4	1335.7	776.2	421.1	279.7	240.6
50°	4668.7	4250.5	3817.3	3348.0	2791.6	2114.8	1404.7	779.1	391.1	261.8	225.6
52.5°	4764.9	4403.8	4027.9	3666.9	3164.6	2499.7	1672.5	833.2	375.9	246.6	207.5
55°	5333.4	5270.2	5279.2	5339.4	4951.5	4253.5	2797.6	1203.2	442.2	279.7	204.6
57.5°	7520.3	7742.8	7872.2	7869.2	7228.4	5995.2	3757.2	1546.1	493.4	324.8	243.7
60°	10396.1	10227.7	9990.0	9403.3	8552.1	6843.6	4202.3	1663.6	427.1	258.7	222.7
62.5°	12938.0	11951.2	11075.8	10125.4	9009.3	7138.2	4292.6	1654.4	373.0	195.5	156.4
65°	14523.2	12748.4	11334.7	10143.3	8828.8	6891.6	4060.9	1519.1	315.8	159.5	129.3
67.5°	14902.2	12318.2	10317.9	8798.7	7375.9	5363.6	2981.0	1143.1	246.6	132.4	114.4
69°	14074.9	10949.6	8549.1	6825.5	5366.5	3558.6	1844.1	721.9	189.4	120.4	105.2
70°	12946.9	9523.7	6963.7	5477.7	3973.8	2499.7	1290.6	508.4	153.4	111.2	96.3
72.5°	8329.6	5002.4	3423.2	2382.4	1639.5	995.7	505.4	228.7	117.3	93.2	78.2
75°	3230.7	1850.1	1341.7	1019.7	797.2	553.5	306.9	147.4	99.2	78.2	60.1
77.5°	1591.2	1218.2	995.7	682.8	397.1	246.6	165.5	114.4	81.3	57.2	39.1
80°	1257.3	836.3	499.4	309.8	234.5	177.6	126.4	93.2	60.1	36.2	27.0
82.5°	643.7	352.0	258.7	210.6	174.4	138.5	102.3	66.1	39.1	24.1	21.0
85°	201.5	147.4	132.4	129.3	120.4	99.2	72.2	42.2	24.1	15.0	15.0
87.5°	15.0	21.0	27.0	21.0	24.1	21.0	27.0	18.1	12.1	12.1	9.0
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°	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8	1386.8
2.5°	1263.3	1227.4	1194.3	1173.1	1134.0	1119.0	1104.1	1098.0	1070.8	1076.8	1052.9
5°	1104.1	1040.9	992.6	944.6	899.5	866.4	839.2	806.1	779.1	767.0	742.9
7.5°	959.6	878.5	815.3	764.1	709.9	667.8	631.7	607.6	583.6	559.5	547.5
10°	833.2	746.0	673.9	622.7	571.6	535.4	508.4	490.3	475.3	466.2	463.3
12.5°	715.9	631.7	565.5	520.4	481.3	463.3	451.2	442.2	439.1	436.2	436.2
15°	625.6	541.4	490.3	457.2	439.1	430.2	427.1	421.1	415.2	412.1	412.1
17.5°	541.4	478.2	442.2	424.2	415.2	409.2	403.2	397.1	391.1	388.0	388.0
20°	484.3	433.1	415.2	403.2	394.0	388.0	379.0	373.0	370.1	367.0	364.1
22.5°	439.1	406.1	394.0	385.1	373.0	364.1	358.0	352.0	346.0	342.9	339.9
25°	406.1	385.1	375.9	364.1	352.0	342.9	333.9	324.8	318.9	315.8	309.8
27.5°	382.0	367.0	354.9	339.9	327.9	318.9	309.8	300.9	294.8	288.8	285.7
30°	361.0	346.0	330.8	318.9	303.8	294.8	282.8	273.8	270.7	264.7	258.7
32.5°	339.9	324.8	309.8	294.8	279.7	267.8	261.8	249.7	243.7	240.6	234.5
35°	315.8	300.9	282.8	270.7	255.7	243.7	234.5	225.6	219.6	213.5	210.6
37.5°	294.8	276.7	258.7	243.7	231.6	219.6	210.6	201.5	195.5	189.4	186.5
40°	270.7	252.6	234.5	219.6	207.5	198.6	189.4	180.5	174.4	171.5	171.5
42.5°	249.7	228.7	210.6	198.6	189.4	177.6	168.4	159.5	156.4	153.4	156.4
45°	228.7	207.5	192.5	180.5	171.5	159.5	150.3	144.3	141.4	144.3	147.4
47.5°	210.6	189.4	174.4	165.5	156.4	147.4	138.5	132.4	132.4	138.5	144.3
50°	192.5	171.5	159.5	153.4	144.3	135.4	123.3	120.4	123.3	129.3	135.4
52.5°	174.4	150.3	141.4	138.5	129.3	120.4	111.2	108.3	111.2	117.3	114.4
55°	156.4	132.4	129.3	126.4	117.3	105.2	96.3	96.3	96.3	93.2	87.3
57.5°	150.3	117.3	114.4	111.2	102.3	90.2	84.2	78.2	75.3	66.1	63.2
60°	156.4	105.2	105.2	99.2	90.2	78.2	69.2	60.1	54.1	48.0	48.0
62.5°	126.4	96.3	93.2	87.3	75.3	63.2	54.1	45.1	42.2	39.1	39.1
65°	102.3	87.3	81.3	72.2	63.2	51.1	42.2	36.2	33.1	33.1	36.2
67.5°	93.2	78.2	69.2	60.1	51.1	39.1	33.1	30.1	30.1	33.1	33.1
69°	87.3	72.2	63.2	54.1	45.1	36.2	30.1	30.1	30.1	30.1	33.1
70°	81.3	69.2	60.1	51.1	39.1	30.1	27.0	27.0	30.1	30.1	33.1
72.5°	63.2	54.1	51.1	42.2	30.1	27.0	24.1	27.0	27.0	30.1	30.1
75°	48.0	39.1	39.1	33.1	24.1	21.0	21.0	24.1	24.1	27.0	27.0
77.5°	33.1	27.0	27.0	24.1	21.0	18.1	18.1	21.0	24.1	24.1	27.0
80°	24.1	21.0	18.1	21.0	18.1	15.0	18.1	21.0	21.0	24.1	24.1
82.5°	18.1	18.1	18.1	18.1	15.0	15.0	18.1	18.1	21.0	24.1	24.1
85°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	18.1	18.1	21.0	21.0
87.5°	9.0	9.0	9.0	12.1	12.1	15.0	15.0	15.0	15.0	18.1	18.1
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):

	165°	170°	175°	180°
0°	1386.8	1386.8	1386.8	1386.8
2.5°	1046.9	1043.8	1031.7	1034.8
5°	734.0	715.9	727.9	725.0
7.5°	538.5	535.4	532.5	538.5
10°	460.3	460.3	457.2	460.3
12.5°	433.1	433.1	433.1	433.1
15°	412.1	412.1	409.2	409.2
17.5°	388.0	388.0	388.0	385.1
20°	364.1	361.0	361.0	361.0
22.5°	336.8	333.9	333.9	333.9
25°	309.8	306.9	306.9	306.9
27.5°	282.8	279.7	276.7	276.7
30°	255.7	252.6	249.7	249.7
32.5°	228.7	225.6	222.7	222.7
35°	204.6	204.6	201.5	198.6
37.5°	183.6	183.6	183.6	183.6
40°	168.4	171.5	171.5	171.5
42.5°	159.5	162.4	165.5	168.4
45°	153.4	159.5	162.4	162.4
47.5°	150.3	153.4	156.4	156.4
50°	138.5	135.4	135.4	135.4
52.5°	111.2	105.2	102.3	99.2
55°	81.3	78.2	72.2	72.2
57.5°	57.2	57.2	54.1	54.1
60°	45.1	45.1	42.2	45.1
62.5°	39.1	39.1	39.1	39.1
65°	36.2	36.2	36.2	36.2
67.5°	36.2	36.2	36.2	36.2
69°	33.1	33.1	33.1	33.1
70°	33.1	33.1	33.1	33.1
72.5°	30.1	30.1	30.1	30.1
75°	27.0	30.1	30.1	30.1
77.5°	27.0	27.0	27.0	27.0
80°	24.1	24.1	27.0	27.0
82.5°	24.1	24.1	24.1	24.1
85°	21.0	21.0	24.1	24.1
87.5°	18.1	18.1	21.0	21.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)