

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: P165337

Luminaire Tested: **VST-E12-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165337
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (252) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 20557.2 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G4

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



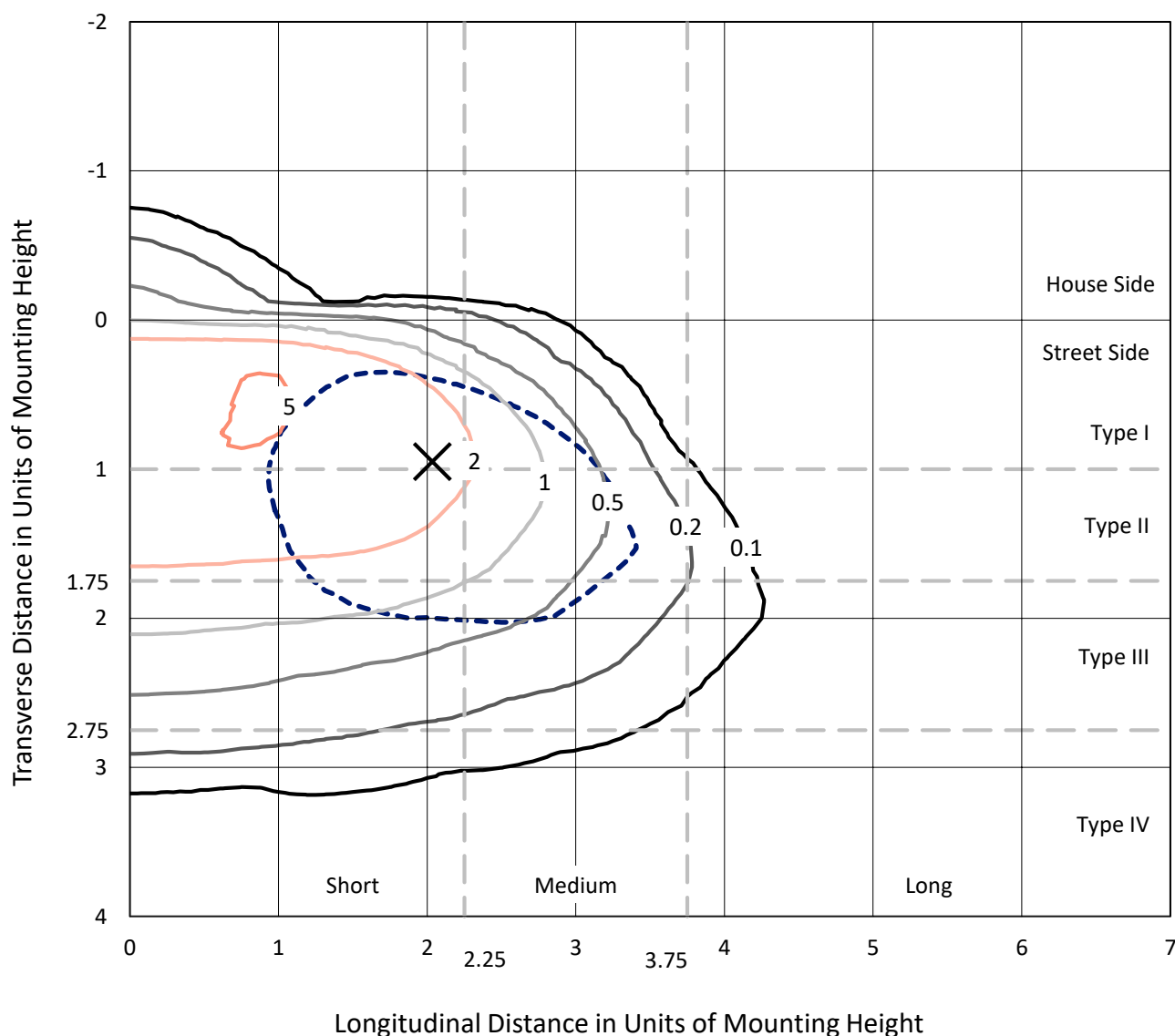
REPORT NUMBER: P165337

CATALOG NUMBER: VST-E12-LED-E-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

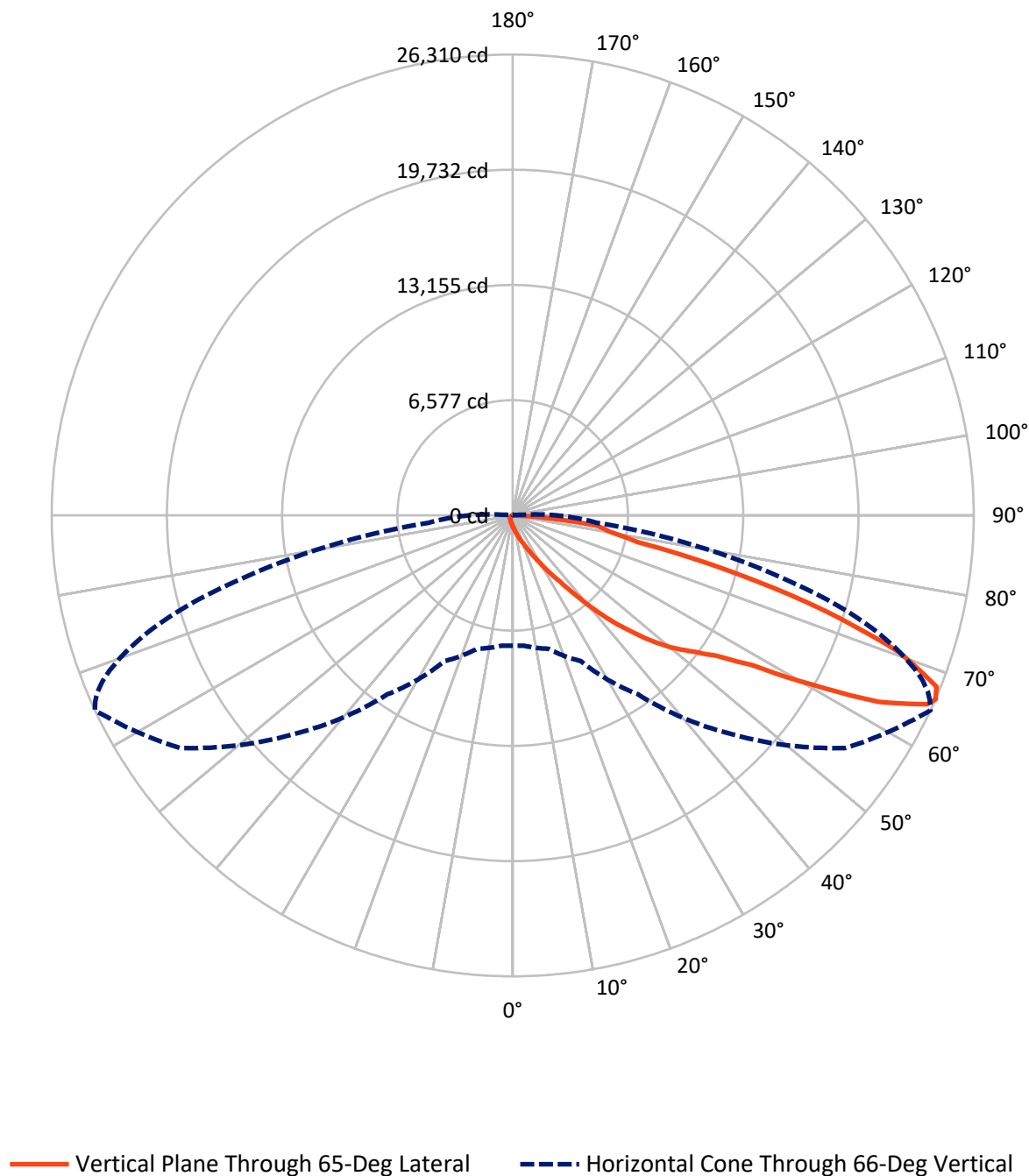


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P165337

CATALOG NUMBER: VST-E12-LED-E-U-SL3-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P165337

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	445.5	0.0	445.5
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	20111.7	0.0	20111.7
	% Fixture	97.8	0.0	97.8
Total	Lumens	20557.2	0.0	20557.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.5	0.3
10°-20°	294.5	1.4
20°-30°	635.2	3.1
30°-40°	1356.6	6.6
40°-50°	3000.1	14.6
50°-60°	5084.2	24.7
60°-70°	6784.4	33.0
70°-80°	2988.4	14.5
80°-90°	344.2	1.7
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°	20557.2	100.0
0°-180°	20557.2	100.0

Coefficient of Utilization



REPORT NUMBER: P165337

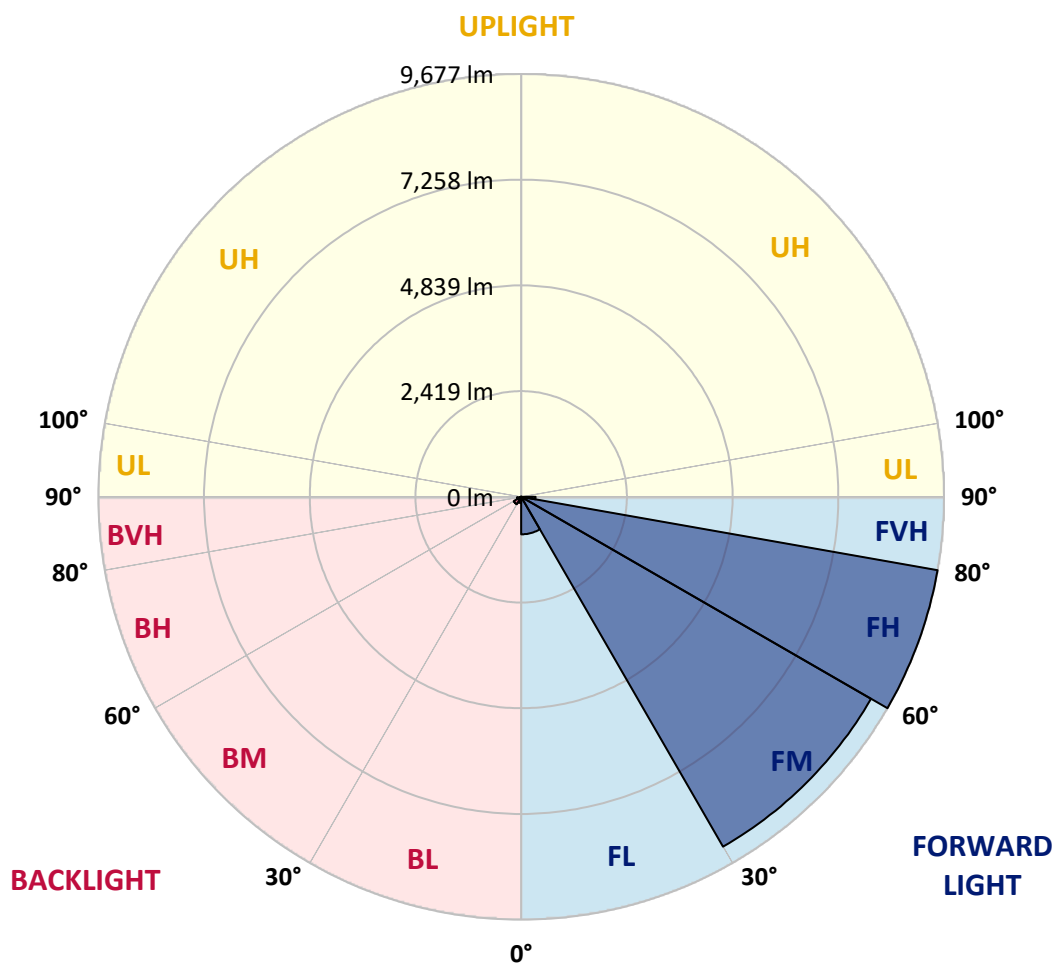
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	858.7	4.2			
FM	(30°-60°)	9245.2	45.0			
FH	(60°-80°)	9677.3	47.1			G4/12000
FVH	(80°-90°)	330.5	1.6			G3/500
BL	(0°-30°)	140.6	0.7	B1/500		
BM	(30°-60°)	195.6	1.0	B0/220		
BH	(60°-80°)	95.6	0.5	B0/110		G0/110
BVH	(80°-90°)	13.7	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-G4

Type III Short





REPORT NUMBER: P165337

CATALOG NUMBER: VST-E12-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
2.5°	782.6	778.6	762.7	762.7	739.0	723.4	703.4	683.8	683.8	679.7	675.8
5°	1035.4	1011.8	1007.8	964.3	928.8	877.4	829.9	766.8	758.9	751.0	746.9
7.5°	1316.2	1312.1	1276.6	1225.2	1154.2	1059.1	964.3	861.6	845.8	837.8	822.0
10°	1679.8	1659.8	1612.6	1525.4	1418.9	1292.4	1138.3	976.1	956.4	940.6	932.6
12.5°	2027.5	1992.0	1964.2	1853.5	1719.1	1533.4	1347.6	1114.6	1098.7	1079.0	1047.4
15°	2351.5	2319.8	2272.6	2177.8	2027.5	1794.2	1577.0	1292.4	1252.8	1225.2	1201.4
17.5°	2604.5	2584.8	2529.4	2422.8	2260.6	2055.1	1794.2	1474.1	1442.6	1406.9	1363.4
20°	2845.7	2817.8	2731.0	2584.8	2410.8	2252.6	2051.3	1711.2	1667.8	1624.3	1577.0
22.5°	3074.9	3047.0	2905.0	2663.8	2478.0	2410.8	2339.8	1980.0	1912.8	1877.3	1829.8
25°	3395.0	3335.8	3114.2	2731.0	2482.1	2533.4	2655.8	2327.8	2264.6	2213.3	2138.2
27.5°	3825.8	3746.6	3398.9	2829.8	2497.7	2667.8	3019.4	2750.6	2683.4	2624.2	2541.4
30°	4311.8	4260.5	3845.5	3067.0	2612.4	2865.4	3426.5	3288.2	3209.3	3138.0	3039.4
32.5°	4801.9	4730.9	4319.8	3517.4	2920.6	3248.6	3936.5	3912.7	3810.0	3742.8	3636.0
35°	5232.7	5197.2	4892.9	4256.4	3624.2	3920.6	4616.2	4643.8	4553.0	4481.8	4363.2
37.5°	5525.3	5525.3	5466.0	5050.8	4742.6	4963.9	5616.0	5620.1	5529.1	5367.1	5307.8
40°	5675.3	5718.7	5932.3	6011.3	5995.4	6280.1	6928.3	6857.0	6781.9	6698.9	6501.4
42.5°	5983.7	6023.0	6477.6	7023.1	7378.8	7754.2	8200.8	8177.0	8086.3	7936.1	7754.2
45°	6505.4	6556.8	7098.2	7963.7	8694.7	9228.5	9512.9	9402.2	9311.3	9169.2	9074.2
47.5°	7169.3	7268.2	7880.6	8951.8	9833.0	10714.3	11010.7	10718.4	10639.4	10528.6	10374.5
50°	7876.8	7971.6	8623.7	9848.9	10844.9	11896.1	12390.2	11896.1	11781.6	11745.8	11572.1
52.5°	8489.3	8568.5	9196.8	10540.6	11619.4	12852.5	13571.8	12919.7	12836.6	12718.1	12591.6
55°	8852.9	8916.2	9505.0	10872.5	12145.2	13714.1	14714.2	14141.0	14018.4	13971.1	13789.2
57.5°	8975.5	9038.6	9568.3	10915.9	12429.6	14500.6	16101.4	16121.0	15974.9	15805.0	15749.5
60°	8975.5	9046.6	9493.2	10809.4	12706.3	15338.4	17950.8	19598.9	19282.8	19251.1	19049.5
62.5°	8604.0	8671.2	9121.7	10481.3	13077.8	16468.8	20527.7	23436.5	23345.8	23140.1	22808.2
65°	7797.6	7837.2	8279.8	9643.4	12935.5	17508.2	22760.6	25989.6	25843.4	25440.2	25013.5
66°	7434.0	7465.7	7880.6	9165.1	12469.2	17650.6	23155.9	26309.8	26068.8	25728.7	25246.6
67.5°	6908.4	6963.8	7256.2	8275.9	11350.8	17156.4	22907.0	26084.6	25875.1	25464.0	24981.8
70°	4612.3	4572.7	5604.2	6351.1	8647.4	13979.0	20551.4	23420.6	23424.7	23231.0	23037.4
72.5°	2189.5	2213.3	2513.5	3908.6	5659.4	9339.1	16358.2	18693.8	18962.6	18614.9	18373.7
75°	1573.0	1608.5	1790.4	2391.1	3375.1	5604.2	10603.7	13073.8	13081.7	12465.1	11916.0
77.5°	458.4	478.3	671.8	1474.1	2529.4	3782.2	6090.2	7268.2	7098.2	6655.4	6240.5
80°	189.6	189.6	197.5	470.4	1015.7	2569.0	4260.5	5596.3	5576.6	5406.7	5161.7
82.5°	71.0	75.1	94.8	193.7	241.2	632.4	2841.6	4857.4	4845.4	4604.4	4430.4
85°	7.9	7.9	23.8	83.0	91.0	118.6	569.0	2142.0	2130.2	2142.0	1877.3
87.5°	0.0	0.0	3.8	7.9	11.8	15.8	23.8	83.0	91.0	86.9	79.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P165337

CATALOG NUMBER: VST-E12-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
2.5°	675.8	667.9	667.9	664.1	664.1	664.1	660.0	656.2	656.2	652.1	648.2
5°	739.0	731.0	727.2	719.3	715.4	711.4	703.4	699.6	691.7	687.6	683.8
7.5°	814.1	798.2	794.4	782.6	770.6	762.7	754.8	743.0	735.1	719.3	715.4
10°	909.1	889.2	873.4	857.5	845.8	826.1	814.1	798.2	782.6	770.6	758.9
12.5°	1031.5	1003.9	980.2	964.3	936.7	913.0	889.2	877.4	845.8	829.9	810.2
15°	1165.9	1134.2	1106.6	1075.0	1055.3	1015.7	984.0	948.5	932.6	905.0	873.4
17.5°	1339.7	1288.3	1244.9	1213.4	1173.8	1134.2	1098.7	1063.2	1015.7	984.0	944.6
20°	1525.4	1482.0	1422.7	1367.5	1320.0	1272.7	1221.1	1173.8	1130.4	1079.0	1031.5
22.5°	1762.8	1699.4	1628.4	1573.0	1509.8	1458.5	1387.2	1324.1	1252.8	1185.6	1130.4
25°	2063.0	1980.0	1912.8	1833.8	1758.7	1679.8	1592.6	1513.7	1422.7	1359.6	1264.8
27.5°	2434.6	2355.6	2264.6	2161.9	2086.8	1968.2	1853.5	1754.9	1648.1	1549.2	1442.6
30°	2908.8	2794.3	2699.3	2600.6	2450.4	2335.7	2201.3	2067.1	1920.7	1822.1	1659.8
32.5°	3477.8	3355.4	3213.1	3070.8	2932.6	2770.6	2604.5	2438.4	2276.4	2094.7	1928.6
35°	4173.6	4027.2	3865.2	3711.1	3497.8	3323.8	3114.2	2885.0	2703.4	2493.8	2284.3
37.5°	5094.5	4853.3	4711.0	4549.0	4260.5	4023.4	3790.1	3560.9	3240.7	3019.4	2723.0
40°	6248.4	6106.1	5873.0	5612.2	5351.3	5039.0	4723.0	4418.6	4047.1	3738.7	3395.0
42.5°	7603.9	7394.6	7157.5	6781.9	6517.2	6149.5	5790.0	5386.8	4932.2	4537.2	4134.0
45°	8876.6	8627.8	8445.8	8070.5	7793.8	7358.9	6924.2	6497.5	5971.7	5461.9	4995.6
47.5°	10252.1	10046.4	9746.2	9441.8	9161.3	8671.2	8200.8	7683.1	7129.7	6525.1	5920.3
50°	11461.4	11299.4	11093.8	10726.3	10414.1	10003.0	9449.8	8884.6	8185.0	7584.2	6896.6
52.5°	12488.9	12362.4	12073.9	11813.0	11532.5	11145.1	10651.2	10109.8	9355.0	8694.7	7912.3
55°	13702.3	13611.4	13358.4	13196.4	12947.5	12576.0	12113.5	11611.7	10813.2	10093.9	9208.6
57.5°	15690.2	15619.2	15397.7	15330.5	15085.4	14761.4	14192.4	13654.8	12722.2	11828.9	10817.3
60°	18982.3	18840.2	18516.0	18350.2	17832.2	17397.6	16658.6	15919.4	14793.1	13654.8	12437.5
62.5°	22507.7	22108.6	21492.0	20962.6	20227.4	19472.4	18484.3	17354.2	16034.2	14682.5	13283.3
65°	24408.7	23729.0	22950.5	22108.6	21156.2	20045.5	18800.6	17445.1	16026.2	14599.4	13121.3
66°	24626.2	23859.4	23033.5	22096.8	21037.7	19855.9	18591.1	17168.4	15694.1	14303.0	12824.9
67.5°	24353.5	23551.2	22677.8	21638.4	20492.2	19267.0	17939.0	16460.9	15042.0	13631.0	12192.5
70°	22444.6	21646.1	20867.5	19772.9	18551.5	17318.6	16061.8	14409.8	13066.1	11769.6	10489.2
72.5°	17923.2	17381.8	16611.1	15674.4	14484.7	13038.2	11990.9	10513.0	9347.0	8090.2	7098.2
75°	11200.6	10437.8	9485.3	8291.8	7382.6	6208.8	5596.3	4473.8	3810.0	3229.0	2667.8
77.5°	5726.6	5153.8	4485.8	3813.8	3169.7	2529.4	1956.2	1383.4	932.6	648.2	482.2
80°	4730.9	4225.0	3671.5	3059.0	2490.0	1932.7	1391.3	948.5	604.8	395.3	308.2
82.5°	3908.6	3481.9	2987.8	2418.7	1924.8	1517.8	1055.3	687.6	426.7	276.7	217.4
85°	1663.9	1509.8	1165.9	924.7	695.5	513.8	359.8	241.2	169.9	138.2	126.5
87.5°	71.0	79.0	75.1	59.3	43.4	43.4	39.6	31.7	31.7	31.7	31.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P165337

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CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4	620.4
2.5°	648.2	644.2	640.3	640.3	636.2	632.4	608.6	589.0	565.2	549.4	533.5
5°	675.8	671.8	664.1	660.0	652.1	648.2	596.9	553.2	517.7	490.1	470.4
7.5°	703.4	699.6	687.6	675.8	671.8	664.1	581.0	525.6	478.3	446.6	426.7
10°	739.0	727.2	715.4	699.6	687.6	675.8	565.2	493.9	442.6	415.0	395.3
12.5°	790.3	770.6	751.0	731.0	715.4	695.5	557.3	466.3	415.0	383.3	363.6
15°	849.8	822.0	798.2	774.7	746.9	727.2	541.4	442.6	391.2	359.8	336.0
17.5°	905.0	873.4	837.8	802.3	774.7	746.9	525.6	419.0	367.4	336.0	312.2
20°	984.0	936.7	893.3	849.8	810.2	774.7	501.8	395.3	347.8	312.2	288.5
22.5°	1071.1	1015.7	960.5	901.2	849.8	802.3	482.2	375.4	328.1	292.6	264.7
25°	1181.8	1114.6	1039.4	964.3	905.0	841.9	462.5	355.7	308.2	272.6	245.0
27.5°	1335.8	1241.0	1158.0	1063.2	972.2	901.2	446.6	339.8	288.5	253.0	225.4
30°	1545.4	1406.9	1276.6	1173.8	1067.0	964.3	430.8	320.2	272.6	233.3	201.6
32.5°	1778.4	1616.4	1466.2	1312.1	1177.7	1059.1	415.0	304.3	253.0	213.4	185.8
35°	2067.1	1861.4	1659.8	1482.0	1320.0	1161.8	399.1	288.5	237.1	193.7	166.1
37.5°	2482.1	2225.0	1960.3	1731.1	1521.6	1312.1	387.4	272.6	217.4	174.0	146.2
40°	3051.1	2719.2	2395.0	2082.7	1810.1	1549.2	371.5	256.8	201.6	158.2	130.3
42.5°	3667.7	3264.5	2837.8	2485.9	2110.6	1782.5	355.7	241.2	185.8	142.3	114.7
45°	4434.5	3932.4	3414.7	2936.4	2478.0	2055.1	339.8	225.4	166.1	126.5	98.9
47.5°	5272.3	4632.0	4047.1	3446.4	2900.9	2395.0	320.2	213.4	150.2	110.6	86.9
50°	6133.9	5458.1	4718.9	4035.1	3387.1	2735.0	300.5	193.7	134.4	98.9	71.0
52.5°	7062.5	6264.2	5509.4	4659.6	3904.8	3181.4	280.6	177.8	122.4	86.9	59.3
55°	8244.2	7351.2	6465.8	5513.3	4604.4	3699.4	260.9	158.2	106.8	75.1	47.5
57.5°	9730.3	8671.2	7584.2	6509.3	5406.7	4379.0	245.0	138.2	91.0	63.1	39.6
60°	11133.4	9896.4	8580.2	7343.3	6098.2	4900.8	221.3	122.4	79.0	51.4	39.6
62.5°	11860.6	10449.6	9030.7	7667.3	6339.4	5086.6	197.5	102.7	67.2	43.4	35.5
65°	11682.7	10244.2	8868.7	7493.3	6193.2	4968.0	174.0	91.0	59.3	39.6	35.5
66°	11425.9	10003.0	8619.8	7311.6	6070.6	4841.5	162.0	86.9	55.4	39.6	31.7
67.5°	10864.6	9489.1	8169.1	6951.8	5734.6	4600.3	146.2	79.0	51.4	35.5	31.7
70°	9279.8	8030.9	6975.6	5892.7	4900.8	3877.2	118.6	67.2	43.4	31.7	31.7
72.5°	6141.6	5292.0	4588.6	3948.2	3300.0	2561.0	98.9	55.4	35.5	31.7	27.6
75°	2316.0	2094.7	1798.3	1616.4	1411.0	1237.0	79.0	35.5	27.6	27.6	27.6
77.5°	411.1	379.4	336.0	308.2	284.6	260.9	63.1	23.8	23.8	27.6	27.6
80°	276.7	256.8	233.3	213.4	197.5	177.8	43.4	19.7	23.8	23.8	27.6
82.5°	197.5	185.8	174.0	158.2	146.2	130.3	27.6	19.7	23.8	23.8	23.8
85°	118.6	110.6	102.7	94.8	83.0	79.0	19.7	19.7	19.7	23.8	23.8
87.5°	31.7	27.6	31.7	31.7	23.8	27.6	15.8	15.8	15.8	19.7	19.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P165337

CATALOG NUMBER: VST-E12-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	620.4	620.4	620.4	620.4	620.4
2.5°	525.6	525.6	517.7	529.7	529.7
5°	454.6	454.6	450.5	454.6	454.6
7.5°	415.0	411.1	411.1	411.1	415.0
10°	379.4	375.4	375.4	375.4	375.4
12.5°	347.8	343.9	339.8	343.9	343.9
15°	320.2	312.2	312.2	312.2	312.2
17.5°	296.4	288.5	284.6	284.6	284.6
20°	272.6	260.9	260.9	260.9	260.9
22.5°	248.9	237.1	237.1	237.1	237.1
25°	225.4	213.4	213.4	213.4	213.4
27.5°	205.4	193.7	193.7	193.7	193.7
30°	181.9	174.0	174.0	177.8	174.0
32.5°	166.1	154.1	154.1	158.2	158.2
35°	146.2	138.2	138.2	138.2	138.2
37.5°	126.5	118.6	118.6	118.6	118.6
40°	110.6	102.7	98.9	102.7	102.7
42.5°	94.8	86.9	83.0	83.0	83.0
45°	83.0	71.0	67.2	71.0	71.0
47.5°	67.2	59.3	59.3	63.1	63.1
50°	51.4	51.4	55.4	63.1	63.1
52.5°	47.5	47.5	55.4	63.1	63.1
55°	43.4	47.5	55.4	59.3	63.1
57.5°	39.6	47.5	55.4	59.3	59.3
60°	39.6	43.4	51.4	59.3	59.3
62.5°	35.5	39.6	47.5	55.4	55.4
65°	35.5	39.6	47.5	55.4	55.4
66°	35.5	39.6	47.5	55.4	55.4
67.5°	35.5	39.6	47.5	55.4	55.4
70°	35.5	39.6	47.5	51.4	51.4
72.5°	31.7	35.5	43.4	51.4	51.4
75°	31.7	35.5	43.4	51.4	51.4
77.5°	31.7	35.5	43.4	51.4	51.4
80°	31.7	35.5	43.4	47.5	51.4
82.5°	27.6	35.5	39.6	47.5	47.5
85°	27.6	31.7	39.6	43.4	47.5
87.5°	23.8	27.6	31.7	39.6	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)