

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: P165477

Luminaire Tested: **VST-E04-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165477
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-E04-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8042 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 97.2
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

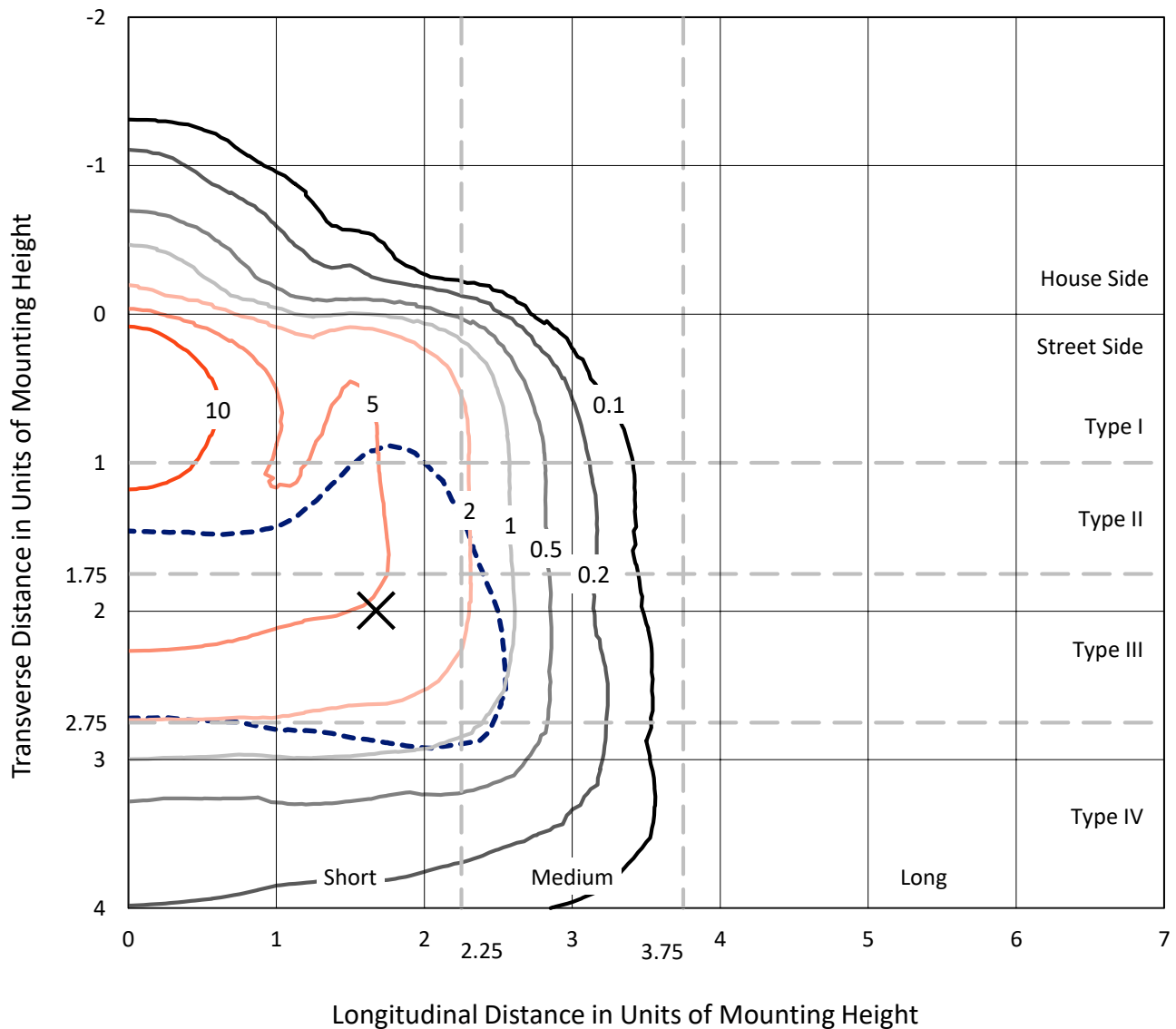


REPORT NUMBER: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

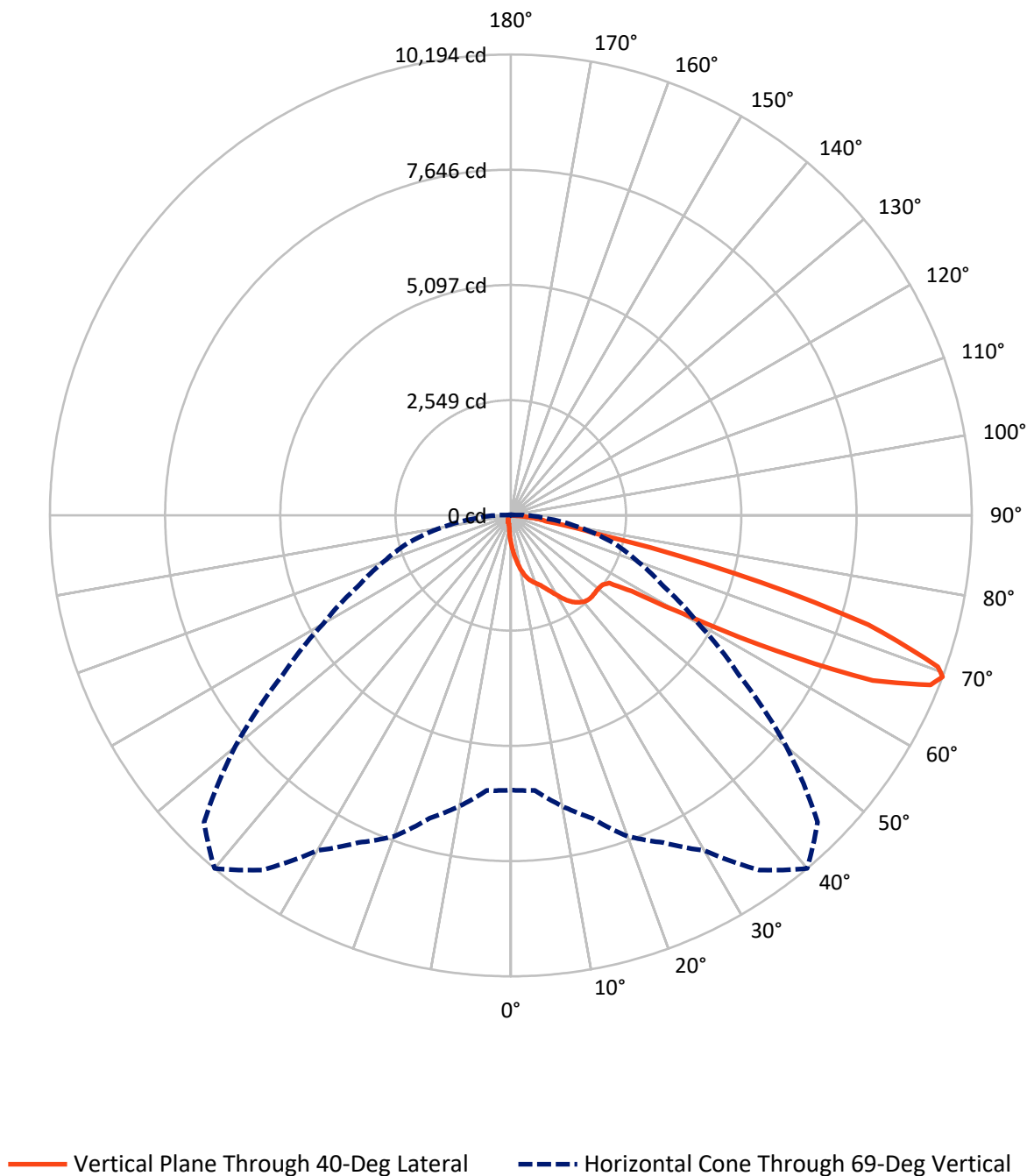


Based on 10 foot mounting height. Maximum calculated value = 18 fc
Type IV - Short - Semi-Cutoff

REPORT NUMBER: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

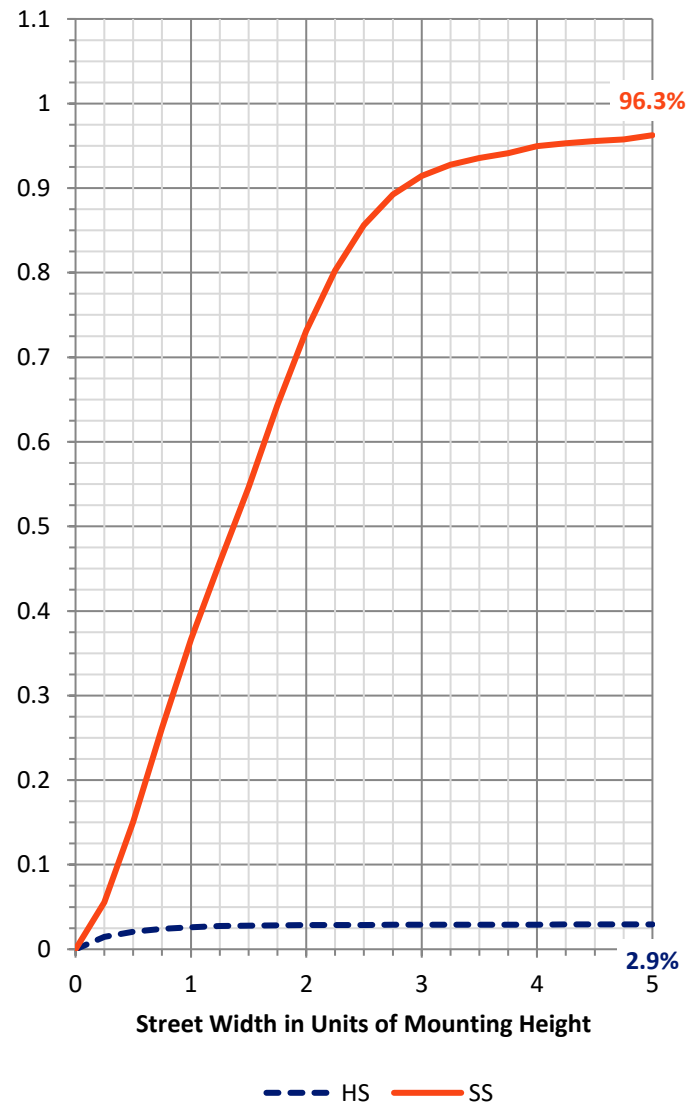
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	239.5	0.0	239.5
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	7802.5	0.0	7802.5
	% Fixture	97.0	0.0	97.0
Total	Lumens	8042.0	0.0	8042.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	0.8
10°-20°	215.2	2.7
20°-30°	411.9	5.1
30°-40°	685.0	8.5
40°-50°	927.0	11.5
50°-60°	1449.7	18.0
60°-70°	2980.5	37.1
70°-80°	1199.3	14.9
80°-90°	110.9	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°	8042.0	100.0
0°-180°	8042.0	100.0

Coefficient of Utilization



REPORT NUMBER: P165477

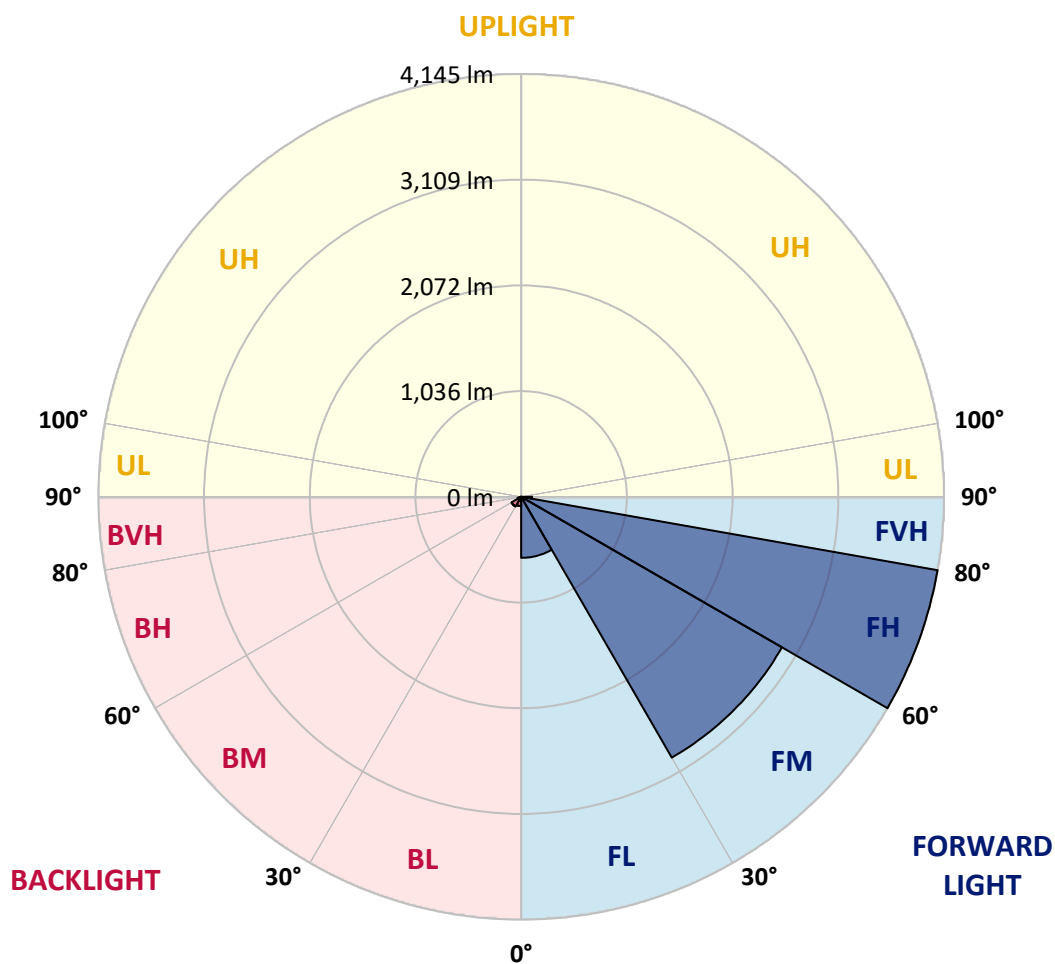
CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	598.5	7.4			
FM	(30°-60°)	2952.3	36.7			
FH	(60°-80°)	4144.9	51.5			G2/5000
FVH	(80°-90°)	106.8	1.3			G2/225
BL	(0°-30°)	91.1	1.1	B0/110		
BM	(30°-60°)	109.3	1.4	B0/220		
BH	(60°-80°)	34.9	0.4	B0/110		G0/110
BVH	(80°-90°)	4.1	0.1			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Short





REPORT NUMBER: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4
2.5°	810.2	801.0	790.4	790.4	777.3	777.3	769.4	748.3	745.7	733.8	721.9
5°	1034.2	1026.2	1013.1	1001.2	990.7	972.2	959.0	934.0	906.4	880.0	856.3
7.5°	1252.9	1248.9	1225.2	1221.2	1204.1	1173.8	1147.4	1110.6	1063.1	1026.2	982.8
10°	1455.8	1446.5	1441.2	1418.8	1393.8	1360.9	1320.0	1275.3	1219.9	1161.9	1100.0
12.5°	1616.5	1611.2	1587.4	1578.2	1551.9	1519.0	1467.6	1409.6	1354.3	1279.2	1206.7
15°	1736.3	1727.1	1711.3	1696.8	1665.2	1636.2	1588.8	1525.5	1458.4	1376.7	1289.8
17.5°	1836.5	1819.4	1815.4	1793.0	1760.1	1725.8	1673.1	1615.1	1536.1	1454.4	1359.5
20°	1970.8	1947.1	1939.2	1906.2	1868.1	1820.6	1760.1	1687.6	1604.6	1515.0	1417.5
22.5°	2128.9	2111.8	2094.6	2065.7	2017.0	1949.8	1861.5	1782.5	1677.0	1578.2	1472.9
25°	2352.9	2338.4	2310.7	2271.2	2210.6	2130.2	2023.5	1907.6	1783.8	1657.3	1533.4
27.5°	2570.2	2557.0	2537.3	2507.0	2438.5	2350.2	2218.5	2071.0	1914.2	1761.4	1624.3
30°	2774.5	2762.6	2742.8	2712.6	2651.9	2565.0	2416.1	2258.0	2063.0	1885.2	1720.6
32.5°	2994.5	2990.5	2968.1	2924.6	2871.9	2754.7	2592.6	2422.7	2225.1	2019.6	1827.2
35°	3243.4	3213.1	3192.1	3148.6	3059.0	2933.8	2744.2	2558.4	2350.2	2139.4	1924.7
37.5°	3454.2	3425.3	3398.9	3343.6	3234.2	3074.8	2860.1	2655.8	2441.1	2226.4	2007.7
40°	3608.3	3593.8	3562.2	3489.8	3367.3	3177.6	2945.7	2723.0	2507.0	2291.0	2074.9
42.5°	3723.0	3700.6	3665.0	3589.9	3445.0	3229.0	2979.9	2750.7	2537.3	2330.5	2118.4
45°	3765.1	3746.7	3713.8	3632.1	3475.3	3243.4	2978.6	2742.8	2538.6	2342.3	2147.4
47.5°	3740.1	3721.7	3692.6	3616.2	3462.2	3226.3	2955.0	2720.4	2525.4	2346.3	2173.7
50°	3657.1	3646.6	3624.2	3559.6	3421.3	3193.4	2933.8	2708.6	2522.8	2366.1	2210.6
52.5°	3649.2	3642.6	3615.0	3550.4	3409.4	3182.8	2931.2	2715.2	2545.2	2391.1	2237.0
55°	4459.4	4365.8	4156.4	3978.6	3686.1	3338.3	3064.2	2821.8	2640.1	2489.9	2381.8
57.5°	6338.0	6198.4	5923.0	5584.5	4912.6	4252.6	3724.3	3342.2	3153.8	3085.4	3126.2
60°	7218.0	7193.0	7149.5	6988.8	6645.0	6077.2	5444.8	4761.1	4487.0	4463.4	4546.3
62.5°	7635.7	7619.8	7633.0	7613.3	7506.6	7340.6	7158.7	6863.7	6592.2	6417.0	6045.5
65°	7828.0	7838.6	7913.6	7972.9	7986.1	8029.5	8162.6	8530.2	8798.9	8347.0	7315.5
67.5°	7339.2	7401.1	7573.8	7789.8	8042.7	8287.8	8683.0	9457.6	10009.6	9478.7	8013.8
69°	6075.8	6106.2	6527.7	6934.8	7552.6	7984.8	8557.8	9573.5	10194.1	9594.6	7958.4
70°	4783.4	4811.1	5263.0	5816.3	6861.0	7417.0	8166.6	9377.3	10021.4	9440.5	7673.8
72.5°	2157.9	2118.4	2277.8	2574.2	3709.8	4592.5	5903.3	7597.4	8268.0	7563.2	5741.2
75°	1507.1	1490.0	1507.1	1508.4	1685.0	2173.7	2742.8	4118.2	5093.0	4394.9	2742.8
77.5°	1167.2	1155.4	1143.5	1130.3	1151.4	1289.8	1345.0	1461.0	1897.0	1794.3	1046.0
80°	923.5	913.0	941.9	932.7	932.7	948.6	938.0	894.5	812.8	753.5	674.5
82.5°	429.4	432.1	432.1	469.0	565.2	660.0	690.3	646.9	574.4	488.7	393.9
85°	40.8	46.1	77.8	119.9	238.5	268.7	270.1	223.9	223.9	176.6	142.2
87.5°	0.0	1.3	1.3	1.3	11.8	33.0	27.7	7.9	3.9	3.9	6.6
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: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4
2.5°	700.9	696.9	681.1	665.3	650.8	635.0	620.5	606.0	590.2	578.3	563.8
5°	819.4	790.4	757.5	725.9	694.2	661.4	627.1	596.8	565.2	536.2	508.5
7.5°	939.3	882.6	837.8	781.2	729.8	678.5	631.0	582.3	537.5	495.4	455.8
10°	1040.7	972.2	902.4	830.0	756.2	687.7	621.8	563.8	504.6	453.2	404.5
12.5°	1123.8	1036.8	951.2	860.2	777.3	690.3	608.6	538.8	469.0	411.0	361.0
15°	1198.8	1098.7	995.9	890.6	785.2	686.4	595.4	508.5	437.4	371.5	314.9
17.5°	1259.4	1144.8	1028.9	910.3	797.0	681.1	578.3	487.4	404.5	335.9	280.6
20°	1312.2	1192.2	1067.1	934.0	805.0	679.8	563.8	461.1	375.4	303.0	249.0
22.5°	1360.9	1241.0	1106.6	964.3	816.8	678.5	550.6	441.4	350.4	278.0	223.9
25°	1416.2	1289.8	1148.8	995.9	837.8	683.8	542.8	425.5	328.0	254.2	204.2
27.5°	1478.2	1345.0	1198.8	1035.4	865.5	694.2	540.2	408.4	308.2	231.8	188.4
30°	1565.0	1411.0	1248.9	1075.0	890.6	706.2	537.5	397.8	288.5	214.7	172.6
32.5°	1641.5	1475.5	1304.2	1115.8	918.2	718.0	536.2	383.4	270.1	197.6	160.7
35°	1721.8	1534.8	1351.7	1155.4	941.9	731.1	534.9	372.8	253.0	180.5	148.9
37.5°	1791.7	1584.8	1388.6	1189.6	968.3	743.0	536.2	363.6	237.1	166.0	138.3
40°	1851.0	1636.2	1429.4	1221.2	995.9	761.4	537.5	354.4	221.4	152.8	129.1
42.5°	1903.7	1685.0	1472.9	1256.8	1027.6	782.6	545.4	346.5	208.2	141.0	119.9
45°	1944.5	1729.8	1520.2	1306.9	1079.0	816.8	559.9	341.2	195.0	130.4	112.0
47.5°	1986.6	1795.6	1600.6	1385.9	1154.1	870.8	585.0	339.9	184.4	122.5	105.4
50°	2044.6	1861.5	1671.8	1466.2	1222.6	926.2	615.2	341.2	171.3	114.6	98.8
52.5°	2086.8	1928.6	1764.0	1605.9	1385.9	1094.7	732.5	364.9	164.6	108.0	90.9
55°	2335.8	2308.1	2312.0	2338.4	2168.5	1862.8	1225.2	527.0	193.7	122.5	89.6
57.5°	3293.5	3391.0	3447.6	3446.3	3165.7	2625.6	1645.4	677.1	216.1	142.2	106.7
60°	4553.0	4479.2	4375.1	4118.2	3745.4	2997.1	1840.4	728.6	187.0	113.3	97.5
62.5°	5666.2	5234.0	4850.6	4434.4	3945.6	3126.2	1879.9	724.6	163.4	85.6	68.5
65°	6360.4	5583.1	4964.0	4442.2	3866.6	3018.2	1778.5	665.3	138.3	69.8	56.6
67.5°	6526.4	5394.7	4518.7	3853.4	3230.2	2349.0	1305.5	500.6	108.0	58.0	50.1
69°	6164.1	4795.4	3744.1	2989.2	2350.2	1558.5	807.6	316.2	83.0	52.7	46.1
70°	5670.1	4170.9	3049.8	2399.0	1740.3	1094.7	565.2	222.6	67.2	48.7	42.2
72.5°	3647.9	2190.8	1499.2	1043.4	718.0	436.1	221.4	100.2	51.4	40.8	34.2
75°	1414.9	810.2	587.6	446.6	349.1	242.4	134.4	64.6	43.4	34.2	26.3
77.5°	696.9	533.5	436.1	299.0	173.9	108.0	72.5	50.1	35.6	25.0	17.1
80°	550.6	366.2	218.7	135.7	102.7	77.8	55.4	40.8	26.3	15.8	11.8
82.5°	281.9	154.2	113.3	92.2	76.4	60.6	44.8	29.0	17.1	10.6	9.2
85°	88.2	64.6	58.0	56.6	52.7	43.4	31.6	18.5	10.6	6.6	6.6
87.5°	6.6	9.2	11.8	9.2	10.6	9.2	11.8	7.9	5.3	5.3	3.9
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: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4	607.4
2.5°	553.3	537.5	523.0	513.8	496.6	490.1	483.5	480.9	469.0	471.6	461.1
5°	483.5	455.8	434.7	413.7	393.9	379.4	367.5	353.0	341.2	335.9	325.4
7.5°	420.2	384.7	357.0	334.6	310.9	292.5	276.6	266.1	255.6	245.0	239.8
10°	364.9	326.7	295.1	272.7	250.3	234.5	222.6	214.7	208.2	204.2	202.9
12.5°	313.5	276.6	247.7	227.9	210.8	202.9	197.6	193.7	192.3	191.0	191.0
15°	274.0	237.1	214.7	200.2	192.3	188.4	187.0	184.4	181.8	180.5	180.5
17.5°	237.1	209.4	193.7	185.8	181.8	179.2	176.6	173.9	171.3	169.9	169.9
20°	212.1	189.7	181.8	176.6	172.6	169.9	166.0	163.4	162.1	160.7	159.4
22.5°	192.3	177.8	172.6	168.6	163.4	159.4	156.8	154.2	151.5	150.2	148.9
25°	177.8	168.6	164.6	159.4	154.2	150.2	146.2	142.2	139.7	138.3	135.7
27.5°	167.3	160.7	155.4	148.9	143.6	139.7	135.7	131.8	129.1	126.5	125.1
30°	158.1	151.5	144.9	139.7	133.0	129.1	123.8	119.9	118.6	115.9	113.3
32.5°	148.9	142.2	135.7	129.1	122.5	117.3	114.6	109.4	106.7	105.4	102.7
35°	138.3	131.8	123.8	118.6	112.0	106.7	102.7	98.8	96.2	93.5	92.2
37.5°	129.1	121.2	113.3	106.7	101.4	96.2	92.2	88.2	85.6	83.0	81.7
40°	118.6	110.6	102.7	96.2	90.9	87.0	83.0	79.0	76.4	75.1	75.1
42.5°	109.4	100.2	92.2	87.0	83.0	77.8	73.8	69.8	68.5	67.2	68.5
45°	100.2	90.9	84.3	79.0	75.1	69.8	65.8	63.2	61.9	63.2	64.6
47.5°	92.2	83.0	76.4	72.5	68.5	64.6	60.6	58.0	58.0	60.6	63.2
50°	84.3	75.1	69.8	67.2	63.2	59.3	54.0	52.7	54.0	56.6	59.3
52.5°	76.4	65.8	61.9	60.6	56.6	52.7	48.7	47.4	48.7	51.4	50.1
55°	68.5	58.0	56.6	55.4	51.4	46.1	42.2	42.2	42.2	40.8	38.2
57.5°	65.8	51.4	50.1	48.7	44.8	39.5	36.9	34.2	33.0	29.0	27.7
60°	68.5	46.1	46.1	43.4	39.5	34.2	30.3	26.3	23.7	21.0	21.0
62.5°	55.4	42.2	40.8	38.2	33.0	27.7	23.7	19.8	18.5	17.1	17.1
65°	44.8	38.2	35.6	31.6	27.7	22.4	18.5	15.8	14.5	14.5	15.8
67.5°	40.8	34.2	30.3	26.3	22.4	17.1	14.5	13.2	13.2	14.5	14.5
69°	38.2	31.6	27.7	23.7	19.8	15.8	13.2	13.2	13.2	13.2	14.5
70°	35.6	30.3	26.3	22.4	17.1	13.2	11.8	11.8	13.2	13.2	14.5
72.5°	27.7	23.7	22.4	18.5	13.2	11.8	10.6	11.8	11.8	13.2	13.2
75°	21.0	17.1	17.1	14.5	10.6	9.2	9.2	10.6	10.6	11.8	11.8
77.5°	14.5	11.8	11.8	10.6	9.2	7.9	7.9	9.2	10.6	10.6	11.8
80°	10.6	9.2	7.9	9.2	7.9	6.6	7.9	9.2	9.2	10.6	10.6
82.5°	7.9	7.9	7.9	7.9	6.6	6.6	7.9	7.9	9.2	10.6	10.6
85°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	7.9	7.9	9.2	9.2
87.5°	3.9	3.9	3.9	5.3	5.3	6.6	6.6	6.6	6.6	7.9	7.9
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: P165477

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	607.4	607.4	607.4	607.4
2.5°	458.5	457.1	451.8	453.2
5°	321.4	313.5	318.8	317.5
7.5°	235.8	234.5	233.2	235.8
10°	201.6	201.6	200.2	201.6
12.5°	189.7	189.7	189.7	189.7
15°	180.5	180.5	179.2	179.2
17.5°	169.9	169.9	169.9	168.6
20°	159.4	158.1	158.1	158.1
22.5°	147.5	146.2	146.2	146.2
25°	135.7	134.4	134.4	134.4
27.5°	123.8	122.5	121.2	121.2
30°	112.0	110.6	109.4	109.4
32.5°	100.2	98.8	97.5	97.5
35°	89.6	89.6	88.2	87.0
37.5°	80.4	80.4	80.4	80.4
40°	73.8	75.1	75.1	75.1
42.5°	69.8	71.1	72.5	73.8
45°	67.2	69.8	71.1	71.1
47.5°	65.8	67.2	68.5	68.5
50°	60.6	59.3	59.3	59.3
52.5°	48.7	46.1	44.8	43.4
55°	35.6	34.2	31.6	31.6
57.5°	25.0	25.0	23.7	23.7
60°	19.8	19.8	18.5	19.8
62.5°	17.1	17.1	17.1	17.1
65°	15.8	15.8	15.8	15.8
67.5°	15.8	15.8	15.8	15.8
69°	14.5	14.5	14.5	14.5
70°	14.5	14.5	14.5	14.5
72.5°	13.2	13.2	13.2	13.2
75°	11.8	13.2	13.2	13.2
77.5°	11.8	11.8	11.8	11.8
80°	10.6	10.6	11.8	11.8
82.5°	10.6	10.6	10.6	10.6
85°	9.2	9.2	10.6	10.6
87.5°	7.9	7.9	9.2	9.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)