

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: P165457

Luminaire Tested: **VST-E02-LED-E-U-SL4-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165457
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-E02-LED-E-U-SL4-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4021 lumens
Efficiency: N/A
Efficacy: 77.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B0 - U0 - G2

Input Watts (W): 52.1
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

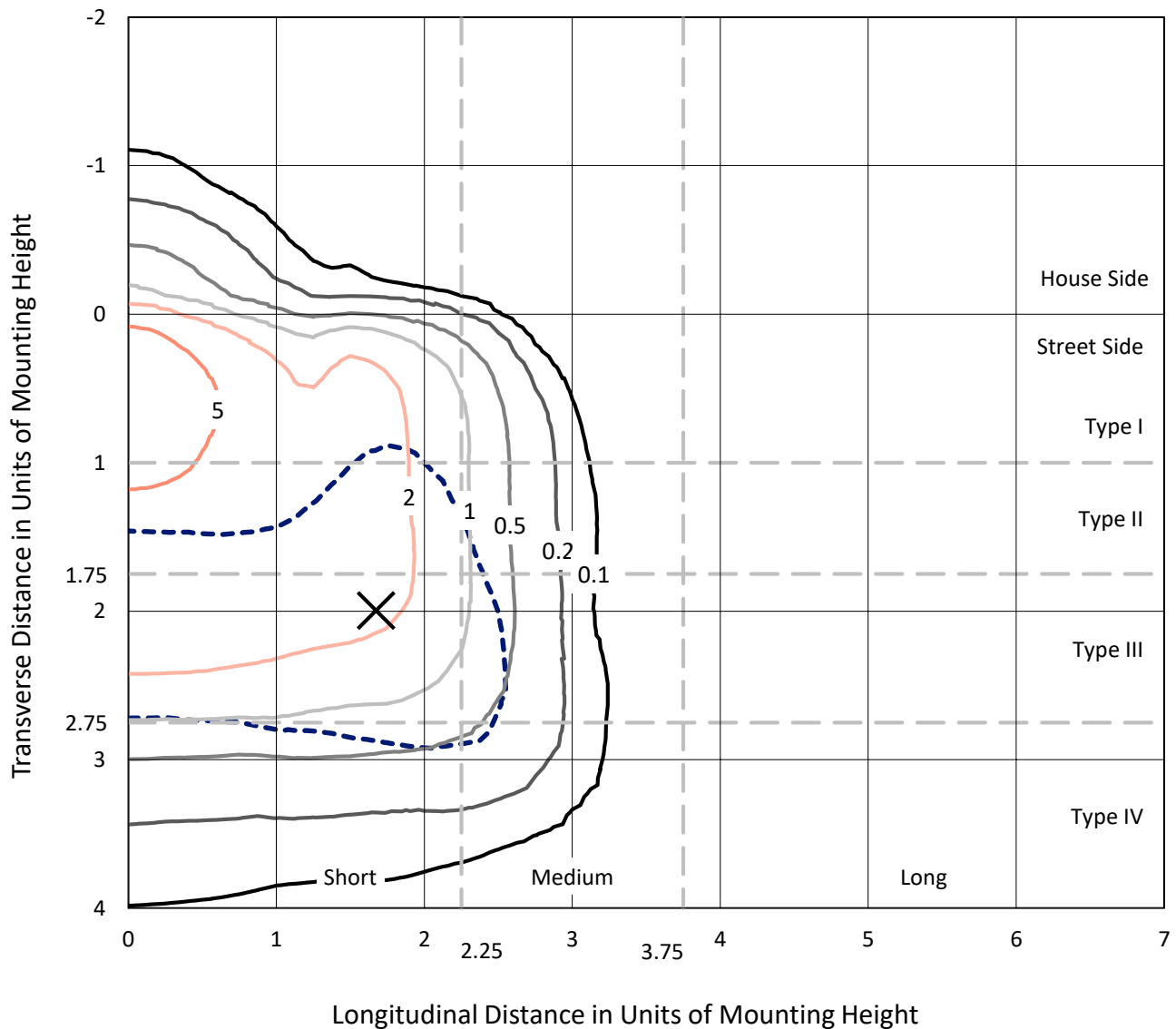


REPORT NUMBER: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

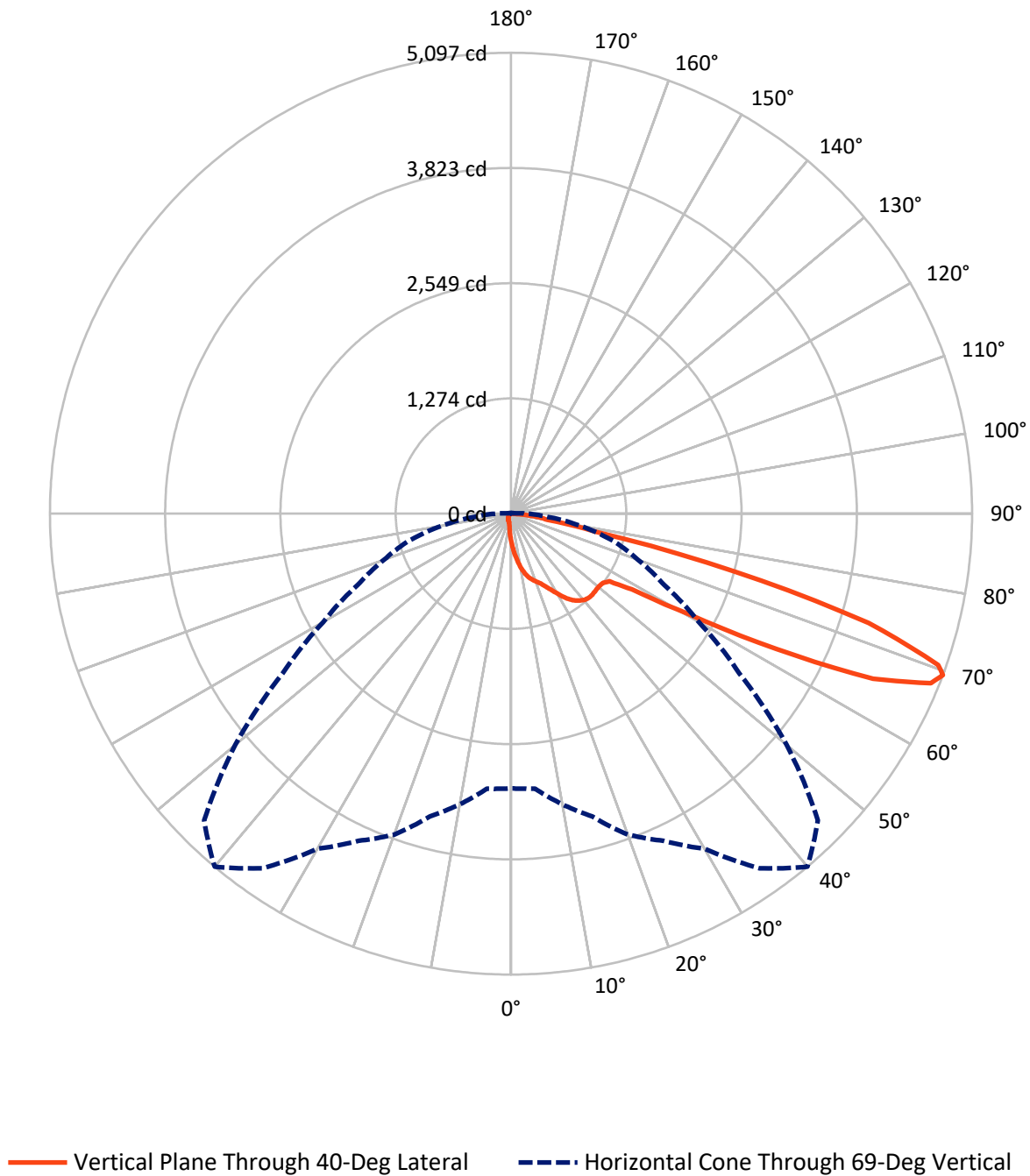


Based on 10 foot mounting height. Maximum calculated value = 9 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

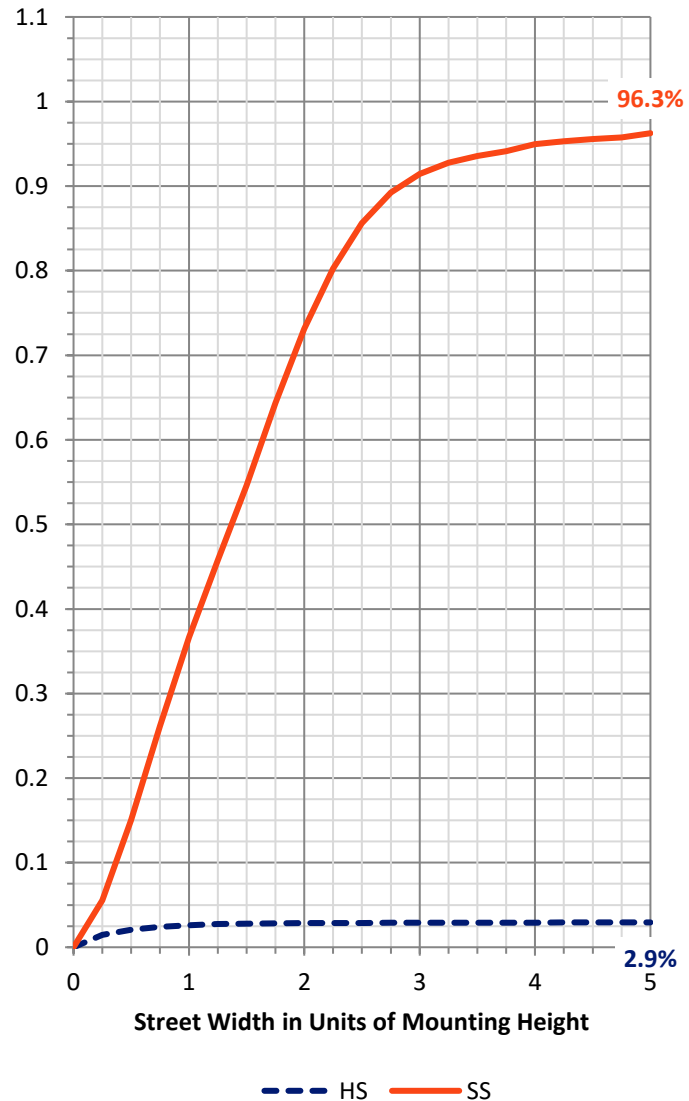
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	119.8	0.0	119.8
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	3901.2	0.0	3901.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	4021.0	0.0	4021.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	0.8
10°-20°	107.6	2.7
20°-30°	206.0	5.1
30°-40°	342.5	8.5
40°-50°	463.5	11.5
50°-60°	724.8	18.0
60°-70°	1490.3	37.1
70°-80°	599.6	14.9
80°-90°	55.5	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°	4021.0	100.0
0°-180°	4021.0	100.0

Coefficient of Utilization



REPORT NUMBER: P165457

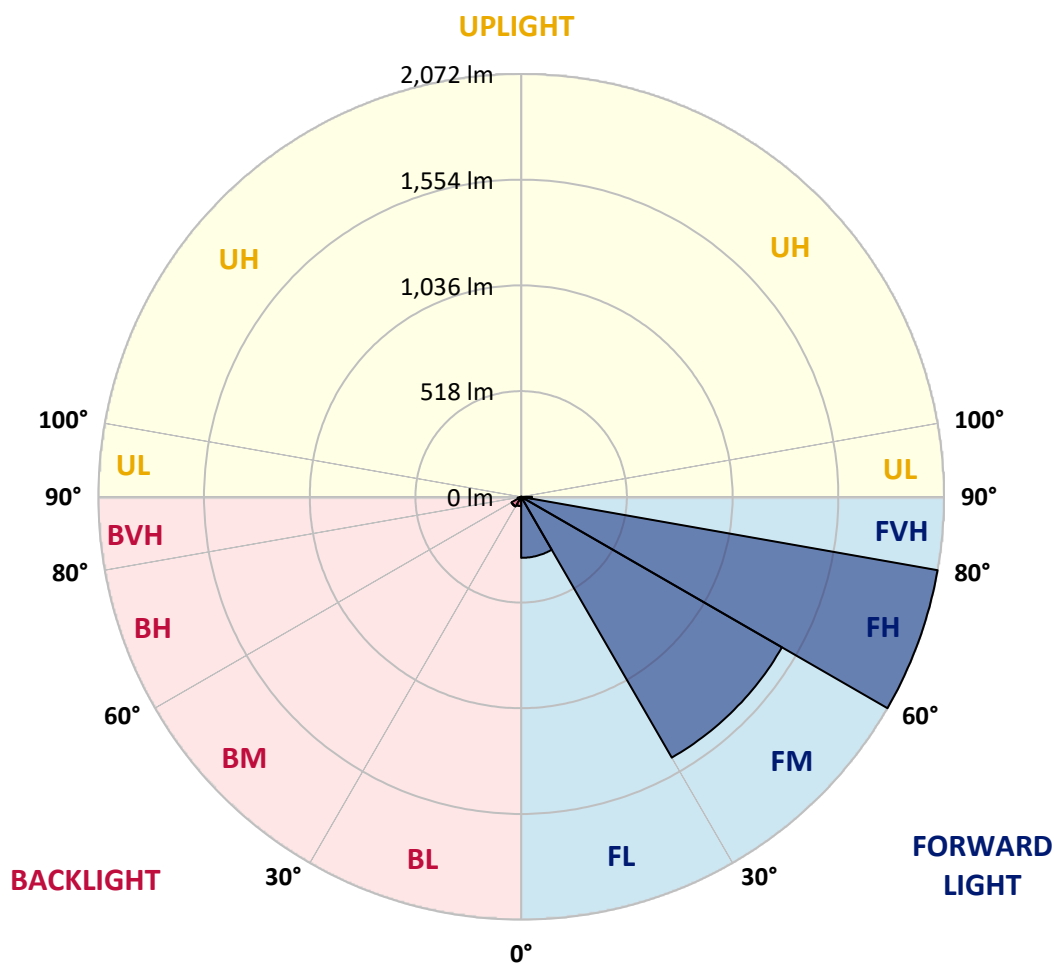
CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	299.2	7.4			
FM	(30°-60°)	1476.2	36.7			
FH	(60°-80°)	2072.4	51.5			G2/5000
FVH	(80°-90°)	53.4	1.3			G1/100
BL	(0°-30°)	45.5	1.1	B0/110		
BM	(30°-60°)	54.7	1.4	B0/220		
BH	(60°-80°)	17.5	0.4	B0/110		G0/110
BVH	(80°-90°)	2.1	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: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7
2.5°	405.1	400.5	395.2	395.2	388.6	388.6	384.7	374.2	372.8	366.9	361.0
5°	517.1	513.1	506.6	500.6	495.4	486.1	479.5	467.0	453.2	440.0	428.2
7.5°	626.5	624.4	612.6	610.6	602.0	586.9	573.7	555.3	531.5	513.1	491.4
10°	727.9	723.2	720.6	709.4	696.9	680.5	660.0	637.6	610.0	581.0	550.0
12.5°	808.3	805.6	793.7	789.1	776.0	759.5	733.8	704.8	677.2	639.6	603.4
15°	868.1	863.6	855.7	848.4	832.6	818.1	794.4	762.8	729.2	688.4	644.9
17.5°	918.2	909.7	907.7	896.5	880.0	862.9	836.6	807.5	768.1	727.2	679.7
20°	985.4	973.6	969.6	953.1	934.0	910.3	880.0	843.8	802.3	757.5	708.8
22.5°	1064.5	1055.9	1047.3	1032.8	1008.5	974.9	930.8	891.2	838.5	789.1	736.4
25°	1176.4	1169.2	1155.4	1135.6	1105.3	1065.1	1011.8	953.8	891.9	828.7	766.7
27.5°	1285.1	1278.5	1268.6	1253.5	1219.3	1175.1	1109.2	1035.5	957.1	880.7	812.2
30°	1387.3	1381.3	1371.4	1356.3	1325.9	1282.5	1208.0	1129.0	1031.5	942.6	860.3
32.5°	1497.2	1495.3	1484.0	1462.3	1436.0	1377.4	1296.3	1211.3	1112.6	1009.8	913.6
35°	1621.7	1606.6	1596.1	1574.3	1529.5	1466.9	1372.1	1279.2	1175.1	1069.7	962.3
37.5°	1727.1	1712.6	1699.4	1671.8	1617.1	1537.4	1430.0	1327.9	1220.6	1113.2	1003.9
40°	1804.1	1796.9	1781.1	1744.9	1683.7	1588.8	1472.8	1361.5	1253.5	1145.5	1037.5
42.5°	1861.5	1850.3	1832.5	1795.0	1722.5	1614.5	1490.0	1375.4	1268.6	1165.3	1059.2
45°	1882.6	1873.4	1856.9	1816.0	1737.7	1621.7	1489.3	1371.4	1269.3	1171.1	1073.7
47.5°	1870.0	1860.8	1846.3	1808.1	1731.1	1613.2	1477.5	1360.2	1262.7	1173.2	1086.8
50°	1828.6	1823.3	1812.1	1779.8	1710.7	1596.7	1466.9	1354.3	1261.4	1183.0	1105.3
52.5°	1824.6	1821.3	1807.5	1775.2	1704.7	1591.4	1465.6	1357.6	1272.6	1195.6	1118.5
55°	2229.7	2182.9	2078.2	1989.3	1843.0	1669.1	1532.1	1410.9	1320.1	1244.9	1190.9
57.5°	3169.0	3099.2	2961.5	2792.2	2456.3	2126.3	1862.2	1671.1	1576.9	1542.7	1563.1
60°	3609.0	3596.5	3574.7	3494.4	3322.5	3038.6	2722.4	2380.6	2243.5	2231.7	2273.2
62.5°	3817.9	3809.9	3816.5	3806.6	3753.3	3670.3	3579.4	3431.8	3296.1	3208.5	3022.7
65°	3914.0	3919.3	3956.8	3986.5	3993.1	4014.8	4081.3	4265.1	4399.4	4173.5	3657.8
67.5°	3669.6	3700.6	3786.9	3894.9	4021.4	4143.9	4341.5	4728.8	5004.8	4739.3	4006.9
69°	3037.9	3053.1	3263.8	3467.4	3776.3	3992.4	4278.9	4786.7	5097.1	4797.3	3979.2
70°	2391.7	2405.6	2631.5	2908.1	3430.5	3708.5	4083.3	4688.6	5010.7	4720.3	3836.9
72.5°	1079.0	1059.2	1138.9	1287.1	1854.9	2296.3	2951.6	3798.7	4134.0	3781.6	2870.6
75°	753.5	745.0	753.5	754.2	842.5	1086.8	1371.4	2059.1	2546.5	2197.4	1371.4
77.5°	583.6	577.7	571.7	565.1	575.7	644.9	672.5	730.5	948.5	897.2	523.0
80°	461.8	456.5	470.9	466.4	466.4	474.3	469.0	447.2	406.4	376.7	337.3
82.5°	214.7	216.1	216.1	234.5	282.6	330.0	345.2	323.5	287.2	244.4	197.0
85°	20.4	23.0	38.9	59.9	119.2	134.3	135.1	112.0	112.0	88.3	71.1
87.5°	0.0	0.7	0.7	0.7	5.9	16.5	13.9	4.0	2.0	2.0	3.3
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: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7
2.5°	350.5	348.4	340.6	332.6	325.4	317.5	310.3	303.0	295.1	289.1	281.9
5°	409.7	395.2	378.8	362.9	347.1	330.7	313.6	298.4	282.6	268.1	254.2
7.5°	469.6	441.3	418.9	390.6	364.9	339.2	315.5	291.2	268.7	247.7	227.9
10°	520.4	486.1	451.2	415.0	378.1	343.9	310.9	281.9	252.3	226.6	202.3
12.5°	561.9	518.4	475.6	430.1	388.6	345.2	304.3	269.4	234.5	205.5	180.5
15°	599.4	549.4	497.9	445.3	392.6	343.2	297.7	254.2	218.7	185.8	157.4
17.5°	629.7	572.4	514.4	455.2	398.5	340.6	289.1	243.7	202.3	167.9	140.3
20°	656.1	596.1	533.6	467.0	402.5	339.9	281.9	230.6	187.7	151.5	124.5
22.5°	680.5	620.5	553.3	482.2	408.4	339.2	275.3	220.7	175.2	139.0	112.0
25°	708.1	644.9	574.4	497.9	418.9	341.9	271.4	212.8	164.0	127.1	102.1
27.5°	739.1	672.5	599.4	517.7	432.8	347.1	270.1	204.2	154.1	115.9	94.2
30°	782.5	705.5	624.4	537.5	445.3	353.1	268.7	198.9	144.2	107.3	86.3
32.5°	820.7	737.8	652.1	557.9	459.1	359.0	268.1	191.7	135.1	98.8	80.3
35°	860.9	767.4	675.8	577.7	470.9	365.6	267.4	186.4	126.5	90.2	74.5
37.5°	895.9	792.4	694.3	594.8	484.1	371.5	268.1	181.8	118.6	83.0	69.2
40°	925.5	818.1	714.7	610.6	497.9	380.7	268.7	177.2	110.7	76.4	64.6
42.5°	951.8	842.5	736.4	628.4	513.8	391.3	272.7	173.2	104.1	70.5	59.9
45°	972.2	864.9	760.1	653.5	539.5	408.4	280.0	170.6	97.5	65.2	56.0
47.5°	993.3	897.8	800.3	692.9	577.0	435.4	292.5	170.0	92.2	61.3	52.7
50°	1022.3	930.8	835.9	733.1	611.3	463.1	307.6	170.6	85.6	57.3	49.4
52.5°	1043.4	964.3	882.0	803.0	692.9	547.4	366.2	182.5	82.3	54.0	45.4
55°	1167.9	1154.0	1156.0	1169.2	1084.3	931.4	612.6	263.5	96.8	61.3	44.8
57.5°	1646.8	1695.5	1723.8	1723.1	1582.9	1312.8	822.7	338.6	108.1	71.1	53.3
60°	2276.5	2239.6	2187.5	2059.1	1872.7	1498.6	920.2	364.3	93.5	56.6	48.8
62.5°	2833.1	2617.0	2425.3	2217.2	1972.8	1563.1	940.0	362.3	81.7	42.8	34.3
65°	3180.2	2791.6	2482.0	2221.1	1933.3	1509.1	889.3	332.6	69.2	34.9	28.3
67.5°	3263.2	2697.4	2259.4	1926.7	1615.1	1174.5	652.7	250.3	54.0	29.0	25.0
69°	3082.0	2397.7	1872.1	1494.6	1175.1	779.2	403.8	158.1	41.5	26.3	23.0
70°	2835.1	2085.4	1524.9	1199.5	870.2	547.4	282.6	111.3	33.6	24.4	21.1
72.5°	1823.9	1095.4	749.6	521.7	359.0	218.0	110.7	50.1	25.7	20.4	17.1
75°	707.5	405.1	293.8	223.3	174.5	121.2	67.2	32.3	21.7	17.1	13.1
77.5°	348.4	266.8	218.0	149.5	86.9	54.0	36.2	25.0	17.8	12.5	8.6
80°	275.3	183.1	109.4	67.9	51.4	38.9	27.7	20.4	13.1	7.9	5.9
82.5°	140.9	77.1	56.6	46.1	38.2	30.3	22.4	14.5	8.6	5.3	4.6
85°	44.1	32.3	29.0	28.3	26.3	21.7	15.8	9.2	5.3	3.3	3.3
87.5°	3.3	4.6	5.9	4.6	5.3	4.6	5.9	4.0	2.6	2.6	2.0
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: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7	303.7
2.5°	276.7	268.7	261.5	256.9	248.3	245.0	241.7	240.4	234.5	235.8	230.6
5°	241.7	227.9	217.4	206.8	197.0	189.7	183.8	176.5	170.6	167.9	162.7
7.5°	210.1	192.4	178.5	167.3	155.5	146.2	138.3	133.0	127.8	122.5	119.9
10°	182.5	163.4	147.5	136.4	125.2	117.2	111.3	107.3	104.1	102.1	101.5
12.5°	156.8	138.3	123.8	113.9	105.4	101.5	98.8	96.8	96.2	95.5	95.5
15°	137.0	118.6	107.3	100.1	96.2	94.2	93.5	92.2	90.9	90.2	90.2
17.5°	118.6	104.7	96.8	92.9	90.9	89.6	88.3	86.9	85.6	85.0	85.0
20°	106.0	94.9	90.9	88.3	86.3	85.0	83.0	81.7	81.1	80.3	79.7
22.5°	96.2	88.9	86.3	84.3	81.7	79.7	78.4	77.1	75.8	75.1	74.5
25°	88.9	84.3	82.3	79.7	77.1	75.1	73.1	71.1	69.8	69.2	67.9
27.5°	83.6	80.3	77.7	74.5	71.8	69.8	67.9	65.9	64.6	63.2	62.6
30°	79.0	75.8	72.4	69.8	66.5	64.6	61.9	59.9	59.3	58.0	56.6
32.5°	74.5	71.1	67.9	64.6	61.3	58.6	57.3	54.7	53.3	52.7	51.4
35°	69.2	65.9	61.9	59.3	56.0	53.3	51.4	49.4	48.1	46.7	46.1
37.5°	64.6	60.6	56.6	53.3	50.7	48.1	46.1	44.1	42.8	41.5	40.9
40°	59.3	55.3	51.4	48.1	45.4	43.5	41.5	39.5	38.2	37.6	37.6
42.5°	54.7	50.1	46.1	43.5	41.5	38.9	36.9	34.9	34.3	33.6	34.3
45°	50.1	45.4	42.2	39.5	37.6	34.9	32.9	31.6	31.0	31.6	32.3
47.5°	46.1	41.5	38.2	36.2	34.3	32.3	30.3	29.0	29.0	30.3	31.6
50°	42.2	37.6	34.9	33.6	31.6	29.6	27.0	26.3	27.0	28.3	29.6
52.5°	38.2	32.9	31.0	30.3	28.3	26.3	24.4	23.7	24.4	25.7	25.0
55°	34.3	29.0	28.3	27.7	25.7	23.0	21.1	21.1	21.1	20.4	19.1
57.5°	32.9	25.7	25.0	24.4	22.4	19.7	18.4	17.1	16.5	14.5	13.9
60°	34.3	23.0	23.0	21.7	19.7	17.1	15.2	13.1	11.8	10.5	10.5
62.5°	27.7	21.1	20.4	19.1	16.5	13.9	11.8	9.9	9.2	8.6	8.6
65°	22.4	19.1	17.8	15.8	13.9	11.2	9.2	7.9	7.3	7.3	7.9
67.5°	20.4	17.1	15.2	13.1	11.2	8.6	7.3	6.6	6.6	7.3	7.3
69°	19.1	15.8	13.9	11.8	9.9	7.9	6.6	6.6	6.6	6.6	7.3
70°	17.8	15.2	13.1	11.2	8.6	6.6	5.9	5.9	6.6	6.6	7.3
72.5°	13.9	11.8	11.2	9.2	6.6	5.9	5.3	5.9	5.9	6.6	6.6
75°	10.5	8.6	8.6	7.3	5.3	4.6	4.6	5.3	5.3	5.9	5.9
77.5°	7.3	5.9	5.9	5.3	4.6	4.0	4.0	4.6	5.3	5.3	5.9
80°	5.3	4.6	4.0	4.6	4.0	3.3	4.0	4.6	4.6	5.3	5.3
82.5°	4.0	4.0	4.0	4.0	3.3	3.3	4.0	4.0	4.6	5.3	5.3
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	4.0	4.0	4.6	4.6
87.5°	2.0	2.0	2.0	2.6	2.6	3.3	3.3	3.3	3.3	4.0	4.0
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: P165457

CATALOG NUMBER: VST-E02-LED-E-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	303.7	303.7	303.7	303.7
2.5°	229.3	228.5	225.9	226.6
5°	160.7	156.8	159.4	158.8
7.5°	117.9	117.2	116.6	117.9
10°	100.8	100.8	100.1	100.8
12.5°	94.9	94.9	94.9	94.9
15°	90.2	90.2	89.6	89.6
17.5°	85.0	85.0	85.0	84.3
20°	79.7	79.0	79.0	79.0
22.5°	73.7	73.1	73.1	73.1
25°	67.9	67.2	67.2	67.2
27.5°	61.9	61.3	60.6	60.6
30°	56.0	55.3	54.7	54.7
32.5°	50.1	49.4	48.8	48.8
35°	44.8	44.8	44.1	43.5
37.5°	40.2	40.2	40.2	40.2
40°	36.9	37.6	37.6	37.6
42.5°	34.9	35.6	36.2	36.9
45°	33.6	34.9	35.6	35.6
47.5°	32.9	33.6	34.3	34.3
50°	30.3	29.6	29.6	29.6
52.5°	24.4	23.0	22.4	21.7
55°	17.8	17.1	15.8	15.8
57.5°	12.5	12.5	11.8	11.8
60°	9.9	9.9	9.2	9.9
62.5°	8.6	8.6	8.6	8.6
65°	7.9	7.9	7.9	7.9
67.5°	7.9	7.9	7.9	7.9
69°	7.3	7.3	7.3	7.3
70°	7.3	7.3	7.3	7.3
72.5°	6.6	6.6	6.6	6.6
75°	5.9	6.6	6.6	6.6
77.5°	5.9	5.9	5.9	5.9
80°	5.3	5.3	5.9	5.9
82.5°	5.3	5.3	5.3	5.3
85°	4.6	4.6	5.3	5.3
87.5°	4.0	4.0	4.6	4.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)