

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: P165478

Luminaire Tested: **VST-E04-LED-E-U-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165478
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-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND HOUSE SIDE SHIELD
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8251.9 lumens
Efficiency: N/A
Efficacy: 84.9 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

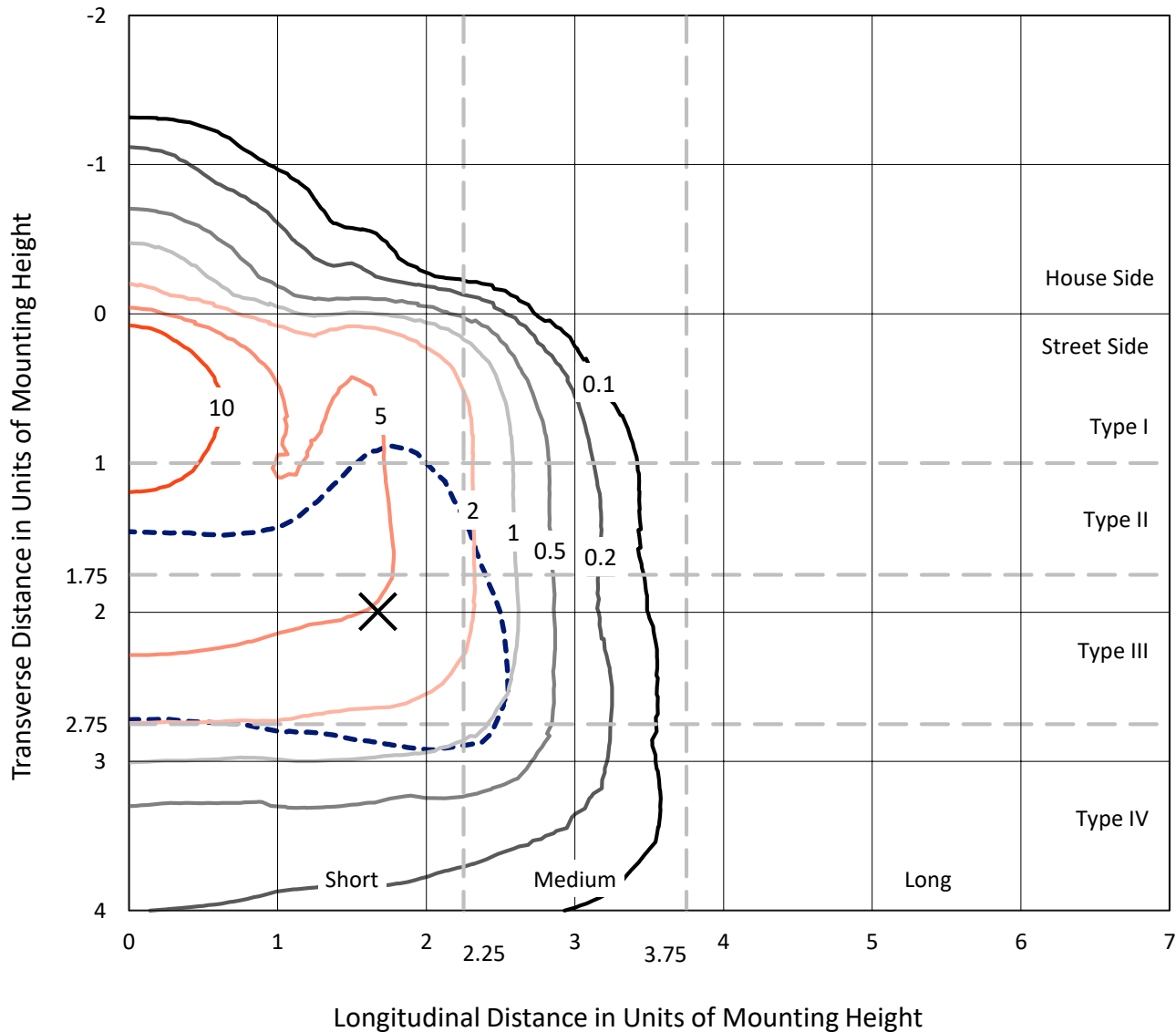
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P165478
 CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

Iso-Footcandle Lines of Horizontal Illumination

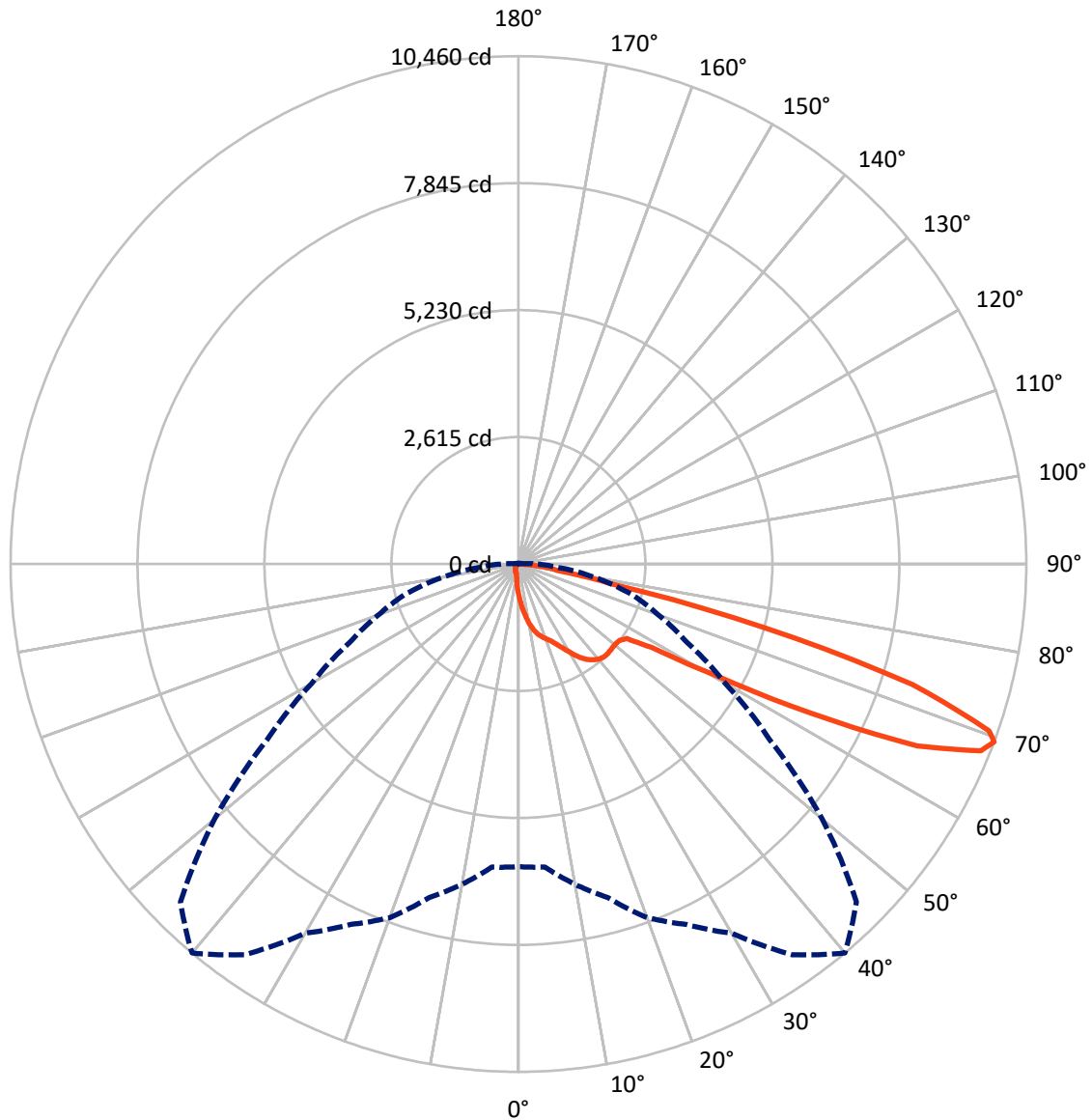
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.5 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P165478
CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



REPORT NUMBER: P165478

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

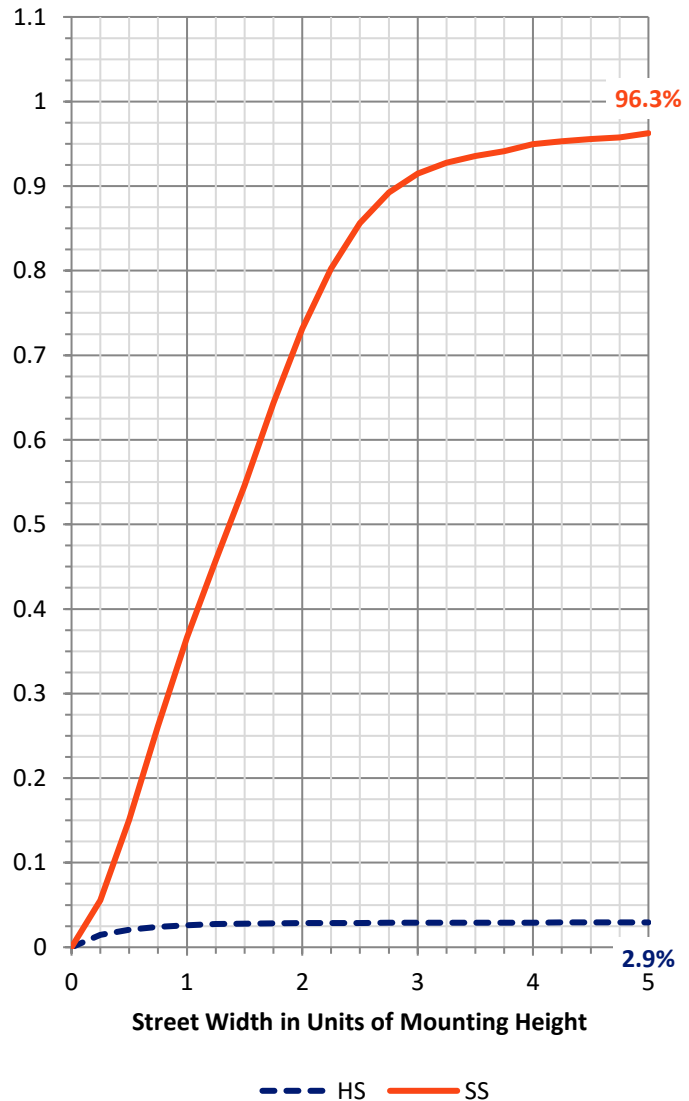
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	245.7	0.0	245.7
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	8006.2	0.0	8006.2
	% Fixture	97.0	0.0	97.0
Total	Lumens	8251.9	0.0	8251.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	0.8
10°-20°	220.8	2.7
20°-30°	422.7	5.1
30°-40°	702.9	8.5
40°-50°	951.2	11.5
50°-60°	1487.5	18.0
60°-70°	3058.3	37.1
70°-80°	1230.6	14.9
80°-90°	113.8	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°	8251.9	100.0
0°-180°	8251.9	100.0

Coefficient of Utilization



REPORT NUMBER: P165478

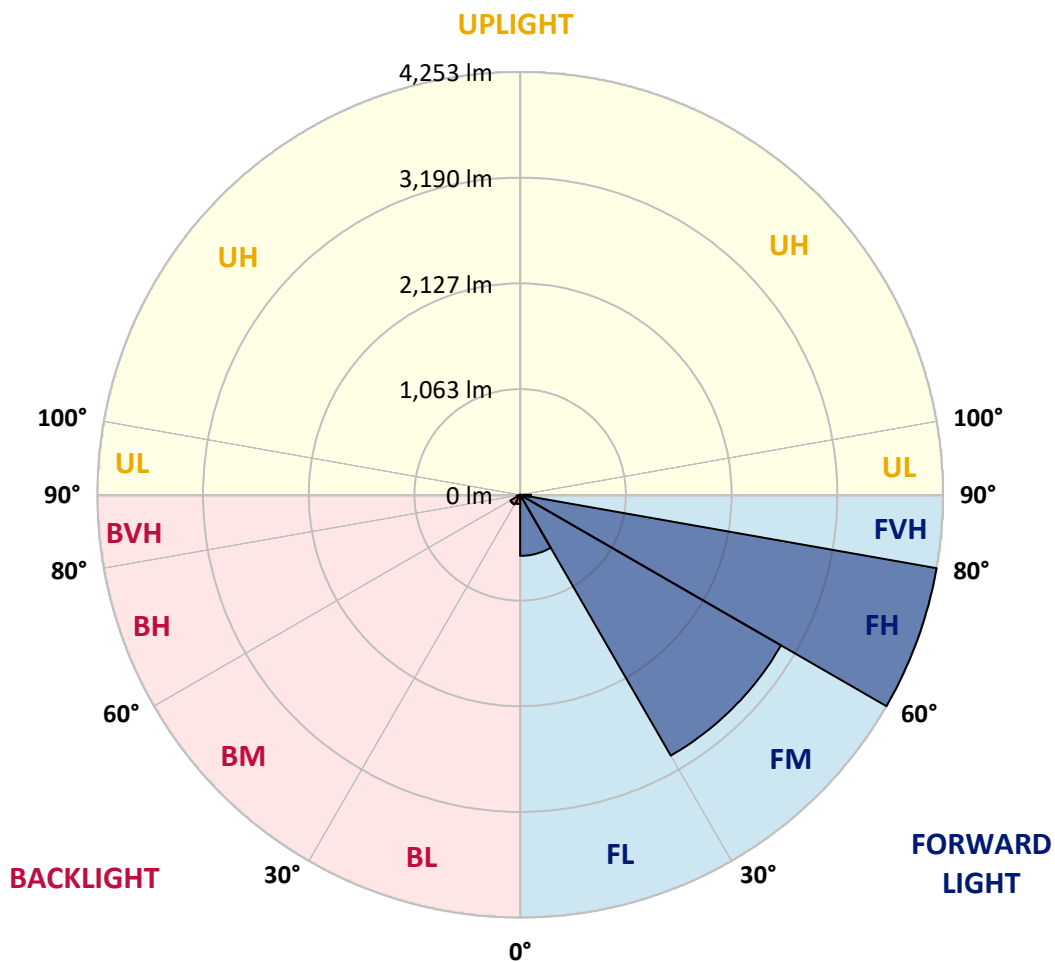
CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	614.1	7.4			
FM	(30°-60°)	3029.4	36.7			
FH	(60°-80°)	4253.1	51.5			G2/5000
FVH	(80°-90°)	109.6	1.3			G2/225
BL	(0°-30°)	93.5	1.1	B0/110		
BM	(30°-60°)	112.2	1.4	B0/220		
BH	(60°-80°)	35.8	0.4	B0/110		G0/110
BVH	(80°-90°)	4.2	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: P165478
 CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2
2.5°	831.4	821.9	811.0	811.0	797.6	797.6	789.4	767.9	765.1	752.9	740.8
5°	1061.2	1053.0	1039.6	1027.3	1016.6	997.6	984.1	958.4	930.1	903.0	878.7
7.5°	1285.6	1281.5	1257.2	1253.1	1235.5	1204.5	1177.4	1139.6	1090.9	1053.0	1008.5
10°	1493.8	1484.2	1478.8	1455.8	1430.2	1396.4	1354.5	1308.6	1251.8	1192.3	1128.7
12.5°	1658.7	1653.3	1628.9	1619.4	1592.4	1558.6	1505.9	1446.4	1389.7	1312.6	1238.2
15°	1781.6	1772.2	1756.0	1741.1	1708.7	1679.0	1630.3	1565.3	1496.5	1412.7	1323.4
17.5°	1884.4	1866.9	1862.8	1839.8	1806.0	1770.8	1716.8	1657.3	1576.2	1492.4	1395.0
20°	2022.2	1998.0	1989.8	1956.0	1916.8	1868.2	1806.0	1731.7	1646.4	1554.6	1454.5
22.5°	2184.5	2166.9	2149.3	2119.6	2069.6	2000.7	1910.1	1829.0	1720.8	1619.4	1511.3
25°	2414.3	2399.4	2371.0	2330.5	2268.3	2185.9	2076.3	1957.4	1830.3	1700.5	1573.5
27.5°	2637.3	2623.8	2603.5	2572.5	2502.1	2411.6	2276.4	2125.0	1964.1	1807.3	1666.7
30°	2846.9	2834.7	2814.4	2783.4	2721.1	2631.9	2479.2	2316.9	2116.9	1934.4	1765.5
32.5°	3072.7	3068.5	3045.6	3001.0	2946.9	2826.6	2660.3	2486.0	2283.2	2072.3	1874.9
35°	3328.1	3297.0	3275.4	3230.8	3138.9	3010.4	2815.8	2625.2	2411.6	2195.3	1975.0
37.5°	3544.4	3514.7	3487.6	3430.9	3318.7	3155.1	2934.7	2725.2	2504.8	2284.5	2060.1
40°	3702.5	3687.7	3655.2	3580.9	3455.2	3260.6	3022.6	2794.1	2572.5	2350.8	2129.0
42.5°	3820.1	3797.2	3760.7	3683.6	3535.0	3313.3	3057.7	2822.5	2603.5	2391.3	2173.7
45°	3863.4	3844.5	3810.7	3726.9	3566.0	3328.1	3056.4	2814.4	2604.9	2403.5	2203.4
47.5°	3837.7	3818.8	3789.0	3710.6	3552.5	3310.5	3032.1	2791.4	2591.4	2407.6	2230.4
50°	3752.6	3741.8	3718.8	3652.5	3510.6	3276.7	3010.4	2779.3	2588.7	2427.8	2268.3
52.5°	3744.5	3737.7	3709.3	3643.1	3498.4	3265.9	3007.7	2786.1	2611.6	2453.5	2295.4
55°	4575.8	4479.8	4264.9	4082.4	3782.3	3425.5	3144.2	2895.5	2709.0	2554.9	2444.0
57.5°	6503.5	6360.2	6077.7	5730.3	5040.8	4363.6	3821.5	3429.5	3236.2	3165.9	3207.8
60°	7406.4	7380.8	7336.2	7171.2	6818.4	6235.8	5586.9	4885.4	4604.2	4579.9	4665.0
62.5°	7835.0	7818.8	7832.3	7812.0	7702.5	7532.2	7345.6	7042.9	6764.3	6584.6	6203.3
65°	8032.4	8043.2	8120.2	8181.0	8194.6	8239.1	8375.7	8752.8	9028.6	8564.9	7506.5
67.5°	7530.8	7594.3	7771.5	7993.1	8252.7	8504.1	8909.6	9704.5	10270.9	9726.2	8223.0
69°	6234.5	6265.6	6698.1	7115.8	7749.8	8193.2	8781.2	9823.4	10460.2	9845.1	8166.2
70°	4908.3	4936.7	5400.4	5968.2	7040.2	7610.6	8379.8	9622.1	10283.1	9686.9	7874.2
72.5°	2214.3	2173.7	2337.2	2641.4	3806.6	4712.4	6057.4	7795.8	8483.8	7760.6	5891.1
75°	1546.5	1528.9	1546.5	1547.8	1728.9	2230.4	2814.4	4225.7	5226.0	4509.6	2814.4
77.5°	1197.7	1185.5	1173.4	1159.8	1181.5	1323.4	1380.2	1499.1	1946.6	1841.2	1073.3
80°	947.6	936.8	966.5	957.1	957.1	973.3	962.5	917.8	834.0	773.2	692.1
82.5°	440.7	443.4	443.4	481.2	580.0	677.2	708.3	663.8	589.4	501.5	404.2
85°	41.9	47.3	79.8	123.1	244.7	275.7	277.1	229.8	229.8	181.2	146.0
87.5°	0.0	1.3	1.3	1.3	12.1	33.8	28.4	8.1	4.0	4.0	6.7
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: P165478
 CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2
2.5°	719.2	715.1	698.9	682.6	667.8	651.5	636.7	621.8	605.6	593.4	578.6
5°	840.8	811.0	777.3	744.9	712.4	678.6	643.5	612.4	580.0	550.2	521.8
7.5°	963.8	905.7	859.7	801.6	748.9	696.2	647.5	597.5	551.6	508.3	467.7
10°	1067.9	997.6	926.0	851.7	775.9	705.6	638.1	578.6	517.7	465.0	415.0
12.5°	1153.1	1063.9	976.0	882.7	797.6	708.3	624.5	552.9	481.2	421.8	370.4
15°	1230.1	1127.4	1021.9	913.8	805.7	704.3	611.0	521.8	448.8	381.2	323.1
17.5°	1292.3	1174.7	1055.7	934.1	817.8	698.9	593.4	500.2	415.0	344.7	288.0
20°	1346.4	1223.4	1095.0	958.4	826.0	697.5	578.6	473.2	385.2	311.0	255.5
22.5°	1396.4	1273.4	1135.5	989.5	838.1	696.2	565.0	452.9	359.5	285.3	229.8
25°	1453.2	1323.4	1178.8	1021.9	859.7	701.6	557.0	436.6	336.6	260.9	209.5
27.5°	1516.7	1380.2	1230.1	1062.5	888.1	712.4	554.3	419.1	316.3	237.9	193.3
30°	1605.9	1447.8	1281.5	1103.0	913.8	724.6	551.6	408.2	296.0	220.3	177.1
32.5°	1684.4	1514.0	1338.3	1145.0	942.2	736.7	550.2	393.4	277.1	202.8	164.9
35°	1766.8	1574.9	1387.0	1185.5	966.5	750.2	548.8	382.5	259.6	185.2	152.8
37.5°	1838.5	1626.2	1424.8	1220.7	993.6	762.4	550.2	373.1	243.3	170.3	141.9
40°	1899.3	1679.0	1466.7	1253.1	1021.9	781.3	551.6	363.7	227.1	156.8	132.5
42.5°	1953.4	1728.9	1511.3	1289.6	1054.4	803.0	559.7	355.5	213.6	144.6	123.1
45°	1995.2	1774.9	1559.9	1341.0	1107.1	838.1	574.5	350.1	200.0	133.8	114.9
47.5°	2038.5	1842.5	1642.4	1422.1	1184.2	893.5	600.2	348.8	189.2	125.7	108.1
50°	2098.0	1910.1	1715.4	1504.5	1254.5	950.3	631.3	350.1	175.8	117.6	101.4
52.5°	2141.3	1979.0	1810.0	1647.8	1422.1	1123.3	751.6	374.4	168.9	110.8	93.3
55°	2396.7	2368.3	2372.4	2399.4	2225.1	1911.4	1257.2	540.7	198.7	125.7	91.9
57.5°	3379.5	3479.5	3537.6	3536.3	3248.3	2694.1	1688.4	694.8	221.7	146.0	109.5
60°	4671.8	4596.1	4489.3	4225.7	3843.1	3075.4	1888.4	747.6	191.9	116.2	100.1
62.5°	5814.1	5370.6	4977.3	4550.2	4048.6	3207.8	1929.0	743.5	167.6	87.8	70.3
65°	6526.4	5728.9	5093.6	4558.2	3967.5	3097.0	1824.9	682.6	141.9	71.7	58.1
67.5°	6696.8	5535.6	4636.7	3954.0	3314.6	2410.3	1339.6	513.7	110.8	59.5	51.4
69°	6325.0	4920.5	3841.8	3067.2	2411.6	1599.2	828.7	324.4	85.1	54.1	47.3
70°	5818.1	4279.8	3129.4	2461.6	1785.8	1123.3	580.0	228.5	69.0	50.0	43.3
72.5°	3743.2	2248.0	1538.3	1070.6	736.7	447.5	227.1	102.8	52.7	41.9	35.1
75°	1451.8	831.4	602.9	458.2	358.2	248.7	137.9	66.2	44.6	35.1	27.0
77.5°	715.1	547.4	447.5	306.8	178.5	110.8	74.4	51.4	36.5	25.7	17.6
80°	565.0	375.8	224.4	139.2	105.4	79.8	56.8	41.9	27.0	16.3	12.1
82.5°	289.3	158.2	116.2	94.6	78.4	62.2	46.0	29.7	17.6	10.8	9.4
85°	90.5	66.2	59.5	58.1	54.1	44.6	32.4	19.0	10.8	6.7	6.7
87.5°	6.7	9.4	12.1	9.4	10.8	9.4	12.1	8.1	5.4	5.4	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: P165478

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2	623.2
2.5°	567.7	551.6	536.7	527.2	509.6	502.9	496.1	493.4	481.2	483.9	473.2
5°	496.1	467.7	446.1	424.5	404.2	389.3	377.1	362.3	350.1	344.7	333.9
7.5°	431.2	394.8	366.4	343.4	319.0	300.1	283.9	273.0	262.3	251.4	246.0
10°	374.4	335.2	302.8	279.8	256.9	240.6	228.5	220.3	213.6	209.5	208.2
12.5°	321.7	283.9	254.1	233.9	216.3	208.2	202.8	198.7	197.3	196.0	196.0
15°	281.2	243.3	220.3	205.5	197.3	193.3	191.9	189.2	186.6	185.2	185.2
17.5°	243.3	214.9	198.7	190.6	186.6	183.9	181.2	178.5	175.8	174.4	174.4
20°	217.6	194.6	186.6	181.2	177.1	174.4	170.3	167.6	166.3	164.9	163.6
22.5°	197.3	182.5	177.1	173.0	167.6	163.6	160.9	158.2	155.5	154.1	152.8
25°	182.5	173.0	168.9	163.6	158.2	154.1	150.1	146.0	143.3	141.9	139.2
27.5°	171.6	164.9	159.5	152.8	147.3	143.3	139.2	135.2	132.5	129.8	128.4
30°	162.2	155.5	148.7	143.3	136.5	132.5	127.1	123.1	121.7	118.9	116.2
32.5°	152.8	146.0	139.2	132.5	125.7	120.3	117.6	112.2	109.5	108.1	105.4
35°	141.9	135.2	127.1	121.7	114.9	109.5	105.4	101.4	98.7	96.0	94.6
37.5°	132.5	124.4	116.2	109.5	104.1	98.7	94.6	90.5	87.8	85.1	83.8
40°	121.7	113.5	105.4	98.7	93.3	89.2	85.1	81.1	78.4	77.1	77.1
42.5°	112.2	102.8	94.6	89.2	85.1	79.8	75.7	71.7	70.3	69.0	70.3
45°	102.8	93.3	86.5	81.1	77.1	71.7	67.6	64.8	63.5	64.8	66.2
47.5°	94.6	85.1	78.4	74.4	70.3	66.2	62.2	59.5	59.5	62.2	64.8
50°	86.5	77.1	71.7	69.0	64.8	60.8	55.4	54.1	55.4	58.1	60.8
52.5°	78.4	67.6	63.5	62.2	58.1	54.1	50.0	48.7	50.0	52.7	51.4
55°	70.3	59.5	58.1	56.8	52.7	47.3	43.3	43.3	43.3	41.9	39.2
57.5°	67.6	52.7	51.4	50.0	46.0	40.6	37.8	35.1	33.8	29.7	28.4
60°	70.3	47.3	47.3	44.6	40.6	35.1	31.1	27.0	24.3	21.6	21.6
62.5°	56.8	43.3	41.9	39.2	33.8	28.4	24.3	20.3	19.0	17.6	17.6
65°	46.0	39.2	36.5	32.4	28.4	23.0	19.0	16.3	14.9	14.9	16.3
67.5°	41.9	35.1	31.1	27.0	23.0	17.6	14.9	13.5	13.5	14.9	14.9
69°	39.2	32.4	28.4	24.3	20.3	16.3	13.5	13.5	13.5	13.5	14.9
70°	36.5	31.1	27.0	23.0	17.6	13.5	12.1	12.1	13.5	13.5	14.9
72.5°	28.4	24.3	23.0	19.0	13.5	12.1	10.8	12.1	12.1	13.5	13.5
75°	21.6	17.6	17.6	14.9	10.8	9.4	9.4	10.8	10.8	12.1	12.1
77.5°	14.9	12.1	12.1	10.8	9.4	8.1	8.1	9.4	10.8	10.8	12.1
80°	10.8	9.4	8.1	9.4	8.1	6.7	8.1	9.4	9.4	10.8	10.8
82.5°	8.1	8.1	8.1	8.1	6.7	6.7	8.1	8.1	9.4	10.8	10.8
85°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	8.1	8.1	9.4	9.4
87.5°	4.0	4.0	4.0	5.4	5.4	6.7	6.7	6.7	6.7	8.1	8.1
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: P165478

CATALOG NUMBER: VST-E04-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	623.2	623.2	623.2	623.2
2.5°	470.4	469.1	463.6	465.0
5°	329.8	321.7	327.1	325.8
7.5°	242.0	240.6	239.3	242.0
10°	206.9	206.9	205.5	206.9
12.5°	194.6	194.6	194.6	194.6
15°	185.2	185.2	183.9	183.9
17.5°	174.4	174.4	174.4	173.0
20°	163.6	162.2	162.2	162.2
22.5°	151.4	150.1	150.1	150.1
25°	139.2	137.9	137.9	137.9
27.5°	127.1	125.7	124.4	124.4
30°	114.9	113.5	112.2	112.2
32.5°	102.8	101.4	100.1	100.1
35°	91.9	91.9	90.5	89.2
37.5°	82.5	82.5	82.5	82.5
40°	75.7	77.1	77.1	77.1
42.5°	71.7	73.0	74.4	75.7
45°	69.0	71.7	73.0	73.0
47.5°	67.6	69.0	70.3	70.3
50°	62.2	60.8	60.8	60.8
52.5°	50.0	47.3	46.0	44.6
55°	36.5	35.1	32.4	32.4
57.5°	25.7	25.7	24.3	24.3
60°	20.3	20.3	19.0	20.3
62.5°	17.6	17.6	17.6	17.6
65°	16.3	16.3	16.3	16.3
67.5°	16.3	16.3	16.3	16.3
69°	14.9	14.9	14.9	14.9
70°	14.9	14.9	14.9	14.9
72.5°	13.5	13.5	13.5	13.5
75°	12.1	13.5	13.5	13.5
77.5°	12.1	12.1	12.1	12.1
80°	10.8	10.8	12.1	12.1
82.5°	10.8	10.8	10.8	10.8
85°	9.4	9.4	10.8	10.8
87.5°	8.1	8.1	9.4	9.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)