

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: P165488

Luminaire Tested: **VST-E05-LED-E-U-SL4-HSS-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165488
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-E05-LED-E-U-SL4-HSS-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL AND
HOUSE SIDE SHIELD
Light Source: (105) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10314.9 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.83' x L: 1' x H: 0.1')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 127.3
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

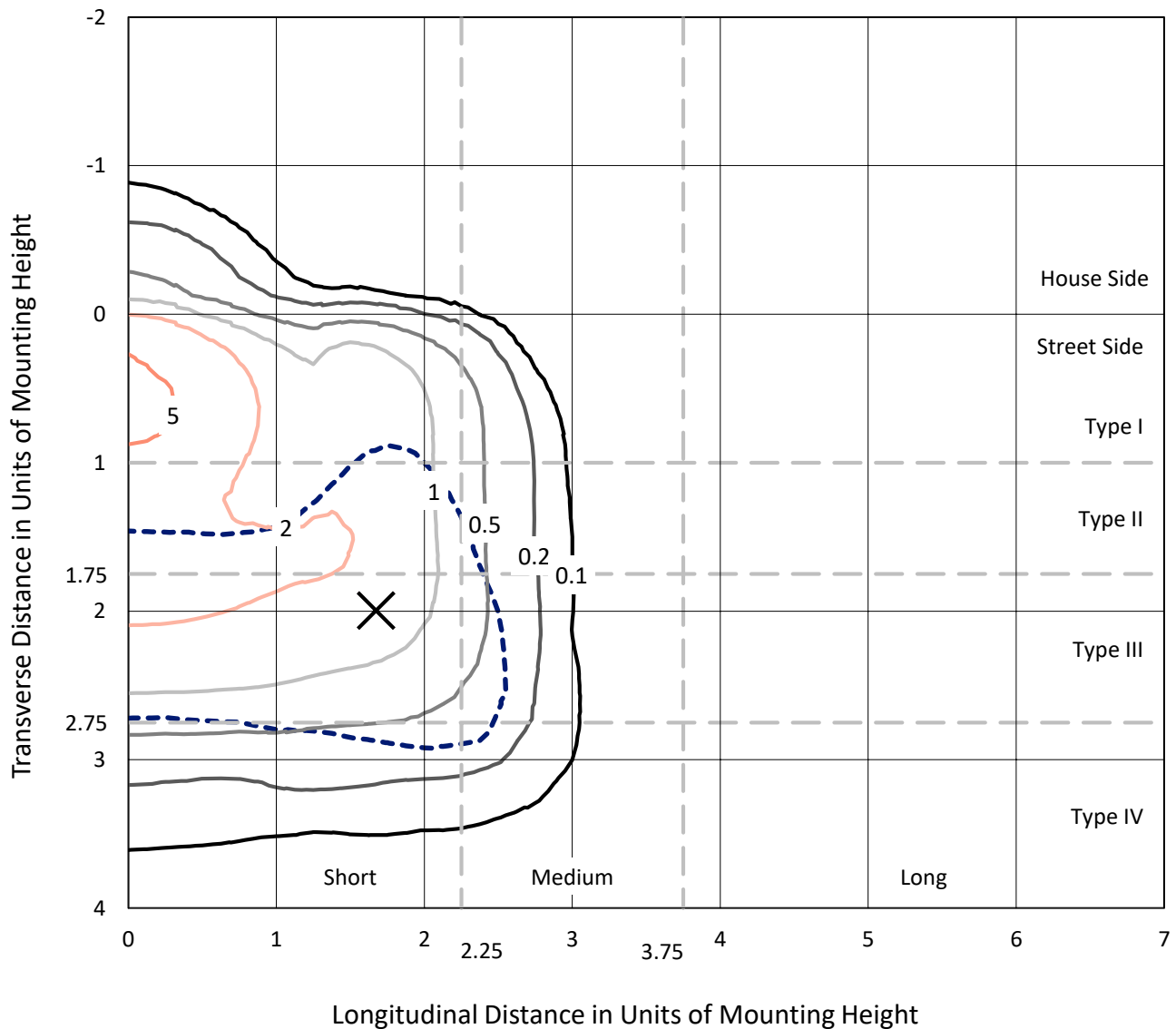


REPORT NUMBER: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

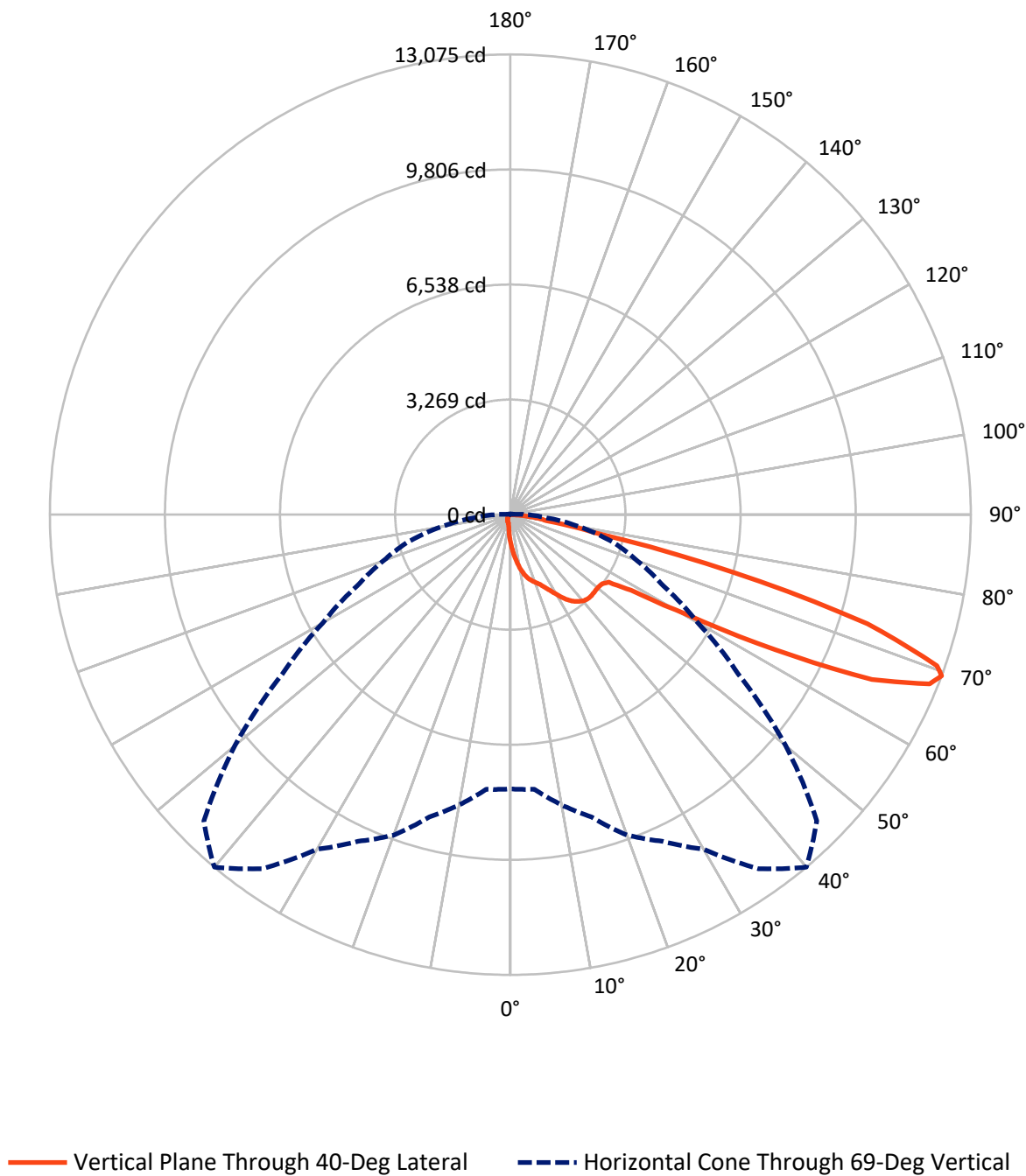


Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
Type IV - Short - Semi-Cutoff

REPORT NUMBER: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

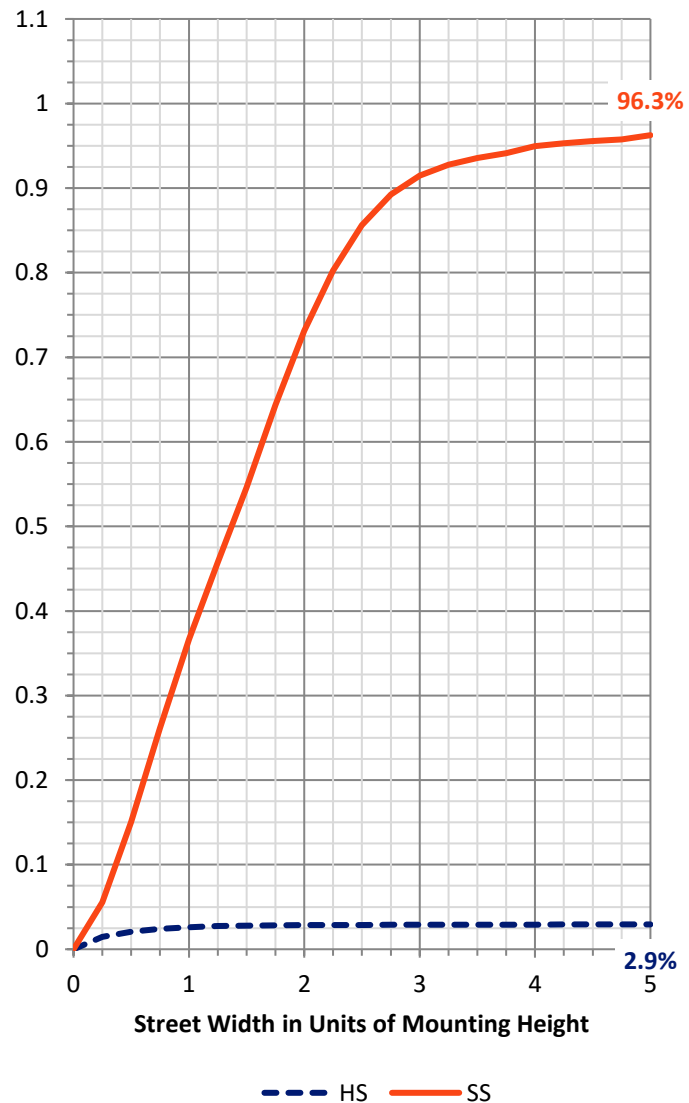
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	307.2	0.0	307.2
	% Fixture	3.0	0.0	3.0
Street Side	Lumens	10007.7	0.0	10007.7
	% Fixture	97.0	0.0	97.0
Total	Lumens	10314.9	0.0	10314.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	0.8
10°-20°	276.0	2.7
20°-30°	528.3	5.1
30°-40°	878.7	8.5
40°-50°	1189.0	11.5
50°-60°	1859.4	18.0
60°-70°	3822.9	37.1
70°-80°	1538.3	14.9
80°-90°	142.3	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°	10314.9	100.0
0°-180°	10314.9	100.0

Coefficient of Utilization



REPORT NUMBER: P165488

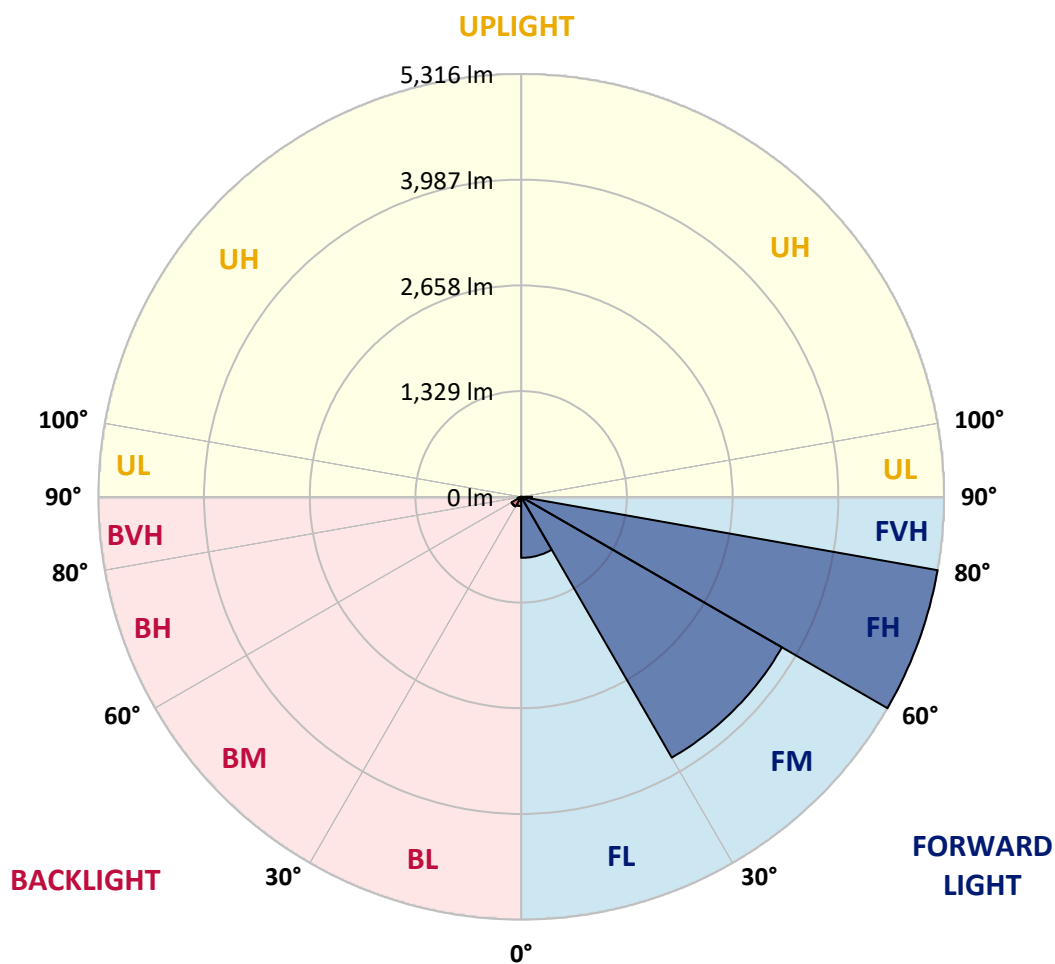
CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	767.6	7.4			
FM	(30°-60°)	3786.8	36.7			
FH	(60°-80°)	5316.3	51.5			G3/7500
FVH	(80°-90°)	137.0	1.3			G2/225
BL	(0°-30°)	116.8	1.1	B1/500		
BM	(30°-60°)	140.2	1.4	B0/220		
BH	(60°-80°)	44.8	0.4	B0/110		G0/110
BVH	(80°-90°)	5.3	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-G3

Type IV Short





REPORT NUMBER: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0
2.5°	1039.2	1027.3	1013.8	1013.8	997.0	997.0	986.8	959.8	956.4	941.1	926.0
5°	1326.4	1316.3	1299.5	1284.2	1270.7	1247.0	1230.1	1198.0	1162.6	1128.7	1098.3
7.5°	1607.0	1601.9	1571.5	1566.3	1544.4	1505.6	1471.7	1424.4	1363.6	1316.3	1260.6
10°	1867.2	1855.3	1848.5	1819.8	1787.8	1745.5	1693.1	1635.7	1564.7	1490.3	1410.9
12.5°	2073.3	2066.6	2036.1	2024.3	1990.5	1948.3	1882.4	1808.0	1737.1	1640.7	1547.8
15°	2227.1	2215.3	2194.9	2176.4	2135.8	2098.7	2037.8	1956.7	1870.6	1765.8	1654.3
17.5°	2355.5	2333.6	2328.4	2299.7	2257.5	2213.5	2146.0	2071.6	1970.2	1865.5	1743.8
20°	2527.8	2497.4	2487.3	2445.0	2396.1	2335.2	2257.5	2164.6	2058.1	1943.2	1818.2
22.5°	2730.6	2708.6	2686.7	2649.5	2587.0	2500.8	2387.6	2286.3	2151.0	2024.3	1889.2
25°	3017.9	2999.3	2963.8	2913.1	2835.3	2732.3	2595.4	2446.7	2287.9	2125.7	1966.8
27.5°	3296.7	3279.7	3254.4	3215.6	3127.7	3014.5	2845.5	2656.3	2455.2	2259.2	2083.4
30°	3558.6	3543.3	3518.0	3479.2	3401.4	3289.9	3098.9	2896.2	2646.1	2418.0	2206.8
32.5°	3840.8	3835.7	3807.0	3751.2	3683.6	3533.3	3325.4	3107.5	2854.0	2590.4	2343.6
35°	4160.1	4121.2	4094.3	4038.4	3923.6	3763.0	3519.7	3281.5	3014.5	2744.1	2468.7
37.5°	4430.5	4393.4	4359.5	4288.6	4148.3	3943.8	3668.4	3406.5	3131.1	2855.7	2575.1
40°	4628.1	4609.6	4569.0	4476.1	4319.0	4075.7	3778.2	3492.7	3215.6	2938.5	2661.3
42.5°	4775.2	4746.5	4700.9	4604.5	4418.7	4141.6	3822.1	3528.2	3254.4	2989.1	2717.1
45°	4829.3	4805.7	4763.4	4658.6	4457.5	4160.1	3820.5	3518.0	3256.1	3004.3	2754.3
47.5°	4797.1	4773.5	4736.3	4638.3	4440.7	4138.2	3790.1	3489.3	3239.2	3009.5	2788.0
50°	4690.7	4677.2	4648.5	4565.7	4388.2	4095.9	3763.0	3474.1	3235.8	3034.8	2835.3
52.5°	4680.6	4672.2	4636.7	4553.9	4373.1	4082.4	3759.7	3482.6	3264.6	3066.9	2869.2
55°	5719.7	5599.8	5331.1	5103.0	4727.9	4281.8	3930.3	3619.4	3386.3	3193.7	3055.0
57.5°	8129.3	7950.3	7597.1	7162.8	6301.0	5454.5	4776.9	4286.9	4045.2	3957.4	4009.7
60°	9258.0	9226.0	9170.2	8964.1	8523.0	7794.8	6983.7	6106.8	5755.2	5724.8	5831.3
62.5°	9793.8	9773.4	9790.4	9765.0	9628.2	9415.2	9182.0	8803.6	8455.4	8230.7	7754.2
65°	10040.4	10054.0	10150.2	10226.3	10243.2	10298.9	10469.7	10941.1	11285.7	10706.2	9383.1
67.5°	9413.5	9492.9	9714.3	9991.4	10315.8	10630.1	11137.0	12130.6	12838.6	12157.7	10278.7
69°	7793.1	7832.0	8372.6	8894.8	9687.3	10241.6	10976.6	12279.3	13075.3	12306.4	10207.7
70°	6135.4	6170.9	6750.5	7460.2	8800.2	9513.2	10474.7	12027.6	12853.8	12108.7	9842.7
72.5°	2767.8	2717.1	2921.5	3301.7	4758.3	5890.5	7571.7	9744.7	10604.8	9700.8	7363.8
75°	1933.1	1911.1	1933.1	1934.7	2161.2	2788.0	3518.0	5282.1	6532.5	5637.0	3518.0
77.5°	1497.1	1481.9	1466.7	1449.8	1476.9	1654.3	1725.2	1873.9	2433.2	2301.5	1341.6
80°	1184.5	1171.0	1208.1	1196.3	1196.3	1216.7	1203.1	1147.3	1042.5	966.5	865.1
82.5°	550.8	554.2	554.2	601.5	724.9	846.5	885.4	829.7	736.7	626.8	505.3
85°	52.3	59.1	99.7	153.8	305.9	344.7	346.4	287.2	287.2	226.5	182.4
87.5°	0.0	1.6	1.6	1.6	15.2	42.3	35.5	10.2	5.0	5.0	8.4
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: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0
2.5°	899.0	893.8	873.6	853.3	834.7	814.4	795.8	777.3	757.0	741.8	723.2
5°	1051.0	1013.8	971.6	931.1	890.5	848.3	804.4	765.5	724.9	687.7	652.2
7.5°	1204.8	1132.1	1074.6	1002.0	936.1	870.2	809.4	746.9	689.4	635.4	584.7
10°	1334.9	1247.0	1157.4	1064.6	969.9	882.0	797.6	723.2	647.2	581.3	518.8
12.5°	1441.4	1329.8	1220.0	1103.4	997.0	885.4	780.7	691.1	601.5	527.2	463.0
15°	1537.6	1409.3	1277.4	1142.3	1007.1	880.4	763.7	652.2	561.0	476.5	403.9
17.5°	1615.4	1468.4	1319.7	1167.6	1022.3	873.6	741.8	625.2	518.8	430.9	360.0
20°	1683.0	1529.2	1368.7	1198.0	1032.5	871.9	723.2	591.4	481.6	388.7	319.3
22.5°	1745.5	1591.7	1419.4	1236.9	1047.7	870.2	706.3	566.1	449.4	356.6	287.2
25°	1816.5	1654.3	1473.5	1277.4	1074.6	877.0	696.2	545.8	420.7	326.1	261.9
27.5°	1895.9	1725.2	1537.6	1328.1	1110.1	890.5	692.8	523.8	395.4	297.4	241.6
30°	2007.4	1809.7	1601.9	1378.8	1142.3	905.7	689.4	510.3	370.0	275.4	221.3
32.5°	2105.5	1892.5	1672.9	1431.2	1177.8	920.9	687.7	491.7	346.4	253.4	206.1
35°	2208.5	1968.6	1733.7	1481.9	1208.1	937.8	686.1	478.2	324.5	231.5	191.0
37.5°	2298.1	2032.7	1781.0	1525.8	1242.0	953.0	687.7	466.4	304.1	212.9	177.4
40°	2374.1	2098.7	1833.3	1566.3	1277.4	976.6	689.4	454.6	283.9	196.0	165.6
42.5°	2441.7	2161.2	1889.2	1612.0	1318.0	1003.7	699.6	444.4	267.0	180.8	153.8
45°	2494.1	2218.6	1949.9	1676.2	1383.9	1047.7	718.2	437.6	250.1	167.3	143.7
47.5°	2548.1	2303.1	2053.0	1777.6	1480.3	1116.9	750.3	436.0	236.5	157.1	135.1
50°	2622.5	2387.6	2144.3	1880.6	1568.1	1187.9	789.1	437.6	219.7	147.0	126.7
52.5°	2676.6	2473.7	2262.6	2059.8	1777.6	1404.1	939.5	468.0	211.2	138.5	116.6
55°	2995.9	2960.4	2965.4	2999.3	2781.4	2389.3	1571.5	675.9	248.4	157.1	114.9
57.5°	4224.4	4349.4	4422.0	4420.4	4060.4	3367.7	2110.5	868.5	277.2	182.4	136.9
60°	5839.8	5745.2	5611.7	5282.1	4803.9	3844.2	2360.6	934.5	239.9	145.3	125.1
62.5°	7267.6	6713.3	6221.6	5687.7	5060.8	4009.7	2411.2	929.3	209.5	109.8	87.8
65°	8158.1	7161.1	6367.0	5697.8	4959.4	3871.2	2281.1	853.3	177.4	89.6	72.6
67.5°	8371.0	6919.4	5795.9	4942.4	4143.2	3012.9	1674.5	642.1	138.5	74.4	64.2
69°	7906.2	6150.7	4802.3	3834.0	3014.5	1999.0	1035.9	405.5	106.4	67.6	59.1
70°	7272.6	5349.7	3911.7	3077.0	2232.2	1404.1	724.9	285.6	86.2	62.5	54.1
72.5°	4678.9	2810.0	1922.9	1338.2	920.9	559.3	283.9	128.5	65.9	52.3	43.9
75°	1814.8	1039.2	753.7	572.8	447.8	310.9	172.4	82.8	55.7	43.9	33.8
77.5°	893.8	684.3	559.3	383.6	223.1	138.5	93.0	64.2	45.7	32.1	22.0
80°	706.3	469.8	280.5	174.0	131.8	99.7	71.0	52.3	33.8	20.3	15.2
82.5°	361.6	197.7	145.3	118.3	98.0	77.8	57.5	37.1	22.0	13.5	11.8
85°	113.2	82.8	74.4	72.6	67.6	55.7	40.5	23.7	13.5	8.4	8.4
87.5°	8.4	11.8	15.2	11.8	13.5	11.8	15.2	10.2	6.8	6.8	5.0
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: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0	779.0
2.5°	709.7	689.4	670.9	659.0	637.0	628.6	620.2	616.8	601.5	604.9	591.4
5°	620.2	584.7	557.6	530.6	505.3	486.7	471.4	452.8	437.6	430.9	417.3
7.5°	539.0	493.5	458.0	429.2	398.7	375.1	354.8	341.3	327.8	314.3	307.5
10°	468.0	419.1	378.5	349.8	321.1	300.8	285.6	275.4	267.0	261.9	260.2
12.5°	402.1	354.8	317.7	292.3	270.4	260.2	253.4	248.4	246.7	245.0	245.0
15°	351.4	304.1	275.4	256.8	246.7	241.6	239.9	236.5	233.2	231.5	231.5
17.5°	304.1	268.6	248.4	238.3	233.2	229.8	226.5	223.1	219.7	217.9	217.9
20°	272.0	243.3	233.2	226.5	221.3	217.9	212.9	209.5	207.9	206.1	204.5
22.5°	246.7	228.1	221.3	216.3	209.5	204.5	201.1	197.7	194.3	192.6	191.0
25°	228.1	216.3	211.2	204.5	197.7	192.6	187.6	182.4	179.2	177.4	174.0
27.5°	214.6	206.1	199.4	191.0	184.2	179.2	174.0	169.0	165.6	162.2	160.5
30°	202.8	194.3	185.8	179.2	170.6	165.6	158.8	153.8	152.1	148.7	145.3
32.5°	191.0	182.4	174.0	165.6	157.1	150.4	147.0	140.3	136.9	135.1	131.8
35°	177.4	169.0	158.8	152.1	143.7	136.9	131.8	126.7	123.3	120.0	118.3
37.5°	165.6	155.5	145.3	136.9	130.1	123.3	118.3	113.2	109.8	106.4	104.8
40°	152.1	141.9	131.8	123.3	116.6	111.5	106.4	101.4	98.0	96.4	96.4
42.5°	140.3	128.5	118.3	111.5	106.4	99.7	94.6	89.6	87.8	86.2	87.8
45°	128.5	116.6	108.2	101.4	96.4	89.6	84.4	81.1	79.4	81.1	82.8
47.5°	118.3	106.4	98.0	93.0	87.8	82.8	77.8	74.4	74.4	77.8	81.1
50°	108.2	96.4	89.6	86.2	81.1	76.0	69.3	67.6	69.3	72.6	76.0
52.5°	98.0	84.4	79.4	77.8	72.6	67.6	62.5	60.8	62.5	65.9	64.2
55°	87.8	74.4	72.6	71.0	65.9	59.1	54.1	54.1	54.1	52.3	49.0
57.5°	84.4	65.9	64.2	62.5	57.5	50.7	47.3	43.9	42.3	37.1	35.5
60°	87.8	59.1	59.1	55.7	50.7	43.9	38.9	33.8	30.4	27.0	27.0
62.5°	71.0	54.1	52.3	49.0	42.3	35.5	30.4	25.3	23.7	22.0	22.0
65°	57.5	49.0	45.7	40.5	35.5	28.7	23.7	20.3	18.6	18.6	20.3
67.5°	52.3	43.9	38.9	33.8	28.7	22.0	18.6	16.9	16.9	18.6	18.6
69°	49.0	40.5	35.5	30.4	25.3	20.3	16.9	16.9	16.9	16.9	18.6
70°	45.7	38.9	33.8	28.7	22.0	16.9	15.2	15.2	16.9	16.9	18.6
72.5°	35.5	30.4	28.7	23.7	16.9	15.2	13.5	15.2	15.2	16.9	16.9
75°	27.0	22.0	22.0	18.6	13.5	11.8	11.8	13.5	13.5	15.2	15.2
77.5°	18.6	15.2	15.2	13.5	11.8	10.2	10.2	11.8	13.5	13.5	15.2
80°	13.5	11.8	10.2	11.8	10.2	8.4	10.2	11.8	11.8	13.5	13.5
82.5°	10.2	10.2	10.2	10.2	8.4	8.4	10.2	10.2	11.8	13.5	13.5
85°	8.4	8.4	8.4	8.4	8.4	8.4	8.4	10.2	10.2	11.8	11.8
87.5°	5.0	5.0	5.0	6.8	6.8	8.4	8.4	8.4	8.4	10.2	10.2
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: P165488

CATALOG NUMBER: VST-E05-LED-E-U-SL4-HSS-7050

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	779.0	779.0	779.0	779.0
2.5°	588.1	586.3	579.5	581.3
5°	412.3	402.1	408.9	407.3
7.5°	302.5	300.8	299.1	302.5
10°	258.6	258.6	256.8	258.6
12.5°	243.3	243.3	243.3	243.3
15°	231.5	231.5	229.8	229.8
17.5°	217.9	217.9	217.9	216.3
20°	204.5	202.8	202.8	202.8
22.5°	189.2	187.6	187.6	187.6
25°	174.0	172.4	172.4	172.4
27.5°	158.8	157.1	155.5	155.5
30°	143.7	141.9	140.3	140.3
32.5°	128.5	126.7	125.1	125.1
35°	114.9	114.9	113.2	111.5
37.5°	103.1	103.1	103.1	103.1
40°	94.6	96.4	96.4	96.4
42.5°	89.6	91.2	93.0	94.6
45°	86.2	89.6	91.2	91.2
47.5°	84.4	86.2	87.8	87.8
50°	77.8	76.0	76.0	76.0
52.5°	62.5	59.1	57.5	55.7
55°	45.7	43.9	40.5	40.5
57.5°	32.1	32.1	30.4	30.4
60°	25.3	25.3	23.7	25.3
62.5°	22.0	22.0	22.0	22.0
65°	20.3	20.3	20.3	20.3
67.5°	20.3	20.3	20.3	20.3
69°	18.6	18.6	18.6	18.6
70°	18.6	18.6	18.6	18.6
72.5°	16.9	16.9	16.9	16.9
75°	15.2	16.9	16.9	16.9
77.5°	15.2	15.2	15.2	15.2
80°	13.5	13.5	15.2	15.2
82.5°	13.5	13.5	13.5	13.5
85°	11.8	11.8	13.5	13.5
87.5°	10.2	10.2	11.8	11.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)