

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: P165017

Luminaire Tested: **VST-E02-LED-E-U-SL2-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165017
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33726)
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-SL2-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 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: 3623.3 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 1' x H: 0.1')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U0 - G1

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



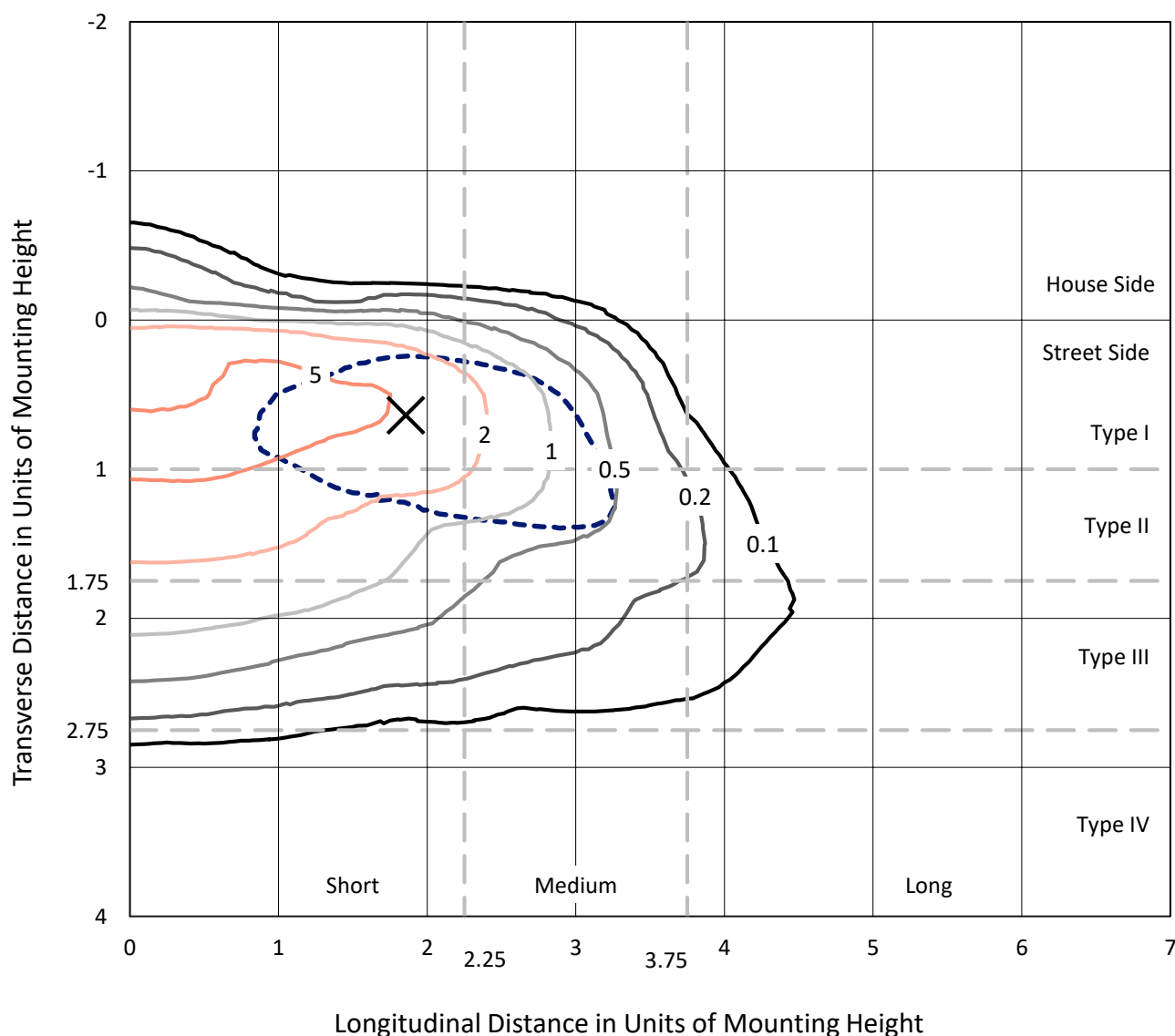
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

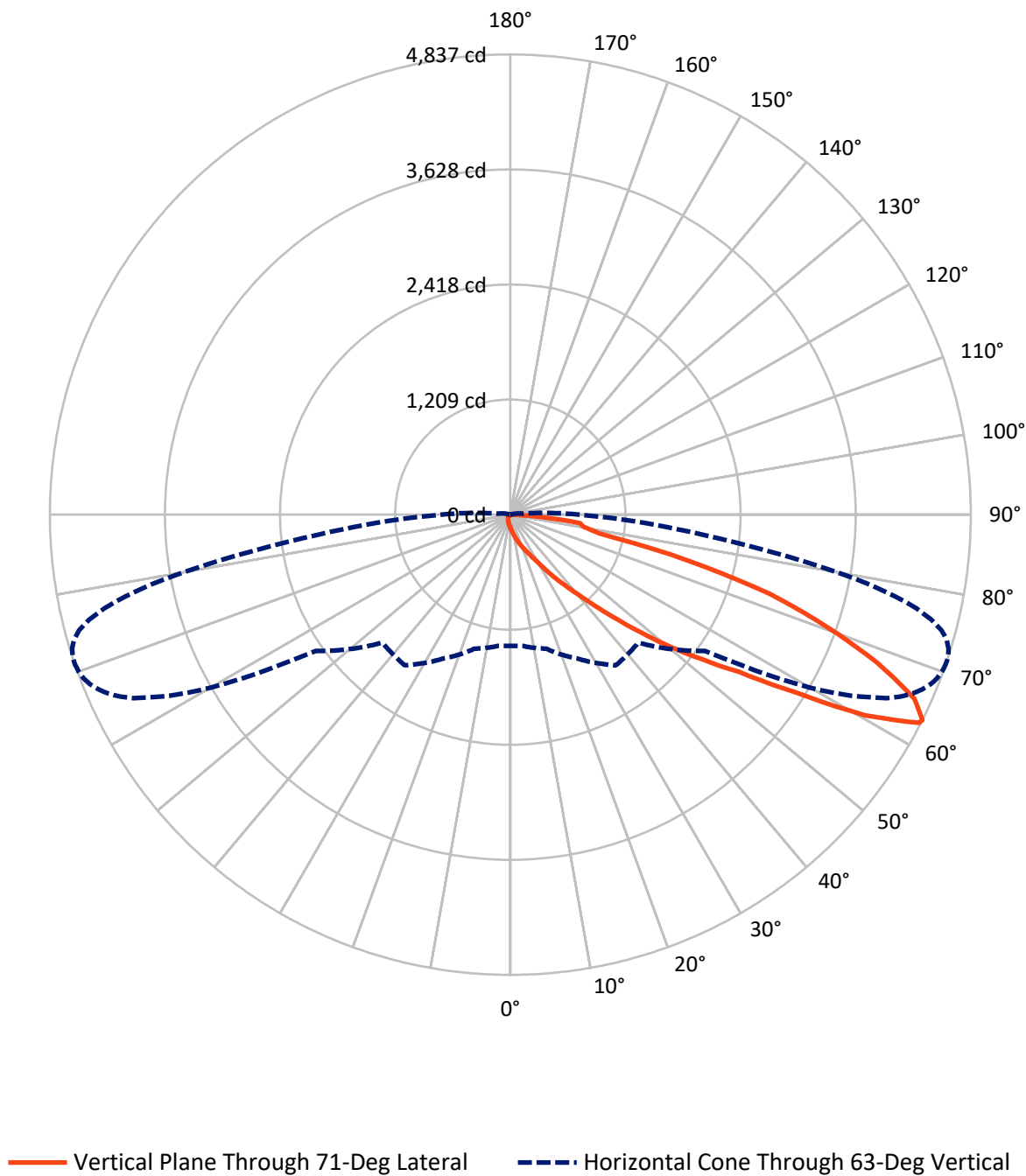


Based on 10 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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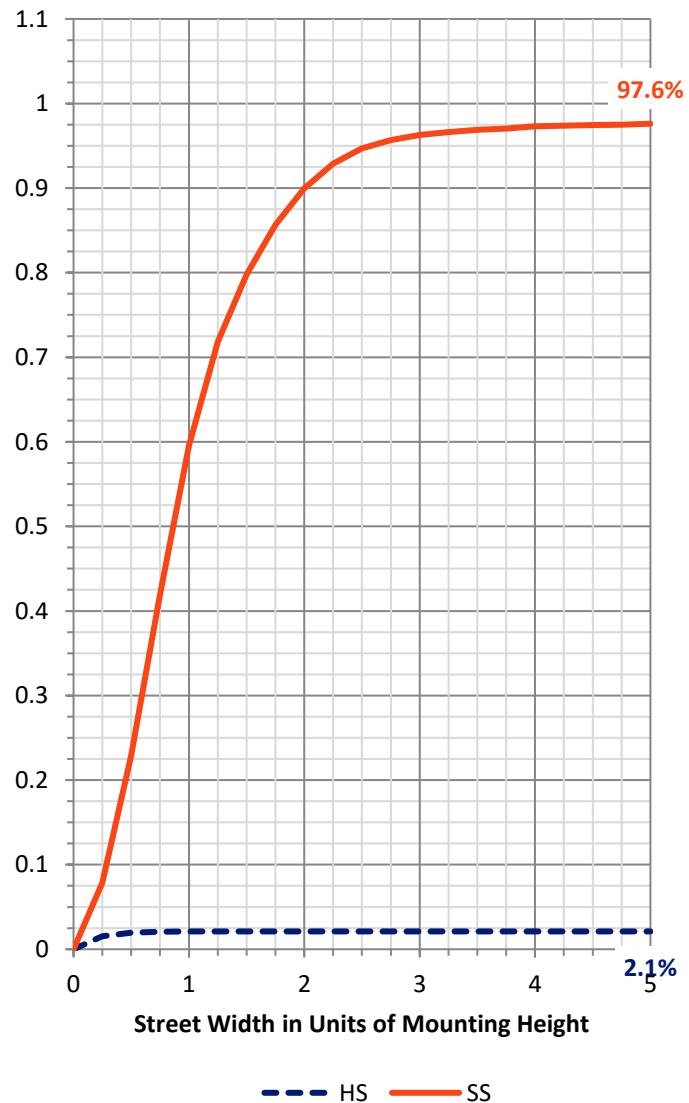
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	76.9	0.0	76.9
	% Fixture	2.1	0.0	2.1
Street Side	Lumens	3546.4	0.0	3546.4
	% Fixture	97.9	0.0	97.9
Total	Lumens	3623.3	0.0	3623.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	15.4	0.4
10°-20°	59.6	1.6
20°-30°	121.0	3.3
30°-40°	295.6	8.2
40°-50°	661.2	18.2
50°-60°	929.7	25.7
60°-70°	1093.3	30.2
70°-80°	394.8	10.9
80°-90°	52.8	1.5
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°	3623.3	100.0
0°-180°	3623.3	100.0

Coefficient of Utilization



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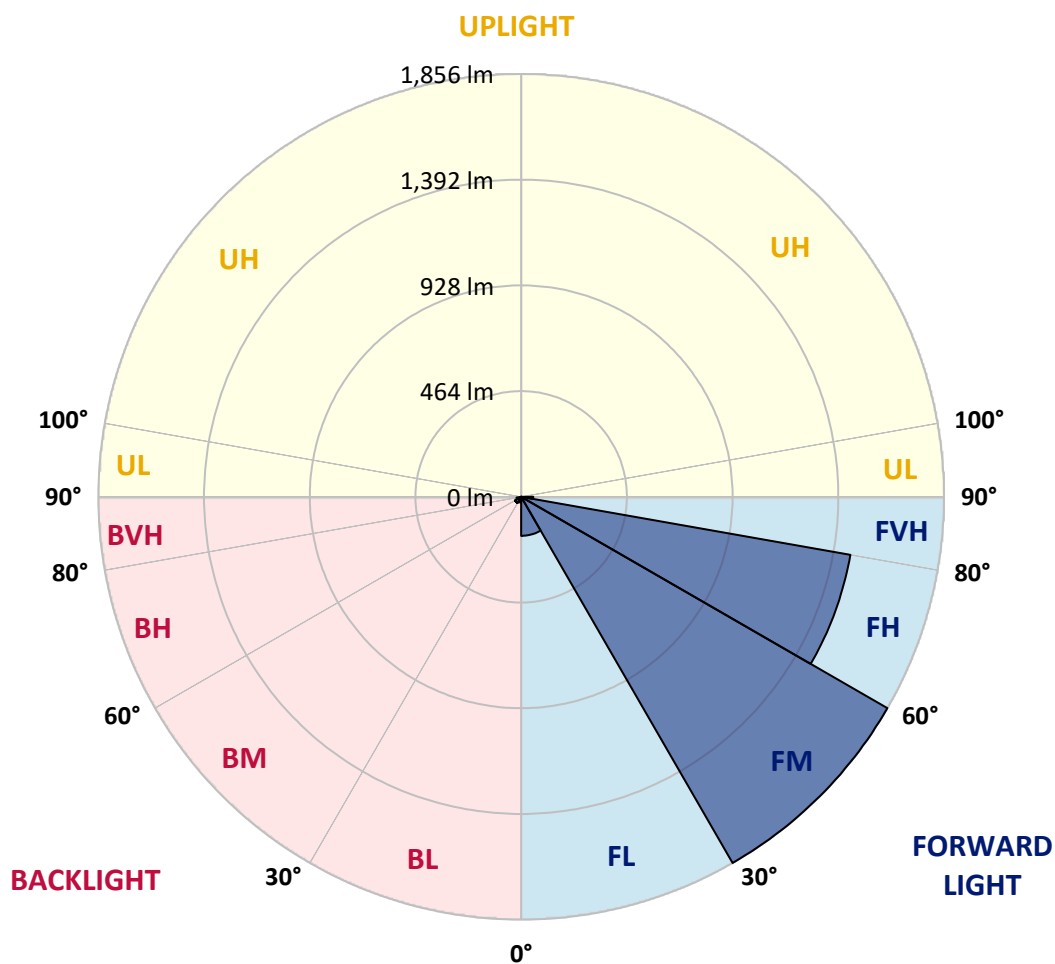
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	171.2	4.7			
FM	(30°-60°)	1855.6	51.2			
FH	(60°-80°)	1466.9	40.5			G1/1800
FVH	(80°-90°)	52.7	1.5			G1/100
BL	(0°-30°)	24.7	0.7	B0/110		
BM	(30°-60°)	31.0	0.9	B0/220		
BH	(60°-80°)	21.1	0.6	B0/110		G0/110
BVH	(80°-90°)	0.1	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0
2.5°	181.8	183.8	182.5	179.2	175.2	170.0	165.3	165.3	164.7	162.7	163.4
5°	238.4	239.1	236.5	228.5	221.3	210.1	197.6	196.3	194.9	193.0	192.4
7.5°	293.8	296.4	293.8	285.2	270.7	253.6	233.8	231.9	227.9	227.9	225.3
10°	350.5	350.5	347.8	337.9	324.7	300.4	275.3	272.0	267.4	266.1	262.1
12.5°	390.6	390.6	389.3	384.1	373.5	351.8	321.4	318.2	312.2	310.3	305.6
15°	406.4	406.4	407.1	411.7	412.4	402.5	370.9	368.2	362.3	357.0	355.0
17.5°	416.3	415.6	415.6	422.2	434.1	440.7	420.2	417.6	411.1	408.4	401.8
20°	438.1	436.7	432.8	432.8	443.9	467.0	467.0	466.4	459.1	457.1	453.8
22.5°	470.3	469.0	457.1	447.2	452.5	481.5	508.5	507.2	504.5	501.9	500.0
25°	523.0	518.4	497.9	469.0	464.4	495.4	540.1	543.4	545.4	545.4	546.7
27.5°	602.7	596.8	560.6	506.6	486.1	517.7	575.0	581.6	587.6	588.9	594.8
30°	713.3	702.8	650.8	571.7	525.0	550.7	626.5	633.7	642.2	644.9	654.1
32.5°	895.1	889.3	839.2	720.6	620.5	615.2	698.2	707.5	718.6	723.2	734.5
35°	1171.9	1173.2	1132.3	1025.6	887.3	814.8	826.7	834.5	838.5	852.4	858.3
37.5°	1359.5	1362.8	1372.1	1329.9	1231.1	1157.3	1064.5	1073.0	1052.6	1054.6	1055.2
40°	1462.3	1472.8	1526.9	1567.7	1559.8	1517.0	1442.6	1447.1	1409.0	1400.4	1358.9
42.5°	1530.8	1544.6	1631.0	1757.4	1822.0	1860.8	1843.7	1841.7	1812.1	1800.9	1766.0
45°	1573.6	1586.2	1694.8	1881.2	2030.1	2143.4	2190.2	2195.5	2170.4	2159.2	2130.2
47.5°	1571.6	1586.2	1702.7	1927.4	2146.7	2327.8	2459.6	2466.2	2481.3	2471.5	2473.4
50°	1484.7	1498.6	1615.8	1849.0	2112.4	2412.2	2653.3	2674.3	2698.7	2715.2	2723.1
52.5°	1379.3	1389.2	1493.3	1714.6	1966.2	2377.3	2767.9	2804.1	2840.3	2871.3	2893.0
55°	1340.5	1351.6	1433.3	1617.1	1849.0	2231.0	2821.2	2874.5	2926.0	2976.7	3018.2
57.5°	1360.9	1371.4	1430.0	1571.0	1779.2	2076.9	2836.4	2919.4	3003.7	3086.0	3167.7
60°	1436.0	1447.1	1497.2	1613.8	1760.7	1988.0	2777.1	2914.7	3055.0	3198.7	3333.7
62.5°	1406.3	1410.9	1484.7	1688.9	1892.5	1912.2	2561.7	2754.1	2968.1	3189.4	3407.5
63°	1378.0	1383.3	1458.4	1668.5	1932.7	1901.0	2495.2	2698.0	2924.0	3162.4	3399.5
65°	1249.6	1250.2	1307.5	1473.5	1887.8	1920.8	2198.8	2392.4	2651.9	2937.8	3237.5
67.5°	932.7	928.1	983.5	1109.9	1482.1	1921.4	1887.2	1995.9	2176.4	2429.9	2698.7
70°	330.7	323.5	413.0	588.2	923.5	1571.6	1621.7	1628.9	1679.0	1816.0	1984.7
72.5°	107.3	109.4	131.7	215.4	425.5	1057.9	1468.3	1445.8	1432.7	1432.0	1454.4
75°	42.8	43.5	52.7	95.5	191.0	509.8	1285.8	1298.3	1302.9	1309.5	1316.8
77.5°	20.4	22.4	29.6	53.3	94.9	252.3	920.2	1026.2	1086.8	1133.6	1162.0
80°	7.3	8.6	16.5	32.9	44.1	115.9	484.8	584.9	673.9	788.5	887.3
82.5°	0.0	0.0	3.3	23.0	24.4	46.7	198.9	233.2	266.8	345.8	443.9
85°	0.0	0.0	0.0	6.6	7.3	7.9	67.2	81.1	90.9	106.0	122.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.0	4.0	9.9	15.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0
2.5°	162.1	161.4	161.4	160.1	159.4	158.1	157.4	155.5	154.8	154.8	154.8
5°	191.7	189.1	187.7	184.4	182.5	181.8	178.5	177.2	175.2	175.9	172.6
7.5°	224.6	220.0	218.0	213.4	212.1	207.5	206.2	202.9	200.9	197.0	195.7
10°	260.8	254.9	251.6	244.4	242.4	239.1	235.1	231.2	227.9	224.0	222.0
12.5°	302.3	297.1	294.4	284.6	280.0	275.3	270.1	264.8	259.5	256.3	251.6
15°	351.1	342.5	339.9	330.7	322.7	316.9	309.6	303.0	299.0	292.5	287.8
17.5°	399.2	390.6	388.6	374.8	366.2	362.3	354.4	345.8	338.6	332.0	324.7
20°	447.2	441.3	436.0	422.9	413.7	407.1	396.5	388.0	382.0	372.8	363.6
22.5°	495.4	489.4	485.5	471.7	463.1	453.8	444.7	435.4	426.8	415.6	405.1
25°	544.7	540.8	538.8	526.3	518.4	509.8	500.6	490.1	479.5	467.0	455.8
27.5°	596.1	597.4	593.5	590.8	582.3	576.4	561.9	554.6	546.7	531.5	517.7
30°	661.3	665.3	664.0	665.9	660.7	656.7	645.5	636.3	627.1	612.6	596.8
32.5°	743.7	749.0	751.6	758.8	756.2	754.9	751.6	738.4	731.8	706.8	700.2
35°	870.8	868.1	879.4	885.3	882.7	881.3	877.4	870.2	862.3	844.4	828.0
37.5°	1036.1	1038.8	1042.7	1030.9	1022.9	1022.3	1010.5	1003.2	992.0	972.2	952.5
40°	1339.1	1322.7	1304.2	1254.2	1232.5	1219.9	1185.0	1175.1	1156.0	1129.0	1108.6
42.5°	1733.0	1716.5	1661.2	1577.6	1532.8	1470.9	1442.6	1407.7	1380.7	1336.5	1312.8
45°	2124.3	2076.9	2070.3	1972.8	1917.5	1835.8	1785.1	1726.4	1665.2	1607.2	1565.1
47.5°	2454.3	2443.7	2411.5	2352.2	2300.8	2232.3	2167.1	2076.9	2013.7	1931.3	1855.6
50°	2718.4	2717.8	2705.9	2671.7	2628.9	2573.6	2516.2	2439.8	2368.0	2267.2	2186.2
52.5°	2916.1	2926.6	2930.6	2920.0	2903.6	2854.8	2825.8	2761.9	2701.3	2615.7	2528.1
55°	3061.0	3099.8	3119.6	3142.0	3137.4	3120.3	3119.0	3077.5	3049.8	2981.9	2920.0
57.5°	3240.2	3304.0	3365.3	3474.0	3477.9	3516.2	3535.9	3555.7	3560.9	3533.9	3513.5
60°	3468.1	3598.5	3714.4	3941.7	4001.0	4094.5	4155.1	4220.9	4276.9	4281.5	4280.2
62.5°	3628.7	3829.7	4016.8	4354.0	4469.3	4577.3	4658.3	4722.2	4761.1	4800.6	4819.0
63°	3633.4	3853.4	4052.3	4400.1	4521.3	4624.1	4701.2	4760.5	4801.3	4825.0	4836.8
65°	3522.1	3788.8	4025.9	4372.4	4486.4	4589.8	4630.0	4668.9	4688.6	4697.8	4662.9
67.5°	2985.2	3246.1	3522.7	3910.0	4007.5	4131.4	4164.3	4184.1	4193.3	4191.3	4161.7
70°	2232.3	2451.1	2758.6	3201.3	3330.4	3451.6	3526.7	3559.0	3569.5	3566.2	3522.1
72.5°	1558.5	1686.9	1940.5	2433.2	2609.1	2764.6	2857.4	2905.5	2915.4	2895.7	2854.8
75°	1308.8	1315.4	1372.7	1642.1	1806.8	1972.8	2077.5	2107.9	2088.1	2028.1	1924.1
77.5°	1168.5	1183.0	1183.0	1223.2	1255.5	1301.6	1311.5	1237.7	1152.1	1041.4	951.8
80°	980.2	1030.9	1066.4	1096.1	1099.4	1090.1	1065.8	1024.3	958.4	874.1	780.5
82.5°	595.5	695.6	736.4	889.3	964.3	1015.0	1011.1	955.7	905.7	818.1	738.4
85°	150.2	162.1	175.9	228.5	256.3	312.9	348.4	364.9	370.9	340.6	308.3
87.5°	14.5	9.9	16.5	12.5	17.8	13.1	17.8	16.5	20.4	21.7	23.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0
2.5°	153.5	152.8	152.2	151.5	150.8	150.2	148.9	148.9	147.5	146.9	146.2
5°	170.6	169.3	168.7	167.3	165.3	164.0	162.1	159.4	157.4	156.8	155.5
7.5°	192.4	189.1	187.7	185.8	183.1	179.2	176.5	174.5	171.3	169.3	165.3
10°	216.7	213.4	209.5	205.5	201.5	197.0	193.6	191.0	185.8	183.1	178.5
12.5°	247.7	241.7	237.1	231.9	226.6	221.3	217.4	209.5	204.8	198.9	194.9
15°	279.3	274.0	268.7	262.1	254.2	245.7	241.7	234.5	228.5	219.4	214.1
17.5°	317.5	307.6	299.7	291.8	284.6	276.7	268.7	257.6	249.0	241.1	230.6
20°	355.0	343.2	334.6	324.1	313.6	301.0	291.8	283.9	272.0	261.5	250.3
22.5°	395.2	383.3	369.5	359.0	344.5	334.6	322.1	308.9	297.1	283.3	269.4
25°	443.9	431.5	415.6	401.8	385.3	371.5	356.3	341.2	326.7	310.9	293.1
27.5°	503.9	490.7	473.6	457.1	435.4	418.3	403.8	383.3	364.9	345.2	324.7
30°	579.7	565.1	544.1	520.4	498.7	479.5	459.1	432.1	411.7	388.0	361.6
32.5°	678.5	661.3	633.0	610.6	583.6	558.5	530.2	503.2	474.3	443.3	413.0
35°	803.0	787.1	754.2	721.3	691.6	662.0	626.5	595.5	554.6	517.1	478.2
37.5°	932.1	903.7	873.4	837.9	800.9	765.4	721.9	679.1	632.3	591.5	542.8
40°	1079.6	1045.4	1020.3	982.1	930.1	879.4	839.2	785.8	727.2	672.5	615.2
42.5°	1281.8	1243.6	1198.9	1140.9	1103.3	1044.1	992.0	928.7	851.7	790.4	721.3
45°	1515.7	1463.6	1420.1	1364.2	1318.7	1244.9	1184.3	1100.0	1022.9	942.6	858.3
47.5°	1782.4	1717.9	1654.6	1599.3	1526.9	1454.4	1377.4	1287.8	1189.0	1100.7	1000.6
50°	2088.7	1997.2	1909.6	1838.5	1739.0	1655.3	1571.6	1470.9	1361.5	1260.1	1146.1
52.5°	2429.3	2323.3	2207.3	2098.0	1982.7	1875.3	1774.5	1658.6	1536.8	1412.9	1285.8
55°	2840.3	2760.6	2624.3	2485.3	2331.1	2187.5	2057.8	1914.2	1766.0	1603.3	1469.6
57.5°	3483.9	3445.0	3331.0	3192.1	2991.2	2816.6	2596.6	2420.7	2206.0	1982.0	1809.4
60°	4356.0	4307.9	4244.0	4131.4	3971.9	3734.8	3492.4	3219.1	2892.4	2582.1	2287.7
62.5°	4821.1	4803.9	4751.9	4674.1	4525.3	4338.2	4093.9	3793.4	3424.6	3047.8	2672.3
63°	4834.9	4813.1	4768.3	4689.3	4558.2	4377.1	4137.3	3845.5	3484.5	3100.5	2717.1
65°	4647.8	4639.3	4593.8	4507.5	4417.9	4279.6	4093.9	3842.8	3539.8	3176.9	2795.5
67.5°	4122.2	4096.4	4026.7	4000.3	3937.7	3841.5	3699.9	3527.3	3310.6	3025.4	2696.0
70°	3486.5	3448.3	3360.7	3313.9	3237.5	3176.9	3090.7	2967.4	2833.7	2634.8	2389.1
72.5°	2812.6	2733.6	2653.3	2531.4	2424.7	2316.7	2221.1	2134.2	1987.3	1906.9	1720.5
75°	1826.6	1682.9	1545.3	1360.9	1194.9	1048.0	905.0	832.6	681.8	620.5	532.9
77.5°	866.8	786.5	678.5	594.8	488.1	398.5	325.4	244.4	191.7	150.2	114.6
80°	699.5	631.7	566.5	490.7	410.3	327.4	251.0	187.7	133.0	92.2	65.2
82.5°	623.8	550.0	469.6	417.6	362.9	297.1	243.7	198.9	146.9	107.3	73.1
85°	242.4	204.2	157.4	128.5	100.1	82.3	74.5	51.4	40.2	31.6	24.4
87.5°	21.1	17.1	13.9	9.2	9.9	5.3	5.9	4.0	3.3	3.3	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0	139.0
2.5°	145.6	144.9	144.2	142.9	142.9	141.7	140.9	140.3	137.0	129.8	123.8
5°	152.8	151.5	150.2	148.2	146.9	144.9	143.6	141.7	134.3	120.5	108.7
7.5°	163.4	160.7	158.8	154.8	152.8	150.2	148.2	144.9	133.0	112.0	95.5
10°	175.9	171.3	167.9	163.4	159.4	156.1	152.8	148.2	131.7	102.8	83.6
12.5°	191.0	185.8	179.2	173.9	168.7	164.0	159.4	153.5	129.8	94.9	74.5
15°	206.2	198.3	193.6	186.4	179.2	172.6	166.0	160.7	130.4	86.3	66.5
17.5°	223.3	215.4	205.5	197.6	189.7	181.1	173.2	162.7	127.1	79.7	60.6
20°	239.8	228.5	219.4	209.5	198.3	187.7	177.8	168.7	124.5	73.1	55.3
22.5°	257.6	244.4	232.5	220.0	206.2	194.3	182.5	170.6	119.9	67.2	50.7
25°	279.3	264.1	247.0	231.9	217.4	202.9	187.7	173.2	115.3	61.9	47.5
27.5°	305.6	285.9	268.7	249.7	229.3	210.8	194.3	178.5	110.7	58.0	44.1
30°	339.2	316.1	291.8	267.4	245.7	224.6	201.5	181.8	106.0	54.0	40.9
32.5°	384.1	355.0	325.4	297.1	268.1	241.1	216.7	191.0	103.4	50.7	37.6
35°	443.3	405.8	369.5	334.0	299.0	266.1	234.5	205.5	103.4	46.7	33.6
37.5°	499.3	455.8	409.7	365.6	324.1	285.9	248.3	213.4	98.2	43.5	30.3
40°	559.9	507.8	453.8	401.8	351.8	304.3	261.5	221.3	93.5	39.5	27.0
42.5°	652.7	586.9	516.4	455.8	395.9	337.3	283.9	236.5	87.6	35.6	23.7
45°	774.7	691.0	608.0	534.2	457.8	386.0	322.7	264.1	86.3	32.3	20.4
47.5°	905.0	806.2	708.8	614.6	525.0	441.3	365.6	295.1	86.3	29.0	17.8
50°	1034.8	911.0	806.9	697.6	596.8	497.9	407.7	327.4	86.9	26.3	14.5
52.5°	1152.1	1019.7	903.1	776.6	665.3	550.7	452.5	359.0	85.6	23.0	11.8
55°	1314.8	1159.3	1024.3	884.6	754.2	625.1	513.8	406.4	86.3	20.4	9.9
57.5°	1614.5	1432.0	1269.3	1086.2	936.0	769.4	634.3	503.9	94.2	17.1	7.3
60°	2044.6	1807.5	1578.9	1355.6	1164.6	966.3	791.1	637.6	110.7	13.9	5.3
62.5°	2333.8	2023.5	1750.9	1504.5	1282.5	1075.0	884.0	709.4	121.9	11.2	3.3
63°	2363.4	2042.6	1768.6	1514.3	1287.8	1080.3	887.9	714.7	122.5	10.5	3.3
65°	2419.4	2075.6	1778.5	1516.3	1282.5	1073.0	885.3	714.1	123.8	8.6	2.6
67.5°	2355.5	2024.8	1721.2	1459.7	1236.4	1030.2	852.4	687.7	123.2	5.9	2.0
70°	2106.5	1832.5	1565.7	1322.0	1119.1	932.7	776.0	627.1	113.3	4.0	1.3
72.5°	1546.6	1360.2	1153.4	977.5	843.1	700.2	597.4	470.9	87.6	2.6	0.7
75°	458.5	417.6	351.1	309.6	273.4	225.9	200.9	156.8	44.8	1.3	0.0
77.5°	91.6	83.0	74.5	67.9	63.9	54.7	52.0	42.8	18.4	0.7	0.0
80°	48.1	39.5	33.6	29.6	25.7	21.1	17.8	14.5	3.3	0.0	0.0
82.5°	46.1	31.0	22.4	18.4	15.8	12.5	9.9	7.3	2.0	0.0	0.0
85°	17.1	13.1	9.9	7.9	6.6	5.9	4.6	4.0	0.0	0.0	0.0
87.5°	2.6	2.0	2.0	1.3	1.3	0.7	0.7	0.7	0.0	0.0	0.0
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: P165017

CATALOG NUMBER: VST-E02-LED-E-U-SL2-HSS

CANDELA DISTRIBUTION (continued):

	125°	135°	145°	155°	165°	175°	180°
0°	139.0	139.0	139.0	139.0	139.0	139.0	139.0
2.5°	117.9	112.6	110.0	106.7	106.7	106.0	107.3
5°	98.2	90.9	85.6	81.7	82.3	80.3	81.1
7.5°	83.0	75.8	71.1	68.5	67.9	67.2	67.2
10°	71.8	65.2	61.3	59.3	58.6	58.6	58.6
12.5°	63.9	57.3	54.0	52.7	52.7	52.0	52.0
15°	57.3	52.0	48.8	47.5	47.5	46.7	47.5
17.5°	52.0	46.7	44.1	42.8	42.8	42.2	42.2
20°	47.5	42.8	40.2	38.2	38.2	37.6	38.2
22.5°	43.5	38.9	35.6	34.3	33.6	32.9	33.6
25°	39.5	34.9	31.6	29.6	29.0	29.0	28.3
27.5°	36.2	31.6	27.7	25.7	25.0	25.0	24.4
30°	32.9	27.7	23.7	21.7	21.1	21.1	21.1
32.5°	29.6	23.7	20.4	18.4	17.8	17.8	17.8
35°	26.3	20.4	17.1	15.2	14.5	14.5	14.5
37.5°	22.4	17.1	13.1	11.8	11.2	10.5	10.5
40°	19.1	13.1	9.9	8.6	7.3	7.3	7.3
42.5°	15.8	10.5	7.3	5.3	4.6	4.0	4.6
45°	13.1	7.9	4.6	2.6	2.0	2.0	2.0
47.5°	10.5	5.3	2.0	0.7	0.7	0.7	0.7
50°	7.9	3.3	0.7	0.0	0.0	0.7	0.7
52.5°	5.9	2.0	0.0	0.0	0.0	0.0	0.0
55°	3.3	0.7	0.0	0.0	0.0	0.0	0.0
57.5°	2.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	1.3	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.7	0.0	0.0	0.0	0.0	0.0	0.0
63°	0.7	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.7	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)