

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: P165257

Luminaire Tested: **VST-E04-LED-E-U-SL3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P165257
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33727)
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-SL3-HSS
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 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: 6852.4 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.67' x L: 1' x H: 0.1')
IES Classification: Type III - Short - Non-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



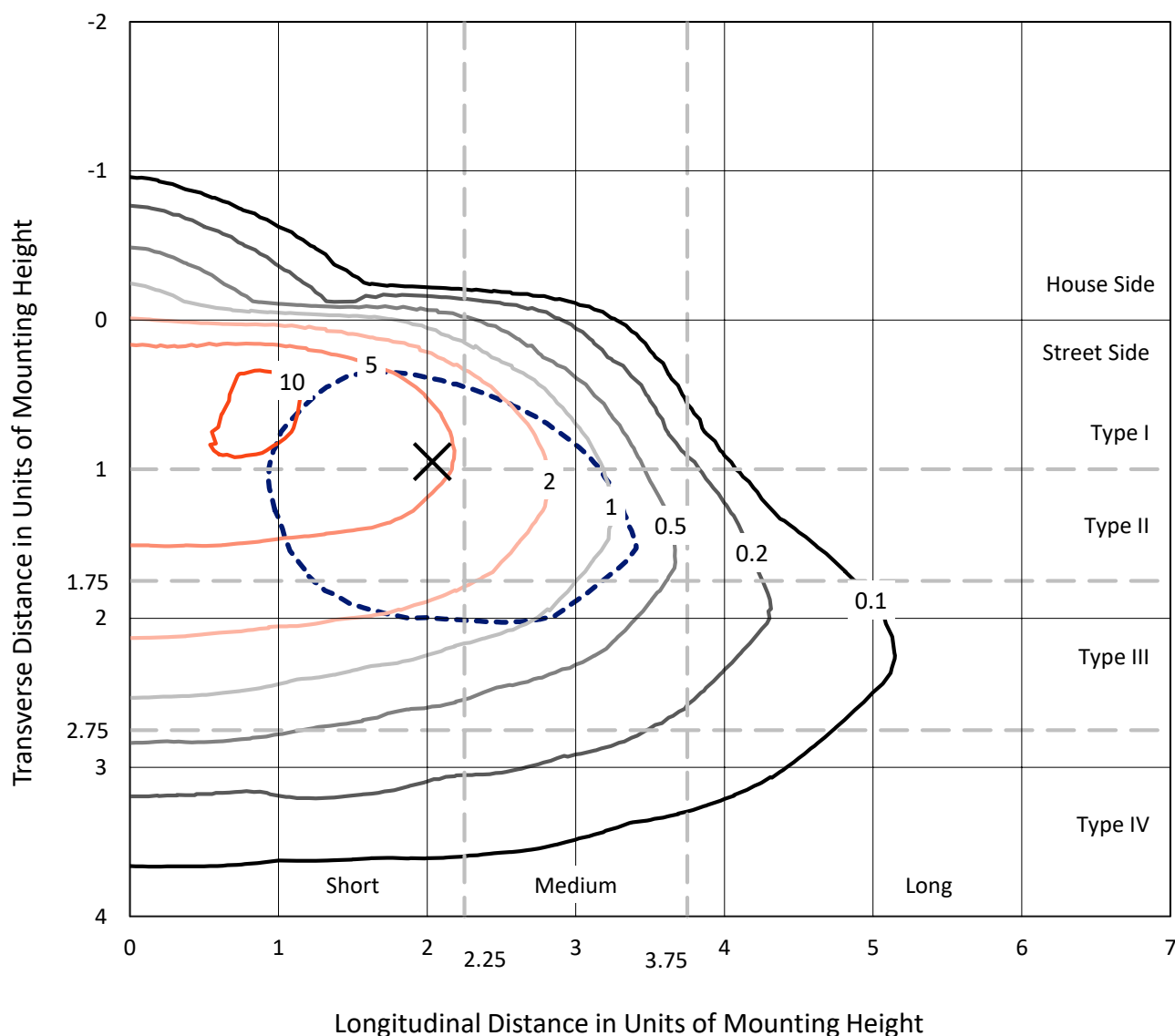
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

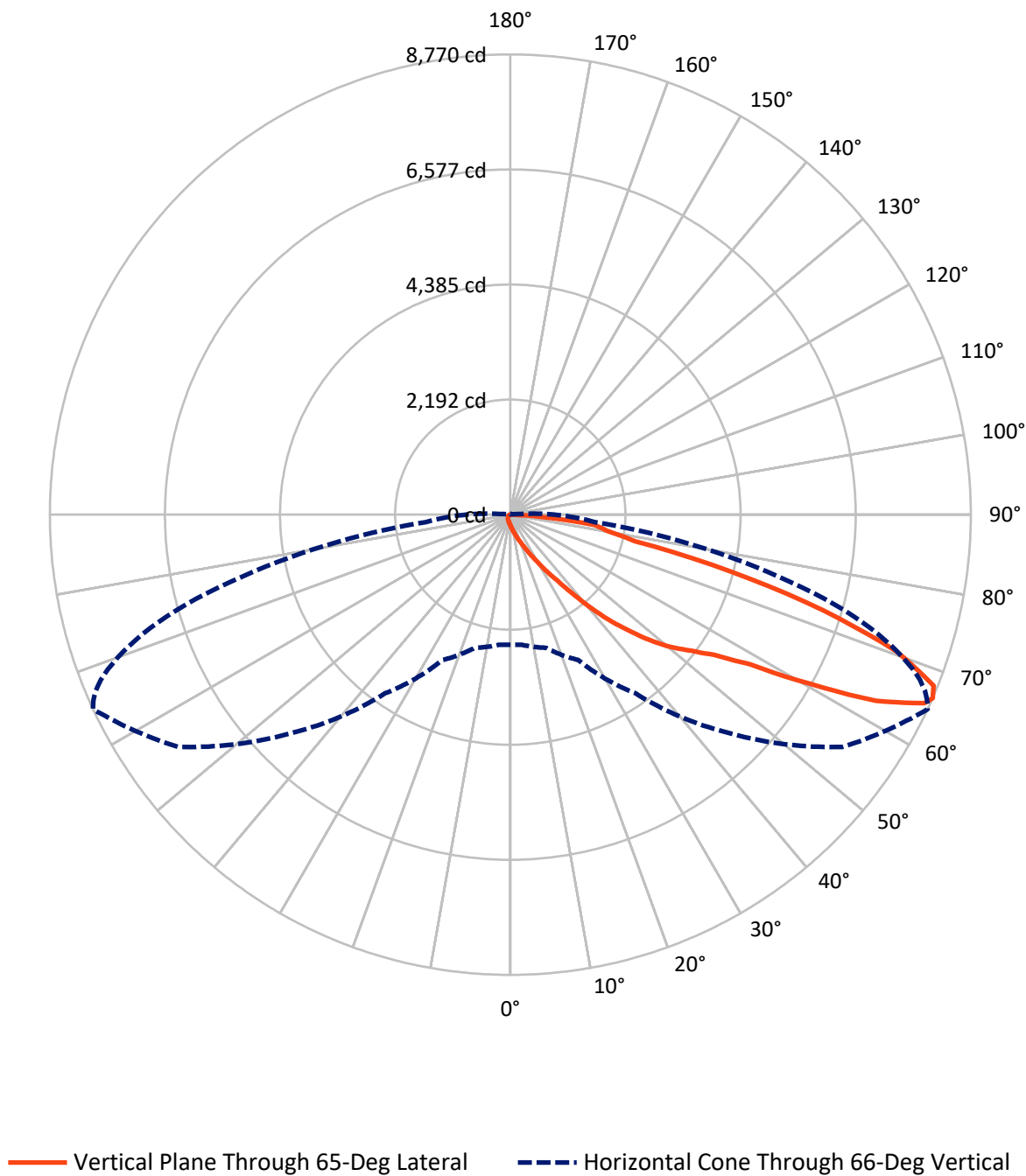


Based on 10 foot mounting height. Maximum calculated value = 11.3 fc
Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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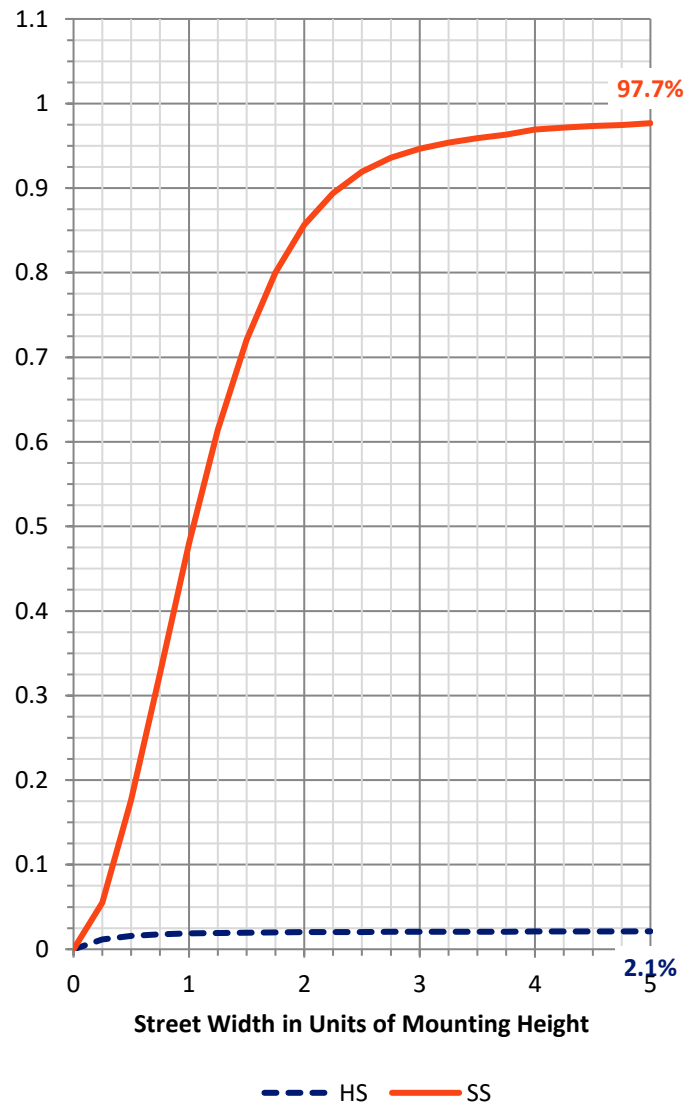
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	148.5	0.0	148.5
	% Fixture	2.2	0.0	2.2
Street Side	Lumens	6703.9	0.0	6703.9
	% Fixture	97.8	0.0	97.8
Total	Lumens	6852.4	0.0	6852.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.2	0.3
10°-20°	98.2	1.4
20°-30°	211.8	3.1
30°-40°	452.2	6.6
40°-50°	1000.0	14.6
50°-60°	1694.7	24.7
60°-70°	2261.5	33.0
70°-80°	996.1	14.5
80°-90°	114.7	1.7
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°	6852.4	100.0
0°-180°	6852.4	100.0

Coefficient of Utilization



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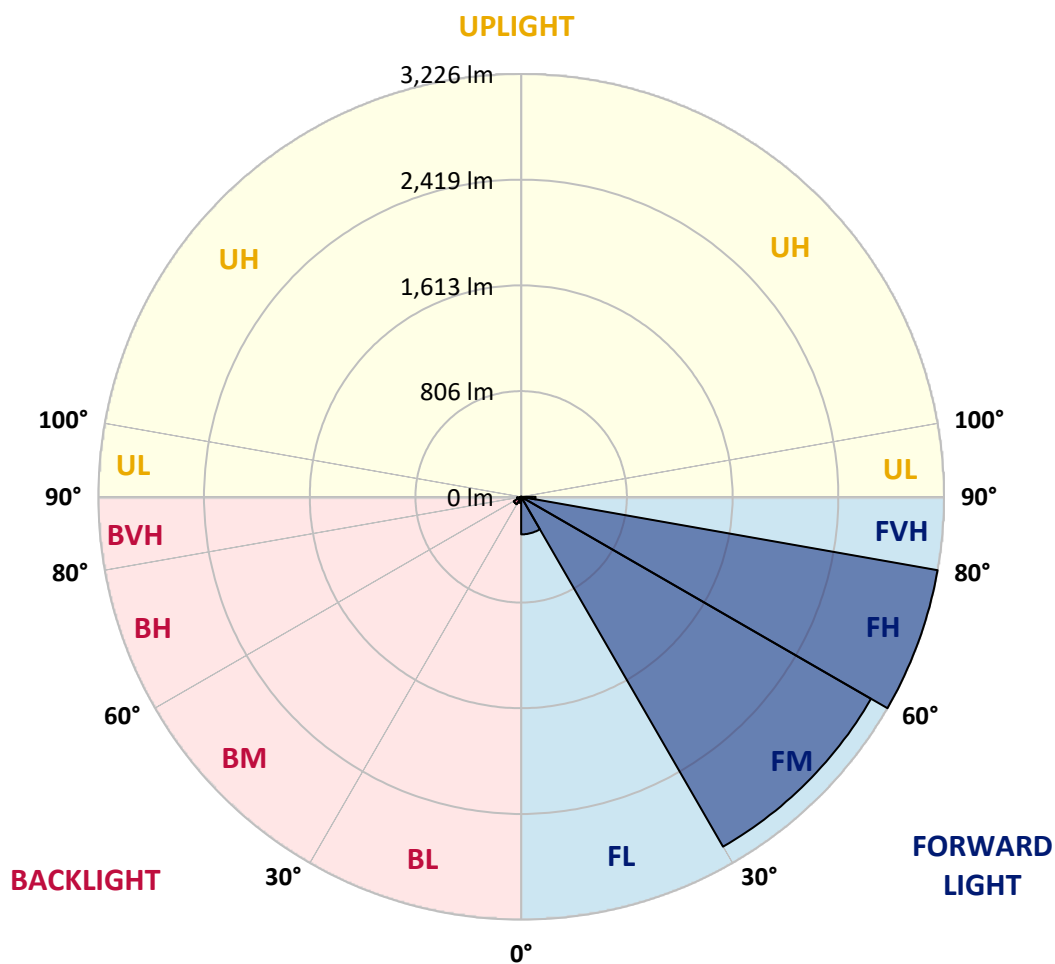
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	286.2	4.2			
FM	(30°-60°)	3081.7	45.0			
FH	(60°-80°)	3225.8	47.1			G2/5000
FVH	(80°-90°)	110.2	1.6			G2/225
BL	(0°-30°)	46.9	0.7	B0/110		
BM	(30°-60°)	65.2	1.0	B0/220		
BH	(60°-80°)	31.9	0.5	B0/110		G0/110
BVH	(80°-90°)	4.6	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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8
2.5°	260.9	259.5	254.2	254.2	246.3	241.1	234.5	227.9	227.9	226.6	225.3
5°	345.1	337.3	335.9	321.4	309.6	292.5	276.6	255.6	253.0	250.3	249.0
7.5°	438.7	437.4	425.5	408.4	384.7	353.0	321.4	287.2	281.9	279.3	274.0
10°	559.9	553.3	537.5	508.5	473.0	430.8	379.4	325.4	318.8	313.5	310.9
12.5°	675.8	664.0	654.7	617.8	573.0	511.1	449.2	371.5	366.2	359.7	349.1
15°	783.8	773.3	757.5	725.9	675.8	598.1	525.7	430.8	417.6	408.4	400.5
17.5°	868.2	861.6	843.1	807.6	753.5	685.0	598.1	491.4	480.9	469.0	454.5
20°	948.6	939.3	910.3	861.6	803.6	750.9	683.8	570.4	555.9	541.4	525.7
22.5°	1025.0	1015.7	968.3	887.9	826.0	803.6	779.9	660.0	637.6	625.8	609.9
25°	1131.7	1111.9	1038.1	910.3	827.4	844.5	885.3	775.9	754.9	737.8	712.7
27.5°	1275.3	1248.9	1133.0	943.3	832.6	889.3	1006.5	916.9	894.5	874.7	847.1
30°	1437.3	1420.2	1281.8	1022.3	870.8	955.1	1142.2	1096.1	1069.8	1046.0	1013.1
32.5°	1600.6	1577.0	1439.9	1172.5	973.5	1082.9	1312.2	1304.2	1270.0	1247.6	1212.0
35°	1744.2	1732.4	1631.0	1418.8	1208.1	1306.9	1538.7	1547.9	1517.7	1493.9	1454.4
37.5°	1841.8	1841.8	1822.0	1683.6	1580.9	1654.6	1872.0	1873.4	1843.0	1789.0	1769.3
40°	1891.8	1906.2	1977.4	2003.8	1998.5	2093.4	2309.4	2285.7	2260.6	2233.0	2167.1
42.5°	1994.6	2007.7	2159.2	2341.0	2459.6	2584.7	2733.6	2725.7	2695.4	2645.4	2584.7
45°	2168.5	2185.6	2366.1	2654.6	2898.2	3076.2	3171.0	3134.1	3103.8	3056.4	3024.7
47.5°	2389.8	2422.7	2626.9	2983.9	3277.7	3571.4	3670.2	3572.8	3546.5	3509.5	3458.2
50°	2625.6	2657.2	2874.6	3283.0	3615.0	3965.4	4130.1	3965.4	3927.2	3915.3	3857.4
52.5°	2829.8	2856.2	3065.6	3513.5	3873.1	4284.2	4523.9	4306.6	4278.9	4239.4	4197.2
55°	2951.0	2972.1	3168.3	3624.2	4048.4	4571.4	4904.7	4713.7	4672.8	4657.0	4596.4
57.5°	2991.8	3012.9	3189.4	3638.6	4143.2	4833.5	5367.1	5373.7	5325.0	5268.3	5249.8
60°	2991.8	3015.5	3164.4	3603.1	4235.4	5112.8	5983.6	6533.0	6427.6	6417.0	6349.8
62.5°	2868.0	2890.4	3040.6	3493.8	4359.3	5489.6	6842.6	7812.2	7781.9	7713.4	7602.7
65°	2599.2	2612.4	2759.9	3214.5	4311.8	5836.1	7586.9	8663.2	8614.5	8480.1	8337.8
66°	2478.0	2488.6	2626.9	3055.0	4156.4	5883.5	7718.6	8769.9	8689.6	8576.2	8415.5
67.5°	2302.8	2321.3	2418.7	2758.6	3783.6	5718.8	7635.7	8694.9	8625.0	8488.0	8327.3
70°	1537.4	1524.2	1868.1	2117.0	2882.5	4659.7	6850.5	7806.9	7808.2	7743.7	7679.1
72.5°	729.8	737.8	837.8	1302.9	1886.5	3113.0	5452.7	6231.3	6320.9	6205.0	6124.6
75°	524.3	536.2	596.8	797.0	1125.0	1868.1	3534.6	4357.9	4360.6	4155.0	3972.0
77.5°	152.8	159.4	223.9	491.4	843.1	1260.7	2030.1	2422.7	2366.1	2218.5	2080.2
80°	63.2	63.2	65.8	156.8	338.6	856.3	1420.2	1865.4	1858.9	1802.2	1720.6
82.5°	23.7	25.0	31.6	64.6	80.4	210.8	947.2	1619.1	1615.1	1534.8	1476.8
85°	2.6	2.6	7.9	27.7	30.3	39.5	189.7	714.0	710.1	714.0	625.8
87.5°	0.0	0.0	1.3	2.6	3.9	5.3	7.9	27.7	30.3	29.0	26.3
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8
2.5°	225.3	222.6	222.6	221.4	221.4	221.4	220.0	218.7	218.7	217.4	216.1
5°	246.3	243.7	242.4	239.8	238.5	237.1	234.5	233.2	230.6	229.2	227.9
7.5°	271.4	266.1	264.8	260.9	256.9	254.2	251.6	247.7	245.0	239.8	238.5
10°	303.0	296.4	291.1	285.8	281.9	275.4	271.4	266.1	260.9	256.9	253.0
12.5°	343.8	334.6	326.7	321.4	312.2	304.3	296.4	292.5	281.9	276.6	270.1
15°	388.6	378.1	368.9	358.3	351.8	338.6	328.0	316.2	310.9	301.7	291.1
17.5°	446.6	429.4	415.0	404.5	391.3	378.1	366.2	354.4	338.6	328.0	314.9
20°	508.5	494.0	474.2	455.8	440.0	424.2	407.0	391.3	376.8	359.7	343.8
22.5°	587.6	566.5	542.8	524.3	503.3	486.2	462.4	441.4	417.6	395.2	376.8
25°	687.7	660.0	637.6	611.3	586.2	559.9	530.9	504.6	474.2	453.2	421.6
27.5°	811.5	785.2	754.9	720.6	695.6	656.1	617.8	585.0	549.4	516.4	480.9
30°	969.6	931.4	899.8	866.9	816.8	778.6	733.8	689.0	640.2	607.4	553.3
32.5°	1159.3	1118.5	1071.0	1023.6	977.5	923.5	868.2	812.8	758.8	698.2	642.9
35°	1391.2	1342.4	1288.4	1237.0	1165.9	1107.9	1038.1	961.7	901.1	831.3	761.4
37.5°	1698.2	1617.8	1570.3	1516.3	1420.2	1341.1	1263.4	1187.0	1080.2	1006.5	907.7
40°	2082.8	2035.4	1957.7	1870.7	1783.8	1679.7	1574.3	1472.9	1349.0	1246.2	1131.7
42.5°	2534.6	2464.9	2385.8	2260.6	2172.4	2049.8	1930.0	1795.6	1644.1	1512.4	1378.0
45°	2958.9	2875.9	2815.3	2690.2	2597.9	2453.0	2308.1	2165.8	1990.6	1820.6	1665.2
47.5°	3417.4	3348.8	3248.7	3147.3	3053.8	2890.4	2733.6	2561.0	2376.6	2175.0	1973.4
50°	3820.5	3766.5	3697.9	3575.4	3471.4	3334.3	3149.9	2961.5	2728.3	2528.1	2298.9
52.5°	4163.0	4120.8	4024.6	3937.7	3844.2	3715.0	3550.4	3369.9	3118.3	2898.2	2637.4
55°	4567.4	4537.1	4452.8	4398.8	4315.8	4192.0	4037.8	3870.6	3604.4	3364.6	3069.5
57.5°	5230.1	5206.4	5132.6	5110.2	5028.5	4920.5	4730.8	4551.6	4240.7	3943.0	3605.8
60°	6327.4	6280.1	6172.0	6116.7	5944.1	5799.2	5552.9	5306.5	4931.0	4551.6	4145.8
62.5°	7502.6	7369.5	7164.0	6987.5	6742.5	6490.8	6161.4	5784.7	5344.7	4894.2	4427.8
65°	8136.2	7909.7	7650.2	7369.5	7052.1	6681.8	6266.9	5815.0	5342.1	4866.5	4373.8
66°	8208.7	7953.1	7677.8	7365.6	7012.6	6618.6	6197.0	5722.8	5231.4	4767.7	4275.0
67.5°	8117.8	7850.4	7559.3	7212.8	6830.7	6422.3	5979.7	5487.0	5014.0	4543.7	4064.2
70°	7481.5	7215.4	6955.8	6591.0	6183.8	5772.9	5353.9	4803.3	4355.4	3923.2	3496.4
72.5°	5974.4	5793.9	5537.0	5224.8	4828.2	4346.1	3997.0	3504.3	3115.7	2696.7	2366.1
75°	3733.5	3479.3	3161.8	2763.9	2460.9	2069.6	1865.4	1491.3	1270.0	1076.3	889.3
77.5°	1908.9	1717.9	1495.3	1271.3	1056.6	843.1	652.1	461.1	310.9	216.1	160.7
80°	1577.0	1408.3	1223.8	1019.7	830.0	644.2	463.8	316.2	201.6	131.8	102.7
82.5°	1302.9	1160.6	995.9	806.2	641.6	505.9	351.8	229.2	142.2	92.2	72.5
85°	554.6	503.3	388.6	308.2	231.8	171.3	119.9	80.4	56.6	46.1	42.2
87.5°	23.7	26.3	25.0	19.8	14.5	14.5	13.2	10.6	10.6	10.6	10.6
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):

	80°	81°	82°	83°	84°	85°	95°	105°	115°	125°	135°
0°	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8	206.8
2.5°	216.1	214.7	213.4	213.4	212.1	210.8	202.9	196.3	188.4	183.1	177.8
5°	225.3	223.9	221.4	220.0	217.4	216.1	199.0	184.4	172.6	163.4	156.8
7.5°	234.5	233.2	229.2	225.3	223.9	221.4	193.7	175.2	159.4	148.9	142.2
10°	246.3	242.4	238.5	233.2	229.2	225.3	188.4	164.6	147.5	138.3	131.8
12.5°	263.4	256.9	250.3	243.7	238.5	231.8	185.8	155.4	138.3	127.8	121.2
15°	283.3	274.0	266.1	258.2	249.0	242.4	180.5	147.5	130.4	119.9	112.0
17.5°	301.7	291.1	279.3	267.4	258.2	249.0	175.2	139.7	122.5	112.0	104.1
20°	328.0	312.2	297.8	283.3	270.1	258.2	167.3	131.8	115.9	104.1	96.2
22.5°	357.0	338.6	320.2	300.4	283.3	267.4	160.7	125.1	109.4	97.5	88.2
25°	393.9	371.5	346.5	321.4	301.7	280.6	154.2	118.6	102.7	90.9	81.7
27.5°	445.3	413.7	386.0	354.4	324.1	300.4	148.9	113.3	96.2	84.3	75.1
30°	515.1	469.0	425.5	391.3	355.7	321.4	143.6	106.7	90.9	77.8	67.2
32.5°	592.8	538.8	488.7	437.4	392.6	353.0	138.3	101.4	84.3	71.1	61.9
35°	689.0	620.5	553.3	494.0	440.0	387.3	133.0	96.2	79.0	64.6	55.4
37.5°	827.4	741.7	653.4	577.0	507.2	437.4	129.1	90.9	72.5	58.0	48.7
40°	1017.0	906.4	798.3	694.2	603.4	516.4	123.8	85.6	67.2	52.7	43.4
42.5°	1222.6	1088.2	945.9	828.6	703.5	594.2	118.6	80.4	61.9	47.4	38.2
45°	1478.2	1310.8	1138.2	978.8	826.0	685.0	113.3	75.1	55.4	42.2	33.0
47.5°	1757.4	1544.0	1349.0	1148.8	967.0	798.3	106.7	71.1	50.1	36.9	29.0
50°	2044.6	1819.4	1573.0	1345.0	1129.0	911.7	100.2	64.6	44.8	33.0	23.7
52.5°	2354.2	2088.1	1836.5	1553.2	1301.6	1060.5	93.5	59.3	40.8	29.0	19.8
55°	2748.1	2450.4	2155.3	1837.8	1534.8	1233.1	87.0	52.7	35.6	25.0	15.8
57.5°	3243.4	2890.4	2528.1	2169.8	1802.2	1459.7	81.7	46.1	30.3	21.0	13.2
60°	3711.1	3298.8	2860.1	2447.8	2032.7	1633.6	73.8	40.8	26.3	17.1	13.2
62.5°	3953.5	3483.2	3010.2	2555.8	2113.1	1695.5	65.8	34.2	22.4	14.5	11.8
65°	3894.2	3414.7	2956.2	2497.8	2064.4	1656.0	58.0	30.3	19.8	13.2	11.8
66°	3808.6	3334.3	2873.3	2437.2	2023.5	1613.8	54.0	29.0	18.5	13.2	10.6
67.5°	3621.5	3163.0	2723.0	2317.3	1911.5	1533.4	48.7	26.3	17.1	11.8	10.6
70°	3093.3	2677.0	2325.2	1964.2	1633.6	1292.4	39.5	22.4	14.5	10.6	10.6
72.5°	2047.2	1764.0	1529.5	1316.1	1100.0	853.7	33.0	18.5	11.8	10.6	9.2
75°	772.0	698.2	599.4	538.8	470.3	412.3	26.3	11.8	9.2	9.2	9.2
77.5°	137.0	126.5	112.0	102.7	94.9	87.0	21.0	7.9	7.9	9.2	9.2
80°	92.2	85.6	77.8	71.1	65.8	59.3	14.5	6.6	7.9	7.9	9.2
82.5°	65.8	61.9	58.0	52.7	48.7	43.4	9.2	6.6	7.9	7.9	7.9
85°	39.5	36.9	34.2	31.6	27.7	26.3	6.6	6.6	6.6	7.9	7.9
87.5°	10.6	9.2	10.6	10.6	7.9	9.2	5.3	5.3	5.3	6.6	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: P165257

CATALOG NUMBER: VST-E04-LED-E-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	206.8	206.8	206.8	206.8	206.8
2.5°	175.2	175.2	172.6	176.6	176.6
5°	151.5	151.5	150.2	151.5	151.5
7.5°	138.3	137.0	137.0	137.0	138.3
10°	126.5	125.1	125.1	125.1	125.1
12.5°	115.9	114.6	113.3	114.6	114.6
15°	106.7	104.1	104.1	104.1	104.1
17.5°	98.8	96.2	94.9	94.9	94.9
20°	90.9	87.0	87.0	87.0	87.0
22.5°	83.0	79.0	79.0	79.0	79.0
25°	75.1	71.1	71.1	71.1	71.1
27.5°	68.5	64.6	64.6	64.6	64.6
30°	60.6	58.0	58.0	59.3	58.0
32.5°	55.4	51.4	51.4	52.7	52.7
35°	48.7	46.1	46.1	46.1	46.1
37.5°	42.2	39.5	39.5	39.5	39.5
40°	36.9	34.2	33.0	34.2	34.2
42.5°	31.6	29.0	27.7	27.7	27.7
45°	27.7	23.7	22.4	23.7	23.7
47.5°	22.4	19.8	19.8	21.0	21.0
50°	17.1	17.1	18.5	21.0	21.0
52.5°	15.8	15.8	18.5	21.0	21.0
55°	14.5	15.8	18.5	19.8	21.0
57.5°	13.2	15.8	18.5	19.8	19.8
60°	13.2	14.5	17.1	19.8	19.8
62.5°	11.8	13.2	15.8	18.5	18.5
65°	11.8	13.2	15.8	18.5	18.5
66°	11.8	13.2	15.8	18.5	18.5
67.5°	11.8	13.2	15.8	18.5	18.5
70°	11.8	13.2	15.8	17.1	17.1
72.5°	10.6	11.8	14.5	17.1	17.1
75°	10.6	11.8	14.5	17.1	17.1
77.5°	10.6	11.8	14.5	17.1	17.1
80°	10.6	11.8	14.5	15.8	17.1
82.5°	9.2	11.8	13.2	15.8	15.8
85°	9.2	10.6	13.2	14.5	15.8
87.5°	7.9	9.2	10.6	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)