

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: P159738

Luminaire Tested: **VST-E02-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159738
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5024 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - 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

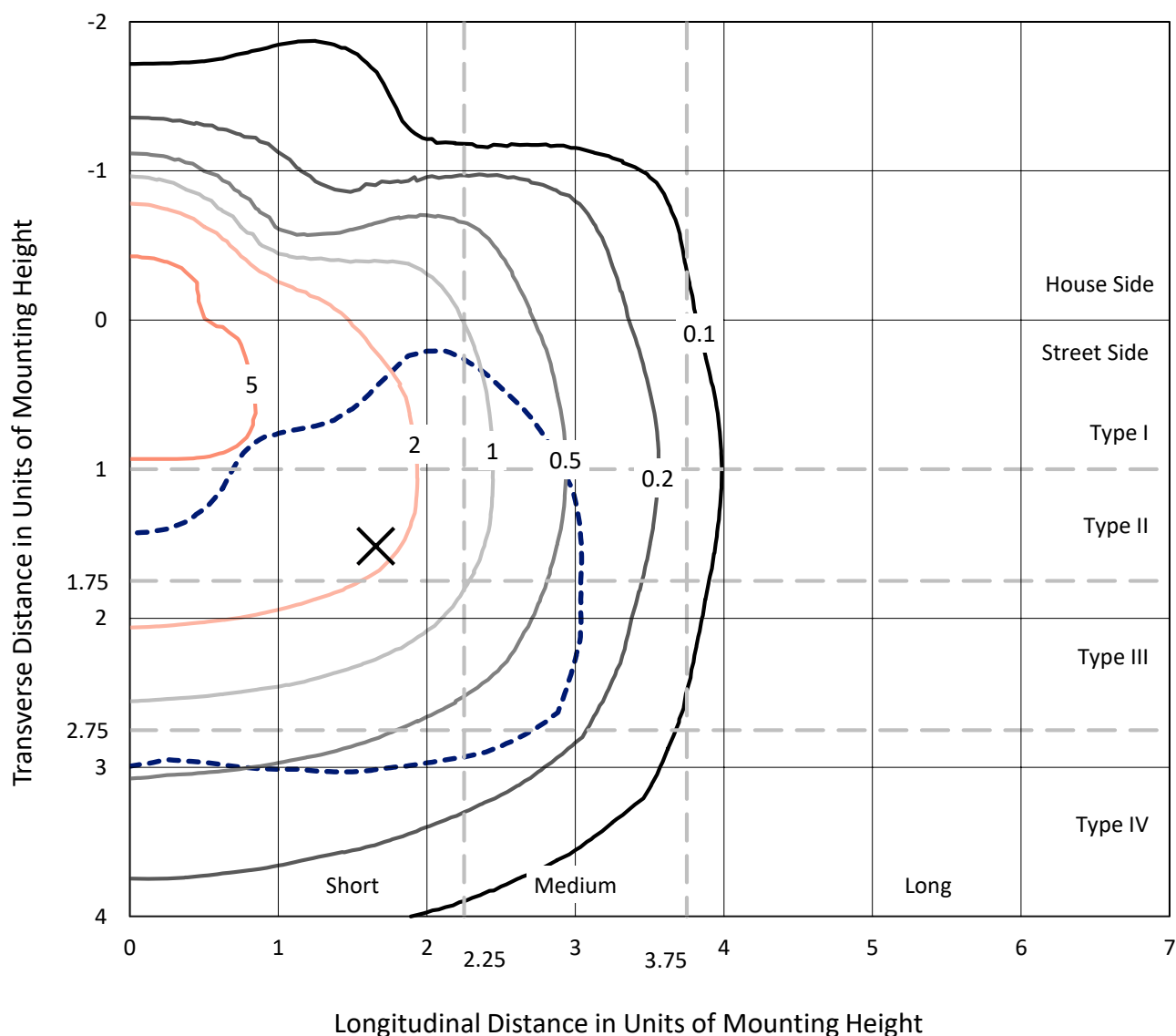


REPORT NUMBER: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

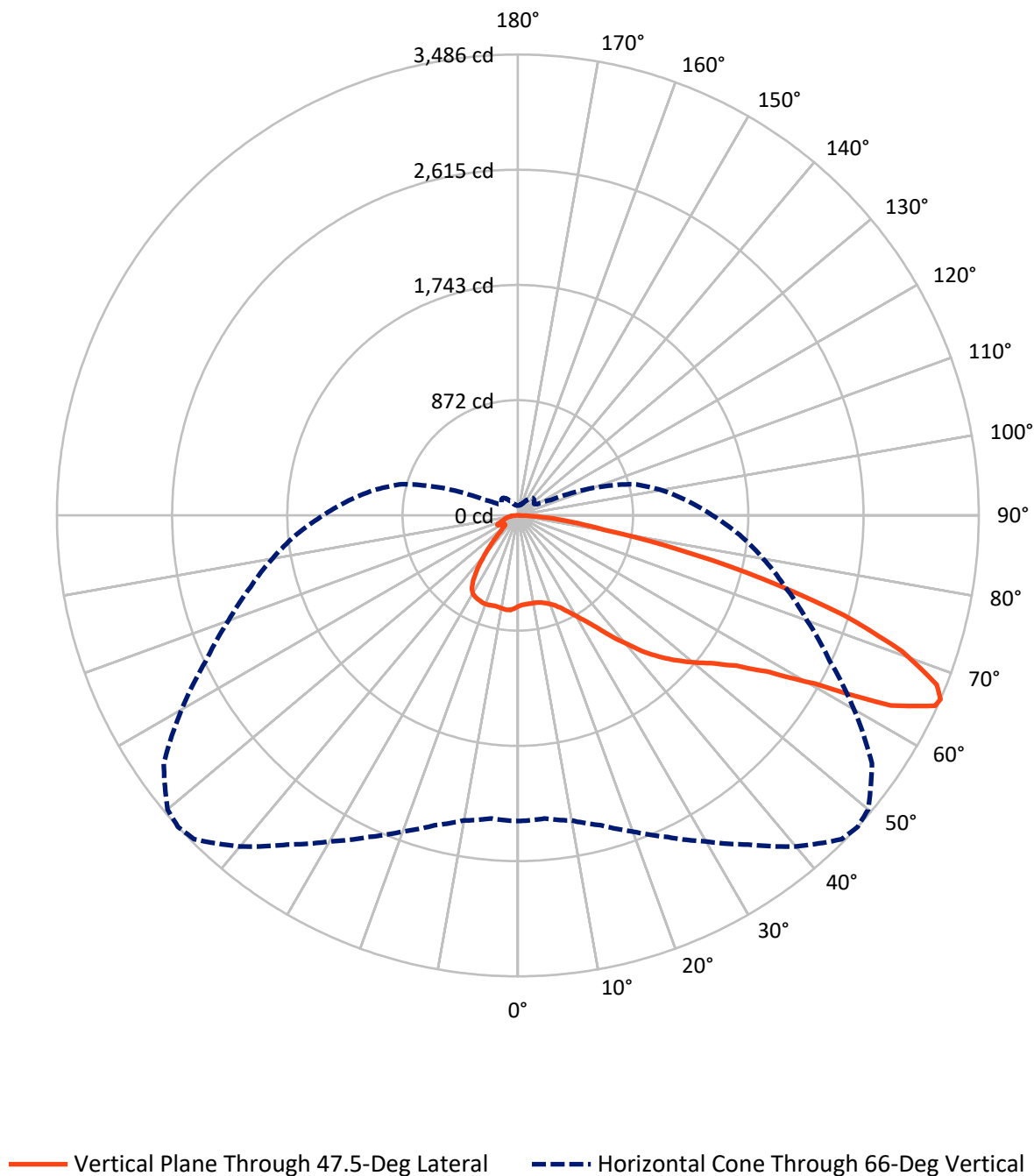


Based on 10 foot mounting height. Maximum calculated value = 7 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1040.2	0.0	1040.2
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	3983.8	0.0	3983.8
	% Fixture	79.3	0.0	79.3
Total	Lumens	5024.0	0.0	5024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.3	1.3
10°-20°	198.7	4.0
20°-30°	339.0	6.7
30°-40°	511.6	10.2
40°-50°	665.0	13.2
50°-60°	912.3	18.2
60°-70°	1403.4	27.9
70°-80°	811.3	16.1
80°-90°	116.5	2.3
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°	5024.0	100.0
0°-180°	5024.0	100.0

Coefficient of Utilization



REPORT NUMBER: P159738

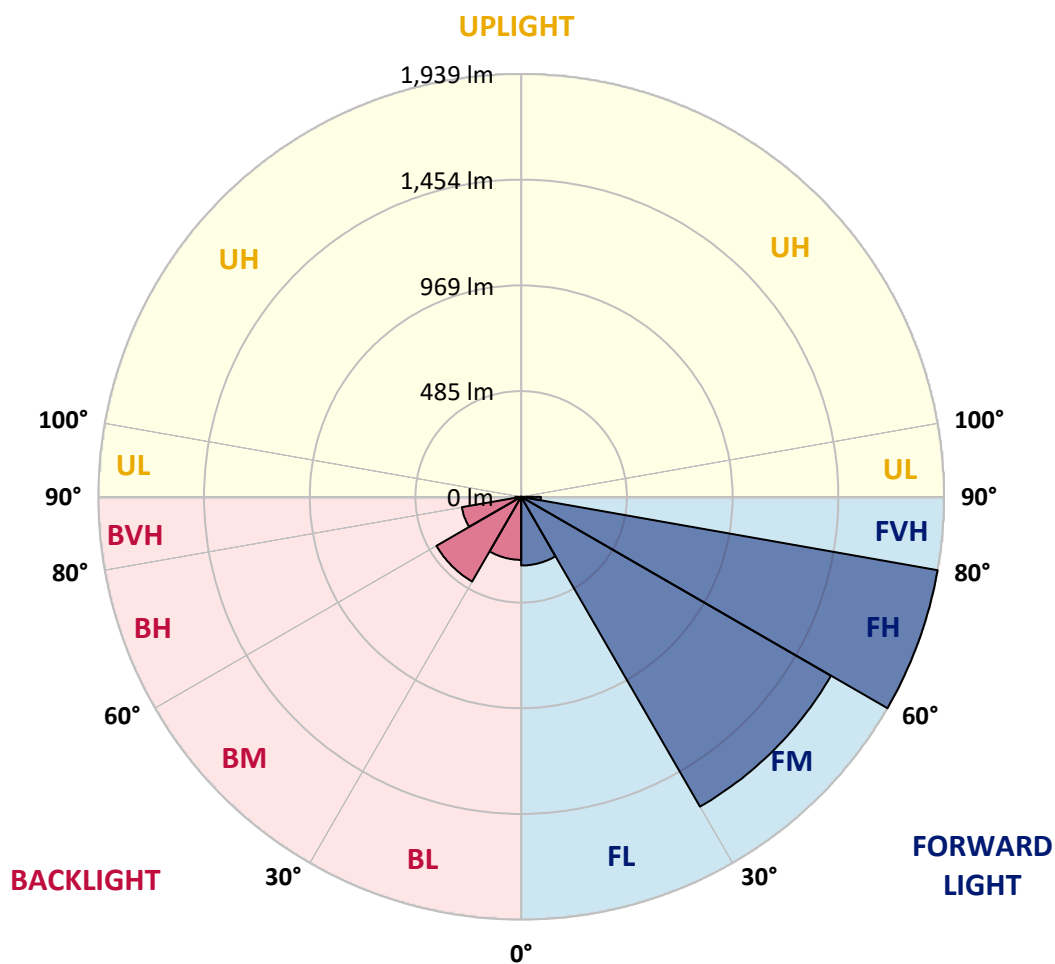
CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	314.9	6.3			
FM	(30°-60°)	1640.1	32.6			
FH	(60°-80°)	1938.6	38.6			G2/5000
FVH	(80°-90°)	90.2	1.8			G1/100
BL	(0°-30°)	289.0	5.8	B1/500		
BM	(30°-60°)	448.8	8.9	B1/1000		
BH	(60°-80°)	276.1	5.5	B1/500		G1/500
BVH	(80°-90°)	26.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





REPORT NUMBER: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4
2.5°	669.8	670.1	670.4	670.4	671.5	671.5	673.1	674.2	674.5	676.6	677.9
5°	657.3	656.9	657.3	658.0	659.6	661.0	664.4	666.8	668.8	672.2	673.9
7.5°	651.9	652.6	653.2	653.6	655.0	658.3	661.4	663.7	667.7	671.8	673.5
10°	659.0	660.0	659.0	659.6	659.6	662.7	664.1	665.8	668.8	672.5	673.5
12.5°	675.5	677.6	675.5	673.9	672.5	675.2	674.5	673.1	674.9	675.8	675.8
15°	702.9	702.9	701.5	699.2	695.8	696.1	693.1	690.1	688.7	686.3	684.7
17.5°	729.5	728.9	725.8	722.8	720.4	719.4	715.0	711.0	706.3	702.5	698.5
20°	755.5	758.2	754.5	750.1	746.4	744.1	740.7	732.6	726.8	720.8	716.7
22.5°	800.5	798.1	794.0	787.6	783.9	779.8	772.7	764.0	755.2	747.8	742.7
25°	846.7	844.3	838.6	833.9	828.5	825.1	817.3	806.5	798.1	786.6	779.8
27.5°	896.3	894.3	887.5	883.8	880.1	876.1	869.3	858.2	850.4	837.2	830.2
30°	952.4	952.0	942.9	942.2	936.8	932.5	927.7	918.2	910.5	897.4	888.9
32.5°	1012.1	1010.8	1004.3	1002.3	1006.0	1003.0	996.2	986.5	976.3	968.6	959.1
35°	1097.2	1094.8	1091.1	1092.8	1095.2	1103.6	1093.1	1084.7	1072.6	1062.4	1049.2
37.5°	1159.3	1155.9	1160.3	1169.8	1183.3	1189.7	1198.8	1199.2	1193.4	1179.9	1168.4
40°	1216.4	1215.0	1225.1	1238.3	1263.3	1281.5	1298.8	1307.2	1309.2	1300.4	1283.2
42.5°	1264.6	1268.7	1282.2	1302.4	1337.6	1365.2	1397.3	1417.2	1429.7	1425.0	1417.2
45°	1322.0	1324.1	1340.6	1366.3	1399.7	1445.6	1487.8	1521.5	1543.5	1543.1	1534.4
47.5°	1393.9	1394.3	1408.4	1438.5	1474.3	1520.9	1574.2	1619.1	1648.1	1649.5	1642.7
50°	1479.4	1478.7	1494.2	1522.6	1560.7	1605.6	1662.3	1718.3	1758.9	1758.9	1749.1
52.5°	1589.4	1588.1	1596.5	1621.5	1658.3	1705.6	1761.9	1826.8	1870.6	1880.1	1858.8
55°	1736.3	1738.3	1740.3	1762.3	1793.6	1831.1	1895.9	1955.7	2014.4	2019.8	2007.4
57.5°	1906.1	1899.3	1913.8	1949.6	1985.4	2032.3	2078.2	2148.8	2218.3	2230.1	2228.5
60°	2171.4	2162.6	2177.5	2223.1	2262.6	2336.5	2415.2	2506.3	2588.7	2613.0	2583.6
62.5°	2415.5	2426.3	2446.6	2499.5	2557.0	2655.5	2773.7	2930.0	3086.3	3171.4	3165.3
65°	2393.6	2383.4	2422.3	2494.5	2598.5	2724.1	2870.9	3059.3	3284.5	3455.3	3470.5
66°	2312.2	2301.7	2343.6	2426.3	2545.1	2684.9	2848.0	3039.7	3269.9	3463.1	3486.4
67.5°	2177.8	2167.4	2214.7	2289.9	2412.5	2588.3	2764.6	2974.2	3213.6	3398.6	3417.5
70°	1918.6	1904.4	1941.2	2026.3	2125.5	2295.7	2463.4	2685.6	2931.4	3079.2	3086.3
72.5°	1625.2	1592.1	1631.3	1696.7	1767.7	1908.4	2054.6	2206.5	2402.3	2539.1	2578.2
75°	1179.2	1196.5	1207.9	1251.1	1298.0	1414.5	1500.3	1627.6	1779.1	1878.1	1909.4
77.5°	625.6	651.5	667.7	711.0	788.6	877.4	970.3	1048.9	1148.5	1203.8	1242.4
80°	351.1	369.4	395.6	429.8	467.6	535.7	590.8	631.3	645.5	655.3	664.1
82.5°	193.1	239.3	278.5	302.2	324.4	351.8	384.5	418.3	429.1	412.9	404.5
85°	30.1	44.2	134.7	164.4	178.9	199.9	223.5	248.5	248.8	214.0	233.6
87.5°	8.5	9.5	19.3	29.0	28.4	23.0	28.4	51.7	30.4	15.2	17.6
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: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4
2.5°	678.5	679.3	680.9	682.6	684.3	686.0	687.0	688.7	690.1	692.1	694.4
5°	675.8	677.6	680.6	684.3	687.7	690.7	693.1	696.5	699.5	702.2	706.3
7.5°	675.8	679.3	684.3	688.4	691.4	695.1	698.8	702.2	705.6	708.3	711.0
10°	676.2	679.6	684.7	689.4	692.8	696.8	699.8	702.9	706.6	708.3	711.7
12.5°	677.6	678.9	682.6	687.4	691.4	695.5	698.5	701.5	705.6	706.3	708.6
15°	684.3	682.3	683.3	686.7	691.1	694.4	697.8	700.2	702.9	702.2	704.2
17.5°	696.8	691.7	689.7	690.1	692.1	694.4	695.8	696.1	696.5	693.4	693.8
20°	713.7	706.6	701.9	699.5	696.8	694.4	690.7	686.3	682.3	676.2	675.5
22.5°	739.0	728.5	723.5	717.1	709.0	698.8	689.7	678.9	670.1	661.0	657.7
25°	775.8	765.0	759.6	749.5	734.9	720.4	707.3	692.8	679.9	669.1	664.1
27.5°	825.1	814.3	808.6	798.1	780.2	765.7	747.4	731.9	716.4	700.5	694.1
30°	884.8	875.4	869.0	860.5	845.0	829.1	807.8	783.9	759.2	733.9	721.4
32.5°	955.4	944.9	940.2	930.4	914.2	897.7	874.0	843.3	802.1	762.3	737.3
35°	1043.5	1031.7	1026.3	1013.5	994.6	970.3	944.9	903.7	848.0	792.7	751.8
37.5°	1161.4	1135.0	1117.1	1087.7	1057.4	1023.2	987.1	944.9	879.1	810.5	753.8
40°	1265.6	1239.0	1204.6	1162.3	1115.1	1068.2	1027.0	979.0	907.4	823.4	747.4
42.5°	1395.3	1348.0	1293.0	1235.9	1173.1	1115.4	1066.4	1010.1	926.7	826.8	729.5
45°	1513.8	1457.4	1383.8	1307.8	1229.9	1157.3	1102.3	1039.4	943.3	826.8	707.9
47.5°	1621.8	1554.3	1466.2	1371.7	1280.8	1201.5	1139.0	1069.5	966.5	837.2	701.5
50°	1721.8	1644.1	1543.8	1434.1	1332.2	1247.4	1180.3	1108.0	1002.0	864.2	717.1
52.5°	1827.1	1744.7	1622.5	1506.0	1393.6	1302.8	1231.2	1155.6	1047.9	906.8	744.4
55°	1965.1	1868.6	1729.9	1601.6	1478.0	1377.7	1296.4	1212.7	1098.2	954.7	777.8
57.5°	2182.9	2042.8	1904.0	1737.3	1620.8	1488.8	1399.7	1303.4	1179.9	1017.2	828.1
60°	2564.0	2391.9	2225.1	2033.3	1889.5	1751.5	1616.8	1491.2	1342.3	1158.3	938.5
62.5°	3108.2	2933.4	2671.4	2436.8	2219.7	2036.7	1861.1	1701.5	1510.4	1309.2	1074.5
65°	3433.4	3233.2	2920.9	2605.6	2341.9	2115.1	1914.2	1718.7	1512.4	1316.3	1115.8
66°	3459.4	3269.9	2936.4	2603.2	2329.4	2094.1	1885.1	1682.9	1471.6	1283.9	1102.3
67.5°	3411.1	3248.0	2904.7	2557.3	2277.4	2023.2	1808.5	1596.5	1384.1	1210.3	1057.4
70°	3070.4	2952.6	2658.2	2332.8	2053.6	1829.5	1602.9	1399.0	1197.8	1051.6	938.2
72.5°	2517.1	2367.9	2162.0	1943.2	1723.4	1524.6	1318.7	1145.1	976.3	870.0	789.7
75°	1849.0	1714.7	1487.8	1351.4	1206.2	1081.3	942.5	778.1	658.3	605.0	585.4
77.5°	1172.2	1026.3	834.9	684.3	588.4	505.7	398.7	317.0	253.9	264.4	292.7
80°	592.1	510.1	381.8	301.5	260.6	216.7	171.5	130.0	94.9	108.4	122.5
82.5°	380.2	317.3	252.8	199.2	168.1	148.2	118.5	86.1	64.1	72.2	88.4
85°	228.9	193.4	154.3	126.2	109.7	91.5	67.2	47.6	47.3	50.6	62.5
87.5°	34.8	49.6	28.7	30.7	32.4	34.8	30.7	26.0	22.6	29.4	37.1
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: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4	687.4
2.5°	696.8	697.5	698.8	700.5	700.2	702.5	703.9	702.5	705.6	705.6	707.3
5°	709.6	710.6	713.0	714.7	715.4	717.4	718.1	717.7	718.4	718.7	719.4
7.5°	713.3	716.0	717.1	718.1	718.4	719.1	719.1	718.4	718.4	718.1	718.7
10°	712.3	713.3	714.0	713.7	713.7	713.0	712.7	712.3	712.3	711.7	712.7
12.5°	709.0	709.0	709.0	708.3	708.3	707.9	707.9	707.9	708.6	709.0	710.6
15°	702.2	702.2	702.9	702.5	703.6	705.2	707.3	708.6	710.3	710.6	711.7
17.5°	691.7	692.1	694.1	698.5	702.9	707.9	711.7	712.7	711.3	707.9	705.6
20°	673.5	677.9	686.0	696.5	706.3	712.7	714.4	710.3	703.9	695.1	690.4
22.5°	657.3	666.1	680.6	697.8	710.0	714.4	709.3	699.8	688.4	678.2	671.2
25°	663.7	673.9	689.0	703.9	711.7	709.3	699.2	685.7	673.5	661.7	650.2
27.5°	690.7	700.9	711.7	716.0	713.3	704.6	690.4	675.8	659.6	642.8	628.6
30°	716.4	722.1	722.8	718.4	708.6	694.4	677.9	661.0	640.4	620.2	602.3
32.5°	724.5	717.7	705.6	693.1	679.6	665.0	645.8	623.5	601.6	578.6	558.7
35°	722.1	694.8	664.7	638.0	621.8	605.3	587.8	558.1	533.4	513.8	501.0
37.5°	700.9	650.9	604.6	565.8	540.5	520.9	494.9	470.3	449.0	440.2	429.8
40°	671.2	594.8	530.7	476.3	450.0	425.0	396.0	377.1	371.0	362.9	363.2
42.5°	628.6	529.4	446.6	384.2	355.5	328.1	307.6	296.4	296.8	290.0	291.4
45°	583.7	463.5	359.5	297.4	269.0	245.8	234.3	230.9	231.2	231.6	229.6
47.5°	556.4	412.2	288.3	225.5	200.5	187.4	181.3	179.6	179.9	180.3	177.9
50°	552.3	385.6	240.7	172.5	156.3	148.9	145.9	144.2	144.2	142.8	140.8
52.5°	563.8	378.8	217.4	149.6	134.0	127.3	124.9	123.5	121.6	118.9	115.1
55°	582.0	384.8	210.3	141.8	126.6	119.8	116.8	116.2	112.7	107.7	101.6
57.5°	615.8	406.8	215.0	143.8	127.9	121.9	119.8	119.2	114.4	106.7	98.9
60°	712.7	470.6	238.7	155.3	137.8	132.7	132.7	131.6	125.2	114.1	103.0
62.5°	846.4	564.1	270.8	171.2	151.3	150.5	156.3	156.7	145.1	127.3	109.7
65°	910.9	608.0	281.9	174.5	155.0	162.7	174.2	174.2	158.0	133.4	110.8
66°	911.2	607.0	278.5	170.5	150.9	161.0	172.9	172.9	155.9	131.6	109.0
67.5°	887.9	588.1	267.4	163.1	141.8	151.3	161.7	161.4	146.2	124.9	104.3
70°	796.4	520.3	235.6	150.9	131.0	131.3	135.1	132.7	122.5	108.1	94.9
72.5°	686.7	435.2	204.2	143.2	122.5	116.2	113.1	111.1	104.6	95.9	87.8
75°	526.7	337.9	177.9	136.1	115.1	104.0	99.9	98.2	93.8	88.8	82.4
77.5°	322.7	231.6	150.9	124.6	106.7	96.5	92.2	88.8	84.4	79.7	75.3
80°	139.1	139.7	120.8	105.7	92.8	81.0	75.3	71.2	68.9	67.2	64.8
82.5°	97.2	100.3	92.2	82.0	70.9	62.5	57.4	56.4	56.7	56.7	56.0
85°	72.9	71.6	64.5	58.7	53.7	48.3	44.2	43.9	45.2	45.2	44.2
87.5°	42.2	42.5	36.5	34.1	35.5	30.4	27.7	28.0	31.4	31.1	30.4
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: P159738

CATALOG NUMBER: VST-E02-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	687.4	687.4	687.4	687.4	687.4
2.5°	707.3	708.3	707.9	709.0	707.9
5°	720.4	720.1	719.8	721.1	719.4
7.5°	718.4	718.7	718.7	718.7	718.4
10°	713.3	714.7	715.4	716.7	716.4
12.5°	711.7	713.7	715.7	717.7	718.1
15°	712.0	713.3	714.4	715.4	715.7
17.5°	703.2	702.9	701.9	701.2	700.5
20°	685.3	683.6	682.0	679.3	680.6
22.5°	663.1	658.3	652.9	648.5	648.2
25°	637.0	628.3	619.5	613.7	611.7
27.5°	614.1	603.6	594.5	589.4	588.1
30°	586.7	577.3	569.2	564.8	562.1
32.5°	546.2	538.8	528.7	525.3	524.9
35°	489.8	484.1	477.0	475.7	474.0
37.5°	426.1	424.0	420.7	416.6	415.9
40°	357.8	359.2	358.2	355.8	352.1
42.5°	292.0	294.4	294.7	296.4	298.1
45°	232.6	234.6	234.6	236.3	238.3
47.5°	178.6	177.2	178.3	179.9	181.0
50°	135.1	134.0	132.4	131.0	129.7
52.5°	108.7	106.7	101.9	100.6	99.2
55°	95.9	92.2	88.8	87.4	87.4
57.5°	92.2	87.4	83.7	82.0	81.4
60°	92.8	86.1	81.4	78.7	77.6
62.5°	95.9	86.4	80.0	77.0	76.0
65°	95.5	85.7	79.7	76.3	75.3
66°	93.8	84.7	79.0	76.0	75.3
67.5°	91.1	83.4	78.3	75.6	74.6
70°	85.7	80.7	77.0	74.6	73.6
72.5°	81.4	78.0	74.6	71.9	71.2
75°	77.3	73.9	70.9	69.5	68.5
77.5°	71.2	68.2	66.5	65.2	64.5
80°	63.1	61.1	59.1	57.7	56.7
82.5°	55.0	52.3	50.3	49.3	48.6
85°	44.9	43.2	40.2	38.2	37.8
87.5°	30.1	28.4	27.4	25.7	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)