

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: P158663

Luminaire Tested: **VST-F04-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158663
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F04-LED-E-U-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (28) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8084.7 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 102.2
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

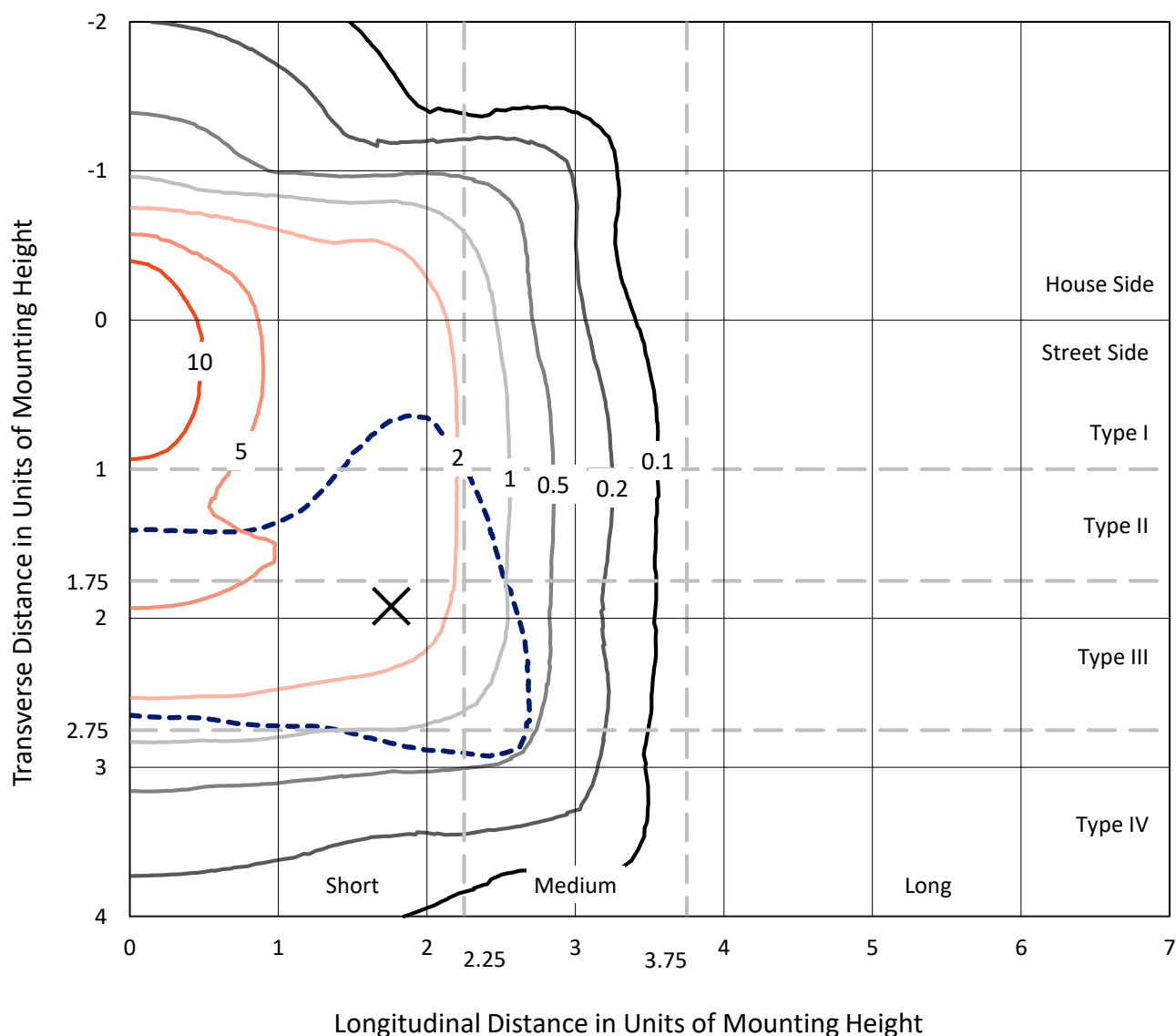


REPORT NUMBER: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

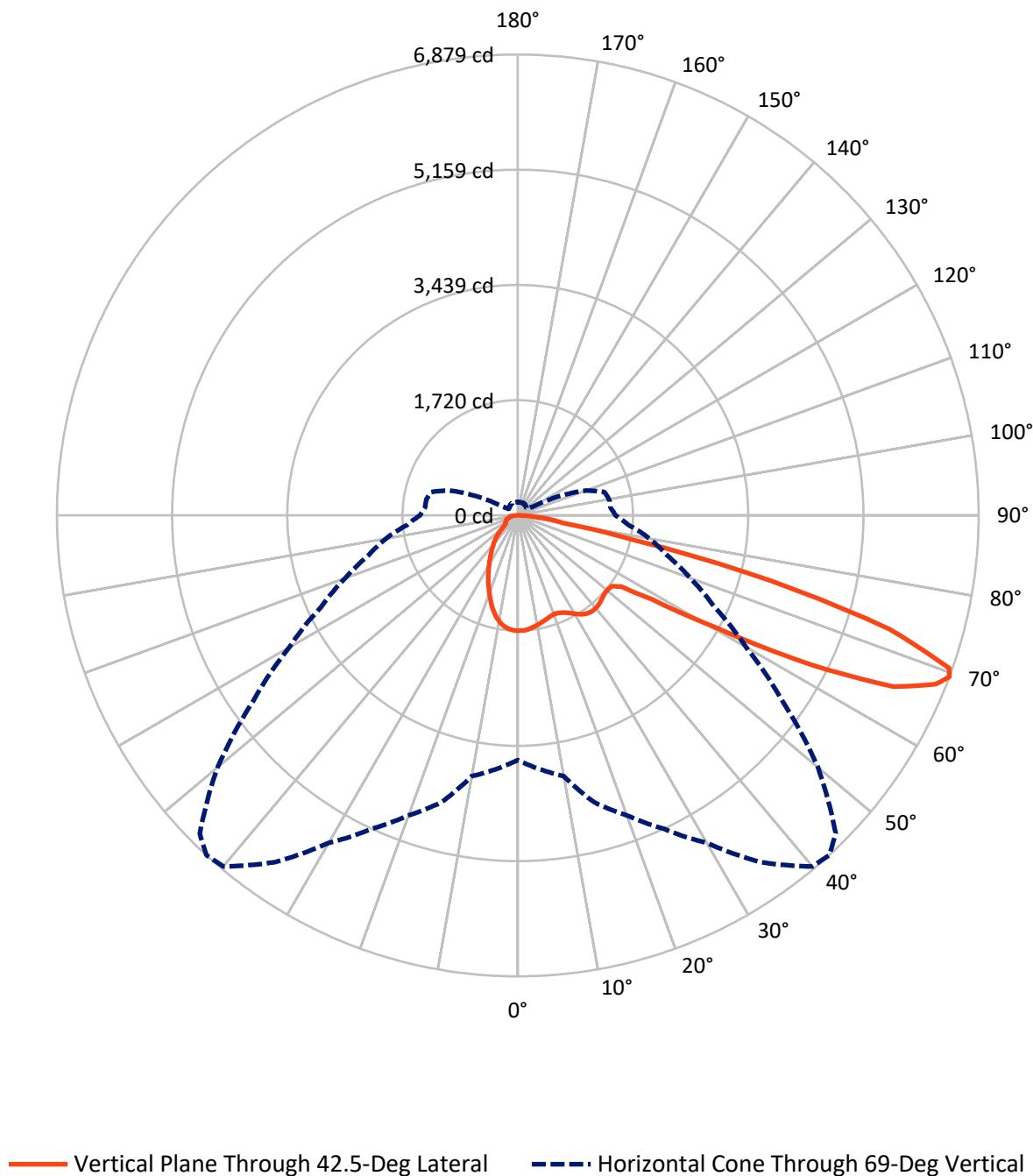


Based on 10 foot mounting height. Maximum calculated value = 17.2 fc
 Type IV - Short - Full Cutoff

REPORT NUMBER: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P158663

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1797.4	0.0	1797.4
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	6287.4	0.0	6287.4
	% Fixture	77.8	0.0	77.8
Total	Lumens	8084.7	0.0	8084.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.3	2.0
10°-20°	432.0	5.3
20°-30°	629.9	7.8
30°-40°	803.0	9.9
40°-50°	934.3	11.6
50°-60°	1421.5	17.6
60°-70°	2511.1	31.1
70°-80°	1036.2	12.8
80°-90°	156.5	1.9
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°	8084.7	100.0
0°-180°	8084.7	100.0

Coefficient of Utilization



REPORT NUMBER: P158663

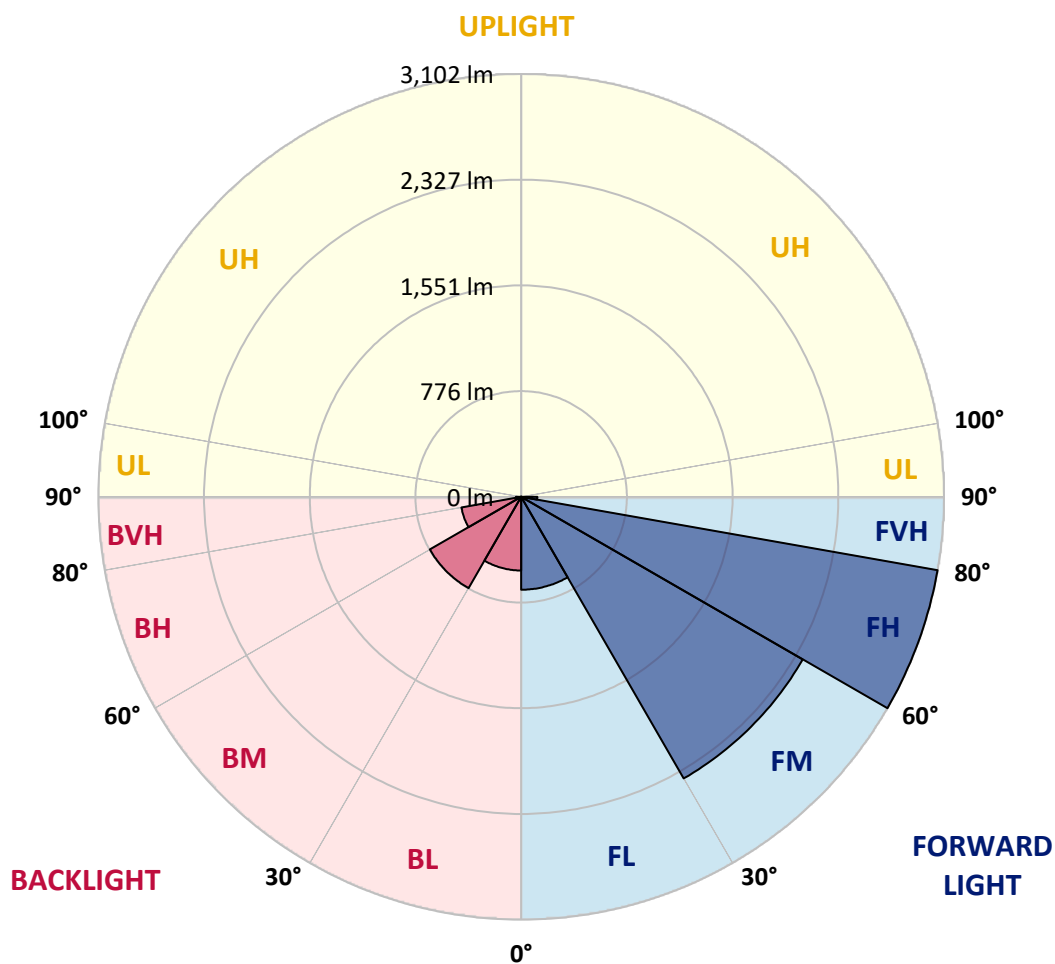
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	681.7	8.4			
FM	(30°-60°)	2385.2	29.5			
FH	(60°-80°)	3102.1	38.4			G2/5000
FVH	(80°-90°)	118.3	1.5			G2/225
BL	(0°-30°)	540.4	6.7	B2/1000		
BM	(30°-60°)	773.6	9.6	B1/1000		
BH	(60°-80°)	445.2	5.5	B1/500		G1/500
BVH	(80°-90°)	38.1	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





REPORT NUMBER: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8
2.5°	1716.2	1722.3	1720.1	1720.1	1721.8	1719.0	1719.0	1720.1	1717.3	1719.0	1718.4
5°	1710.1	1713.4	1712.3	1712.3	1712.3	1710.1	1709.0	1708.4	1704.5	1704.5	1702.8
7.5°	1696.7	1697.8	1699.5	1697.2	1696.7	1696.1	1692.2	1690.0	1685.5	1681.6	1682.8
10°	1678.9	1678.3	1681.1	1679.4	1677.2	1675.5	1672.2	1668.3	1663.2	1658.2	1657.7
12.5°	1658.8	1658.2	1660.5	1659.3	1657.7	1654.3	1651.5	1644.9	1637.0	1630.9	1630.4
15°	1646.0	1644.3	1646.5	1644.3	1641.5	1638.2	1633.1	1624.8	1610.9	1604.7	1599.7
17.5°	1658.2	1655.4	1656.6	1653.8	1649.9	1641.0	1629.2	1611.4	1591.3	1580.8	1573.0
20°	1701.1	1696.1	1697.2	1694.5	1685.5	1673.8	1651.5	1620.3	1586.3	1569.0	1556.8
22.5°	1762.5	1758.6	1760.2	1757.4	1748.5	1730.7	1697.2	1652.7	1604.2	1579.1	1559.6
25°	1855.5	1858.9	1860.0	1847.2	1842.2	1809.3	1763.0	1701.1	1636.5	1607.0	1580.2
27.5°	1960.3	1960.3	1965.4	1960.3	1950.3	1911.8	1846.6	1771.9	1688.9	1648.8	1616.4
30°	2062.3	2061.2	2070.7	2069.6	2053.4	2009.9	1935.8	1845.0	1750.2	1705.1	1663.8
32.5°	2170.5	2173.8	2179.9	2177.7	2156.5	2096.3	2007.2	1908.5	1808.7	1759.1	1712.9
35°	2287.5	2289.2	2291.4	2290.3	2247.4	2171.6	2059.6	1949.2	1845.5	1796.5	1748.5
37.5°	2404.6	2402.9	2400.1	2376.1	2327.1	2221.8	2091.3	1972.6	1863.9	1811.0	1761.3
40°	2509.4	2499.9	2491.0	2453.6	2378.4	2250.2	2103.6	1978.2	1862.2	1807.6	1759.1
42.5°	2566.8	2556.2	2537.8	2491.0	2399.6	2253.0	2095.2	1961.4	1845.0	1790.9	1743.0
45°	2577.4	2569.6	2551.7	2499.3	2394.5	2235.1	2069.6	1934.1	1819.3	1765.2	1720.1
47.5°	2552.3	2546.2	2528.9	2477.0	2372.8	2208.4	2040.0	1905.2	1794.2	1743.5	1700.0
50°	2513.8	2508.2	2494.9	2447.5	2348.3	2190.0	2025.0	1890.1	1785.9	1739.6	1699.5
52.5°	2576.2	2580.7	2541.7	2489.9	2374.5	2206.1	2041.7	1905.7	1800.9	1755.2	1713.4
55°	3546.7	3540.5	3305.9	3109.1	2757.4	2438.6	2200.6	2029.5	1917.4	1871.7	1832.7
57.5°	4608.5	4587.3	4490.9	4306.9	3929.0	3424.6	2965.9	2575.7	2421.9	2356.1	2360.5
60°	4955.2	4963.0	4942.4	4877.1	4741.7	4479.2	4130.2	3837.1	3548.3	3407.3	3423.5
62.5°	5147.5	5161.4	5179.3	5164.8	5120.7	5060.0	5015.9	5042.7	5002.6	4901.1	4820.3
65°	5174.2	5202.7	5261.7	5308.6	5331.4	5388.8	5523.7	5847.0	6142.4	6161.9	6019.8
67.5°	4644.7	4723.3	4851.5	5068.3	5253.9	5457.9	5783.5	6275.1	6711.0	6725.4	6592.8
69°	3652.0	3803.1	3953.0	4437.4	4763.4	5163.1	5644.7	6316.3	6838.6	6878.7	6711.5
70°	2926.3	3016.0	3145.3	3631.9	4119.1	4628.6	5326.4	6180.3	6751.1	6831.9	6647.4
72.5°	1756.9	1791.4	1836.0	2010.5	2261.3	2715.0	3640.3	5038.8	5694.8	5803.0	5568.3
75°	1136.0	1133.7	1137.6	1186.1	1200.6	1287.6	1579.1	2592.4	3715.0	3911.2	3630.3
77.5°	855.6	863.4	851.1	855.6	851.7	875.1	884.0	928.1	1466.5	1806.5	1615.3
80°	755.3	759.2	759.7	757.5	730.2	727.9	742.4	717.4	666.6	676.7	648.2
82.5°	430.9	430.3	435.3	473.2	488.8	540.1	561.3	573.0	529.0	496.1	448.7
85°	279.3	281.5	287.1	298.8	287.1	291.5	286.5	296.5	272.0	252.5	225.7
87.5°	114.3	114.3	121.5	132.1	123.2	121.0	103.7	102.6	87.0	78.6	61.3
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: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8
2.5°	1715.1	1718.4	1716.8	1719.0	1717.3	1717.3	1715.1	1714.5	1716.2	1714.0	1714.5
5°	1700.0	1700.6	1697.8	1698.9	1695.6	1694.5	1692.8	1688.3	1691.1	1688.3	1689.4
7.5°	1678.3	1676.6	1672.7	1667.1	1663.2	1661.6	1658.2	1652.1	1653.2	1648.2	1651.0
10°	1650.4	1644.9	1638.2	1629.8	1624.2	1619.2	1612.0	1604.7	1600.8	1596.4	1595.8
12.5°	1619.2	1612.5	1603.6	1590.8	1578.5	1570.2	1559.0	1546.2	1542.3	1535.0	1531.1
15°	1585.2	1574.6	1564.0	1549.5	1536.2	1523.3	1508.3	1492.1	1481.5	1470.4	1462.0
17.5°	1554.6	1542.3	1528.4	1514.4	1499.9	1484.3	1465.4	1445.3	1429.7	1409.1	1392.4
20°	1530.6	1515.0	1501.0	1486.6	1470.4	1451.4	1428.6	1402.9	1376.7	1353.9	1334.4
22.5°	1521.1	1496.6	1479.9	1465.4	1449.2	1426.9	1399.0	1368.9	1337.2	1305.4	1279.8
25°	1528.9	1492.7	1466.5	1449.2	1435.3	1412.4	1381.2	1344.4	1307.6	1269.7	1235.2
27.5°	1551.8	1505.5	1467.6	1440.3	1424.1	1401.3	1368.4	1329.4	1285.9	1243.5	1201.2
30°	1587.4	1527.2	1479.3	1440.8	1415.8	1389.6	1355.0	1309.9	1265.8	1217.3	1171.1
32.5°	1622.0	1550.1	1492.7	1443.1	1404.6	1370.6	1332.2	1287.6	1240.2	1189.5	1141.5
35°	1646.5	1565.1	1497.7	1438.1	1387.3	1345.0	1303.7	1259.1	1212.9	1161.0	1112.0
37.5°	1658.2	1573.5	1498.3	1424.7	1364.5	1317.7	1273.6	1229.6	1186.1	1137.1	1090.8
40°	1657.7	1573.0	1490.5	1407.4	1337.2	1287.6	1244.1	1201.2	1160.5	1117.6	1075.8
42.5°	1645.4	1564.0	1479.3	1390.7	1317.7	1262.5	1217.3	1176.1	1141.5	1103.6	1068.5
45°	1626.5	1549.0	1467.6	1382.9	1312.1	1256.9	1209.0	1168.8	1138.2	1103.6	1073.5
47.5°	1612.0	1540.6	1469.3	1396.8	1329.4	1272.0	1221.2	1177.2	1151.0	1123.1	1102.0
50°	1614.2	1544.5	1474.8	1405.2	1341.6	1283.7	1234.6	1194.5	1175.5	1168.3	1163.3
52.5°	1625.9	1550.7	1491.6	1449.8	1428.0	1384.6	1355.6	1330.5	1344.4	1317.1	1284.8
55°	1775.3	1750.8	1808.2	1862.2	1930.8	1956.4	1931.9	1927.4	1949.7	1857.2	1644.9
57.5°	2392.3	2455.9	2544.5	2591.3	2648.2	2633.1	2576.2	2528.9	2473.1	2365.0	2100.2
60°	3441.9	3393.9	3353.8	3240.7	3148.1	3040.0	2919.6	2816.5	2717.8	2562.3	2275.8
62.5°	4523.2	4190.4	3912.3	3643.6	3427.4	3247.9	3073.4	2918.5	2769.1	2552.3	2244.0
65°	5458.5	4757.9	4235.6	3841.5	3525.5	3252.9	3028.8	2814.8	2624.7	2370.6	2065.7
67.5°	5878.8	5000.9	4241.2	3676.5	3239.0	2868.9	2579.0	2255.8	2042.8	1880.1	1708.4
69°	5847.6	4815.3	3938.5	3243.4	2740.7	2309.3	1998.2	1661.0	1457.0	1387.9	1384.0
70°	5699.3	4500.9	3585.1	2891.7	2316.5	1887.9	1589.7	1287.0	1096.9	1049.6	1133.7
72.5°	4653.1	3180.5	2246.8	1715.6	1319.3	1042.9	850.6	675.0	539.0	467.1	482.7
75°	2628.1	1472.6	952.0	719.6	608.1	502.8	431.4	367.9	332.8	270.3	214.0
77.5°	955.4	632.1	502.8	434.8	308.2	212.4	177.8	155.5	141.0	141.0	134.3
80°	604.2	476.0	332.2	227.4	168.3	146.6	128.2	112.6	103.7	101.4	103.7
82.5°	377.4	291.5	186.2	142.7	119.8	107.6	93.6	81.9	74.7	73.0	76.4
85°	186.2	144.4	113.1	100.9	94.8	88.1	77.5	66.3	64.1	68.6	80.3
87.5°	55.7	49.6	40.7	42.4	44.6	43.5	34.6	30.1	28.4	37.3	58.5
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: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8	1721.8
2.5°	1715.6	1715.1	1716.2	1714.5	1715.6	1716.2	1715.1	1720.1	1716.8	1717.3	1719.5
5°	1690.6	1689.4	1693.9	1692.8	1695.0	1697.2	1696.1	1703.4	1700.6	1702.8	1707.3
7.5°	1648.8	1651.0	1651.5	1651.5	1656.0	1663.2	1664.9	1669.4	1669.4	1675.5	1680.0
10°	1593.0	1593.6	1596.9	1596.4	1601.9	1609.7	1610.9	1618.7	1621.4	1631.5	1637.6
12.5°	1528.4	1525.6	1525.0	1524.5	1531.7	1540.1	1541.2	1554.6	1560.1	1569.0	1579.1
15°	1455.9	1448.7	1446.4	1450.9	1449.2	1454.2	1459.2	1466.5	1474.3	1492.1	1501.0
17.5°	1385.1	1370.6	1366.7	1361.7	1356.7	1356.7	1358.9	1367.8	1384.0	1393.5	1413.5
20°	1312.6	1295.4	1281.4	1268.1	1256.4	1251.9	1252.5	1263.6	1275.3	1290.9	1309.9
22.5°	1251.9	1225.7	1201.7	1183.9	1159.9	1159.4	1156.0	1159.4	1172.2	1176.1	1186.7
25°	1199.5	1164.4	1132.1	1103.1	1079.7	1067.4	1064.1	1062.9	1056.8	1055.1	1047.3
27.5°	1158.8	1116.4	1074.6	1039.5	1010.5	993.8	972.6	957.6	935.9	930.3	916.3
30°	1125.4	1079.7	1034.0	988.2	955.4	925.3	889.6	863.4	830.0	808.2	789.3
32.5°	1093.0	1046.8	1000.5	955.4	904.6	857.8	811.0	770.3	733.0	699.5	671.7
35°	1066.3	1022.3	975.4	920.8	856.1	788.7	732.4	686.1	634.9	599.7	564.6
37.5°	1049.0	1008.9	962.1	886.8	803.8	731.3	667.2	610.9	558.5	505.6	466.0
40°	1041.2	1006.1	947.6	855.6	758.0	677.8	607.0	544.6	477.7	418.0	375.7
42.5°	1040.6	1005.0	927.5	821.0	720.1	632.6	554.0	479.4	405.2	343.9	302.1
45°	1050.7	1003.3	906.3	792.0	686.7	595.3	501.6	410.8	327.7	282.0	259.7
47.5°	1077.4	1006.1	889.0	765.3	654.9	550.1	441.5	335.5	267.0	245.8	245.8
50°	1125.4	1022.3	884.6	746.3	623.2	497.7	367.9	270.9	236.3	236.3	243.0
52.5°	1198.9	1056.3	892.4	733.0	583.6	428.6	289.8	233.5	226.9	233.0	241.9
55°	1368.4	1116.4	903.0	710.1	523.4	340.0	239.1	220.7	223.5	230.8	239.1
57.5°	1679.4	1245.2	914.1	659.9	426.4	262.0	216.8	215.7	220.7	227.4	234.7
60°	1884.0	1409.1	942.5	584.1	322.7	216.3	205.7	212.4	218.5	224.1	229.6
62.5°	1884.0	1455.3	963.7	499.4	242.5	196.8	198.4	209.0	216.3	219.1	222.4
65°	1763.6	1370.6	891.8	406.9	197.3	185.6	191.7	202.3	209.0	211.3	214.0
67.5°	1541.2	1210.6	751.4	306.6	176.1	176.1	183.9	191.7	197.3	201.8	206.2
69°	1340.0	1086.4	661.6	259.7	167.8	168.9	176.7	183.4	190.1	195.6	201.2
70°	1195.0	993.3	599.2	235.8	162.8	163.3	171.1	178.4	184.5	190.6	197.3
72.5°	639.9	686.1	455.4	193.4	149.9	151.6	158.9	165.5	171.1	177.2	183.4
75°	217.9	294.9	289.8	158.3	135.4	139.9	144.4	150.5	157.7	161.6	165.0
77.5°	127.6	132.1	154.4	128.8	122.1	124.3	129.3	134.3	140.5	144.4	147.2
80°	107.0	106.5	107.0	104.8	106.5	111.5	114.8	121.5	127.1	128.2	127.6
82.5°	87.0	91.4	92.0	90.9	95.9	99.8	102.6	106.5	105.9	107.0	109.2
85°	77.5	76.9	80.8	81.4	81.4	78.6	79.1	79.1	79.1	80.8	81.4
87.5°	77.5	64.7	50.2	45.1	47.4	44.6	42.4	41.8	46.3	50.7	49.6
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: P158663

CATALOG NUMBER: VST-F04-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1721.8	1721.8	1721.8	1721.8	1721.8
2.5°	1720.7	1722.3	1721.2	1721.2	1722.3
5°	1709.0	1711.7	1710.6	1711.7	1711.7
7.5°	1682.2	1686.1	1688.9	1691.7	1690.0
10°	1643.7	1650.4	1654.9	1658.2	1656.6
12.5°	1586.3	1592.5	1601.9	1607.5	1603.0
15°	1507.7	1525.0	1530.6	1538.4	1533.9
17.5°	1425.8	1436.4	1443.1	1450.3	1454.8
20°	1316.6	1324.9	1333.8	1337.2	1332.2
22.5°	1185.0	1189.5	1187.8	1192.8	1182.8
25°	1040.6	1043.4	1041.8	1046.2	1037.9
27.5°	904.1	903.5	904.1	898.5	892.9
30°	772.5	767.5	765.3	756.9	755.3
32.5°	654.9	637.7	628.7	616.5	613.7
35°	537.3	512.8	496.6	482.7	476.6
37.5°	432.0	402.4	383.5	371.2	369.5
40°	341.7	314.4	301.0	294.3	293.2
42.5°	278.7	267.0	263.6	263.6	263.6
45°	254.2	253.6	256.4	258.6	259.2
47.5°	249.2	252.5	256.4	259.7	260.9
50°	249.2	252.5	255.3	258.6	259.7
52.5°	248.0	250.8	251.9	254.2	255.3
55°	244.7	246.4	246.4	247.5	248.6
57.5°	239.1	240.2	238.6	239.7	242.5
60°	233.5	234.7	231.9	234.7	236.3
62.5°	227.4	228.0	226.9	229.1	229.1
65°	217.4	216.3	217.9	219.6	220.2
67.5°	207.3	204.6	206.2	206.8	207.9
69°	199.5	197.9	198.4	199.5	200.7
70°	194.0	192.9	194.0	195.6	197.3
72.5°	180.0	180.6	184.5	187.8	191.2
75°	167.2	171.1	176.1	183.4	187.3
77.5°	151.6	154.4	158.3	166.1	173.3
80°	131.0	132.7	133.2	136.0	135.4
82.5°	106.5	104.8	103.7	102.6	102.0
85°	76.4	75.8	71.3	68.0	68.0
87.5°	45.7	43.5	41.2	38.5	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)