

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: P158644

Luminaire Tested: **VST-F02-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158644
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-F02-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4374.6 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

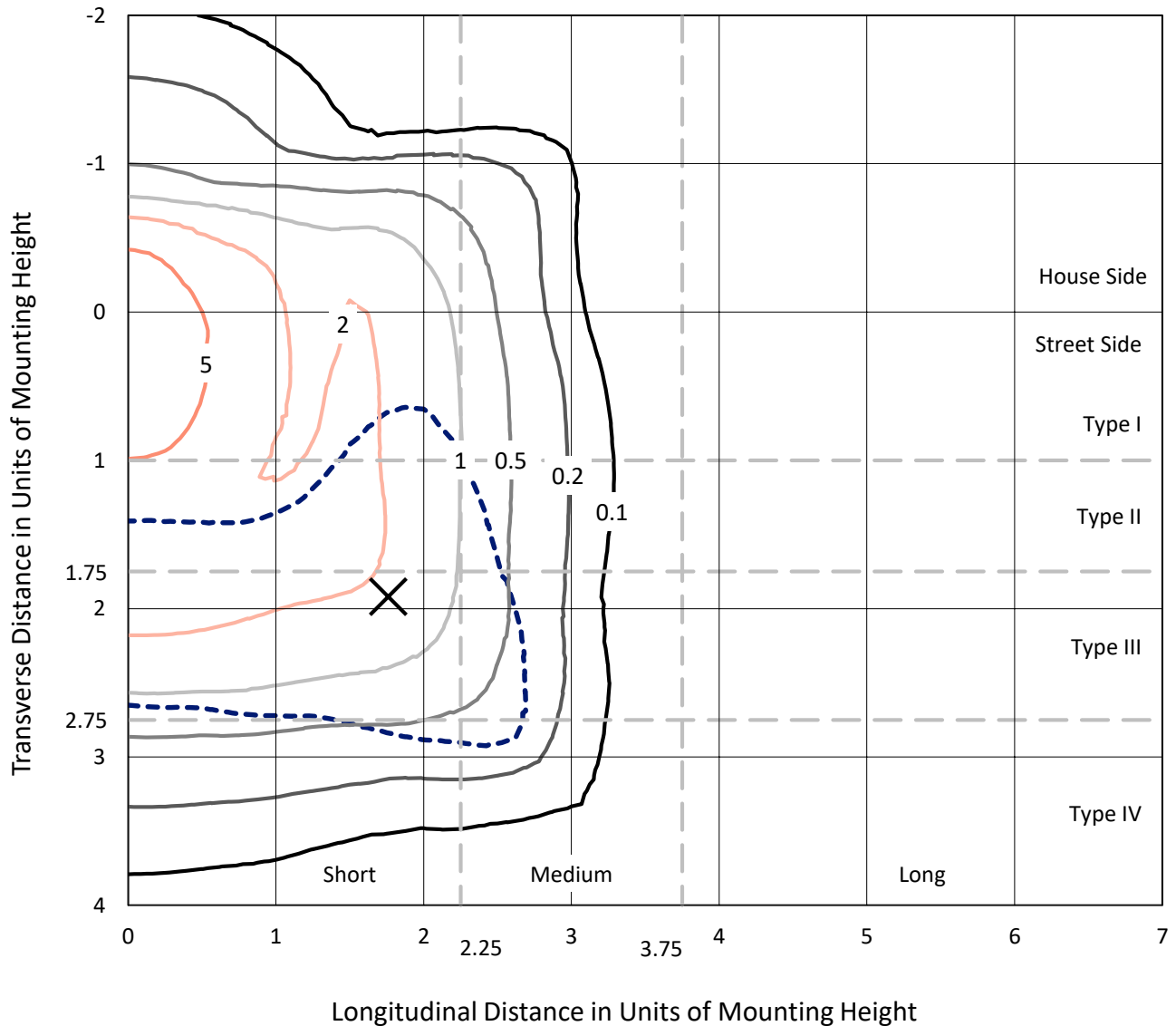
Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P158644
 CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

Iso-Footcandle Lines of Horizontal Illumination

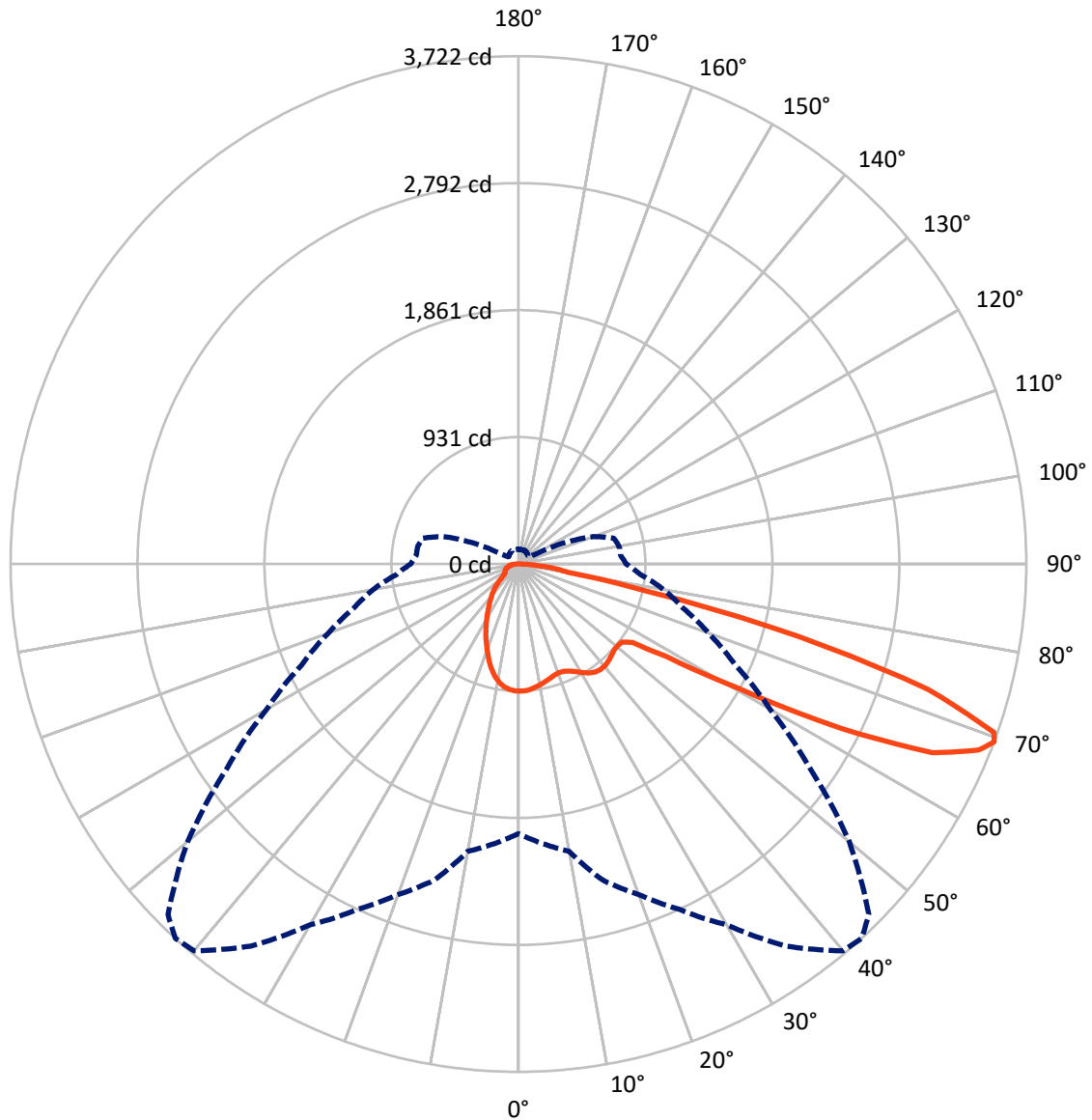
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.3 fc
 Type IV - Short - Full Cutoff

REPORT NUMBER: P158644
CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



REPORT NUMBER: P158644

CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	972.5	0.0	972.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	3402.0	0.0	3402.0
	% Fixture	77.8	0.0	77.8
Total	Lumens	4374.6	0.0	4374.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	2.0
10°-20°	233.7	5.3
20°-30°	340.8	7.8
30°-40°	434.5	9.9
40°-50°	505.5	11.6
50°-60°	769.2	17.6
60°-70°	1358.7	31.1
70°-80°	560.7	12.8
80°-90°	84.7	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°	4374.6	100.0
0°-180°	4374.6	100.0

Coefficient of Utilization



REPORT NUMBER: P158644

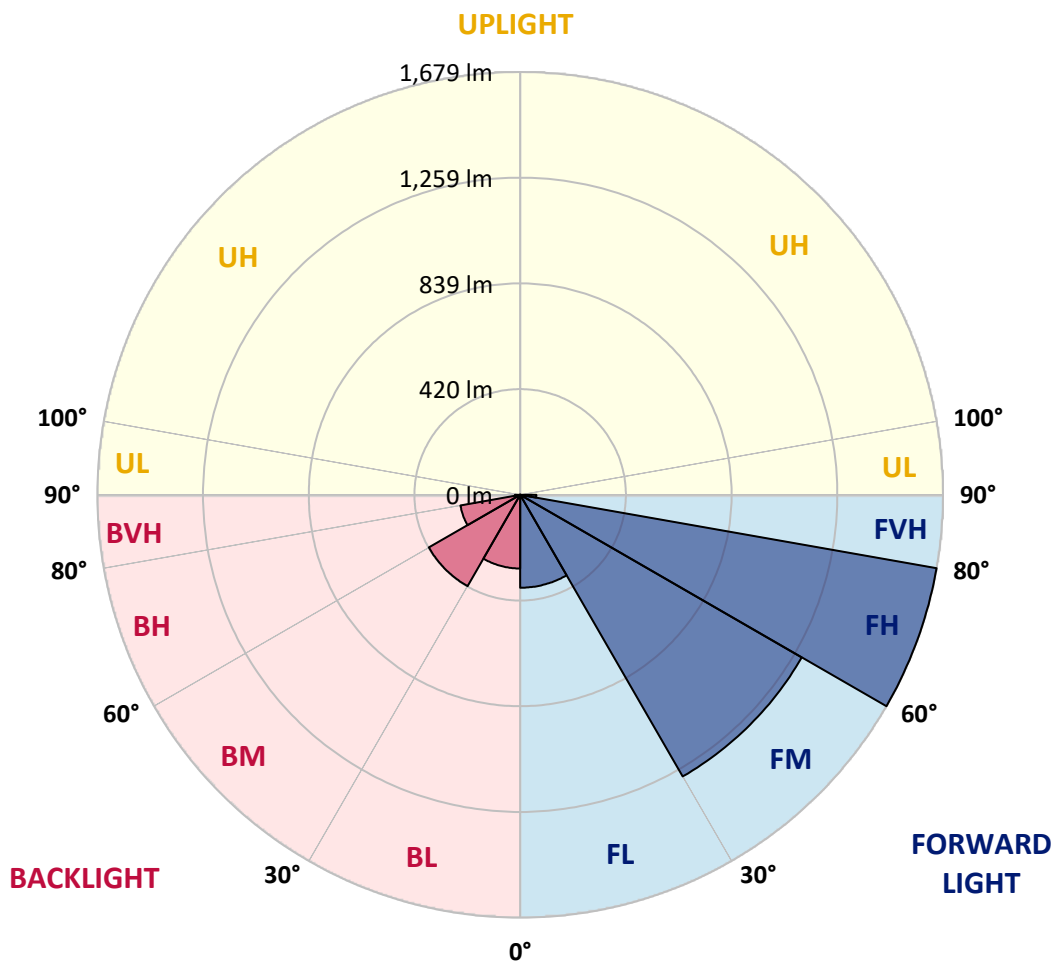
CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	368.9	8.4			
FM	(30°-60°)	1290.6	29.5			
FH	(60°-80°)	1678.5	38.4			G1/1800
FVH	(80°-90°)	64.0	1.5			G1/100
BL	(0°-30°)	292.4	6.7	B1/500		
BM	(30°-60°)	418.6	9.6	B1/1000		
BH	(60°-80°)	240.9	5.5	B1/500		G1/500
BVH	(80°-90°)	20.6	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-G1

Type IV Short





REPORT NUMBER: P158644

CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6
2.5°	928.6	931.9	930.7	930.7	931.6	930.1	930.1	930.7	929.2	930.1	929.8
5°	925.3	927.1	926.5	926.5	926.5	925.3	924.7	924.4	922.3	922.3	921.4
7.5°	918.1	918.7	919.6	918.4	918.1	917.8	915.7	914.5	912.1	909.9	910.5
10°	908.4	908.1	909.6	908.7	907.5	906.6	904.8	902.7	899.9	897.2	896.9
12.5°	897.5	897.2	898.4	897.8	896.9	895.1	893.6	890.0	885.8	882.5	882.2
15°	890.6	889.7	890.9	889.7	888.2	886.4	883.7	879.2	871.6	868.3	865.6
17.5°	897.2	895.7	896.3	894.8	892.7	887.9	881.6	871.9	861.1	855.4	851.1
20°	920.5	917.8	918.4	916.9	912.1	905.7	893.6	876.7	858.4	849.0	842.3
22.5°	953.6	951.5	952.4	950.9	946.1	936.5	918.4	894.2	868.0	854.4	843.8
25°	1004.0	1005.8	1006.4	999.5	996.8	979.0	953.9	920.5	885.5	869.5	855.0
27.5°	1060.7	1060.7	1063.4	1060.7	1055.3	1034.5	999.2	958.8	913.9	892.1	874.6
30°	1115.9	1115.3	1120.4	1119.8	1111.1	1087.6	1047.4	998.3	947.0	922.6	900.2
32.5°	1174.4	1176.2	1179.5	1178.3	1166.9	1134.3	1086.1	1032.7	978.7	951.8	926.8
35°	1237.7	1238.6	1239.8	1239.2	1216.0	1175.0	1114.4	1054.7	998.6	972.1	946.1
37.5°	1301.1	1300.2	1298.7	1285.7	1259.2	1202.2	1131.6	1067.3	1008.5	979.9	953.0
40°	1357.8	1352.6	1347.8	1327.6	1286.9	1217.5	1138.2	1070.3	1007.6	978.1	951.8
42.5°	1388.9	1383.1	1373.2	1347.8	1298.4	1219.1	1133.7	1061.3	998.3	969.1	943.1
45°	1394.6	1390.4	1380.7	1352.3	1295.6	1209.4	1119.8	1046.5	984.4	955.1	930.7
47.5°	1381.0	1377.7	1368.4	1340.3	1283.9	1194.9	1103.8	1030.9	970.9	943.4	919.9
50°	1360.2	1357.2	1349.9	1324.3	1270.6	1185.0	1095.7	1022.7	966.3	941.3	919.6
52.5°	1394.0	1396.4	1375.3	1347.2	1284.8	1193.7	1104.8	1031.2	974.5	949.7	927.1
55°	1919.0	1915.7	1788.8	1682.3	1492.0	1319.5	1190.7	1098.1	1037.5	1012.7	991.7
57.5°	2493.6	2482.1	2430.0	2330.5	2126.0	1853.0	1604.8	1393.7	1310.5	1274.9	1277.3
60°	2681.2	2685.4	2674.3	2639.0	2565.7	2423.6	2234.8	2076.2	1919.9	1843.7	1852.4
62.5°	2785.3	2792.8	2802.4	2794.6	2770.8	2737.9	2714.1	2728.6	2706.8	2651.9	2608.2
65°	2799.7	2815.1	2847.1	2872.4	2884.8	2915.8	2988.8	3163.7	3323.6	3334.1	3257.3
67.5°	2513.2	2555.8	2625.1	2742.4	2842.9	2953.3	3129.4	3395.4	3631.3	3639.1	3567.3
69°	1976.0	2057.8	2138.9	2401.0	2577.5	2793.7	3054.3	3417.7	3700.3	3722.0	3631.6
70°	1583.4	1631.9	1701.9	1965.2	2228.8	2504.5	2882.0	3344.1	3652.9	3696.7	3596.9
72.5°	950.6	969.4	993.5	1087.9	1223.6	1469.1	1969.7	2726.5	3081.4	3139.9	3013.0
75°	614.6	613.4	615.5	641.8	649.6	696.7	854.4	1402.7	2010.1	2116.3	1964.3
77.5°	463.0	467.2	460.6	463.0	460.9	473.5	478.3	502.1	793.5	977.5	874.0
80°	408.7	410.8	411.1	409.9	395.1	393.9	401.7	388.1	360.7	366.1	350.8
82.5°	233.2	232.9	235.6	256.1	264.5	292.3	303.7	310.0	286.2	268.4	242.8
85°	151.1	152.3	155.3	161.6	155.3	157.7	155.0	160.4	147.2	136.6	122.2
87.5°	61.8	61.8	65.8	71.5	66.7	65.5	56.1	55.5	47.0	42.5	33.2
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: P158644

CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6
2.5°	928.0	929.8	928.9	930.1	929.2	929.2	928.0	927.7	928.6	927.4	927.7
5°	919.9	920.2	918.7	919.3	917.5	916.9	916.0	913.6	915.1	913.6	914.2
7.5°	908.1	907.2	905.1	902.1	899.9	899.0	897.2	893.9	894.5	891.8	893.3
10°	893.0	890.0	886.4	881.9	878.9	876.1	872.2	868.3	866.2	863.8	863.5
12.5°	876.1	872.5	867.7	860.8	854.1	849.6	843.5	836.6	834.5	830.6	828.5
15°	857.8	852.0	846.3	838.4	831.2	824.3	816.1	807.4	801.7	795.6	791.1
17.5°	841.1	834.5	827.0	819.4	811.6	803.2	792.9	782.0	773.6	762.4	753.4
20°	828.2	819.7	812.2	804.4	795.6	785.3	773.0	759.1	745.0	732.6	722.0
22.5°	823.1	809.8	800.8	792.9	784.1	772.1	757.0	740.7	723.5	706.3	692.5
25°	827.3	807.7	793.5	784.1	776.6	764.2	747.4	727.4	707.5	687.1	668.3
27.5°	839.6	814.6	794.1	779.3	770.6	758.2	740.4	719.3	695.8	672.8	649.9
30°	859.0	826.4	800.5	779.6	766.1	751.9	733.2	708.8	684.9	658.7	633.7
32.5°	877.6	838.7	807.7	780.8	760.0	741.6	720.8	696.7	671.0	643.6	617.7
35°	890.9	846.9	810.4	778.1	750.7	727.7	705.4	681.3	656.3	628.2	601.7
37.5°	897.2	851.4	810.7	770.9	738.3	713.0	689.2	665.3	641.8	615.2	590.2
40°	896.9	851.1	806.5	761.5	723.5	696.7	673.1	649.9	627.9	604.7	582.1
42.5°	890.3	846.3	800.5	752.5	713.0	683.1	658.7	636.4	617.7	597.2	578.2
45°	880.1	838.1	794.1	748.3	710.0	680.1	654.2	632.5	615.8	597.2	580.9
47.5°	872.2	833.6	795.0	755.8	719.3	688.3	660.8	637.0	622.8	607.7	596.3
50°	873.4	835.7	798.0	760.3	725.9	694.6	668.0	646.3	636.1	632.2	629.5
52.5°	879.8	839.0	807.1	784.4	772.7	749.2	733.5	719.9	727.4	712.7	695.2
55°	960.6	947.3	978.4	1007.6	1044.7	1058.6	1045.3	1042.9	1055.0	1004.9	890.0
57.5°	1294.4	1328.8	1376.8	1402.1	1432.9	1424.8	1394.0	1368.4	1338.2	1279.7	1136.4
60°	1862.3	1836.4	1814.7	1753.5	1703.4	1644.9	1579.7	1524.0	1470.6	1386.4	1231.4
62.5°	2447.5	2267.4	2116.9	1971.5	1854.5	1757.4	1663.0	1579.1	1498.3	1381.0	1214.2
65°	2953.6	2574.4	2291.8	2078.6	1907.6	1760.1	1638.9	1523.0	1420.2	1282.7	1117.7
67.5°	3181.0	2705.9	2294.9	1989.4	1752.6	1552.3	1395.5	1220.6	1105.4	1017.3	924.4
69°	3164.0	2605.5	2131.1	1755.0	1483.0	1249.5	1081.2	898.7	788.4	751.0	748.9
70°	3083.8	2435.4	1939.9	1564.7	1253.5	1021.5	860.2	696.4	593.5	567.9	613.4
72.5°	2517.7	1720.9	1215.7	928.3	713.9	564.3	460.3	365.2	291.7	252.7	261.2
75°	1422.1	796.8	515.1	389.3	329.0	272.0	233.5	199.1	180.1	146.3	115.8
77.5°	517.0	342.0	272.0	235.3	166.8	114.9	96.2	84.1	76.3	76.3	72.7
80°	326.9	257.6	179.8	123.1	91.1	79.3	69.4	60.9	56.1	54.9	56.1
82.5°	204.2	157.7	100.7	77.2	64.9	58.2	50.6	44.3	40.4	39.5	41.3
85°	100.7	78.1	61.2	54.6	51.3	47.6	41.9	35.9	34.7	37.1	43.4
87.5°	30.2	26.8	22.0	22.9	24.1	23.5	18.7	16.3	15.4	20.2	31.7
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: P158644

CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6	931.6
2.5°	928.3	928.0	928.6	927.7	928.3	928.6	928.0	930.7	928.9	929.2	930.4
5°	914.8	914.2	916.6	916.0	917.2	918.4	917.8	921.7	920.2	921.4	923.8
7.5°	892.1	893.3	893.6	893.6	896.0	899.9	900.9	903.3	903.3	906.6	909.0
10°	862.0	862.3	864.1	863.8	866.8	871.0	871.6	875.8	877.3	882.8	886.1
12.5°	827.0	825.5	825.2	824.9	828.8	833.3	833.9	841.1	844.2	849.0	854.4
15°	787.8	783.8	782.6	785.0	784.1	786.8	789.6	793.5	797.7	807.4	812.2
17.5°	749.5	741.6	739.5	736.8	734.1	734.1	735.3	740.1	748.9	754.0	764.9
20°	710.3	700.9	693.4	686.2	679.8	677.4	677.7	683.7	690.1	698.5	708.8
22.5°	677.4	663.2	650.2	640.6	627.6	627.3	625.5	627.3	634.3	636.4	642.1
25°	649.0	630.1	612.5	596.9	584.2	577.6	575.8	575.2	571.8	570.9	566.7
27.5°	627.0	604.1	581.5	562.5	546.8	537.7	526.3	518.2	506.4	503.3	495.8
30°	608.9	584.2	559.4	534.7	517.0	500.6	481.3	467.2	449.1	437.3	427.1
32.5°	591.4	566.4	541.4	517.0	489.5	464.2	438.8	416.8	396.6	378.5	363.4
35°	577.0	553.1	527.8	498.2	463.3	426.8	396.3	371.3	343.5	324.5	305.5
37.5°	567.6	545.9	520.6	479.8	434.9	395.7	361.0	330.5	302.2	273.5	252.1
40°	563.4	544.4	512.7	463.0	410.2	366.7	328.4	294.7	258.5	226.2	203.3
42.5°	563.1	543.8	501.8	444.2	389.6	342.3	299.8	259.4	219.2	186.1	163.4
45°	568.5	542.9	490.4	428.6	371.6	322.1	271.4	222.3	177.4	152.6	140.5
47.5°	583.0	544.4	481.0	414.1	354.4	297.7	238.9	181.6	144.5	133.0	133.0
50°	608.9	553.1	478.6	403.9	337.2	269.3	199.1	146.6	127.9	127.9	131.5
52.5°	648.7	571.5	482.9	396.6	315.8	231.9	156.8	126.4	122.8	126.1	130.9
55°	740.4	604.1	488.6	384.2	283.2	184.0	129.4	119.5	121.0	124.9	129.4
57.5°	908.7	673.7	494.6	357.1	230.7	141.8	117.3	116.7	119.5	123.1	127.0
60°	1019.4	762.4	510.0	316.1	174.6	117.0	111.3	114.9	118.2	121.3	124.3
62.5°	1019.4	787.5	521.5	270.2	131.2	106.4	107.3	113.1	117.0	118.5	120.4
65°	954.2	741.6	482.6	220.1	106.7	100.4	103.7	109.5	113.1	114.3	115.8
67.5°	833.9	655.1	406.6	165.9	95.3	95.3	99.5	103.7	106.7	109.2	111.6
69°	725.0	587.8	358.0	140.5	90.8	91.4	95.6	99.2	102.8	105.8	108.9
70°	646.6	537.4	324.2	127.6	88.1	88.4	92.6	96.5	99.8	103.1	106.7
72.5°	346.3	371.3	246.4	104.6	81.1	82.0	86.0	89.6	92.6	95.9	99.2
75°	117.9	159.5	156.8	85.7	73.3	75.7	78.1	81.4	85.4	87.5	89.3
77.5°	69.1	71.5	83.5	69.7	66.1	67.3	70.0	72.7	76.0	78.1	79.6
80°	57.9	57.6	57.9	56.7	57.6	60.3	62.1	65.8	68.8	69.4	69.1
82.5°	47.0	49.4	49.7	49.1	51.9	54.0	55.5	57.6	57.3	57.9	59.1
85°	41.9	41.6	43.7	44.0	44.0	42.5	42.8	42.8	42.8	43.7	44.0
87.5°	41.9	35.0	27.1	24.4	25.6	24.1	22.9	22.6	25.0	27.4	26.8
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: P158644

CATALOG NUMBER: VST-F02-LED-E-U-SL4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	931.6	931.6	931.6	931.6	931.6
2.5°	931.0	931.9	931.3	931.3	931.9
5°	924.7	926.2	925.6	926.2	926.2
7.5°	910.2	912.4	913.9	915.4	914.5
10°	889.4	893.0	895.4	897.2	896.3
12.5°	858.4	861.7	866.8	869.8	867.4
15°	815.8	825.2	828.2	832.4	830.0
17.5°	771.5	777.2	780.8	784.7	787.1
20°	712.4	716.9	721.7	723.5	720.8
22.5°	641.2	643.6	642.7	645.4	640.0
25°	563.1	564.6	563.7	566.1	561.6
27.5°	489.2	488.9	489.2	486.2	483.2
30°	418.0	415.3	414.1	409.6	408.7
32.5°	354.4	345.0	340.2	333.5	332.0
35°	290.8	277.4	268.7	261.2	257.9
37.5°	233.8	217.7	207.5	200.9	200.0
40°	184.9	170.1	162.8	159.2	158.6
42.5°	150.8	144.5	142.7	142.7	142.7
45°	137.5	137.2	138.7	139.9	140.2
47.5°	134.8	136.6	138.7	140.5	141.1
50°	134.8	136.6	138.1	139.9	140.5
52.5°	134.2	135.7	136.3	137.5	138.1
55°	132.4	133.3	133.3	133.9	134.5
57.5°	129.4	130.0	129.1	129.7	131.2
60°	126.4	127.0	125.5	127.0	127.9
62.5°	123.1	123.4	122.8	124.0	124.0
65°	117.6	117.0	117.9	118.8	119.2
67.5°	112.2	110.7	111.6	111.9	112.5
69°	108.0	107.0	107.3	108.0	108.6
70°	104.9	104.3	104.9	105.8	106.7
72.5°	97.4	97.7	99.8	101.6	103.4
75°	90.5	92.6	95.3	99.2	101.3
77.5°	82.0	83.5	85.7	89.9	93.8
80°	70.9	71.8	72.1	73.6	73.3
82.5°	57.6	56.7	56.1	55.5	55.2
85°	41.3	41.0	38.6	36.8	36.8
87.5°	24.7	23.5	22.3	20.8	19.9
90°	0.0	0.0	0.0	0.0	0.0

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