

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: P159525

Luminaire Tested: **VST-F02-LED-E-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159525
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
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-T3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5049.5 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

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



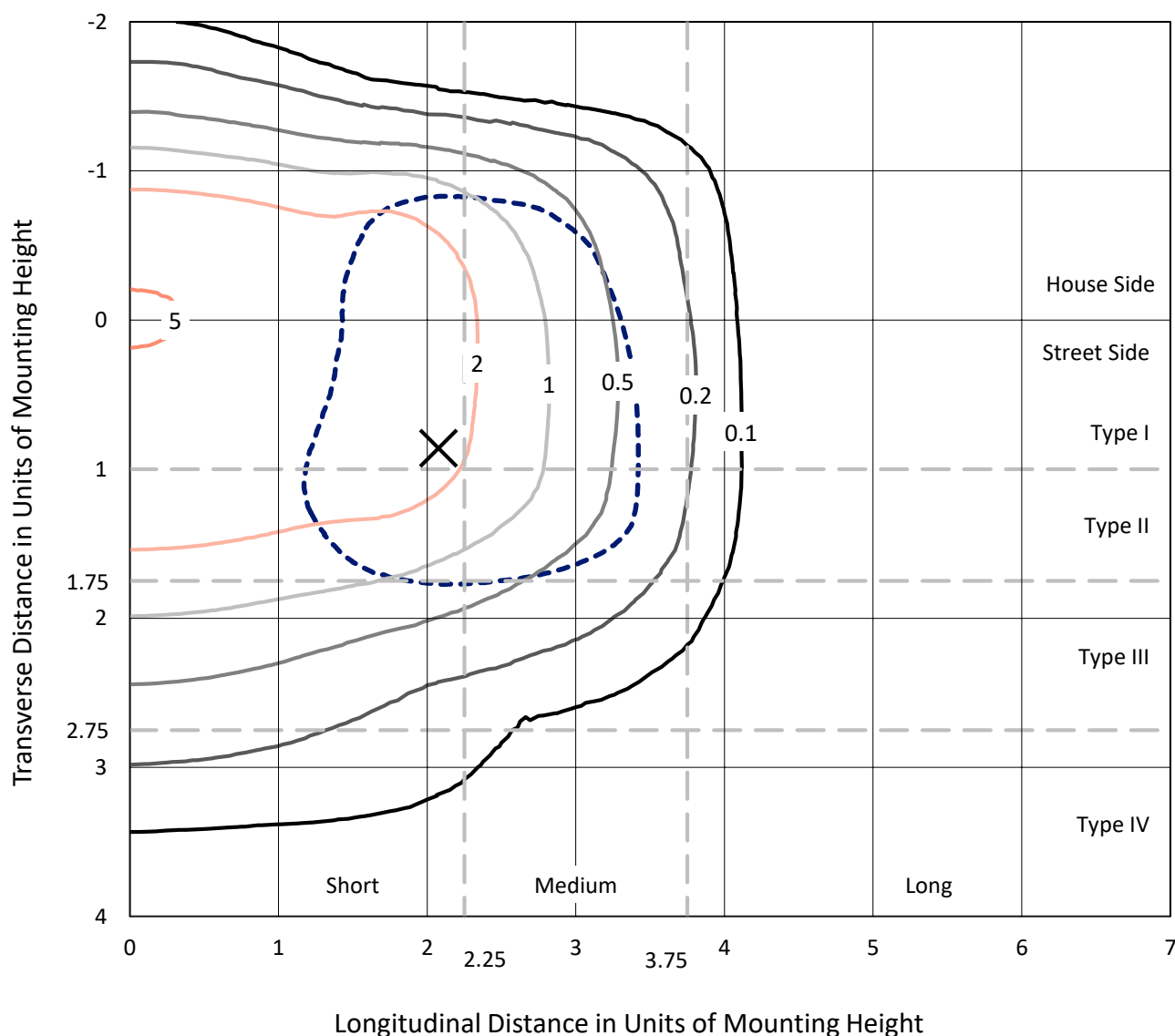
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

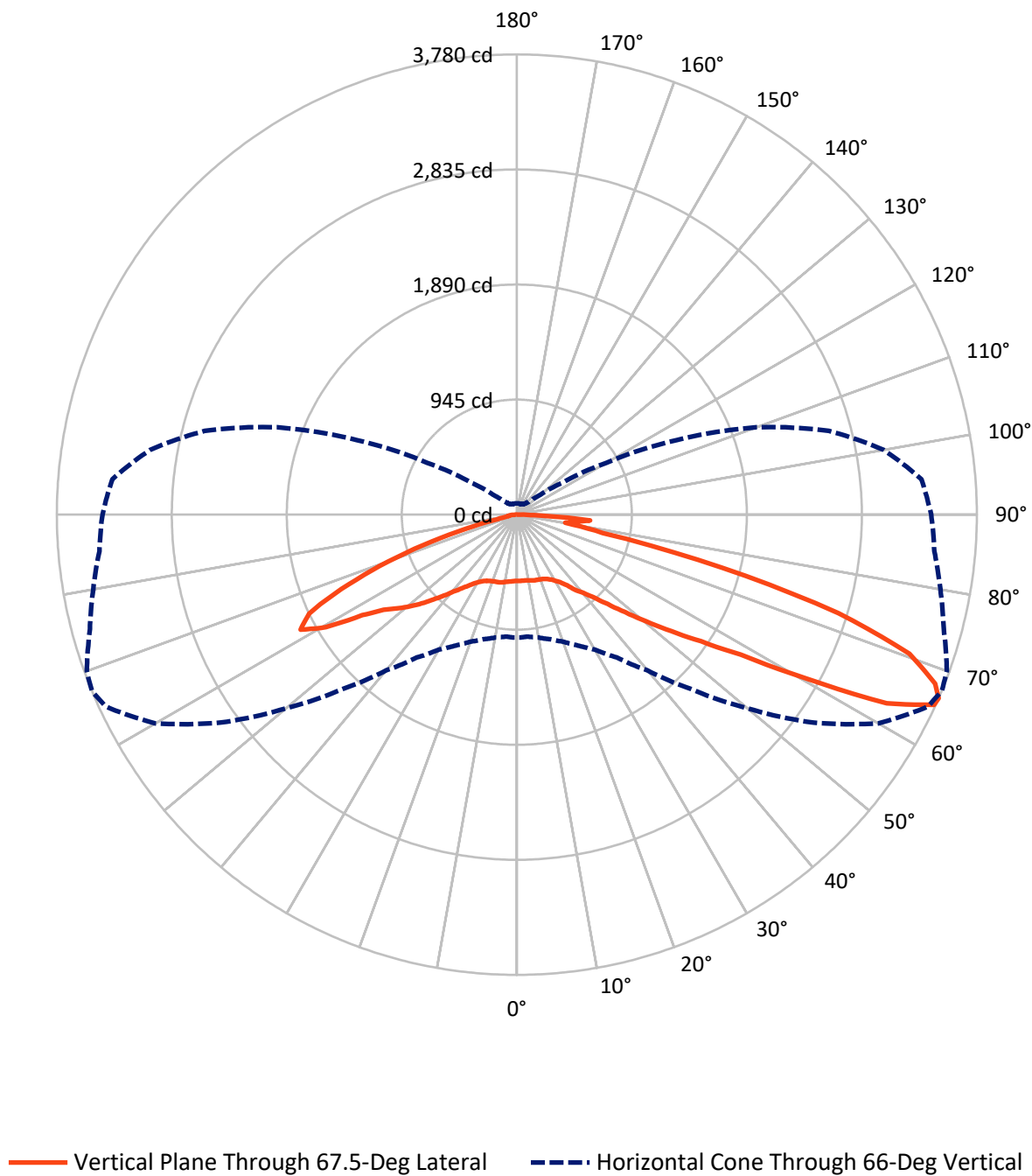


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1747.4	0.0	1747.4
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	3302.2	0.0	3302.2
	% Fixture	65.4	0.0	65.4
Total	Lumens	5049.5	0.0	5049.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	1.0
10°-20°	154.8	3.1
20°-30°	266.1	5.3
30°-40°	430.1	8.5
40°-50°	712.8	14.1
50°-60°	1118.7	22.2
60°-70°	1529.5	30.3
70°-80°	672.6	13.3
80°-90°	112.6	2.2
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°	5049.5	100.0
0°-180°	5049.5	100.0

Coefficient of Utilization



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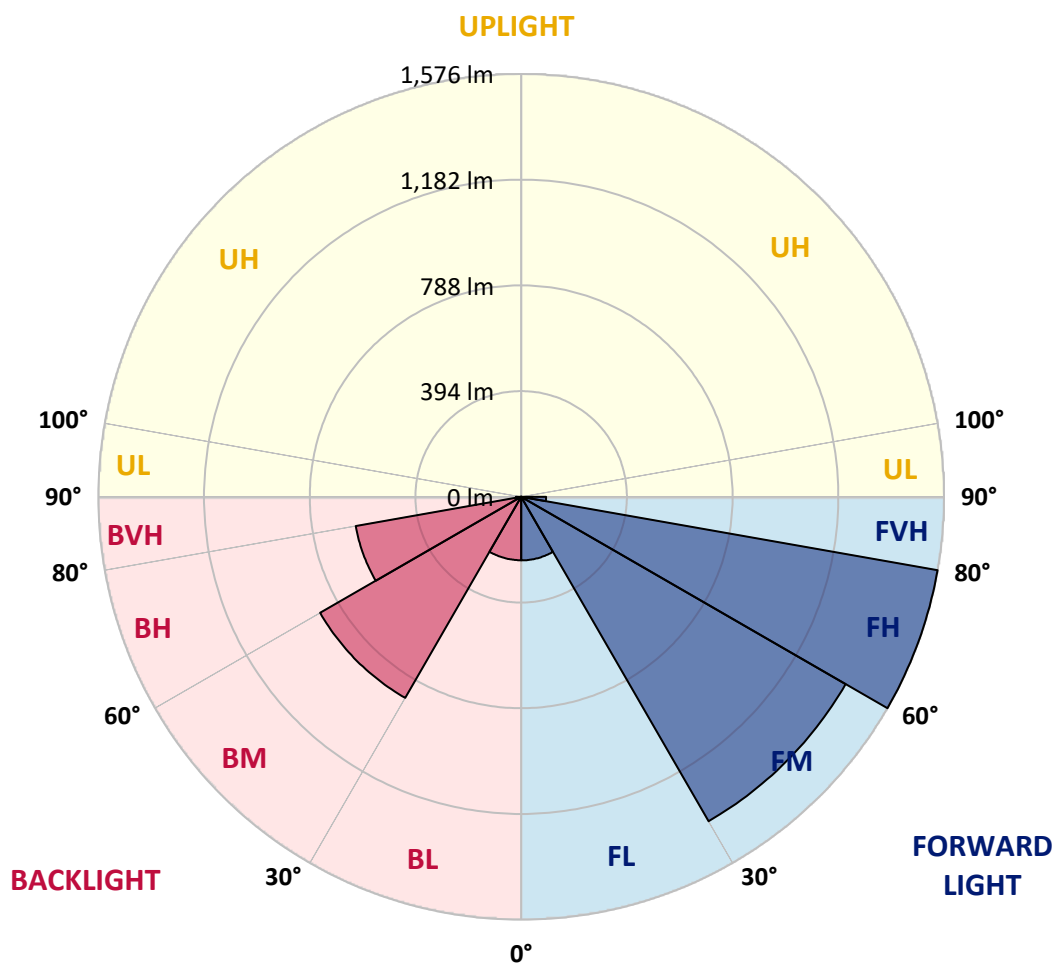
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	236.9	4.7			
FM	(30°-60°)	1396.3	27.7			
FH	(60°-80°)	1576.1	31.2			G1/1800
FVH	(80°-90°)	92.9	1.8			G1/100
BL	(0°-30°)	236.4	4.7	B1/500		
BM	(30°-60°)	865.3	17.1	B1/1000		
BH	(60°-80°)	626.0	12.4	B2/1000		G2/1000
BVH	(80°-90°)	19.7	0.4			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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9
2.5°	543.8	543.8	544.2	543.8	543.8	543.5	544.9	544.9	544.9	544.5	545.5
5°	542.5	542.5	542.9	542.9	543.2	542.9	543.8	544.2	544.2	544.2	545.2
7.5°	539.2	540.2	539.6	539.9	540.2	541.2	542.5	543.2	543.8	544.9	545.2
10°	532.3	533.9	533.6	534.6	535.0	537.9	538.9	540.2	542.5	543.8	544.9
12.5°	522.7	523.7	524.0	525.4	526.7	530.3	533.0	535.3	538.6	541.9	545.2
15°	515.1	515.8	515.8	517.1	519.1	522.4	525.7	529.7	534.6	540.2	545.5
17.5°	517.4	519.1	517.7	517.4	518.1	520.1	523.1	526.4	532.3	538.6	544.9
20°	532.6	533.0	532.3	530.6	529.3	529.7	529.7	530.3	533.9	538.9	543.8
22.5°	545.2	546.5	546.2	546.5	546.2	547.5	546.8	545.5	544.2	544.5	546.8
25°	556.1	557.4	557.4	558.4	560.0	562.7	564.7	564.3	562.3	559.7	558.7
27.5°	573.9	573.9	573.9	574.9	577.2	580.5	583.8	585.8	587.5	584.8	579.2
30°	602.0	602.3	601.3	601.6	603.3	607.6	611.5	614.5	617.8	617.5	610.2
32.5°	632.7	634.0	633.7	635.0	637.3	641.3	645.5	650.2	654.5	657.1	652.5
35°	672.3	673.6	674.0	676.0	678.6	684.5	690.5	696.4	701.0	703.0	702.0
37.5°	737.3	737.7	736.4	733.4	734.4	739.0	745.9	755.5	758.5	760.5	765.1
40°	834.8	833.8	828.5	825.8	824.2	826.2	824.9	832.4	839.4	839.7	839.4
42.5°	953.0	950.0	945.1	944.4	943.7	943.1	939.4	939.8	946.1	947.7	945.7
45°	1070.5	1066.9	1063.3	1066.6	1062.6	1072.9	1075.8	1083.7	1084.7	1088.0	1083.1
47.5°	1166.9	1167.3	1167.3	1171.9	1179.8	1199.3	1216.8	1232.0	1237.6	1245.5	1246.6
50°	1240.0	1241.9	1248.2	1263.1	1279.9	1312.6	1342.0	1369.4	1394.2	1403.4	1427.8
52.5°	1282.6	1287.8	1301.0	1325.8	1355.8	1398.1	1444.3	1490.9	1533.8	1570.1	1599.2
55°	1274.9	1278.9	1302.0	1340.6	1387.6	1444.3	1509.1	1576.4	1643.5	1704.9	1752.4
57.5°	1226.0	1228.7	1251.8	1295.4	1353.8	1430.2	1521.6	1621.7	1715.8	1814.8	1896.1
60°	1162.0	1166.0	1187.5	1221.8	1282.9	1364.1	1470.1	1605.8	1756.1	1911.9	2063.8
62.5°	1121.0	1120.1	1138.9	1169.6	1215.5	1289.2	1391.2	1552.0	1760.0	2023.5	2323.7
65°	1053.1	1050.1	1069.6	1104.5	1154.4	1225.7	1322.5	1477.0	1718.4	2065.8	2491.4
66°	1010.8	1004.8	1024.3	1059.7	1109.5	1185.5	1278.2	1430.8	1667.9	2024.5	2473.6
67.5°	936.8	933.8	943.1	970.8	1007.8	1079.1	1175.9	1329.4	1548.4	1900.4	2342.8
70°	761.5	754.9	762.1	774.7	788.9	806.4	865.8	987.7	1172.9	1514.0	1887.5
72.5°	518.8	515.5	529.0	548.2	586.1	604.0	627.4	647.2	712.6	954.3	1316.5
75°	394.6	396.6	413.8	445.4	494.3	547.1	598.7	617.5	595.7	576.9	747.2
77.5°	221.2	232.8	253.6	293.9	345.7	420.4	510.2	609.2	658.7	646.6	604.6
80°	91.1	89.5	99.7	121.9	139.7	200.8	307.1	431.3	570.6	658.7	644.9
82.5°	25.4	26.1	33.7	43.3	55.8	71.0	110.9	178.3	290.6	452.0	591.7
85°	7.9	7.9	10.9	16.2	19.1	22.1	28.1	46.2	78.9	157.5	319.3
87.5°	1.7	1.7	2.3	4.6	5.0	5.0	6.3	8.6	7.6	7.0	31.0
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9
2.5°	544.5	543.8	544.2	544.5	544.2	544.2	543.8	543.5	543.8	543.8	544.9
5°	544.2	543.8	544.2	544.2	544.2	544.5	544.5	544.5	545.5	545.5	547.1
7.5°	544.9	544.9	545.5	545.5	545.5	545.5	545.8	546.5	548.2	547.8	550.8
10°	546.2	546.8	548.5	548.8	548.8	549.8	550.4	551.8	553.4	554.1	556.7
12.5°	547.8	551.1	554.1	554.8	555.7	557.4	558.4	559.0	562.0	563.0	566.3
15°	549.8	554.4	558.1	559.4	560.7	562.7	564.0	565.0	567.7	569.0	572.9
17.5°	550.1	555.4	559.7	561.7	563.3	565.6	567.7	569.6	572.6	574.6	578.5
20°	549.8	556.7	563.3	566.0	567.7	571.9	574.9	577.6	581.2	583.1	587.1
22.5°	553.4	561.4	570.3	573.6	576.2	582.2	586.1	590.4	595.0	596.3	599.3
25°	562.0	570.3	581.5	586.1	590.8	598.7	604.3	610.6	615.2	615.8	616.9
27.5°	576.5	584.2	597.7	604.6	612.2	623.5	631.7	638.0	644.6	644.6	643.9
30°	605.9	607.6	621.8	630.7	641.9	658.4	670.7	677.6	682.6	682.6	676.9
32.5°	643.9	641.9	654.8	664.4	679.9	703.0	719.5	724.8	730.1	728.5	718.9
35°	698.7	693.1	700.4	714.9	732.4	764.1	781.3	793.1	796.4	791.8	776.6
37.5°	767.8	767.1	770.7	786.9	806.4	847.3	864.8	872.4	869.8	861.5	834.8
40°	840.7	838.7	836.4	847.3	869.1	918.3	949.4	953.3	949.7	937.4	903.8
42.5°	938.1	938.1	927.2	930.2	948.4	1003.5	1040.2	1052.7	1053.1	1035.2	990.3
45°	1072.2	1070.9	1051.7	1047.1	1061.0	1115.1	1162.3	1169.3	1169.3	1145.8	1096.6
47.5°	1233.4	1231.7	1212.8	1196.7	1199.3	1257.8	1297.1	1307.6	1298.4	1280.9	1222.4
50°	1414.9	1412.0	1392.8	1377.7	1371.1	1430.2	1463.5	1468.4	1454.9	1434.1	1370.7
52.5°	1599.2	1608.1	1596.9	1588.6	1591.0	1629.2	1663.6	1640.2	1633.2	1610.8	1547.0
55°	1791.1	1818.5	1843.3	1835.9	1844.6	1881.8	1888.5	1857.4	1844.9	1828.7	1757.7
57.5°	1984.3	2064.1	2145.4	2168.2	2189.3	2242.8	2235.2	2184.4	2193.9	2218.0	2138.1
60°	2254.0	2484.8	2690.9	2728.9	2794.6	2840.2	2850.4	2840.5	2885.0	2872.5	2801.8
62.5°	2668.4	3053.1	3339.7	3411.1	3477.1	3474.8	3440.1	3404.5	3448.4	3448.4	3263.8
65°	2964.3	3400.9	3707.6	3766.7	3764.0	3684.5	3602.6	3531.2	3525.0	3476.1	3206.3
66°	2978.2	3427.6	3728.1	3779.6	3759.8	3631.6	3533.6	3443.1	3404.5	3336.4	3060.1
67.5°	2853.4	3352.0	3661.4	3706.3	3654.1	3470.5	3335.5	3214.3	3158.1	3043.6	2783.3
70°	2340.5	2880.8	3330.8	3422.6	3363.5	3131.0	2946.1	2782.3	2675.0	2509.6	2322.1
72.5°	1708.5	2126.9	2614.3	2763.5	2754.3	2540.3	2391.4	2241.5	2100.5	1949.9	1812.8
75°	1110.5	1383.6	1655.3	1742.5	1700.6	1576.7	1470.1	1382.6	1248.8	1144.2	1118.8
77.5°	634.0	774.7	732.7	721.9	669.4	540.2	359.3	251.9	227.5	284.0	311.4
80°	603.3	546.8	447.8	403.9	371.2	253.0	132.7	93.4	81.9	83.9	90.1
82.5°	680.2	709.0	579.8	484.4	421.7	307.7	168.1	78.2	57.1	67.7	76.0
85°	509.8	717.9	711.6	602.9	494.6	354.7	198.8	59.8	34.3	47.6	62.1
87.5°	103.4	170.0	163.8	144.0	122.5	85.5	33.4	18.8	17.2	23.5	35.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9	544.9
2.5°	545.5	545.5	546.2	547.1	547.5	547.5	548.2	547.5	548.8	549.1	549.5
5°	548.5	549.5	550.1	551.8	552.8	553.4	554.4	553.7	555.1	555.4	556.1
7.5°	551.8	553.4	554.8	555.4	556.7	556.7	557.0	556.4	556.1	555.1	554.8
10°	557.7	558.7	560.3	559.7	559.0	556.7	554.8	551.8	550.1	547.1	545.5
12.5°	567.3	568.0	568.0	565.0	560.7	555.4	550.4	545.5	541.6	538.3	536.3
15°	573.9	575.2	573.6	569.3	563.0	555.7	549.1	542.5	537.2	533.0	530.3
17.5°	578.9	578.5	575.6	569.6	563.6	557.4	551.5	544.5	537.9	531.7	527.7
20°	586.4	583.1	577.9	571.6	565.3	560.0	555.4	548.8	541.9	533.3	527.3
22.5°	596.7	590.8	583.1	576.5	570.6	565.6	560.3	554.8	547.5	537.9	529.7
25°	611.2	601.0	592.4	585.8	580.5	574.9	569.0	561.7	554.4	544.5	534.6
27.5°	633.4	618.2	607.3	601.3	596.3	588.8	581.2	572.6	563.3	553.1	541.9
30°	660.1	641.9	629.4	624.1	618.2	609.5	601.3	589.4	576.5	564.3	550.4
32.5°	691.4	673.0	660.4	656.5	646.9	637.0	625.4	609.5	592.7	574.6	558.1
35°	739.0	715.6	704.0	694.7	681.5	669.7	650.2	629.4	605.3	581.2	560.7
37.5°	787.9	764.1	752.2	739.3	722.2	700.4	674.3	644.6	612.5	582.8	557.7
40°	853.3	827.5	812.3	792.5	764.8	730.7	692.1	651.5	612.5	575.6	545.2
42.5°	929.5	905.8	882.3	849.7	805.1	755.5	701.3	649.2	602.0	559.4	527.3
45°	1035.2	994.6	957.3	904.8	839.7	770.0	702.4	638.3	583.8	536.6	500.9
47.5°	1154.1	1101.6	1035.5	953.3	864.5	775.7	692.8	617.8	555.1	503.9	464.9
50°	1291.1	1210.6	1109.2	992.0	877.0	768.1	670.0	583.5	515.5	456.7	415.1
52.5°	1448.0	1325.2	1175.9	1019.3	875.0	745.0	632.3	538.3	462.3	399.9	358.9
55°	1622.0	1450.0	1239.6	1036.9	857.2	700.0	573.2	474.5	396.2	334.9	298.9
57.5°	1928.8	1668.9	1361.1	1060.3	819.9	632.0	498.3	394.0	323.3	271.1	236.8
60°	2498.7	2051.6	1591.3	1115.5	763.8	546.8	403.9	309.1	250.0	212.0	186.5
62.5°	2851.4	2321.0	1703.6	1107.5	672.7	430.3	299.8	229.1	182.6	157.5	141.7
65°	2767.8	2215.4	1566.5	951.4	523.4	305.1	198.5	149.9	125.5	112.6	105.0
66°	2654.2	2097.2	1450.6	851.9	456.0	254.9	163.8	125.8	108.0	98.4	94.4
67.5°	2416.1	1881.2	1251.2	682.2	341.8	189.9	120.8	98.8	87.8	82.9	80.2
70°	2022.2	1515.7	884.9	402.8	185.2	103.0	77.3	68.7	66.1	64.4	63.4
72.5°	1563.5	1097.3	517.1	198.1	93.4	66.7	58.8	55.1	54.2	54.2	54.5
75°	985.0	630.7	231.5	95.5	63.4	53.8	50.2	48.5	48.9	49.2	48.9
77.5°	327.2	217.6	96.4	67.7	55.1	48.9	45.9	45.2	45.9	46.2	46.2
80°	94.1	82.2	69.7	59.8	50.5	45.5	42.9	42.6	44.2	44.6	43.9
82.5°	72.3	67.7	63.1	57.8	48.5	42.9	41.9	42.2	43.3	42.6	39.6
85°	66.4	65.7	47.2	46.9	42.2	40.9	40.0	40.3	39.3	35.6	32.3
87.5°	37.3	34.7	26.8	27.1	31.4	32.3	26.8	28.4	26.4	23.1	21.1
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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CATALOG NUMBER: VST-F02-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	544.9	544.9	544.9	544.9	544.9
2.5°	550.1	549.8	549.8	550.8	549.5
5°	556.4	556.1	556.1	557.0	556.1
7.5°	553.4	552.4	551.8	551.5	551.5
10°	543.5	542.5	540.5	539.9	539.2
12.5°	533.3	532.3	530.0	530.0	529.3
15°	527.0	525.7	524.0	523.1	522.4
17.5°	523.7	521.8	519.8	518.8	518.1
20°	522.4	519.8	517.4	515.8	515.8
22.5°	522.7	519.4	516.8	514.8	514.1
25°	526.0	521.1	517.7	515.8	515.1
27.5°	530.6	524.7	520.4	517.7	516.8
30°	536.9	528.7	522.7	519.4	518.1
32.5°	541.2	529.7	522.1	517.4	515.8
35°	540.9	526.0	516.8	510.8	508.9
37.5°	535.0	517.4	505.2	497.9	494.6
40°	521.8	501.6	488.7	481.8	477.8
42.5°	502.6	480.8	469.2	461.6	457.3
45°	472.6	451.1	436.9	430.9	425.3
47.5°	430.9	409.1	396.9	388.3	384.7
50°	382.1	360.2	347.4	340.4	337.1
52.5°	328.6	307.7	298.5	291.9	287.3
55°	273.1	253.9	250.0	242.7	238.4
57.5°	220.9	209.7	206.0	198.8	195.2
60°	172.7	169.1	165.1	160.5	158.5
62.5°	133.7	130.4	129.4	126.5	126.1
65°	102.1	102.4	101.7	101.0	100.4
66°	92.8	92.5	92.8	92.1	91.8
67.5°	78.9	80.2	81.2	80.9	80.9
70°	64.1	65.0	66.4	66.1	66.1
72.5°	54.8	56.5	57.1	56.8	56.8
75°	49.6	51.2	51.2	50.5	50.2
77.5°	46.2	46.9	46.2	45.5	44.9
80°	42.9	42.2	41.3	40.3	39.6
82.5°	37.3	35.6	34.7	33.0	33.0
85°	30.1	28.7	26.4	24.8	23.1
87.5°	19.5	18.8	17.2	12.9	10.3
90°	0.0	0.0	0.0	0.0	0.0

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