

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: P157765

Luminaire Tested: **VST-F02-LED-E-U-5XQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157765
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33710)
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-5XQ
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE
Light Source: (14) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5221.9 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B3 - U1 - 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



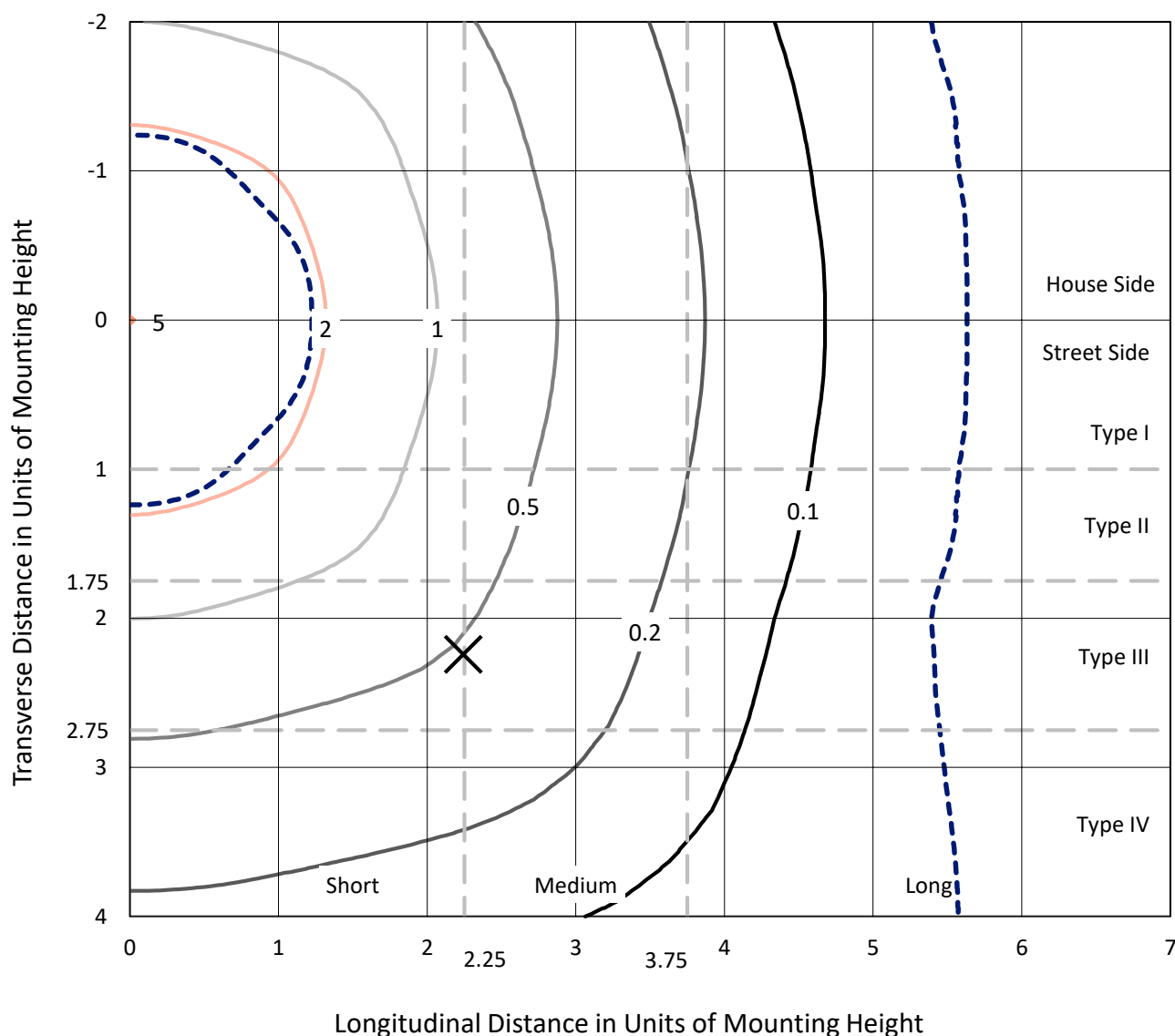
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd



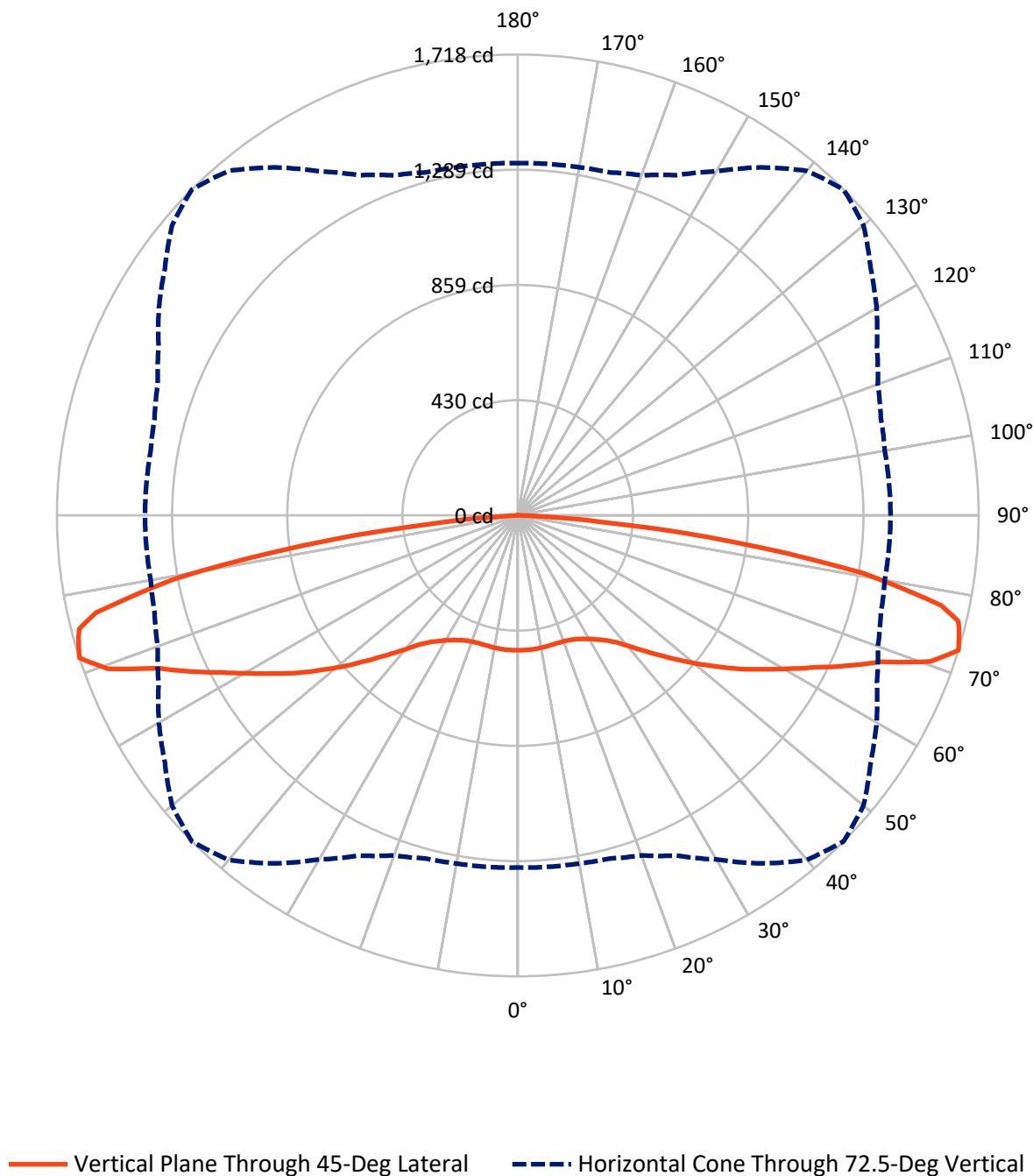
Based on 10 foot mounting height. Maximum calculated value = 5 fc

Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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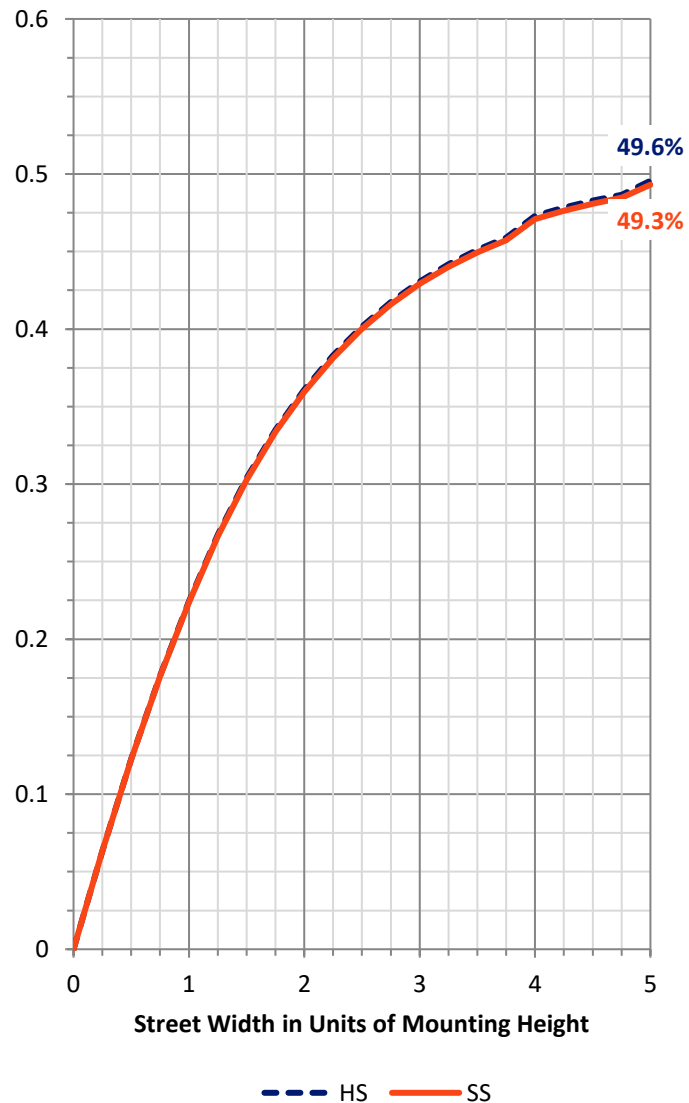
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2609.5	1.4	2611.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2609.5	1.4	2611.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	5219.0	2.9	5221.9
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.0	0.9
10°-20°	141.6	2.7
20°-30°	236.8	4.5
30°-40°	360.0	6.9
40°-50°	570.1	10.9
50°-60°	872.1	16.7
60°-70°	1248.1	23.9
70°-80°	1428.1	27.3
80°-90°	314.3	6.0
90°-100°	0.3	0.0
100°-110°	0.6	0.0
110°-120°	0.4	0.0
120°-130°	0.5	0.0
130°-140°	0.4	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	5219.0	99.9
0°-180°	5221.9	100.0

Coefficient of Utilization



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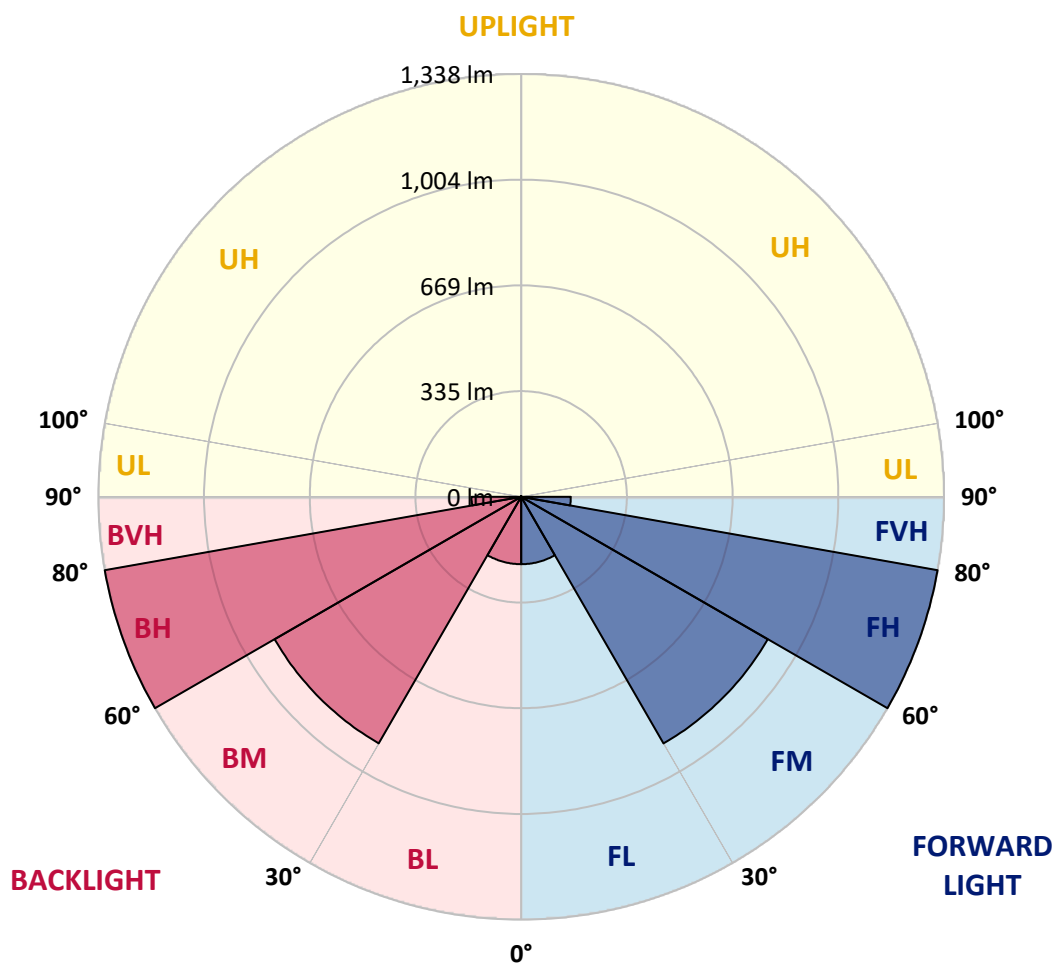
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	213.2	4.1			
FM	(30°-60°)	901.1	17.3			
FH	(60°-80°)	1338.1	25.6			G1/1800
FVH	(80°-90°)	157.2	3.0			G2/225
BL	(0°-30°)	213.2	4.1	B1/500		
BM	(30°-60°)	901.1	17.3	B1/1000		
BH	(60°-80°)	1338.1	25.6	B3/2500		G1/1800
BVH	(80°-90°)	157.2	3.0			G2/225
UL	(90°-100°)	0.3	0.0		U1/10	
UH	(100°-180°)	1.4	0.0		U1/10	

BUG Rating: B3-U1-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	502.6	502.6	502.6	502.6	502.6	502.6	502.6	502.6	502.6	502.6	502.6
2.5°	502.9	502.3	502.6	503.2	502.9	502.9	502.6	502.6	503.2	502.6	502.9
5°	503.2	502.6	502.9	503.2	502.9	503.2	502.9	502.9	502.9	502.6	503.2
7.5°	501.9	501.9	502.3	502.3	501.9	502.3	502.3	502.3	501.9	501.9	502.6
10°	501.2	500.9	500.9	501.2	500.9	500.9	501.2	501.2	500.6	500.6	501.2
12.5°	500.3	499.9	499.9	499.9	499.6	499.6	499.9	499.9	499.6	499.3	500.3
15°	499.6	499.3	499.3	499.3	498.6	499.0	499.0	499.0	498.6	498.3	499.3
17.5°	499.3	499.0	499.0	499.0	498.6	498.6	498.6	498.6	498.3	498.3	499.0
20°	499.9	499.9	499.9	499.9	499.6	499.6	499.6	499.9	499.9	499.9	500.6
22.5°	501.6	501.6	501.9	502.3	502.3	502.9	503.2	503.6	503.6	503.9	504.5
25°	505.9	505.9	506.2	506.5	507.5	508.2	509.5	510.2	510.5	510.5	510.8
27.5°	513.8	514.1	514.8	515.5	516.8	517.7	519.1	520.4	520.7	521.1	521.4
30°	523.7	524.0	525.4	526.0	527.7	529.7	531.3	532.6	533.6	534.3	533.9
32.5°	537.9	538.6	540.2	541.2	543.5	545.5	547.8	549.8	550.8	551.8	551.5
35°	557.7	559.4	561.0	562.0	564.3	566.0	569.0	571.0	572.9	572.3	572.6
37.5°	587.1	588.4	588.8	589.4	591.7	593.0	596.3	599.0	600.0	600.7	601.0
40°	626.8	626.8	628.4	627.1	630.1	630.4	634.3	638.0	638.9	641.6	639.6
42.5°	673.0	672.7	673.6	672.7	672.7	676.0	679.3	685.9	686.5	689.8	687.8
45°	723.2	723.2	722.2	722.5	723.2	726.8	730.7	738.0	741.3	743.3	742.0
47.5°	777.7	776.3	776.0	775.7	777.7	781.6	787.6	794.5	802.7	803.4	802.7
50°	832.8	832.4	830.2	832.1	833.5	835.4	846.7	855.9	864.5	869.8	868.1
52.5°	890.9	887.9	887.9	887.9	891.2	897.5	907.4	920.0	931.5	937.1	936.1
55°	949.7	948.7	945.7	944.4	948.7	957.6	971.8	987.0	1002.2	1010.8	1007.5
57.5°	1003.5	1001.9	1002.2	1002.5	1007.5	1019.3	1035.8	1056.0	1072.5	1081.7	1079.5
60°	1045.8	1043.8	1047.4	1048.4	1057.3	1077.1	1103.6	1129.0	1150.8	1160.0	1156.4
62.5°	1093.7	1092.4	1094.6	1094.3	1103.9	1126.0	1161.4	1202.0	1235.0	1246.9	1241.6
65°	1170.9	1166.9	1166.0	1162.3	1168.6	1185.8	1221.1	1268.3	1321.2	1351.6	1344.3
67.5°	1263.4	1262.4	1259.1	1257.1	1259.4	1280.9	1314.9	1360.4	1414.3	1456.2	1465.5
70°	1324.5	1325.8	1329.1	1334.0	1353.2	1394.8	1456.9	1525.9	1599.8	1631.2	1625.6
72.5°	1312.9	1314.9	1317.5	1323.8	1348.9	1398.8	1480.7	1583.7	1676.5	1718.1	1682.4
75°	1256.5	1258.1	1264.0	1273.6	1304.3	1364.8	1452.9	1562.2	1658.0	1699.6	1662.3
76°	1204.3	1209.5	1220.5	1231.7	1268.6	1334.4	1428.5	1545.1	1646.4	1688.7	1652.7
77.5°	1086.1	1090.7	1099.6	1119.1	1161.0	1245.2	1355.2	1469.8	1575.4	1613.4	1583.0
80°	817.3	821.2	829.5	853.0	889.3	941.4	1026.6	1138.6	1254.5	1304.3	1284.5
82.5°	345.1	349.7	382.4	416.4	456.4	512.8	568.3	667.4	752.5	809.3	779.0
85°	38.0	46.9	57.8	78.6	96.4	128.5	159.8	219.9	278.0	313.4	277.0
87.5°	6.6	7.6	10.9	13.9	15.5	17.8	21.5	30.1	40.9	35.3	36.0
90°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.7
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4
97.5°	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
102.5°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7
105°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
107.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.4	0.4	0.4	0.7	0.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
110°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
112.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
115°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
117.5°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
120°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
122.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
130°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
132.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
135°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
137.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
140°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
142.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.4
147.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4
150°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.0	0.0	0.0
152.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0
155°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.4
157.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
160°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
162.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
165°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°	70°	75°	80°	85°	90°
0°	502.6	502.6	502.6	502.6	502.6	502.6	502.6	502.6
2.5°	502.6	502.6	503.2	502.9	502.9	503.2	503.9	503.6
5°	502.9	503.2	502.6	502.9	503.2	503.2	503.6	503.2
7.5°	502.3	502.3	502.3	502.6	502.9	502.6	502.9	502.9
10°	500.9	501.2	500.9	501.6	501.9	501.9	502.3	502.3
12.5°	499.9	499.9	499.9	500.6	500.9	500.9	501.2	500.9
15°	499.0	499.0	498.6	499.3	499.9	499.9	500.3	500.3
17.5°	498.6	498.6	498.3	499.0	499.6	499.6	499.9	499.9
20°	499.6	499.9	499.3	499.9	500.6	500.9	500.9	500.9
22.5°	503.6	503.2	502.3	502.6	502.9	502.9	502.9	502.9
25°	509.5	508.9	507.8	507.5	507.2	506.9	506.9	506.9
27.5°	519.8	518.8	517.1	516.8	516.4	515.8	515.8	515.8
30°	532.0	530.6	528.7	528.0	527.0	526.4	526.0	525.7
32.5°	549.5	546.8	544.5	542.9	541.9	539.9	539.6	538.9
35°	569.6	567.7	564.3	563.3	561.7	560.7	560.3	558.7
37.5°	597.4	595.0	592.1	591.4	591.1	590.1	590.1	589.7
40°	636.0	633.7	631.0	628.4	629.0	629.4	629.4	628.1
42.5°	683.2	679.6	674.3	676.0	674.9	673.6	676.3	674.6
45°	737.0	732.1	728.1	726.5	726.5	724.8	727.4	727.4
47.5°	796.8	788.9	781.6	781.9	779.3	779.9	781.6	783.9
50°	859.9	849.3	842.3	839.0	836.4	837.4	840.4	841.0
52.5°	925.3	912.4	903.1	898.2	894.8	896.2	898.5	900.5
55°	993.3	979.1	965.2	959.9	956.0	958.6	958.9	961.6
57.5°	1064.3	1044.8	1028.6	1020.7	1016.7	1019.3	1021.3	1024.0
60°	1135.9	1113.5	1094.3	1085.0	1079.5	1083.1	1087.7	1089.1
62.5°	1219.1	1188.1	1166.6	1153.4	1150.8	1154.4	1155.7	1159.7
65°	1317.5	1280.2	1250.5	1234.3	1233.7	1235.6	1238.6	1239.6
67.5°	1429.8	1388.2	1348.3	1332.1	1325.8	1331.8	1334.7	1338.7
70°	1588.3	1531.2	1473.4	1437.4	1422.2	1417.6	1418.9	1423.2
72.5°	1606.1	1544.7	1477.4	1428.5	1401.7	1389.5	1389.2	1389.8
75°	1567.2	1469.1	1421.6	1365.4	1327.4	1307.6	1305.0	1304.6
76°	1547.7	1431.8	1363.1	1318.5	1273.0	1252.8	1249.9	1248.2
77.5°	1465.5	1341.0	1237.6	1210.6	1166.9	1141.6	1146.8	1142.5
80°	1174.9	1051.4	954.0	877.7	880.0	861.5	853.9	851.6
82.5°	692.5	591.1	483.4	420.4	360.2	344.4	296.5	285.7
85°	221.2	156.8	95.1	69.0	46.9	39.3	30.7	28.1
87.5°	29.4	23.1	18.8	18.2	16.5	14.2	9.2	6.6
90°	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.4	0.4	0.4	0.4	0.0	0.0	0.0	0.0
97.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
100°	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4
102.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4
105°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
107.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7



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CATALOG NUMBER: VST-F02-LED-E-U-5XQ

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
110°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
112.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7
115°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7
117.5°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
120°	0.4	0.4	0.4	0.4	0.4	0.7	0.7	0.7
122.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
125°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
127.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
130°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
132.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
135°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
137.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
140°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
142.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
145°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
147.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
150°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
152.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
155°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
157.5°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
160°	0.4	0.4	0.4	0.4	0.7	0.7	0.7	0.7
162.5°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
165°	0.4	0.4	0.4	0.7	0.7	0.7	0.7	0.7
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)