

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: P159753

Luminaire Tested: **VST-F03-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159753
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-F03-LED-E-U-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6221.2 lumens
Efficiency: N/A
Efficacy: 79.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 78.3
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

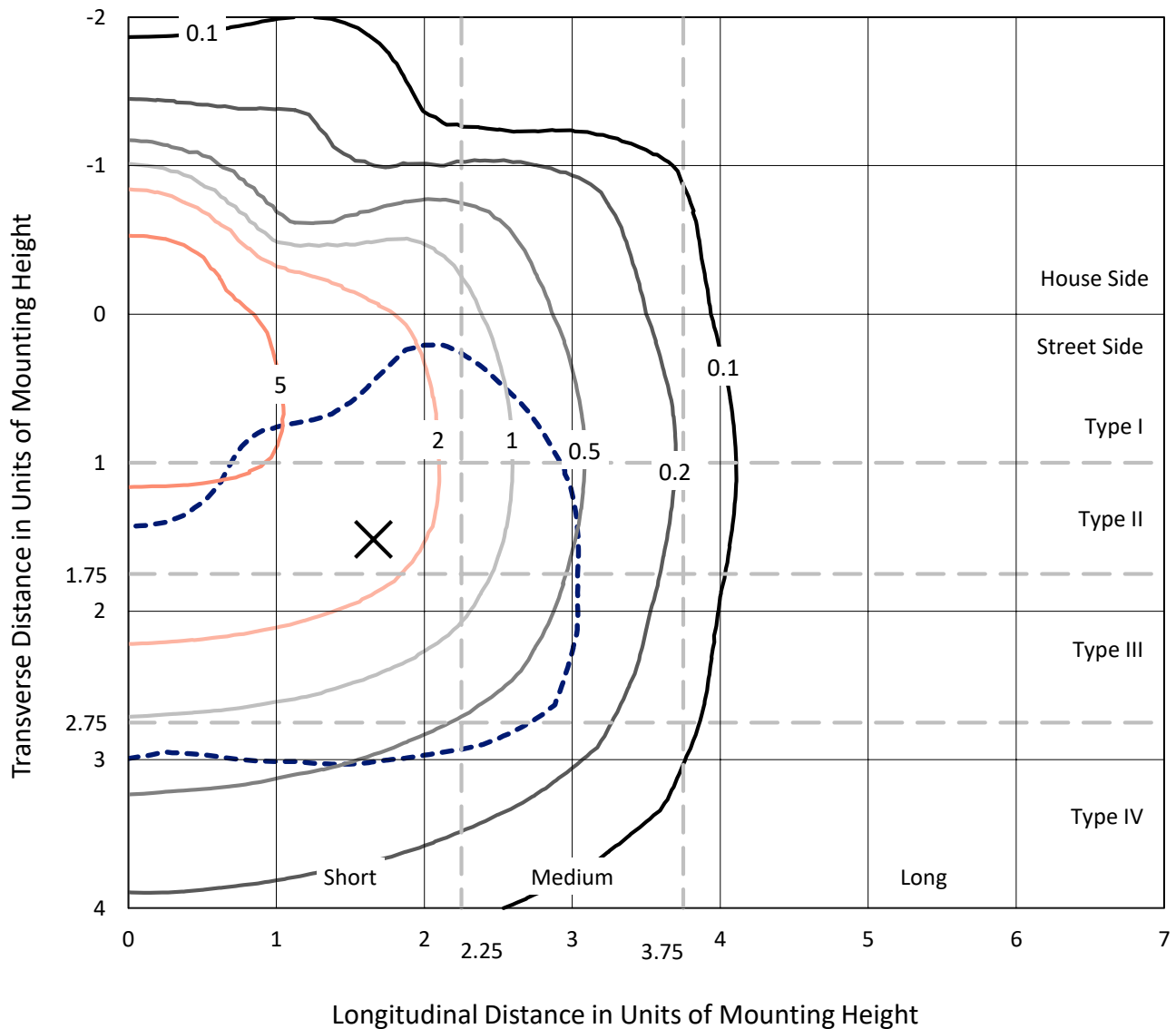


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

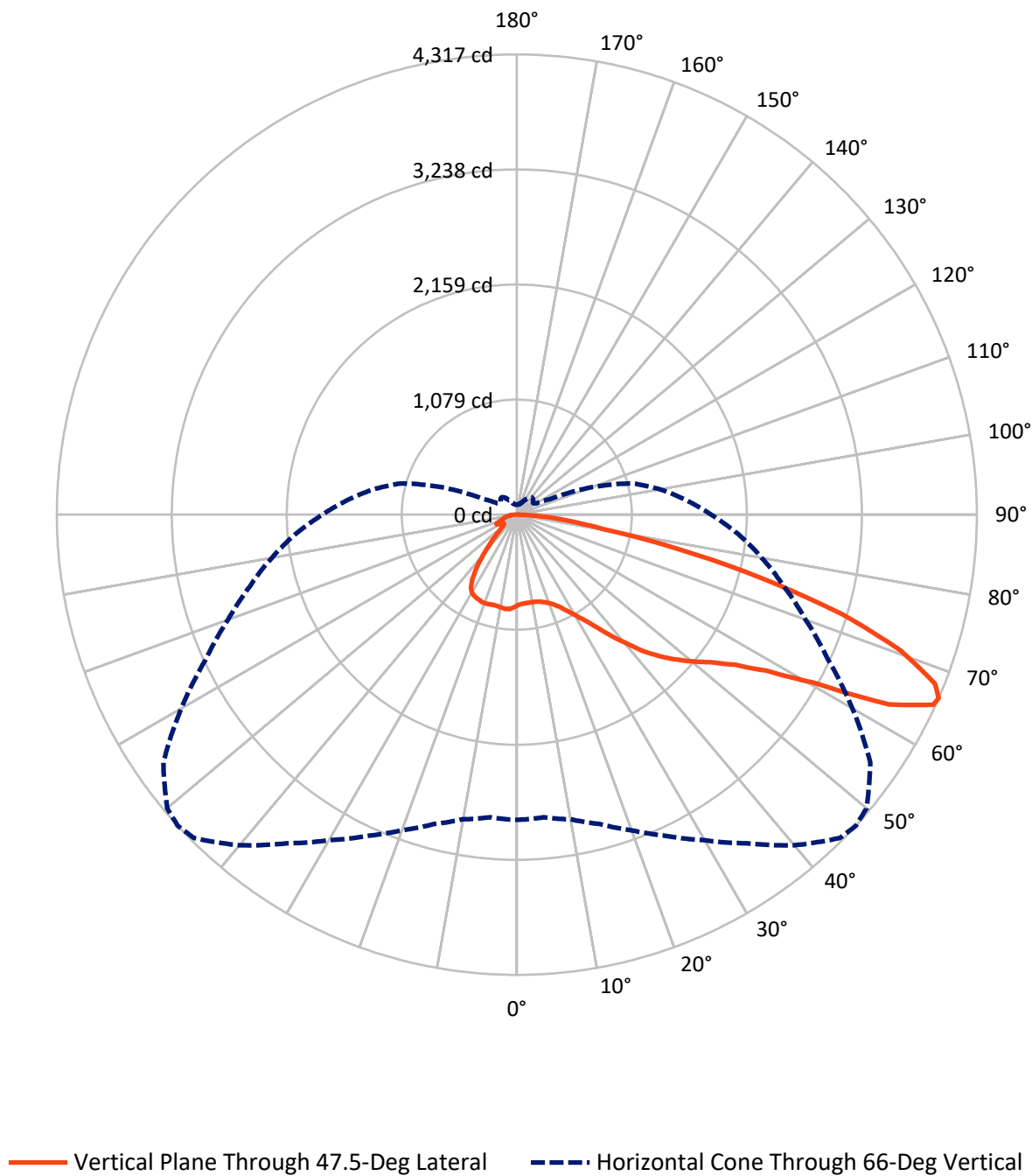


Based on 10 foot mounting height. Maximum calculated value = 8.7 fc
Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1288.1	0.0	1288.1
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	4933.1	0.0	4933.1
	% Fixture	79.3	0.0	79.3
Total	Lumens	6221.2	0.0	6221.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	1.3
10°-20°	246.0	4.0
20°-30°	419.7	6.7
30°-40°	633.5	10.2
40°-50°	823.5	13.2
50°-60°	1129.7	18.2
60°-70°	1737.8	27.9
70°-80°	1004.6	16.1
80°-90°	144.3	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°	6221.2	100.0
0°-180°	6221.2	100.0

Coefficient of Utilization



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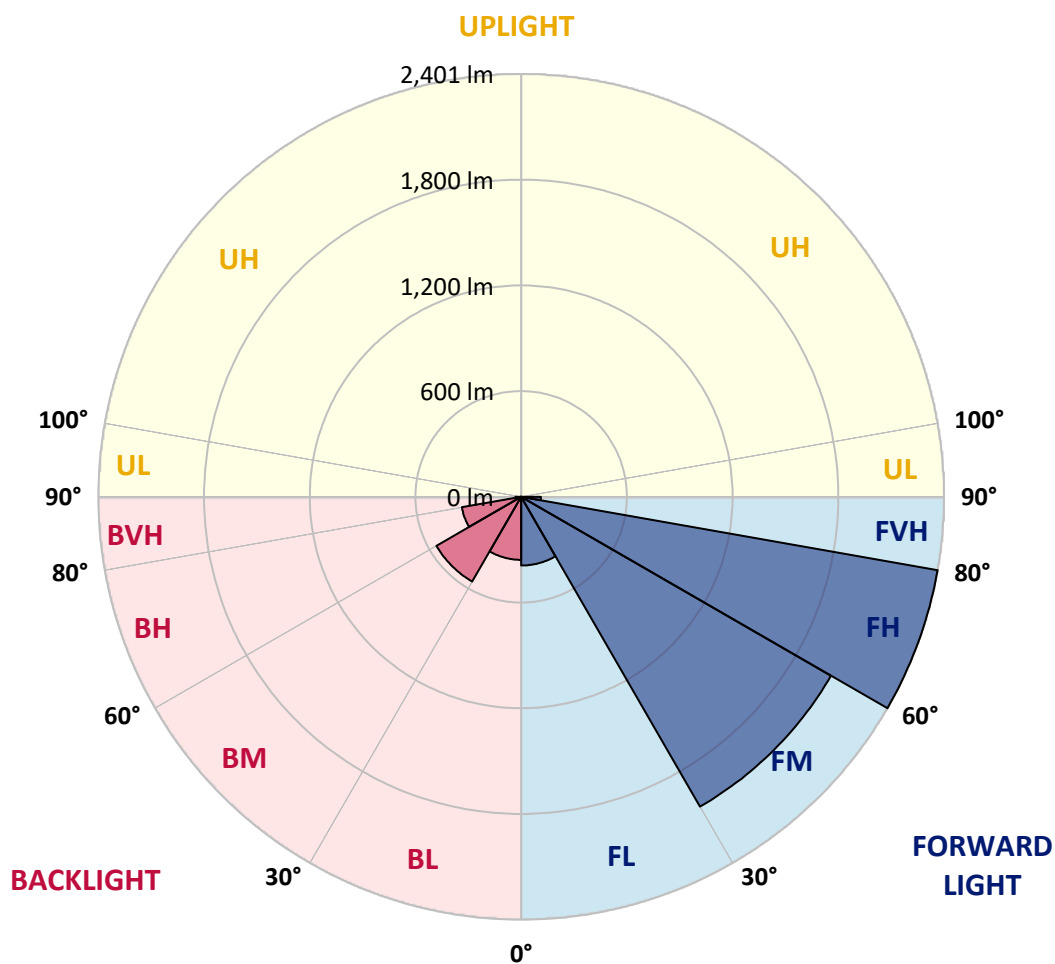
CATALOG NUMBER: VST-F03-LED-E-U-T4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	390.0	6.3			
FM	(30°-60°)	2031.0	32.6			
FH	(60°-80°)	2400.6	38.6			G2/5000
FVH	(80°-90°)	111.7	1.8			G2/225
BL	(0°-30°)	357.8	5.8	B1/500		
BM	(30°-60°)	555.7	8.9	B1/1000		
BH	(60°-80°)	341.9	5.5	B1/500		G1/500
BVH	(80°-90°)	32.6	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2
2.5°	829.4	829.8	830.2	830.2	831.5	831.5	833.6	834.8	835.3	837.8	839.4
5°	813.9	813.5	813.9	814.7	816.8	818.5	822.7	825.7	828.1	832.3	834.4
7.5°	807.2	808.1	808.9	809.3	811.0	815.2	818.9	821.9	826.9	831.9	834.0
10°	816.0	817.3	816.0	816.8	816.8	820.6	822.3	824.4	828.1	832.7	834.0
12.5°	836.5	839.0	836.5	834.4	832.7	836.1	835.3	833.6	835.7	836.9	836.9
15°	870.4	870.4	868.7	865.7	861.6	862.0	858.2	854.5	852.8	849.9	847.8
17.5°	903.4	902.6	898.8	895.0	892.1	890.8	885.4	880.4	874.6	869.9	864.9
20°	935.6	938.9	934.3	928.9	924.3	921.4	917.2	907.1	900.1	892.5	887.5
22.5°	991.2	988.3	983.2	975.3	970.7	965.7	956.9	946.0	935.2	926.0	919.7
25°	1048.4	1045.5	1038.4	1032.5	1025.9	1021.7	1012.1	998.7	988.3	974.0	965.7
27.5°	1109.9	1107.4	1099.0	1094.5	1089.8	1084.8	1076.5	1062.7	1053.1	1036.7	1028.0
30°	1179.3	1178.9	1167.6	1166.8	1160.0	1154.6	1148.8	1137.1	1127.5	1111.1	1100.7
32.5°	1253.3	1251.6	1243.7	1241.2	1245.8	1242.0	1233.7	1221.5	1209.0	1199.3	1187.6
35°	1358.6	1355.7	1351.1	1353.2	1356.1	1366.6	1353.6	1343.2	1328.1	1315.6	1299.3
37.5°	1435.6	1431.4	1436.8	1448.5	1465.3	1473.2	1484.5	1484.9	1477.8	1461.1	1446.8
40°	1506.2	1504.6	1517.1	1533.4	1564.3	1586.9	1608.2	1618.7	1621.1	1610.3	1589.0
42.5°	1566.0	1571.0	1587.7	1612.8	1656.3	1690.6	1730.3	1754.9	1770.4	1764.5	1754.9
45°	1637.0	1639.6	1660.0	1691.8	1733.2	1790.0	1842.3	1884.1	1911.3	1910.9	1900.0
47.5°	1726.1	1726.5	1744.1	1781.3	1825.6	1883.3	1949.3	2004.9	2040.9	2042.5	2034.2
50°	1831.9	1831.0	1850.3	1885.4	1932.6	1988.2	2058.4	2127.8	2178.0	2178.0	2165.9
52.5°	1968.1	1966.4	1976.9	2007.8	2053.4	2111.9	2181.8	2262.0	2316.4	2328.1	2301.7
55°	2150.0	2152.5	2155.0	2182.2	2221.1	2267.5	2347.7	2421.7	2494.4	2501.2	2485.7
57.5°	2360.3	2351.9	2369.9	2414.2	2458.5	2516.6	2573.5	2660.8	2746.9	2761.6	2759.5
60°	2688.8	2678.0	2696.3	2752.8	2801.7	2893.3	2990.6	3103.6	3205.6	3235.6	3199.3
62.5°	2991.1	3004.4	3029.5	3095.2	3166.3	3288.3	3434.6	3628.2	3821.8	3927.1	3919.6
65°	2963.9	2951.4	2999.5	3088.9	3217.7	3373.2	3555.0	3788.3	4067.1	4278.7	4297.4
66°	2863.1	2850.2	2902.0	3004.4	3151.6	3324.7	3526.6	3764.0	4049.2	4288.3	4317.1
67.5°	2696.8	2683.8	2742.4	2835.6	2987.3	3205.1	3423.4	3682.9	3979.3	4208.4	4231.9
70°	2375.7	2358.2	2403.7	2509.1	2632.0	2842.7	3050.5	3325.5	3629.9	3812.9	3821.8
72.5°	2012.5	1971.5	2020.0	2101.1	2188.9	2363.2	2544.2	2732.3	2974.8	3144.1	3192.6
75°	1460.2	1481.5	1495.7	1549.3	1607.3	1751.6	1857.8	2015.4	2203.1	2325.5	2364.4
77.5°	774.7	806.8	826.9	880.4	976.6	1086.5	1201.4	1298.9	1422.2	1490.8	1538.4
80°	434.8	457.3	490.0	532.1	579.0	663.4	731.6	781.7	799.3	811.4	822.3
82.5°	239.1	296.4	344.9	374.2	401.8	435.6	476.2	518.0	531.4	511.3	500.8
85°	37.2	54.8	166.8	203.6	221.6	247.5	276.7	307.7	308.1	265.0	289.3
87.5°	10.4	11.7	23.8	35.9	35.1	28.4	35.1	64.0	37.6	18.8	21.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2
2.5°	840.2	841.1	843.2	845.3	847.4	849.5	850.7	852.8	854.5	857.0	859.9
5°	836.9	839.0	842.8	847.4	851.6	855.3	858.2	862.4	866.2	869.5	874.6
7.5°	836.9	841.1	847.4	852.4	856.1	860.8	865.3	869.5	873.7	877.1	880.4
10°	837.4	841.5	847.8	853.6	857.8	862.9	866.6	870.4	875.0	877.1	881.2
12.5°	839.0	840.7	845.3	851.2	856.1	861.2	864.9	868.7	873.7	874.6	877.4
15°	847.4	844.9	846.1	850.3	855.7	859.9	864.1	867.0	870.4	869.5	872.0
17.5°	862.9	856.6	854.0	854.5	857.0	859.9	861.6	862.0	862.4	858.7	859.1
20°	883.7	875.0	869.1	866.2	862.9	859.9	855.3	849.9	844.9	837.4	836.5
22.5°	915.1	902.2	895.9	887.9	877.9	865.3	854.0	840.7	829.8	818.5	814.3
25°	960.7	947.3	940.6	928.1	910.1	892.1	875.8	857.8	841.9	828.5	822.3
27.5°	1021.7	1008.3	1001.2	988.3	966.1	948.1	925.6	906.3	887.1	867.4	859.5
30°	1095.7	1084.0	1076.0	1065.6	1046.3	1026.7	1000.4	970.7	940.2	908.8	893.3
32.5°	1183.1	1170.1	1164.2	1152.1	1132.1	1111.6	1082.3	1044.2	993.2	943.9	913.0
35°	1292.2	1277.5	1270.9	1255.0	1231.6	1201.4	1170.1	1119.1	1050.1	981.5	931.0
37.5°	1438.1	1405.4	1383.3	1346.9	1309.3	1267.1	1222.4	1170.1	1088.6	1003.7	933.5
40°	1567.3	1534.2	1491.6	1439.3	1380.8	1322.7	1271.7	1212.3	1123.7	1019.6	925.6
42.5°	1727.8	1669.3	1601.1	1530.4	1452.7	1381.2	1320.6	1250.8	1147.5	1023.8	903.4
45°	1874.5	1804.7	1713.5	1619.5	1522.9	1433.0	1364.9	1287.1	1168.0	1023.8	876.7
47.5°	2008.3	1924.7	1815.5	1698.5	1586.0	1487.8	1410.5	1324.4	1196.9	1036.7	868.7
50°	2132.0	2035.9	1911.7	1775.8	1649.6	1544.6	1461.5	1372.0	1240.7	1070.2	887.9
52.5°	2262.4	2160.4	2009.1	1864.9	1725.7	1613.2	1524.6	1430.9	1297.6	1122.8	921.8
55°	2433.4	2313.8	2142.1	1983.2	1830.2	1706.0	1605.3	1501.6	1359.9	1182.2	963.2
57.5°	2703.1	2529.5	2357.8	2151.2	2007.0	1843.6	1733.2	1614.1	1461.1	1259.6	1025.5
60°	3175.0	2961.8	2755.3	2517.8	2339.8	2168.8	2002.0	1846.5	1662.1	1434.3	1162.1
62.5°	3848.9	3632.3	3308.0	3017.4	2748.6	2522.0	2304.7	2106.9	1870.3	1621.1	1330.6
65°	4251.5	4003.6	3616.9	3226.4	2900.0	2619.0	2370.3	2128.3	1872.8	1630.0	1381.6
66°	4283.6	4049.2	3636.1	3223.5	2884.5	2593.1	2334.4	2083.9	1822.3	1589.8	1364.9
67.5°	4223.9	4022.0	3596.8	3166.7	2820.1	2505.3	2239.4	1976.9	1714.0	1498.7	1309.3
70°	3802.1	3656.2	3291.7	2888.6	2542.9	2265.4	1984.9	1732.4	1483.2	1302.2	1161.7
72.5°	3116.9	2932.1	2677.1	2406.2	2134.1	1887.9	1632.8	1418.0	1209.0	1077.3	977.8
75°	2289.6	2123.2	1842.3	1673.4	1493.6	1339.0	1167.2	963.6	815.2	749.2	724.9
77.5°	1451.5	1270.9	1033.8	847.4	728.6	626.2	493.7	392.5	314.3	327.3	362.5
80°	733.3	631.7	472.8	373.3	322.7	268.4	212.3	160.9	117.5	134.2	151.7
82.5°	470.7	392.9	313.1	246.7	208.2	183.5	146.8	106.6	79.4	89.5	109.5
85°	283.4	239.5	191.0	156.4	135.8	113.3	83.2	58.9	58.5	62.7	77.3
87.5°	43.1	61.4	35.5	38.0	40.1	43.1	38.0	32.2	28.0	36.4	46.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2	851.2
2.5°	862.9	863.7	865.3	867.4	867.0	869.9	871.6	869.9	873.7	873.7	875.8
5°	878.7	880.0	882.9	885.0	885.8	888.4	889.2	888.8	889.6	890.0	890.8
7.5°	883.3	886.7	887.9	889.2	889.6	890.4	890.4	889.6	889.6	889.2	890.0
10°	882.1	883.3	884.2	883.7	883.7	882.9	882.5	882.1	882.1	881.2	882.5
12.5°	877.9	877.9	877.9	877.1	877.1	876.7	876.7	876.7	877.4	877.9	880.0
15°	869.5	869.5	870.4	869.9	871.2	873.3	875.8	877.4	879.5	880.0	881.2
17.5°	856.6	857.0	859.5	864.9	870.4	876.7	881.2	882.5	880.8	876.7	873.7
20°	834.0	839.4	849.5	862.4	874.6	882.5	884.6	879.5	871.6	860.8	854.9
22.5°	813.9	824.8	842.8	864.1	879.1	884.6	878.3	866.6	852.4	839.8	831.1
25°	821.9	834.4	853.2	871.6	881.2	878.3	865.7	849.1	834.0	819.4	805.1
27.5°	855.3	867.8	881.2	886.7	883.3	872.5	854.9	836.9	816.8	796.0	778.4
30°	887.1	894.2	895.0	889.6	877.4	859.9	839.4	818.5	793.0	767.9	745.8
32.5°	897.1	888.8	873.7	858.2	841.5	823.6	799.7	772.1	745.0	716.5	691.9
35°	894.2	860.3	823.1	790.1	770.0	749.5	727.8	691.0	660.5	636.2	620.4
37.5°	867.8	806.0	748.7	700.6	669.3	645.1	612.8	582.4	556.0	545.1	532.1
40°	831.1	736.6	657.2	589.9	557.2	526.3	490.4	467.0	459.4	449.4	449.8
42.5°	778.4	655.5	553.1	475.7	440.2	406.3	380.8	367.0	367.4	359.1	360.8
45°	722.8	574.0	445.2	368.3	333.2	304.3	290.1	286.0	286.4	286.8	284.3
47.5°	688.9	510.4	357.0	279.2	248.3	232.0	224.5	222.4	222.8	223.3	220.3
50°	683.9	477.4	298.1	213.6	193.6	184.4	180.6	178.5	178.5	176.8	174.3
52.5°	698.1	469.0	269.2	185.2	166.0	157.6	154.7	153.0	150.5	147.2	142.6
55°	720.7	476.6	260.5	175.6	156.8	148.4	144.7	143.8	139.6	133.4	125.8
57.5°	762.5	503.8	266.3	178.1	158.5	150.9	148.4	147.5	141.7	132.1	122.5
60°	882.5	582.7	295.6	192.3	170.6	164.3	164.3	163.0	155.1	141.3	127.5
62.5°	1048.0	698.5	335.3	211.9	187.3	186.4	193.6	194.0	179.8	157.6	135.8
65°	1127.9	752.9	349.1	216.1	191.9	201.5	215.7	215.7	195.7	165.1	137.1
66°	1128.3	751.6	344.9	211.1	186.8	199.4	214.0	214.0	193.1	163.0	135.0
67.5°	1099.4	728.2	331.1	201.9	175.6	187.3	200.2	199.8	181.0	154.7	129.2
70°	986.2	644.2	291.8	186.8	162.2	162.6	167.2	164.3	151.7	133.8	117.5
72.5°	850.3	538.9	252.9	177.2	151.7	143.8	140.0	137.5	129.6	118.7	108.7
75°	652.1	418.4	220.3	168.5	142.6	128.8	123.7	121.7	116.2	109.9	102.0
77.5°	399.7	286.8	186.8	154.3	132.1	119.6	114.1	109.9	104.5	98.6	93.2
80°	172.3	173.0	149.6	130.9	115.0	100.3	93.2	88.2	85.3	83.2	80.3
82.5°	120.4	124.1	114.1	101.6	87.8	77.3	71.0	69.8	70.3	70.3	69.4
85°	90.3	88.6	79.9	72.7	66.5	59.8	54.8	54.4	56.0	56.0	54.8
87.5°	52.3	52.7	45.1	42.2	43.9	37.6	34.3	34.7	38.9	38.5	37.6
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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CATALOG NUMBER: VST-F03-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	851.2	851.2	851.2	851.2	851.2
2.5°	875.8	877.1	876.7	877.9	876.7
5°	892.1	891.7	891.2	892.9	890.8
7.5°	889.6	890.0	890.0	890.0	889.6
10°	883.3	885.0	885.8	887.5	887.1
12.5°	881.2	883.7	886.3	888.8	889.2
15°	881.6	883.3	884.6	885.8	886.3
17.5°	870.8	870.4	869.1	868.3	867.4
20°	848.6	846.5	844.4	841.1	842.8
22.5°	821.0	815.2	808.5	803.0	802.6
25°	788.8	778.0	767.1	760.0	757.5
27.5°	760.4	747.5	736.2	729.9	728.2
30°	726.5	714.8	704.8	699.4	696.1
32.5°	676.4	667.2	654.7	650.5	650.0
35°	606.6	599.5	590.7	589.0	586.9
37.5°	527.6	525.1	520.9	515.9	515.0
40°	443.1	444.8	443.5	440.6	436.0
42.5°	361.6	364.6	365.0	367.0	369.1
45°	288.1	290.5	290.5	292.6	295.1
47.5°	221.2	219.5	220.7	222.8	224.1
50°	167.2	166.0	163.9	162.2	160.5
52.5°	134.6	132.1	126.2	124.6	122.9
55°	118.7	114.1	109.9	108.3	108.3
57.5°	114.1	108.3	103.7	101.6	100.7
60°	115.0	106.6	100.7	97.4	96.1
62.5°	118.7	107.0	99.1	95.3	94.1
65°	118.3	106.2	98.6	94.5	93.2
66°	116.2	104.9	97.8	94.1	93.2
67.5°	112.9	103.3	97.0	93.7	92.4
70°	106.2	99.9	95.3	92.4	91.1
72.5°	100.7	96.5	92.4	89.0	88.2
75°	95.8	91.6	87.8	86.1	84.8
77.5°	88.2	84.4	82.4	80.7	79.9
80°	78.2	75.7	73.1	71.5	70.3
82.5°	68.2	64.8	62.3	61.0	60.2
85°	55.6	53.5	49.7	47.2	46.8
87.5°	37.2	35.1	33.8	31.8	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)