

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: P159318

Luminaire Tested: **VST-E04-LED-E-U-T2-8030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P159318  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E04-LED-E-U-T2-8030  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA  
Light Source: (84) 3000K CCT, 80 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10420.6 lumens  
Efficiency: N/A  
Efficacy: 107.2 lumens/watt  
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

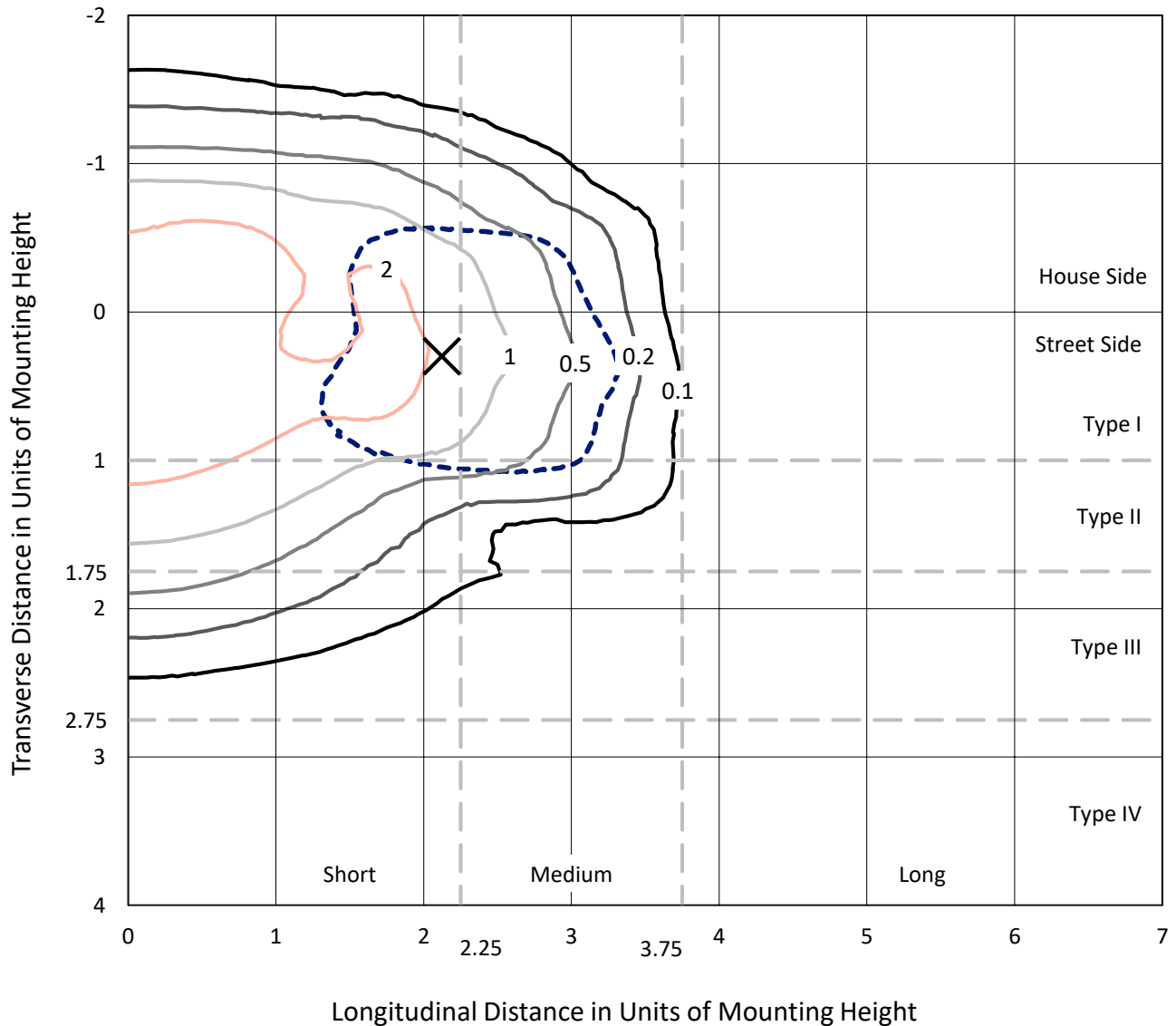
Input Watts (W): 97.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

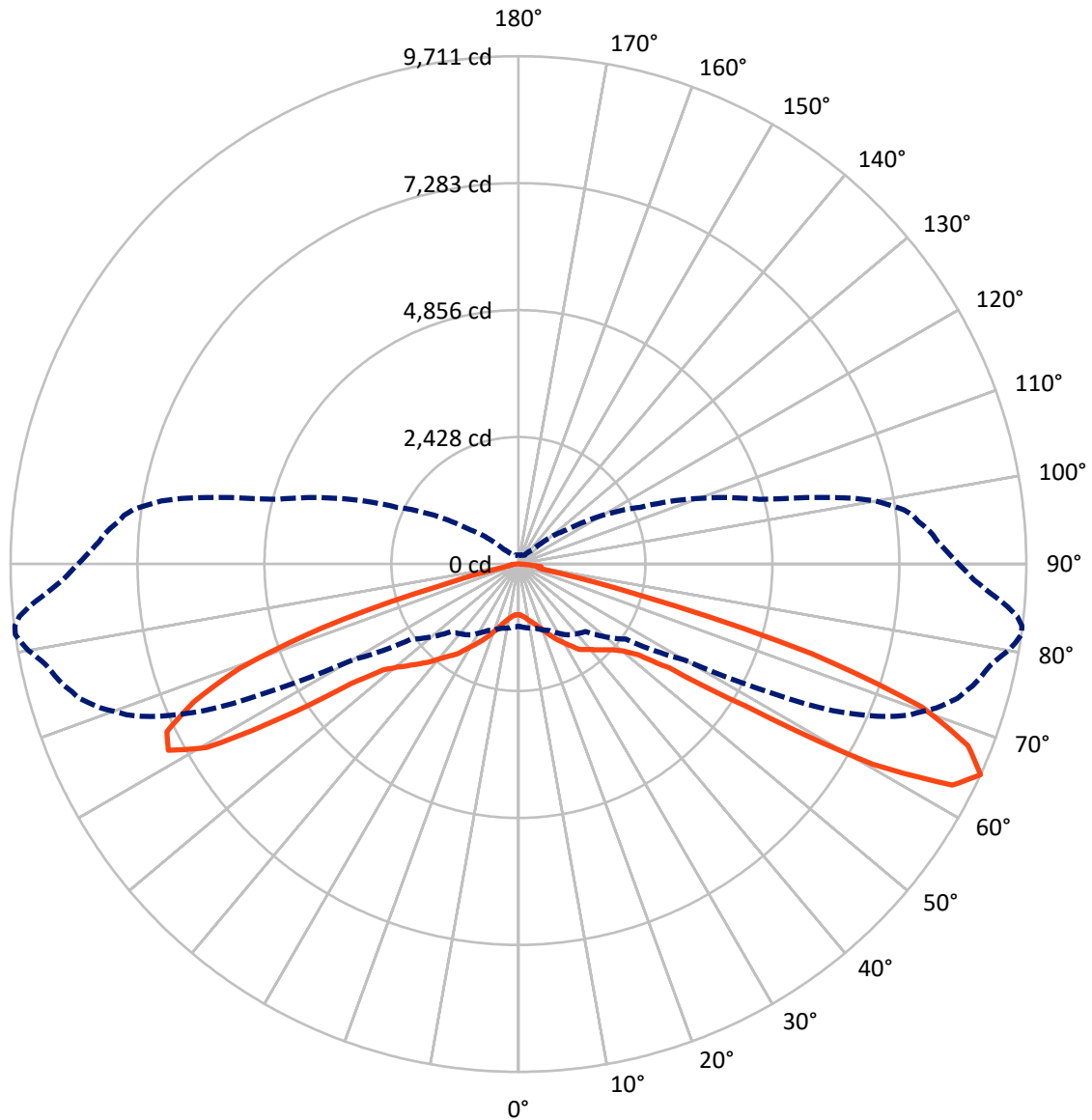
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.1 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 65-Deg Vertical



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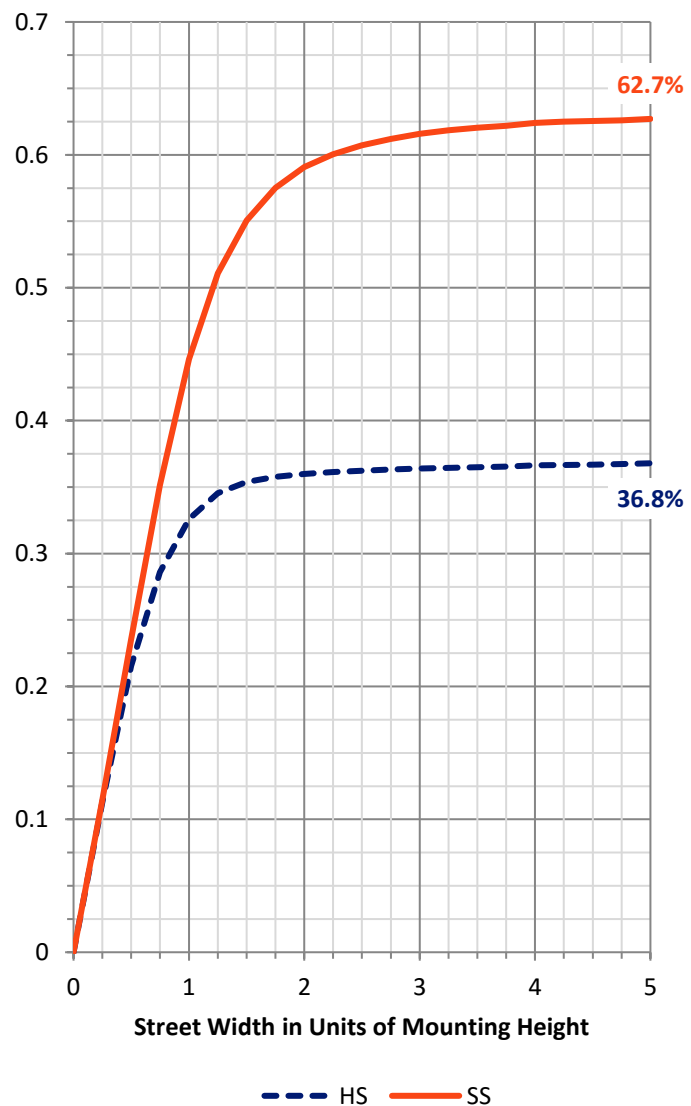
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3879.9	0.0	3879.9
	% Fixture	37.2	0.0	37.2
<b>Street Side</b>	Lumens	6540.7	0.0	6540.7
	% Fixture	62.8	0.0	62.8
<b>Total</b>	Lumens	10420.6	0.0	10420.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	98.2	0.9
10°-20°	344.9	3.3
20°-30°	683.4	6.6
30°-40°	1171.5	11.2
40°-50°	1759.9	16.9
50°-60°	2445.0	23.5
60°-70°	2789.4	26.8
70°-80°	960.9	9.2
80°-90°	167.5	1.6
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°	10420.6	100.0
0°-180°	10420.6	100.0

**Coefficient of Utilization**



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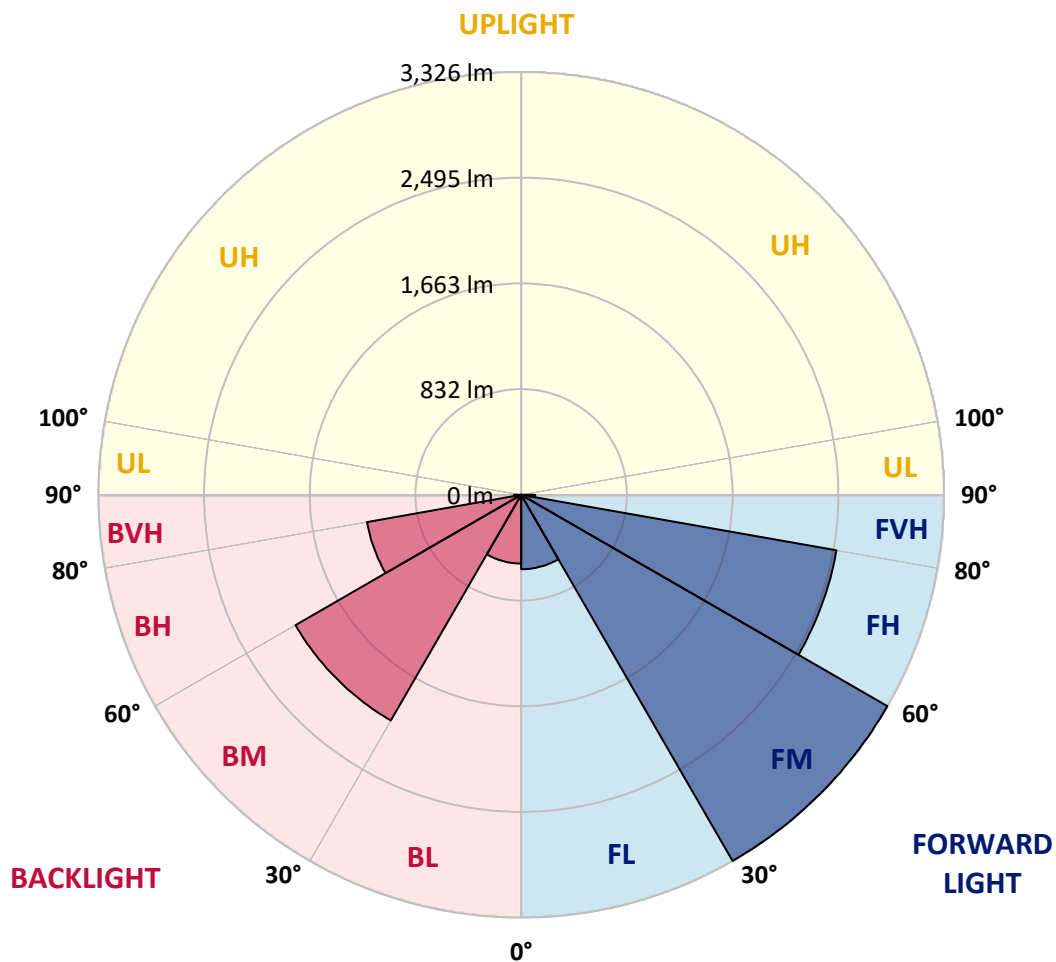
CATALOG NUMBER: VST-E04-LED-E-U-T2-8030

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	585.4	5.6			
FM	(30°-60°)	3326.5	31.9			
FH	(60°-80°)	2518.5	24.2			G2/5000
FVH	(80°-90°)	110.3	1.1			G2/225
BL	(0°-30°)	541.0	5.2	B2/1000		
BM	(30°-60°)	2049.9	19.7	B2/2500		
BH	(60°-80°)	1231.8	11.8	B3/2500		G3/2500
BVH	(80°-90°)	57.2	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6
2.5°	1022.2	1022.9	1022.2	1020.2	1019.5	1013.5	1006.7	1003.3	1002.7	1000.0	1000.6
5°	1085.7	1083.7	1081.0	1077.6	1074.2	1064.1	1052.6	1046.5	1044.5	1042.5	1039.8
7.5°	1142.4	1143.8	1142.4	1137.7	1128.9	1116.1	1101.2	1091.8	1091.1	1089.1	1087.1
10°	1215.3	1218.7	1210.6	1202.5	1190.4	1170.8	1153.9	1141.8	1139.7	1137.0	1135.7
12.5°	1294.3	1295.0	1292.3	1274.1	1253.8	1226.8	1202.5	1190.4	1187.7	1184.3	1182.9
15°	1378.7	1379.4	1364.6	1347.0	1316.0	1283.5	1249.8	1236.3	1232.9	1233.6	1228.2
17.5°	1445.6	1446.9	1432.8	1410.5	1373.3	1334.9	1298.4	1287.6	1285.6	1286.2	1283.5
20°	1474.6	1476.6	1467.9	1451.0	1415.9	1382.1	1355.8	1349.0	1348.4	1347.0	1352.4
22.5°	1473.3	1473.9	1470.6	1463.8	1442.9	1423.3	1419.9	1424.0	1423.3	1424.7	1429.4
25°	1461.1	1463.1	1462.5	1465.2	1461.8	1469.2	1484.7	1498.9	1501.0	1503.7	1512.4
27.5°	1492.2	1496.2	1491.5	1494.2	1499.6	1524.6	1556.3	1577.9	1582.0	1589.4	1596.8
30°	1613.7	1608.3	1602.2	1595.5	1598.9	1614.4	1650.2	1669.1	1671.1	1676.5	1686.6
32.5°	1794.0	1787.9	1782.5	1771.7	1769.0	1762.3	1774.4	1779.1	1778.5	1783.9	1786.6
35°	1997.2	1997.9	1996.5	2004.6	2011.4	1977.0	1934.4	1922.9	1927.7	1921.6	1922.9
37.5°	2170.7	2172.8	2208.6	2253.1	2265.9	2244.3	2151.2	2105.3	2089.7	2087.7	2072.2
40°	2363.2	2363.2	2417.2	2471.9	2507.7	2534.7	2423.9	2342.9	2309.8	2300.4	2261.9
42.5°	2574.5	2563.7	2613.0	2673.1	2739.3	2800.7	2743.3	2652.2	2604.9	2588.0	2520.5
45°	2748.0	2741.3	2765.6	2821.6	2929.0	3049.2	3057.3	3010.7	2982.3	2947.2	2885.1
47.5°	2854.7	2851.3	2865.5	2926.3	3060.6	3255.1	3363.8	3387.4	3370.6	3343.6	3283.5
50°	2896.6	2891.9	2902.0	2969.5	3120.1	3376.6	3617.0	3728.4	3736.5	3742.6	3723.7
52.5°	2881.7	2875.6	2896.6	2953.3	3109.9	3419.2	3814.8	4028.9	4064.7	4095.0	4157.2
55°	2739.3	2729.8	2786.5	2893.2	3066.1	3403.6	3959.3	4317.9	4393.5	4474.5	4612.2
57.5°	2521.2	2513.1	2594.8	2741.3	2988.4	3361.1	4056.6	4683.1	4853.3	4999.1	5390.1
60°	2311.2	2304.4	2352.4	2494.2	2736.6	3153.8	3936.4	4806.0	5091.6	5406.3	6119.9
62.5°	1935.8	1917.5	1981.7	2101.2	2254.5	2608.9	3411.7	4532.6	4972.8	5435.3	6402.9
65°	1189.7	1216.0	1271.4	1403.7	1654.9	1823.7	2505.6	3667.0	4247.6	4827.6	6082.8
67.5°	755.5	763.0	804.2	896.0	1090.4	1259.9	1518.5	2301.1	2748.7	3319.2	4775.6
70°	647.5	652.2	687.3	783.2	917.6	1126.2	1149.2	1201.8	1362.5	1725.8	2807.5
72.5°	510.4	518.5	546.2	629.3	791.3	1015.5	1418.6	950.0	917.6	948.0	1370.0
75°	303.8	313.3	336.2	381.5	508.4	776.5	1486.1	1105.3	1030.3	971.6	945.3
77.5°	160.7	153.9	169.5	195.8	261.3	413.9	1116.8	1354.4	1301.8	1231.6	1082.3
80°	79.7	82.4	87.1	92.5	116.8	168.1	558.4	1401.0	1552.9	1620.5	1488.1
82.5°	31.7	35.8	50.6	54.0	64.1	71.6	179.6	776.5	1112.0	1508.4	1969.5
85°	16.2	15.5	27.0	32.4	37.8	33.8	63.5	289.7	521.2	812.3	1316.0
87.5°	2.0	2.7	6.1	8.1	11.5	10.8	18.2	62.8	99.9	141.8	199.2
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-E04-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6
2.5°	997.3	996.6	996.6	993.9	993.9	994.6	992.5	991.2	991.2	991.9	989.2
5°	1037.8	1035.7	1035.7	1033.0	1029.7	1029.7	1027.0	1026.3	1024.9	1022.2	1020.2
7.5°	1085.0	1083.0	1079.6	1077.6	1076.3	1074.2	1070.9	1069.5	1066.8	1064.1	1061.4
10°	1133.6	1130.9	1129.6	1126.2	1124.9	1120.8	1118.8	1119.5	1114.1	1112.0	1112.7
12.5°	1182.3	1179.6	1174.8	1173.5	1172.8	1168.8	1166.7	1165.4	1161.3	1160.7	1158.6
15°	1225.5	1226.8	1224.8	1221.4	1218.7	1218.0	1216.0	1214.7	1212.0	1209.3	1206.6
17.5°	1281.5	1283.5	1280.8	1276.1	1276.1	1275.4	1276.1	1275.4	1270.7	1272.7	1271.4
20°	1353.1	1354.4	1347.7	1349.7	1351.1	1350.4	1352.4	1354.4	1353.1	1353.1	1355.1
22.5°	1435.5	1437.5	1433.4	1436.1	1440.2	1436.8	1442.9	1442.2	1443.6	1445.6	1446.3
25°	1519.9	1523.9	1520.5	1528.0	1525.3	1528.0	1535.4	1533.4	1536.7	1542.1	1544.2
27.5°	1604.3	1607.0	1607.6	1612.4	1617.1	1621.1	1630.6	1630.6	1633.3	1642.7	1642.7
30°	1692.7	1695.4	1698.1	1704.9	1707.6	1715.0	1724.4	1727.1	1725.8	1739.3	1743.3
32.5°	1794.7	1797.4	1802.1	1810.2	1813.6	1821.0	1821.0	1828.4	1833.8	1845.3	1846.0
35°	1930.4	1932.4	1930.4	1929.7	1934.4	1944.6	1945.2	1956.0	1960.8	1972.2	1975.6
37.5°	2066.1	2065.4	2056.6	2047.2	2047.9	2043.8	2041.1	2045.8	2047.9	2048.5	2056.0
40°	2249.1	2231.5	2218.0	2194.4	2183.6	2166.7	2156.6	2155.9	2145.1	2143.7	2145.8
42.5°	2488.8	2468.5	2436.8	2396.9	2366.6	2335.5	2312.5	2299.0	2275.4	2263.2	2253.1
45°	2823.7	2773.7	2735.9	2688.6	2629.9	2575.9	2519.1	2493.5	2448.2	2420.6	2389.5
47.5°	3232.8	3183.5	3125.5	3076.9	2999.9	2924.9	2847.3	2779.1	2700.1	2637.3	2586.0
50°	3677.1	3648.1	3606.2	3561.0	3461.7	3412.4	3314.5	3222.0	3136.9	3024.9	2927.0
52.5°	4132.9	4149.7	4140.3	4124.1	4061.3	4042.4	3958.0	3845.2	3759.5	3682.5	3512.4
55°	4694.6	4714.9	4755.4	4779.0	4771.6	4819.5	4798.6	4710.8	4676.4	4640.6	4519.7
57.5°	5554.1	5698.6	5853.2	5989.0	6020.7	6190.8	6154.4	6242.2	6304.3	6259.7	6220.6
60°	6470.4	6762.1	7024.7	7299.5	7523.0	7690.4	7911.9	8061.1	8155.0	8323.8	8337.3
62.5°	6839.7	7236.0	7569.6	7888.3	8153.6	8385.9	8585.8	8791.7	8960.5	9113.1	9223.1
65°	6637.1	7051.0	7455.5	7778.9	8034.1	8234.0	8451.4	8614.8	8780.9	8878.8	8994.2
67.5°	5517.7	6065.9	6563.5	6928.2	7277.2	7480.5	7737.7	7898.4	8074.6	8177.9	8252.2
70°	3597.4	4311.1	4991.0	5544.0	6015.3	6252.3	6562.9	6782.3	6994.3	6999.7	7123.3
72.5°	1941.2	2538.0	3107.2	3672.4	4209.8	4525.1	4831.7	5098.4	5309.0	5219.2	5342.1
75°	1081.0	1360.5	1671.8	2011.4	2338.9	2519.1	2748.0	2749.4	2858.1	2687.3	2730.5
77.5°	1039.8	1027.0	1031.7	1041.1	1057.4	1022.9	1022.2	1001.3	968.9	910.2	920.3
80°	1365.9	1202.5	1085.0	900.7	725.2	591.5	554.3	563.1	589.4	642.1	709.0
82.5°	1974.9	1837.2	1640.0	1349.7	1059.4	817.0	671.1	595.5	592.1	644.8	746.1
85°	1438.2	1521.2	1508.4	1259.2	1038.4	843.3	613.8	518.5	429.4	408.5	444.3
87.5°	212.0	175.6	197.8	165.4	120.2	93.2	81.7	65.5	62.8	64.1	70.2
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):**

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6
2.5°	989.8	987.1	984.4	986.5	984.4	983.8	981.7	980.4	979.7	979.7	979.7
5°	1020.2	1016.8	1014.8	1014.1	1012.1	1010.1	1009.4	1006.0	1005.4	1005.4	1003.3
7.5°	1061.4	1058.7	1055.3	1053.3	1052.0	1048.6	1045.2	1044.5	1043.8	1041.1	1039.1
10°	1109.3	1105.3	1101.2	1101.2	1098.5	1097.9	1094.5	1089.8	1089.1	1085.0	1083.7
12.5°	1154.6	1153.2	1148.5	1147.2	1145.1	1143.1	1141.1	1139.1	1137.0	1133.6	1135.0
15°	1208.6	1205.2	1201.2	1201.8	1201.2	1198.5	1195.8	1193.7	1192.4	1191.0	1191.0
17.5°	1273.4	1272.1	1271.4	1268.0	1265.3	1267.3	1267.3	1267.3	1264.0	1264.6	1265.3
20°	1355.8	1357.1	1355.8	1353.1	1352.4	1354.4	1349.7	1357.1	1353.1	1350.4	1351.7
22.5°	1446.9	1451.7	1446.3	1446.9	1450.3	1451.7	1446.9	1453.0	1451.0	1446.9	1450.3
25°	1546.2	1549.6	1546.9	1546.2	1548.2	1552.9	1552.3	1551.6	1556.3	1552.3	1554.3
27.5°	1648.1	1650.2	1651.5	1653.5	1654.9	1654.2	1656.9	1656.9	1659.6	1654.9	1656.9
30°	1749.4	1749.4	1752.1	1754.8	1754.8	1754.8	1760.2	1760.9	1756.9	1758.2	1753.5
32.5°	1857.5	1858.1	1860.8	1860.8	1866.2	1866.9	1873.0	1864.9	1873.0	1866.2	1867.6
35°	1984.4	1993.2	1994.5	2001.3	2006.7	2008.7	2008.7	2009.4	2016.8	2011.4	2013.4
37.5°	2058.7	2060.7	2066.1	2069.5	2069.5	2072.2	2074.2	2072.2	2074.2	2073.5	2075.5
40°	2146.4	2144.4	2150.5	2151.8	2149.1	2152.5	2151.8	2149.8	2155.2	2151.2	2153.9
42.5°	2253.1	2241.6	2241.0	2246.4	2241.0	2243.7	2243.0	2238.3	2245.0	2247.0	2245.0
45°	2367.2	2361.1	2349.0	2349.0	2343.6	2341.6	2342.2	2341.6	2342.2	2350.3	2353.0
47.5°	2552.9	2515.8	2494.8	2475.3	2459.1	2458.4	2450.9	2455.0	2460.4	2473.9	2486.1
50°	2864.2	2778.4	2725.8	2677.1	2642.0	2629.9	2615.7	2614.3	2619.1	2634.6	2655.5
52.5°	3419.2	3300.3	3188.3	3084.3	2993.8	2924.3	2889.8	2871.6	2864.8	2880.4	2900.6
55°	4434.7	4210.5	4052.5	3947.2	3722.3	3627.1	3504.9	3448.9	3394.2	3399.6	3434.0
57.5°	6169.9	6049.1	5916.7	5732.4	5594.6	5428.5	5123.4	4953.2	4960.6	5000.5	4876.2
60°	8444.0	8321.8	8267.1	8099.6	8003.7	7936.9	7774.8	7492.6	7392.7	7373.8	7145.6
62.5°	9307.5	9336.6	9379.8	9427.0	9424.3	9453.4	9311.6	9219.8	9104.3	8954.4	8728.9
65°	9082.0	9155.6	9243.4	9370.3	9514.8	9621.5	9711.3	9700.5	9592.5	9392.6	9154.3
67.5°	8318.4	8391.3	8455.4	8625.6	8862.6	9079.3	9271.1	9401.4	9329.1	9163.7	8885.5
70°	7170.5	7223.2	7263.7	7411.6	7671.5	7936.2	8186.7	8405.5	8383.2	8182.7	7960.5
72.5°	5195.6	5323.2	5392.1	5382.0	5542.7	5839.1	5874.2	6061.2	6113.2	5897.1	5543.3
75°	2531.3	2533.3	2453.7	2427.3	2435.4	2486.7	2388.8	2394.9	2361.1	2207.9	2081.6
77.5°	884.5	860.2	802.1	733.3	634.7	542.2	448.3	407.8	394.3	354.5	326.8
80°	762.3	798.1	786.6	729.9	625.9	499.0	372.7	276.2	235.6	221.5	208.0
82.5°	865.6	1003.3	1091.1	1086.4	943.9	709.0	442.3	253.9	181.0	158.7	145.8
85°	482.8	519.2	529.4	482.1	400.4	273.5	152.6	107.4	91.2	83.0	74.9
87.5°	77.0	70.2	68.9	60.1	56.7	52.0	45.9	43.2	39.8	37.8	37.8
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: P159318

CATALOG NUMBER: VST-E04-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6
2.5°	979.0	978.4	976.3	974.3	973.0	972.3	971.6	970.3	969.6	968.9	967.6
5°	1002.0	1000.6	997.3	993.9	992.5	990.5	988.5	987.1	985.8	985.1	982.4
7.5°	1037.8	1036.4	1032.4	1029.7	1029.0	1023.6	1022.9	1020.9	1017.5	1016.8	1012.8
10°	1081.0	1080.3	1076.9	1074.9	1073.6	1070.9	1066.8	1063.4	1060.1	1060.1	1057.4
12.5°	1130.9	1128.2	1130.3	1125.5	1124.2	1121.5	1119.5	1118.8	1114.7	1111.4	1110.7
15°	1189.7	1186.3	1186.3	1185.0	1183.6	1180.9	1180.2	1180.9	1176.9	1178.2	1174.2
17.5°	1262.6	1264.0	1263.3	1263.3	1259.9	1259.9	1254.5	1261.3	1256.5	1259.9	1258.6
20°	1353.8	1354.4	1353.1	1355.1	1356.5	1355.8	1355.1	1354.4	1356.5	1359.2	1357.1
22.5°	1451.0	1451.0	1450.3	1457.7	1449.6	1455.7	1457.7	1453.7	1464.5	1463.1	1465.2
25°	1556.3	1556.3	1561.7	1567.8	1569.1	1564.4	1567.1	1563.7	1570.5	1575.9	1577.3
27.5°	1654.2	1663.0	1667.1	1663.0	1666.4	1673.8	1673.1	1673.1	1677.9	1676.5	1689.3
30°	1754.8	1760.2	1765.6	1762.9	1764.3	1773.7	1774.4	1775.1	1781.2	1789.9	1799.4
32.5°	1869.6	1875.0	1872.3	1881.1	1880.4	1891.9	1893.9	1895.9	1914.8	1911.5	1931.1
35°	2010.7	2016.1	2013.4	2022.9	2021.5	2025.6	2033.0	2041.1	2044.5	2064.1	2079.6
37.5°	2076.9	2076.9	2083.0	2093.8	2097.8	2104.6	2116.1	2126.2	2143.1	2164.0	2188.3
40°	2156.6	2158.6	2166.7	2178.2	2185.6	2201.1	2222.1	2236.2	2261.9	2284.9	2313.2
42.5°	2253.1	2261.9	2271.3	2286.9	2303.1	2327.4	2357.1	2375.3	2409.1	2438.8	2473.9
45°	2365.9	2374.7	2396.9	2425.3	2448.9	2475.9	2500.2	2543.5	2573.8	2604.9	2635.3
47.5°	2502.3	2527.9	2546.2	2579.9	2608.9	2644.7	2675.1	2715.6	2748.7	2786.5	2812.2
50°	2677.1	2708.9	2732.5	2776.4	2804.8	2844.6	2883.1	2913.5	2947.2	2984.4	3005.3
52.5°	2928.3	2960.7	2990.4	3045.1	3080.2	3107.2	3158.6	3196.4	3227.4	3254.4	3277.4
55°	3472.5	3463.1	3545.4	3651.4	3663.6	3761.5	3779.7	3811.5	3868.9	3877.0	3941.1
57.5°	5027.5	4978.9	5098.4	5253.7	5226.7	5177.4	5383.3	5396.1	5367.1	5444.8	5357.0
60°	7179.3	7094.3	7126.7	7169.2	7107.8	7078.7	7088.8	7117.9	7089.5	7058.5	6973.4
62.5°	8616.1	8485.1	8391.3	8312.3	8212.4	8140.1	8059.1	7959.2	7932.2	7818.7	7723.5
65°	8922.7	8718.8	8570.2	8421.0	8283.3	8155.7	8033.4	7947.7	7834.3	7699.9	7600.6
67.5°	8585.8	8333.2	8115.8	7899.1	7743.1	7555.4	7463.6	7323.8	7184.1	7030.1	6939.0
70°	7606.7	7343.4	7069.9	6857.9	6645.9	6413.7	6368.4	6203.0	6122.6	5912.7	5876.2
72.5°	5250.3	5074.7	4952.5	4690.6	4561.6	4442.8	4405.0	4251.7	4267.9	4037.7	4121.4
75°	1866.9	1841.9	1806.1	1658.3	1631.9	1586.0	1573.9	1563.1	1672.5	1520.5	1630.6
77.5°	320.7	318.7	300.5	291.7	308.6	297.8	300.5	295.1	326.8	331.5	324.1
80°	199.2	193.8	187.7	183.7	184.3	180.3	181.0	182.3	184.3	183.7	185.7
82.5°	136.4	131.7	129.0	126.3	130.3	131.7	135.0	138.4	143.8	147.2	151.2
85°	74.3	68.2	68.2	67.5	72.9	77.0	82.4	89.1	98.6	106.7	115.5
87.5°	37.8	36.5	37.1	38.5	43.2	46.6	53.3	59.4	67.5	76.3	84.4
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: P159318

CATALOG NUMBER: VST-E04-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6	969.6
2.5°	966.9	966.9	966.2	966.2	965.5	964.9	964.2	962.1	954.7	948.0	943.2
5°	981.7	979.7	979.0	977.0	976.3	975.0	973.0	970.9	957.4	945.3	936.5
7.5°	1012.1	1009.4	1008.1	1006.0	1004.0	1001.3	998.6	996.6	980.4	966.2	955.4
10°	1052.0	1050.6	1049.9	1047.2	1047.2	1043.2	1042.5	1037.8	1020.2	1007.4	997.9
12.5°	1107.3	1104.6	1103.9	1100.6	1101.9	1100.6	1099.2	1096.5	1083.7	1068.8	1056.0
15°	1176.2	1176.2	1172.8	1170.1	1170.8	1169.4	1172.1	1168.8	1160.7	1147.2	1126.2
17.5°	1259.2	1257.9	1259.2	1257.2	1258.6	1259.9	1256.5	1257.2	1253.2	1236.3	1205.2
20°	1355.8	1353.8	1361.9	1358.5	1365.9	1359.2	1360.5	1362.5	1362.5	1340.3	1298.4
22.5°	1466.5	1465.2	1465.2	1471.9	1474.6	1475.3	1478.0	1480.0	1485.4	1457.1	1390.2
25°	1577.3	1582.0	1582.7	1591.4	1595.5	1595.5	1597.5	1604.9	1621.1	1582.0	1495.6
27.5°	1690.0	1701.5	1704.2	1710.3	1716.3	1722.4	1727.1	1732.5	1758.9	1716.3	1603.6
30°	1802.8	1815.6	1825.0	1831.8	1839.2	1854.1	1856.8	1867.6	1911.5	1859.5	1706.2
32.5°	1935.1	1953.3	1965.5	1974.3	1985.7	1999.9	2008.0	2021.5	2064.1	1979.0	1781.2
35°	2093.1	2103.9	2121.5	2136.3	2143.1	2167.4	2180.2	2183.6	2216.0	2082.3	1836.5
37.5°	2202.5	2220.7	2251.1	2272.0	2284.2	2297.7	2319.3	2333.5	2364.5	2176.1	1864.2
40°	2341.6	2369.3	2393.6	2424.6	2444.2	2454.3	2475.9	2487.4	2491.5	2256.5	1855.4
42.5°	2511.0	2536.0	2568.4	2593.4	2608.3	2619.7	2637.3	2642.0	2589.4	2294.3	1808.2
45°	2670.4	2708.9	2736.6	2754.8	2765.6	2771.7	2782.5	2783.1	2670.4	2275.4	1727.1
47.5°	2841.9	2869.6	2895.2	2908.1	2906.7	2908.1	2904.0	2901.3	2710.9	2209.9	1623.2
50°	3031.6	3049.8	3060.6	3066.7	3070.1	3057.3	3039.0	3026.9	2714.3	2116.7	1517.8
52.5°	3286.2	3309.1	3307.1	3306.4	3279.4	3267.3	3218.6	3193.7	2694.7	2007.3	1399.0
55°	3931.0	3908.7	3864.8	3886.4	3776.4	3719.0	3643.3	3573.1	2720.4	1903.4	1261.3
57.5°	5392.1	5400.9	5276.0	5209.1	5023.4	4791.2	4604.1	4422.5	2951.3	1839.9	1081.7
60°	6916.7	6801.9	6643.2	6401.5	6162.5	5817.5	5484.6	5170.0	3181.5	1773.7	869.0
62.5°	7582.4	7419.0	7179.3	6866.7	6491.3	6069.3	5654.7	5271.2	3070.1	1559.7	632.0
65°	7447.4	7197.6	6932.9	6566.9	6110.5	5648.0	5163.9	4772.3	2568.4	1163.4	389.6
67.5°	6741.1	6529.1	6249.6	5815.4	5327.3	4845.9	4402.3	3963.4	1908.1	725.2	218.1
70°	5689.8	5482.6	5199.0	4754.7	4267.2	3806.7	3336.8	2979.0	1216.0	349.7	157.3
72.5°	3947.2	3779.1	3578.5	3261.9	2834.5	2415.8	2097.8	1823.0	673.8	185.7	143.8
75°	1602.9	1603.6	1567.1	1433.4	1211.3	1044.5	890.6	755.5	281.6	158.0	141.8
77.5°	363.3	369.3	403.8	382.8	345.0	322.7	289.0	255.2	171.5	162.7	143.1
80°	183.7	184.3	182.3	183.0	181.0	181.6	178.9	176.9	160.7	167.4	143.1
82.5°	153.3	156.6	156.0	156.0	156.6	156.6	156.6	156.0	166.8	176.2	138.4
85°	121.5	128.3	133.7	139.1	145.2	149.2	151.2	153.3	162.0	173.5	125.6
87.5°	91.8	99.9	106.7	112.1	121.5	121.5	128.3	133.0	133.0	135.7	66.2
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: P159318

CATALOG NUMBER: VST-E04-LED-E-U-T2-8030

**CANDELA DISTRIBUTION (continued):**

	145°	155°	165°	175°	180°
0°	969.6	969.6	969.6	969.6	969.6
2.5°	936.5	933.8	931.1	929.7	927.0
5°	929.7	924.3	921.0	921.0	918.3
7.5°	949.3	947.3	942.6	939.9	942.6
10°	991.2	987.8	982.4	978.4	980.4
12.5°	1047.2	1033.7	1022.9	1018.2	1014.8
15°	1105.3	1078.3	1056.7	1044.5	1041.1
17.5°	1167.4	1120.1	1087.7	1069.5	1066.1
20°	1230.9	1172.1	1126.2	1102.6	1101.9
22.5°	1307.2	1228.9	1170.1	1139.1	1137.0
25°	1387.5	1279.5	1201.8	1162.0	1158.0
27.5°	1457.1	1320.0	1221.4	1174.2	1170.1
30°	1515.1	1350.4	1237.6	1182.9	1177.5
32.5°	1557.0	1367.9	1244.4	1185.6	1179.6
35°	1570.5	1361.2	1225.5	1161.3	1154.6
37.5°	1552.3	1317.3	1172.8	1101.9	1093.8
40°	1497.6	1240.3	1087.1	1014.1	1004.0
42.5°	1413.9	1145.8	983.8	914.2	901.4
45°	1310.5	1039.1	881.1	803.5	797.4
47.5°	1202.5	927.0	765.7	695.4	688.0
50°	1085.7	797.4	652.9	576.6	576.6
52.5°	946.6	671.1	521.9	464.5	459.8
55°	786.6	528.7	415.9	372.0	366.0
57.5°	614.4	406.5	332.2	306.5	299.8
60°	451.7	305.2	267.4	253.2	250.5
62.5°	306.5	232.3	215.4	209.3	208.6
65°	207.3	181.0	176.2	174.2	174.9
67.5°	159.3	150.6	148.5	147.9	147.9
70°	138.4	133.0	131.0	131.7	131.0
72.5°	130.3	122.9	123.6	124.9	124.2
75°	127.6	118.2	120.9	121.5	118.8
77.5°	125.6	112.8	119.5	121.5	114.1
80°	121.5	108.0	124.2	124.9	112.1
82.5°	111.4	95.9	124.2	114.8	101.3
85°	94.5	72.9	140.4	99.9	74.9
87.5°	60.1	43.2	95.2	68.2	45.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)