

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: P159321

Luminaire Tested: **VST-E04-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159321
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-T2-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12669.2 lumens
Efficiency: N/A
Efficacy: 130.3 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



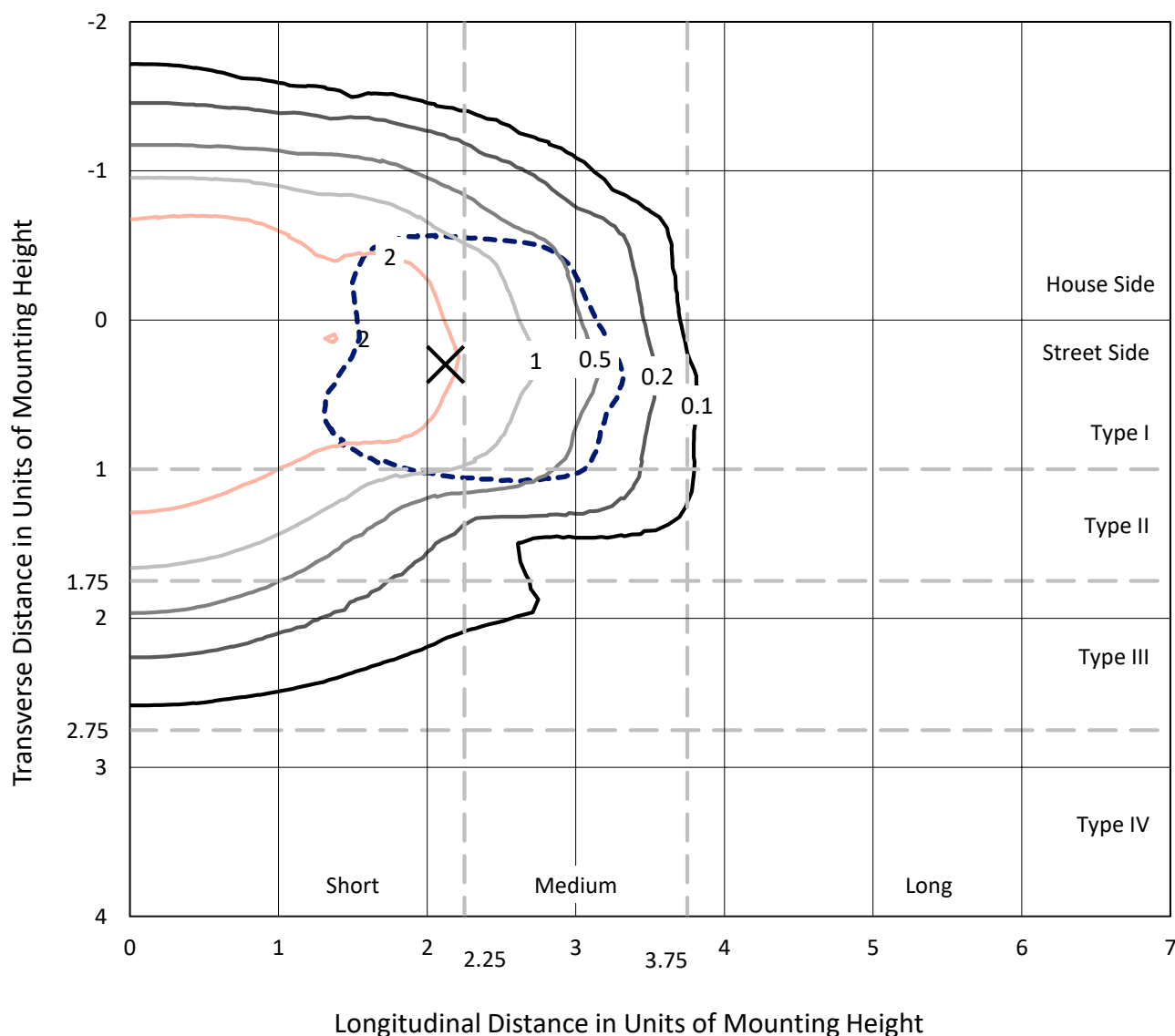
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

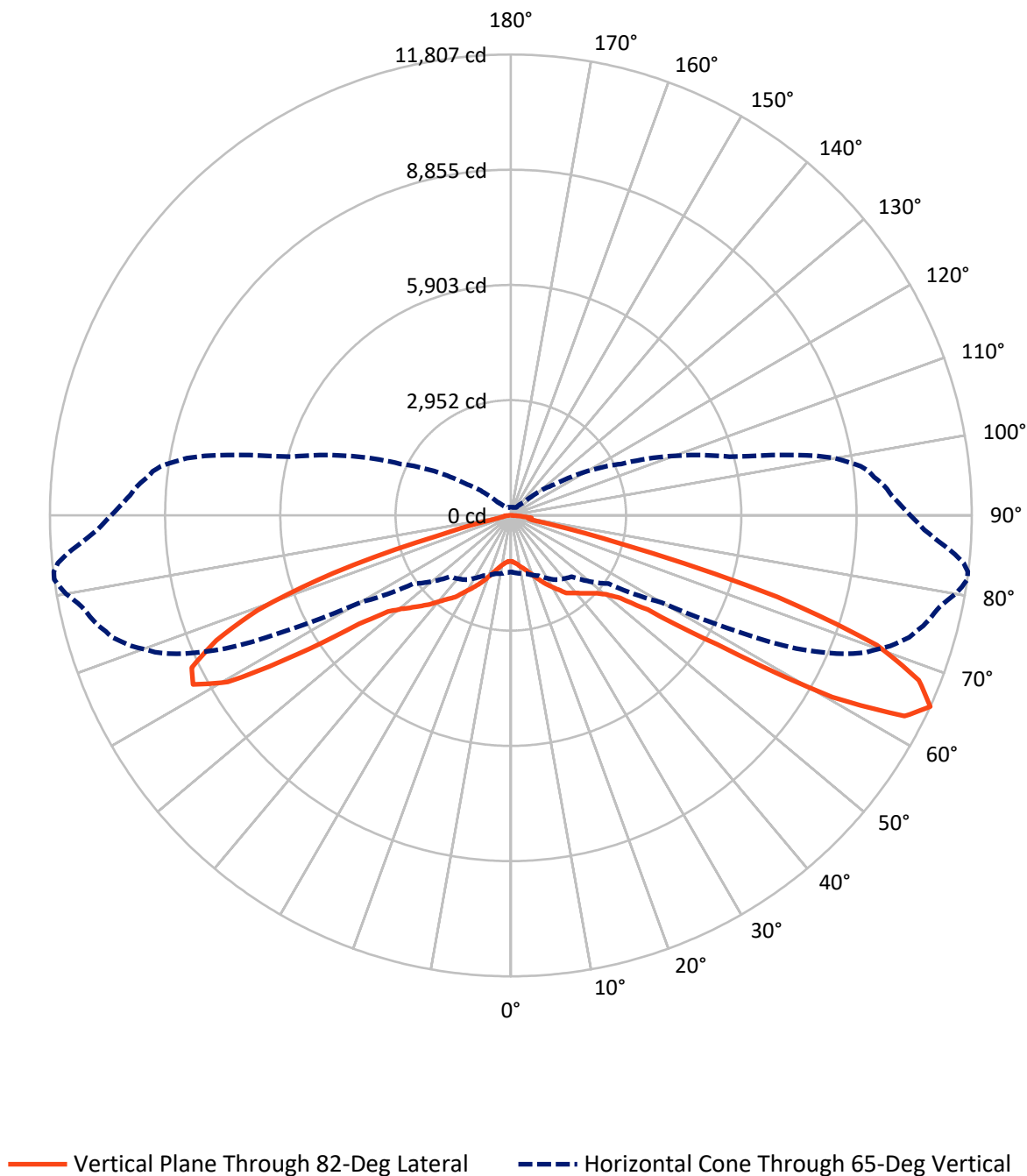


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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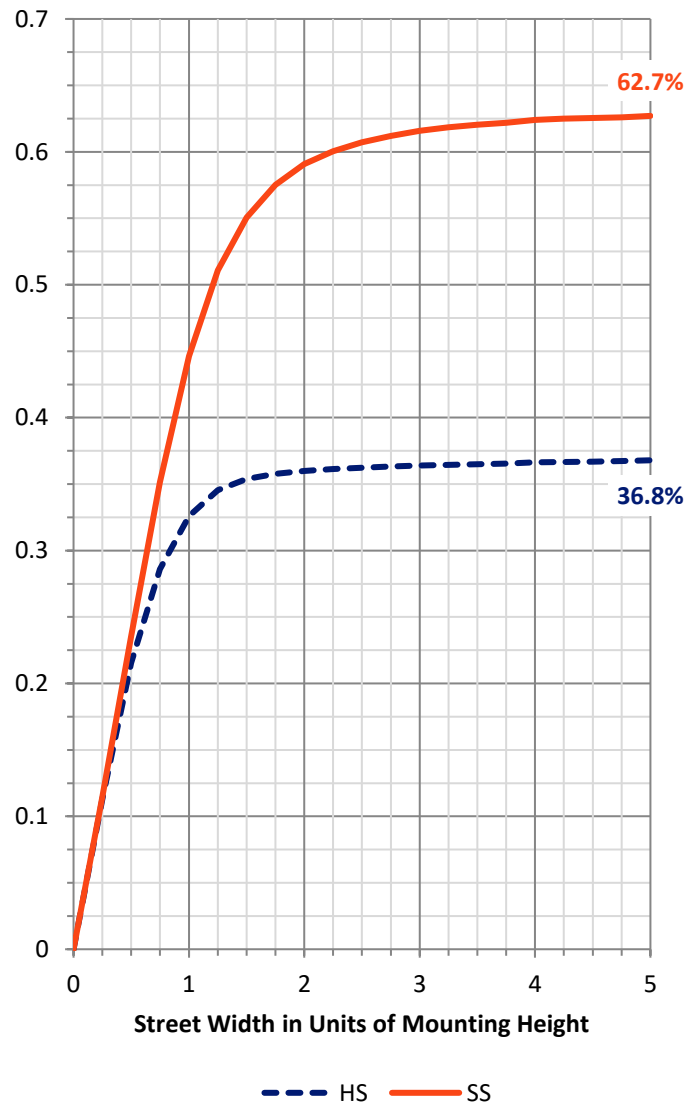
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4717.2	0.0	4717.2
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	7952.0	0.0	7952.0
	% Fixture	62.8	0.0	62.8
Total	Lumens	12669.2	0.0	12669.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.3	0.9
10°-20°	419.3	3.3
20°-30°	830.9	6.6
30°-40°	1424.3	11.2
40°-50°	2139.6	16.9
50°-60°	2972.6	23.5
60°-70°	3391.3	26.8
70°-80°	1168.3	9.2
80°-90°	203.6	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°	12669.2	100.0
0°-180°	12669.2	100.0

Coefficient of Utilization



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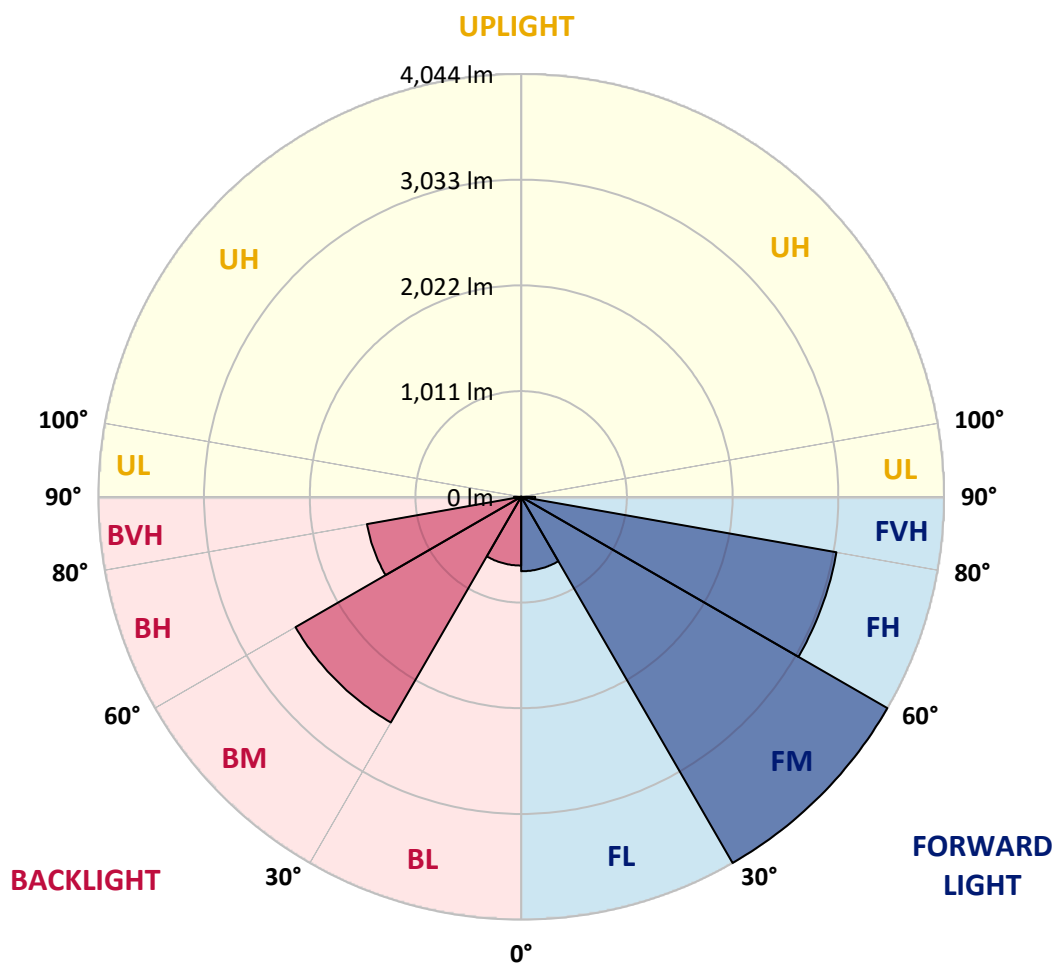
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	711.7	5.6			
FM	(30°-60°)	4044.3	31.9			
FH	(60°-80°)	3062.0	24.2			G2/5000
FVH	(80°-90°)	134.0	1.1			G2/225
BL	(0°-30°)	657.8	5.2	B2/1000		
BM	(30°-60°)	2492.2	19.7	B2/2500		
BH	(60°-80°)	1497.6	11.8	B3/2500		G3/2500
BVH	(80°-90°)	69.6	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1242.8	1243.6	1242.8	1240.4	1239.5	1232.1	1223.9	1219.8	1219.0	1215.7	1216.6
5°	1320.0	1317.5	1314.2	1310.1	1306.0	1293.7	1279.8	1272.4	1269.9	1267.4	1264.2
7.5°	1388.9	1390.6	1388.9	1383.2	1372.5	1356.9	1338.9	1327.4	1326.5	1324.1	1321.6
10°	1477.6	1481.7	1471.8	1462.0	1447.2	1423.4	1402.9	1388.1	1385.7	1382.4	1380.7
12.5°	1573.6	1574.5	1571.2	1549.0	1524.4	1491.5	1462.0	1447.2	1443.9	1439.8	1438.2
15°	1676.2	1677.1	1659.0	1637.7	1599.9	1560.5	1519.5	1503.0	1498.9	1499.8	1493.2
17.5°	1757.5	1759.2	1741.9	1714.8	1669.7	1622.9	1578.6	1565.4	1563.0	1563.8	1560.5
20°	1792.8	1795.3	1784.6	1764.1	1721.4	1680.4	1648.3	1640.1	1639.3	1637.7	1644.2
22.5°	1791.2	1792.0	1787.9	1779.7	1754.2	1730.4	1726.3	1731.2	1730.4	1732.1	1737.8
25°	1776.4	1778.9	1778.0	1781.3	1777.2	1786.2	1805.1	1822.4	1824.8	1828.1	1838.8
27.5°	1814.2	1819.1	1813.3	1816.6	1823.2	1853.6	1892.1	1918.4	1923.3	1932.4	1941.4
30°	1961.9	1955.3	1948.0	1939.7	1943.9	1962.7	2006.2	2029.2	2031.7	2038.3	2050.6
32.5°	2181.1	2173.7	2167.1	2154.0	2150.7	2142.5	2157.3	2163.0	2162.2	2168.8	2172.1
35°	2428.2	2429.0	2427.4	2437.2	2445.4	2403.5	2351.8	2337.9	2343.6	2336.2	2337.9
37.5°	2639.1	2641.6	2685.1	2739.3	2754.9	2728.6	2615.3	2559.5	2540.6	2538.2	2519.3
40°	2873.1	2873.1	2938.8	3005.3	3048.8	3081.6	2947.0	2848.5	2808.2	2796.8	2750.0
42.5°	3130.0	3116.9	3176.8	3249.9	3330.3	3405.0	3335.3	3224.4	3167.0	3146.4	3064.4
45°	3341.0	3332.8	3362.3	3430.5	3561.0	3707.1	3717.0	3660.3	3625.8	3583.2	3507.6
47.5°	3470.7	3466.6	3483.8	3557.7	3721.1	3957.5	4089.6	4118.4	4097.9	4065.0	3992.0
50°	3521.6	3515.8	3528.2	3610.2	3793.3	4105.2	4397.5	4532.9	4542.8	4550.2	4527.2
52.5°	3503.5	3496.1	3521.6	3590.5	3781.0	4157.0	4638.0	4898.2	4941.7	4978.7	5054.2
55°	3330.3	3318.8	3387.8	3517.5	3727.6	4138.1	4813.7	5249.6	5341.5	5440.0	5607.5
57.5°	3065.2	3055.3	3154.7	3332.8	3633.2	4086.4	4931.9	5693.7	5900.5	6077.8	6553.1
60°	2809.9	2801.7	2860.0	3032.3	3327.0	3834.4	4785.8	5843.1	6190.3	6572.8	7440.5
62.5°	2353.5	2331.3	2409.3	2554.6	2740.9	3171.9	4147.9	5510.6	6045.8	6608.1	7784.4
65°	1446.4	1478.4	1545.7	1706.6	2012.0	2217.2	3046.3	4458.2	5164.2	5869.3	7395.3
67.5°	918.6	927.6	977.7	1089.3	1325.7	1531.8	1846.2	2797.6	3341.8	4035.5	5806.1
70°	787.2	793.0	835.7	952.2	1115.6	1369.2	1397.1	1461.2	1656.5	2098.2	3413.2
72.5°	620.6	630.4	664.1	765.1	962.1	1234.6	1724.7	1155.0	1115.6	1152.5	1665.6
75°	369.4	380.9	408.8	463.8	618.1	944.0	1806.8	1343.8	1252.7	1181.3	1149.2
77.5°	195.4	187.2	206.0	238.1	317.7	503.2	1357.7	1646.7	1582.7	1497.3	1315.9
80°	96.9	100.1	105.9	112.5	142.0	204.4	678.9	1703.3	1888.0	1970.1	1809.2
82.5°	38.6	43.5	61.6	65.7	78.0	87.0	218.4	944.0	1352.0	1833.9	2394.5
85°	19.7	18.9	32.8	39.4	46.0	41.0	77.2	352.2	633.7	987.5	1599.9
87.5°	2.5	3.3	7.4	9.9	14.0	13.1	22.2	76.3	121.5	172.4	242.2
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-T2-7050

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1212.4	1211.6	1211.6	1208.3	1208.3	1209.2	1206.7	1205.1	1205.1	1205.9	1202.6
5°	1261.7	1259.2	1259.2	1256.0	1251.8	1251.8	1248.6	1247.7	1246.1	1242.8	1240.4
7.5°	1319.2	1316.7	1312.6	1310.1	1308.5	1306.0	1301.9	1300.3	1297.0	1293.7	1290.4
10°	1378.3	1375.0	1373.3	1369.2	1367.6	1362.7	1360.2	1361.0	1354.5	1352.0	1352.8
12.5°	1437.4	1434.1	1428.3	1426.7	1425.9	1421.0	1418.5	1416.8	1411.9	1411.1	1408.6
15°	1489.9	1491.5	1489.1	1485.0	1481.7	1480.9	1478.4	1476.8	1473.5	1470.2	1466.9
17.5°	1558.0	1560.5	1557.2	1551.5	1551.5	1550.7	1551.5	1550.7	1544.9	1547.4	1545.7
20°	1645.1	1646.7	1638.5	1640.9	1642.6	1641.8	1644.2	1646.7	1645.1	1645.1	1647.5
22.5°	1745.2	1747.7	1742.7	1746.0	1750.9	1746.8	1754.2	1753.4	1755.1	1757.5	1758.3
25°	1847.8	1852.7	1848.6	1857.7	1854.4	1857.7	1866.7	1864.2	1868.3	1874.9	1877.4
27.5°	1950.4	1953.7	1954.5	1960.3	1966.0	1970.9	1982.4	1982.4	1985.7	1997.2	1997.2
30°	2058.0	2061.2	2064.5	2072.7	2076.0	2085.0	2096.5	2099.8	2098.2	2114.6	2119.5
32.5°	2181.9	2185.2	2190.9	2200.8	2204.9	2213.9	2213.9	2223.0	2229.5	2243.5	2244.3
35°	2346.9	2349.4	2346.9	2346.1	2351.8	2364.1	2365.0	2378.1	2383.8	2397.8	2401.9
37.5°	2511.9	2511.1	2500.4	2488.9	2489.7	2484.8	2481.5	2487.3	2489.7	2490.6	2499.6
40°	2734.4	2713.0	2696.6	2667.9	2654.7	2634.2	2621.9	2621.1	2607.9	2606.3	2608.8
42.5°	3025.8	3001.2	2962.6	2914.1	2877.2	2839.4	2811.5	2795.1	2766.4	2751.6	2739.3
45°	3432.9	3372.2	3326.2	3268.8	3197.3	3131.7	3062.7	3031.5	2976.5	2942.9	2905.1
47.5°	3930.4	3870.5	3799.9	3740.8	3647.2	3556.1	3461.7	3378.8	3282.7	3206.4	3144.0
50°	4470.5	4435.2	4384.3	4329.3	4208.7	4148.7	4029.7	3917.3	3813.8	3677.6	3558.5
52.5°	5024.6	5045.2	5033.7	5014.0	4937.6	4914.6	4812.0	4674.9	4570.7	4477.1	4270.2
55°	5707.6	5732.2	5781.5	5810.2	5801.2	5859.5	5834.0	5727.3	5685.4	5641.9	5495.0
57.5°	6752.6	6928.3	7116.2	7281.2	7319.8	7526.7	7482.4	7589.1	7664.6	7610.4	7562.8
60°	7866.5	8221.2	8540.5	8874.6	9146.3	9349.9	9619.1	9800.5	9914.6	10119.9	10136.3
62.5°	8315.6	8797.4	9202.9	9590.4	9913.0	10195.4	10438.4	10688.7	10894.0	11079.5	11213.3
65°	8069.3	8572.5	9064.2	9457.4	9767.7	10010.7	10275.0	10473.7	10675.6	10794.6	10935.0
67.5°	6708.3	7374.8	7979.8	8423.1	8847.5	9094.6	9407.3	9602.7	9817.0	9942.6	10032.8
70°	4373.7	5241.3	6068.0	6740.3	7313.3	7601.4	7979.0	8245.8	8503.5	8510.1	8660.3
72.5°	2360.0	3085.7	3777.7	4464.8	5118.2	5501.6	5874.2	6198.5	6454.6	6345.4	6494.8
75°	1314.2	1654.1	2032.5	2445.4	2843.5	3062.7	3341.0	3342.6	3474.8	3267.1	3319.7
77.5°	1264.2	1248.6	1254.3	1265.8	1285.5	1243.6	1242.8	1217.4	1178.0	1106.6	1118.9
80°	1660.6	1462.0	1319.2	1095.1	881.6	719.1	673.9	684.6	716.6	780.7	861.9
82.5°	2401.1	2233.6	1993.9	1640.9	1288.0	993.3	816.0	724.0	719.9	783.9	907.1
85°	1748.5	1849.5	1833.9	1530.9	1262.5	1025.3	746.2	630.4	522.1	496.6	540.1
87.5°	257.8	213.4	240.5	201.1	146.1	113.3	99.3	79.6	76.3	78.0	85.4
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°	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1203.4	1200.1	1196.8	1199.3	1196.8	1196.0	1193.6	1191.9	1191.1	1191.1	1191.1
5°	1240.4	1236.3	1233.8	1233.0	1230.5	1228.0	1227.2	1223.1	1222.3	1222.3	1219.8
7.5°	1290.4	1287.1	1283.0	1280.6	1278.9	1274.8	1270.7	1269.9	1269.1	1265.8	1263.3
10°	1348.7	1343.8	1338.9	1338.9	1335.6	1334.8	1330.7	1324.9	1324.1	1319.2	1317.5
12.5°	1403.7	1402.1	1396.3	1394.7	1392.2	1389.8	1387.3	1384.8	1382.4	1378.3	1379.9
15°	1469.4	1465.3	1460.4	1461.2	1460.4	1457.1	1453.8	1451.3	1449.7	1448.0	1448.0
17.5°	1548.2	1546.5	1545.7	1541.6	1538.3	1540.8	1540.8	1540.8	1536.7	1537.5	1538.3
20°	1648.3	1650.0	1648.3	1645.1	1644.2	1646.7	1640.9	1650.0	1645.1	1641.8	1643.4
22.5°	1759.2	1764.9	1758.3	1759.2	1763.3	1764.9	1759.2	1766.5	1764.1	1759.2	1763.3
25°	1879.8	1883.9	1880.6	1879.8	1882.3	1888.0	1887.2	1886.4	1892.1	1887.2	1889.7
27.5°	2003.8	2006.2	2007.9	2010.3	2012.0	2011.2	2014.5	2014.5	2017.7	2012.0	2014.5
30°	2126.9	2126.9	2130.2	2133.5	2133.5	2133.5	2140.0	2140.9	2135.9	2137.6	2131.8
32.5°	2258.3	2259.1	2262.4	2262.4	2268.9	2269.7	2277.1	2267.3	2277.1	2268.9	2270.6
35°	2412.6	2423.3	2424.9	2433.1	2439.7	2442.1	2442.1	2443.0	2452.0	2445.4	2447.9
37.5°	2502.9	2505.3	2511.9	2516.0	2516.0	2519.3	2521.8	2519.3	2521.8	2520.9	2523.4
40°	2609.6	2607.1	2614.5	2616.2	2612.9	2617.0	2616.2	2613.7	2620.3	2615.3	2618.6
42.5°	2739.3	2725.3	2724.5	2731.1	2724.5	2727.8	2727.0	2721.2	2729.4	2731.9	2729.4
45°	2878.0	2870.6	2855.9	2855.9	2849.3	2846.8	2847.6	2846.8	2847.6	2857.5	2860.8
47.5°	3103.8	3058.6	3033.2	3009.4	2989.7	2988.8	2979.8	2984.7	2991.3	3007.7	3022.5
50°	3482.2	3377.9	3313.9	3254.8	3212.1	3197.3	3180.1	3178.5	3184.2	3203.1	3228.5
52.5°	4157.0	4012.5	3876.2	3749.8	3639.8	3555.3	3513.4	3491.2	3483.0	3501.9	3526.5
55°	5391.6	5119.0	4926.9	4798.9	4525.5	4409.8	4261.2	4193.1	4126.6	4133.2	4175.0
57.5°	7501.2	7354.3	7193.4	6969.3	6801.8	6599.9	6228.9	6022.0	6031.0	6079.5	5928.4
60°	10266.0	10117.4	10050.9	9847.3	9730.8	9649.5	9452.5	9109.4	8987.9	8964.9	8687.4
62.5°	11315.9	11351.2	11403.7	11461.2	11457.9	11493.2	11320.8	11209.2	11068.8	10886.6	10612.4
65°	11041.7	11131.2	11237.9	11392.2	11567.9	11697.6	11806.8	11793.6	11662.3	11419.3	11129.6
67.5°	10113.3	10202.0	10279.9	10486.8	10774.9	11038.4	11271.6	11430.0	11342.2	11141.0	10802.8
70°	8717.8	8781.8	8831.1	9010.8	9326.9	9648.7	9953.2	10219.2	10192.1	9948.3	9678.2
72.5°	6316.7	6471.9	6555.6	6543.3	6738.6	7099.0	7141.7	7369.1	7432.3	7169.6	6739.5
75°	3077.5	3080.0	2983.1	2951.1	2960.9	3023.3	2904.3	2911.7	2870.6	2684.3	2530.8
77.5°	1075.4	1045.8	975.2	891.5	771.6	659.2	545.1	495.8	479.4	431.0	397.3
80°	926.8	970.3	956.3	887.4	761.0	606.6	453.1	335.7	286.5	269.3	252.8
82.5°	1052.4	1219.8	1326.5	1320.8	1147.6	861.9	537.7	308.7	220.0	192.9	177.3
85°	586.9	631.3	643.6	586.1	486.8	332.5	185.5	130.5	110.8	101.0	91.1
87.5°	93.6	85.4	83.7	73.1	69.0	63.2	55.8	52.5	48.4	46.0	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



REPORT NUMBER: P159321

CATALOG NUMBER: VST-E04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1190.3	1189.5	1187.0	1184.5	1182.9	1182.1	1181.3	1179.6	1178.8	1178.0	1176.3
5°	1218.2	1216.6	1212.4	1208.3	1206.7	1204.2	1201.8	1200.1	1198.5	1197.7	1194.4
7.5°	1261.7	1260.1	1255.1	1251.8	1251.0	1244.5	1243.6	1241.2	1237.1	1236.3	1231.3
10°	1314.2	1313.4	1309.3	1306.8	1305.2	1301.9	1297.0	1292.9	1288.8	1288.8	1285.5
12.5°	1375.0	1371.7	1374.2	1368.4	1366.8	1363.5	1361.0	1360.2	1355.3	1351.2	1350.4
15°	1446.4	1442.3	1442.3	1440.7	1439.0	1435.7	1434.9	1435.7	1430.8	1432.4	1427.5
17.5°	1535.1	1536.7	1535.9	1535.9	1531.8	1531.8	1525.2	1533.4	1527.7	1531.8	1530.1
20°	1645.9	1646.7	1645.1	1647.5	1649.2	1648.3	1647.5	1646.7	1649.2	1652.4	1650.0
22.5°	1764.1	1764.1	1763.3	1772.3	1762.4	1769.8	1772.3	1767.4	1780.5	1778.9	1781.3
25°	1892.1	1892.1	1898.7	1906.1	1907.7	1902.0	1905.3	1901.2	1909.4	1915.9	1917.6
27.5°	2011.2	2021.8	2026.8	2021.8	2025.9	2035.0	2034.2	2034.2	2039.9	2038.3	2053.9
30°	2133.5	2140.0	2146.6	2143.3	2145.0	2156.5	2157.3	2158.1	2165.5	2176.2	2187.7
32.5°	2273.0	2279.6	2276.3	2287.0	2286.2	2300.1	2302.6	2305.0	2328.0	2323.9	2347.7
35°	2444.6	2451.2	2447.9	2459.4	2457.7	2462.7	2471.7	2481.5	2485.6	2509.4	2528.3
37.5°	2525.0	2525.0	2532.4	2545.6	2550.5	2558.7	2572.7	2585.0	2605.5	2630.9	2660.5
40°	2621.9	2624.4	2634.2	2648.2	2657.2	2676.1	2701.5	2718.8	2750.0	2777.9	2812.3
42.5°	2739.3	2750.0	2761.5	2780.3	2800.0	2829.6	2865.7	2887.9	2928.9	2965.0	3007.7
45°	2876.4	2887.1	2914.1	2948.6	2977.3	3010.2	3039.7	3092.3	3129.2	3167.0	3203.9
47.5°	3042.2	3073.4	3095.6	3136.6	3171.9	3215.4	3252.3	3301.6	3341.8	3387.8	3419.0
50°	3254.8	3293.4	3322.1	3375.5	3410.0	3458.4	3505.2	3542.1	3583.2	3628.3	3653.8
52.5°	3560.2	3599.6	3635.7	3702.2	3744.9	3777.7	3840.1	3886.1	3923.8	3956.7	3984.6
55°	4221.8	4210.3	4310.5	4439.3	4454.1	4573.1	4595.3	4633.9	4703.7	4713.5	4791.5
57.5°	6112.3	6053.2	6198.5	6387.3	6354.5	6294.5	6544.9	6560.5	6525.2	6619.6	6512.9
60°	8728.5	8625.0	8664.4	8716.2	8641.4	8606.2	8618.5	8653.8	8619.3	8581.5	8478.1
62.5°	10475.3	10316.1	10202.0	10105.9	9984.4	9896.6	9798.1	9676.6	9643.7	9505.8	9390.1
65°	10848.0	10600.1	10419.5	10238.1	10070.6	9915.5	9766.9	9662.6	9524.7	9361.4	9240.7
67.5°	10438.4	10131.4	9867.0	9603.5	9413.9	9185.7	9074.1	8904.1	8734.2	8547.0	8436.2
70°	9248.1	8927.9	8595.5	8337.7	8080.0	7797.6	7742.6	7541.5	7443.8	7188.5	7144.2
72.5°	6383.2	6169.8	6021.2	5702.7	5545.9	5401.4	5355.4	5169.1	5188.8	4908.9	5010.7
75°	2269.7	2239.4	2195.9	2016.1	1984.1	1928.3	1913.5	1900.3	2033.3	1848.6	1982.4
77.5°	389.9	387.5	365.3	354.6	375.1	362.0	365.3	358.7	397.3	403.1	394.0
80°	242.2	235.6	228.2	223.3	224.1	219.2	220.0	221.6	224.1	223.3	225.7
82.5°	165.8	160.1	156.8	153.5	158.4	160.1	164.2	168.3	174.8	179.0	183.9
85°	90.3	82.9	82.9	82.1	88.7	93.6	100.1	108.4	119.8	129.7	140.4
87.5°	46.0	44.3	45.1	46.8	52.5	56.6	64.8	72.2	82.1	92.8	102.6
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: P159321

CATALOG NUMBER: VST-E04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1175.5	1175.5	1174.7	1174.7	1173.9	1173.0	1172.2	1169.8	1160.7	1152.5	1146.8
5°	1193.6	1191.1	1190.3	1187.8	1187.0	1185.4	1182.9	1180.4	1164.0	1149.2	1138.6
7.5°	1230.5	1227.2	1225.6	1223.1	1220.7	1217.4	1214.1	1211.6	1191.9	1174.7	1161.6
10°	1278.9	1277.3	1276.5	1273.2	1273.2	1268.3	1267.4	1261.7	1240.4	1224.8	1213.3
12.5°	1346.3	1343.0	1342.1	1338.0	1339.7	1338.0	1336.4	1333.1	1317.5	1299.5	1283.9
15°	1430.0	1430.0	1425.9	1422.6	1423.4	1421.8	1425.1	1421.0	1411.1	1394.7	1369.2
17.5°	1530.9	1529.3	1530.9	1528.5	1530.1	1531.8	1527.7	1528.5	1523.6	1503.0	1465.3
20°	1648.3	1645.9	1655.7	1651.6	1660.6	1652.4	1654.1	1656.5	1656.5	1629.5	1578.6
22.5°	1783.0	1781.3	1781.3	1789.5	1792.8	1793.6	1796.9	1799.4	1805.9	1771.5	1690.2
25°	1917.6	1923.3	1924.2	1934.8	1939.7	1939.7	1942.2	1951.2	1970.9	1923.3	1818.3
27.5°	2054.7	2068.6	2071.9	2079.3	2086.7	2094.1	2099.8	2106.4	2138.4	2086.7	1949.6
30°	2191.8	2207.4	2218.9	2227.1	2236.1	2254.1	2257.4	2270.6	2323.9	2260.7	2074.4
32.5°	2352.7	2374.8	2389.6	2400.3	2414.2	2431.5	2441.3	2457.7	2509.4	2406.0	2165.5
35°	2544.7	2557.9	2579.2	2597.3	2605.5	2635.0	2650.6	2654.7	2694.1	2531.6	2232.8
37.5°	2677.7	2699.9	2736.8	2762.3	2777.1	2793.5	2819.7	2837.0	2874.7	2645.7	2266.5
40°	2846.8	2880.5	2910.0	2947.8	2971.6	2983.9	3010.2	3024.1	3029.1	2743.4	2255.8
42.5°	3052.9	3083.2	3122.6	3153.0	3171.1	3185.0	3206.4	3212.1	3148.1	2789.4	2198.3
45°	3246.6	3293.4	3327.0	3349.2	3362.3	3369.7	3382.9	3383.7	3246.6	2766.4	2099.8
47.5°	3455.1	3488.8	3520.0	3535.5	3533.9	3535.5	3530.6	3527.3	3295.9	2686.8	1973.4
50°	3685.8	3707.9	3721.1	3728.5	3732.6	3717.0	3694.8	3680.0	3300.0	2573.5	1845.3
52.5°	3995.2	4023.2	4020.7	4019.9	3987.0	3972.3	3913.2	3882.8	3276.1	2440.5	1700.9
55°	4779.2	4752.1	4698.7	4725.0	4591.2	4521.4	4429.5	4344.1	3307.3	2314.1	1533.4
57.5°	6555.6	6566.3	6414.4	6333.1	6107.4	5825.0	5597.6	5376.8	3588.1	2236.9	1315.1
60°	8409.1	8269.6	8076.7	7782.8	7492.2	7072.7	6668.0	6285.5	3868.0	2156.5	1056.5
62.5°	9218.5	9019.9	8728.5	8348.4	7892.0	7378.9	6874.9	6408.6	3732.6	1896.2	768.3
65°	9054.4	8750.6	8428.8	7983.9	7429.0	6866.7	6278.1	5802.0	3122.6	1414.4	473.7
67.5°	8195.7	7938.0	7598.1	7070.3	6476.8	5891.5	5352.2	4818.6	2319.8	881.6	265.1
70°	6917.6	6665.6	6320.8	5780.7	5188.0	4628.1	4056.8	3621.7	1478.4	425.2	191.3
72.5°	4798.9	4594.5	4350.7	3965.7	3446.1	2937.1	2550.5	2216.4	819.2	225.7	174.8
75°	1948.8	1949.6	1905.3	1742.7	1472.7	1269.9	1082.7	918.6	342.3	192.1	172.4
77.5°	441.6	449.0	490.9	465.4	419.5	392.4	351.3	310.3	208.5	197.8	174.0
80°	223.3	224.1	221.6	222.5	220.0	220.8	217.5	215.1	195.4	203.6	174.0
82.5°	186.3	190.4	189.6	189.6	190.4	190.4	190.4	189.6	202.8	214.3	168.3
85°	147.8	156.0	162.5	169.1	176.5	181.4	183.9	186.3	197.0	211.0	152.7
87.5°	111.6	121.5	129.7	136.3	147.8	147.8	156.0	161.7	161.7	165.0	80.4
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: P159321

CATALOG NUMBER: VST-E04-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	1178.8	1178.8	1178.8	1178.8	1178.8
2.5°	1138.6	1135.3	1132.0	1130.4	1127.1
5°	1130.4	1123.8	1119.7	1119.7	1116.4
7.5°	1154.2	1151.7	1146.0	1142.7	1146.0
10°	1205.1	1201.0	1194.4	1189.5	1191.9
12.5°	1273.2	1256.8	1243.6	1237.9	1233.8
15°	1343.8	1311.0	1284.7	1269.9	1265.8
17.5°	1419.3	1361.8	1322.4	1300.3	1296.2
20°	1496.5	1425.1	1369.2	1340.5	1339.7
22.5°	1589.2	1494.0	1422.6	1384.8	1382.4
25°	1686.9	1555.6	1461.2	1412.7	1407.8
27.5°	1771.5	1604.8	1485.0	1427.5	1422.6
30°	1842.1	1641.8	1504.7	1438.2	1431.6
32.5°	1893.0	1663.1	1512.9	1441.5	1434.1
35°	1909.4	1654.9	1489.9	1411.9	1403.7
37.5°	1887.2	1601.5	1425.9	1339.7	1329.8
40°	1820.7	1508.0	1321.6	1233.0	1220.7
42.5°	1718.9	1393.0	1196.0	1111.5	1095.9
45°	1593.3	1263.3	1071.3	976.9	969.5
47.5°	1462.0	1127.1	930.9	845.5	836.5
50°	1320.0	969.5	793.8	701.0	701.0
52.5°	1150.9	816.0	634.5	564.8	559.0
55°	956.3	642.8	505.7	452.3	444.9
57.5°	747.0	494.2	403.9	372.7	364.5
60°	549.2	371.0	325.1	307.8	304.5
62.5°	372.7	282.4	261.9	254.5	253.7
65°	252.0	220.0	214.3	211.8	212.6
67.5°	193.7	183.1	180.6	179.8	179.8
70°	168.3	161.7	159.3	160.1	159.3
72.5°	158.4	149.4	150.2	151.9	151.0
75°	155.1	143.7	146.9	147.8	144.5
77.5°	152.7	137.1	145.3	147.8	138.7
80°	147.8	131.3	151.0	151.9	136.3
82.5°	135.4	116.6	151.0	139.6	123.1
85°	114.9	88.7	170.7	121.5	91.1
87.5°	73.1	52.5	115.7	82.9	55.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)