

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: P159549

Luminaire Tested: **VST-E05-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159549
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-E05-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (105) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13966.8 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 127.3
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

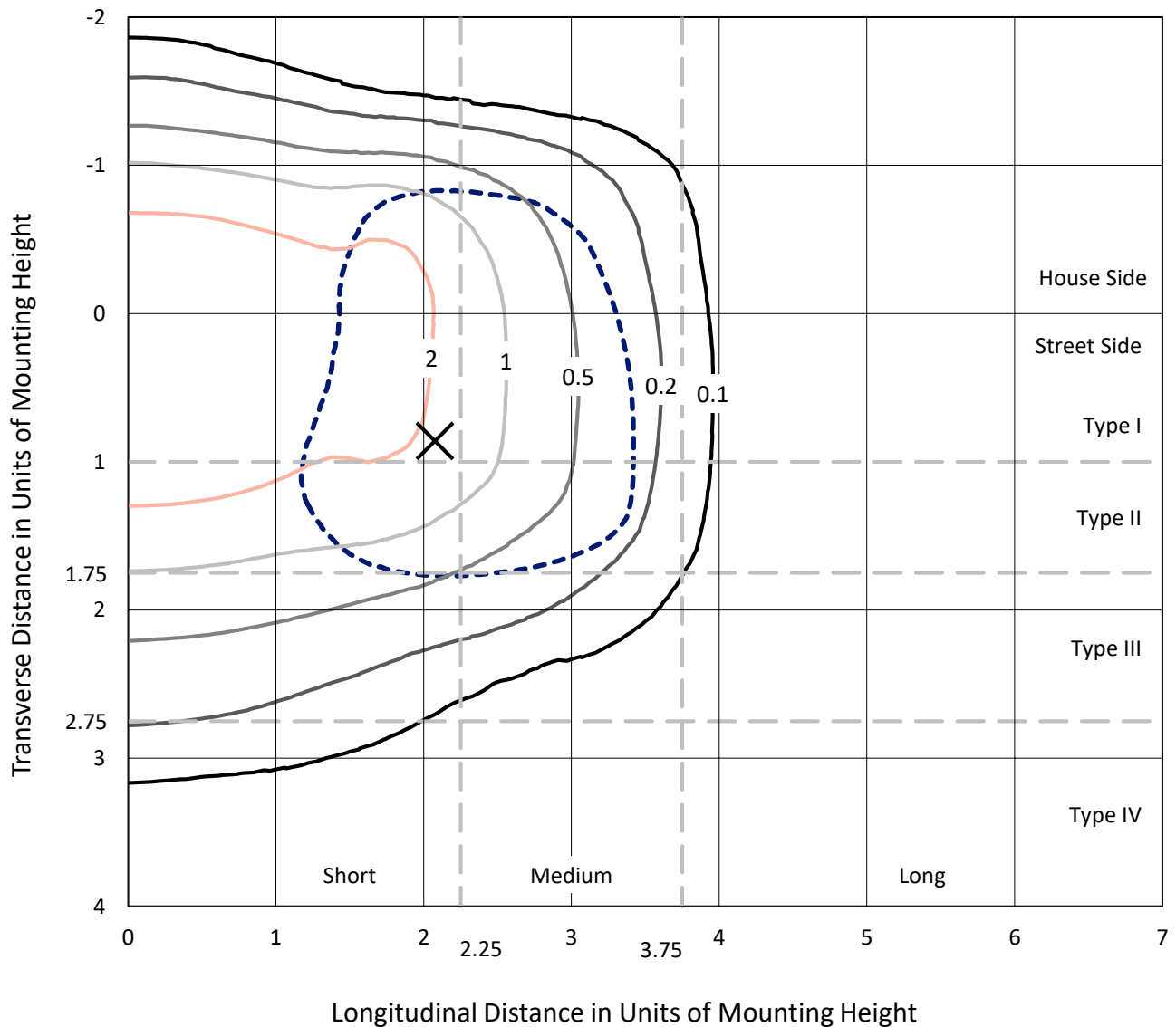


REPORT NUMBER: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

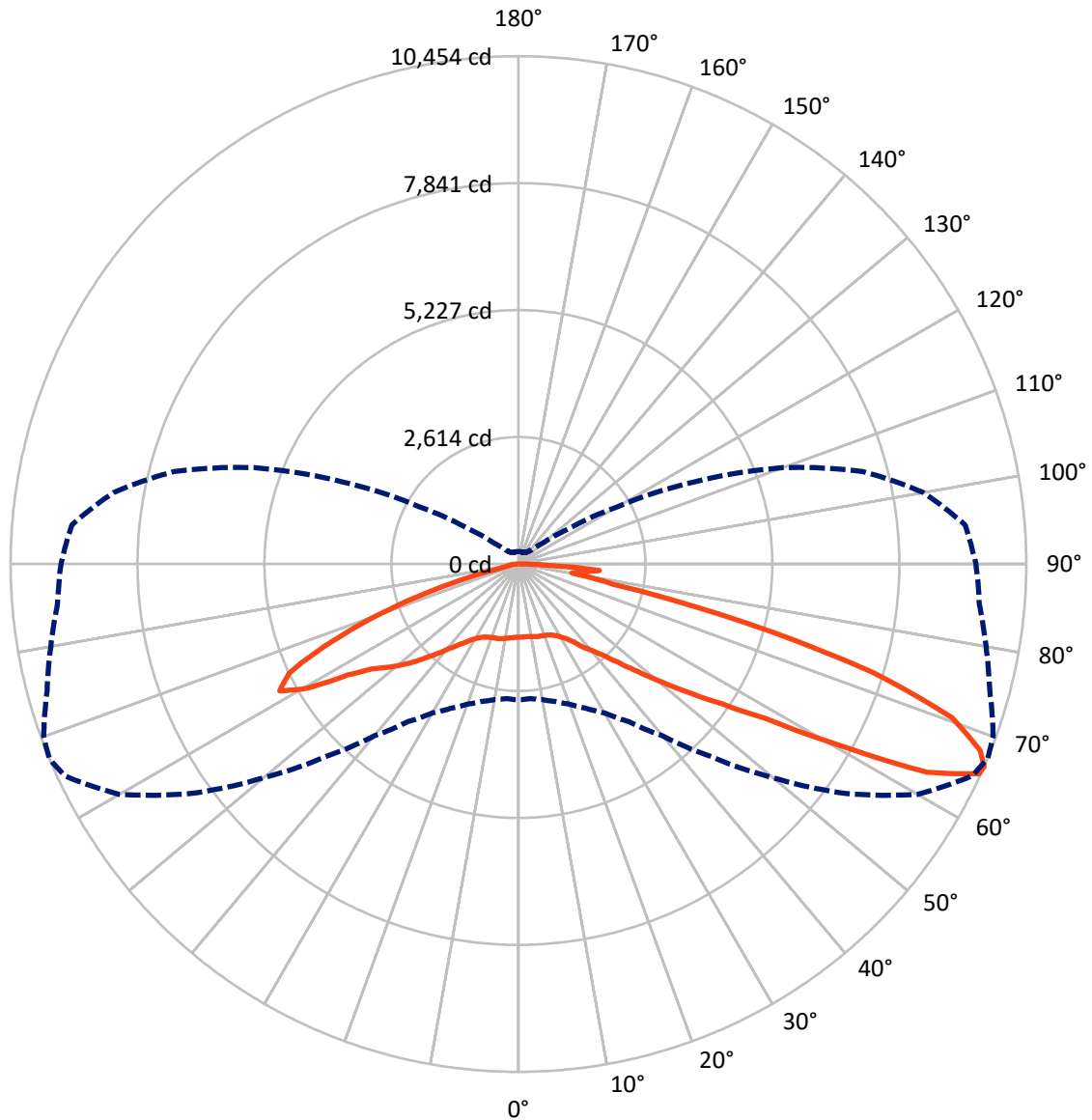


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

REPORT NUMBER: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

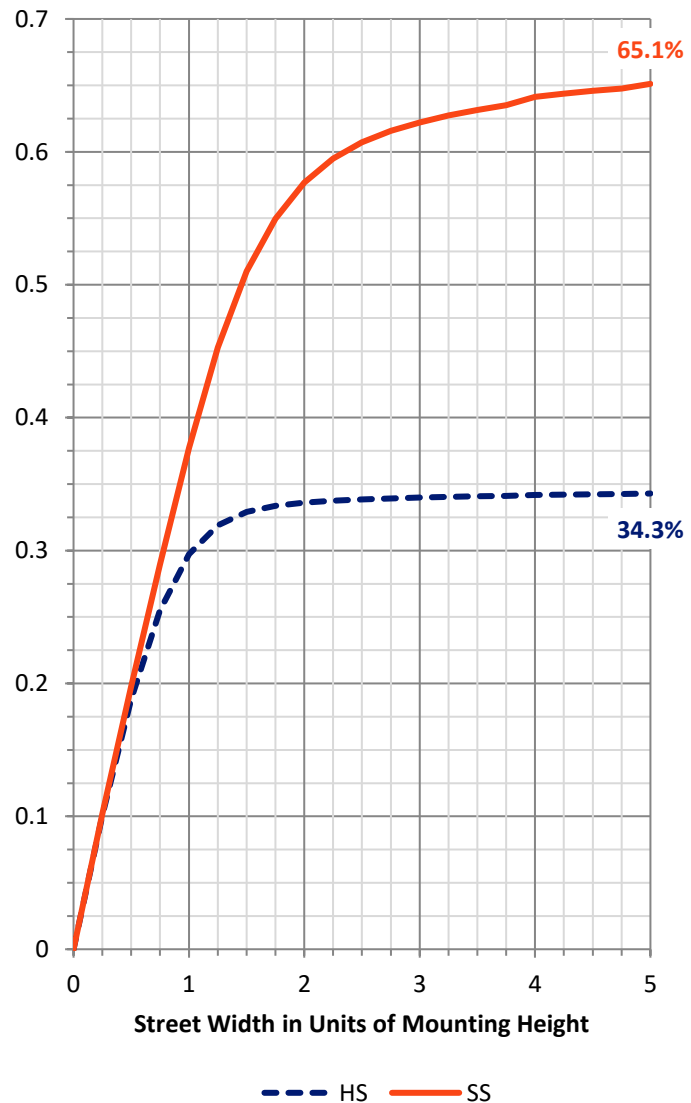
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4833.1	0.0	4833.1
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	9133.6	0.0	9133.6
	% Fixture	65.4	0.0	65.4
Total	Lumens	13966.8	0.0	13966.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.6	1.0
10°-20°	428.2	3.1
20°-30°	736.1	5.3
30°-40°	1189.7	8.5
40°-50°	1971.6	14.1
50°-60°	3094.3	22.2
60°-70°	4230.5	30.3
70°-80°	1860.4	13.3
80°-90°	311.4	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°	13966.8	100.0
0°-180°	13966.8	100.0



REPORT NUMBER: P159549

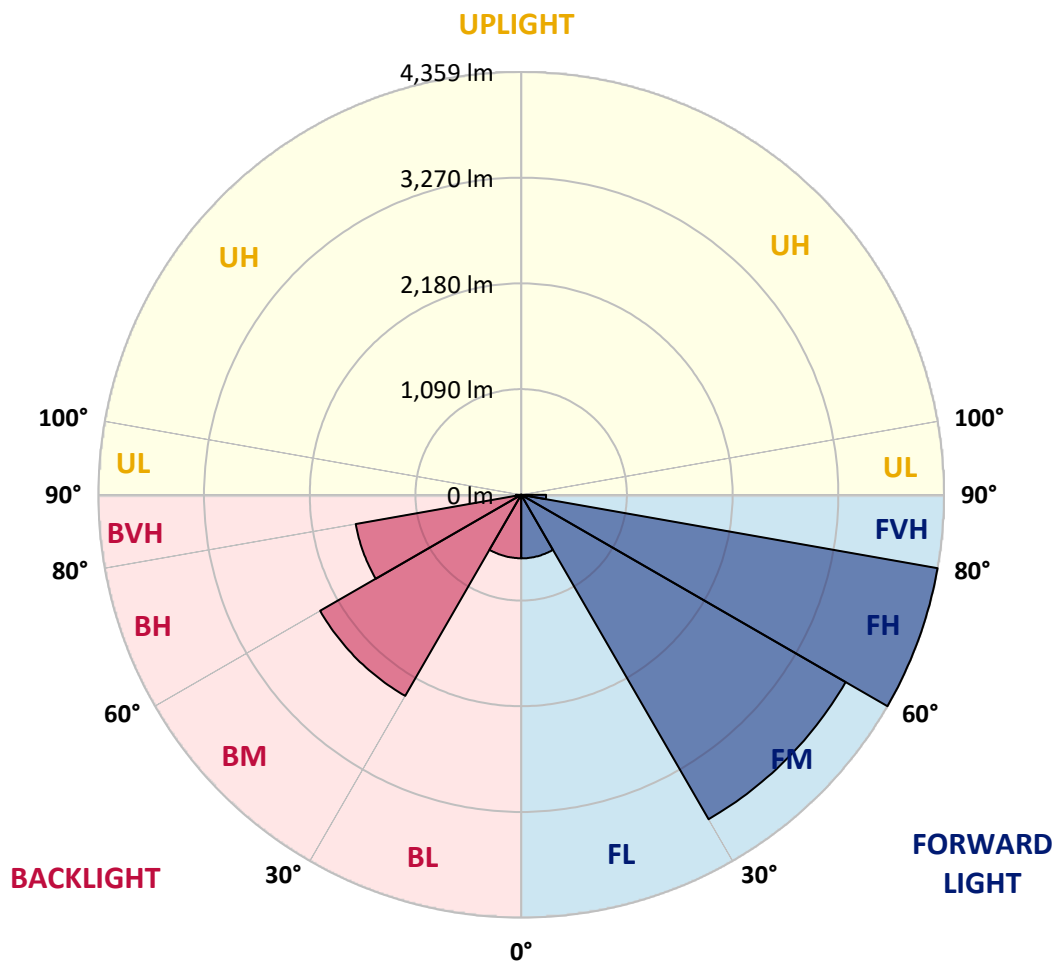
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	655.2	4.7			
FM	(30°-60°)	3862.2	27.7			
FH	(60°-80°)	4359.3	31.2			G2/5000
FVH	(80°-90°)	256.9	1.8			G3/500
BL	(0°-30°)	653.8	4.7	B2/1000		
BM	(30°-60°)	2393.3	17.1	B2/2500		
BH	(60°-80°)	1731.5	12.4	B3/2500		G3/2500
BVH	(80°-90°)	54.5	0.4			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





REPORT NUMBER: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0
2.5°	1504.3	1504.3	1505.2	1504.3	1504.3	1503.4	1507.0	1507.0	1507.0	1506.1	1508.9
5°	1500.6	1500.6	1501.5	1501.5	1502.5	1501.5	1504.3	1505.2	1505.2	1505.2	1507.9
7.5°	1491.5	1494.2	1492.4	1493.3	1494.2	1497.0	1500.6	1502.5	1504.3	1507.0	1507.9
10°	1472.3	1476.9	1476.0	1478.7	1479.6	1487.8	1490.6	1494.2	1500.6	1504.3	1507.0
12.5°	1445.8	1448.6	1449.5	1453.1	1456.8	1466.8	1474.1	1480.5	1489.7	1498.8	1507.9
15°	1424.8	1426.7	1426.7	1430.3	1435.8	1444.9	1454.1	1465.0	1478.7	1494.2	1508.9
17.5°	1431.2	1435.8	1432.1	1431.2	1433.0	1438.5	1446.7	1455.9	1472.3	1489.7	1507.0
20°	1473.2	1474.1	1472.3	1467.8	1464.1	1465.0	1465.0	1466.8	1476.9	1490.6	1504.3
22.5°	1507.9	1511.6	1510.7	1511.6	1510.7	1514.3	1512.5	1508.9	1505.2	1506.1	1512.5
25°	1538.1	1541.7	1541.7	1544.5	1549.0	1556.3	1561.8	1560.9	1555.4	1548.1	1545.4
27.5°	1587.4	1587.4	1587.4	1590.1	1596.5	1605.7	1614.8	1620.3	1624.9	1617.5	1602.0
30°	1665.0	1666.0	1663.2	1664.1	1668.7	1680.6	1691.5	1699.7	1708.9	1708.0	1687.9
32.5°	1750.0	1753.6	1752.7	1756.4	1762.8	1773.7	1785.6	1798.4	1810.3	1817.6	1804.8
35°	1859.6	1863.2	1864.1	1869.6	1876.9	1893.4	1909.8	1926.3	1939.0	1944.5	1941.8
37.5°	2039.5	2040.4	2036.8	2028.6	2031.3	2044.1	2063.3	2089.7	2098.0	2103.4	2116.2
40°	2308.9	2306.2	2291.6	2284.3	2279.7	2285.2	2281.5	2302.6	2321.7	2322.6	2321.7
42.5°	2635.9	2627.7	2614.0	2612.2	2610.4	2608.5	2598.5	2599.4	2616.7	2621.3	2615.8
45°	2961.1	2951.0	2941.0	2950.1	2939.2	2967.5	2975.7	2997.6	3000.4	3009.5	2995.8
47.5°	3227.8	3228.7	3228.7	3241.5	3263.4	3317.3	3365.7	3407.7	3423.2	3445.2	3447.9
50°	3429.6	3435.1	3452.5	3493.6	3540.1	3630.6	3711.9	3787.7	3856.2	3881.7	3949.3
52.5°	3547.5	3562.1	3598.6	3667.1	3750.2	3867.1	3995.0	4123.8	4242.5	4343.0	4423.4
55°	3526.4	3537.4	3601.3	3708.2	3837.9	3995.0	4174.0	4360.3	4545.7	4715.6	4847.2
57.5°	3391.3	3398.6	3462.5	3583.1	3744.7	3955.7	4208.7	4485.5	4745.8	5019.8	5244.5
60°	3214.1	3225.0	3284.4	3379.4	3548.4	3773.1	4066.2	4441.6	4857.2	5288.3	5708.4
62.5°	3100.8	3098.1	3150.1	3235.1	3362.0	3565.7	3847.9	4292.7	4868.2	5597.0	6427.2
65°	2912.7	2904.5	2958.3	3055.2	3193.1	3390.4	3658.0	4085.4	4753.1	5713.9	6891.2
66°	2795.8	2779.3	2833.2	2930.9	3068.9	3278.9	3535.6	3957.5	4613.3	5599.8	6841.9
67.5°	2591.2	2583.0	2608.5	2685.2	2787.5	2984.8	3252.4	3677.1	4282.7	5256.3	6480.2
70°	2106.2	2087.9	2108.0	2142.7	2182.0	2230.4	2394.8	2731.8	3244.2	4187.7	5220.7
72.5°	1434.9	1425.7	1463.2	1516.2	1621.2	1670.5	1735.4	1790.2	1971.0	2639.6	3641.5
75°	1091.5	1096.9	1144.4	1232.1	1367.3	1513.4	1655.9	1708.0	1647.7	1595.6	2066.9
77.5°	611.9	643.9	701.5	812.9	956.3	1162.7	1411.1	1685.1	1822.1	1788.3	1672.3
80°	252.1	247.5	275.8	337.0	386.3	555.3	849.4	1192.8	1578.3	1822.1	1783.8
82.5°	70.3	72.2	93.2	119.6	154.4	196.4	306.9	493.2	803.7	1250.4	1636.7
85°	21.9	21.9	30.1	44.8	53.0	61.2	77.6	127.9	218.3	435.7	883.2
87.5°	4.6	4.6	6.4	12.8	13.7	13.7	17.4	23.7	21.0	19.2	85.9
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: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0
2.5°	1506.1	1504.3	1505.2	1506.1	1505.2	1505.2	1504.3	1503.4	1504.3	1504.3	1507.0
5°	1505.2	1504.3	1505.2	1505.2	1505.2	1506.1	1506.1	1506.1	1508.9	1508.9	1513.4
7.5°	1507.0	1507.0	1508.9	1508.9	1508.9	1508.9	1509.8	1511.6	1516.2	1515.2	1523.5
10°	1510.7	1512.5	1517.1	1518.0	1518.0	1520.7	1522.6	1526.2	1530.8	1532.6	1539.9
12.5°	1515.2	1524.4	1532.6	1534.4	1537.2	1541.7	1544.5	1546.3	1554.5	1557.3	1566.4
15°	1520.7	1533.5	1543.6	1547.2	1550.9	1556.3	1560.0	1562.7	1570.0	1573.7	1584.7
17.5°	1521.6	1536.3	1548.1	1553.6	1558.2	1564.6	1570.0	1575.5	1583.7	1589.2	1600.2
20°	1520.7	1539.9	1558.2	1565.5	1570.0	1581.9	1590.1	1597.4	1607.5	1613.0	1623.9
22.5°	1530.8	1552.7	1577.4	1586.5	1593.8	1610.2	1621.2	1633.1	1645.9	1649.5	1657.7
25°	1554.5	1577.4	1608.4	1621.2	1634.0	1655.9	1671.4	1688.8	1701.6	1703.4	1706.1
27.5°	1594.7	1615.7	1653.2	1672.3	1693.4	1724.4	1747.2	1764.6	1782.9	1782.9	1781.0
30°	1676.0	1680.6	1719.8	1744.5	1775.6	1821.2	1855.0	1874.2	1887.9	1887.9	1872.4
32.5°	1781.0	1775.6	1811.2	1837.7	1880.6	1944.5	1990.2	2004.8	2019.4	2014.9	1988.4
35°	1932.6	1917.1	1937.2	1977.4	2025.8	2113.5	2161.0	2193.9	2203.0	2190.2	2148.2
37.5°	2123.5	2121.7	2131.8	2176.5	2230.4	2343.7	2392.1	2413.1	2405.8	2382.9	2308.9
40°	2325.4	2319.9	2313.5	2343.7	2403.9	2540.0	2625.9	2636.8	2626.8	2593.0	2499.8
42.5°	2594.8	2594.8	2564.7	2572.9	2623.1	2775.7	2877.1	2911.8	2912.7	2863.4	2739.1
45°	2965.6	2962.0	2909.0	2896.2	2934.6	3084.4	3215.0	3234.2	3234.2	3169.3	3033.2
47.5°	3411.4	3406.8	3354.7	3310.0	3317.3	3479.0	3587.6	3616.9	3591.3	3542.9	3381.2
50°	3913.7	3905.5	3852.5	3810.5	3792.2	3955.7	4048.0	4061.7	4024.2	3966.7	3791.3
52.5°	4423.4	4448.0	4417.0	4394.1	4400.5	4506.5	4601.5	4536.6	4517.4	4455.3	4279.0
55°	4954.0	5029.8	5098.3	5078.2	5102.0	5205.2	5223.5	5137.6	5102.9	5058.1	4861.8
57.5°	5488.3	5709.4	5934.0	5997.1	6055.5	6203.5	6182.5	6041.8	6068.3	6135.0	5913.9
60°	6234.5	6873.0	7442.9	7547.9	7729.7	7855.7	7884.0	7856.6	7979.9	7945.2	7749.8
62.5°	7380.8	8444.8	9237.6	9434.9	9617.6	9611.2	9515.3	9416.6	9538.1	9538.1	9027.6
65°	8199.1	9406.6	10255.1	10418.6	10411.3	10191.2	9964.7	9767.4	9750.0	9614.8	8868.6
66°	8237.5	9480.6	10311.7	10454.2	10399.4	10045.0	9773.8	9523.5	9416.6	9228.5	8464.0
67.5°	7892.3	9271.4	10127.2	10251.4	10107.1	9599.3	9225.8	8890.6	8735.3	8418.4	7698.6
70°	6473.8	7968.1	9213.0	9466.9	9303.4	8660.4	8148.9	7695.9	7399.1	6941.5	6422.7
72.5°	4725.7	5882.9	7231.0	7643.8	7618.3	7026.4	6614.5	6199.8	5809.8	5393.3	5014.3
75°	3071.6	3826.9	4578.6	4819.7	4703.8	4361.2	4066.2	3824.2	3454.3	3164.8	3094.4
77.5°	1753.6	2142.7	2026.7	1996.6	1851.4	1494.2	993.7	696.9	629.3	785.5	861.3
80°	1668.7	1512.5	1238.5	1117.0	1026.6	699.6	367.2	258.5	226.5	232.0	249.3
82.5°	1881.5	1961.0	1603.8	1339.9	1166.3	851.2	464.9	216.5	158.0	187.2	210.1
85°	1410.2	1985.6	1968.3	1667.8	1368.2	980.9	549.8	165.3	95.0	131.5	171.7
87.5°	285.9	470.4	453.0	398.2	338.9	236.6	92.2	52.1	47.5	64.8	98.6
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: P159549

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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0	1507.0
2.5°	1508.9	1508.9	1510.7	1513.4	1514.3	1514.3	1516.2	1514.3	1518.0	1518.9	1519.8
5°	1517.1	1519.8	1521.6	1526.2	1528.9	1530.8	1533.5	1531.7	1535.3	1536.3	1538.1
7.5°	1526.2	1530.8	1534.4	1536.3	1539.9	1539.9	1540.8	1539.0	1538.1	1535.3	1534.4
10°	1542.6	1545.4	1550.0	1548.1	1546.3	1539.9	1534.4	1526.2	1521.6	1513.4	1508.9
12.5°	1569.1	1571.0	1571.0	1562.7	1550.9	1536.3	1522.6	1508.9	1497.9	1488.8	1483.3
15°	1587.4	1591.1	1586.5	1574.6	1557.3	1537.2	1518.9	1500.6	1486.0	1474.1	1466.8
17.5°	1601.1	1600.2	1592.0	1575.5	1559.1	1541.7	1525.3	1506.1	1487.8	1470.5	1459.5
20°	1622.1	1613.0	1598.4	1581.0	1563.7	1549.0	1536.3	1518.0	1498.8	1475.1	1458.6
22.5°	1650.4	1634.0	1613.0	1594.7	1578.3	1564.6	1550.0	1534.4	1514.3	1487.8	1465.0
25°	1690.6	1662.3	1638.6	1620.3	1605.7	1590.1	1573.7	1553.6	1533.5	1506.1	1478.7
27.5°	1751.8	1709.8	1679.7	1663.2	1649.5	1628.5	1607.5	1583.7	1558.2	1529.9	1498.8
30°	1825.8	1775.6	1740.8	1726.2	1709.8	1686.0	1663.2	1630.3	1594.7	1560.9	1522.6
32.5°	1912.6	1861.4	1826.7	1815.7	1789.3	1761.9	1729.9	1686.0	1639.5	1589.2	1543.6
35°	2044.1	1979.2	1947.3	1921.7	1885.2	1852.3	1798.4	1740.8	1674.2	1607.5	1550.9
37.5°	2179.3	2113.5	2080.6	2045.0	1997.5	1937.2	1865.1	1782.9	1694.3	1612.1	1542.6
40°	2360.1	2288.9	2246.8	2192.0	2115.3	2021.2	1914.4	1802.0	1694.3	1592.0	1507.9
42.5°	2571.1	2505.3	2440.5	2350.1	2226.7	2089.7	1940.0	1795.6	1665.0	1547.2	1458.6
45°	2863.4	2751.0	2647.8	2502.6	2322.6	2129.9	1942.7	1765.5	1614.8	1484.2	1385.6
47.5°	3192.2	3046.9	2864.3	2636.8	2391.2	2145.5	1916.2	1708.9	1535.3	1393.8	1286.0
50°	3571.2	3348.3	3067.9	2743.7	2425.9	2124.5	1853.2	1613.9	1425.7	1263.2	1148.1
52.5°	4005.0	3665.3	3252.4	2819.5	2420.4	2060.5	1749.1	1488.8	1278.7	1106.1	992.8
55°	4486.4	4010.5	3428.7	2867.9	2371.1	1936.3	1585.6	1312.5	1096.0	926.1	826.6
57.5°	5334.9	4616.1	3764.8	2932.8	2267.8	1748.2	1378.2	1089.6	894.2	749.9	654.9
60°	6911.3	5674.6	4401.4	3085.3	2112.6	1512.5	1117.0	854.9	691.4	586.4	516.0
62.5°	7886.8	6419.9	4712.0	3063.4	1860.5	1190.1	829.3	633.9	505.1	435.7	391.8
65°	7655.7	6127.7	4332.9	2631.4	1447.7	843.9	548.9	414.7	347.1	311.5	290.4
66°	7341.5	5800.7	4012.3	2356.4	1261.3	705.1	453.0	348.0	298.7	272.2	261.2
67.5°	6683.0	5203.4	3460.7	1887.0	945.3	525.2	334.3	273.1	243.0	229.3	221.9
70°	5593.4	4192.3	2447.8	1114.3	512.4	285.0	213.7	190.0	182.7	178.1	175.4
72.5°	4324.7	3035.1	1430.3	548.0	258.5	184.5	162.6	152.5	149.8	149.8	150.7
75°	2724.5	1744.5	640.3	264.0	175.4	148.9	138.8	134.3	135.2	136.1	135.2
77.5°	905.1	601.9	266.7	187.2	152.5	135.2	127.0	125.1	127.0	127.9	127.9
80°	260.3	227.4	192.7	165.3	139.7	126.0	118.7	117.8	122.4	123.3	121.5
82.5°	200.0	187.2	174.4	159.8	134.3	118.7	116.0	116.9	119.6	117.8	109.6
85°	183.6	181.8	130.6	129.7	116.9	113.3	110.5	111.4	108.7	98.6	89.5
87.5°	103.2	95.9	74.0	74.9	86.8	89.5	74.0	78.5	73.1	63.9	58.5
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: P159549

CATALOG NUMBER: VST-E05-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1507.0	1507.0	1507.0	1507.0	1507.0
2.5°	1521.6	1520.7	1520.7	1523.5	1519.8
5°	1539.0	1538.1	1538.1	1540.8	1538.1
7.5°	1530.8	1528.0	1526.2	1525.3	1525.3
10°	1503.4	1500.6	1495.2	1493.3	1491.5
12.5°	1475.1	1472.3	1465.9	1465.9	1464.1
15°	1457.7	1454.1	1449.5	1446.7	1444.9
17.5°	1448.6	1443.1	1437.6	1434.9	1433.0
20°	1444.9	1437.6	1431.2	1426.7	1426.7
22.5°	1445.8	1436.7	1429.4	1423.9	1422.1
25°	1455.0	1441.3	1432.1	1426.7	1424.8
27.5°	1467.8	1451.3	1439.4	1432.1	1429.4
30°	1485.1	1462.3	1445.8	1436.7	1433.0
32.5°	1497.0	1465.0	1444.0	1431.2	1426.7
35°	1496.1	1455.0	1429.4	1413.0	1407.5
37.5°	1479.6	1431.2	1397.4	1377.3	1368.2
40°	1443.1	1387.4	1351.8	1332.6	1321.6
42.5°	1390.1	1329.8	1297.9	1276.9	1265.0
45°	1307.0	1247.6	1208.4	1191.9	1176.4
47.5°	1191.9	1131.6	1097.8	1074.1	1064.1
50°	1056.7	996.5	960.8	941.7	932.5
52.5°	908.8	851.2	825.7	807.4	794.6
55°	755.3	702.4	691.4	671.3	659.4
57.5°	611.0	580.0	569.9	549.8	539.8
60°	477.7	467.6	456.7	443.9	438.4
62.5°	369.9	360.8	358.0	349.8	348.9
65°	282.2	283.1	281.3	279.5	277.7
66°	256.7	255.7	256.7	254.8	253.9
67.5°	218.3	221.9	224.7	223.8	223.8
70°	177.2	179.9	183.6	182.7	182.7
72.5°	151.6	156.2	158.0	157.1	157.1
75°	137.0	141.6	141.6	139.7	138.8
77.5°	127.9	129.7	127.9	126.0	124.2
80°	118.7	116.9	114.2	111.4	109.6
82.5°	103.2	98.6	95.9	91.3	91.3
85°	83.1	79.5	73.1	68.5	63.9
87.5°	53.9	52.1	47.5	35.6	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)