

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: P159774

Luminaire Tested: **VST-F05-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159774
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-F05-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11220.8 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 133.3
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

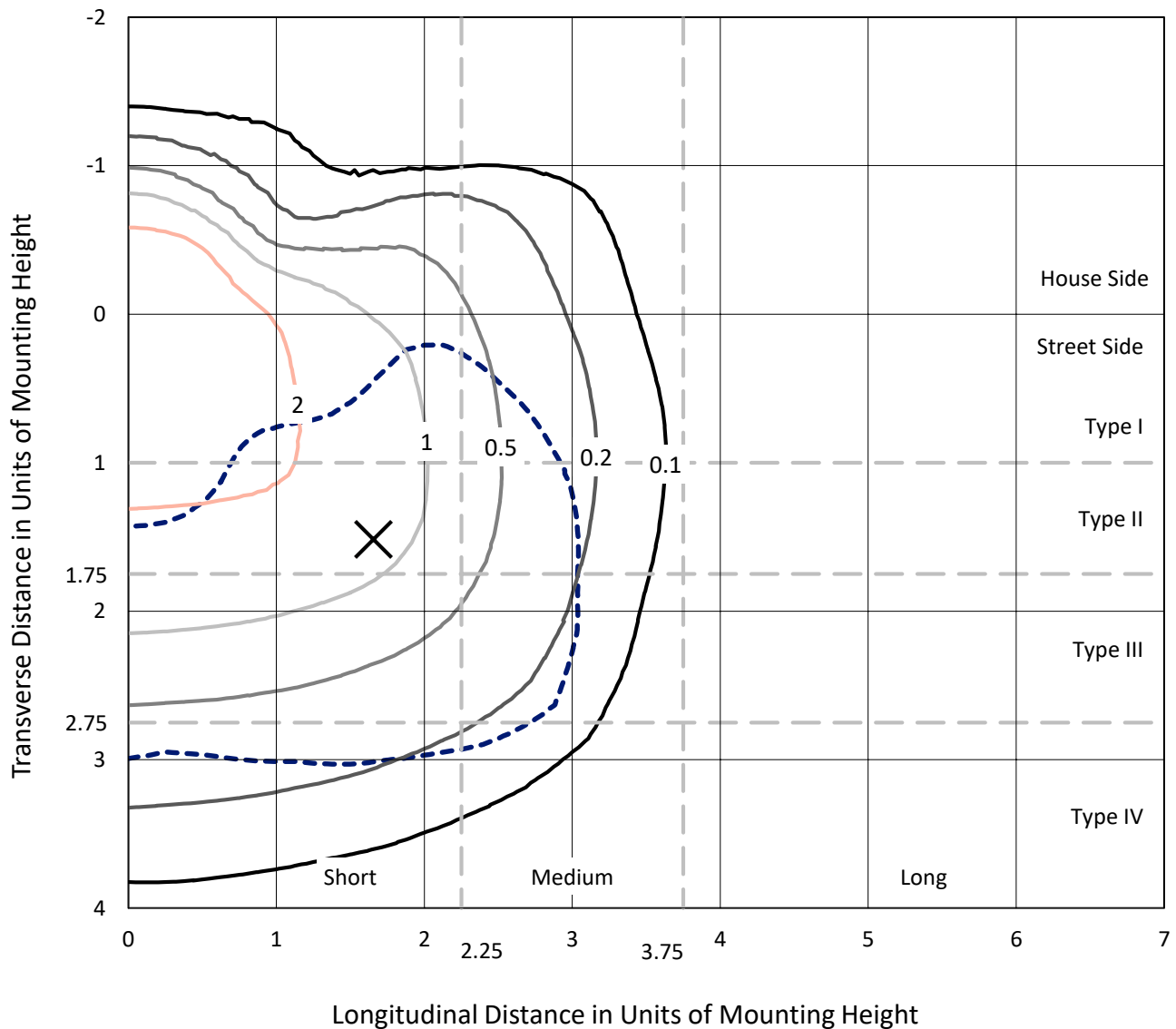


REPORT NUMBER: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

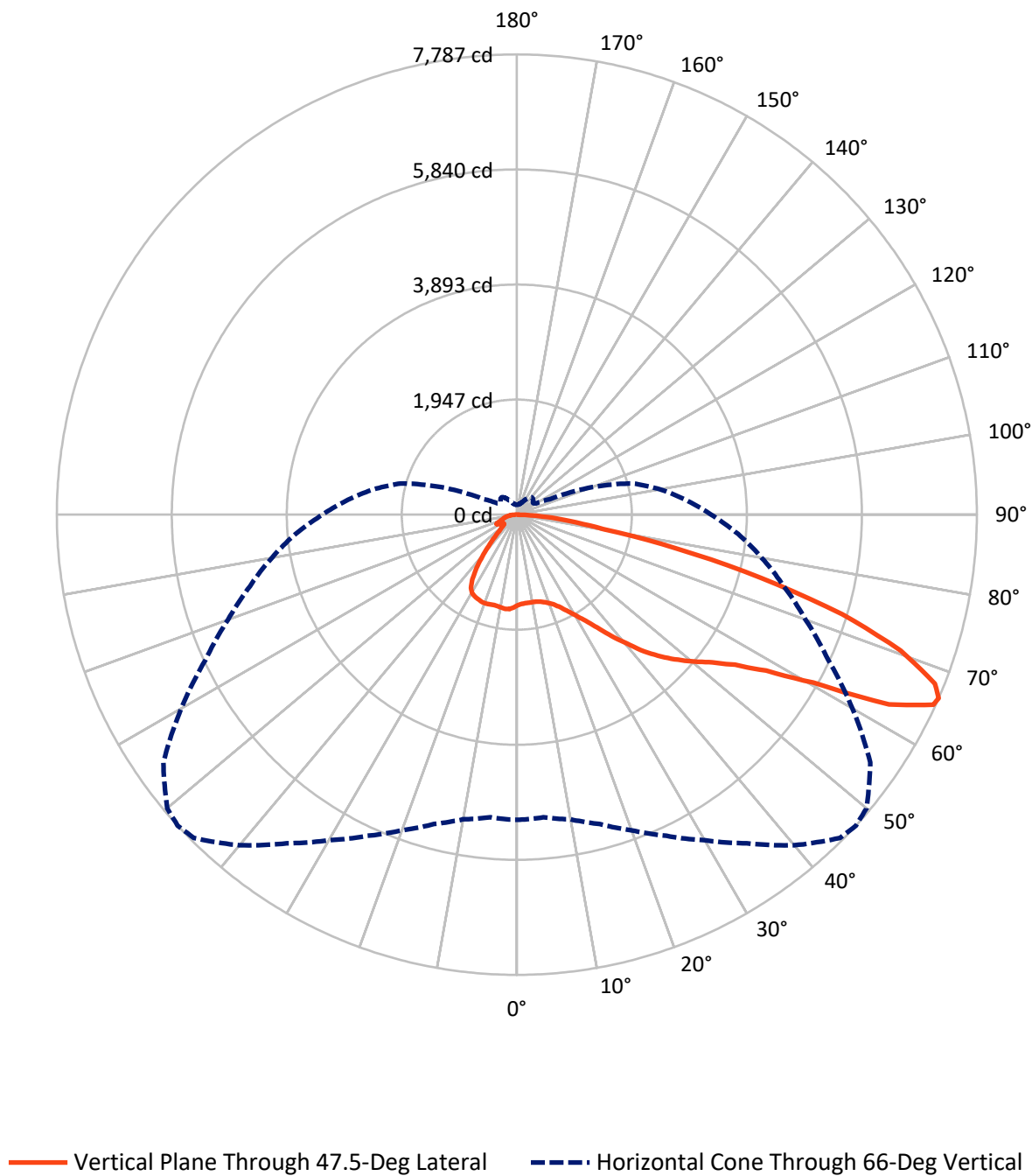


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2323.2	0.0	2323.2
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	8897.6	0.0	8897.6
	% Fixture	79.3	0.0	79.3
Total	Lumens	11220.8	0.0	11220.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.0	1.3
10°-20°	443.7	4.0
20°-30°	757.1	6.7
30°-40°	1142.7	10.2
40°-50°	1485.2	13.2
50°-60°	2037.6	18.2
60°-70°	3134.4	27.9
70°-80°	1811.9	16.1
80°-90°	260.3	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°	11220.8	100.0
0°-180°	11220.8	100.0

Coefficient of Utilization



REPORT NUMBER: P159774

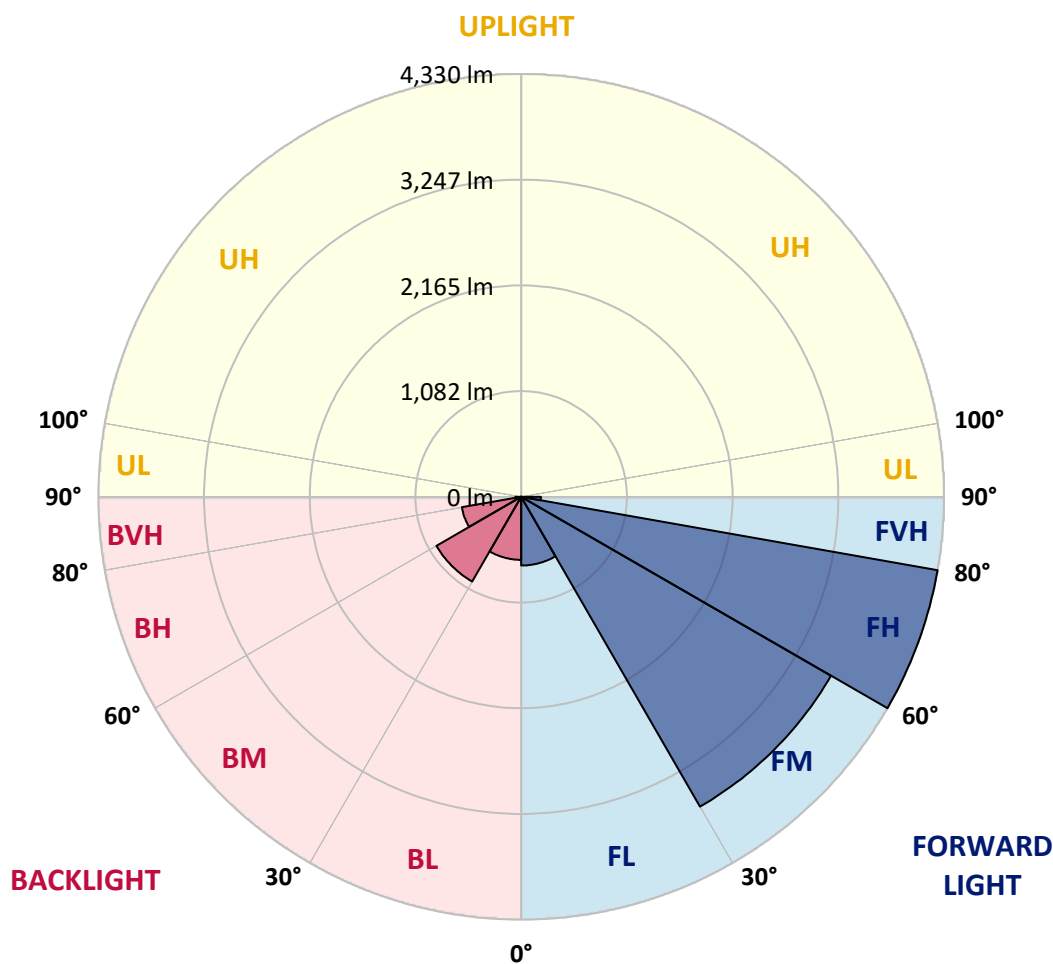
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	703.3	6.3			
FM	(30°-60°)	3663.1	32.6			
FH	(60°-80°)	4329.7	38.6			G2/5000
FVH	(80°-90°)	201.4	1.8			G2/225
BL	(0°-30°)	645.4	5.8	B2/1000		
BM	(30°-60°)	1002.3	8.9	B2/2500		
BH	(60°-80°)	616.6	5.5	B2/1000		G2/1000
BVH	(80°-90°)	58.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





REPORT NUMBER: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1
2.5°	1495.9	1496.7	1497.4	1497.4	1499.7	1499.7	1503.5	1505.7	1506.5	1511.0	1514.0
5°	1468.0	1467.3	1468.0	1469.5	1473.3	1476.3	1483.9	1489.1	1493.7	1501.2	1505.0
7.5°	1456.0	1457.5	1459.0	1459.7	1462.7	1470.3	1477.1	1482.4	1491.4	1500.4	1504.2
10°	1471.8	1474.1	1471.8	1473.3	1473.3	1480.1	1483.1	1486.9	1493.7	1502.0	1504.2
12.5°	1508.7	1513.3	1508.7	1505.0	1502.0	1508.0	1506.5	1503.5	1507.2	1509.5	1509.5
15°	1569.8	1569.8	1566.8	1561.5	1554.0	1554.7	1547.9	1541.2	1538.1	1532.9	1529.1
17.5°	1629.4	1627.9	1621.1	1614.3	1609.0	1606.8	1597.0	1587.9	1577.4	1569.1	1560.0
20°	1687.4	1693.5	1685.2	1675.4	1667.1	1661.8	1654.3	1636.2	1623.3	1609.8	1600.7
22.5°	1787.7	1782.4	1773.4	1759.1	1750.8	1741.7	1725.9	1706.3	1686.7	1670.1	1658.8
25°	1891.0	1885.7	1872.9	1862.4	1850.3	1842.8	1825.4	1801.3	1782.4	1756.8	1741.7
27.5°	2001.9	1997.3	1982.2	1974.0	1965.7	1956.6	1941.5	1916.7	1899.3	1869.9	1854.1
30°	2127.0	2126.3	2105.9	2104.4	2092.3	2082.5	2072.0	2050.9	2033.5	2004.1	1985.3
32.5°	2260.5	2257.5	2243.1	2238.6	2246.9	2240.1	2225.0	2203.2	2180.5	2163.2	2142.1
35°	2450.5	2445.2	2436.9	2440.7	2446.0	2464.8	2441.4	2422.6	2395.4	2372.8	2343.4
37.5°	2589.2	2581.7	2591.5	2612.6	2642.7	2657.1	2677.4	2678.2	2665.4	2635.2	2609.6
40°	2716.6	2713.6	2736.2	2765.6	2821.4	2862.2	2900.6	2919.5	2924.0	2904.4	2865.9
42.5°	2824.5	2833.5	2863.7	2908.9	2987.3	3049.1	3120.8	3165.3	3193.2	3182.6	3165.3
45°	2952.6	2957.2	2994.1	3051.4	3126.1	3228.6	3322.8	3398.2	3447.3	3446.5	3426.9
47.5°	3113.2	3114.0	3145.7	3212.8	3292.7	3396.7	3515.9	3616.2	3681.0	3684.0	3668.9
50°	3304.0	3302.5	3337.2	3400.5	3485.7	3586.0	3712.7	3837.8	3928.3	3928.3	3906.4
52.5°	3549.8	3546.8	3565.6	3621.4	3703.6	3809.2	3935.1	4079.9	4177.9	4199.0	4151.5
55°	3877.8	3882.3	3886.8	3935.8	4006.0	4089.7	4234.4	4367.9	4499.1	4511.1	4483.2
57.5°	4257.0	4242.0	4274.4	4354.3	4434.2	4539.0	4641.6	4799.2	4954.5	4980.9	4977.1
60°	4849.7	4830.1	4863.3	4965.0	5053.3	5218.4	5394.1	5597.6	5781.6	5835.9	5770.3
62.5°	5394.8	5419.0	5464.2	5582.6	5710.7	5930.9	6194.8	6543.9	6893.0	7083.0	7069.4
65°	5345.8	5323.2	5409.9	5571.3	5803.5	6084.0	6412.0	6832.7	7335.6	7717.1	7751.1
66°	5164.1	5140.7	5234.2	5419.0	5684.4	5996.5	6360.7	6789.0	7303.2	7734.5	7786.5
67.5°	4864.0	4840.6	4946.2	5114.3	5388.0	5780.9	6174.5	6642.7	7177.3	7590.5	7632.7
70°	4284.9	4253.3	4335.5	4525.5	4747.1	5127.2	5501.9	5998.0	6546.9	6877.2	6893.0
72.5°	3629.7	3555.8	3643.3	3789.6	3947.9	4262.3	4588.8	4928.1	5365.4	5670.8	5758.2
75°	2633.7	2672.2	2697.8	2794.3	2899.1	3159.2	3350.7	3635.0	3973.5	4194.5	4264.6
77.5°	1397.1	1455.2	1491.4	1587.9	1761.3	1959.6	2167.0	2342.7	2565.1	2688.7	2774.7
80°	784.2	824.9	883.7	959.8	1044.3	1196.6	1319.5	1410.0	1441.6	1463.5	1483.1
82.5°	431.3	534.6	622.0	674.8	724.6	785.7	858.8	934.2	958.3	922.1	903.3
85°	67.1	98.8	300.8	367.2	399.6	446.4	499.1	554.9	555.7	478.0	521.8
87.5°	18.8	21.1	43.0	64.8	63.3	51.3	63.3	115.4	67.9	33.9	39.2
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: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1
2.5°	1515.5	1517.0	1520.8	1524.6	1528.3	1532.1	1534.4	1538.1	1541.2	1545.7	1551.0
5°	1509.5	1513.3	1520.1	1528.3	1535.9	1542.7	1547.9	1555.5	1562.3	1568.3	1577.4
7.5°	1509.5	1517.0	1528.3	1537.4	1544.2	1552.5	1560.8	1568.3	1575.8	1581.9	1587.9
10°	1510.2	1517.8	1529.1	1539.7	1547.2	1556.2	1563.0	1569.8	1578.1	1581.9	1589.4
12.5°	1513.3	1516.3	1524.6	1535.1	1544.2	1553.2	1560.0	1566.8	1575.8	1577.4	1582.6
15°	1528.3	1523.8	1526.1	1533.6	1543.4	1551.0	1558.5	1563.8	1569.8	1568.3	1572.8
17.5°	1556.2	1544.9	1540.4	1541.2	1545.7	1551.0	1554.0	1554.7	1555.5	1548.7	1549.5
20°	1593.9	1578.1	1567.6	1562.3	1556.2	1551.0	1542.7	1532.9	1523.8	1510.2	1508.7
22.5°	1650.5	1627.1	1615.8	1601.5	1583.4	1560.8	1540.4	1516.3	1496.7	1476.3	1468.8
25°	1732.7	1708.5	1696.5	1673.9	1641.4	1609.0	1579.6	1547.2	1518.5	1494.4	1483.1
27.5°	1842.8	1818.6	1805.8	1782.4	1742.5	1710.1	1669.3	1634.7	1600.0	1564.5	1550.2
30°	1976.2	1955.1	1940.8	1921.9	1887.2	1851.8	1804.3	1750.8	1695.7	1639.2	1611.3
32.5°	2133.8	2110.4	2099.9	2078.0	2041.8	2004.9	1952.1	1883.5	1791.5	1702.5	1646.7
35°	2330.6	2304.2	2292.1	2263.5	2221.3	2167.0	2110.4	2018.4	1894.0	1770.4	1679.1
37.5°	2593.7	2534.9	2495.0	2429.4	2361.5	2285.4	2204.7	2110.4	1963.4	1810.3	1683.7
40°	2826.7	2767.2	2690.2	2596.0	2490.4	2385.6	2293.6	2186.6	2026.7	1839.0	1669.3
42.5°	3116.3	3010.7	2887.8	2760.4	2620.1	2491.2	2381.9	2255.9	2069.7	1846.5	1629.4
45°	3380.9	3255.0	3090.6	2921.0	2746.8	2584.7	2461.8	2321.5	2106.7	1846.5	1581.1
47.5°	3622.2	3471.4	3274.6	3063.5	2860.7	2683.5	2544.0	2388.7	2158.7	1869.9	1566.8
50°	3845.4	3671.9	3448.0	3203.0	2975.3	2786.0	2636.0	2474.6	2237.9	1930.2	1601.5
52.5°	4080.6	3896.6	3623.7	3363.6	3112.5	2909.7	2749.8	2580.9	2340.4	2025.2	1662.6
55°	4389.0	4173.4	3863.5	3576.9	3301.0	3077.0	2895.3	2708.3	2452.7	2132.3	1737.2
57.5°	4875.3	4562.4	4252.5	3880.1	3619.9	3325.1	3126.1	2911.2	2635.2	2271.8	1849.5
60°	5726.6	5342.0	4969.6	4541.3	4220.1	3911.7	3610.9	3330.4	2997.9	2587.0	2096.1
62.5°	6942.0	6551.4	5966.4	5442.3	4957.5	4548.8	4156.8	3800.1	3373.4	2924.0	2400.0
65°	7668.1	7221.0	6523.6	5819.3	5230.5	4723.8	4275.1	3838.6	3377.9	2939.8	2491.9
66°	7726.2	7303.2	6558.2	5814.0	5202.6	4677.0	4210.3	3758.7	3286.7	2867.4	2461.8
67.5°	7618.4	7254.2	6487.4	5711.5	5086.4	4518.7	4039.1	3565.6	3091.4	2703.1	2361.5
70°	6857.6	6594.4	5936.9	5210.1	4586.5	4085.9	3580.0	3124.5	2675.2	2348.7	2095.3
72.5°	5621.8	5288.5	4828.6	4340.0	3849.1	3405.0	2945.1	2557.5	2180.5	1943.0	1763.6
75°	4129.6	3829.5	3322.8	3018.2	2694.0	2415.0	2105.1	1738.0	1470.3	1351.2	1307.4
77.5°	2617.9	2292.1	1864.6	1528.3	1314.2	1129.5	890.5	708.0	567.0	590.4	653.7
80°	1322.5	1139.3	852.8	673.3	582.1	484.1	383.0	290.3	211.9	242.0	273.7
82.5°	849.0	708.8	564.7	444.9	375.5	331.0	264.7	192.3	143.3	161.4	197.5
85°	511.2	432.0	344.6	282.0	245.0	204.3	150.0	106.3	105.6	113.1	139.5
87.5°	77.7	110.8	64.1	68.6	72.4	77.7	68.6	58.1	50.5	65.6	82.9
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: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1	1535.1
2.5°	1556.2	1557.8	1560.8	1564.5	1563.8	1569.1	1572.1	1569.1	1575.8	1575.8	1579.6
5°	1584.9	1587.2	1592.4	1596.2	1597.7	1602.2	1603.7	1603.0	1604.5	1605.3	1606.8
7.5°	1593.2	1599.2	1601.5	1603.7	1604.5	1606.0	1606.0	1604.5	1604.5	1603.7	1605.3
10°	1590.9	1593.2	1594.7	1593.9	1593.9	1592.4	1591.7	1590.9	1590.9	1589.4	1591.7
12.5°	1583.4	1583.4	1583.4	1581.9	1581.9	1581.1	1581.1	1581.1	1582.6	1583.4	1587.2
15°	1568.3	1568.3	1569.8	1569.1	1571.3	1575.1	1579.6	1582.6	1586.4	1587.2	1589.4
17.5°	1544.9	1545.7	1550.2	1560.0	1569.8	1581.1	1589.4	1591.7	1588.7	1581.1	1575.8
20°	1504.2	1514.0	1532.1	1555.5	1577.4	1591.7	1595.5	1586.4	1572.1	1552.5	1541.9
22.5°	1468.0	1487.6	1520.1	1558.5	1585.6	1595.5	1584.1	1563.0	1537.4	1514.8	1498.9
25°	1482.4	1505.0	1538.9	1572.1	1589.4	1584.1	1561.5	1531.4	1504.2	1477.8	1452.2
27.5°	1542.7	1565.3	1589.4	1599.2	1593.2	1573.6	1541.9	1509.5	1473.3	1435.6	1403.9
30°	1600.0	1612.8	1614.3	1604.5	1582.6	1551.0	1514.0	1476.3	1430.3	1385.1	1345.1
32.5°	1618.1	1603.0	1575.8	1547.9	1517.8	1485.4	1442.4	1392.6	1343.6	1292.3	1247.9
35°	1612.8	1551.7	1484.6	1425.0	1388.9	1351.9	1312.7	1246.4	1191.3	1147.6	1118.9
37.5°	1565.3	1453.7	1350.4	1263.7	1207.1	1163.4	1105.4	1050.3	1002.8	983.2	959.8
40°	1498.9	1328.5	1185.3	1063.9	1005.1	949.3	884.4	842.2	828.6	810.5	811.3
42.5°	1403.9	1182.3	997.5	858.0	794.0	732.9	686.9	662.0	662.8	647.7	650.7
45°	1303.7	1035.2	803.0	664.3	600.9	548.9	523.3	515.7	516.5	517.2	512.7
47.5°	1242.6	920.6	643.9	503.7	447.9	418.5	404.9	401.1	401.9	402.6	397.4
50°	1233.5	861.1	537.6	385.3	349.1	332.5	325.7	322.0	322.0	318.9	314.4
52.5°	1259.2	846.0	485.6	334.0	299.3	284.3	279.0	276.0	271.4	265.4	257.1
55°	1299.9	859.6	469.7	316.7	282.7	267.7	260.9	259.4	251.8	240.5	227.0
57.5°	1375.3	908.6	480.3	321.2	285.8	272.2	267.7	266.2	255.6	238.3	220.9
60°	1591.7	1051.1	533.1	346.8	307.6	296.3	296.3	294.1	279.7	254.8	230.0
62.5°	1890.3	1259.9	604.7	382.3	337.8	336.3	349.1	349.9	324.2	284.3	245.0
65°	2034.3	1357.9	629.6	389.8	346.1	363.4	389.1	389.1	352.9	297.8	247.3
66°	2035.0	1355.7	622.0	380.8	337.0	359.7	386.0	386.0	348.3	294.1	243.5
67.5°	1983.0	1313.5	597.2	364.2	316.7	337.8	361.2	360.4	326.5	279.0	233.0
70°	1778.7	1161.9	526.3	337.0	292.5	293.3	301.6	296.3	273.7	241.3	211.9
72.5°	1533.6	971.9	456.2	319.7	273.7	259.4	252.6	248.1	233.7	214.1	196.0
75°	1176.2	754.7	397.4	303.9	257.1	232.2	223.2	219.4	209.6	198.3	184.0
77.5°	720.8	517.2	337.0	278.2	238.3	215.6	205.8	198.3	188.5	177.9	168.1
80°	310.6	312.2	269.9	236.0	207.3	181.0	168.1	159.1	153.8	150.0	144.8
82.5°	217.2	223.9	205.8	183.2	158.3	139.5	128.2	125.9	126.7	126.7	125.2
85°	162.9	159.8	144.0	131.2	119.9	107.8	98.8	98.0	101.0	101.0	98.8
87.5°	94.2	95.0	81.4	76.2	79.2	67.9	61.8	62.6	70.1	69.4	67.9
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: P159774

CATALOG NUMBER: VST-F05-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1535.1	1535.1	1535.1	1535.1	1535.1
2.5°	1579.6	1581.9	1581.1	1583.4	1581.1
5°	1609.0	1608.3	1607.5	1610.5	1606.8
7.5°	1604.5	1605.3	1605.3	1605.3	1604.5
10°	1593.2	1596.2	1597.7	1600.7	1600.0
12.5°	1589.4	1593.9	1598.5	1603.0	1603.7
15°	1590.2	1593.2	1595.5	1597.7	1598.5
17.5°	1570.6	1569.8	1567.6	1566.0	1564.5
20°	1530.6	1526.8	1523.1	1517.0	1520.1
22.5°	1480.8	1470.3	1458.2	1448.4	1447.7
25°	1422.8	1403.2	1383.6	1370.8	1366.2
27.5°	1371.5	1348.1	1327.8	1316.5	1313.5
30°	1310.4	1289.3	1271.2	1261.4	1255.4
32.5°	1220.0	1203.4	1180.8	1173.2	1172.5
35°	1094.0	1081.2	1065.4	1062.4	1058.6
37.5°	951.5	947.0	939.5	930.4	928.9
40°	799.2	802.2	800.0	794.7	786.4
42.5°	652.2	657.5	658.2	662.0	665.8
45°	519.5	524.0	524.0	527.8	532.3
47.5°	398.9	395.8	398.1	401.9	404.1
50°	301.6	299.3	295.6	292.5	289.5
52.5°	242.8	238.3	227.7	224.7	221.7
55°	214.1	205.8	198.3	195.3	195.3
57.5°	205.8	195.3	187.0	183.2	181.7
60°	207.3	192.3	181.7	175.7	173.4
62.5°	214.1	193.0	178.7	171.9	169.6
65°	213.4	191.5	177.9	170.4	168.1
66°	209.6	189.3	176.4	169.6	168.1
67.5°	203.6	186.2	174.9	168.9	166.6
70°	191.5	180.2	171.9	166.6	164.4
72.5°	181.7	174.2	166.6	160.6	159.1
75°	172.7	165.1	158.3	155.3	153.1
77.5°	159.1	152.3	148.5	145.5	144.0
80°	141.0	136.5	131.9	128.9	126.7
82.5°	122.9	116.9	112.3	110.1	108.6
85°	100.3	96.5	89.7	85.2	84.4
87.5°	67.1	63.3	61.1	57.3	53.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)