

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: P157998

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P157998
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
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-RW-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10517.5 lumens
Efficiency: N/A
Efficacy: 108.2 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full 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

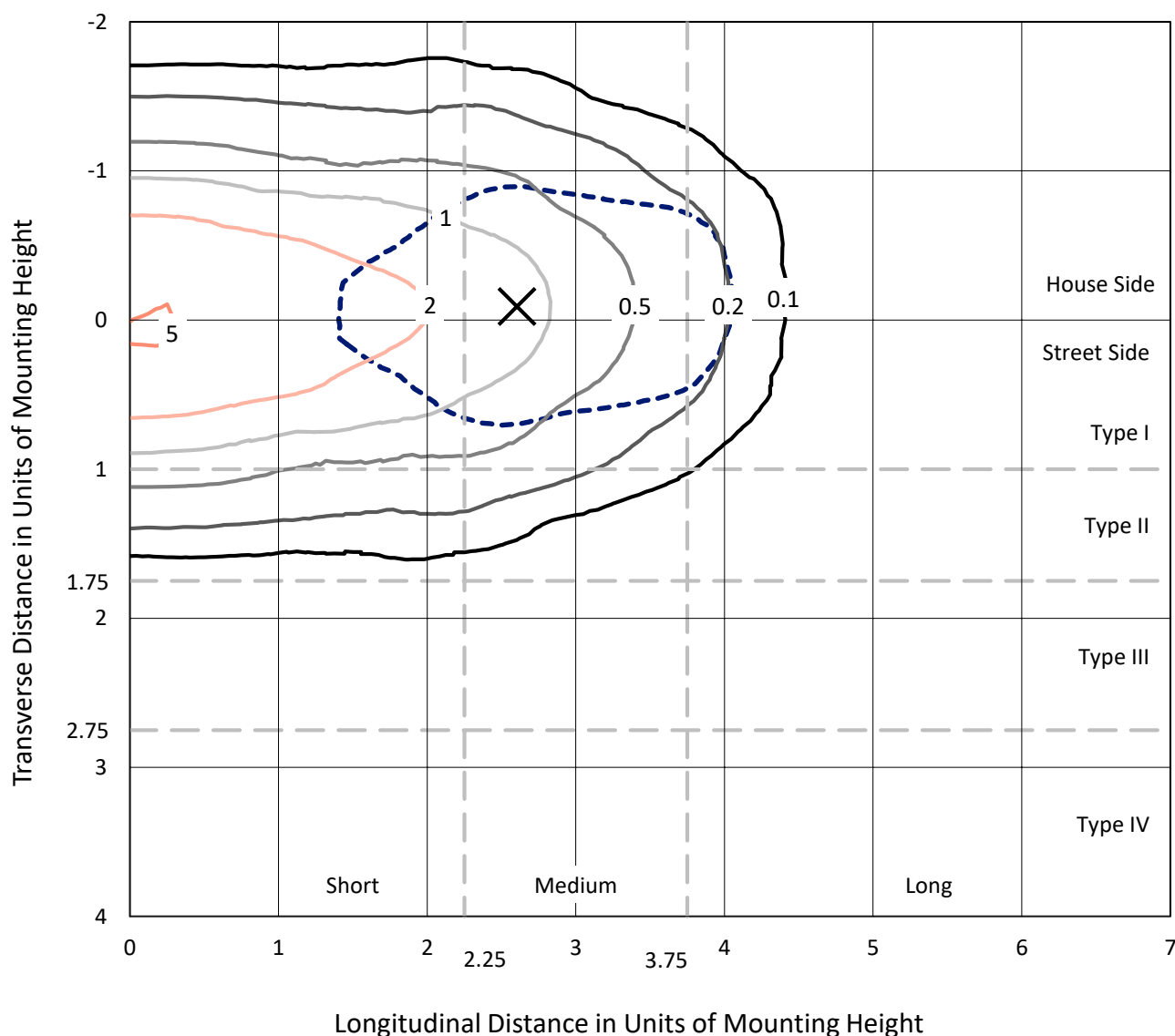


REPORT NUMBER: P157998

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

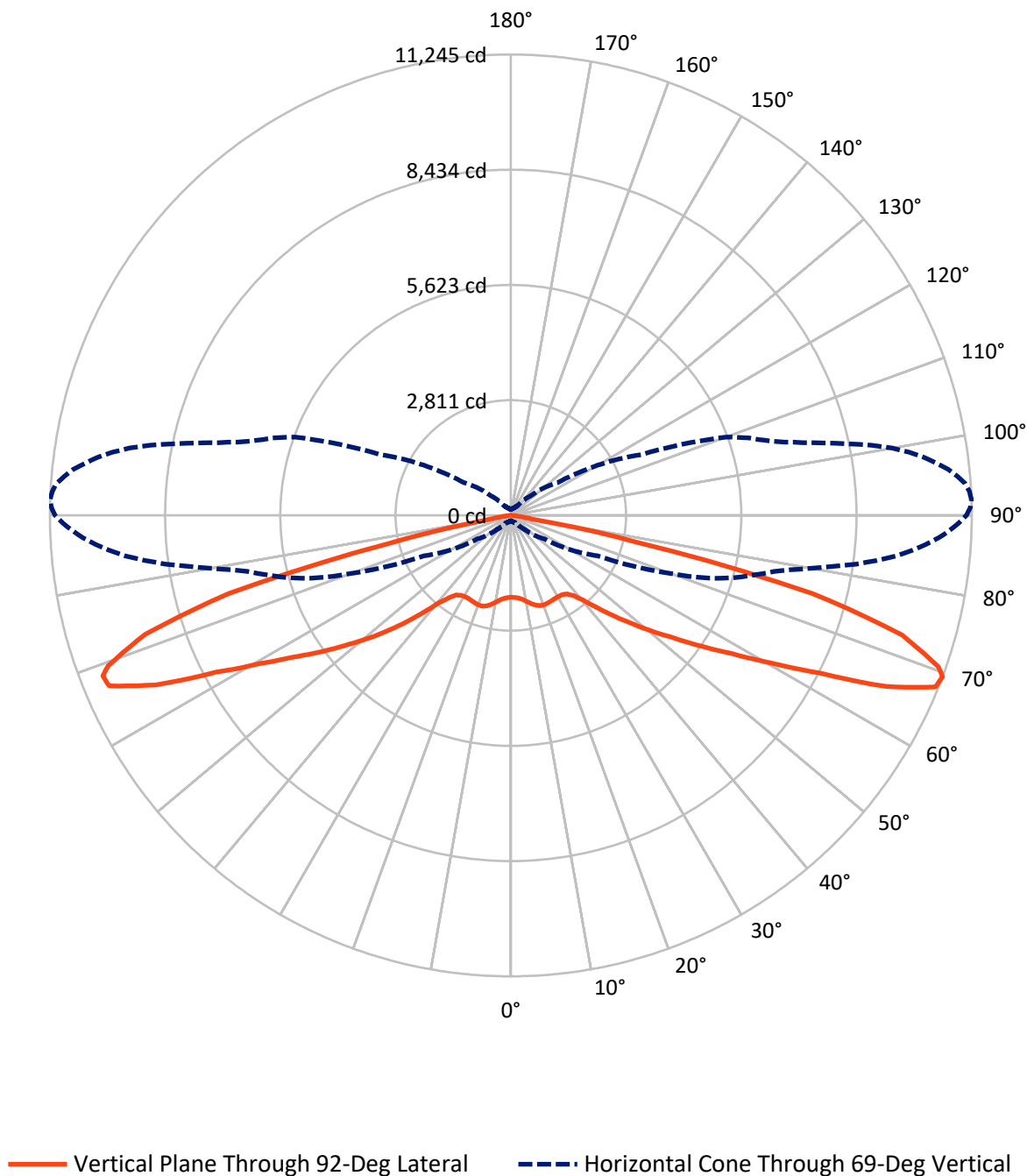


Based on 20 foot mounting height. Maximum calculated value = 5.1 fc
 Type I - Medium - Full Cutoff

REPORT NUMBER: P157998

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

Luminous Intensity Polar Plot



REPORT NUMBER: P157998

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

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5578.0	0.0	5578.0
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	4939.5	0.0	4939.5
	% Fixture	47.0	0.0	47.0
Total	Lumens	10517.5	0.0	10517.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.5	1.9
10°-20°	617.6	5.9
20°-30°	1002.0	9.5
30°-40°	1248.7	11.9
40°-50°	1554.8	14.8
50°-60°	1917.4	18.2
60°-70°	2381.3	22.6
70°-80°	1463.2	13.9
80°-90°	137.1	1.3
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°	10517.5	100.0
0°-180°	10517.5	100.0

Coefficient of Utilization



REPORT NUMBER: P157998

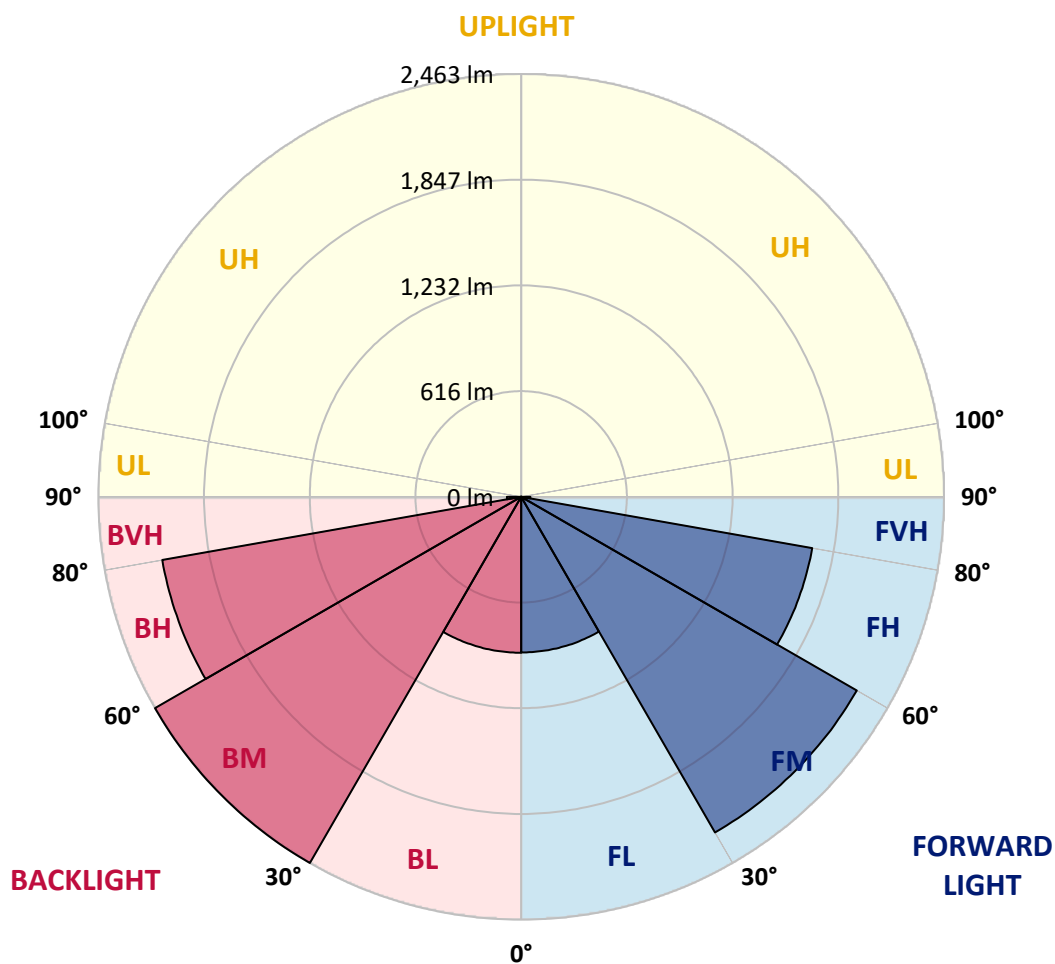
CATALOG NUMBER: VST-E04-LED-E-U-RW-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	906.6	8.6			
FM	(30°-60°)	2257.7	21.5			
FH	(60°-80°)	1721.6	16.4			G1/1800
FVH	(80°-90°)	53.7	0.5			G1/100
BL	(0°-30°)	908.5	8.6	B2/1000		
BM	(30°-60°)	2463.2	23.4	B2/2500		
BH	(60°-80°)	2122.9	20.2	B3/2500		G3/2500
BVH	(80°-90°)	83.4	0.8			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 I Medium





REPORT NUMBER: P157998

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

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	2029.6	2024.2	2029.0	2029.6	2029.0	2029.0	2022.9	2021.5	2013.4	2015.5	2014.8
5°	2057.3	2055.3	2058.7	2060.0	2061.4	2058.7	2053.9	2051.9	2046.5	2044.5	2043.8
7.5°	2083.0	2079.6	2085.0	2089.7	2093.1	2093.8	2094.4	2091.1	2091.1	2088.4	2088.4
10°	2104.6	2101.9	2110.7	2116.7	2127.5	2133.6	2140.4	2145.1	2147.8	2148.5	2147.8
12.5°	2114.0	2112.0	2126.2	2144.4	2164.7	2178.8	2195.7	2207.9	2211.3	2210.6	2214.0
15°	2097.8	2099.2	2120.8	2156.6	2199.8	2235.6	2259.2	2269.3	2272.0	2273.4	2274.0
17.5°	2053.9	2056.6	2087.7	2145.8	2221.4	2286.2	2321.3	2321.3	2315.9	2315.9	2315.2
20°	1983.7	1986.4	2026.9	2110.7	2222.1	2321.3	2371.3	2361.1	2340.9	2336.8	2332.8
22.5°	1886.5	1897.3	1941.9	2039.1	2193.0	2331.4	2402.3	2387.5	2355.7	2347.0	2340.9
25°	1776.4	1775.1	1828.4	1937.8	2122.8	2307.1	2411.1	2408.4	2374.7	2365.2	2354.4
27.5°	1650.8	1654.9	1704.2	1814.9	2015.5	2236.9	2396.3	2432.0	2404.4	2394.9	2384.8
30°	1521.9	1525.9	1572.5	1701.5	1893.2	2136.3	2365.9	2455.0	2444.2	2436.8	2430.0
32.5°	1392.2	1393.6	1449.0	1587.4	1789.9	2016.1	2320.0	2475.9	2490.8	2487.4	2484.7
35°	1270.7	1272.1	1332.2	1472.6	1688.0	1913.5	2264.6	2506.3	2554.3	2558.3	2561.0
37.5°	1152.6	1154.6	1216.0	1363.2	1587.4	1835.8	2203.2	2552.9	2643.4	2658.2	2660.9
40°	1035.1	1037.1	1095.8	1251.8	1485.4	1767.7	2155.9	2618.4	2763.6	2783.8	2804.8
42.5°	923.0	930.4	980.4	1129.6	1372.0	1683.3	2135.6	2698.1	2906.0	2937.8	2961.4
45°	818.3	819.0	875.7	1015.5	1237.6	1569.1	2122.1	2788.5	3065.4	3113.3	3145.7
47.5°	706.3	714.4	773.8	909.5	1112.0	1428.0	2078.9	2894.6	3238.9	3294.9	3360.4
50°	597.5	609.0	666.4	800.8	997.3	1282.2	1962.8	3018.8	3434.0	3507.0	3582.6
52.5°	492.9	492.2	553.0	692.7	881.8	1158.6	1774.4	3149.1	3659.5	3737.9	3819.6
55°	372.7	372.7	432.8	560.4	756.9	1048.6	1572.5	3230.1	3868.9	3963.4	4052.5
57.5°	255.9	262.6	319.4	429.4	626.6	948.0	1417.9	3183.5	4028.9	4146.4	4252.4
60°	189.7	196.5	238.3	308.6	490.2	829.1	1301.8	2964.1	4125.4	4281.4	4419.1
62.5°	164.1	168.8	208.6	247.1	353.1	702.9	1199.1	2685.2	4264.5	4477.9	4669.6
65°	146.5	151.2	191.1	213.4	276.2	565.1	1141.8	2525.9	4430.6	4756.7	5034.9
67.5°	135.7	141.1	174.9	191.1	241.0	511.1	1097.2	2488.8	4429.3	4824.9	5180.1
69°	130.3	134.4	162.0	179.6	232.9	494.9	1000.6	2327.4	4136.9	4561.6	4918.1
70°	126.9	131.0	154.6	172.2	230.2	465.9	911.5	2114.0	3804.0	4231.4	4593.3
72.5°	116.1	120.2	137.7	153.9	191.8	311.3	635.4	1353.1	2718.3	3023.5	3437.4
75°	102.6	107.4	120.9	134.4	145.2	180.3	366.6	702.2	1554.3	1785.9	2154.5
77.5°	83.7	88.5	102.6	124.2	122.9	137.1	238.3	431.4	727.9	902.7	1039.1
80°	68.9	72.2	84.4	125.6	100.6	114.8	193.1	353.8	512.5	566.5	598.9
82.5°	45.9	50.6	65.5	98.6	77.0	81.7	144.5	330.8	433.5	475.3	514.5
85°	21.6	23.6	39.8	52.7	46.6	43.9	82.4	233.6	322.7	342.3	357.2
87.5°	0.0	0.0	2.0	4.1	6.1	6.1	14.9	49.3	90.5	109.4	108.0
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: P157998

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

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	2012.1	2012.7	2012.1	2012.1	2011.4	2010.0	2010.0	2008.7	2009.4	2008.7	2010.0
5°	2043.1	2043.1	2041.1	2039.8	2041.8	2039.8	2040.4	2037.1	2037.1	2035.0	2032.3
7.5°	2087.7	2087.7	2088.4	2084.3	2087.0	2087.7	2085.7	2084.3	2083.0	2079.6	2080.3
10°	2147.1	2147.1	2149.1	2143.7	2146.4	2147.8	2148.5	2148.5	2147.1	2141.0	2141.7
12.5°	2213.3	2211.9	2212.6	2209.9	2212.6	2214.0	2215.3	2214.0	2214.0	2212.6	2211.9
15°	2273.4	2272.7	2274.0	2272.0	2272.7	2274.0	2278.1	2277.4	2276.7	2272.7	2272.7
17.5°	2314.6	2312.5	2311.2	2310.5	2310.5	2309.8	2310.5	2310.5	2308.5	2307.8	2307.8
20°	2330.1	2324.7	2321.3	2319.3	2316.6	2315.2	2313.9	2314.6	2313.2	2311.2	2311.9
22.5°	2332.8	2325.4	2318.6	2312.5	2307.1	2303.8	2300.4	2299.0	2295.7	2293.6	2293.6
25°	2345.6	2334.1	2323.3	2313.2	2305.1	2297.7	2290.3	2284.9	2280.8	2276.1	2274.7
27.5°	2374.0	2361.8	2349.0	2336.2	2325.4	2310.5	2300.4	2289.6	2280.1	2272.7	2267.3
30°	2417.9	2405.7	2392.9	2378.0	2363.8	2348.3	2331.4	2318.6	2305.1	2290.3	2282.2
32.5°	2475.9	2467.8	2455.0	2440.8	2428.0	2411.8	2391.5	2372.0	2359.1	2341.6	2328.7
35°	2559.0	2549.5	2545.5	2539.4	2526.6	2516.4	2494.2	2475.9	2463.8	2439.5	2430.0
37.5°	2672.4	2671.7	2675.1	2673.1	2675.1	2662.3	2652.2	2651.5	2633.9	2610.3	2587.3
40°	2827.0	2835.1	2853.4	2866.2	2878.3	2879.7	2893.9	2879.0	2881.0	2877.7	2854.0
42.5°	3003.3	3030.9	3052.5	3090.4	3119.4	3146.4	3164.6	3189.6	3208.5	3225.4	3229.4
45°	3199.7	3240.9	3290.9	3324.6	3381.4	3426.6	3488.7	3536.7	3586.6	3635.9	3653.5
47.5°	3413.1	3464.4	3519.8	3582.6	3654.1	3725.0	3820.9	3894.5	3974.9	4041.7	4101.1
50°	3648.7	3702.1	3776.4	3848.6	3947.2	4028.9	4154.5	4251.0	4380.7	4469.8	4546.7
52.5°	3894.5	3961.4	4044.4	4124.1	4224.7	4329.3	4469.1	4611.6	4767.5	4902.6	5014.7
55°	4134.9	4217.3	4296.9	4390.1	4501.5	4623.0	4781.0	4968.7	5163.2	5317.8	5466.4
57.5°	4348.9	4444.1	4538.0	4632.5	4746.6	4887.7	5065.3	5267.9	5490.7	5696.6	5900.5
60°	4547.4	4661.5	4776.3	4894.5	5025.5	5199.7	5413.0	5662.2	5950.5	6232.0	6498.7
62.5°	4861.4	5011.3	5153.7	5306.3	5464.3	5668.9	5920.8	6247.6	6578.4	6930.2	7203.6
65°	5286.8	5497.4	5683.8	5881.6	6086.2	6359.6	6660.8	7051.7	7525.7	7886.3	8325.1
67.5°	5498.1	5775.6	6015.3	6235.4	6488.6	6764.8	7122.6	7585.1	8090.8	8613.4	9102.9
69°	5249.6	5535.9	5801.3	6047.7	6303.6	6571.7	6945.7	7420.4	7955.1	8520.3	8998.3
70°	4927.6	5213.8	5496.7	5777.6	6011.2	6272.5	6647.9	7137.5	7671.5	8259.0	8732.9
72.5°	3775.0	4119.4	4375.2	4638.6	4909.3	5130.8	5564.3	5976.8	6533.2	7129.4	7651.3
75°	2415.2	2731.8	3011.4	3235.5	3500.2	3765.5	4085.6	4544.0	4892.4	5382.0	5805.3
77.5°	1241.0	1334.9	1604.3	1684.6	1868.3	2012.7	2189.0	2303.8	2587.3	2647.4	2897.3
80°	588.1	530.0	499.0	470.6	478.7	475.3	461.2	442.3	465.9	455.8	451.7
82.5°	512.5	457.1	364.6	309.9	268.1	227.5	195.8	179.6	181.6	187.0	189.1
85°	359.2	337.6	263.3	199.9	156.0	120.9	97.2	93.2	95.9	103.3	100.6
87.5°	104.0	108.7	95.9	66.8	46.6	33.8	26.3	29.7	28.4	27.7	29.0
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: P157998

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

CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	2010.0	2009.4	2007.3	2005.3	2005.3	2004.0	2005.3	2006.0	2005.3	2005.3	2004.0
5°	2033.0	2033.7	2035.7	2031.7	2031.0	2031.7	2029.0	2028.3	2026.3	2028.3	2025.6
7.5°	2076.9	2078.9	2078.9	2076.2	2075.5	2077.6	2073.5	2072.2	2070.1	2069.5	2068.8
10°	2142.4	2144.4	2141.0	2139.0	2137.0	2139.7	2136.3	2136.3	2134.3	2132.3	2131.6
12.5°	2215.3	2214.0	2212.6	2214.0	2211.9	2211.9	2209.9	2208.6	2207.9	2207.2	2205.9
15°	2272.0	2276.7	2276.7	2278.1	2276.7	2276.7	2274.0	2274.7	2273.4	2272.7	2273.4
17.5°	2308.5	2309.8	2313.2	2315.2	2315.2	2315.9	2314.6	2315.9	2314.6	2314.6	2317.3
20°	2313.2	2314.6	2317.9	2321.3	2323.3	2324.7	2324.7	2326.7	2328.1	2329.4	2332.8
22.5°	2294.3	2296.3	2300.4	2306.5	2309.8	2311.2	2313.9	2317.3	2320.6	2323.3	2328.1
25°	2274.7	2275.4	2279.5	2285.5	2289.6	2293.0	2297.7	2301.7	2306.5	2311.9	2317.3
27.5°	2263.9	2263.2	2266.6	2272.7	2276.1	2280.8	2284.9	2290.9	2296.3	2303.1	2307.8
30°	2273.4	2268.0	2268.6	2271.3	2274.0	2277.4	2282.2	2287.6	2293.6	2299.7	2305.1
32.5°	2315.2	2303.1	2295.0	2293.0	2293.6	2294.3	2297.0	2300.4	2305.1	2309.8	2311.9
35°	2405.7	2384.8	2374.0	2365.2	2357.8	2351.7	2353.0	2352.4	2352.4	2356.4	2351.7
37.5°	2577.9	2551.6	2540.1	2524.5	2515.8	2493.5	2487.4	2486.1	2477.3	2477.3	2467.2
40°	2848.0	2832.4	2823.7	2809.5	2766.9	2772.3	2742.0	2742.6	2717.7	2720.4	2702.8
42.5°	3232.1	3234.2	3223.4	3213.9	3180.8	3166.0	3137.6	3097.1	3065.4	3064.7	3029.6
45°	3676.4	3700.7	3666.3	3678.5	3649.4	3609.6	3576.5	3524.5	3475.2	3459.7	3423.9
47.5°	4141.0	4180.8	4154.5	4159.2	4145.0	4088.3	4043.7	3979.6	3915.4	3872.2	3850.6
50°	4637.2	4663.6	4662.9	4650.1	4643.3	4587.9	4516.4	4467.8	4420.5	4362.4	4343.5
52.5°	5086.9	5148.3	5189.5	5180.1	5160.5	5127.4	5063.9	5022.1	4952.5	4944.4	4952.5
55°	5568.3	5648.0	5689.8	5740.5	5741.2	5735.1	5708.8	5693.2	5628.4	5635.8	5626.4
57.5°	6024.1	6140.9	6205.0	6313.1	6350.2	6399.5	6381.2	6401.5	6362.3	6388.0	6380.6
60°	6641.9	6803.9	6910.6	7058.5	7127.3	7250.9	7275.2	7290.1	7311.7	7364.3	7334.6
62.5°	7419.0	7656.7	7878.1	8079.4	8145.5	8331.2	8361.6	8477.7	8483.8	8519.6	8454.1
65°	8691.1	8980.7	9224.5	9465.5	9604.6	9822.0	9909.8	10135.3	10066.4	10095.5	9955.7
67.5°	9524.3	9861.2	10188.0	10416.2	10647.1	10869.3	11029.3	11175.1	11173.8	11145.4	11021.2
69°	9450.7	9826.1	10148.1	10454.0	10697.1	10925.3	11117.7	11212.3	11245.3	11204.1	11115.7
70°	9196.1	9581.7	9976.0	10227.8	10492.5	10743.0	10941.5	11044.8	11067.8	11038.7	10962.4
72.5°	8019.9	8389.9	8824.8	9053.7	9373.7	9554.7	9828.1	9961.8	9985.4	9948.3	9898.3
75°	6259.0	6325.9	6768.8	6914.6	7146.9	7355.5	7525.7	7482.5	7603.3	7579.7	7560.8
77.5°	2948.6	2770.3	3057.3	3191.0	3120.7	2933.7	3205.8	3009.3	3139.6	3309.1	3265.9
80°	486.1	484.8	497.6	526.0	492.2	522.6	521.9	507.1	508.4	544.9	526.0
82.5°	187.0	191.1	193.1	198.5	198.5	199.2	202.6	206.6	203.2	210.0	208.6
85°	101.3	108.0	102.0	97.2	100.6	102.6	105.3	108.7	105.3	115.5	110.1
87.5°	26.3	27.7	24.3	24.3	23.6	21.6	21.6	23.0	25.0	29.7	32.4
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: P157998

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

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	2001.3	2001.9	2002.6	2000.6	1999.2	1999.2	1998.6	1997.2	1996.5	1996.5	1996.5
5°	2024.2	2025.6	2022.2	2021.5	2020.2	2018.8	2018.8	2017.5	2018.2	2018.2	2014.8
7.5°	2070.1	2068.1	2064.1	2061.4	2064.1	2059.3	2057.3	2058.7	2057.3	2058.0	2056.6
10°	2131.6	2131.6	2126.9	2129.6	2126.2	2120.8	2122.8	2120.8	2119.4	2114.7	2117.4
12.5°	2207.9	2205.9	2203.2	2197.1	2195.1	2194.4	2188.3	2189.0	2186.9	2185.6	2183.6
15°	2274.7	2274.0	2268.0	2264.6	2263.9	2261.2	2258.5	2257.2	2253.8	2253.1	2251.8
17.5°	2319.3	2317.3	2314.6	2311.2	2311.2	2307.1	2305.8	2302.4	2301.7	2299.7	2297.7
20°	2334.1	2334.8	2332.1	2329.4	2328.1	2325.4	2323.3	2320.6	2319.3	2316.6	2314.6
22.5°	2330.8	2330.8	2328.1	2327.4	2324.7	2320.6	2317.9	2314.6	2311.2	2307.8	2303.8
25°	2320.0	2319.3	2317.3	2313.9	2310.5	2304.4	2299.0	2293.6	2288.9	2284.9	2278.8
27.5°	2310.5	2309.2	2305.1	2300.4	2293.6	2286.9	2276.7	2269.3	2263.2	2257.8	2251.1
30°	2307.1	2302.4	2296.3	2288.9	2280.8	2270.7	2259.9	2250.4	2243.7	2238.3	2235.6
32.5°	2311.2	2305.1	2295.7	2286.2	2276.1	2263.9	2253.1	2245.0	2238.9	2237.6	2237.6
35°	2348.3	2338.2	2325.4	2311.9	2299.0	2288.9	2281.5	2280.8	2276.7	2281.5	2288.9
37.5°	2457.0	2448.2	2428.7	2411.1	2402.3	2397.6	2390.9	2392.2	2382.8	2397.6	2409.8
40°	2687.9	2677.1	2654.2	2640.0	2622.4	2605.6	2619.1	2615.0	2621.8	2619.1	2631.9
42.5°	3024.9	3014.1	2977.6	2972.2	2964.8	2958.0	2958.0	2952.6	2949.9	2959.4	2948.6
45°	3434.7	3413.1	3399.6	3415.8	3393.5	3400.3	3423.9	3392.2	3399.6	3355.7	3315.2
47.5°	3860.1	3858.1	3854.7	3874.3	3877.6	3887.8	3900.6	3868.2	3809.4	3776.4	3694.0
50°	4349.6	4370.5	4378.6	4397.5	4405.6	4413.1	4392.8	4344.9	4245.6	4157.8	4060.6
52.5°	4944.4	4908.0	4957.9	4976.2	4968.1	4938.4	4865.4	4806.7	4669.6	4543.4	4392.8
55°	5637.2	5646.0	5610.9	5596.7	5569.0	5486.6	5386.0	5253.7	5080.2	4915.4	4725.0
57.5°	6342.8	6339.4	6284.7	6207.7	6113.9	6014.6	5864.7	5675.0	5472.4	5251.0	5020.7
60°	7200.9	7197.6	7086.8	6955.2	6821.5	6661.5	6426.5	6198.3	5926.8	5635.8	5361.7
62.5°	8328.5	8183.3	8074.6	7878.1	7671.5	7462.2	7144.2	6841.1	6478.5	6111.2	5791.1
65°	9773.4	9534.4	9410.8	9125.9	8805.9	8479.1	8155.7	7757.3	7269.1	6824.8	6433.9
67.5°	10842.2	10623.5	10397.3	10113.0	9761.9	9397.3	8954.4	8452.7	7898.4	7400.1	6974.1
69°	10936.1	10731.5	10460.1	10175.2	9843.0	9446.6	8963.2	8401.4	7839.7	7335.3	6916.0
70°	10793.6	10576.2	10290.6	9994.2	9622.8	9248.8	8742.4	8157.0	7594.6	7088.8	6679.7
72.5°	9730.9	9518.9	9215.0	8860.6	8479.7	8159.7	7679.0	7068.6	6456.9	5989.6	5670.9
75°	7399.4	7352.8	7137.5	6930.9	6631.1	6273.9	5834.3	5423.8	4922.2	4427.9	4130.8
77.5°	3157.2	3264.6	3376.6	3392.8	3403.6	3293.6	3225.4	3122.1	2786.5	2633.9	2476.6
80°	583.4	521.2	556.4	560.4	583.4	595.5	640.1	758.9	772.4	801.5	837.2
82.5°	207.3	210.7	216.1	218.1	220.1	228.2	258.6	309.9	356.5	417.3	498.3
85°	117.5	119.5	124.2	128.3	131.0	139.1	156.0	186.4	232.3	301.8	409.2
87.5°	35.8	40.5	43.2	48.6	50.6	52.0	59.4	79.7	102.6	151.9	221.5
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: P157998

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

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9	1997.9
2.5°	1996.5	1995.9	1994.5	1993.2	1993.8	1992.5	1988.4	1987.1	1982.4	1979.0	1976.3
5°	2014.8	2014.1	2011.4	2012.1	2011.4	2004.6	1999.9	1991.8	1987.1	1979.7	1977.0
7.5°	2052.6	2051.9	2047.2	2049.2	2047.9	2037.7	2029.6	2016.8	2010.0	2000.6	1993.2
10°	2109.3	2109.3	2103.9	2104.6	2104.6	2091.1	2076.9	2055.3	2039.8	2024.9	2012.1
12.5°	2178.2	2175.5	2174.8	2171.4	2168.7	2153.9	2132.3	2103.2	2074.2	2049.9	2032.3
15°	2247.7	2243.7	2241.6	2237.6	2234.2	2220.7	2191.7	2155.9	2116.7	2077.6	2048.5
17.5°	2293.0	2290.3	2286.2	2284.9	2280.1	2266.6	2246.4	2210.6	2162.0	2107.3	2063.4
20°	2309.8	2305.1	2302.4	2299.7	2297.0	2287.6	2287.6	2264.6	2210.6	2133.6	2066.8
22.5°	2299.0	2296.3	2292.3	2290.3	2287.6	2288.9	2315.2	2311.9	2249.7	2139.7	2042.5
25°	2274.0	2270.7	2267.3	2267.3	2266.6	2280.8	2344.3	2353.0	2261.2	2110.0	1989.1
27.5°	2248.4	2243.7	2245.0	2245.7	2249.1	2279.5	2376.0	2363.8	2230.2	2038.4	1897.3
30°	2232.9	2232.9	2236.2	2241.6	2248.4	2301.7	2401.0	2339.5	2149.8	1930.4	1775.8
32.5°	2239.6	2246.4	2253.8	2267.3	2277.4	2351.0	2409.8	2276.7	2033.0	1796.7	1648.8
35°	2299.7	2307.8	2322.0	2342.9	2355.1	2421.9	2409.8	2184.9	1897.3	1681.9	1517.8
37.5°	2430.7	2438.8	2455.7	2471.9	2484.0	2511.0	2399.6	2068.1	1783.9	1563.1	1400.3
40°	2641.4	2652.8	2665.0	2662.3	2654.2	2627.9	2379.4	1959.4	1679.2	1459.1	1284.9
42.5°	2937.8	2927.0	2925.6	2899.3	2872.3	2759.5	2364.5	1888.5	1589.4	1349.7	1170.1
45°	3280.1	3236.2	3191.0	3155.9	3114.7	2904.0	2360.5	1831.1	1490.2	1228.2	1045.2
47.5°	3624.4	3554.2	3466.4	3411.7	3344.9	3057.9	2372.6	1754.2	1362.5	1095.8	928.4
50°	3962.0	3847.2	3738.5	3673.0	3597.4	3234.8	2392.2	1624.5	1209.9	975.7	821.7
52.5°	4274.6	4126.8	4015.4	3938.4	3845.9	3440.8	2374.7	1454.4	1077.6	860.2	720.4
55°	4571.7	4408.3	4292.9	4211.9	4103.1	3647.4	2247.7	1299.7	951.3	747.4	606.3
57.5°	4831.7	4675.0	4554.9	4444.8	4353.0	3827.0	1997.2	1172.1	829.8	618.5	482.8
60°	5135.5	4959.3	4816.8	4699.3	4591.3	3919.5	1716.3	1058.7	700.2	478.7	349.1
62.5°	5545.4	5342.8	5178.1	5043.7	4902.6	3939.7	1524.6	945.3	555.7	346.4	253.9
65°	6153.0	5903.2	5697.3	5512.3	5321.2	3856.0	1430.1	821.7	413.2	257.2	212.7
67.5°	6635.8	6376.5	6138.2	5900.5	5656.1	3700.7	1409.1	707.6	317.3	218.8	191.1
69°	6577.1	6329.9	6111.2	5853.9	5583.2	3505.6	1388.2	663.7	289.7	203.2	181.0
70°	6350.9	6116.6	5894.4	5685.1	5353.6	3288.2	1332.8	639.4	278.9	195.8	173.5
72.5°	5366.4	5095.0	4879.6	4619.0	4269.9	2443.5	1010.8	517.2	255.9	178.9	156.6
75°	3914.1	3689.3	3474.5	3186.2	2846.6	1413.9	629.3	295.7	187.7	162.0	141.8
77.5°	2285.5	2234.9	2027.6	1837.9	1501.6	719.8	361.2	176.9	145.8	147.2	124.9
80°	860.2	916.2	937.2	871.7	805.5	496.9	262.6	143.8	126.9	145.2	106.0
82.5°	627.3	727.9	740.0	709.0	659.7	463.2	210.0	115.5	103.3	156.0	91.2
85°	523.3	579.3	588.1	555.7	539.5	392.3	146.5	81.0	75.6	112.1	68.2
87.5°	264.7	278.9	286.3	259.3	260.6	183.0	58.7	34.4	41.2	47.9	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: P157998

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

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	1997.9	1997.9
2.5°	1970.2	1974.3
5°	1972.9	1972.9
7.5°	1988.4	1988.4
10°	2005.3	2006.0
12.5°	2020.9	2020.2
15°	2033.0	2031.0
17.5°	2040.4	2038.4
20°	2033.0	2029.6
22.5°	1995.2	1985.7
25°	1926.3	1914.2
27.5°	1835.2	1827.1
30°	1716.3	1704.2
32.5°	1577.3	1571.2
35°	1444.2	1436.8
37.5°	1322.7	1320.7
40°	1220.1	1209.3
42.5°	1099.9	1095.2
45°	977.7	975.0
47.5°	862.9	860.2
50°	756.9	751.5
52.5°	652.9	644.1
55°	537.5	531.4
57.5°	412.5	407.1
60°	290.3	284.3
62.5°	206.6	199.9
65°	172.2	166.8
67.5°	156.0	149.9
69°	148.5	143.1
70°	143.8	139.8
72.5°	133.7	131.0
75°	122.2	120.2
77.5°	107.4	104.0
80°	89.8	86.4
82.5°	75.6	72.2
85°	50.6	45.9
87.5°	23.0	20.3
90°	0.0	0.0

(END OF REPORT)