

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: P158668

Luminaire Tested: **VST-E05-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158668
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
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-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12241.8 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

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



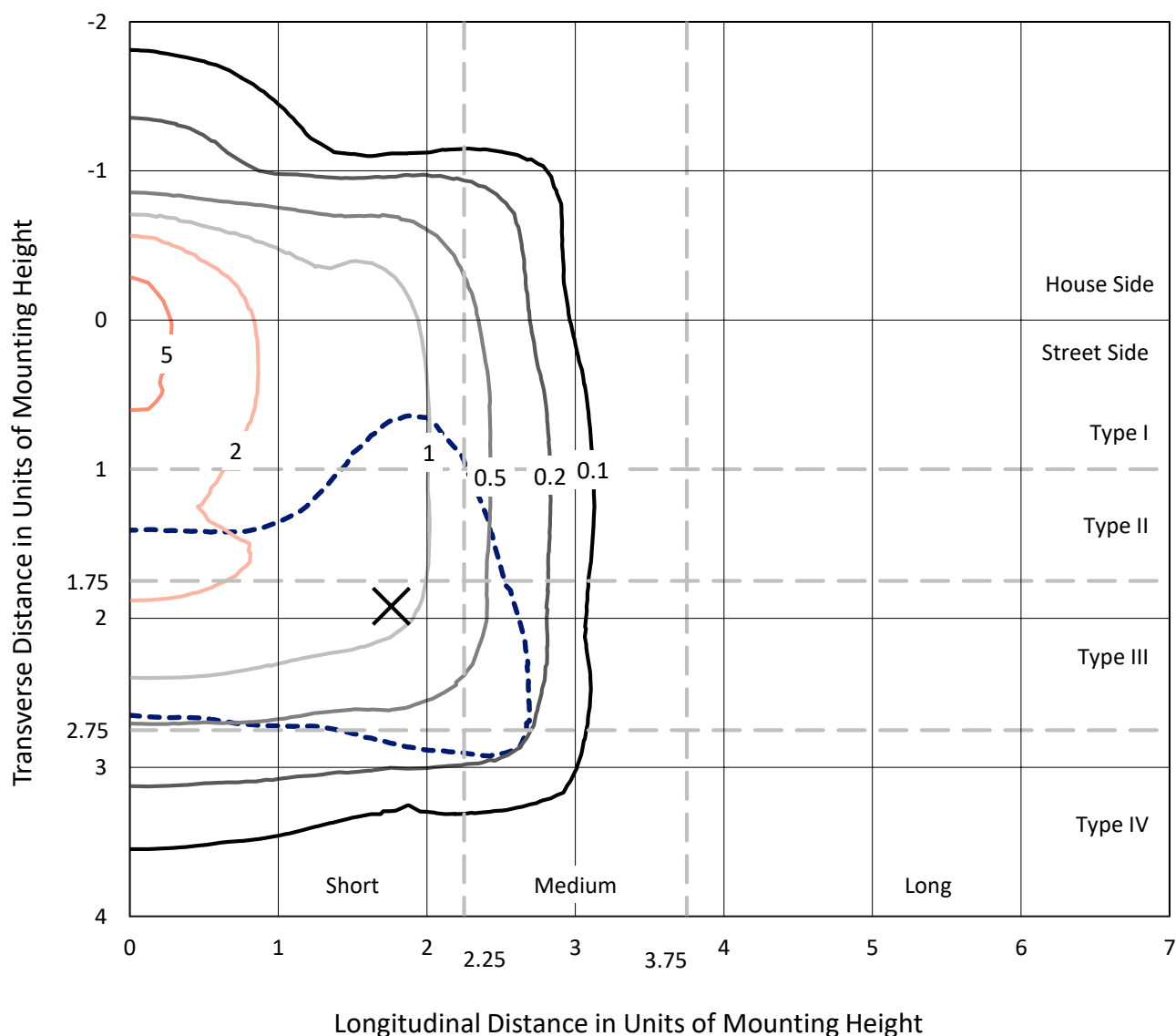
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

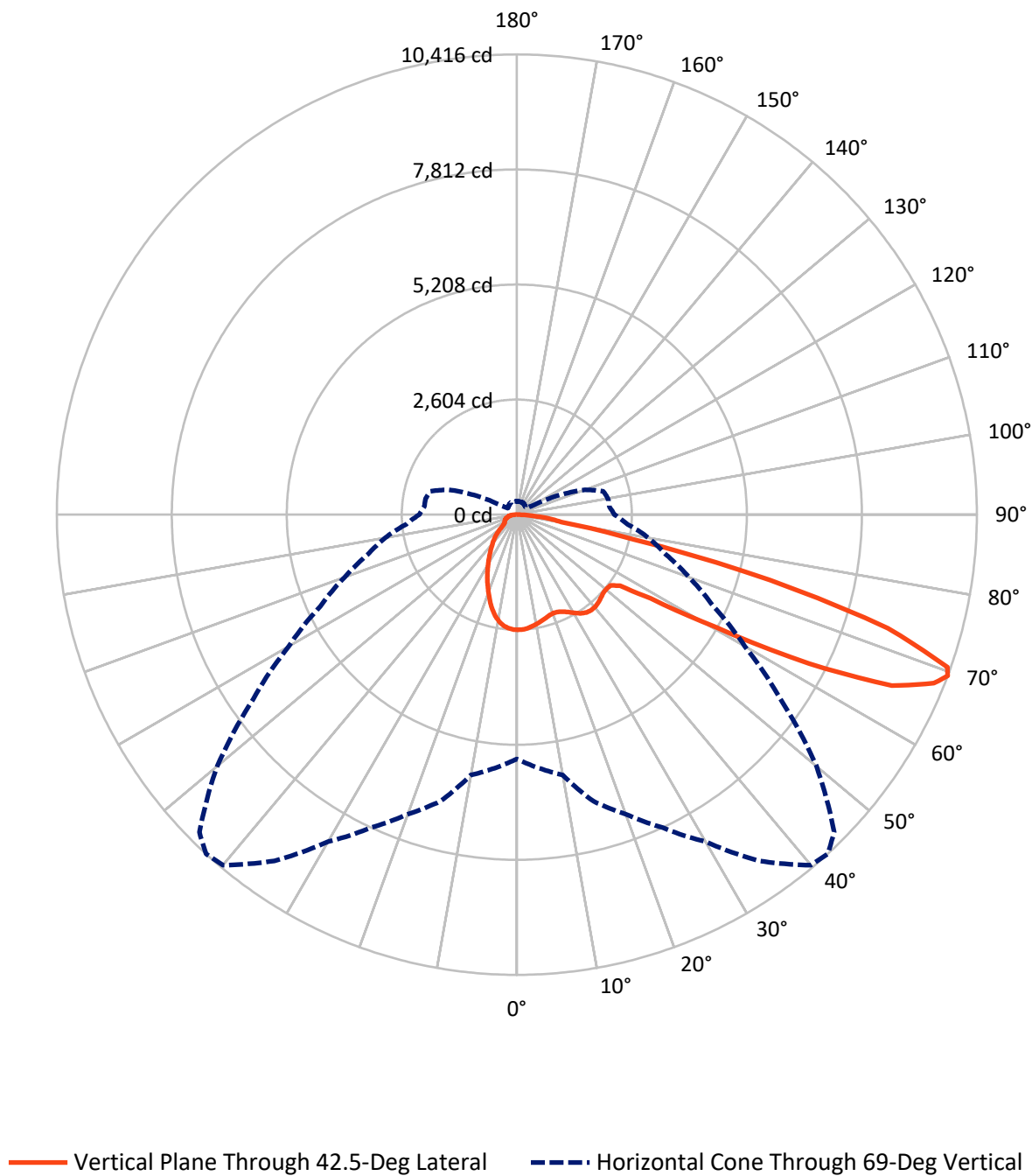


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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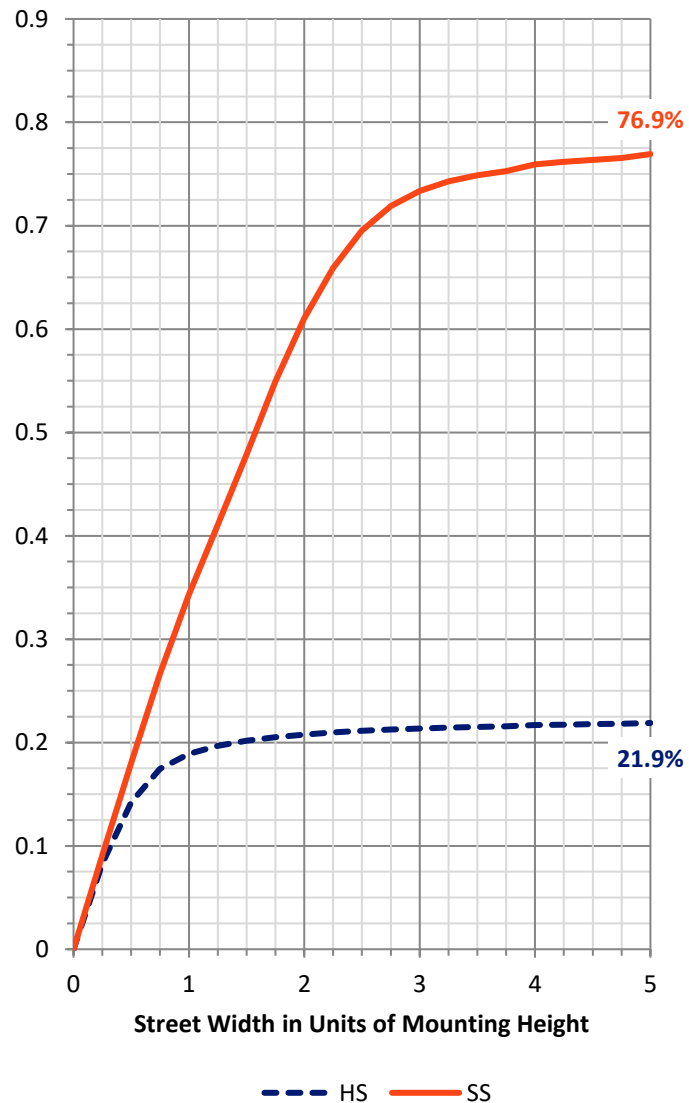
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2721.5	0.0	2721.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	9520.3	0.0	9520.3
	% Fixture	77.8	0.0	77.8
Total	Lumens	12241.8	0.0	12241.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.7	2.0
10°-20°	654.1	5.3
20°-30°	953.8	7.8
30°-40°	1215.9	9.9
40°-50°	1414.7	11.6
50°-60°	2152.5	17.6
60°-70°	3802.3	31.1
70°-80°	1569.0	12.8
80°-90°	236.9	1.9
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°	12241.8	100.0
0°-180°	12241.8	100.0

Coefficient of Utilization



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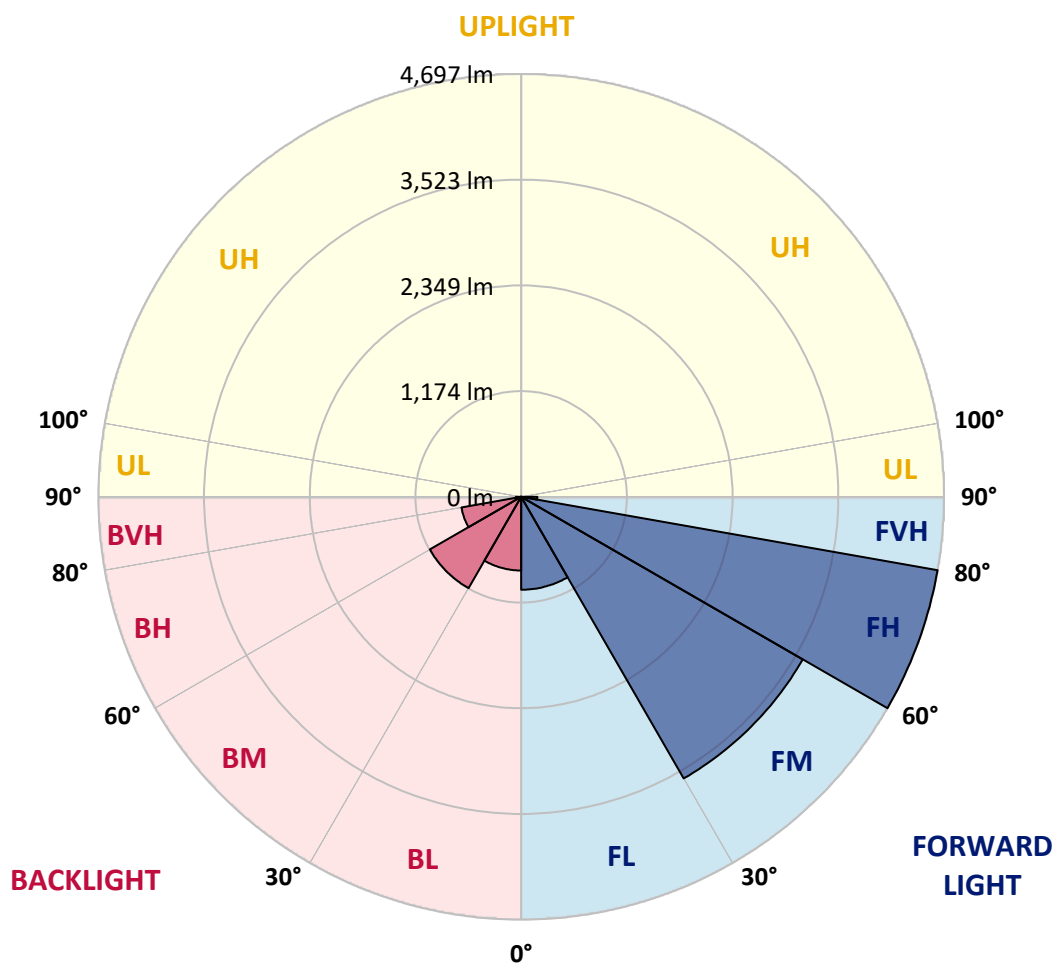
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1032.3	8.4			
FM	(30°-60°)	3611.6	29.5			
FH	(60°-80°)	4697.2	38.4			G2/5000
FVH	(80°-90°)	179.2	1.5			G2/225
BL	(0°-30°)	818.3	6.7	B2/1000		
BM	(30°-60°)	1171.4	9.6	B2/2500		
BH	(60°-80°)	674.1	5.5	B2/1000		G2/1000
BVH	(80°-90°)	57.8	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1
2.5°	2598.6	2607.9	2604.6	2604.6	2607.1	2602.9	2602.9	2604.6	2600.3	2602.9	2602.0
5°	2589.4	2594.4	2592.7	2592.7	2592.7	2589.4	2587.7	2586.8	2580.9	2580.9	2578.4
7.5°	2569.1	2570.8	2573.3	2570.0	2569.1	2568.3	2562.4	2559.0	2552.2	2546.3	2548.0
10°	2542.1	2541.3	2545.5	2542.9	2539.6	2537.0	2532.0	2526.1	2518.5	2510.9	2510.0
12.5°	2511.7	2510.9	2514.2	2512.6	2510.0	2505.0	2500.7	2490.6	2478.8	2469.5	2468.7
15°	2492.3	2489.8	2493.1	2489.8	2485.6	2480.5	2472.9	2460.2	2439.1	2429.8	2422.3
17.5°	2510.9	2506.7	2508.3	2504.1	2498.2	2484.7	2467.0	2440.0	2409.6	2393.6	2381.7
20°	2575.9	2568.3	2570.0	2565.7	2552.2	2534.5	2500.7	2453.5	2402.0	2375.8	2357.3
22.5°	2668.7	2662.8	2665.3	2661.1	2647.6	2620.6	2570.0	2502.4	2429.0	2391.0	2361.5
25°	2809.6	2814.7	2816.4	2797.0	2789.4	2739.6	2669.5	2575.9	2478.0	2433.2	2392.7
27.5°	2968.3	2968.3	2975.9	2968.3	2953.1	2894.9	2796.1	2683.0	2557.3	2496.5	2447.6
30°	3122.8	3121.1	3135.4	3133.7	3109.3	3043.4	2931.2	2793.6	2650.1	2581.8	2519.3
32.5°	3286.5	3291.6	3300.8	3297.5	3265.4	3174.2	3039.2	2889.8	2738.8	2663.6	2593.6
35°	3463.7	3466.3	3469.6	3468.0	3403.0	3288.2	3118.5	2951.4	2794.5	2720.2	2647.6
37.5°	3641.0	3638.4	3634.2	3597.9	3523.7	3364.1	3166.7	2986.9	2822.3	2742.1	2667.0
40°	3799.6	3785.3	3771.8	3715.2	3601.3	3407.2	3185.2	2995.3	2819.8	2737.1	2663.6
42.5°	3886.6	3870.5	3842.7	3771.8	3633.4	3411.4	3172.6	2970.0	2793.6	2711.7	2639.2
45°	3902.6	3890.8	3863.8	3784.5	3625.8	3384.4	3133.7	2928.6	2754.8	2672.9	2604.6
47.5°	3864.6	3855.4	3829.2	3750.7	3592.9	3343.9	3089.0	2884.8	2716.8	2640.0	2574.2
50°	3806.4	3798.0	3777.7	3706.0	3555.7	3316.0	3066.2	2862.0	2704.1	2634.1	2573.3
52.5°	3900.9	3907.7	3848.6	3770.1	3595.4	3340.5	3091.5	2885.6	2726.9	2657.7	2594.4
55°	5370.3	5361.0	5005.7	4707.8	4175.2	3692.5	3332.1	3073.0	2903.3	2834.1	2775.0
57.5°	6978.1	6946.0	6800.0	6521.5	5949.3	5185.5	4490.9	3900.1	3667.1	3567.5	3574.3
60°	7503.1	7514.9	7483.7	7384.9	7179.8	6782.3	6254.0	5810.0	5372.8	5159.3	5183.8
62.5°	7794.3	7815.4	7842.4	7820.4	7753.7	7661.7	7595.1	7635.6	7574.8	7421.2	7298.8
65°	7834.8	7877.8	7967.3	8038.2	8072.8	8159.7	8364.0	8853.5	9300.8	9330.3	9115.1
67.5°	7033.0	7152.0	7346.1	7674.4	7955.5	8264.4	8757.2	9501.6	10161.7	10183.6	9982.7
69°	5529.8	5758.6	5985.6	6719.0	7212.7	7817.9	8547.1	9564.1	10354.9	10415.7	10162.5
70°	4431.0	4566.8	4762.6	5499.4	6237.1	7008.5	8065.2	9358.2	10222.4	10344.8	10065.4
72.5°	2660.3	2712.6	2780.1	3044.3	3424.1	4111.1	5512.1	7629.7	8623.1	8786.8	8431.5
75°	1720.1	1716.7	1722.6	1796.0	1818.0	1949.6	2391.0	3925.4	5625.2	5922.3	5496.9
77.5°	1295.5	1307.3	1288.8	1295.5	1289.6	1325.1	1338.6	1405.2	2220.5	2735.4	2445.9
80°	1143.6	1149.5	1150.4	1147.0	1105.6	1102.3	1124.2	1086.2	1009.4	1024.6	981.6
82.5°	652.4	651.6	659.2	716.5	740.2	817.8	849.9	867.6	800.9	751.2	679.4
85°	422.8	426.2	434.7	452.4	434.7	441.4	433.8	449.0	411.9	382.3	341.8
87.5°	173.0	173.0	184.0	200.0	186.5	183.1	157.0	155.3	131.7	119.0	92.8
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-E05-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1
2.5°	2597.0	2602.0	2599.5	2602.9	2600.3	2600.3	2597.0	2596.1	2598.6	2595.3	2596.1
5°	2574.2	2575.0	2570.8	2572.5	2567.4	2565.7	2563.2	2556.4	2560.7	2556.4	2558.1
7.5°	2541.3	2538.7	2532.8	2524.4	2518.5	2515.9	2510.9	2501.6	2503.3	2495.7	2499.9
10°	2499.1	2490.6	2480.5	2467.8	2459.4	2451.8	2440.8	2429.8	2423.9	2417.2	2416.3
12.5°	2451.8	2441.7	2428.2	2408.8	2390.2	2377.5	2360.6	2341.2	2335.3	2324.4	2318.4
15°	2400.3	2384.3	2368.2	2346.3	2326.0	2306.6	2283.8	2259.4	2243.3	2226.4	2213.8
17.5°	2353.9	2335.3	2314.2	2293.1	2271.2	2247.5	2218.9	2188.5	2164.8	2133.6	2108.3
20°	2317.6	2294.0	2272.9	2250.9	2226.4	2197.8	2163.1	2124.3	2084.7	2050.1	2020.5
22.5°	2303.3	2266.1	2240.8	2218.9	2194.4	2160.6	2118.4	2072.8	2024.7	1976.6	1937.8
25°	2315.1	2260.2	2220.5	2194.4	2173.3	2138.7	2091.4	2035.7	1980.0	1922.6	1870.3
27.5°	2349.7	2279.6	2222.2	2180.9	2156.4	2121.8	2072.0	2012.9	1947.1	1882.9	1818.8
30°	2403.7	2312.5	2240.0	2181.7	2143.7	2104.1	2051.7	1983.4	1916.7	1843.3	1773.2
32.5°	2456.0	2347.1	2260.2	2185.1	2126.9	2075.4	2017.1	1949.6	1877.9	1801.1	1728.5
35°	2493.1	2369.9	2267.8	2177.5	2100.7	2036.6	1974.1	1906.6	1836.5	1758.0	1683.8
37.5°	2510.9	2382.6	2268.6	2157.2	2066.1	1995.2	1928.5	1861.8	1796.0	1721.7	1651.7
40°	2510.0	2381.7	2256.8	2131.1	2024.7	1949.6	1883.8	1818.8	1757.2	1692.2	1628.9
42.5°	2491.5	2368.2	2240.0	2105.8	1995.2	1911.6	1843.3	1780.8	1728.5	1671.1	1617.9
45°	2462.8	2345.5	2222.2	2093.9	1986.8	1903.2	1830.6	1769.8	1723.4	1671.1	1625.5
47.5°	2440.8	2332.8	2224.8	2115.0	2012.9	1926.0	1849.2	1782.5	1742.8	1700.6	1668.6
50°	2444.2	2338.7	2233.2	2127.7	2031.5	1943.7	1869.4	1808.7	1780.0	1769.0	1761.4
52.5°	2461.9	2348.0	2258.5	2195.2	2162.3	2096.5	2052.6	2014.6	2035.7	1994.4	1945.4
55°	2688.1	2651.0	2737.9	2819.8	2923.6	2962.4	2925.3	2918.5	2952.3	2812.2	2490.6
57.5°	3622.4	3718.6	3852.8	3923.7	4009.8	3987.0	3900.9	3829.2	3744.8	3581.1	3180.2
60°	5211.6	5139.1	5078.3	4907.0	4766.9	4603.1	4420.8	4264.7	4115.3	3879.8	3446.0
62.5°	6849.0	6345.1	5924.0	5517.2	5189.7	4917.9	4653.8	4419.1	4192.9	3864.6	3397.9
65°	8265.2	7204.3	6413.5	5816.8	5338.2	4925.5	4586.2	4262.2	3974.4	3589.5	3127.8
67.5°	8901.6	7572.3	6421.9	5567.0	4904.4	4344.0	3905.1	3415.6	3093.2	2846.8	2586.8
69°	8854.3	7291.2	5963.6	4911.2	4149.9	3496.7	3025.7	2515.1	2206.2	2101.5	2095.6
70°	8629.8	6815.2	5428.5	4378.6	3507.6	2858.6	2407.1	1948.8	1661.0	1589.2	1716.7
72.5°	7045.6	4815.8	3402.1	2597.8	1997.7	1579.1	1287.9	1022.1	816.1	707.3	730.9
75°	3979.4	2229.8	1441.5	1089.6	920.8	761.3	653.2	557.0	503.9	409.3	324.1
77.5°	1446.6	957.1	761.3	658.3	466.7	321.6	269.2	235.5	213.5	213.5	203.4
80°	914.9	720.8	503.0	344.3	254.9	222.0	194.1	170.5	157.0	153.6	157.0
82.5°	571.4	441.4	281.9	216.1	181.5	162.9	141.8	124.1	113.1	110.6	115.6
85°	281.9	218.6	171.3	152.8	143.5	133.4	117.3	100.4	97.1	103.8	121.5
87.5°	84.4	75.1	61.6	64.1	67.5	65.8	52.3	45.6	43.0	56.5	88.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1	2607.1
2.5°	2597.8	2597.0	2598.6	2596.1	2597.8	2598.6	2597.0	2604.6	2599.5	2600.3	2603.7
5°	2559.8	2558.1	2564.9	2563.2	2566.6	2570.0	2568.3	2579.2	2575.0	2578.4	2585.1
7.5°	2496.5	2499.9	2500.7	2500.7	2507.5	2518.5	2521.0	2527.8	2527.8	2537.0	2543.8
10°	2412.1	2413.0	2418.0	2417.2	2425.6	2437.4	2439.1	2450.9	2455.2	2470.4	2479.6
12.5°	2314.2	2310.0	2309.2	2308.3	2319.3	2331.9	2333.6	2353.9	2362.3	2375.8	2391.0
15°	2204.5	2193.5	2190.2	2196.9	2194.4	2202.0	2209.6	2220.5	2232.4	2259.4	2272.9
17.5°	2097.3	2075.4	2069.5	2061.9	2054.3	2054.3	2057.6	2071.2	2095.6	2110.0	2140.4
20°	1987.6	1961.4	1940.3	1920.1	1902.4	1895.6	1896.4	1913.3	1931.1	1954.7	1983.4
22.5°	1895.6	1855.9	1819.6	1792.6	1756.3	1755.5	1750.4	1755.5	1774.9	1780.8	1796.9
25°	1816.3	1763.1	1714.1	1670.3	1634.8	1616.2	1611.2	1609.5	1600.2	1597.7	1585.9
27.5°	1754.7	1690.5	1627.2	1574.0	1530.2	1504.8	1472.8	1450.0	1417.1	1408.6	1387.5
30°	1704.0	1634.8	1565.6	1496.4	1446.6	1401.0	1347.0	1307.3	1256.7	1223.8	1195.1
32.5°	1655.1	1585.0	1515.0	1446.6	1369.8	1298.9	1228.0	1166.4	1109.8	1059.2	1017.0
35°	1614.6	1547.9	1477.0	1394.3	1296.4	1194.2	1109.0	1039.0	961.3	908.1	855.0
37.5°	1588.4	1527.6	1456.7	1342.8	1217.0	1107.3	1010.3	925.0	845.7	765.5	705.6
40°	1576.6	1523.4	1434.8	1295.5	1147.8	1026.3	919.1	824.6	723.3	633.0	568.8
42.5°	1575.7	1521.7	1404.4	1243.2	1090.4	957.9	838.9	725.8	613.6	520.7	457.4
45°	1590.9	1519.2	1372.3	1199.3	1039.8	901.4	759.6	622.0	496.3	427.1	393.3
47.5°	1631.4	1523.4	1346.2	1158.8	991.7	833.0	668.4	508.1	404.3	372.2	372.2
50°	1704.0	1547.9	1339.4	1130.1	943.6	753.7	557.0	410.2	357.9	357.9	368.0
52.5°	1815.4	1599.4	1351.2	1109.8	883.7	649.0	438.9	353.6	343.5	352.8	366.3
55°	2072.0	1690.5	1367.3	1075.2	792.5	514.8	362.1	334.2	338.4	349.4	362.1
57.5°	2542.9	1885.5	1384.1	999.3	645.7	396.7	328.3	326.6	334.2	344.3	355.3
60°	2852.7	2133.6	1427.2	884.5	488.7	327.5	311.4	321.6	330.8	339.3	347.7
62.5°	2852.7	2203.7	1459.3	756.2	367.1	297.9	300.5	316.5	327.5	331.7	336.8
65°	2670.4	2075.4	1350.4	616.1	298.8	281.0	290.3	306.4	316.5	319.9	324.1
67.5°	2333.6	1833.1	1137.7	464.2	266.7	266.7	278.5	290.3	298.8	305.5	312.3
69°	2029.0	1644.9	1001.8	393.3	254.0	255.7	267.5	277.7	287.8	296.2	304.7
70°	1809.5	1504.0	907.3	357.0	246.4	247.3	259.1	270.1	279.4	288.6	298.8
72.5°	968.9	1039.0	689.5	292.9	227.0	229.6	240.5	250.7	259.1	268.4	277.7
75°	330.0	446.5	438.9	239.7	205.1	211.8	218.6	227.9	238.8	244.8	249.8
77.5°	193.3	200.0	233.8	195.0	184.8	188.2	195.8	203.4	212.7	218.6	222.8
80°	162.0	161.2	162.0	158.7	161.2	168.8	173.9	184.0	192.4	194.1	193.3
82.5°	131.7	138.4	139.3	137.6	145.2	151.1	155.3	161.2	160.4	162.0	165.4
85°	117.3	116.5	122.4	123.2	123.2	119.0	119.8	119.8	119.8	122.4	123.2
87.5°	117.3	97.9	76.0	68.4	71.7	67.5	64.1	63.3	70.1	76.8	75.1
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):

	160°	165°	170°	175°	180°
0°	2607.1	2607.1	2607.1	2607.1	2607.1
2.5°	2605.4	2607.9	2606.2	2606.2	2607.9
5°	2587.7	2591.9	2590.2	2591.9	2591.9
7.5°	2547.2	2553.1	2557.3	2561.5	2559.0
10°	2488.9	2499.1	2505.8	2510.9	2508.3
12.5°	2402.0	2411.3	2425.6	2434.1	2427.3
15°	2283.0	2309.2	2317.6	2329.4	2322.7
17.5°	2158.9	2175.0	2185.1	2196.1	2202.8
20°	1993.5	2006.2	2019.7	2024.7	2017.1
22.5°	1794.3	1801.1	1798.5	1806.1	1790.9
25°	1575.7	1580.0	1577.4	1584.2	1571.5
27.5°	1369.0	1368.1	1369.0	1360.5	1352.1
30°	1169.8	1162.2	1158.8	1146.1	1143.6
32.5°	991.7	965.5	952.0	933.5	929.2
35°	813.6	776.5	752.0	730.9	721.6
37.5°	654.1	609.4	580.7	562.1	559.6
40°	517.4	476.0	455.8	445.6	443.9
42.5°	422.0	404.3	399.2	399.2	399.2
45°	384.9	384.0	388.2	391.6	392.5
47.5°	377.3	382.3	388.2	393.3	395.0
50°	377.3	382.3	386.5	391.6	393.3
52.5°	375.6	379.8	381.5	384.9	386.5
55°	370.5	373.0	373.0	374.7	376.4
57.5°	362.1	363.8	361.2	362.9	367.1
60°	353.6	355.3	351.1	355.3	357.9
62.5°	344.3	345.2	343.5	346.9	346.9
65°	329.2	327.5	330.0	332.5	333.4
67.5°	314.0	309.7	312.3	313.1	314.8
69°	302.1	299.6	300.5	302.1	303.8
70°	293.7	292.0	293.7	296.2	298.8
72.5°	272.6	273.5	279.4	284.4	289.5
75°	253.2	259.1	266.7	277.7	283.6
77.5°	229.6	233.8	239.7	251.5	262.5
80°	198.3	200.9	201.7	205.9	205.1
82.5°	161.2	158.7	157.0	155.3	154.5
85°	115.6	114.8	108.0	103.0	103.0
87.5°	69.2	65.8	62.5	58.2	55.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)