

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: P159178

Luminaire Tested: **VST-E12-LED-E-U-SLR-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159178
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33715)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E12-LED-E-U-SLR-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR RIGHT
Light Source: (252) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27216.5 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 291.7
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

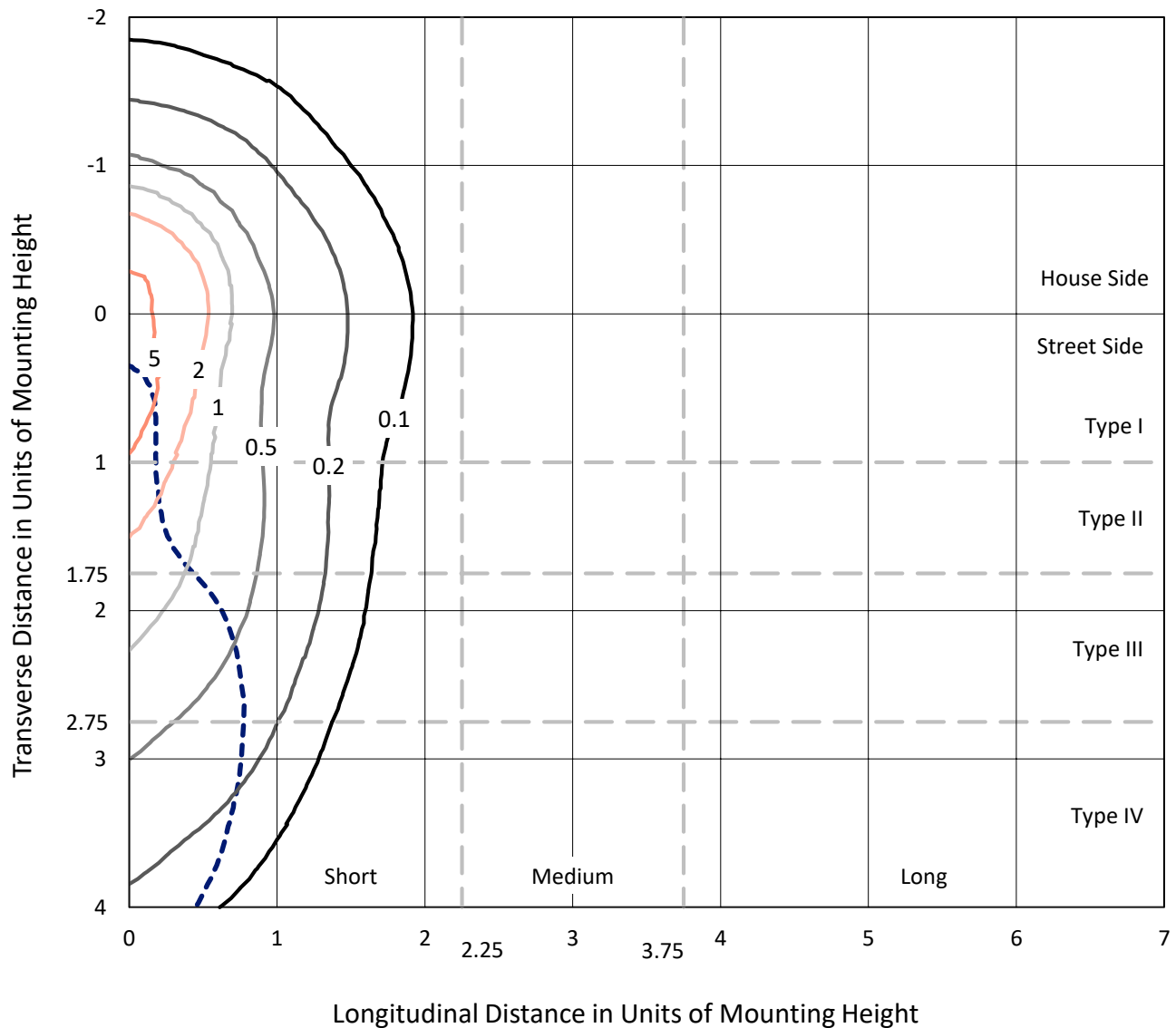


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

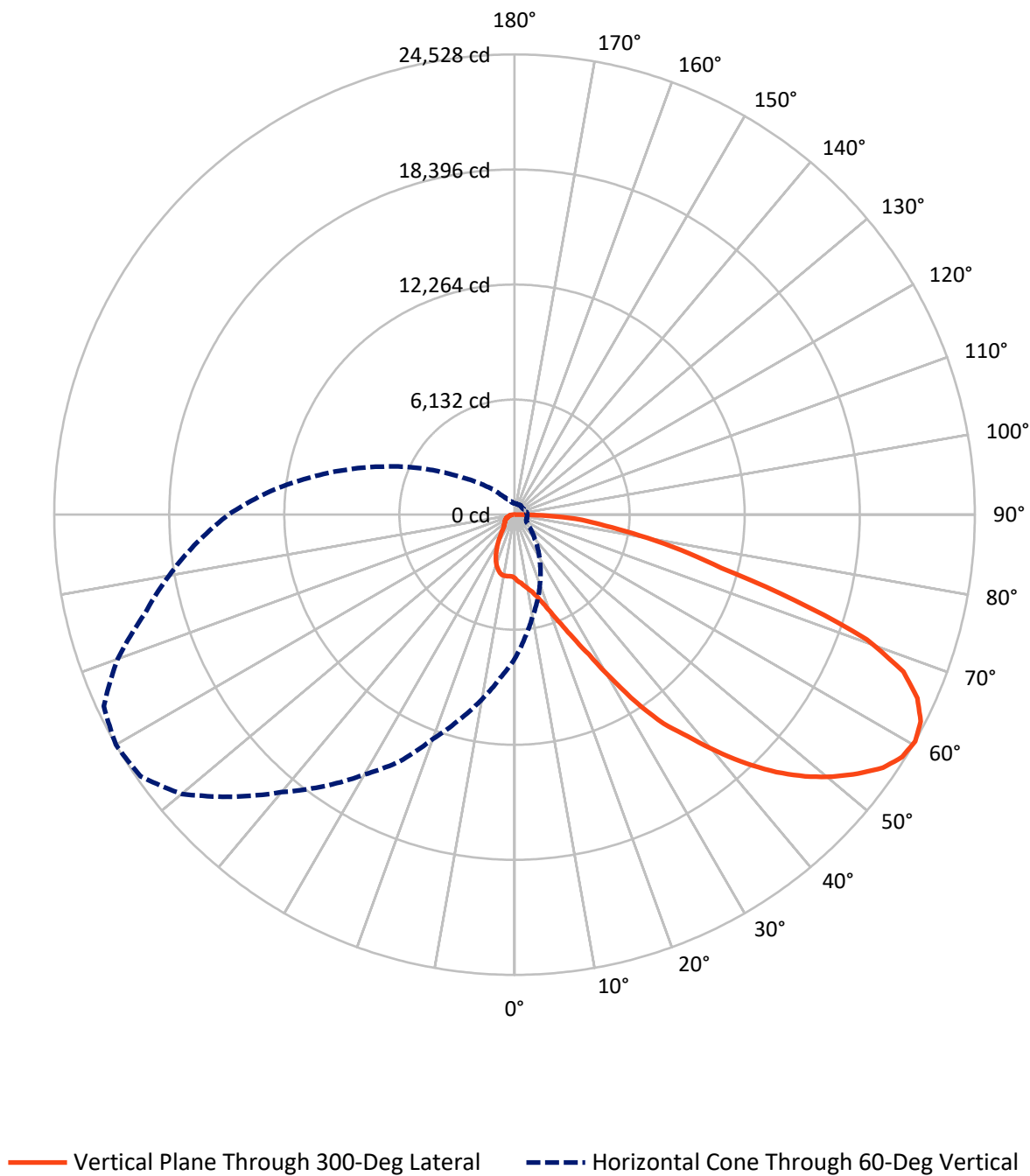


Based on 25 foot mounting height. Maximum calculated value = 8.2 fc
Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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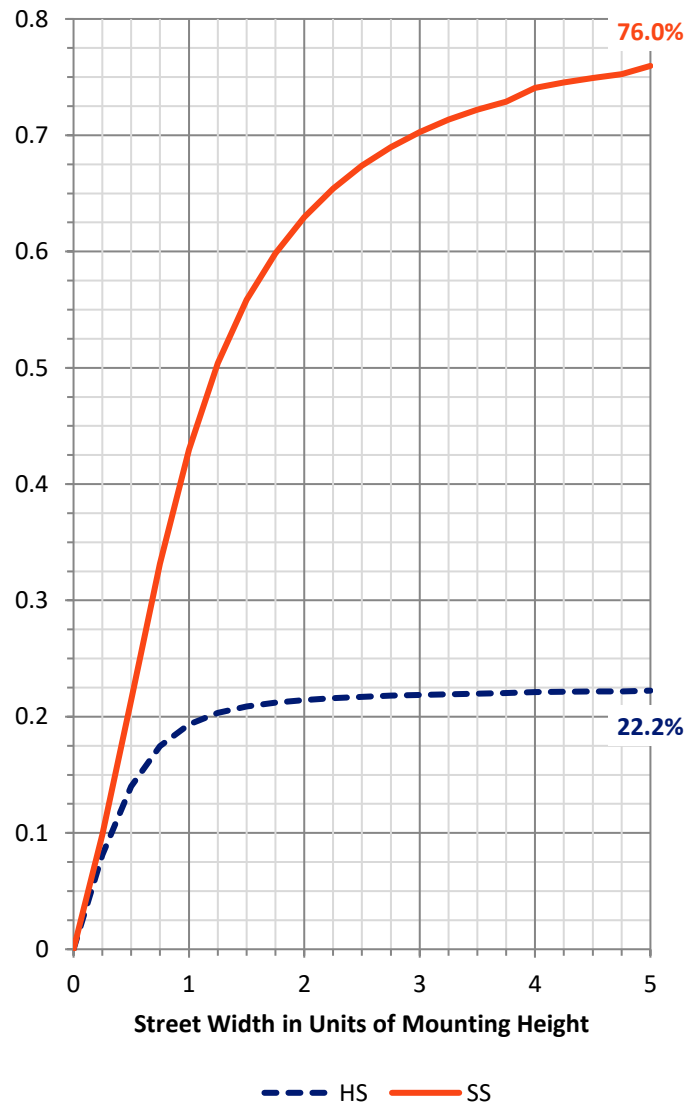
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6128.3	0.0	6128.3
	% Fixture	22.5	0.0	22.5
Street Side	Lumens	21088.2	0.0	21088.2
	% Fixture	77.5	0.0	77.5
Total	Lumens	27216.5	0.0	27216.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.9	1.2
10°-20°	1078.2	4.0
20°-30°	2046.0	7.5
30°-40°	3222.0	11.8
40°-50°	4497.2	16.5
50°-60°	5561.9	20.4
60°-70°	5765.2	21.2
70°-80°	3627.7	13.3
80°-90°	1084.4	4.0
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°	27216.5	100.0
0°-180°	27216.5	100.0

Coefficient of Utilization



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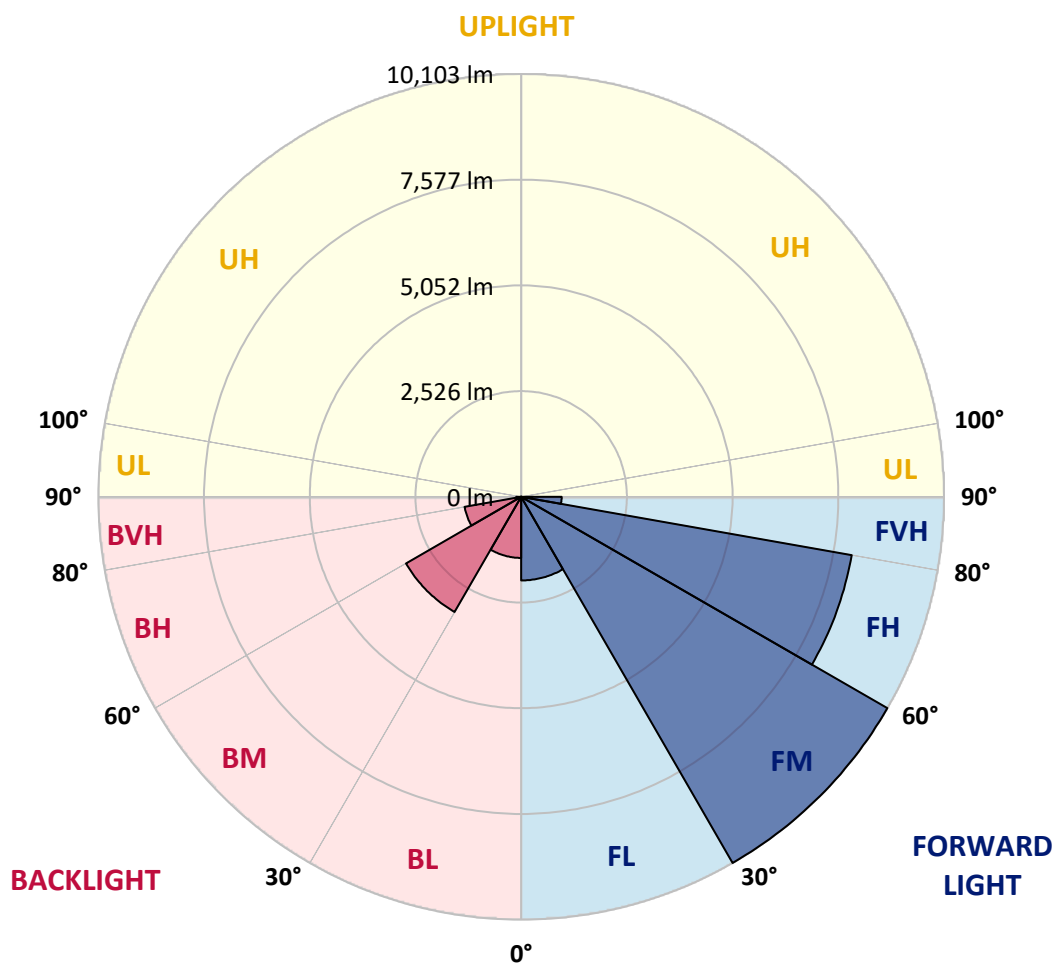
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1998.1	7.3			
FM	(30°-60°)	10103.2	37.1			
FH	(60°-80°)	8020.5	29.5			G4/12000
FVH	(80°-90°)	966.4	3.6			G5
BL	(0°-30°)	1460.0	5.4	B3/2500		
BM	(30°-60°)	3177.9	11.7	B3/5000		
BH	(60°-80°)	1372.5	5.0	B3/2500		G3/2500
BVH	(80°-90°)	118.0	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
2.5°	3585.3	3370.6	3374.6	3368.5	3368.5	3364.5	3368.5	3364.5	3360.4	3360.4	3362.5
5°	3631.9	3394.9	3394.9	3388.8	3384.7	3380.7	3384.7	3380.7	3378.7	3374.6	3376.6
7.5°	3676.4	3409.0	3400.9	3392.8	3382.7	3386.8	3386.8	3384.7	3386.8	3384.7	3388.8
10°	3749.3	3455.6	3435.4	3417.2	3415.1	3411.1	3411.1	3405.0	3405.0	3400.9	3403.0
12.5°	3935.7	3599.5	3577.2	3544.8	3538.7	3520.5	3510.3	3498.2	3477.9	3459.7	3445.5
15°	4249.7	3838.5	3795.9	3767.6	3755.4	3719.0	3662.2	3617.7	3558.9	3508.3	3455.6
17.5°	4634.5	4158.5	4107.9	4071.4	4010.6	3911.4	3816.2	3706.8	3593.4	3490.1	3394.9
20°	5173.3	4618.3	4519.1	4432.0	4280.0	4109.9	3931.6	3741.2	3567.0	3405.0	3265.2
22.5°	5902.5	5211.8	5027.5	4794.5	4513.0	4225.4	3941.8	3678.5	3445.5	3234.8	3048.5
25°	6741.1	5779.0	5446.8	5045.7	4614.3	4217.3	3844.5	3506.3	3234.8	2963.4	2760.9
27.5°	7358.9	6253.0	5762.8	5236.1	4685.2	4178.8	3721.0	3311.8	2983.7	2706.2	2461.1
30°	7711.4	6524.4	5934.9	5317.1	4697.3	4113.9	3565.0	3091.0	2712.2	2382.1	2147.1
32.5°	7938.2	6670.2	5953.2	5236.1	4551.5	3921.5	3328.0	2835.8	2424.6	2072.2	1823.0
35°	8128.6	6729.0	5868.1	5055.8	4276.0	3629.8	3024.2	2532.0	2096.5	1772.4	1517.2
37.5°	8205.6	6718.8	5732.4	4814.8	4006.6	3311.8	2714.3	2209.9	1821.0	1535.4	1316.6
40°	8191.4	6625.7	5548.1	4557.6	3690.6	2979.6	2386.1	1942.5	1626.5	1385.5	1225.5
42.5°	8096.2	6502.1	5343.5	4296.3	3400.9	2704.1	2163.3	1770.4	1515.1	1332.8	1193.1
45°	7976.7	6354.2	5157.1	4057.2	3172.1	2507.7	2033.7	1721.7	1501.0	1326.8	1176.9
47.5°	7814.7	6190.2	4968.7	3887.1	3050.5	2448.9	2031.7	1750.1	1513.1	1312.6	1148.5
50°	7638.5	6070.7	4865.4	3814.2	3036.3	2485.4	2102.6	1794.7	1521.2	1298.4	1110.0
52.5°	7514.9	6018.0	4863.4	3840.5	3111.3	2586.7	2185.6	1851.4	1551.6	1306.5	1101.9
55°	7363.0	6009.9	4916.1	3953.9	3275.4	2758.8	2317.3	1948.6	1614.4	1336.9	1108.0
57.5°	7373.1	6169.9	5120.7	4233.5	3571.1	2991.8	2485.4	2068.1	1675.2	1355.1	1097.9
60°	7693.1	6542.6	5523.8	4711.5	3958.0	3265.2	2657.6	2132.9	1671.1	1314.6	1049.2
62.5°	8353.5	7101.7	6127.4	5272.6	4350.9	3475.9	2720.4	2114.7	1610.3	1227.5	970.3
65°	9141.4	7755.9	6714.8	5708.1	4590.0	3524.5	2665.7	2013.4	1488.8	1114.1	875.0
67.5°	9929.4	8219.8	7053.1	5831.6	4492.7	3328.0	2463.1	1786.6	1282.2	960.1	767.7
70°	10213.0	8315.0	7026.7	5554.1	4051.2	2839.9	2027.6	1438.2	1029.0	785.9	646.2
72.5°	9787.6	7719.5	6246.9	4719.6	3293.6	2201.8	1486.8	1061.4	785.9	615.8	526.7
75°	8209.7	6216.5	4938.4	3554.9	2378.0	1557.7	1073.6	773.8	591.5	488.2	421.3
77.5°	5851.9	4328.7	3364.5	2335.5	1543.5	1079.6	769.7	581.3	469.9	390.9	342.3
80°	3676.4	2657.6	2049.9	1401.7	962.1	733.3	553.0	459.8	378.8	318.0	285.6
82.5°	2214.0	1547.5	1207.2	871.0	632.0	502.3	407.1	360.6	301.8	263.3	245.1
85°	1503.0	1138.4	792.0	514.5	380.8	295.7	277.5	249.1	224.8	188.4	182.3
87.5°	287.6	407.1	354.5	210.7	139.8	119.5	105.3	101.3	91.2	72.9	83.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
2.5°	3350.3	3346.3	3338.2	3338.2	3332.1	3319.9	3317.9	3309.8	3299.7	3301.7	3299.7
5°	3362.5	3354.4	3344.2	3340.2	3332.1	3319.9	3313.8	3303.7	3293.6	3293.6	3293.6
7.5°	3376.6	3366.5	3358.4	3344.2	3328.0	3315.9	3299.7	3287.5	3281.4	3279.4	3281.4
10°	3388.8	3382.7	3370.6	3350.3	3328.0	3303.7	3287.5	3271.3	3255.1	3257.1	3259.2
12.5°	3415.1	3394.9	3362.5	3332.1	3297.6	3267.3	3238.9	3218.6	3198.4	3198.4	3200.4
15°	3396.9	3338.2	3293.6	3234.8	3196.4	3147.7	3115.3	3097.1	3085.0	3080.9	3082.9
17.5°	3289.5	3218.6	3151.8	3099.1	3046.5	3008.0	2993.8	2981.7	2965.4	2973.5	2965.4
20°	3127.5	3040.4	2945.2	2882.4	2819.6	2793.3	2769.0	2756.8	2746.7	2783.1	2783.1
22.5°	2894.6	2789.2	2692.0	2615.0	2544.1	2515.8	2491.5	2477.3	2483.4	2527.9	2532.0
25°	2600.8	2473.2	2345.6	2299.0	2228.1	2205.9	2191.7	2189.7	2195.7	2240.3	2250.4
27.5°	2288.9	2155.2	2045.8	1938.5	1906.1	1887.8	1861.5	1891.9	1898.0	1946.6	1966.8
30°	1956.7	1812.9	1697.4	1626.5	1557.7	1567.8	1545.5	1582.0	1598.2	1648.8	1665.0
32.5°	1616.4	1480.7	1365.2	1294.3	1245.7	1251.8	1235.6	1268.0	1284.2	1345.0	1375.4
35°	1336.9	1221.4	1128.2	1067.5	1045.2	1022.9	1018.9	1022.9	1039.1	1085.7	1140.4
37.5°	1176.9	1081.7	1014.8	970.3	939.9	925.7	917.6	917.6	917.6	927.7	954.0
40°	1108.0	1022.9	964.2	921.6	901.4	893.3	887.2	881.1	871.0	866.9	869.0
42.5°	1077.6	980.4	917.6	885.2	873.0	873.0	873.0	869.0	858.8	848.7	838.6
45°	1047.2	941.9	879.1	856.8	850.7	852.8	852.8	852.8	844.7	832.5	814.3
47.5°	1008.7	899.4	836.6	822.4	822.4	828.5	830.5	830.5	822.4	810.2	796.1
50°	962.1	844.7	787.9	775.8	769.7	769.7	769.7	769.7	763.6	755.5	745.4
52.5°	937.8	814.3	755.5	743.4	743.4	737.3	735.3	729.2	723.1	717.1	702.9
55°	929.7	802.1	741.4	731.2	731.2	725.2	719.1	713.0	702.9	692.7	678.6
57.5°	907.5	775.8	723.1	715.0	715.0	711.0	704.9	698.8	688.7	674.5	656.3
60°	856.8	731.2	686.7	684.6	684.6	682.6	678.6	678.6	668.4	654.3	632.0
62.5°	792.0	684.6	642.1	642.1	640.1	638.1	630.0	627.9	615.8	597.5	577.3
65°	729.2	644.1	615.8	607.7	603.6	597.5	593.5	583.4	573.2	557.0	536.8
67.5°	650.2	583.4	565.1	557.0	548.9	542.9	536.8	530.7	518.5	506.4	490.2
70°	565.1	516.5	506.4	504.4	494.2	488.2	486.1	480.1	467.9	455.8	435.5
72.5°	484.1	455.8	447.7	447.7	435.5	427.4	423.3	421.3	413.2	403.1	384.9
75°	390.9	370.7	368.7	378.8	378.8	372.7	368.7	372.7	360.6	354.5	336.2
77.5°	320.0	309.9	303.8	307.9	320.0	314.0	305.9	305.9	305.9	295.7	289.7
80°	271.4	263.3	257.2	261.3	259.3	257.2	253.2	245.1	245.1	245.1	243.1
82.5°	245.1	243.1	220.8	220.8	212.7	206.6	202.6	198.5	194.5	194.5	204.6
85°	184.3	190.4	178.3	176.2	166.1	158.0	149.9	145.8	141.8	147.9	168.1
87.5°	89.1	89.1	85.1	95.2	87.1	83.0	77.0	72.9	77.0	95.2	113.4
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
2.5°	3295.6	3293.6	3291.6	3287.5	3279.4	3277.4	3273.3	3273.3	3271.3	3267.3	3271.3
5°	3289.5	3293.6	3293.6	3291.6	3285.5	3289.5	3289.5	3295.6	3295.6	3299.7	3309.8
7.5°	3281.4	3291.6	3299.7	3305.7	3313.8	3319.9	3332.1	3350.3	3358.4	3372.6	3378.7
10°	3265.2	3283.5	3297.6	3315.9	3336.1	3358.4	3376.6	3405.0	3415.1	3435.4	3445.5
12.5°	3218.6	3249.0	3273.3	3309.8	3344.2	3378.7	3411.1	3447.5	3465.8	3488.0	3502.2
15°	3105.2	3139.6	3174.1	3206.5	3267.3	3334.1	3386.8	3435.4	3461.7	3490.1	3504.3
17.5°	2969.5	2991.8	3020.1	3062.7	3121.4	3180.2	3265.2	3334.1	3374.6	3407.0	3411.1
20°	2811.5	2843.9	2864.2	2880.4	2927.0	2967.5	3058.6	3137.6	3190.3	3228.8	3238.9
22.5°	2570.5	2604.9	2639.3	2651.5	2687.9	2740.6	2791.2	2876.3	2951.3	3008.0	3042.4
25°	2295.0	2327.4	2374.0	2410.4	2418.5	2461.1	2511.7	2608.9	2685.9	2777.1	2817.6
27.5°	2019.5	2047.9	2098.5	2118.8	2143.1	2185.6	2226.1	2307.1	2388.2	2493.5	2538.0
30°	1697.4	1758.2	1816.9	1855.4	1875.7	1926.3	1954.7	2033.7	2108.6	2185.6	2250.4
32.5°	1422.0	1476.6	1543.5	1592.1	1616.4	1654.9	1699.5	1766.3	1825.0	1900.0	1974.9
35°	1168.8	1243.7	1288.3	1330.8	1393.6	1411.8	1456.4	1517.2	1551.6	1632.6	1717.7
37.5°	990.5	1035.1	1079.6	1122.2	1174.8	1199.1	1241.7	1292.3	1332.8	1381.4	1458.4
40°	881.1	905.4	937.8	966.2	1004.7	1035.1	1057.4	1099.9	1130.3	1178.9	1233.6
42.5°	830.5	836.6	840.6	860.9	881.1	901.4	925.7	943.9	980.4	1016.8	1051.3
45°	802.1	790.0	783.9	785.9	794.0	806.2	826.4	846.7	871.0	893.3	913.5
47.5°	777.8	761.6	743.4	733.3	735.3	739.3	755.5	771.7	783.9	802.1	810.2
50°	721.1	706.9	690.7	676.5	678.6	680.6	694.8	706.9	715.0	721.1	731.2
52.5°	684.6	664.4	650.2	636.0	634.0	640.1	652.2	664.4	668.4	672.5	674.5
55°	658.3	638.1	619.8	605.6	599.6	613.8	617.8	634.0	640.1	640.1	642.1
57.5°	638.1	613.8	595.5	581.3	571.2	581.3	591.5	609.7	611.7	607.7	607.7
60°	607.7	589.4	571.2	557.0	546.9	555.0	563.1	583.4	583.4	573.2	571.2
62.5°	555.0	544.9	532.7	526.7	524.6	532.7	538.8	555.0	548.9	536.8	532.7
65°	516.5	508.4	496.3	492.2	490.2	502.3	504.4	514.5	506.4	500.3	498.3
67.5°	469.9	463.9	457.8	455.8	449.7	449.7	453.7	459.8	455.8	455.8	457.8
70°	417.3	409.2	403.1	405.1	401.1	401.1	403.1	407.1	405.1	409.2	413.2
72.5°	368.7	358.5	356.5	356.5	352.5	354.5	354.5	356.5	360.6	362.6	372.7
75°	322.1	311.9	311.9	309.9	309.9	309.9	311.9	316.0	320.0	322.1	326.1
77.5°	279.5	273.5	275.5	273.5	273.5	273.5	273.5	279.5	281.6	283.6	289.7
80°	241.0	241.0	243.1	243.1	241.0	239.0	241.0	245.1	247.1	249.1	251.2
82.5°	218.8	220.8	220.8	220.8	210.7	206.6	212.7	216.7	220.8	222.8	226.9
85°	188.4	180.3	188.4	186.4	172.2	170.1	170.1	172.2	176.2	172.2	172.2
87.5°	121.5	109.4	115.5	115.5	101.3	83.0	105.3	113.4	101.3	107.4	107.4
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: P159178

CATALOG NUMBER: VST-E12-LED-E-U-SLR-8030

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	215°
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
2.5°	3277.4	3273.3	3275.4	3275.4	3279.4	3273.3	3281.4	3289.5	3291.6	3291.6	3293.6
5°	3319.9	3315.9	3330.1	3324.0	3338.2	3336.1	3346.3	3354.4	3358.4	3358.4	3358.4
7.5°	3386.8	3400.9	3409.0	3431.3	3433.4	3445.5	3455.6	3465.8	3461.7	3463.7	3461.7
10°	3461.7	3479.9	3500.2	3522.5	3524.5	3538.7	3554.9	3565.0	3561.0	3558.9	3552.9
12.5°	3526.5	3538.7	3563.0	3585.3	3597.4	3619.7	3635.9	3644.0	3644.0	3637.9	3631.9
15°	3522.5	3540.7	3567.0	3599.5	3621.7	3654.1	3682.5	3700.7	3702.8	3696.7	3694.7
17.5°	3433.4	3459.7	3484.0	3528.6	3569.1	3613.6	3660.2	3686.6	3710.9	3725.0	3733.1
20°	3273.3	3305.7	3340.2	3398.9	3453.6	3512.4	3567.0	3605.5	3642.0	3684.5	3735.2
22.5°	3085.0	3133.6	3182.2	3257.1	3324.0	3390.8	3453.6	3500.2	3556.9	3629.8	3725.0
25°	2864.2	2914.8	2975.6	3062.7	3147.7	3245.0	3338.2	3431.3	3540.7	3666.3	3814.2
27.5°	2602.9	2659.6	2738.6	2843.9	2941.1	3040.4	3186.2	3334.1	3512.4	3674.4	3842.5
30°	2343.6	2416.5	2501.6	2606.9	2704.1	2845.9	2991.8	3174.1	3362.5	3544.8	3745.3
32.5°	2064.1	2155.2	2260.5	2347.6	2457.0	2600.8	2746.7	2941.1	3141.7	3356.4	3577.2
35°	1794.7	1881.8	1964.8	2062.0	2171.4	2307.1	2448.9	2635.3	2888.5	3117.4	3380.7
37.5°	1521.2	1602.2	1661.0	1737.9	1833.1	1983.0	2135.0	2349.7	2588.7	2870.2	3133.6
40°	1282.2	1349.0	1415.9	1476.6	1557.7	1699.5	1861.5	2072.2	2307.1	2580.6	2874.3
42.5°	1091.8	1142.4	1215.3	1288.3	1357.1	1478.7	1630.6	1837.2	2070.1	2349.7	2643.4
45°	931.8	966.2	1024.9	1085.7	1170.8	1272.1	1417.9	1628.6	1865.6	2147.1	2457.0
47.5°	816.3	832.5	873.0	935.8	1014.8	1114.1	1239.7	1430.1	1661.0	1944.6	2270.7
50°	737.3	755.5	775.8	828.5	899.4	1000.6	1103.9	1270.0	1480.7	1758.2	2082.3
52.5°	682.6	690.7	698.8	731.2	796.1	881.1	990.5	1116.1	1328.8	1594.1	1885.8
55°	650.2	652.2	658.3	674.5	723.1	802.1	897.3	1016.8	1182.9	1434.1	1731.9
57.5°	611.7	615.8	621.9	632.0	662.4	733.3	814.3	911.5	1049.2	1259.9	1545.5
60°	575.3	585.4	595.5	601.6	617.8	660.3	729.2	806.2	917.6	1075.6	1302.4
62.5°	536.8	548.9	557.0	563.1	569.2	595.5	646.2	696.8	765.7	869.0	1039.1
65°	502.3	510.4	516.5	520.6	524.6	532.7	555.0	575.3	595.5	658.3	781.9
67.5°	463.9	467.9	469.9	472.0	469.9	469.9	472.0	480.1	488.2	512.5	571.2
70°	419.3	425.4	425.4	427.4	427.4	421.3	421.3	421.3	421.3	427.4	459.8
72.5°	376.8	384.9	384.9	386.9	384.9	382.8	382.8	382.8	388.9	393.0	405.1
75°	336.2	344.3	342.3	344.3	346.4	346.4	350.4	352.5	358.5	360.6	368.7
77.5°	295.7	301.8	303.8	301.8	305.9	309.9	318.0	322.1	324.1	326.1	328.1
80°	257.2	261.3	259.3	253.2	263.3	269.4	281.6	295.7	291.7	293.7	297.8
82.5°	212.7	206.6	202.6	206.6	212.7	220.8	232.9	251.2	253.2	263.3	261.3
85°	164.1	145.8	143.8	153.9	151.9	162.0	182.3	196.5	208.6	218.8	208.6
87.5°	97.2	87.1	72.9	68.9	74.9	99.3	103.3	125.6	135.7	139.8	125.6
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: P159178

CATALOG NUMBER: VST-E12-LED-E-U-SLR-8030

CANDELA DISTRIBUTION (continued):

	220°	225°	230°	235°	240°	245°	250°	255°	260°	265°	270°
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
2.5°	3477.9	3488.0	3488.0	3492.1	3498.2	3500.2	3508.3	3522.5	3524.5	3524.5	3530.6
5°	3542.7	3552.9	3552.9	3561.0	3563.0	3573.1	3583.2	3599.5	3607.6	3605.5	3631.9
7.5°	3648.1	3640.0	3633.9	3646.0	3652.1	3664.3	3684.5	3698.7	3712.9	3735.2	3771.6
10°	3737.2	3725.0	3719.0	3727.1	3731.1	3745.3	3757.4	3777.7	3812.1	3846.6	3891.1
12.5°	3810.1	3795.9	3779.7	3783.8	3789.9	3808.1	3828.3	3854.7	3905.3	3949.9	4016.7
15°	3870.9	3850.6	3834.4	3842.5	3856.7	3881.0	3915.4	3962.0	4045.1	4122.1	4211.2
17.5°	3929.6	3925.6	3919.5	3945.8	3956.0	4012.7	4063.3	4148.4	4261.8	4377.3	4504.9
20°	3986.3	4030.9	4053.2	4105.8	4138.3	4215.2	4292.2	4395.5	4539.3	4697.3	4871.5
22.5°	4065.3	4186.9	4261.8	4369.2	4423.9	4506.9	4620.3	4756.1	4916.1	5118.6	5341.4
25°	4253.7	4432.0	4581.9	4750.0	4887.7	5015.3	5151.0	5315.1	5546.0	5730.4	6022.0
27.5°	4336.8	4587.9	4812.8	5049.8	5256.4	5452.9	5667.6	5866.1	6139.5	6388.7	6741.1
30°	4257.8	4541.3	4833.0	5142.9	5444.8	5742.5	6054.5	6358.3	6674.3	7022.7	7397.4
32.5°	4111.9	4429.9	4758.1	5122.7	5497.4	5884.3	6289.4	6731.0	7176.6	7610.1	7992.9
35°	3964.1	4306.4	4671.0	5088.3	5529.8	6009.9	6512.2	7071.3	7660.7	8209.7	8710.0
37.5°	3749.3	4126.1	4543.4	5025.5	5550.1	6141.6	6787.7	7476.4	8221.8	8977.4	9633.7
40°	3490.1	3889.1	4344.9	4899.9	5529.8	6277.3	7117.9	8001.0	8959.1	9880.8	10687.0
42.5°	3253.1	3642.0	4128.1	4731.8	5477.2	6396.8	7431.8	8531.7	9666.1	10697.1	11750.4
45°	3044.4	3473.9	3962.0	4614.3	5450.8	6498.1	7664.8	8928.7	10227.1	11454.6	12698.3
47.5°	2854.0	3299.7	3846.6	4549.4	5438.7	6558.8	7826.8	9188.0	10626.2	12036.0	13480.2
50°	2657.6	3091.0	3676.4	4478.6	5408.3	6556.8	7911.9	9364.2	10905.7	12487.7	14019.0
52.5°	2446.9	2882.4	3469.8	4348.9	5343.5	6520.3	7934.2	9483.8	11126.5	12765.2	14476.8
55°	2254.5	2661.6	3249.0	4132.2	5207.8	6431.2	7883.6	9534.4	11282.5	13040.7	14798.9
57.5°	2033.7	2457.0	3016.1	3834.4	4952.5	6273.2	7739.7	9463.5	11327.0	13225.0	15054.1
60°	1729.8	2145.1	2720.4	3482.0	4553.5	5939.0	7472.4	9248.8	11185.2	13257.4	15236.4
62.5°	1381.4	1740.0	2295.0	2995.8	3992.4	5414.4	6978.1	8766.7	10743.7	12953.6	15143.2
65°	1027.0	1266.0	1744.0	2359.8	3342.2	4624.4	6182.1	7958.5	9880.8	12108.9	14557.8
67.5°	715.0	887.2	1180.9	1638.7	2430.7	3571.1	5045.7	6696.6	8545.9	10545.2	13342.5
70°	540.8	619.8	779.8	1035.1	1573.9	2432.7	3668.3	5138.9	6854.6	8780.9	11416.2
72.5°	461.8	502.3	591.5	709.0	964.2	1478.7	2303.1	3536.7	5057.9	6625.7	8758.6
75°	415.2	449.7	506.4	581.3	682.6	897.3	1351.1	2238.3	3350.3	4438.0	6111.2
77.5°	376.8	407.1	457.8	496.3	551.0	646.2	860.9	1338.9	2007.3	2742.6	3791.9
80°	336.2	354.5	401.1	439.6	482.1	536.8	617.8	840.6	1152.6	1624.5	2236.2
82.5°	287.6	301.8	336.2	388.9	421.3	443.6	467.9	557.0	690.7	881.1	1241.7
85°	222.8	232.9	263.3	301.8	316.0	318.0	322.1	346.4	429.4	660.3	1069.5
87.5°	113.4	125.6	158.0	170.1	143.8	156.0	158.0	168.1	222.8	362.6	368.7
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: P159178
CATALOG NUMBER: VST-E12-LED-E-U-SLR-8030

REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	275°	280°	285°	290°	295°	300°	305°	310°	315°	320°	325°	
0°	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	0°
2.5°	3530.6	3536.7	3550.8	3548.8	3558.9	3558.9	3558.9	3569.1	3563.0	3569.1	3579.2	2.5°
5°	3631.9	3642.0	3662.2	3662.2	3664.3	3664.3	3670.3	3678.5	3668.3	3664.3	3666.3	5°
7.5°	3779.7	3795.9	3812.1	3828.3	3840.5	3834.4	3836.4	3818.2	3814.2	3800.0	3781.8	7.5°
10°	3923.5	3968.1	3998.5	4026.8	4028.9	4022.8	4024.8	3994.4	3988.4	3960.0	3941.8	10°
12.5°	4071.4	4128.1	4176.7	4207.1	4225.4	4229.4	4231.4	4231.4	4203.1	4178.8	4136.2	12.5°
15°	4290.2	4389.4	4464.4	4496.8	4523.1	4547.4	4553.5	4561.6	4539.3	4506.9	4500.8	15°
17.5°	4636.5	4729.7	4829.0	4916.1	4974.8	4978.9	5029.5	5025.5	5072.0	5035.6	5025.5	17.5°
20°	5047.7	5250.3	5353.6	5469.1	5535.9	5568.3	5685.8	5649.3	5683.8	5742.5	5683.8	20°
22.5°	5562.2	5819.5	5969.4	6127.4	6236.8	6315.8	6400.8	6467.7	6560.8	6605.4	6564.9	22.5°
25°	6244.9	6538.6	6716.8	6935.6	7109.8	7251.6	7399.4	7577.7	7575.7	7683.0	7758.0	25°
27.5°	7028.8	7403.5	7662.8	8047.6	8197.5	8436.5	8689.7	8965.2	9013.8	9153.6	9224.5	27.5°
30°	7766.1	8229.9	8744.4	9202.2	9720.7	10075.2	10368.9	10563.4	10857.1	10784.2	10743.7	30°
32.5°	8446.7	9064.5	9797.7	10549.2	11371.6	11932.7	12451.2	12692.3	12874.6	12487.7	11975.2	32.5°
35°	9329.8	10069.1	10907.7	11835.5	12880.7	13676.7	14211.5	14286.4	14183.1	13686.8	12838.1	35°
37.5°	10423.6	11199.4	12153.5	13133.8	14243.9	14991.3	15601.0	15710.4	15436.9	14551.8	13660.5	37.5°
40°	11503.3	12412.7	13447.8	14608.5	15759.0	16581.4	17193.1	17225.5	16779.9	15744.8	14701.6	40°
42.5°	12684.2	13678.7	14831.3	16117.5	17306.5	18139.1	18580.6	18720.4	18090.4	16763.7	15763.0	42.5°
45°	13703.0	14892.1	16176.3	17543.5	18787.2	19577.2	20026.9	19982.3	19220.7	17910.2	16737.4	45°
47.5°	14695.6	16004.1	17357.2	18809.5	20045.1	20843.2	21305.0	21264.5	20298.3	18789.3	17499.0	47.5°
50°	15578.7	16998.7	18444.9	19996.5	21228.1	21959.3	22524.4	22346.2	21124.8	19496.2	17989.2	50°
52.5°	16192.5	17776.5	19287.6	20964.7	22232.7	22925.5	23644.6	23071.3	21612.9	19929.7	18252.5	52.5°
55°	16581.4	18311.2	19887.1	21742.6	22988.3	23816.7	24280.6	23466.3	21801.3	20049.2	18343.6	55°
57.5°	16844.7	18604.9	20239.6	22192.2	23668.9	24363.7	24477.1	23480.5	21679.8	19860.8	18252.5	57.5°
60°	16974.3	18692.0	20399.6	22508.2	24146.9	24527.7	24321.1	23152.4	21260.5	19307.8	17665.1	60°
62.5°	16960.2	18582.7	20316.5	22613.6	24242.1	24290.7	23820.8	22593.3	20488.7	18147.2	16688.7	62.5°
65°	16599.6	18183.6	19848.6	22222.6	23798.5	23589.9	22998.4	21544.1	18987.8	16632.0	15894.7	65°
67.5°	15560.5	17079.7	18625.2	20942.5	22548.7	22346.2	21450.9	19482.0	17243.7	15291.1	14894.1	67.5°
70°	13822.5	15110.8	16468.0	18503.7	20188.9	19915.5	18349.7	17152.6	15515.9	13741.5	13603.8	70°
72.5°	11555.9	12532.3	13516.7	15031.8	16192.5	15633.4	14649.0	14586.2	13263.5	11908.4	11936.7	72.5°
75°	9038.1	9771.4	10231.2	11122.5	11894.2	11393.9	11452.6	11801.0	11365.5	10298.0	9951.7	75°
77.5°	6548.7	7251.6	7397.4	7926.1	8468.9	9038.1	9791.6	10612.0	10749.7	10150.2	8894.3	77.5°
80°	4286.1	5059.9	4772.3	4960.6	5724.3	6763.4	8138.8	9489.8	9953.7	9414.9	7869.4	80°
82.5°	2527.9	3611.6	3153.8	3475.9	3960.0	4865.4	5815.4	6834.3	7610.1	7036.9	6573.0	82.5°
85°	1920.2	2848.0	3016.1	3407.0	3565.0	3603.5	3769.6	4101.8	4502.9	4652.8	4640.6	85°
87.5°	1000.6	2214.0	2485.4	2299.0	2145.1	1859.5	1450.3	1561.7	1428.0	1952.7	1849.4	87.5°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	90°



NUMBER: P159178

NUMBER: VST-E12-LED-E-U-SLR-8030

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
3581.2	3575.1	3579.2	3581.2	3581.2	3581.2	3585.3
3664.3	3648.1	3642.0	3642.0	3640.0	3633.9	3631.9
3753.4	3725.0	3714.9	3702.8	3692.6	3686.6	3676.4
3913.4	3889.1	3838.5	3810.1	3783.8	3765.5	3749.3
4128.1	4093.7	4045.1	4008.6	3968.1	3956.0	3935.7
4460.3	4429.9	4387.4	4346.9	4322.6	4280.0	4249.7
4978.9	4918.1	4875.6	4822.9	4764.2	4677.1	4634.5
5661.5	5540.0	5454.9	5408.3	5290.8	5276.6	5173.3
6445.4	6408.9	6279.3	6222.6	6109.1	6064.6	5902.5
7618.2	7589.8	7324.5	7296.1	7121.9	6992.3	6741.1
9159.7	8926.7	8626.9	8418.3	8120.5	7786.3	7358.9
10506.7	10030.7	9572.9	9086.7	8675.6	8195.5	7711.4
11365.5	10727.5	10138.0	9639.7	9131.3	8560.1	7938.2
12119.0	11474.9	10832.8	10243.3	9627.6	8896.3	8128.6
13020.4	12380.3	11657.2	10828.7	10038.8	9143.5	8205.6
13944.1	13194.6	12291.2	11276.4	10283.9	9265.0	8191.4
14890.0	13931.9	12730.8	11574.2	10439.8	9283.2	8096.2
15657.7	14446.4	13056.9	11726.1	10472.2	9220.4	7976.7
16200.6	14776.6	13202.7	11778.7	10431.7	9121.2	7814.7
16510.5	14956.9	13239.2	11740.3	10348.7	8979.4	7638.5
16623.9	15011.6	13202.7	11661.3	10273.7	8827.5	7514.9
16611.8	14981.2	13069.0	11476.9	10073.2	8624.9	7363.0
16382.9	14699.6	12795.6	11256.1	9903.1	8531.7	7373.1
15994.0	14521.4	12714.6	11300.7	9992.2	8732.3	7693.1
15817.7	14877.9	13170.3	11746.3	10450.0	9305.5	8353.5
15718.5	15457.2	13822.5	12226.4	10992.8	10000.3	9141.4
15313.4	15623.3	14193.2	12499.8	11476.9	10697.1	9929.4
14659.1	15236.4	13911.7	12447.2	11744.3	11231.8	10213.0
13293.9	13903.6	12657.8	11671.4	11410.1	11239.9	9787.6
10770.0	11086.0	10377.0	10154.2	10251.5	10253.5	8209.7
7942.3	7751.9	7431.8	7448.1	8102.3	8001.0	5851.9
6483.9	5307.0	4853.3	5025.5	5833.7	5398.2	3676.4
6034.2	4733.8	3907.3	3947.9	4405.6	3477.9	2214.0
4879.6	4314.5	3459.7	3105.2	3014.1	2317.3	1503.0
2041.8	1877.7	1397.6	1259.9	1033.0	632.0	287.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

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