

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: P158958

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158958
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-SLL-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - 90° SPILL LIGHT ELIMINATOR LEFT
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

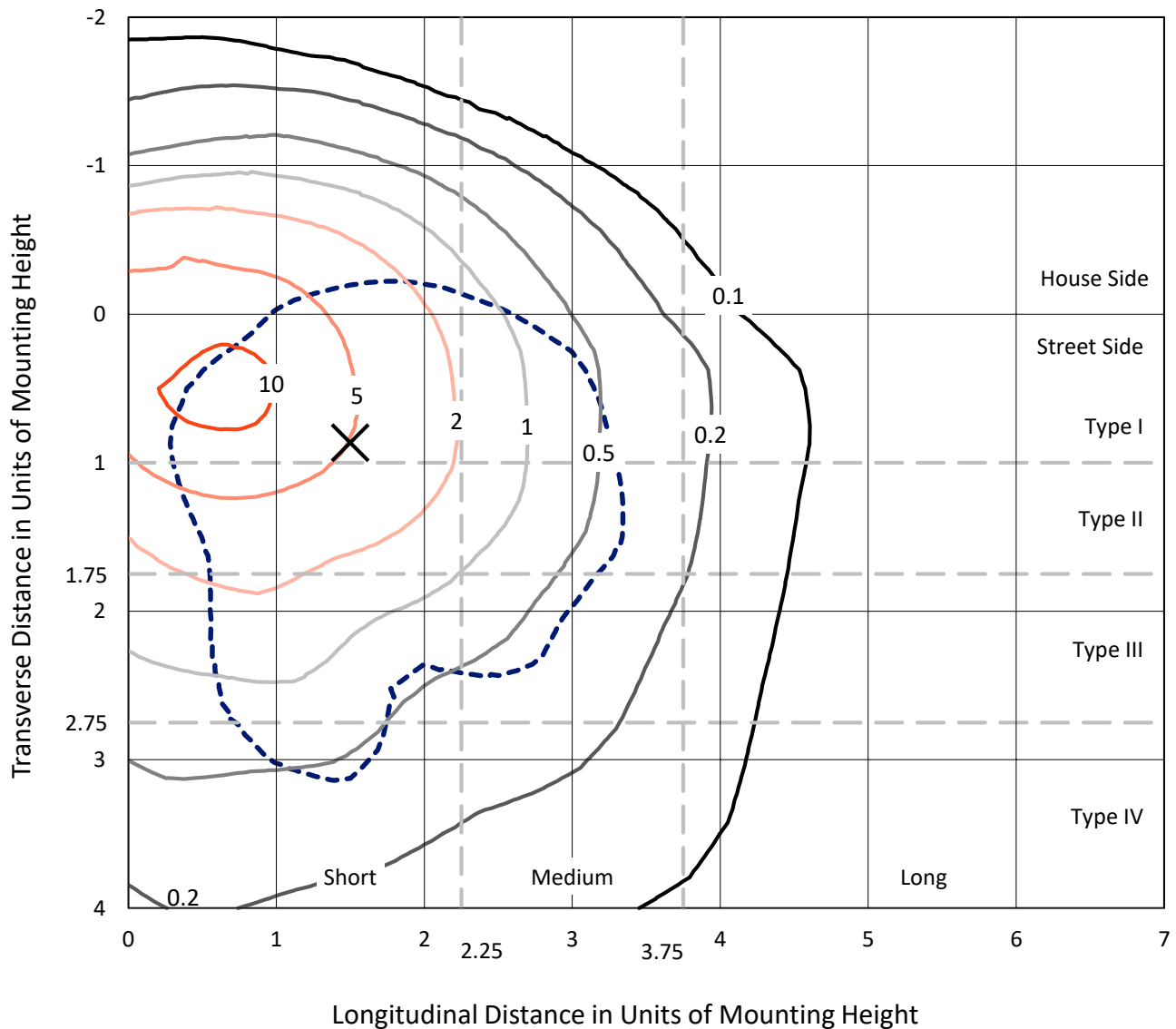


REPORT NUMBER: P158958

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

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

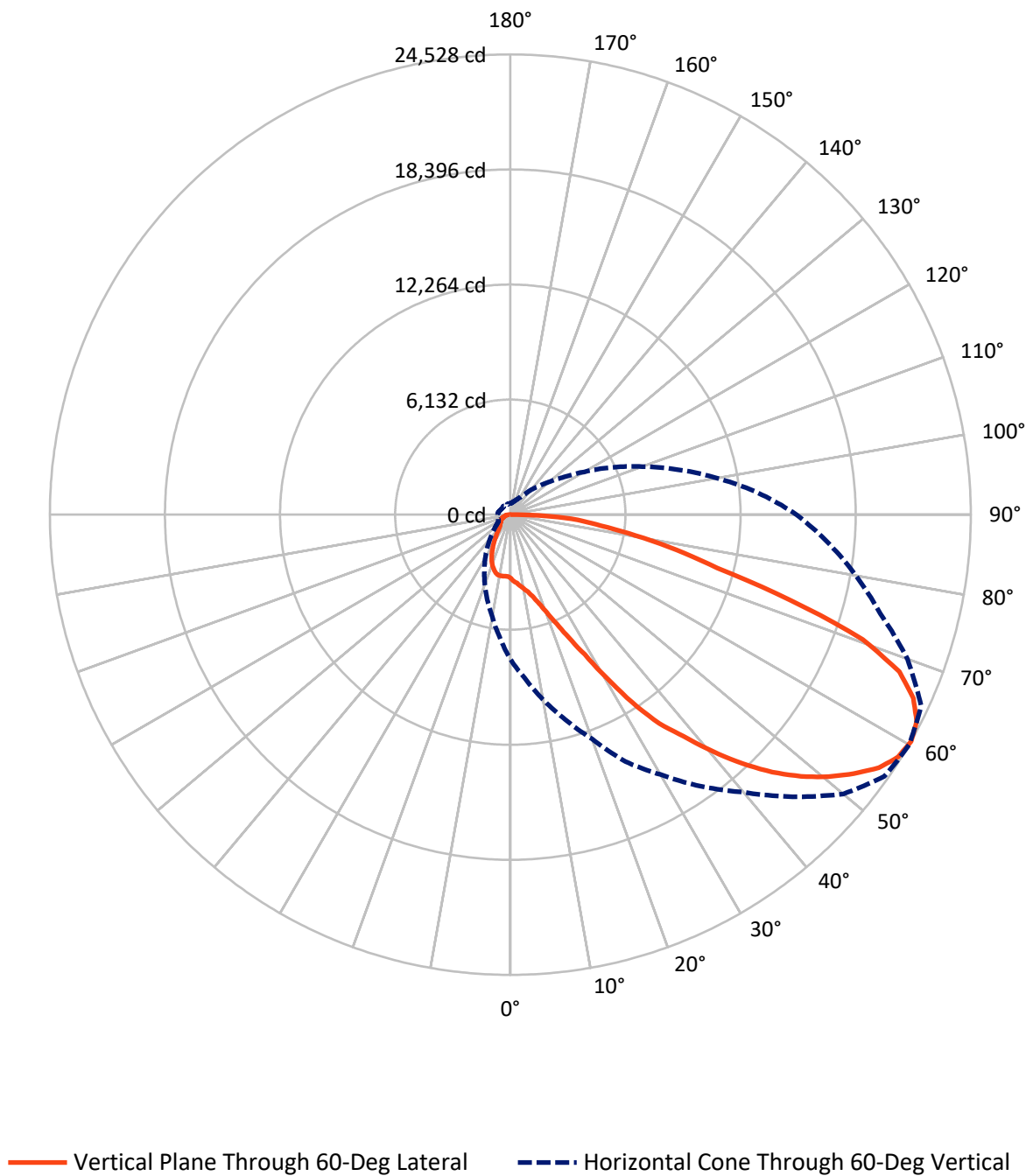


Based on 25 foot mounting height. Maximum calculated value = 12.5 fc
Type IV - Short - Non-Cutoff

REPORT NUMBER: P158958

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

Luminous Intensity Polar Plot



REPORT NUMBER: P158958

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

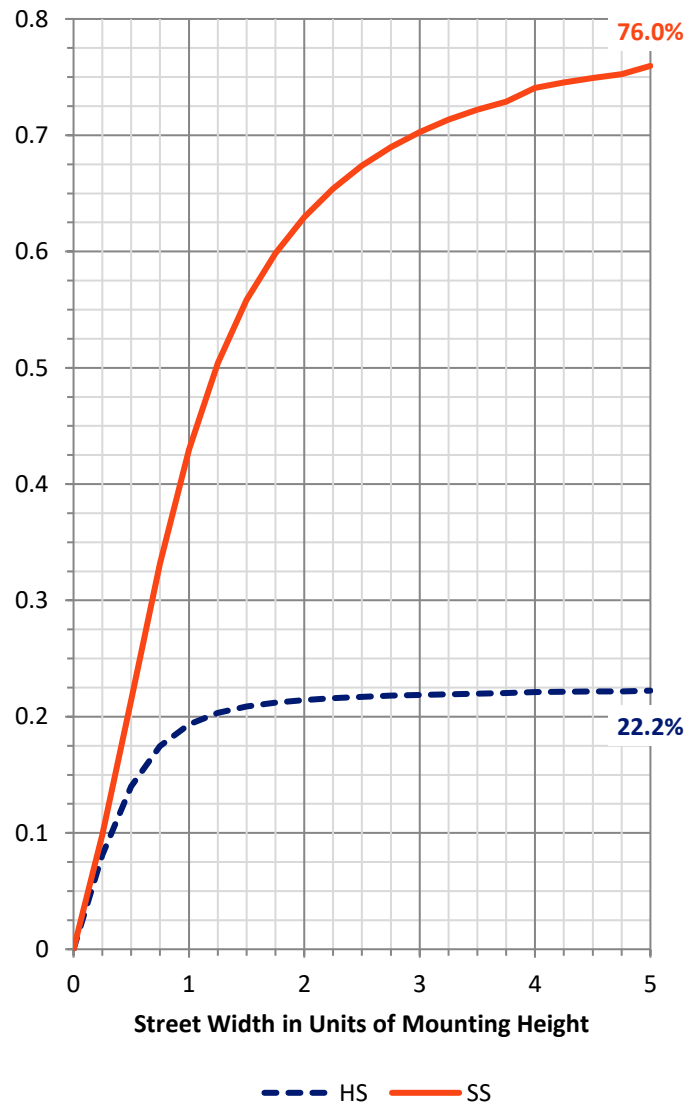
FLUX DISTRIBUTION:

		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



REPORT NUMBER: P158958

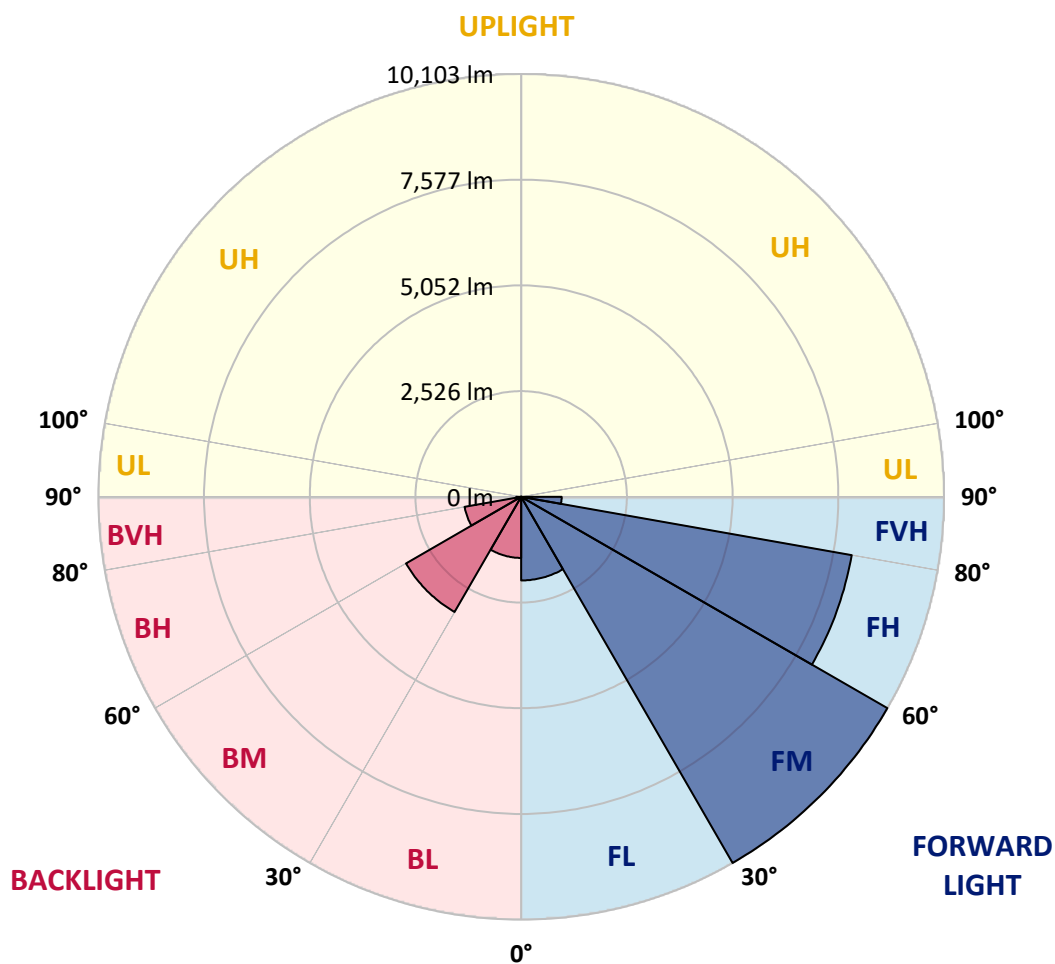
CATALOG NUMBER: VST-E12-LED-E-U-SLL-8030

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





REPORT NUMBER: P158958

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

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	3581.2	3581.2	3581.2	3579.2	3575.1	3581.2	3579.2	3569.1	3563.0	3569.1
5°	3631.9	3633.9	3640.0	3642.0	3642.0	3648.1	3664.3	3666.3	3664.3	3668.3	3678.5
7.5°	3676.4	3686.6	3692.6	3702.8	3714.9	3725.0	3753.4	3781.8	3800.0	3814.2	3818.2
10°	3749.3	3765.5	3783.8	3810.1	3838.5	3889.1	3913.4	3941.8	3960.0	3988.4	3994.4
12.5°	3935.7	3956.0	3968.1	4008.6	4045.1	4093.7	4128.1	4136.2	4178.8	4203.1	4231.4
15°	4249.7	4280.0	4322.6	4346.9	4387.4	4429.9	4460.3	4500.8	4506.9	4539.3	4561.6
17.5°	4634.5	4677.1	4764.2	4822.9	4875.6	4918.1	4978.9	5025.5	5035.6	5072.0	5025.5
20°	5173.3	5276.6	5290.8	5408.3	5454.9	5540.0	5661.5	5683.8	5742.5	5683.8	5649.3
22.5°	5902.5	6064.6	6109.1	6222.6	6279.3	6408.9	6445.4	6564.9	6605.4	6560.8	6467.7
25°	6741.1	6992.3	7121.9	7296.1	7324.5	7589.8	7618.2	7758.0	7683.0	7575.7	7577.7
27.5°	7358.9	7786.3	8120.5	8418.3	8626.9	8926.7	9159.7	9224.5	9153.6	9013.8	8965.2
30°	7711.4	8195.5	8675.6	9086.7	9572.9	10030.7	10506.7	10743.7	10784.2	10857.1	10563.4
32.5°	7938.2	8560.1	9131.3	9639.7	10138.0	10727.5	11365.5	11975.2	12487.7	12874.6	12692.3
35°	8128.6	8896.3	9627.6	10243.3	10832.8	11474.9	12119.0	12838.1	13686.8	14183.1	14286.4
37.5°	8205.6	9143.5	10038.8	10828.7	11657.2	12380.3	13020.4	13660.5	14551.8	15436.9	15710.4
40°	8191.4	9265.0	10283.9	11276.4	12291.2	13194.6	13944.1	14701.6	15744.8	16779.9	17225.5
42.5°	8096.2	9283.2	10439.8	11574.2	12730.8	13931.9	14890.0	15763.0	16763.7	18090.4	18720.4
45°	7976.7	9220.4	10472.2	11726.1	13056.9	14446.4	15657.7	16737.4	17910.2	19220.7	19982.3
47.5°	7814.7	9121.2	10431.7	11778.7	13202.7	14776.6	16200.6	17499.0	18789.3	20298.3	21264.5
50°	7638.5	8979.4	10348.7	11740.3	13239.2	14956.9	16510.5	17989.2	19496.2	21124.8	22346.2
52.5°	7514.9	8827.5	10273.7	11661.3	13202.7	15011.6	16623.9	18252.5	19929.7	21612.9	23071.3
55°	7363.0	8624.9	10073.2	11476.9	13069.0	14981.2	16611.8	18343.6	20049.2	21801.3	23466.3
57.5°	7373.1	8531.7	9903.1	11256.1	12795.6	14699.6	16382.9	18252.5	19860.8	21679.8	23480.5
60°	7693.1	8732.3	9992.2	11300.7	12714.6	14521.4	15994.0	17665.1	19307.8	21260.5	23152.4
62.5°	8353.5	9305.5	10450.0	11746.3	13170.3	14877.9	15817.7	16688.7	18147.2	20488.7	22593.3
65°	9141.4	10000.3	10992.8	12226.4	13822.5	15457.2	15718.5	15894.7	16632.0	18987.8	21544.1
67.5°	9929.4	10697.1	11476.9	12499.8	14193.2	15623.3	15313.4	14894.1	15291.1	17243.7	19482.0
70°	10213.0	11231.8	11744.3	12447.2	13911.7	15236.4	14659.1	13603.8	13741.5	15515.9	17152.6
72.5°	9787.6	11239.9	11410.1	11671.4	12657.8	13903.6	13293.9	11936.7	11908.4	13263.5	14586.2
75°	8209.7	10253.5	10251.5	10154.2	10377.0	11086.0	10770.0	9951.7	10298.0	11365.5	11801.0
77.5°	5851.9	8001.0	8102.3	7448.1	7431.8	7751.9	7942.3	8894.3	10150.2	10749.7	10612.0
80°	3676.4	5398.2	5833.7	5025.5	4853.3	5307.0	6483.9	7869.4	9414.9	9953.7	9489.8
82.5°	2214.0	3477.9	4405.6	3947.9	3907.3	4733.8	6034.2	6573.0	7036.9	7610.1	6834.3
85°	1503.0	2317.3	3014.1	3105.2	3459.7	4314.5	4879.6	4640.6	4652.8	4502.9	4101.8
87.5°	287.6	632.0	1033.0	1259.9	1397.6	1877.7	2041.8	1849.4	1952.7	1428.0	1561.7
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: P158958

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

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°	3558.9	3558.9	3558.9	3548.8	3550.8	3536.7	3530.6	3530.6	3524.5	3524.5	3522.5
5°	3670.3	3658.2	3664.3	3662.2	3662.2	3642.0	3631.9	3631.9	3605.5	3607.6	3599.5
7.5°	3836.4	3834.4	3840.5	3828.3	3812.1	3795.9	3779.7	3771.6	3735.2	3712.9	3698.7
10°	4024.8	4022.8	4028.9	4026.8	3998.5	3968.1	3923.5	3891.1	3846.6	3812.1	3777.7
12.5°	4231.4	4229.4	4225.4	4207.1	4176.7	4128.1	4071.4	4016.7	3949.9	3905.3	3854.7
15°	4553.5	4547.4	4523.1	4496.8	4464.4	4389.4	4290.2	4211.2	4122.1	4045.1	3962.0
17.5°	5029.5	4978.9	4974.8	4916.1	4829.0	4729.7	4636.5	4504.9	4377.3	4261.8	4148.4
20°	5685.8	5568.3	5535.9	5469.1	5353.6	5250.3	5047.7	4871.5	4697.3	4539.3	4395.5
22.5°	6400.8	6315.8	6236.8	6127.4	5969.4	5819.5	5562.2	5341.4	5118.6	4916.1	4756.1
25°	7399.4	7251.6	7109.8	6935.6	6716.8	6538.6	6244.9	6022.0	5730.4	5546.0	5315.1
27.5°	8689.7	8436.5	8197.5	8047.6	7662.8	7403.5	7028.8	6741.1	6388.7	6139.5	5866.1
30°	10368.9	10075.2	9720.7	9202.2	8744.4	8229.9	7766.1	7397.4	7022.7	6674.3	6358.3
32.5°	12451.2	11932.7	11371.6	10549.2	9797.7	9064.5	8446.7	7992.9	7610.1	7176.6	6731.0
35°	14211.5	13676.7	12880.7	11835.5	10907.7	10069.1	9329.8	8710.0	8209.7	7660.7	7071.3
37.5°	15601.0	14991.3	14243.9	13133.8	12153.5	11199.4	10423.6	9633.7	8977.4	8221.8	7476.4
40°	17193.1	16581.4	15759.0	14608.5	13447.8	12412.7	11503.3	10687.0	9880.8	8959.1	8001.0
42.5°	18580.6	18139.1	17306.5	16117.5	14831.3	13678.7	12684.2	11750.4	10697.1	9666.1	8531.7
45°	20026.9	19577.2	18787.2	17543.5	16176.3	14892.1	13703.0	12698.3	11454.6	10227.1	8928.7
47.5°	21305.0	20843.2	20045.1	18809.5	17357.2	16004.1	14695.6	13480.2	12036.0	10626.2	9188.0
50°	22524.4	21959.3	21228.1	19996.5	18444.9	16998.7	15578.7	14019.0	12487.7	10905.7	9364.2
52.5°	23644.6	22925.5	22232.7	20964.7	19287.6	17776.5	16192.5	14476.8	12765.2	11126.5	9483.8
55°	24280.6	23816.7	22988.3	21742.6	19887.1	18311.2	16581.4	14798.9	13040.7	11282.5	9534.4
57.5°	24477.1	24363.7	23668.9	22192.2	20239.6	18604.9	16844.7	15054.1	13225.0	11327.0	9463.5
60°	24321.1	24527.7	24146.9	22508.2	20399.6	18692.0	16974.3	15236.4	13257.4	11185.2	9248.8
62.5°	23820.8	24290.7	24242.1	22613.6	20316.5	18582.7	16960.2	15143.2	12953.6	10743.7	8766.7
65°	22998.4	23589.9	23798.5	22222.6	19848.6	18183.6	16599.6	14557.8	12108.9	9880.8	7958.5
67.5°	21450.9	22346.2	22548.7	20942.5	18625.2	17079.7	15560.5	13342.5	10545.2	8545.9	6696.6
70°	18349.7	19915.5	20188.9	18503.7	16468.0	15110.8	13822.5	11416.2	8780.9	6854.6	5138.9
72.5°	14649.0	15633.4	16192.5	15031.8	13516.7	12532.3	11555.9	8758.6	6625.7	5057.9	3536.7
75°	11452.6	11393.9	11894.2	11122.5	10231.2	9771.4	9038.1	6111.2	4438.0	3350.3	2238.3
77.5°	9791.6	9038.1	8468.9	7926.1	7397.4	7251.6	6548.7	3791.9	2742.6	2007.3	1338.9
80°	8138.8	6763.4	5724.3	4960.6	4772.3	5059.9	4286.1	2236.2	1624.5	1152.6	840.6
82.5°	5815.4	4865.4	3960.0	3475.9	3153.8	3611.6	2527.9	1241.7	881.1	690.7	557.0
85°	3769.6	3603.5	3565.0	3407.0	3016.1	2848.0	1920.2	1069.5	660.3	429.4	346.4
87.5°	1450.3	1859.5	2145.1	2299.0	2485.4	2214.0	1000.6	368.7	362.6	222.8	168.1
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: P158958

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

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°	3508.3	3500.2	3498.2	3492.1	3488.0	3488.0	3477.9	3293.6	3291.6	3291.6	3289.5
5°	3583.2	3573.1	3563.0	3561.0	3552.9	3552.9	3542.7	3358.4	3358.4	3358.4	3354.4
7.5°	3684.5	3664.3	3652.1	3646.0	3633.9	3640.0	3648.1	3461.7	3463.7	3461.7	3465.8
10°	3757.4	3745.3	3731.1	3727.1	3719.0	3725.0	3737.2	3552.9	3558.9	3561.0	3565.0
12.5°	3828.3	3808.1	3789.9	3783.8	3779.7	3795.9	3810.1	3631.9	3637.9	3644.0	3644.0
15°	3915.4	3881.0	3856.7	3842.5	3834.4	3850.6	3870.9	3694.7	3696.7	3702.8	3700.7
17.5°	4063.3	4012.7	3956.0	3945.8	3919.5	3925.6	3929.6	3733.1	3725.0	3710.9	3686.6
20°	4292.2	4215.2	4138.3	4105.8	4053.2	4030.9	3986.3	3735.2	3684.5	3642.0	3605.5
22.5°	4620.3	4506.9	4423.9	4369.2	4261.8	4186.9	4065.3	3725.0	3629.8	3556.9	3500.2
25°	5151.0	5015.3	4887.7	4750.0	4581.9	4432.0	4253.7	3814.2	3666.3	3540.7	3431.3
27.5°	5667.6	5452.9	5256.4	5049.8	4812.8	4587.9	4336.8	3842.5	3674.4	3512.4	3334.1
30°	6054.5	5742.5	5444.8	5142.9	4833.0	4541.3	4257.8	3745.3	3544.8	3362.5	3174.1
32.5°	6289.4	5884.3	5497.4	5122.7	4758.1	4429.9	4111.9	3577.2	3356.4	3141.7	2941.1
35°	6512.2	6009.9	5529.8	5088.3	4671.0	4306.4	3964.1	3380.7	3117.4	2888.5	2635.3
37.5°	6787.7	6141.6	5550.1	5025.5	4543.4	4126.1	3749.3	3133.6	2870.2	2588.7	2349.7
40°	7117.9	6277.3	5529.8	4899.9	4344.9	3889.1	3490.1	2874.3	2580.6	2307.1	2072.2
42.5°	7431.8	6396.8	5477.2	4731.8	4128.1	3642.0	3253.1	2643.4	2349.7	2070.1	1837.2
45°	7664.8	6498.1	5450.8	4614.3	3962.0	3473.9	3044.4	2457.0	2147.1	1865.6	1628.6
47.5°	7826.8	6558.8	5438.7	4549.4	3846.6	3299.7	2854.0	2270.7	1944.6	1661.0	1430.1
50°	7911.9	6556.8	5408.3	4478.6	3676.4	3091.0	2657.6	2082.3	1758.2	1480.7	1270.0
52.5°	7934.2	6520.3	5343.5	4348.9	3469.8	2882.4	2446.9	1885.8	1594.1	1328.8	1116.1
55°	7883.6	6431.2	5207.8	4132.2	3249.0	2661.6	2254.5	1731.9	1434.1	1182.9	1016.8
57.5°	7739.7	6273.2	4952.5	3834.4	3016.1	2457.0	2033.7	1545.5	1259.9	1049.2	911.5
60°	7472.4	5939.0	4553.5	3482.0	2720.4	2145.1	1729.8	1302.4	1075.6	917.6	806.2
62.5°	6978.1	5414.4	3992.4	2995.8	2295.0	1740.0	1381.4	1039.1	869.0	765.7	696.8
65°	6182.1	4624.4	3342.2	2359.8	1744.0	1266.0	1027.0	781.9	658.3	595.5	575.3
67.5°	5045.7	3571.1	2430.7	1638.7	1180.9	887.2	715.0	571.2	512.5	488.2	480.1
70°	3668.3	2432.7	1573.9	1035.1	779.8	619.8	540.8	459.8	427.4	421.3	421.3
72.5°	2303.1	1478.7	964.2	709.0	591.5	502.3	461.8	405.1	393.0	388.9	382.8
75°	1351.1	897.3	682.6	581.3	506.4	449.7	415.2	368.7	360.6	358.5	352.5
77.5°	860.9	646.2	551.0	496.3	457.8	407.1	376.8	328.1	326.1	324.1	322.1
80°	617.8	536.8	482.1	439.6	401.1	354.5	336.2	297.8	293.7	291.7	295.7
82.5°	467.9	443.6	421.3	388.9	336.2	301.8	287.6	261.3	263.3	253.2	251.2
85°	322.1	318.0	316.0	301.8	263.3	232.9	222.8	208.6	218.8	208.6	196.5
87.5°	158.0	156.0	143.8	170.1	158.0	125.6	113.4	125.6	139.8	135.7	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: P158958

CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	3281.4	3273.3	3279.4	3275.4	3275.4	3273.3	3277.4	3271.3	3267.3	3271.3	3273.3
5°	3346.3	3336.1	3338.2	3324.0	3330.1	3315.9	3319.9	3309.8	3299.7	3295.6	3295.6
7.5°	3455.6	3445.5	3433.4	3431.3	3409.0	3400.9	3386.8	3378.7	3372.6	3358.4	3350.3
10°	3554.9	3538.7	3524.5	3522.5	3500.2	3479.9	3461.7	3445.5	3435.4	3415.1	3405.0
12.5°	3635.9	3619.7	3597.4	3585.3	3563.0	3538.7	3526.5	3502.2	3488.0	3465.8	3447.5
15°	3682.5	3654.1	3621.7	3599.5	3567.0	3540.7	3522.5	3504.3	3490.1	3461.7	3435.4
17.5°	3660.2	3613.6	3569.1	3528.6	3484.0	3459.7	3433.4	3411.1	3407.0	3374.6	3334.1
20°	3567.0	3512.4	3453.6	3398.9	3340.2	3305.7	3273.3	3238.9	3228.8	3190.3	3137.6
22.5°	3453.6	3390.8	3324.0	3257.1	3182.2	3133.6	3085.0	3042.4	3008.0	2951.3	2876.3
25°	3338.2	3245.0	3147.7	3062.7	2975.6	2914.8	2864.2	2817.6	2777.1	2685.9	2608.9
27.5°	3186.2	3040.4	2941.1	2843.9	2738.6	2659.6	2602.9	2538.0	2493.5	2388.2	2307.1
30°	2991.8	2845.9	2704.1	2606.9	2501.6	2416.5	2343.6	2250.4	2185.6	2108.6	2033.7
32.5°	2746.7	2600.8	2457.0	2347.6	2260.5	2155.2	2064.1	1974.9	1900.0	1825.0	1766.3
35°	2448.9	2307.1	2171.4	2062.0	1964.8	1881.8	1794.7	1717.7	1632.6	1551.6	1517.2
37.5°	2135.0	1983.0	1833.1	1737.9	1661.0	1602.2	1521.2	1458.4	1381.4	1332.8	1292.3
40°	1861.5	1699.5	1557.7	1476.6	1415.9	1349.0	1282.2	1233.6	1178.9	1130.3	1099.9
42.5°	1630.6	1478.7	1357.1	1288.3	1215.3	1142.4	1091.8	1051.3	1016.8	980.4	943.9
45°	1417.9	1272.1	1170.8	1085.7	1024.9	966.2	931.8	913.5	893.3	871.0	846.7
47.5°	1239.7	1114.1	1014.8	935.8	873.0	832.5	816.3	810.2	802.1	783.9	771.7
50°	1103.9	1000.6	899.4	828.5	775.8	755.5	737.3	731.2	721.1	715.0	706.9
52.5°	990.5	881.1	796.1	731.2	698.8	690.7	682.6	674.5	672.5	668.4	664.4
55°	897.3	802.1	723.1	674.5	658.3	652.2	650.2	642.1	640.1	640.1	634.0
57.5°	814.3	733.3	662.4	632.0	621.9	615.8	611.7	607.7	607.7	611.7	609.7
60°	729.2	660.3	617.8	601.6	595.5	585.4	575.3	571.2	573.2	583.4	583.4
62.5°	646.2	595.5	569.2	563.1	557.0	548.9	536.8	532.7	536.8	548.9	555.0
65°	555.0	532.7	524.6	520.6	516.5	510.4	502.3	498.3	500.3	506.4	514.5
67.5°	472.0	469.9	469.9	472.0	469.9	467.9	463.9	457.8	455.8	455.8	459.8
70°	421.3	421.3	427.4	427.4	425.4	425.4	419.3	413.2	409.2	405.1	407.1
72.5°	382.8	382.8	384.9	386.9	384.9	384.9	376.8	372.7	362.6	360.6	356.5
75°	350.4	346.4	346.4	344.3	342.3	344.3	336.2	326.1	322.1	320.0	316.0
77.5°	318.0	309.9	305.9	301.8	303.8	301.8	295.7	289.7	283.6	281.6	279.5
80°	281.6	269.4	263.3	253.2	259.3	261.3	257.2	251.2	249.1	247.1	245.1
82.5°	232.9	220.8	212.7	206.6	202.6	206.6	212.7	226.9	222.8	220.8	216.7
85°	182.3	162.0	151.9	153.9	143.8	145.8	164.1	172.2	172.2	176.2	172.2
87.5°	103.3	99.3	74.9	68.9	72.9	87.1	97.2	107.4	107.4	101.3	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



REPORT NUMBER: P158958

CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	3273.3	3277.4	3279.4	3287.5	3291.6	3293.6	3295.6	3299.7	3301.7	3299.7	3309.8
5°	3289.5	3289.5	3285.5	3291.6	3293.6	3293.6	3289.5	3293.6	3293.6	3293.6	3303.7
7.5°	3332.1	3319.9	3313.8	3305.7	3299.7	3291.6	3281.4	3281.4	3279.4	3281.4	3287.5
10°	3376.6	3358.4	3336.1	3315.9	3297.6	3283.5	3265.2	3259.2	3257.1	3255.1	3271.3
12.5°	3411.1	3378.7	3344.2	3309.8	3273.3	3249.0	3218.6	3200.4	3198.4	3198.4	3218.6
15°	3386.8	3334.1	3267.3	3206.5	3174.1	3139.6	3105.2	3082.9	3080.9	3085.0	3097.1
17.5°	3265.2	3180.2	3121.4	3062.7	3020.1	2991.8	2969.5	2965.4	2973.5	2965.4	2981.7
20°	3058.6	2967.5	2927.0	2880.4	2864.2	2843.9	2811.5	2783.1	2783.1	2746.7	2756.8
22.5°	2791.2	2740.6	2687.9	2651.5	2639.3	2604.9	2570.5	2532.0	2527.9	2483.4	2477.3
25°	2511.7	2461.1	2418.5	2410.4	2374.0	2327.4	2295.0	2250.4	2240.3	2195.7	2189.7
27.5°	2226.1	2185.6	2143.1	2118.8	2098.5	2047.9	2019.5	1966.8	1946.6	1898.0	1891.9
30°	1954.7	1926.3	1875.7	1855.4	1816.9	1758.2	1697.4	1665.0	1648.8	1598.2	1582.0
32.5°	1699.5	1654.9	1616.4	1592.1	1543.5	1476.6	1422.0	1375.4	1345.0	1284.2	1268.0
35°	1456.4	1411.8	1393.6	1330.8	1288.3	1243.7	1168.8	1140.4	1085.7	1039.1	1022.9
37.5°	1241.7	1199.1	1174.8	1122.2	1079.6	1035.1	990.5	954.0	927.7	917.6	917.6
40°	1057.4	1035.1	1004.7	966.2	937.8	905.4	881.1	869.0	866.9	871.0	881.1
42.5°	925.7	901.4	881.1	860.9	840.6	836.6	830.5	838.6	848.7	858.8	869.0
45°	826.4	806.2	794.0	785.9	783.9	790.0	802.1	814.3	832.5	844.7	852.8
47.5°	755.5	739.3	735.3	733.3	743.4	761.6	777.8	796.1	810.2	822.4	830.5
50°	694.8	680.6	678.6	676.5	690.7	706.9	721.1	745.4	755.5	763.6	769.7
52.5°	652.2	640.1	634.0	636.0	650.2	664.4	684.6	702.9	717.1	723.1	729.2
55°	617.8	613.8	599.6	605.6	619.8	638.1	658.3	678.6	692.7	702.9	713.0
57.5°	591.5	581.3	571.2	581.3	595.5	613.8	638.1	656.3	674.5	688.7	698.8
60°	563.1	555.0	546.9	557.0	571.2	589.4	607.7	632.0	654.3	668.4	678.6
62.5°	538.8	532.7	524.6	526.7	532.7	544.9	555.0	577.3	597.5	615.8	627.9
65°	504.4	502.3	490.2	492.2	496.3	508.4	516.5	536.8	557.0	573.2	583.4
67.5°	453.7	449.7	449.7	455.8	457.8	463.9	469.9	490.2	506.4	518.5	530.7
70°	403.1	401.1	401.1	405.1	403.1	409.2	417.3	435.5	455.8	467.9	480.1
72.5°	354.5	354.5	352.5	356.5	356.5	358.5	368.7	384.9	403.1	413.2	421.3
75°	311.9	309.9	309.9	309.9	311.9	311.9	322.1	336.2	354.5	360.6	372.7
77.5°	273.5	273.5	273.5	273.5	275.5	273.5	279.5	289.7	295.7	305.9	305.9
80°	241.0	239.0	241.0	243.1	243.1	241.0	241.0	243.1	245.1	245.1	245.1
82.5°	212.7	206.6	210.7	220.8	220.8	220.8	218.8	204.6	194.5	194.5	198.5
85°	170.1	170.1	172.2	186.4	188.4	180.3	188.4	168.1	147.9	141.8	145.8
87.5°	105.3	83.0	101.3	115.5	115.5	109.4	121.5	113.4	95.2	77.0	72.9
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: P158958
CATALOG NUMBER: VST-E12-LED-E-U-SLL-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°	3317.9	3319.9	3332.1	3338.2	3338.2	3346.3	3350.3	3362.5	3360.4	3360.4	3364.5	2.5°
5°	3313.8	3319.9	3332.1	3340.2	3344.2	3354.4	3362.5	3376.6	3374.6	3378.7	3380.7	5°
7.5°	3299.7	3315.9	3328.0	3344.2	3358.4	3366.5	3376.6	3388.8	3384.7	3386.8	3384.7	7.5°
10°	3287.5	3303.7	3328.0	3350.3	3370.6	3382.7	3388.8	3403.0	3400.9	3405.0	3405.0	10°
12.5°	3238.9	3267.3	3297.6	3332.1	3362.5	3394.9	3415.1	3445.5	3459.7	3477.9	3498.2	12.5°
15°	3115.3	3147.7	3196.4	3234.8	3293.6	3338.2	3396.9	3455.6	3508.3	3558.9	3617.7	15°
17.5°	2993.8	3008.0	3046.5	3099.1	3151.8	3218.6	3289.5	3394.9	3490.1	3593.4	3706.8	17.5°
20°	2769.0	2793.3	2819.6	2882.4	2945.2	3040.4	3127.5	3265.2	3405.0	3567.0	3741.2	20°
22.5°	2491.5	2515.8	2544.1	2615.0	2692.0	2789.2	2894.6	3048.5	3234.8	3445.5	3678.5	22.5°
25°	2191.7	2205.9	2228.1	2299.0	2345.6	2473.2	2600.8	2760.9	2963.4	3234.8	3506.3	25°
27.5°	1861.5	1887.8	1906.1	1938.5	2045.8	2155.2	2288.9	2461.1	2706.2	2983.7	3311.8	27.5°
30°	1545.5	1567.8	1557.7	1626.5	1697.4	1812.9	1956.7	2147.1	2382.1	2712.2	3091.0	30°
32.5°	1235.6	1251.8	1245.7	1294.3	1365.2	1480.7	1616.4	1823.0	2072.2	2424.6	2835.8	32.5°
35°	1018.9	1022.9	1045.2	1067.5	1128.2	1221.4	1336.9	1517.2	1772.4	2096.5	2532.0	35°
37.5°	917.6	925.7	939.9	970.3	1014.8	1081.7	1176.9	1316.6	1535.4	1821.0	2209.9	37.5°
40°	887.2	893.3	901.4	921.6	964.2	1022.9	1108.0	1225.5	1385.5	1626.5	1942.5	40°
42.5°	873.0	873.0	873.0	885.2	917.6	980.4	1077.6	1193.1	1332.8	1515.1	1770.4	42.5°
45°	852.8	852.8	850.7	856.8	879.1	941.9	1047.2	1176.9	1326.8	1501.0	1721.7	45°
47.5°	830.5	828.5	822.4	822.4	836.6	899.4	1008.7	1148.5	1312.6	1513.1	1750.1	47.5°
50°	769.7	769.7	769.7	775.8	787.9	844.7	962.1	1110.0	1298.4	1521.2	1794.7	50°
52.5°	735.3	737.3	743.4	743.4	755.5	814.3	937.8	1101.9	1306.5	1551.6	1851.4	52.5°
55°	719.1	725.2	731.2	731.2	741.4	802.1	929.7	1108.0	1336.9	1614.4	1948.6	55°
57.5°	704.9	711.0	715.0	715.0	723.1	775.8	907.5	1097.9	1355.1	1675.2	2068.1	57.5°
60°	678.6	682.6	684.6	684.6	686.7	731.2	856.8	1049.2	1314.6	1671.1	2132.9	60°
62.5°	630.0	638.1	640.1	642.1	642.1	684.6	792.0	970.3	1227.5	1610.3	2114.7	62.5°
65°	593.5	597.5	603.6	607.7	615.8	644.1	729.2	875.0	1114.1	1488.8	2013.4	65°
67.5°	536.8	542.9	548.9	557.0	565.1	583.4	650.2	767.7	960.1	1282.2	1786.6	67.5°
70°	486.1	488.2	494.2	504.4	506.4	516.5	565.1	646.2	785.9	1029.0	1438.2	70°
72.5°	423.3	427.4	435.5	447.7	447.7	455.8	484.1	526.7	615.8	785.9	1061.4	72.5°
75°	368.7	372.7	378.8	378.8	368.7	370.7	390.9	421.3	488.2	591.5	773.8	75°
77.5°	305.9	314.0	320.0	307.9	303.8	309.9	320.0	342.3	390.9	469.9	581.3	77.5°
80°	253.2	257.2	259.3	261.3	257.2	263.3	271.4	285.6	318.0	378.8	459.8	80°
82.5°	202.6	206.6	212.7	220.8	220.8	243.1	245.1	245.1	263.3	301.8	360.6	82.5°
85°	149.9	158.0	166.1	176.2	178.3	190.4	184.3	182.3	188.4	224.8	249.1	85°
87.5°	77.0	83.0	87.1	95.2	85.1	89.1	89.1	83.0	72.9	91.2	101.3	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: P158958

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

DISTRIBUTION (continued):

330°	335°	340°	345°	350°	355°	360°
3384.7	3384.7	3384.7	3384.7	3384.7	3384.7	3384.7
3368.5	3364.5	3368.5	3368.5	3374.6	3370.6	3585.3
3384.7	3380.7	3384.7	3388.8	3394.9	3394.9	3631.9
3386.8	3386.8	3382.7	3392.8	3400.9	3409.0	3676.4
3411.1	3411.1	3415.1	3417.2	3435.4	3455.6	3749.3
3510.3	3520.5	3538.7	3544.8	3577.2	3599.5	3935.7
3662.2	3719.0	3755.4	3767.6	3795.9	3838.5	4249.7
3816.2	3911.4	4010.6	4071.4	4107.9	4158.5	4634.5
3931.6	4109.9	4280.0	4432.0	4519.1	4618.3	5173.3
3941.8	4225.4	4513.0	4794.5	5027.5	5211.8	5902.5
3844.5	4217.3	4614.3	5045.7	5446.8	5779.0	6741.1
3721.0	4178.8	4685.2	5236.1	5762.8	6253.0	7358.9
3565.0	4113.9	4697.3	5317.1	5934.9	6524.4	7711.4
3328.0	3921.5	4551.5	5236.1	5953.2	6670.2	7938.2
3024.2	3629.8	4276.0	5055.8	5868.1	6729.0	8128.6
2714.3	3311.8	4006.6	4814.8	5732.4	6718.8	8205.6
2386.1	2979.6	3690.6	4557.6	5548.1	6625.7	8191.4
2163.3	2704.1	3400.9	4296.3	5343.5	6502.1	8096.2
2033.7	2507.7	3172.1	4057.2	5157.1	6354.2	7976.7
2031.7	2448.9	3050.5	3887.1	4968.7	6190.2	7814.7
2102.6	2485.4	3036.3	3814.2	4865.4	6070.7	7638.5
2185.6	2586.7	3111.3	3840.5	4863.4	6018.0	7514.9
2317.3	2758.8	3275.4	3953.9	4916.1	6009.9	7363.0
2485.4	2991.8	3571.1	4233.5	5120.7	6169.9	7373.1
2657.6	3265.2	3958.0	4711.5	5523.8	6542.6	7693.1
2720.4	3475.9	4350.9	5272.6	6127.4	7101.7	8353.5
2665.7	3524.5	4590.0	5708.1	6714.8	7755.9	9141.4
2463.1	3328.0	4492.7	5831.6	7053.1	8219.8	9929.4
2027.6	2839.9	4051.2	5554.1	7026.7	8315.0	10213.0
1486.8	2201.8	3293.6	4719.6	6246.9	7719.5	9787.6
1073.6	1557.7	2378.0	3554.9	4938.4	6216.5	8209.7
769.7	1079.6	1543.5	2335.5	3364.5	4328.7	5851.9
553.0	733.3	962.1	1401.7	2049.9	2657.6	3676.4
407.1	502.3	632.0	871.0	1207.2	1547.5	2214.0
277.5	295.7	380.8	514.5	792.0	1138.4	1503.0
105.3	119.5	139.8	210.7	354.5	407.1	287.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)