

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: P159625

Luminaire Tested: **VST-F12-LED-E-U-T3**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159625
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F12-LED-E-U-T3
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30297.1 lumens
Efficiency: N/A
Efficacy: 98.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 306.6
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

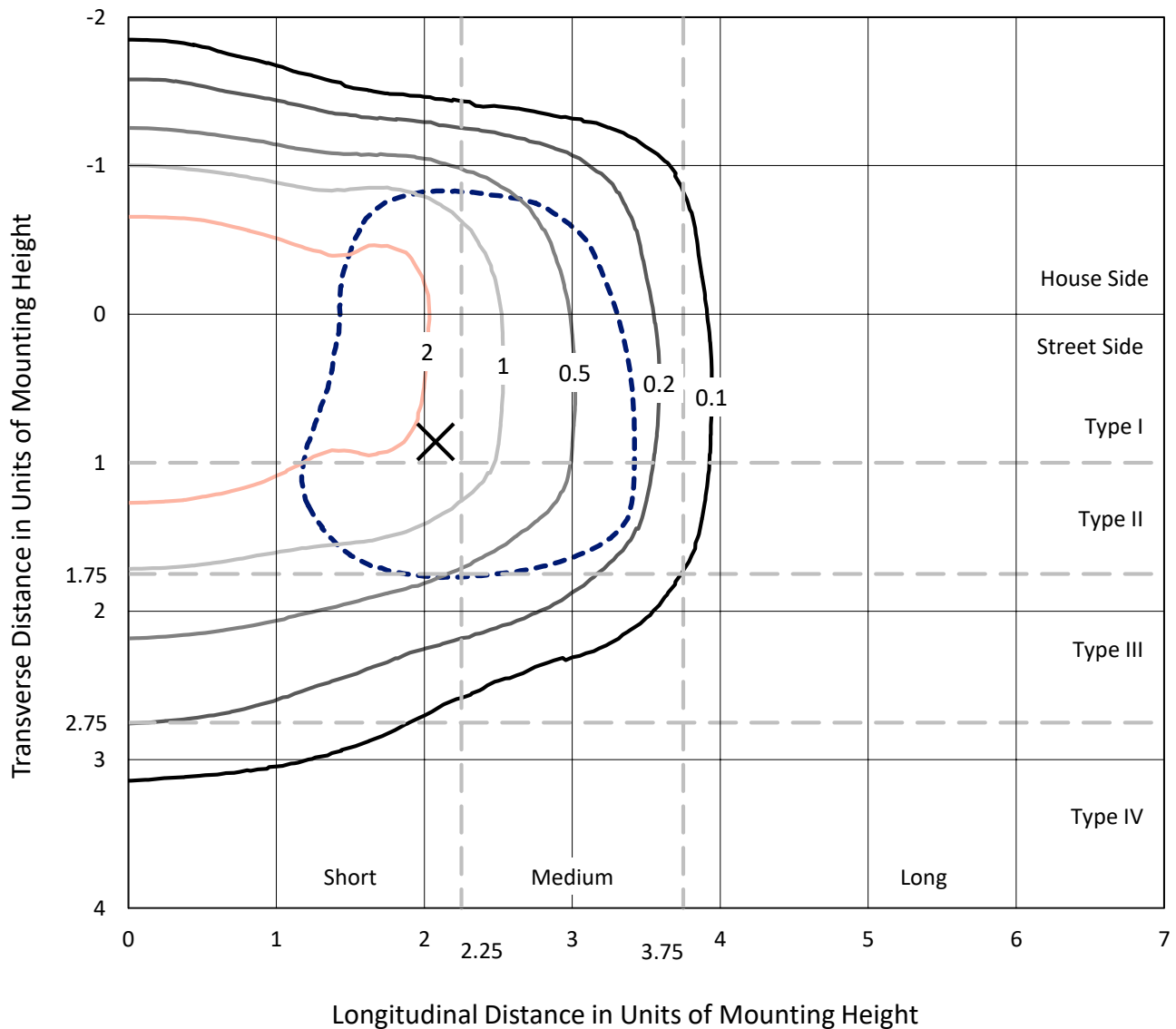


REPORT NUMBER: P159625

CATALOG NUMBER: VST-F12-LED-E-U-T3

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

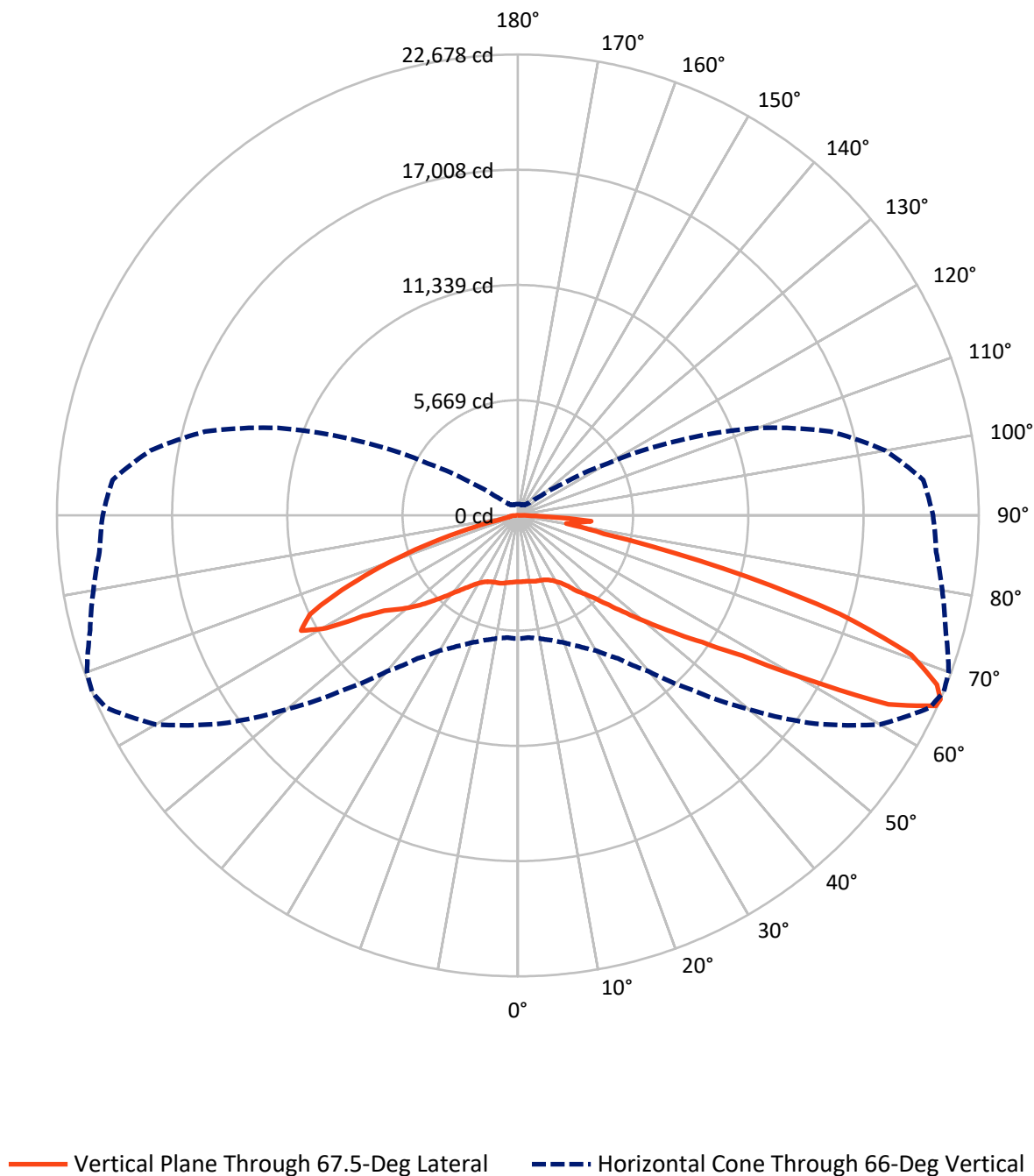


Based on 30 foot mounting height. Maximum calculated value = 3.6 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159625

CATALOG NUMBER: VST-F12-LED-E-U-T3

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10484.1	0.0	10484.1
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	19812.9	0.0	19812.9
	% Fixture	65.4	0.0	65.4
Total	Lumens	30297.1	0.0	30297.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	313.7	1.0
10°-20°	928.9	3.1
20°-30°	1596.8	5.3
30°-40°	2580.7	8.5
40°-50°	4276.9	14.1
50°-60°	6712.2	22.2
60°-70°	9176.8	30.3
70°-80°	4035.6	13.3
80°-90°	675.5	2.2
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°	30297.1	100.0
0°-180°	30297.1	100.0

Coefficient of Utilization



REPORT NUMBER: P159625

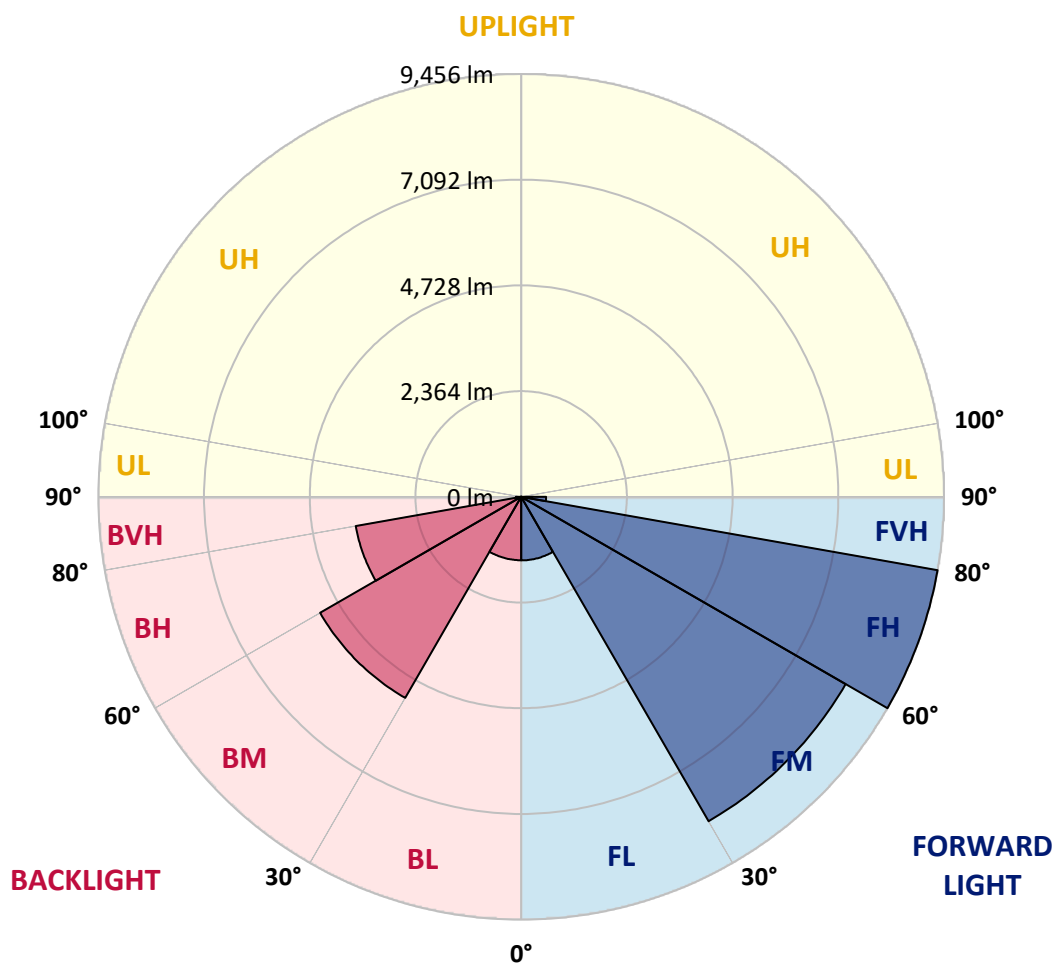
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1421.2	4.7			
FM	(30°-60°)	8378.0	27.7			
FH	(60°-80°)	9456.4	31.2			G4/12000
FVH	(80°-90°)	557.3	1.8			G4/750
BL	(0°-30°)	1418.2	4.7	B3/2500		
BM	(30°-60°)	5191.7	17.1	B4/8500		
BH	(60°-80°)	3756.0	12.4	B4/5000		G4/5000
BVH	(80°-90°)	118.2	0.4			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Short





REPORT NUMBER: P159625

CATALOG NUMBER: VST-F12-LED-E-U-T3

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1
2.5°	3263.1	3263.1	3265.1	3263.1	3263.1	3261.2	3269.1	3269.1	3269.1	3267.1	3273.0
5°	3255.2	3255.2	3257.2	3257.2	3259.2	3257.2	3263.1	3265.1	3265.1	3265.1	3271.1
7.5°	3235.4	3241.3	3237.4	3239.4	3241.3	3247.3	3255.2	3259.2	3263.1	3269.1	3271.1
10°	3193.8	3203.7	3201.7	3207.7	3209.6	3227.5	3233.4	3241.3	3255.2	3263.1	3269.1
12.5°	3136.3	3142.3	3144.3	3152.2	3160.1	3181.9	3197.8	3211.6	3231.4	3251.2	3271.1
15°	3090.8	3094.7	3094.7	3102.7	3114.5	3134.4	3154.2	3177.9	3207.7	3241.3	3273.0
17.5°	3104.6	3114.5	3106.6	3104.6	3108.6	3120.5	3138.3	3158.1	3193.8	3231.4	3269.1
20°	3195.8	3197.8	3193.8	3183.9	3176.0	3177.9	3177.9	3181.9	3203.7	3233.4	3263.1
22.5°	3271.1	3279.0	3277.0	3279.0	3277.0	3284.9	3281.0	3273.0	3265.1	3267.1	3281.0
25°	3336.4	3344.4	3344.4	3350.3	3360.2	3376.1	3388.0	3386.0	3374.1	3358.2	3352.3
27.5°	3443.4	3443.4	3443.4	3449.4	3463.2	3483.1	3502.9	3514.8	3524.7	3508.8	3475.1
30°	3611.8	3613.8	3607.9	3609.9	3619.8	3645.5	3669.3	3687.1	3706.9	3705.0	3661.4
32.5°	3796.1	3804.0	3802.0	3810.0	3823.8	3847.6	3873.4	3901.1	3926.9	3942.7	3915.0
35°	4033.8	4041.8	4043.8	4055.6	4071.5	4107.2	4142.8	4178.5	4206.2	4218.1	4212.2
37.5°	4424.2	4426.1	4418.2	4400.4	4406.3	4434.1	4475.7	4533.1	4551.0	4562.8	4590.6
40°	5008.6	5002.7	4971.0	4955.1	4945.2	4957.1	4949.2	4994.8	5036.4	5038.3	5036.4
42.5°	5717.9	5700.1	5670.4	5666.4	5662.4	5658.5	5636.7	5638.7	5676.3	5686.2	5674.3
45°	6423.2	6401.5	6379.7	6399.5	6375.7	6437.1	6454.9	6502.5	6508.4	6528.3	6498.5
47.5°	7001.8	7003.8	7003.8	7031.5	7079.0	7195.9	7300.9	7392.1	7425.8	7473.3	7479.3
50°	7439.6	7451.5	7489.2	7578.3	7679.4	7875.5	8051.8	8216.3	8364.9	8420.4	8567.0
52.5°	7695.2	7726.9	7806.2	7954.8	8135.1	8388.7	8666.0	8945.4	9203.0	9420.9	9595.2
55°	7649.6	7673.4	7812.1	8043.9	8325.3	8666.0	9054.4	9458.5	9860.7	10229.2	10514.5
57.5°	7356.4	7372.3	7511.0	7772.5	8123.2	8580.8	9129.6	9730.0	10294.6	10889.0	11376.4
60°	6972.1	6995.8	7124.6	7330.7	7697.2	8184.6	8820.6	9634.9	10536.3	11471.5	12382.9
62.5°	6726.4	6720.4	6833.4	7017.6	7293.0	7734.8	8347.0	9311.9	10560.1	12141.2	13942.1
65°	6318.2	6300.4	6417.3	6627.3	6926.5	7354.4	7934.9	8862.2	10310.5	12394.8	14948.6
66°	6064.6	6029.0	6145.9	6357.9	6657.0	7112.7	7669.5	8584.8	10007.3	12147.1	14841.6
67.5°	5620.8	5603.0	5658.5	5824.9	6046.8	6474.8	7055.3	7976.6	9290.1	11402.2	14057.0
70°	4568.8	4529.2	4572.7	4648.0	4733.2	4838.2	5194.9	5925.9	7037.4	9084.1	11324.9
72.5°	3112.6	3092.7	3174.0	3288.9	3516.7	3623.7	3764.4	3883.3	4275.6	5725.8	7899.3
75°	2367.6	2379.5	2482.5	2672.7	2965.9	3282.9	3592.0	3705.0	3574.2	3461.3	4483.6
77.5°	1327.4	1396.8	1521.6	1763.3	2074.4	2522.1	3061.0	3655.4	3952.6	3879.3	3627.7
80°	546.8	536.9	598.3	731.1	838.1	1204.6	1842.6	2587.5	3423.6	3952.6	3869.4
82.5°	152.6	156.5	202.1	259.5	334.8	426.0	665.7	1069.9	1743.5	2712.3	3550.4
85°	47.6	47.6	65.4	97.1	114.9	132.7	168.4	277.4	473.5	945.1	1915.9
87.5°	9.9	9.9	13.9	27.7	29.7	29.7	37.6	51.5	45.6	41.6	186.2
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: P159625

CATALOG NUMBER: VST-F12-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1
2.5°	3267.1	3263.1	3265.1	3267.1	3265.1	3265.1	3263.1	3261.2	3263.1	3263.1	3269.1
5°	3265.1	3263.1	3265.1	3265.1	3265.1	3267.1	3267.1	3267.1	3273.0	3273.0	3282.9
7.5°	3269.1	3269.1	3273.0	3273.0	3273.0	3273.0	3275.0	3279.0	3288.9	3286.9	3304.7
10°	3277.0	3281.0	3290.9	3292.9	3292.9	3298.8	3302.8	3310.7	3320.6	3324.6	3340.4
12.5°	3286.9	3306.7	3324.6	3328.5	3334.5	3344.4	3350.3	3354.3	3372.1	3378.0	3397.9
15°	3298.8	3326.5	3348.3	3356.3	3364.2	3376.1	3384.0	3389.9	3405.8	3413.7	3437.5
17.5°	3300.8	3332.5	3358.2	3370.1	3380.0	3393.9	3405.8	3417.7	3435.5	3447.4	3471.2
20°	3298.8	3340.4	3380.0	3395.9	3405.8	3431.5	3449.4	3465.2	3487.0	3498.9	3522.7
22.5°	3320.6	3368.1	3421.6	3441.4	3457.3	3493.0	3516.7	3542.5	3570.2	3578.2	3596.0
25°	3372.1	3421.6	3489.0	3516.7	3544.5	3592.0	3625.7	3663.3	3691.1	3695.0	3701.0
27.5°	3459.3	3504.8	3586.1	3627.7	3673.3	3740.6	3790.2	3827.8	3867.4	3867.4	3863.5
30°	3635.6	3645.5	3730.7	3784.2	3851.6	3950.6	4023.9	4065.5	4095.3	4095.3	4061.6
32.5°	3863.5	3851.6	3928.8	3986.3	4079.4	4218.1	4317.2	4348.9	4380.6	4370.7	4313.2
35°	4192.3	4158.7	4202.3	4289.4	4394.4	4584.6	4687.7	4759.0	4778.8	4751.1	4659.9
37.5°	4606.4	4602.5	4624.3	4721.3	4838.2	5083.9	5188.9	5234.5	5218.6	5169.1	5008.6
40°	5044.3	5032.4	5018.5	5083.9	5214.7	5509.9	5696.1	5719.9	5698.1	5624.8	5422.7
42.5°	5628.8	5628.8	5563.4	5581.2	5690.2	6021.0	6241.0	6316.3	6318.2	6211.2	5941.8
45°	6433.2	6425.2	6310.3	6282.6	6365.8	6690.7	6974.0	7015.6	7015.6	6875.0	6579.8
47.5°	7400.0	7390.1	7277.2	7180.1	7195.9	7546.6	7782.4	7845.8	7790.3	7685.3	7334.6
50°	8489.7	8471.9	8357.0	8265.8	8226.2	8580.8	8780.9	8810.7	8729.4	8604.6	8224.2
52.5°	9595.2	9648.7	9581.4	9531.8	9545.7	9775.5	9981.6	9840.9	9799.3	9664.6	9282.2
55°	10746.4	10910.8	11059.4	11015.8	11067.3	11291.2	11330.8	11144.6	11069.3	10972.2	10546.2
57.5°	11905.4	12384.9	12872.2	13009.0	13135.8	13456.7	13411.1	13106.0	13163.5	13308.1	12828.7
60°	13524.1	14909.0	16145.3	16373.1	16767.4	17040.8	17102.2	17042.8	17310.3	17235.0	16811.0
62.5°	16010.6	18318.7	20038.5	20466.4	20862.7	20848.8	20640.8	20426.8	20690.3	20690.3	19582.8
65°	17785.8	20405.0	22245.6	22600.2	22584.4	22106.9	21615.5	21187.6	21149.9	20856.7	19238.0
66°	17869.0	20565.5	22368.4	22677.5	22558.6	21789.9	21201.5	20658.6	20426.8	20018.6	18360.3
67.5°	17120.1	20111.8	21968.2	22237.7	21924.6	20823.0	20012.7	19285.6	18948.8	18261.3	16700.0
70°	14043.2	17284.5	19985.0	20535.8	20181.1	18786.3	17676.8	16694.1	16050.2	15057.6	13932.2
72.5°	10251.0	12761.3	15685.6	16581.2	16525.7	15241.8	14348.3	13448.8	12602.8	11699.3	10877.1
75°	6663.0	8301.5	9932.1	10455.1	10203.5	9460.5	8820.6	8295.5	7493.1	6865.1	6712.5
77.5°	3804.0	4648.0	4396.4	4331.0	4016.0	3241.3	2155.6	1511.7	1365.1	1703.9	1868.3
80°	3619.8	3281.0	2686.6	2423.1	2226.9	1517.6	796.5	560.7	491.4	503.2	540.9
82.5°	4081.4	4253.8	3479.1	2906.5	2530.1	1846.5	1008.5	469.6	342.8	406.2	455.7
85°	3059.1	4307.3	4269.6	3617.8	2967.9	2127.9	1192.7	358.6	206.1	285.3	372.5
87.5°	620.1	1020.3	982.7	863.8	735.0	513.1	200.1	112.9	103.0	140.7	214.0
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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CATALOG NUMBER: VST-F12-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1	3269.1
2.5°	3273.0	3273.0	3277.0	3282.9	3284.9	3284.9	3288.9	3284.9	3292.9	3294.8	3296.8
5°	3290.9	3296.8	3300.8	3310.7	3316.6	3320.6	3326.5	3322.6	3330.5	3332.5	3336.4
7.5°	3310.7	3320.6	3328.5	3332.5	3340.4	3340.4	3342.4	3338.4	3336.4	3330.5	3328.5
10°	3346.3	3352.3	3362.2	3358.2	3354.3	3340.4	3328.5	3310.7	3300.8	3282.9	3273.0
12.5°	3403.8	3407.8	3407.8	3389.9	3364.2	3332.5	3302.8	3273.0	3249.3	3229.5	3217.6
15°	3443.4	3451.4	3441.4	3415.7	3378.0	3334.5	3294.8	3255.2	3223.5	3197.8	3181.9
17.5°	3473.1	3471.2	3453.3	3417.7	3382.0	3344.4	3308.7	3267.1	3227.5	3189.8	3166.1
20°	3518.7	3498.9	3467.2	3429.6	3391.9	3360.2	3332.5	3292.9	3251.2	3199.7	3164.1
22.5°	3580.1	3544.5	3498.9	3459.3	3423.6	3393.9	3362.2	3328.5	3284.9	3227.5	3177.9
25°	3667.3	3605.9	3554.4	3514.8	3483.1	3449.4	3413.7	3370.1	3326.5	3267.1	3207.7
27.5°	3800.1	3708.9	3643.5	3607.9	3578.2	3532.6	3487.0	3435.5	3380.0	3318.6	3251.2
30°	3960.5	3851.6	3776.3	3744.6	3708.9	3657.4	3607.9	3536.5	3459.3	3386.0	3302.8
32.5°	4148.8	4037.8	3962.5	3938.7	3881.3	3821.9	3752.5	3657.4	3556.4	3447.4	3348.3
35°	4434.1	4293.4	4224.0	4168.6	4089.3	4018.0	3901.1	3776.3	3631.6	3487.0	3364.2
37.5°	4727.3	4584.6	4513.3	4436.0	4333.0	4202.3	4045.7	3867.4	3675.2	3496.9	3346.3
40°	5119.6	4965.0	4873.9	4755.0	4588.6	4384.5	4152.7	3909.0	3675.2	3453.3	3271.1
42.5°	5577.2	5434.6	5293.9	5097.8	4830.3	4533.1	4208.2	3895.2	3611.8	3356.3	3164.1
45°	6211.2	5967.6	5743.7	5428.7	5038.3	4620.3	4214.1	3829.8	3502.9	3219.5	3005.6
47.5°	6924.5	6609.5	6213.2	5719.9	5186.9	4654.0	4156.7	3706.9	3330.5	3023.4	2789.6
50°	7746.7	7263.3	6655.1	5951.7	5262.2	4608.4	4020.0	3500.9	3092.7	2740.1	2490.4
52.5°	8687.8	7950.8	7055.3	6116.1	5250.3	4469.7	3794.1	3229.5	2773.8	2399.3	2153.6
55°	9731.9	8699.7	7437.6	6221.2	5143.4	4200.3	3439.5	2847.1	2377.5	2009.0	1793.0
57.5°	11572.5	10013.3	8166.8	6361.8	4919.5	3792.1	2989.7	2363.6	1939.7	1626.6	1420.6
60°	14992.2	12309.6	9547.7	6692.7	4582.7	3281.0	2423.1	1854.5	1499.8	1272.0	1119.4
62.5°	17108.2	13926.3	10221.3	6645.1	4035.8	2581.6	1799.0	1375.0	1095.6	945.1	850.0
65°	16606.9	13292.3	9399.1	5708.0	3140.3	1830.7	1190.7	899.5	752.9	675.6	630.0
66°	15925.4	12583.0	8703.7	5111.7	2736.1	1529.5	982.7	754.9	647.9	590.4	566.6
67.5°	14496.9	11287.2	7507.0	4093.3	2050.6	1139.2	725.1	592.4	527.0	497.3	481.4
70°	12133.2	9094.0	5309.8	2417.1	1111.5	618.2	463.6	412.1	396.3	386.3	380.4
72.5°	9381.3	6583.7	3102.7	1188.8	560.7	400.2	352.7	330.9	324.9	324.9	326.9
75°	5910.1	3784.2	1388.9	572.6	380.4	322.9	301.2	291.2	293.2	295.2	293.2
77.5°	1963.4	1305.7	578.5	406.2	330.9	293.2	275.4	271.4	275.4	277.4	277.4
80°	564.7	493.3	418.0	358.6	303.1	273.4	257.6	255.6	265.5	267.5	263.5
82.5°	433.9	406.2	378.4	346.7	291.2	257.6	251.6	253.6	259.5	255.6	237.8
85°	398.2	394.3	283.3	281.3	253.6	245.7	239.7	241.7	235.8	214.0	194.2
87.5°	223.9	208.0	160.5	162.5	188.2	194.2	160.5	170.4	158.5	138.7	126.8
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: P159625

CATALOG NUMBER: VST-F12-LED-E-U-T3

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	3269.1	3269.1	3269.1	3269.1	3269.1
2.5°	3300.8	3298.8	3298.8	3304.7	3296.8
5°	3338.4	3336.4	3336.4	3342.4	3336.4
7.5°	3320.6	3314.6	3310.7	3308.7	3308.7
10°	3261.2	3255.2	3243.3	3239.4	3235.4
12.5°	3199.7	3193.8	3179.9	3179.9	3176.0
15°	3162.1	3154.2	3144.3	3138.3	3134.4
17.5°	3142.3	3130.4	3118.5	3112.6	3108.6
20°	3134.4	3118.5	3104.6	3094.7	3094.7
22.5°	3136.3	3116.5	3100.7	3088.8	3084.8
25°	3156.1	3126.4	3106.6	3094.7	3090.8
27.5°	3183.9	3148.2	3122.5	3106.6	3100.7
30°	3221.5	3172.0	3136.3	3116.5	3108.6
32.5°	3247.3	3177.9	3132.4	3104.6	3094.7
35°	3245.3	3156.1	3100.7	3065.0	3053.1
37.5°	3209.6	3104.6	3031.3	2987.7	2967.9
40°	3130.4	3009.5	2932.3	2890.7	2866.9
42.5°	3015.5	2884.7	2815.4	2769.8	2744.0
45°	2835.2	2706.4	2621.2	2585.5	2551.9
47.5°	2585.5	2454.8	2381.5	2330.0	2308.2
50°	2292.3	2161.6	2084.3	2042.7	2022.9
52.5°	1971.4	1846.5	1791.1	1751.4	1723.7
55°	1638.5	1523.6	1499.8	1456.2	1430.5
57.5°	1325.5	1258.1	1236.3	1192.7	1170.9
60°	1036.2	1014.4	990.6	962.9	951.0
62.5°	802.4	782.6	776.7	758.8	756.8
65°	612.2	614.2	610.2	606.3	602.3
66°	556.7	554.8	556.7	552.8	550.8
67.5°	473.5	481.4	487.4	485.4	485.4
70°	384.4	390.3	398.2	396.3	396.3
72.5°	328.9	338.8	342.8	340.8	340.8
75°	297.2	307.1	307.1	303.1	301.2
77.5°	277.4	281.3	277.4	273.4	269.5
80°	257.6	253.6	247.7	241.7	237.8
82.5°	223.9	214.0	208.0	198.1	198.1
85°	180.3	172.4	158.5	148.6	138.7
87.5°	116.9	112.9	103.0	77.3	61.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)