

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: P159843

Luminaire Tested: **VST-F12-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159843
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24884.8 lumens
Efficiency: N/A
Efficacy: 81.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - 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



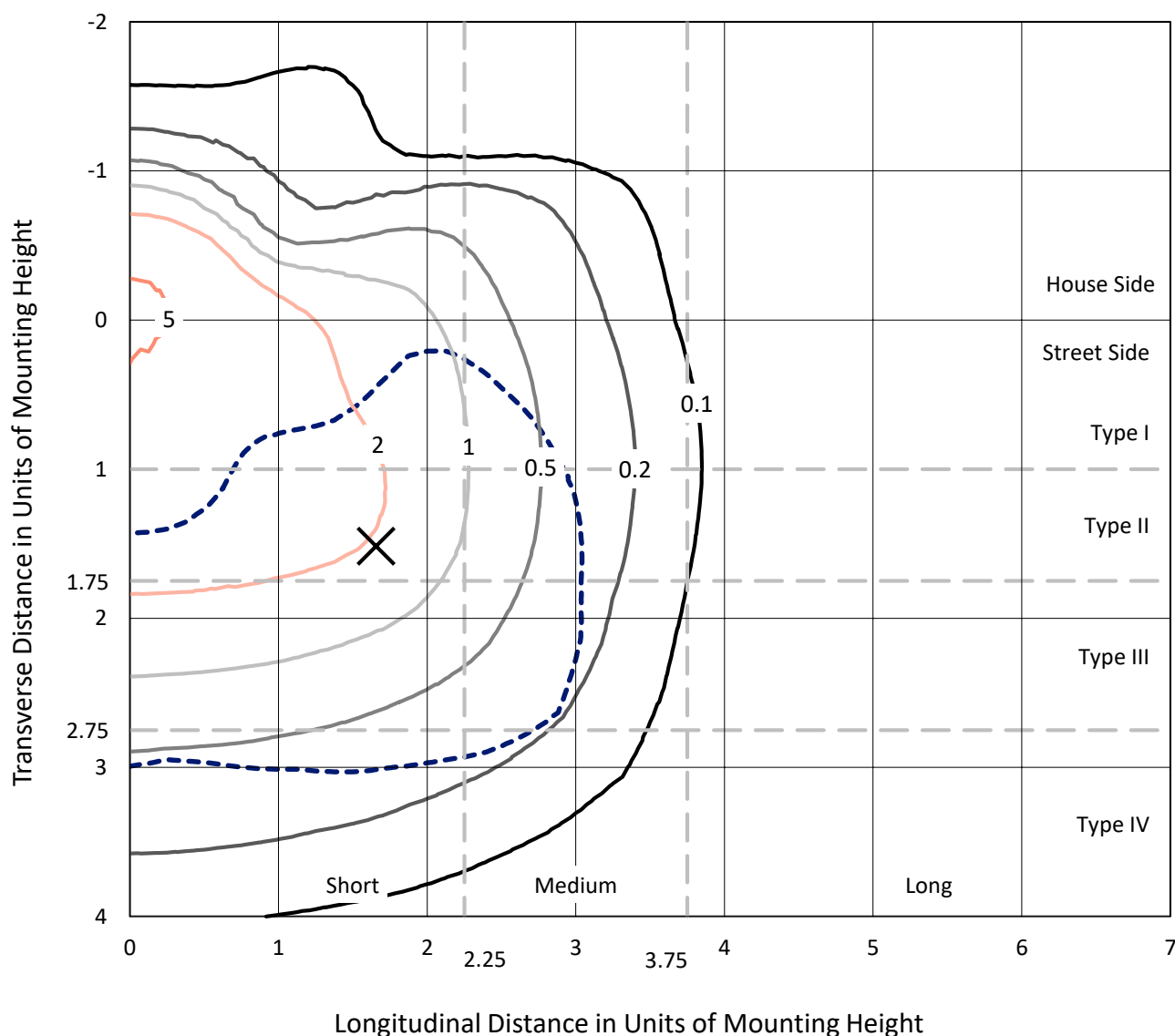
REPORT NUMBER: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

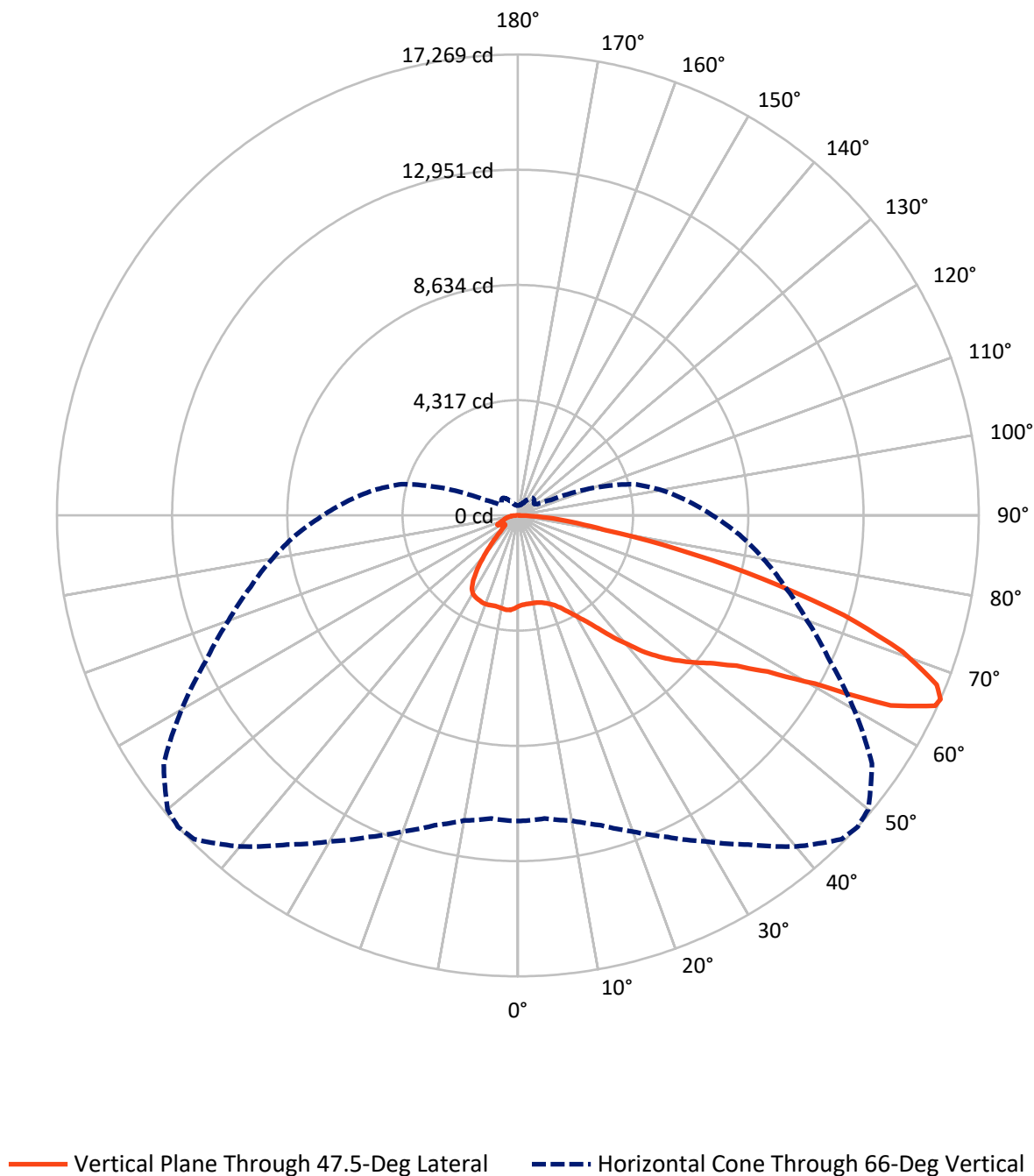


Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

Luminous Intensity Polar Plot



REPORT NUMBER: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

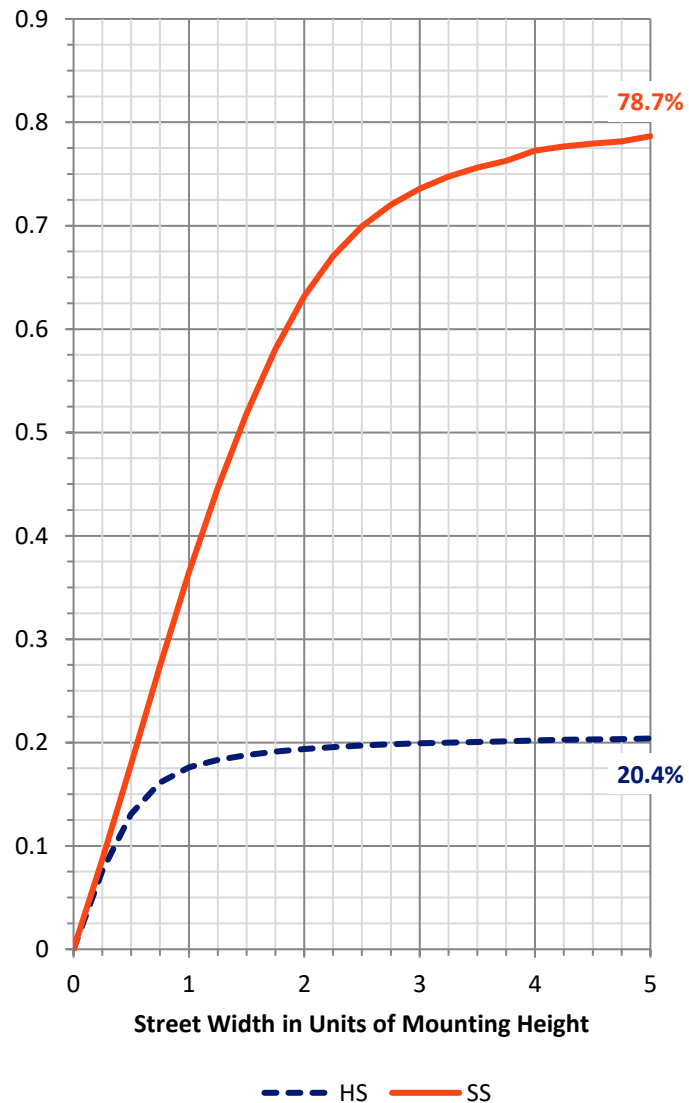
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5152.3	0.0	5152.3
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	19732.6	0.0	19732.6
	% Fixture	79.3	0.0	79.3
Total	Lumens	24884.8	0.0	24884.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	328.2	1.3
10°-20°	984.0	4.0
20°-30°	1679.0	6.7
30°-40°	2534.1	10.2
40°-50°	3293.8	13.2
50°-60°	4518.8	18.2
60°-70°	6951.4	27.9
70°-80°	4018.3	16.1
80°-90°	577.3	2.3
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°	24884.8	100.0
0°-180°	24884.8	100.0

Coefficient of Utilization



REPORT NUMBER: P159843

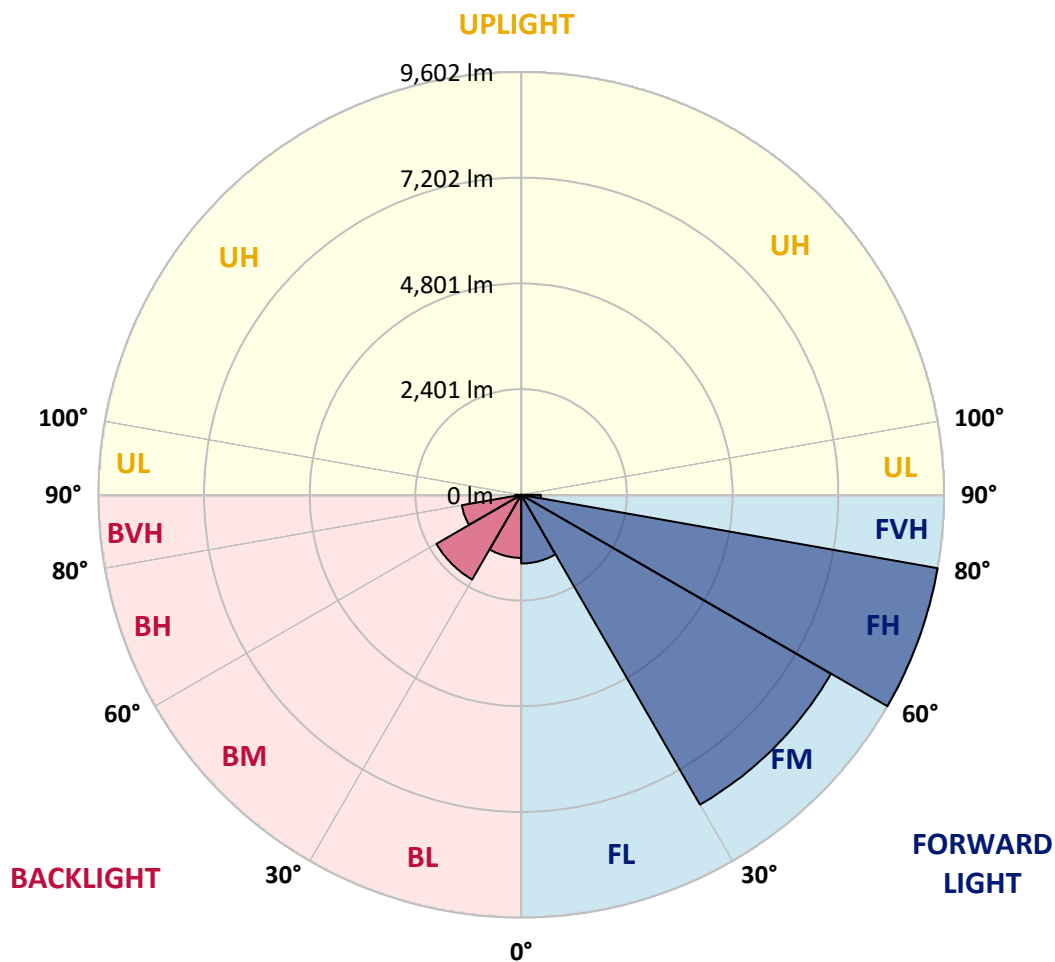
CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1559.8	6.3			
FM	(30°-60°)	8123.8	32.6			
FH	(60°-80°)	9602.2	38.6			G4/12000
FVH	(80°-90°)	446.7	1.8			G3/500
BL	(0°-30°)	1431.3	5.8	B3/2500		
BM	(30°-60°)	2222.9	8.9	B2/2500		
BH	(60°-80°)	1367.4	5.5	B3/2500		G3/2500
BVH	(80°-90°)	130.5	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5
2.5°	3317.6	3319.2	3320.9	3320.9	3325.9	3325.9	3334.3	3339.3	3341.0	3351.0	3357.7
5°	3255.7	3254.0	3255.7	3259.1	3267.4	3274.1	3290.8	3302.5	3312.6	3329.3	3337.6
7.5°	3229.0	3232.3	3235.6	3237.3	3244.0	3260.7	3275.8	3287.5	3307.5	3327.6	3336.0
10°	3264.1	3269.1	3264.1	3267.4	3267.4	3282.5	3289.1	3297.5	3312.6	3331.0	3336.0
12.5°	3346.0	3356.0	3346.0	3337.6	3331.0	3344.3	3341.0	3334.3	3342.7	3347.7	3347.7
15°	3481.4	3481.4	3474.8	3463.1	3446.3	3448.0	3433.0	3417.9	3411.2	3399.5	3391.2
17.5°	3613.5	3610.2	3595.2	3580.1	3568.4	3563.4	3541.6	3521.6	3498.2	3479.8	3459.7
20°	3742.3	3755.7	3737.3	3715.6	3697.2	3685.5	3668.7	3628.6	3600.2	3570.1	3550.0
22.5°	3964.7	3953.0	3932.9	3901.2	3882.8	3862.7	3827.6	3784.1	3740.6	3703.8	3678.8
25°	4193.8	4182.1	4153.7	4130.2	4103.5	4086.8	4048.3	3994.8	3953.0	3896.1	3862.7
27.5°	4439.6	4429.6	4396.1	4377.7	4359.3	4339.3	4305.8	4250.6	4212.2	4147.0	4111.9
30°	4717.2	4715.5	4670.4	4667.0	4640.3	4618.5	4595.1	4548.3	4509.8	4444.6	4402.8
32.5°	5013.2	5006.5	4974.7	4964.7	4983.1	4968.0	4934.6	4886.1	4835.9	4797.4	4750.6
35°	5434.5	5422.8	5404.4	5412.8	5424.5	5466.3	5414.5	5372.7	5312.5	5262.3	5197.1
37.5°	5742.2	5725.5	5747.2	5794.1	5860.9	5892.7	5937.9	5939.5	5911.1	5844.2	5787.4
40°	6024.8	6018.1	6068.3	6133.5	6257.2	6347.5	6432.8	6474.6	6484.7	6441.2	6355.9
42.5°	6263.9	6284.0	6350.9	6451.2	6625.1	6762.2	6921.1	7019.8	7081.6	7058.2	7019.8
45°	6548.2	6558.2	6640.2	6767.3	6932.8	7160.2	7369.2	7536.4	7645.1	7643.5	7600.0
47.5°	6904.4	6906.0	6976.3	7125.1	7302.3	7533.1	7797.3	8019.7	8163.5	8170.2	8136.8
50°	7327.4	7324.1	7401.0	7541.5	7730.4	7952.8	8233.7	8511.3	8712.0	8712.0	8663.5
52.5°	7872.6	7865.9	7907.7	8031.4	8213.7	8447.8	8727.0	9048.1	9265.5	9312.3	9206.9
55°	8599.9	8610.0	8620.0	8728.7	8884.2	9069.8	9390.9	9686.9	9977.8	10004.6	9942.7
57.5°	9441.0	9407.6	9479.5	9656.8	9834.0	10066.4	10293.8	10643.3	10987.8	11046.3	11038.0
60°	10755.4	10711.9	10785.5	11011.2	11206.9	11573.1	11962.7	12414.2	12822.2	12942.6	12797.1
62.5°	11964.3	12017.9	12118.2	12380.7	12665.0	13153.3	13738.5	14512.7	15286.9	15708.3	15678.2
65°	11855.7	11805.5	11997.8	12355.6	12870.7	13492.7	14220.1	15153.2	16268.5	17114.6	17189.9
66°	11452.7	11400.8	11608.2	12017.9	12606.5	13298.7	14106.4	15056.2	16196.6	17153.1	17268.5
67.5°	10787.1	10735.3	10969.4	11342.3	11949.3	12820.5	13693.4	14731.8	15917.3	16833.7	16927.3
70°	9502.9	9432.7	9615.0	10036.3	10528.0	11370.7	12201.8	13302.1	14519.4	15251.8	15286.9
72.5°	8049.8	7885.9	8079.9	8404.3	8755.5	9452.8	10176.8	10929.3	11899.1	12576.4	12770.3
75°	5840.9	5926.2	5983.0	6197.0	6429.5	7006.4	7431.1	8061.5	8812.3	9302.3	9457.8
77.5°	3098.5	3227.3	3307.5	3521.6	3906.2	4346.0	4805.8	5195.4	5688.7	5962.9	6153.6
80°	1739.1	1829.3	1959.8	2128.7	2315.9	2653.7	2926.3	3126.9	3197.2	3245.7	3289.1
82.5°	956.5	1185.6	1379.5	1496.6	1607.0	1742.4	1904.6	2071.8	2125.3	2045.1	2003.3
85°	148.8	219.1	667.2	814.3	886.2	989.9	1107.0	1230.7	1232.4	1060.2	1157.1
87.5°	41.8	46.8	95.3	143.8	140.5	113.7	140.5	255.8	150.5	75.2	87.0
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: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5
2.5°	3361.1	3364.4	3372.8	3381.1	3389.5	3397.8	3402.9	3411.2	3417.9	3427.9	3439.6
5°	3347.7	3356.0	3371.1	3389.5	3406.2	3421.3	3433.0	3449.7	3464.7	3478.1	3498.2
7.5°	3347.7	3364.4	3389.5	3409.5	3424.6	3443.0	3461.4	3478.1	3494.8	3508.2	3521.6
10°	3349.3	3366.1	3391.2	3414.6	3431.3	3451.3	3466.4	3481.4	3499.8	3508.2	3524.9
12.5°	3356.0	3362.7	3381.1	3404.5	3424.6	3444.7	3459.7	3474.8	3494.8	3498.2	3509.9
15°	3389.5	3379.4	3384.5	3401.2	3422.9	3439.6	3456.4	3468.1	3481.4	3478.1	3488.1
17.5°	3451.3	3426.3	3416.2	3417.9	3427.9	3439.6	3446.3	3448.0	3449.7	3434.6	3436.3
20°	3535.0	3499.8	3476.4	3464.7	3451.3	3439.6	3421.3	3399.5	3379.4	3349.3	3346.0
22.5°	3660.4	3608.5	3583.5	3551.7	3511.5	3461.4	3416.2	3362.7	3319.2	3274.1	3257.4
25°	3842.6	3789.1	3762.4	3712.2	3640.3	3568.4	3503.2	3431.3	3367.7	3314.2	3289.1
27.5°	4086.8	4033.3	4004.8	3953.0	3864.4	3792.5	3702.2	3625.3	3548.3	3469.7	3438.0
30°	4382.7	4335.9	4304.2	4262.3	4185.4	4106.8	4001.5	3882.8	3760.7	3635.3	3573.4
32.5°	4732.2	4680.4	4657.0	4608.5	4528.2	4446.3	4329.2	4177.1	3973.1	3775.7	3652.0
35°	5168.7	5110.1	5083.4	5019.8	4926.2	4805.8	4680.4	4476.4	4200.5	3926.2	3723.9
37.5°	5752.2	5621.8	5533.2	5387.7	5237.2	5068.3	4889.4	4680.4	4354.3	4014.9	3733.9
40°	6268.9	6136.8	5966.3	5757.3	5523.2	5290.7	5086.7	4849.3	4494.8	4078.4	3702.2
42.5°	6911.1	6677.0	6404.4	6121.8	5810.8	5524.8	5282.4	5003.1	4590.1	4095.1	3613.5
45°	7498.0	7218.7	6854.2	6478.0	6091.7	5732.2	5459.6	5148.6	4672.0	4095.1	3506.5
47.5°	8033.1	7698.6	7262.2	6794.0	6344.2	5951.2	5641.9	5297.4	4787.4	4147.0	3474.8
50°	8528.0	8143.4	7646.8	7103.4	6598.4	6178.7	5845.9	5488.0	4963.0	4280.7	3551.7
52.5°	9049.8	8641.8	8036.4	7459.5	6902.7	6452.9	6098.4	5723.8	5190.4	4491.4	3687.1
55°	9733.7	9255.4	8568.2	7932.8	7320.7	6824.1	6421.1	6006.4	5439.6	4728.9	3852.7
57.5°	10812.2	10118.3	9431.0	8605.0	8028.1	7374.2	6932.8	6456.2	5844.2	5038.2	4101.8
60°	12700.1	11847.3	11021.2	10071.5	9359.1	8675.2	8008.0	7386.0	6648.5	5737.2	4648.6
62.5°	15395.6	14529.4	13231.8	12069.7	10994.5	10088.2	9218.6	8427.7	7481.3	6484.7	5322.5
65°	17005.9	16014.3	14467.6	12905.8	11599.8	10476.1	9481.2	8513.0	7491.3	6519.8	5526.5
66°	17134.7	16196.6	14544.5	12894.1	11537.9	10372.4	9337.4	8335.7	7289.0	6359.2	5459.6
67.5°	16895.6	16087.9	14387.3	12666.7	11280.4	10021.3	8957.8	7907.7	6855.9	5994.7	5237.2
70°	15208.3	14624.8	13166.6	11554.7	10171.8	9061.5	7939.4	6929.5	5932.8	5208.8	4646.9
72.5°	12467.7	11728.6	10708.5	9625.0	8536.4	7551.5	6531.5	5672.0	4835.9	4309.2	3911.2
75°	9158.4	8492.9	7369.2	6693.7	5974.6	5355.9	4668.7	3854.3	3260.7	2996.5	2899.5
77.5°	5805.8	5083.4	4135.3	3389.5	2914.6	2504.9	1974.8	1570.2	1257.5	1309.3	1449.8
80°	2933.0	2526.6	1891.2	1493.2	1290.9	1073.5	849.5	643.8	469.9	536.8	607.0
82.5°	1882.9	1571.8	1252.5	986.6	832.7	734.1	586.9	426.4	317.7	357.8	438.1
85°	1133.7	958.2	764.2	625.4	543.5	453.2	332.8	235.8	234.1	250.8	309.4
87.5°	172.2	245.8	142.1	152.2	160.5	172.2	152.2	128.8	112.0	145.5	183.9
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: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5	3404.5
2.5°	3451.3	3454.7	3461.4	3469.7	3468.1	3479.8	3486.5	3479.8	3494.8	3494.8	3503.2
5°	3514.9	3519.9	3531.6	3540.0	3543.3	3553.4	3556.7	3555.0	3558.4	3560.0	3563.4
7.5°	3533.3	3546.7	3551.7	3556.7	3558.4	3561.7	3561.7	3558.4	3558.4	3556.7	3560.0
10°	3528.3	3533.3	3536.6	3535.0	3535.0	3531.6	3529.9	3528.3	3528.3	3524.9	3529.9
12.5°	3511.5	3511.5	3511.5	3508.2	3508.2	3506.5	3506.5	3506.5	3509.9	3511.5	3519.9
15°	3478.1	3478.1	3481.4	3479.8	3484.8	3493.2	3503.2	3509.9	3518.2	3519.9	3524.9
17.5°	3426.3	3427.9	3438.0	3459.7	3481.4	3506.5	3524.9	3529.9	3523.3	3506.5	3494.8
20°	3336.0	3357.7	3397.8	3449.7	3498.2	3529.9	3538.3	3518.2	3486.5	3443.0	3419.6
22.5°	3255.7	3299.2	3371.1	3456.4	3516.6	3538.3	3513.2	3466.4	3409.5	3359.4	3324.3
25°	3287.5	3337.6	3412.9	3486.5	3524.9	3513.2	3463.1	3396.2	3336.0	3277.4	3220.6
27.5°	3421.3	3471.4	3524.9	3546.7	3533.3	3489.8	3419.6	3347.7	3267.4	3183.8	3113.6
30°	3548.3	3576.8	3580.1	3558.4	3509.9	3439.6	3357.7	3274.1	3172.1	3071.8	2983.1
32.5°	3588.5	3555.0	3494.8	3433.0	3366.1	3294.2	3198.9	3088.5	2979.8	2866.1	2767.4
35°	3576.8	3441.3	3292.5	3160.4	3080.1	2998.2	2911.2	2764.1	2642.0	2545.0	2481.5
37.5°	3471.4	3223.9	2994.8	2802.5	2677.1	2580.2	2451.4	2329.3	2224.0	2180.5	2128.7
40°	3324.3	2946.4	2628.6	2359.4	2229.0	2105.3	1961.4	1867.8	1837.7	1797.6	1799.2
42.5°	3113.6	2622.0	2212.3	1902.9	1760.8	1625.3	1523.3	1468.2	1469.8	1436.4	1443.1
45°	2891.2	2295.9	1780.9	1473.2	1332.7	1217.3	1160.5	1143.8	1145.4	1147.1	1137.1
47.5°	2755.7	2041.7	1428.0	1117.0	993.3	928.1	898.0	889.6	891.3	892.9	881.2
50°	2735.7	1909.6	1192.3	854.5	774.2	737.4	722.4	714.0	714.0	707.3	697.3
52.5°	2792.5	1876.2	1076.9	740.8	663.8	630.4	618.7	612.0	602.0	588.6	570.2
55°	2882.8	1906.3	1041.8	702.3	627.1	593.6	578.6	575.2	558.5	533.4	503.3
57.5°	3050.0	2015.0	1065.2	712.3	633.8	603.7	593.6	590.3	566.9	528.4	489.9
60°	3529.9	2331.0	1182.2	769.2	682.2	657.2	657.2	652.1	620.4	565.2	510.0
62.5°	4192.1	2794.2	1341.1	847.8	749.1	745.8	774.2	775.9	719.0	630.4	543.5
65°	4511.5	3011.6	1396.3	864.5	767.5	806.0	862.8	862.8	782.6	660.5	548.5
66°	4513.2	3006.6	1379.5	844.4	747.5	797.6	856.1	856.1	772.5	652.1	540.1
67.5°	4397.8	2912.9	1324.4	807.7	702.3	749.1	801.0	799.3	724.0	618.7	516.7
70°	3944.6	2576.8	1167.2	747.5	648.8	650.5	668.9	657.2	607.0	535.1	469.9
72.5°	3401.2	2155.4	1011.7	709.0	607.0	575.2	560.2	550.1	518.4	474.9	434.8
75°	2608.6	1673.8	881.2	673.9	570.2	515.0	495.0	486.6	464.9	439.8	408.0
77.5°	1598.6	1147.1	747.5	617.0	528.4	478.2	456.5	439.8	418.0	394.6	372.9
80°	688.9	692.3	598.6	523.4	459.8	401.3	372.9	352.8	341.1	332.8	321.1
82.5°	481.6	496.6	456.5	406.3	351.2	309.4	284.3	279.3	280.9	280.9	277.6
85°	361.2	354.5	319.4	291.0	265.9	239.1	219.1	217.4	224.1	224.1	219.1
87.5°	209.0	210.7	180.6	168.9	175.6	150.5	137.1	138.8	155.5	153.8	150.5
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: P159843

CATALOG NUMBER: VST-F12-LED-E-U-T4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	3404.5	3404.5	3404.5	3404.5	3404.5
2.5°	3503.2	3508.2	3506.5	3511.5	3506.5
5°	3568.4	3566.7	3565.1	3571.7	3563.4
7.5°	3558.4	3560.0	3560.0	3560.0	3558.4
10°	3533.3	3540.0	3543.3	3550.0	3548.3
12.5°	3524.9	3535.0	3545.0	3555.0	3556.7
15°	3526.6	3533.3	3538.3	3543.3	3545.0
17.5°	3483.1	3481.4	3476.4	3473.1	3469.7
20°	3394.5	3386.1	3377.8	3364.4	3371.1
22.5°	3284.1	3260.7	3234.0	3212.2	3210.6
25°	3155.4	3111.9	3068.4	3040.0	3030.0
27.5°	3041.7	2989.8	2944.7	2919.6	2912.9
30°	2906.2	2859.4	2819.3	2797.5	2784.2
32.5°	2705.6	2668.8	2618.6	2601.9	2600.2
35°	2426.3	2397.9	2362.8	2356.1	2347.7
37.5°	2110.3	2100.2	2083.5	2063.5	2060.1
40°	1772.5	1779.2	1774.2	1762.5	1744.1
42.5°	1446.4	1458.1	1459.8	1468.2	1476.5
45°	1152.1	1162.2	1162.2	1170.5	1180.5
47.5°	884.6	877.9	882.9	891.3	896.3
50°	668.9	663.8	655.5	648.8	642.1
52.5°	538.4	528.4	505.0	498.3	491.6
55°	474.9	456.5	439.8	433.1	433.1
57.5°	456.5	433.1	414.7	406.3	403.0
60°	459.8	426.4	403.0	389.6	384.6
62.5°	474.9	428.1	396.3	381.3	376.2
65°	473.2	424.7	394.6	377.9	372.9
66°	464.9	419.7	391.3	376.2	372.9
67.5°	451.5	413.0	387.9	374.6	369.5
70°	424.7	399.6	381.3	369.5	364.5
72.5°	403.0	386.3	369.5	356.2	352.8
75°	382.9	366.2	351.2	344.5	339.4
77.5°	352.8	337.8	329.4	322.7	319.4
80°	312.7	302.7	292.6	285.9	280.9
82.5°	272.6	259.2	249.2	244.1	240.8
85°	222.4	214.0	199.0	189.0	187.3
87.5°	148.8	140.5	135.4	127.1	118.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)