

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: P159406

Luminaire Tested: **VST-F12-LED-E-U-T2-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159406
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33705)
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-T2-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (84) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31376.2 lumens
Efficiency: N/A
Efficacy: 102.3 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

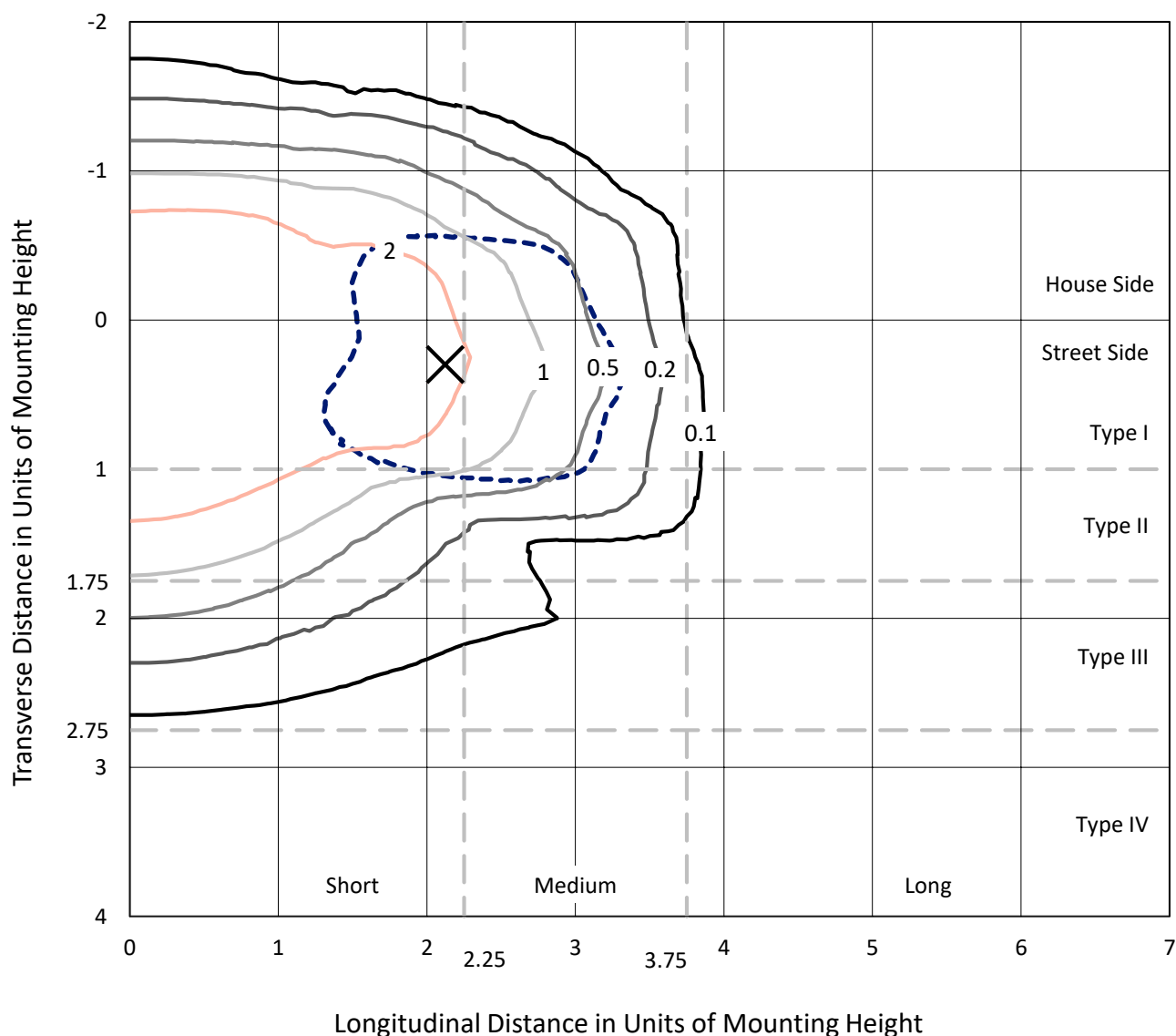


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

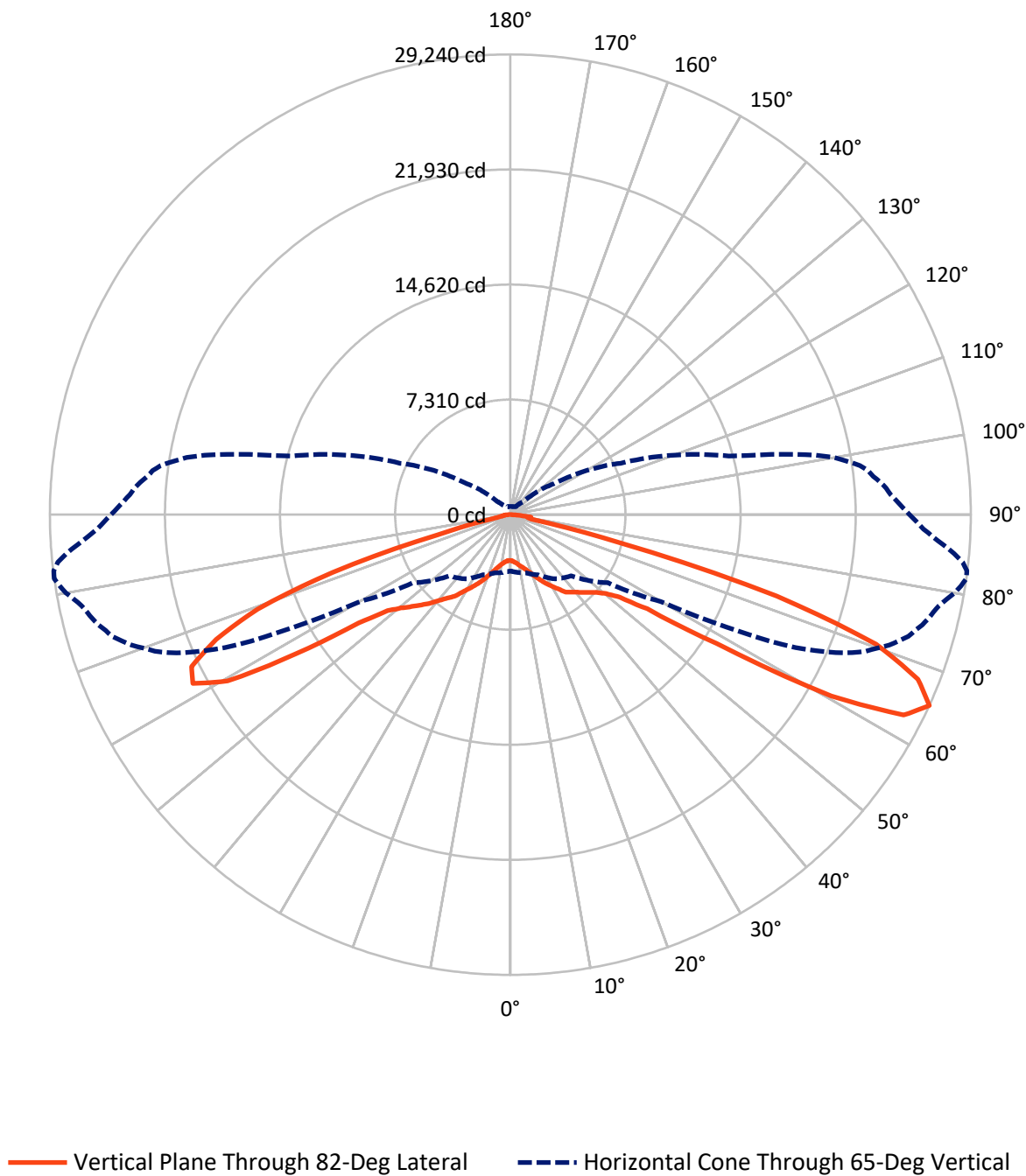


Based on 30 foot mounting height. Maximum calculated value = 4.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11682.4	0.0	11682.4
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	19693.8	0.0	19693.8
	% Fixture	62.8	0.0	62.8
Total	Lumens	31376.2	0.0	31376.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	295.5	0.9
10°-20°	1038.5	3.3
20°-30°	2057.7	6.6
30°-40°	3527.3	11.2
40°-50°	5298.9	16.9
50°-60°	7361.9	23.5
60°-70°	8398.8	26.8
70°-80°	2893.3	9.2
80°-90°	504.3	1.6
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°	31376.2	100.0
0°-180°	31376.2	100.0

Coefficient of Utilization



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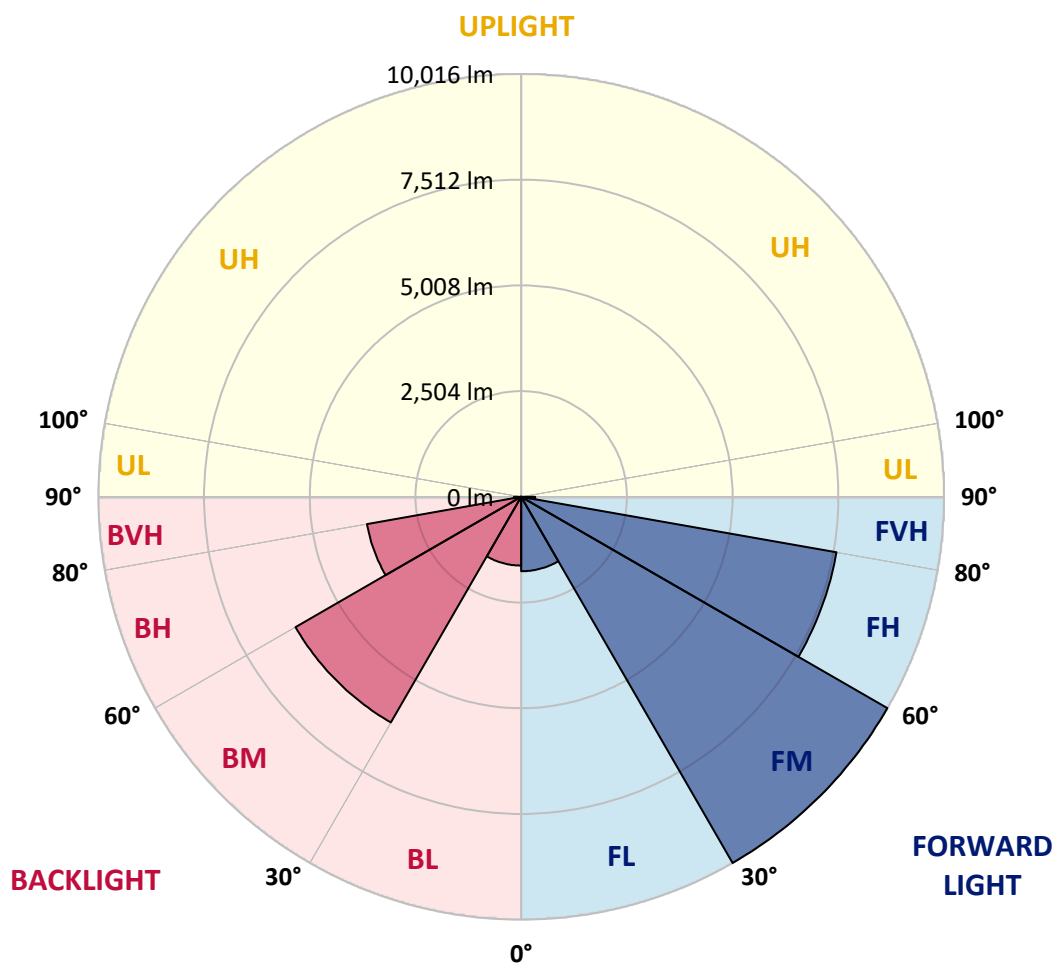
CATALOG NUMBER: VST-F12-LED-E-U-T2-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1762.7	5.6			
FM	(30°-60°)	10015.9	31.9			
FH	(60°-80°)	7583.3	24.2			G4/12000
FVH	(80°-90°)	332.0	1.1			G3/500
BL	(0°-30°)	1629.0	5.2	B3/2500		
BM	(30°-60°)	6172.2	19.7	B4/8500		
BH	(60°-80°)	3708.8	11.8	B4/5000		G4/5000
BVH	(80°-90°)	172.3	0.5			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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	3077.9	3080.0	3077.9	3071.8	3069.8	3051.5	3031.2	3021.0	3019.0	3010.8	3012.9
5°	3269.0	3262.9	3254.8	3244.6	3234.5	3204.0	3169.4	3151.1	3145.0	3138.9	3130.8
7.5°	3439.8	3443.9	3439.8	3425.6	3399.1	3360.5	3315.8	3287.3	3285.3	3279.2	3273.1
10°	3659.4	3669.5	3645.1	3620.7	3584.1	3525.2	3474.4	3437.8	3431.7	3423.5	3419.5
12.5°	3897.2	3899.3	3891.1	3836.2	3775.2	3693.9	3620.7	3584.1	3576.0	3565.8	3561.8
15°	4151.3	4153.4	4108.7	4055.8	3962.3	3864.7	3763.0	3722.4	3712.2	3714.3	3698.0
17.5°	4352.6	4356.7	4314.0	4246.9	4135.1	4019.2	3909.4	3876.9	3870.8	3872.8	3864.7
20°	4440.0	4446.1	4419.7	4368.9	4263.2	4161.5	4082.2	4061.9	4059.9	4055.8	4072.1
22.5°	4436.0	4438.0	4427.8	4407.5	4344.5	4285.5	4275.4	4287.6	4285.5	4289.6	4303.8
25°	4399.4	4405.5	4403.4	4411.6	4401.4	4423.8	4470.5	4513.2	4519.3	4527.4	4553.9
27.5°	4492.9	4505.1	4490.9	4499.0	4515.3	4590.5	4686.0	4751.1	4763.3	4785.6	4808.0
30°	4858.8	4842.6	4824.3	4803.9	4814.1	4860.9	4968.6	5025.5	5031.6	5047.9	5078.4
32.5°	5401.6	5383.3	5367.1	5334.5	5326.4	5306.1	5342.7	5356.9	5354.9	5371.1	5379.3
35°	6013.6	6015.6	6011.5	6035.9	6056.3	5952.6	5824.5	5789.9	5804.2	5785.9	5789.9
37.5°	6536.0	6542.1	6649.9	6784.1	6822.7	6757.6	6477.1	6338.8	6292.1	6286.0	6239.2
40°	7115.4	7115.4	7278.1	7442.7	7550.5	7631.8	7298.4	7054.4	6954.8	6926.4	6810.5
42.5°	7751.8	7719.2	7867.6	8048.6	8247.8	8432.8	8260.0	7985.6	7843.2	7792.4	7589.1
45°	8274.2	8253.9	8327.1	8495.8	8819.1	9180.9	9205.3	9065.1	8979.7	8874.0	8686.9
47.5°	8595.4	8585.3	8628.0	8810.9	9215.5	9801.0	10128.3	10199.5	10148.6	10067.3	9886.4
50°	8721.5	8707.3	8737.8	8941.1	9394.4	10166.9	10890.7	11226.1	11250.5	11268.8	11211.9
52.5°	8676.8	8658.5	8721.5	8892.3	9363.9	10295.0	11486.3	12130.8	12238.5	12330.0	12517.1
55°	8247.8	8219.3	8390.1	8711.3	9231.8	10248.3	11921.4	13000.9	13228.6	13472.6	13887.3
57.5°	7591.2	7566.8	7812.7	8253.9	8998.0	10120.2	12214.2	14100.8	14613.1	15052.2	16229.3
60°	6958.9	6938.6	7082.9	7509.8	8239.7	9496.1	11852.3	14470.8	15330.7	16278.1	18426.9
62.5°	5828.6	5773.7	5966.8	6326.6	6788.1	7855.4	10272.7	13647.4	14972.9	16365.5	19278.8
65°	3582.1	3661.4	3828.1	4226.6	4982.8	5491.1	7544.4	11041.1	12789.5	14535.8	18315.1
67.5°	2274.9	2297.3	2421.3	2697.8	3283.3	3793.5	4572.2	6928.4	8276.3	9994.1	14379.3
70°	1949.6	1963.9	2069.6	2358.3	2762.8	3391.0	3460.1	3618.7	4102.6	5196.3	8453.1
72.5°	1536.9	1561.3	1644.7	1894.7	2382.7	3057.6	4271.3	2860.4	2762.8	2854.3	4124.9
75°	914.8	943.3	1012.4	1148.6	1530.8	2337.9	4474.6	3328.0	3102.3	2925.5	2846.2
77.5°	483.8	463.5	510.3	589.6	786.8	1246.2	3362.6	4078.2	3919.6	3708.2	3258.9
80°	239.9	248.0	262.3	278.5	351.7	506.2	1681.3	4218.4	4675.9	4879.2	4480.7
82.5°	95.6	107.7	152.5	162.6	193.1	215.5	540.8	2337.9	3348.3	4541.7	5930.2
85°	48.8	46.8	81.3	97.6	113.8	101.6	191.1	872.1	1569.5	2445.7	3962.3
87.5°	6.1	8.1	18.3	24.4	34.6	32.5	54.9	189.1	300.9	426.9	599.7
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):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	3002.7	3000.7	3000.7	2992.5	2992.5	2994.6	2988.5	2984.4	2984.4	2986.4	2978.3
5°	3124.7	3118.6	3118.6	3110.5	3100.3	3100.3	3092.2	3090.1	3086.1	3077.9	3071.8
7.5°	3267.0	3260.9	3250.7	3244.6	3240.6	3234.5	3224.3	3220.2	3212.1	3204.0	3195.8
10°	3413.4	3405.2	3401.2	3391.0	3386.9	3374.7	3368.7	3370.7	3354.4	3348.3	3350.4
12.5°	3559.8	3551.6	3537.4	3533.3	3531.3	3519.1	3513.0	3508.9	3496.7	3494.7	3488.6
15°	3689.9	3693.9	3687.8	3677.7	3669.5	3667.5	3661.4	3657.3	3649.2	3641.1	3632.9
17.5°	3858.6	3864.7	3856.6	3842.3	3842.3	3840.3	3842.3	3840.3	3826.1	3832.2	3828.1
20°	4074.1	4078.2	4057.8	4063.9	4068.0	4066.0	4072.1	4078.2	4074.1	4074.1	4080.2
22.5°	4322.1	4328.2	4316.0	4324.2	4336.3	4326.2	4344.5	4342.4	4346.5	4352.6	4354.6
25°	4576.2	4588.4	4578.3	4600.6	4592.5	4600.6	4623.0	4616.9	4627.1	4643.3	4649.4
27.5°	4830.4	4838.5	4840.5	4854.8	4869.0	4881.2	4909.7	4909.7	4917.8	4946.2	4946.2
30°	5096.7	5104.8	5112.9	5133.3	5141.4	5163.8	5192.2	5200.4	5196.3	5237.0	5249.2
32.5°	5403.7	5411.8	5426.0	5450.4	5460.6	5483.0	5483.0	5505.3	5521.6	5556.1	5558.2
35°	5812.3	5818.4	5812.3	5810.3	5824.5	5855.0	5857.0	5889.5	5903.8	5938.3	5948.5
37.5°	6220.9	6218.9	6192.5	6164.0	6166.0	6153.8	6145.7	6159.9	6166.0	6168.1	6190.4
40°	6771.9	6719.0	6678.3	6607.2	6574.7	6523.8	6493.3	6491.3	6458.8	6454.7	6460.8
42.5°	7493.6	7432.6	7337.0	7217.1	7125.6	7032.1	6963.0	6922.3	6851.1	6814.6	6784.1
45°	8501.9	8351.5	8237.6	8095.3	7918.5	7755.8	7585.1	7507.8	7371.6	7288.2	7194.7
47.5°	9733.9	9585.5	9410.7	9264.3	9032.5	8806.9	8573.1	8367.8	8129.9	7940.8	7786.3
50°	11071.6	10984.2	10858.2	10721.9	10423.1	10274.7	9979.9	9701.4	9445.2	9107.8	8813.0
52.5°	12443.9	12494.7	12466.2	12417.5	12228.4	12171.5	11917.3	11577.8	11319.6	11087.9	10575.6
55°	14135.3	14196.3	14318.3	14389.4	14367.1	14511.4	14448.4	14184.1	14080.4	13972.7	13608.8
57.5°	16723.3	17158.4	17623.9	18032.5	18128.1	18640.4	18530.6	18794.9	18981.9	18847.8	18729.9
60°	19482.1	20360.3	21151.1	21978.6	22651.5	23155.7	23822.5	24271.8	24554.4	25062.6	25103.3
62.5°	20594.1	21787.5	22791.8	23751.3	24550.3	25249.6	25851.4	26471.5	26979.7	27439.2	27770.5
65°	19984.2	21230.4	22448.2	23422.0	24190.4	24792.2	25446.8	25938.8	26438.9	26733.7	27081.3
67.5°	16613.5	18264.3	19762.6	20860.4	21911.5	22523.4	23298.0	23781.8	24312.4	24623.5	24847.1
70°	10831.7	12980.6	15027.8	16692.8	18111.8	18825.4	19760.6	20421.3	21059.7	21075.9	21448.0
72.5°	5844.8	7642.0	9355.8	11057.4	12675.6	13625.0	14548.0	15351.0	15985.3	15714.9	16084.9
75°	3254.8	4096.5	5033.7	6056.3	7042.2	7585.1	8274.2	8278.3	8605.6	8091.3	8221.4
77.5°	3130.8	3092.2	3106.4	3134.9	3183.6	3080.0	3077.9	3014.9	2917.3	2740.5	2771.0
80°	4112.7	3620.7	3267.0	2712.0	2183.4	1780.9	1669.1	1695.5	1774.8	1933.4	2134.6
82.5°	5946.5	5531.7	4938.1	4063.9	3189.7	2459.9	2020.8	1793.1	1782.9	1941.5	2246.4
85°	4330.3	4580.3	4541.7	3791.5	3126.7	2539.2	1848.0	1561.3	1293.0	1230.0	1337.7
87.5°	638.4	528.6	595.7	498.1	361.9	280.6	246.0	197.2	189.1	193.1	211.4
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):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	2980.4	2972.2	2964.1	2970.2	2964.1	2962.1	2956.0	2951.9	2949.9	2949.9	2949.9
5°	3071.8	3061.7	3055.6	3053.5	3047.4	3041.3	3039.3	3029.1	3027.1	3027.1	3021.0
7.5°	3195.8	3187.7	3177.6	3171.5	3167.4	3157.2	3147.1	3145.0	3143.0	3134.9	3128.8
10°	3340.2	3328.0	3315.8	3315.8	3307.7	3305.6	3295.5	3281.2	3279.2	3267.0	3262.9
12.5°	3476.4	3472.3	3458.1	3454.0	3447.9	3441.8	3435.7	3429.6	3423.5	3413.4	3417.4
15°	3639.0	3628.9	3616.7	3618.7	3616.7	3608.5	3600.4	3594.3	3590.2	3586.2	3586.2
17.5°	3834.2	3830.1	3828.1	3817.9	3809.8	3815.9	3815.9	3815.9	3805.7	3807.8	3809.8
20°	4082.2	4086.3	4082.2	4074.1	4072.1	4078.2	4063.9	4086.3	4074.1	4066.0	4070.0
22.5°	4356.7	4370.9	4354.6	4356.7	4366.8	4370.9	4356.7	4375.0	4368.9	4356.7	4366.8
25°	4655.5	4665.7	4657.6	4655.5	4661.6	4675.9	4673.8	4671.8	4686.0	4673.8	4679.9
27.5°	4962.5	4968.6	4972.7	4978.8	4982.8	4980.8	4988.9	4988.9	4997.1	4982.8	4988.9
30°	5267.5	5267.5	5275.6	5283.7	5283.7	5283.7	5300.0	5302.0	5289.8	5293.9	5279.7
32.5°	5592.7	5594.8	5602.9	5602.9	5619.2	5621.2	5639.5	5615.1	5639.5	5619.2	5623.2
35°	5974.9	6001.4	6005.4	6025.8	6042.0	6048.1	6048.1	6050.2	6072.5	6056.3	6062.4
37.5°	6198.6	6204.7	6220.9	6231.1	6231.1	6239.2	6245.3	6239.2	6245.3	6243.3	6249.4
40°	6462.8	6456.7	6475.0	6479.1	6471.0	6481.1	6479.1	6473.0	6489.3	6477.1	6485.2
42.5°	6784.1	6749.5	6747.5	6763.7	6747.5	6755.6	6753.6	6739.3	6759.7	6765.8	6759.7
45°	7127.6	7109.3	7072.7	7072.7	7056.5	7050.4	7052.4	7050.4	7052.4	7076.8	7084.9
47.5°	7686.7	7574.9	7511.9	7452.9	7404.1	7402.1	7379.7	7391.9	7408.2	7448.8	7485.4
50°	8623.9	8365.7	8207.1	8060.8	7955.1	7918.5	7875.8	7871.7	7885.9	7932.7	7995.7
52.5°	10295.0	9937.2	9599.7	9286.7	9014.2	8804.8	8701.2	8646.3	8625.9	8672.7	8733.7
55°	13352.6	12677.7	12202.0	11884.8	11207.8	10921.2	10553.2	10384.5	10219.8	10236.1	10339.7
57.5°	18577.4	18213.5	17815.0	17260.0	16845.3	16345.2	15426.3	14914.0	14936.3	15056.3	14682.2
60°	25424.5	25056.5	24891.8	24387.6	24099.0	23897.7	23409.8	22560.0	22259.1	22202.2	21515.0
62.5°	28024.6	28112.1	28242.2	28384.5	28376.4	28463.8	28036.8	27760.4	27412.7	26961.4	26282.4
65°	27345.6	27567.2	27831.5	28213.7	28648.8	28970.0	29240.4	29207.8	28882.6	28280.8	27563.2
67.5°	25046.3	25265.9	25459.0	25971.3	26684.9	27337.5	27914.9	28307.2	28089.7	27591.6	26754.0
70°	21590.3	21748.8	21870.8	22316.0	23098.7	23895.7	24649.9	25308.6	25241.5	24637.7	23968.9
72.5°	15643.8	16028.0	16235.4	16204.9	16688.7	17581.2	17686.9	18250.1	18406.6	17756.1	16690.8
75°	7621.6	7627.7	7387.9	7308.6	7333.0	7487.5	7192.7	7211.0	7109.3	6647.8	6267.7
77.5°	2663.2	2590.0	2415.2	2207.8	1911.0	1632.5	1349.9	1227.9	1187.3	1067.3	984.0
80°	2295.2	2403.0	2368.4	2197.7	1884.6	1502.4	1122.2	831.5	709.5	666.8	626.2
82.5°	2606.3	3021.0	3285.3	3271.1	2842.1	2134.6	1331.6	764.4	544.8	477.8	439.1
85°	1453.6	1563.4	1593.9	1451.5	1205.6	823.4	459.5	323.2	274.5	250.1	225.7
87.5°	231.8	211.4	207.4	180.9	170.8	156.5	138.2	130.1	119.9	113.8	113.8
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-F12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	2947.8	2945.8	2939.7	2933.6	2929.5	2927.5	2925.5	2921.4	2919.4	2917.3	2913.3
5°	3016.9	3012.9	3002.7	2992.5	2988.5	2982.4	2976.3	2972.2	2968.2	2966.1	2958.0
7.5°	3124.7	3120.6	3108.4	3100.3	3098.3	3082.0	3080.0	3073.9	3063.7	3061.7	3049.5
10°	3254.8	3252.8	3242.6	3236.5	3232.4	3224.3	3212.1	3201.9	3191.8	3191.8	3183.6
12.5°	3405.2	3397.1	3403.2	3389.0	3384.9	3376.8	3370.7	3368.7	3356.5	3346.3	3344.3
15°	3582.1	3571.9	3571.9	3567.9	3563.8	3555.7	3553.7	3555.7	3543.5	3547.6	3535.4
17.5°	3801.7	3805.7	3803.7	3803.7	3793.5	3793.5	3777.3	3797.6	3783.4	3793.5	3789.5
20°	4076.1	4078.2	4074.1	4080.2	4084.3	4082.2	4080.2	4078.2	4084.3	4092.4	4086.3
22.5°	4368.9	4368.9	4366.8	4389.2	4364.8	4383.1	4389.2	4377.0	4409.5	4405.5	4411.6
25°	4686.0	4686.0	4702.3	4720.6	4724.6	4710.4	4718.6	4708.4	4728.7	4745.0	4749.0
27.5°	4980.8	5007.2	5019.4	5007.2	5017.4	5039.8	5037.7	5037.7	5052.0	5047.9	5086.5
30°	5283.7	5300.0	5316.2	5308.1	5312.2	5340.6	5342.7	5344.7	5363.0	5389.4	5417.9
32.5°	5629.3	5645.6	5637.5	5663.9	5661.9	5696.4	5702.5	5708.6	5765.5	5755.4	5814.3
35°	6054.2	6070.5	6062.4	6090.8	6086.7	6098.9	6121.3	6145.7	6155.9	6214.8	6261.6
37.5°	6253.5	6253.5	6271.7	6304.3	6316.5	6336.8	6371.4	6401.9	6452.7	6515.7	6588.9
40°	6493.3	6499.4	6523.8	6558.4	6580.8	6627.5	6690.5	6733.2	6810.5	6879.6	6965.0
42.5°	6784.1	6810.5	6838.9	6885.7	6934.5	7007.7	7097.1	7152.0	7253.7	7343.1	7448.8
45°	7123.6	7150.0	7217.1	7302.5	7373.6	7454.9	7528.1	7658.2	7749.7	7843.2	7934.7
47.5°	7534.2	7611.5	7666.4	7768.0	7855.4	7963.2	8054.7	8176.7	8276.3	8390.1	8467.4
50°	8060.8	8156.3	8227.5	8359.6	8445.0	8565.0	8680.8	8772.3	8874.0	8985.8	9048.8
52.5°	8817.0	8914.6	9004.1	9168.7	9274.5	9355.8	9510.3	9624.1	9717.7	9799.0	9868.1
55°	10455.6	10427.2	10675.2	10994.4	11031.0	11325.7	11380.6	11476.2	11649.0	11673.4	11866.5
57.5°	15137.6	14991.2	15351.0	15818.6	15737.3	15588.9	16209.0	16247.6	16160.2	16394.0	16129.7
60°	21616.7	21360.5	21458.1	21586.2	21401.2	21313.8	21344.3	21431.7	21346.3	21252.8	20996.6
62.5°	25942.9	25548.5	25265.9	25028.0	24727.2	24509.6	24265.7	23964.8	23883.5	23541.9	23255.3
65°	26865.9	26251.9	25804.6	25355.3	24940.6	24556.4	24188.4	23930.2	23588.7	23184.1	22885.3
67.5°	25851.4	25091.1	24436.4	23783.9	23314.2	22749.1	22472.6	22051.8	21630.9	21167.4	20893.0
70°	22903.6	22110.7	21287.3	20649.0	20010.6	19311.3	19175.1	18677.0	18435.1	17802.8	17693.0
72.5°	15808.5	15279.9	14911.9	14123.1	13734.8	13377.0	13263.2	12801.7	12850.5	12157.2	12409.3
75°	5621.2	5546.0	5438.2	4993.0	4913.7	4775.5	4738.9	4706.4	5035.7	4578.3	4909.7
77.5°	965.7	959.6	904.7	878.2	929.1	896.5	904.7	888.4	984.0	998.2	975.8
80°	599.7	583.5	565.2	553.0	555.0	542.8	544.8	548.9	555.0	553.0	559.1
82.5°	410.7	396.4	388.3	380.2	392.4	396.4	406.6	416.8	433.0	443.2	455.4
85°	223.6	205.3	205.3	203.3	219.6	231.8	248.0	268.4	296.8	321.2	347.6
87.5°	113.8	109.8	111.8	115.9	130.1	140.3	160.6	178.9	203.3	229.7	254.1
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: P159406

CATALOG NUMBER: VST-F12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	2911.2	2911.2	2909.2	2909.2	2907.2	2905.1	2903.1	2897.0	2874.6	2854.3	2840.1
5°	2956.0	2949.9	2947.8	2941.7	2939.7	2935.6	2929.5	2923.4	2882.8	2846.2	2819.7
7.5°	3047.4	3039.3	3035.2	3029.1	3023.0	3014.9	3006.8	3000.7	2951.9	2909.2	2876.7
10°	3167.4	3163.3	3161.3	3153.2	3153.2	3141.0	3138.9	3124.7	3071.8	3033.2	3004.7
12.5°	3334.1	3326.0	3323.9	3313.8	3317.8	3313.8	3309.7	3301.6	3262.9	3218.2	3179.6
15°	3541.5	3541.5	3531.3	3523.2	3525.2	3521.1	3529.3	3519.1	3494.7	3454.0	3391.0
17.5°	3791.5	3787.4	3791.5	3785.4	3789.5	3793.5	3783.4	3785.4	3773.2	3722.4	3628.9
20°	4082.2	4076.1	4100.5	4090.4	4112.7	4092.4	4096.5	4102.6	4102.6	4035.5	3909.4
22.5°	4415.6	4411.6	4411.6	4431.9	4440.0	4442.1	4450.2	4456.3	4472.6	4387.2	4185.9
25°	4749.0	4763.3	4765.3	4791.7	4803.9	4803.9	4810.0	4832.4	4881.2	4763.3	4503.1
27.5°	5088.6	5123.1	5131.2	5149.5	5167.8	5186.1	5200.4	5216.6	5295.9	5167.8	4828.3
30°	5428.1	5466.7	5495.1	5515.5	5537.8	5582.6	5590.7	5623.2	5755.4	5598.8	5137.3
32.5°	5826.5	5881.4	5918.0	5944.4	5979.0	6021.7	6046.1	6086.7	6214.8	5958.7	5363.0
35°	6302.2	6334.8	6387.6	6432.4	6452.7	6525.9	6564.5	6574.7	6672.2	6269.7	5529.7
37.5°	6631.6	6686.5	6778.0	6841.0	6877.6	6918.2	6983.3	7026.0	7119.5	6552.3	5613.1
40°	7050.4	7133.7	7206.9	7300.4	7359.4	7389.9	7454.9	7489.5	7501.7	6794.2	5586.6
42.5°	7560.7	7635.9	7733.5	7808.7	7853.4	7888.0	7940.8	7955.1	7796.5	6908.1	5444.3
45°	8040.4	8156.3	8239.7	8294.6	8327.1	8345.4	8377.9	8379.9	8040.4	6851.1	5200.4
47.5°	8556.8	8640.2	8717.4	8756.1	8752.0	8756.1	8743.9	8735.7	8162.4	6653.9	4887.3
50°	9128.1	9183.0	9215.5	9233.8	9244.0	9205.3	9150.4	9113.9	8172.6	6373.4	4570.1
52.5°	9894.5	9963.6	9957.5	9955.5	9874.2	9837.6	9691.2	9616.0	8113.6	6044.1	4212.3
55°	11836.0	11768.9	11636.8	11701.8	11370.5	11197.7	10970.0	10758.5	8190.9	5731.0	3797.6
57.5°	16235.4	16261.8	15885.7	15684.5	15125.4	14426.0	13862.9	13316.0	8886.2	5539.9	3256.8
60°	20825.9	20480.3	20002.5	19274.7	18555.0	17516.2	16513.9	15566.5	9579.4	5340.6	2616.4
62.5°	22830.4	22338.4	21616.7	20675.4	19545.1	18274.5	17026.2	15871.5	9244.0	4696.2	1902.9
65°	22423.8	21671.6	20874.7	19772.8	18398.5	17005.9	15548.2	14369.1	7733.5	3502.8	1173.0
67.5°	20297.3	19658.9	18817.3	17510.1	16040.2	14590.7	13255.0	11933.6	5745.2	2183.4	656.7
70°	17131.9	16507.8	15654.0	14316.3	12848.4	11461.9	10047.0	8969.5	3661.4	1053.1	473.7
72.5°	11884.8	11378.6	10774.8	9821.3	8534.5	7274.0	6316.5	5489.1	2028.9	559.1	433.0
75°	4826.3	4828.3	4718.6	4316.0	3647.2	3145.0	2681.5	2274.9	847.8	475.7	426.9
77.5°	1093.7	1112.0	1215.7	1152.7	1038.9	971.8	870.1	768.5	516.4	489.9	431.0
80°	553.0	555.0	548.9	550.9	544.8	546.9	538.7	532.6	483.8	504.2	431.0
82.5°	461.5	471.7	469.6	469.6	471.7	471.7	471.7	469.6	502.1	530.6	416.8
85°	365.9	386.3	402.5	418.8	437.1	449.3	455.4	461.5	487.9	522.5	378.1
87.5°	276.5	300.9	321.2	337.5	365.9	365.9	386.3	400.5	400.5	408.6	199.2
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: P159406

CATALOG NUMBER: VST-F12-LED-E-U-T2-7050

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2919.4	2919.4	2919.4	2919.4	2919.4
2.5°	2819.7	2811.6	2803.5	2799.4	2791.3
5°	2799.4	2783.2	2773.0	2773.0	2764.9
7.5°	2858.4	2852.3	2838.0	2829.9	2838.0
10°	2984.4	2974.3	2958.0	2945.8	2951.9
12.5°	3153.2	3112.5	3080.0	3065.7	3055.6
15°	3328.0	3246.7	3181.6	3145.0	3134.9
17.5°	3515.0	3372.7	3275.1	3220.2	3210.1
20°	3706.1	3529.3	3391.0	3319.9	3317.8
22.5°	3935.9	3700.0	3523.2	3429.6	3423.5
25°	4177.8	3852.5	3618.7	3498.8	3486.6
27.5°	4387.2	3974.5	3677.7	3535.4	3523.2
30°	4562.0	4066.0	3726.5	3561.8	3545.5
32.5°	4688.1	4118.8	3746.8	3569.9	3551.6
35°	4728.7	4098.5	3689.9	3496.7	3476.4
37.5°	4673.8	3966.3	3531.3	3317.8	3293.4
40°	4509.2	3734.6	3273.1	3053.5	3023.0
42.5°	4257.1	3450.0	2962.1	2752.7	2714.0
45°	3946.0	3128.8	2653.0	2419.2	2401.0
47.5°	3620.7	2791.3	2305.4	2094.0	2071.6
50°	3269.0	2401.0	1965.9	1736.2	1736.2
52.5°	2850.2	2020.8	1571.5	1398.7	1384.5
55°	2368.4	1591.8	1252.3	1120.2	1101.9
57.5°	1850.0	1223.9	1000.2	923.0	902.6
60°	1360.1	918.9	805.1	762.4	754.2
62.5°	923.0	699.3	648.5	630.2	628.2
65°	624.1	544.8	530.6	524.5	526.5
67.5°	479.8	453.4	447.3	445.2	445.2
70°	416.8	400.5	394.4	396.4	394.4
72.5°	392.4	370.0	372.0	376.1	374.1
75°	384.2	355.8	363.9	365.9	357.8
77.5°	378.1	339.5	359.8	365.9	343.6
80°	365.9	325.3	374.1	376.1	337.5
82.5°	335.4	288.7	374.1	345.6	304.9
85°	284.6	219.6	422.9	300.9	225.7
87.5°	180.9	130.1	286.7	205.3	136.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)