

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: P159397

Luminaire Tested: **VST-F11-LED-E-U-T2-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159397
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-F11-LED-E-U-T2-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (77) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28761.5 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

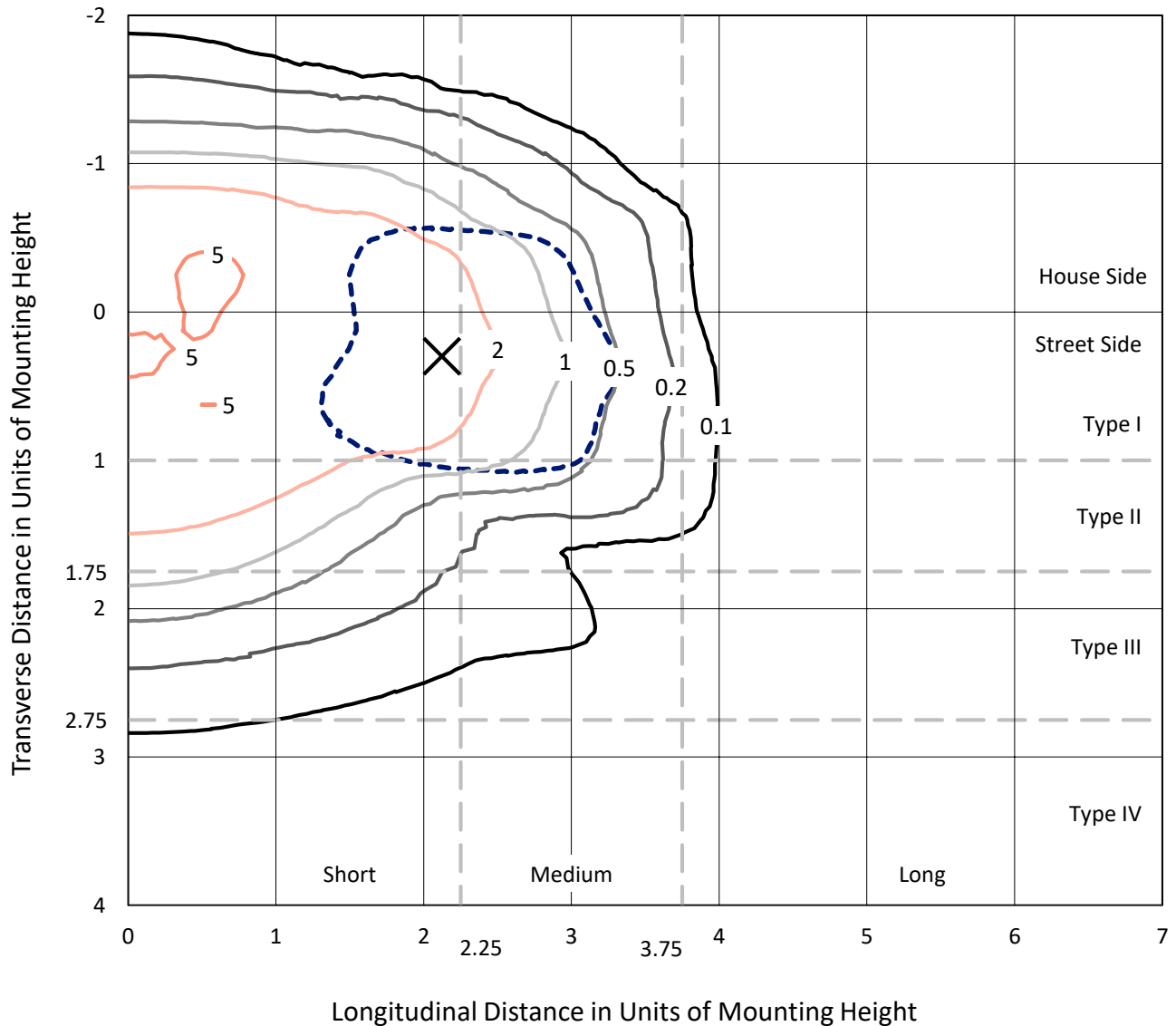
Input Watts (W): 282.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

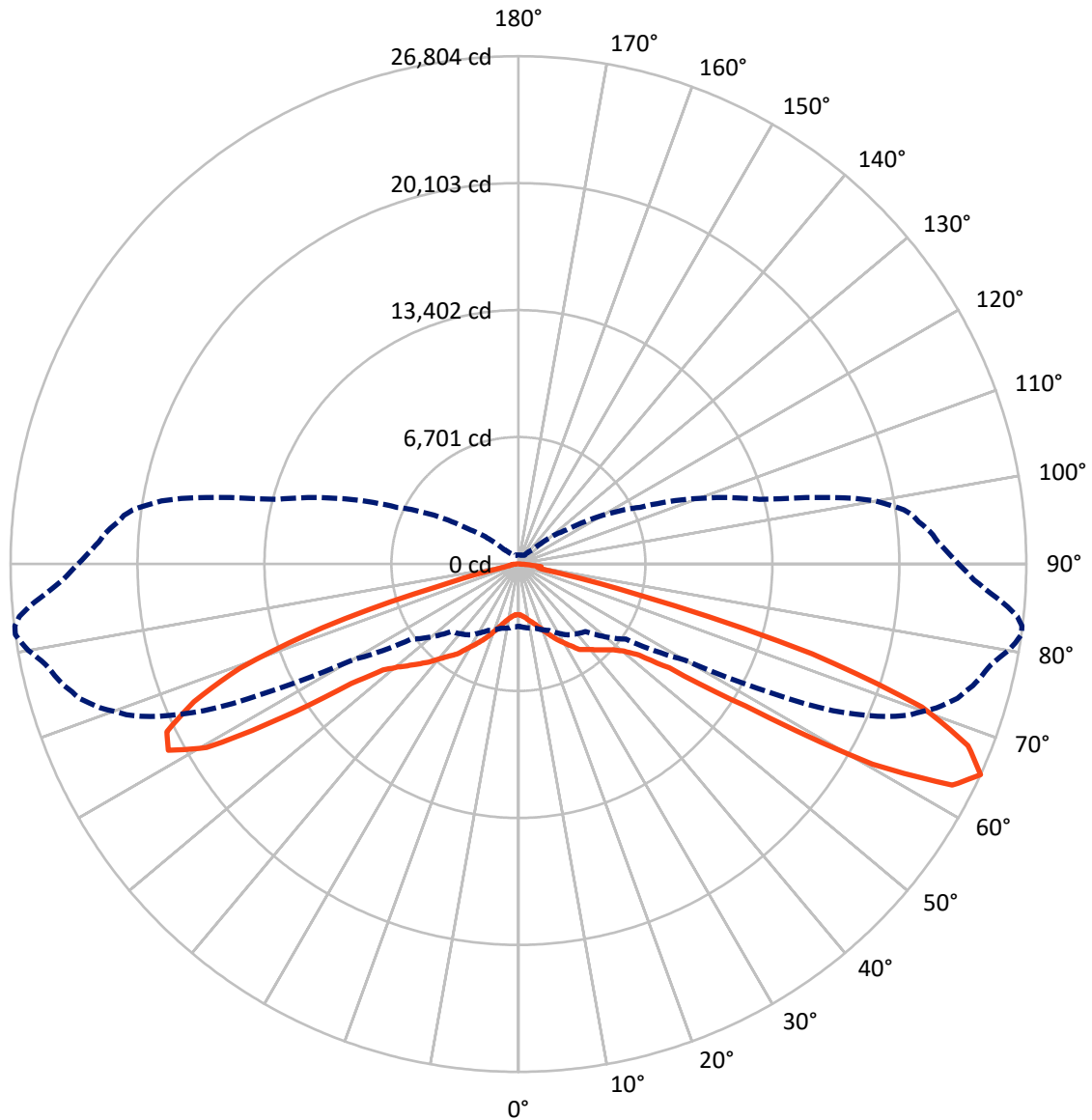


Based on 25 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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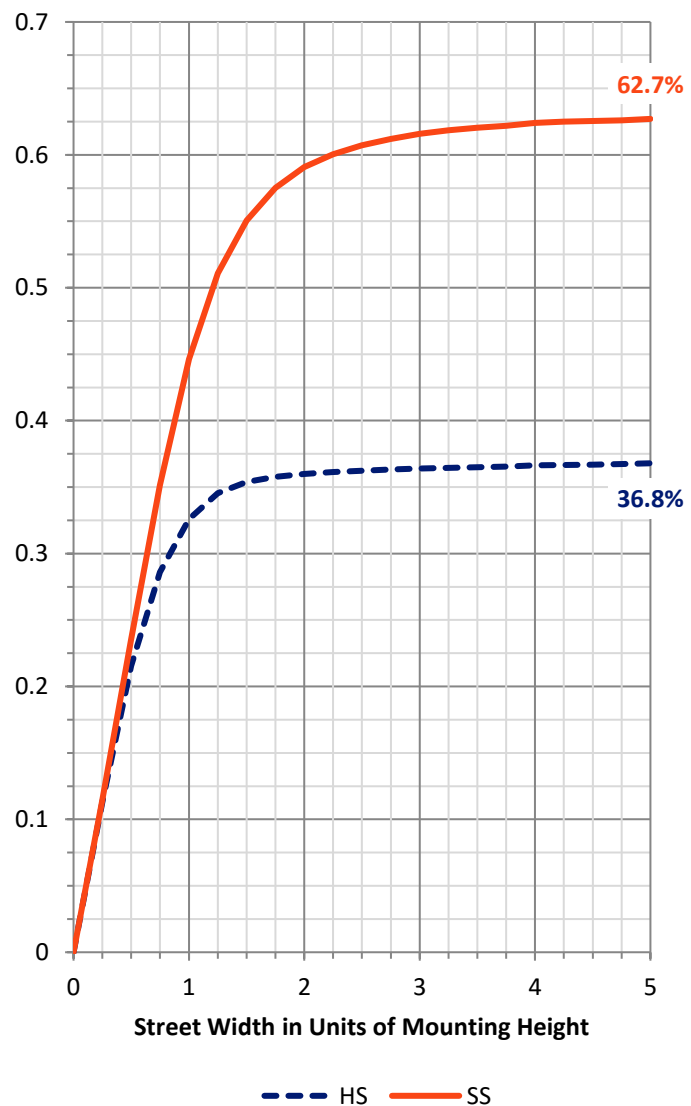
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10708.8	0.0	10708.8
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	18052.7	0.0	18052.7
	% Fixture	62.8	0.0	62.8
Total	Lumens	28761.5	0.0	28761.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.9	0.9
10°-20°	951.9	3.3
20°-30°	1886.2	6.6
30°-40°	3233.4	11.2
40°-50°	4857.3	16.9
50°-60°	6748.4	23.5
60°-70°	7698.9	26.8
70°-80°	2652.2	9.2
80°-90°	462.3	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°	28761.5	100.0
0°-180°	28761.5	100.0

Coefficient of Utilization



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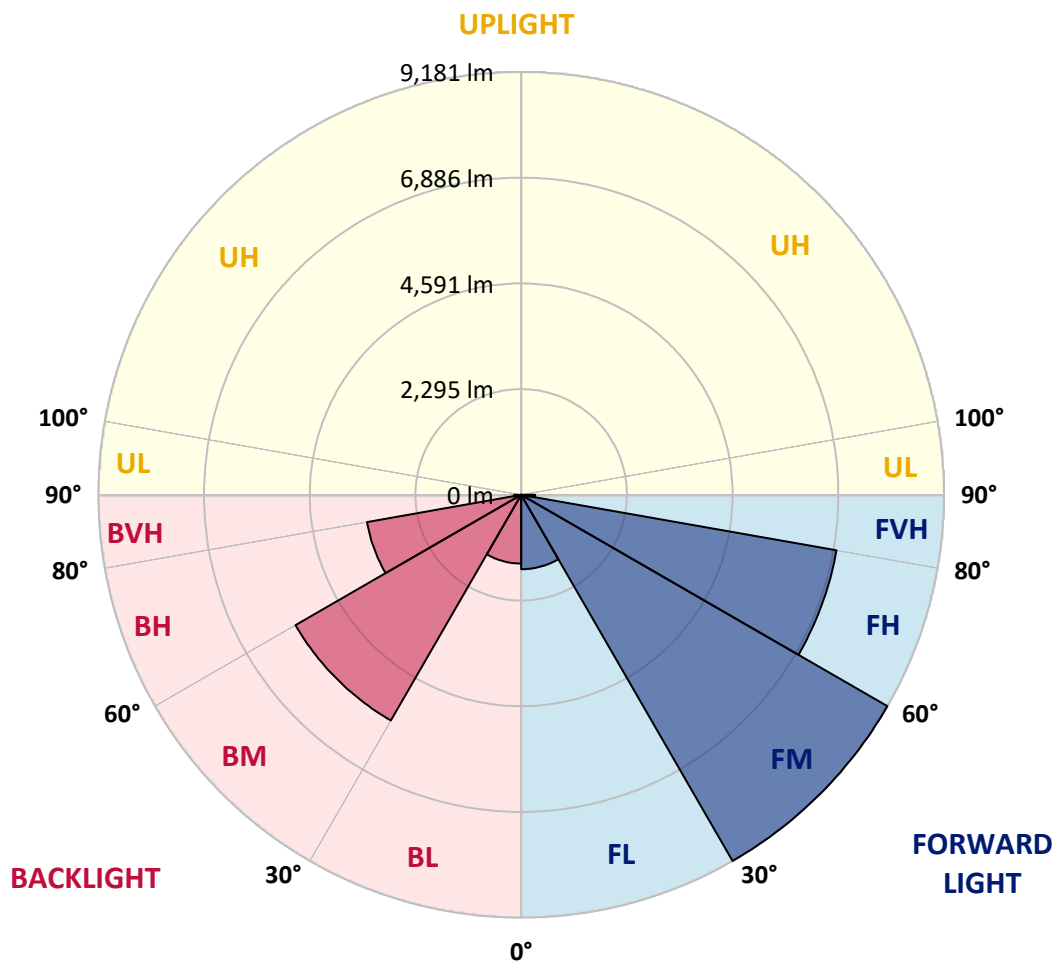
CATALOG NUMBER: VST-F11-LED-E-U-T2-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1615.8	5.6			
FM	(30°-60°)	9181.3	31.9			
FH	(60°-80°)	6951.3	24.2			G3/7500
FVH	(80°-90°)	304.3	1.1			G3/500
BL	(0°-30°)	1493.3	5.2	B3/2500		
BM	(30°-60°)	5657.9	19.7	B4/8500		
BH	(60°-80°)	3399.7	11.8	B4/5000		G4/5000
BVH	(80°-90°)	158.0	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°	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2821.4	2823.3	2821.4	2815.8	2814.0	2797.2	2778.6	2769.3	2767.4	2759.9	2761.8
5°	2996.6	2991.0	2983.6	2974.3	2964.9	2937.0	2905.3	2888.5	2882.9	2877.3	2869.9
7.5°	3153.2	3156.9	3153.2	3140.1	3115.9	3080.5	3039.5	3013.4	3011.5	3005.9	3000.3
10°	3354.4	3363.7	3341.4	3319.0	3285.5	3231.4	3184.8	3151.3	3145.7	3138.2	3134.5
12.5°	3572.5	3574.3	3566.9	3516.5	3460.6	3386.1	3319.0	3285.5	3278.0	3268.7	3265.0
15°	3805.4	3807.3	3766.3	3717.8	3632.1	3542.6	3449.5	3412.2	3402.9	3404.7	3389.8
17.5°	3989.9	3993.6	3954.5	3893.0	3790.5	3684.3	3583.6	3553.8	3548.2	3550.1	3542.6
20°	4070.0	4075.6	4051.4	4004.8	3907.9	3814.7	3742.0	3723.4	3721.5	3717.8	3732.7
22.5°	4066.3	4068.2	4058.8	4040.2	3982.4	3928.4	3919.1	3930.3	3928.4	3932.1	3945.2
25°	4032.8	4038.3	4036.5	4043.9	4034.6	4055.1	4098.0	4137.1	4142.7	4150.2	4174.4
27.5°	4118.5	4129.7	4116.6	4124.1	4139.0	4207.9	4295.5	4355.2	4366.3	4386.8	4407.3
30°	4453.9	4439.0	4422.2	4403.6	4412.9	4455.8	4554.6	4606.7	4612.3	4627.2	4655.2
32.5°	4951.5	4934.7	4919.8	4890.0	4882.5	4863.9	4897.5	4910.5	4908.6	4923.5	4931.0
35°	5512.4	5514.3	5510.6	5532.9	5551.6	5456.5	5339.1	5307.4	5320.5	5303.7	5307.4
37.5°	5991.4	5997.0	6095.7	6218.7	6254.1	6194.5	5937.3	5810.6	5767.7	5762.1	5719.3
40°	6522.5	6522.5	6671.6	6822.5	6921.3	6995.8	6690.2	6466.6	6375.3	6349.2	6242.9
42.5°	7105.8	7076.0	7212.0	7377.9	7560.5	7730.1	7571.7	7320.1	7189.6	7143.0	6956.7
45°	7584.7	7566.1	7633.2	7787.8	8084.2	8415.9	8438.2	8309.6	8231.4	8134.5	7963.0
47.5°	7879.2	7869.8	7909.0	8076.7	8447.5	8984.3	9284.3	9349.5	9302.9	9228.4	9062.5
50°	7994.7	7981.7	8009.6	8196.0	8611.5	9319.7	9983.1	10290.6	10313.0	10329.7	10277.6
52.5°	7953.7	7936.9	7994.7	8151.2	8583.6	9437.1	10529.1	11119.9	11218.7	11302.5	11474.0
55°	7560.5	7534.4	7690.9	7985.4	8462.5	9394.2	10928.0	11917.5	12126.2	12349.9	12730.0
57.5°	6958.6	6936.2	7161.7	7566.1	8248.1	9276.8	11196.3	12925.7	13395.3	13797.8	14876.9
60°	6379.0	6360.4	6492.7	6884.0	7553.0	8704.7	10864.6	13264.9	14053.2	14921.6	16891.4
62.5°	5342.8	5292.5	5469.6	5799.4	6222.4	7200.8	9416.6	12510.1	13725.2	15001.7	17672.2
65°	3283.6	3356.3	3509.1	3874.4	4567.6	5033.5	6915.7	10121.0	11723.7	13324.5	16788.9
67.5°	2085.3	2105.8	2219.5	2473.0	3009.7	3477.4	4191.2	6351.0	7586.6	9161.3	13181.0
70°	1787.2	1800.2	1897.1	2161.7	2532.6	3108.4	3171.8	3317.1	3760.7	4763.3	7748.7
72.5°	1408.9	1431.2	1507.6	1736.8	2184.1	2802.8	3915.4	2622.0	2532.6	2616.4	3781.2
75°	838.6	864.7	928.1	1052.9	1403.3	2143.1	4101.7	3050.7	2843.8	2681.7	2609.0
77.5°	443.5	424.9	467.8	540.4	721.2	1142.4	3082.3	3738.3	3593.0	3399.1	2987.3
80°	219.9	227.4	240.4	255.3	322.4	464.0	1541.2	3866.9	4286.2	4472.6	4107.3
82.5°	87.6	98.8	139.8	149.1	177.0	197.5	495.7	2143.1	3069.3	4163.2	5436.0
85°	44.7	42.9	74.5	89.5	104.4	93.2	175.2	799.5	1438.7	2241.9	3632.1
87.5°	5.6	7.5	16.8	22.4	31.7	29.8	50.3	173.3	275.8	391.3	549.8
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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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2752.5	2750.6	2750.6	2743.2	2743.2	2745.0	2739.4	2735.7	2735.7	2737.6	2730.1
5°	2864.3	2858.7	2858.7	2851.3	2841.9	2841.9	2834.5	2832.6	2828.9	2821.4	2815.8
7.5°	2994.8	2989.2	2979.8	2974.3	2970.5	2964.9	2955.6	2951.9	2944.4	2937.0	2929.5
10°	3128.9	3121.5	3117.7	3108.4	3104.7	3093.5	3087.9	3089.8	3074.9	3069.3	3071.2
12.5°	3263.1	3255.7	3242.6	3238.9	3237.0	3225.8	3220.2	3216.5	3205.3	3203.5	3197.9
15°	3382.4	3386.1	3380.5	3371.2	3363.7	3361.9	3356.3	3352.6	3345.1	3337.6	3330.2
17.5°	3537.0	3542.6	3535.2	3522.1	3522.1	3520.3	3522.1	3520.3	3507.2	3512.8	3509.1
20°	3734.6	3738.3	3719.7	3725.3	3729.0	3727.1	3732.7	3738.3	3734.6	3734.6	3740.2
22.5°	3961.9	3967.5	3956.4	3963.8	3975.0	3965.7	3982.4	3980.6	3984.3	3989.9	3991.8
25°	4194.9	4206.1	4196.8	4217.3	4209.8	4217.3	4237.7	4232.2	4241.5	4256.4	4262.0
27.5°	4427.8	4435.3	4437.2	4450.2	4463.2	4474.4	4500.5	4500.5	4508.0	4534.1	4534.1
30°	4672.0	4679.4	4686.9	4705.5	4713.0	4733.5	4759.5	4767.0	4763.3	4800.5	4811.7
32.5°	4953.4	4960.8	4973.9	4996.2	5005.5	5026.0	5026.0	5046.5	5061.4	5093.1	5095.0
35°	5327.9	5333.5	5327.9	5326.1	5339.1	5367.1	5368.9	5398.8	5411.8	5443.5	5452.8
37.5°	5702.5	5700.6	5676.4	5650.3	5652.2	5641.0	5633.6	5646.6	5652.2	5654.1	5674.6
40°	6207.5	6159.1	6121.8	6056.6	6026.8	5980.2	5952.2	5950.4	5920.6	5916.8	5922.4
42.5°	6869.1	6813.2	6725.6	6615.7	6531.8	6446.1	6382.7	6345.4	6280.2	6246.7	6218.7
45°	7793.4	7655.5	7551.2	7420.7	7258.6	7109.5	6953.0	6882.2	6757.3	6680.9	6595.2
47.5°	8922.8	8786.7	8626.4	8492.3	8279.8	8073.0	7858.7	7670.4	7452.4	7279.1	7137.5
50°	10149.0	10068.8	9953.3	9828.4	9554.5	9418.5	9148.2	8892.9	8658.1	8348.8	8078.6
52.5°	11406.9	11453.5	11427.4	11382.7	11209.4	11157.2	10924.2	10613.0	10376.3	10163.9	9694.3
55°	12957.4	13013.3	13125.1	13190.3	13169.8	13302.1	13244.4	13002.1	12907.1	12808.3	12474.7
57.5°	15329.7	15728.5	16155.3	16529.8	16617.4	17087.0	16986.4	17228.7	17400.1	17277.1	17169.0
60°	17858.6	18663.6	19388.5	20147.0	20763.9	21226.0	21837.3	22249.1	22508.2	22974.0	23011.3
62.5°	18877.9	19971.8	20892.4	21772.0	22504.4	23145.5	23697.1	24265.5	24731.4	25152.6	25456.3
65°	18318.9	19461.2	20577.5	21470.1	22174.6	22726.2	23326.3	23777.2	24235.7	24505.9	24824.6
67.5°	15229.1	16742.3	18115.7	19122.1	20085.5	20646.5	21356.5	21800.0	22286.4	22571.5	22776.5
70°	9929.1	11898.9	13775.5	15301.7	16602.5	17256.6	18113.9	18719.5	19304.7	19319.6	19660.6
72.5°	5357.8	7005.1	8576.1	10135.9	11619.3	12489.6	13335.7	14071.8	14653.2	14405.4	14744.5
75°	2983.6	3755.1	4614.2	5551.6	6455.4	6953.0	7584.7	7588.4	7888.5	7417.0	7536.3
77.5°	2869.9	2834.5	2847.5	2873.6	2918.3	2823.3	2821.4	2763.7	2674.2	2512.1	2540.0
80°	3770.0	3319.0	2994.8	2486.0	2001.5	1632.5	1530.0	1554.2	1626.9	1772.3	1956.7
82.5°	5450.9	5070.8	4526.6	3725.3	2923.9	2254.9	1852.4	1643.7	1634.3	1779.7	2059.2
85°	3969.4	4198.6	4163.2	3475.6	2866.2	2327.6	1694.0	1431.2	1185.2	1127.5	1226.2
87.5°	585.2	484.5	546.0	456.6	331.7	257.2	225.5	180.8	173.3	177.0	193.8
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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CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2732.0	2724.5	2717.1	2722.7	2717.1	2715.2	2709.6	2705.9	2704.0	2704.0	2704.0
5°	2815.8	2806.5	2800.9	2799.1	2793.5	2787.9	2786.0	2776.7	2774.9	2774.9	2769.3
7.5°	2929.5	2922.1	2912.8	2907.2	2903.4	2894.1	2884.8	2882.9	2881.1	2873.6	2868.0
10°	3061.8	3050.7	3039.5	3039.5	3032.0	3030.2	3020.8	3007.8	3005.9	2994.8	2991.0
12.5°	3186.7	3183.0	3169.9	3166.2	3160.6	3155.0	3149.4	3143.8	3138.2	3128.9	3132.7
15°	3335.8	3326.5	3315.3	3317.1	3315.3	3307.8	3300.4	3294.8	3291.1	3287.3	3287.3
17.5°	3514.7	3511.0	3509.1	3499.8	3492.3	3497.9	3497.9	3497.9	3488.6	3490.5	3492.3
20°	3742.0	3745.8	3742.0	3734.6	3732.7	3738.3	3725.3	3745.8	3734.6	3727.1	3730.9
22.5°	3993.6	4006.7	3991.8	3993.6	4002.9	4006.7	3993.6	4010.4	4004.8	3993.6	4002.9
25°	4267.6	4276.9	4269.4	4267.6	4273.2	4286.2	4284.3	4282.5	4295.5	4284.3	4289.9
27.5°	4549.0	4554.6	4558.3	4563.9	4567.6	4565.7	4573.2	4573.2	4580.6	4567.6	4573.2
30°	4828.5	4828.5	4836.0	4843.4	4843.4	4843.4	4858.3	4860.2	4849.0	4852.7	4839.7
32.5°	5126.7	5128.5	5136.0	5136.0	5150.9	5152.8	5169.5	5147.2	5169.5	5150.9	5154.6
35°	5477.0	5501.2	5505.0	5523.6	5538.5	5544.1	5544.1	5546.0	5566.5	5551.6	5557.2
37.5°	5682.0	5687.6	5702.5	5711.8	5711.8	5719.3	5724.9	5719.3	5724.9	5723.0	5728.6
40°	5924.3	5918.7	5935.5	5939.2	5931.7	5941.0	5939.2	5933.6	5948.5	5937.3	5944.8
42.5°	6218.7	6187.0	6185.2	6200.1	6185.2	6192.6	6190.8	6177.7	6196.4	6201.9	6196.4
45°	6533.7	6516.9	6483.3	6483.3	6468.4	6462.8	6464.7	6462.8	6464.7	6487.1	6494.5
47.5°	7046.1	6943.6	6885.9	6831.8	6787.1	6785.2	6764.7	6775.9	6790.8	6828.1	6861.7
50°	7905.2	7668.6	7523.2	7389.0	7292.1	7258.6	7219.5	7215.7	7228.8	7271.6	7329.4
52.5°	9437.1	9109.1	8799.8	8512.8	8263.1	8071.1	7976.1	7925.7	7907.1	7950.0	8005.9
55°	12239.9	11621.2	11185.1	10894.4	10273.8	10011.1	9673.8	9519.1	9368.1	9383.1	9478.1
57.5°	17029.3	16695.7	16330.4	15821.7	15441.5	14983.1	14140.7	13671.1	13691.6	13801.6	13458.7
60°	23305.8	22968.5	22817.5	22355.3	22090.7	21906.2	21459.0	20680.0	20404.2	20352.0	19722.1
62.5°	25689.3	25769.4	25888.7	26019.1	26011.7	26091.8	25700.4	25447.0	25128.3	24714.6	24092.2
65°	25066.8	25270.0	25512.2	25862.6	26261.4	26555.8	26803.7	26773.9	26475.7	25924.1	25266.2
67.5°	22959.1	23160.4	23337.4	23807.1	24461.2	25059.4	25588.6	25948.3	25748.9	25292.3	24524.5
70°	19791.1	19936.4	20048.2	20456.4	21173.8	21904.4	22595.7	23199.5	23138.0	22584.6	21971.4
72.5°	14340.1	14692.4	14882.4	14854.5	15298.0	16116.1	16213.0	16729.2	16872.7	16276.4	15299.9
75°	6986.5	6992.1	6772.2	6699.5	6721.9	6863.5	6593.3	6610.1	6516.9	6093.9	5745.4
77.5°	2441.3	2374.2	2213.9	2023.8	1751.8	1496.4	1237.4	1125.6	1088.3	978.4	902.0
80°	2104.0	2202.7	2171.1	2014.5	1727.5	1377.2	1028.7	762.2	650.4	611.2	574.0
82.5°	2389.1	2769.3	3011.5	2998.5	2605.3	1956.7	1220.6	700.7	499.4	437.9	402.5
85°	1332.4	1433.1	1461.0	1330.6	1105.1	754.7	421.2	296.3	251.6	229.2	206.9
87.5°	212.4	193.8	190.1	165.9	156.5	143.5	126.7	119.3	110.0	104.4	104.4
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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CATALOG NUMBER: VST-F11-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2702.2	2700.3	2694.7	2689.1	2685.4	2683.5	2681.7	2677.9	2676.1	2674.2	2670.5
5°	2765.5	2761.8	2752.5	2743.2	2739.4	2733.9	2728.3	2724.5	2720.8	2718.9	2711.5
7.5°	2864.3	2860.6	2849.4	2841.9	2840.1	2825.2	2823.3	2817.7	2808.4	2806.5	2795.3
10°	2983.6	2981.7	2972.4	2966.8	2963.1	2955.6	2944.4	2935.1	2925.8	2925.8	2918.3
12.5°	3121.5	3114.0	3119.6	3106.6	3102.8	3095.4	3089.8	3087.9	3076.7	3067.4	3065.6
15°	3283.6	3274.3	3274.3	3270.6	3266.8	3259.4	3257.5	3259.4	3248.2	3251.9	3240.7
17.5°	3484.9	3488.6	3486.7	3486.7	3477.4	3477.4	3462.5	3481.1	3468.1	3477.4	3473.7
20°	3736.5	3738.3	3734.6	3740.2	3743.9	3742.0	3740.2	3738.3	3743.9	3751.4	3745.8
22.5°	4004.8	4004.8	4002.9	4023.4	4001.1	4017.8	4023.4	4012.3	4042.1	4038.3	4043.9
25°	4295.5	4295.5	4310.4	4327.2	4330.9	4317.9	4325.3	4316.0	4334.7	4349.6	4353.3
27.5°	4565.7	4590.0	4601.1	4590.0	4599.3	4619.8	4617.9	4617.9	4631.0	4627.2	4662.6
30°	4843.4	4858.3	4873.2	4865.8	4869.5	4895.6	4897.5	4899.3	4916.1	4940.3	4966.4
32.5°	5160.2	5175.1	5167.7	5191.9	5190.0	5221.7	5227.3	5232.9	5285.1	5275.8	5329.8
35°	5549.7	5564.6	5557.2	5583.2	5579.5	5590.7	5611.2	5633.6	5642.9	5696.9	5739.8
37.5°	5732.3	5732.3	5749.1	5778.9	5790.1	5808.7	5840.4	5868.4	5915.0	5972.7	6039.8
40°	5952.2	5957.8	5980.2	6011.9	6032.4	6075.2	6133.0	6172.1	6242.9	6306.3	6384.6
42.5°	6218.7	6242.9	6269.0	6311.9	6356.6	6423.7	6505.7	6556.0	6649.2	6731.2	6828.1
45°	6529.9	6554.2	6615.7	6693.9	6759.2	6833.7	6900.8	7020.1	7103.9	7189.6	7273.5
47.5°	6906.4	6977.2	7027.5	7120.7	7200.8	7299.6	7383.4	7495.3	7586.6	7690.9	7761.8
50°	7389.0	7476.6	7541.9	7663.0	7741.3	7851.2	7957.4	8041.3	8134.5	8237.0	8294.7
52.5°	8082.3	8171.7	8253.7	8404.7	8501.6	8576.1	8717.8	8822.1	8907.8	8982.4	9045.8
55°	9584.3	9558.2	9785.6	10078.2	10111.7	10381.9	10432.2	10519.8	10678.2	10700.6	10877.6
57.5°	13876.1	13741.9	14071.8	14500.4	14425.9	14289.8	14858.2	14893.6	14813.5	15027.8	14785.5
60°	19815.3	19580.5	19669.9	19787.3	19617.8	19537.6	19565.6	19645.7	19567.4	19481.7	19246.9
62.5°	23781.0	23419.4	23160.4	22942.4	22666.6	22467.2	22243.5	21967.7	21893.2	21580.1	21317.3
65°	24627.0	24064.2	23654.2	23242.4	22862.2	22510.0	22172.7	21936.0	21623.0	21252.1	20978.2
67.5°	23697.1	23000.1	22400.1	21801.9	21371.4	20853.3	20599.9	20214.1	19828.3	19403.5	19151.9
70°	20994.9	20268.1	19513.4	18928.2	18343.1	17702.0	17577.2	17120.6	16898.8	16319.3	16218.6
72.5°	14491.1	14006.6	13669.3	12946.2	12590.3	12262.3	12157.9	11734.9	11779.6	11144.1	11375.2
75°	5152.8	5083.8	4985.0	4576.9	4504.2	4377.5	4344.0	4314.2	4616.1	4196.8	4500.5
77.5°	885.2	879.6	829.3	805.1	851.6	821.8	829.3	814.4	902.0	915.0	894.5
80°	549.8	534.8	518.1	506.9	508.8	497.6	499.4	503.2	508.8	506.9	512.5
82.5°	376.4	363.4	355.9	348.5	359.7	363.4	372.7	382.0	396.9	406.3	417.4
85°	205.0	188.2	188.2	186.4	201.3	212.4	227.4	246.0	272.1	294.4	318.7
87.5°	104.4	100.6	102.5	106.2	119.3	128.6	147.2	164.0	186.4	210.6	232.9
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-F11-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2668.6	2668.6	2666.8	2666.8	2664.9	2663.0	2661.2	2655.6	2635.1	2616.4	2603.4
5°	2709.6	2704.0	2702.2	2696.6	2694.7	2691.0	2685.4	2679.8	2642.5	2609.0	2584.8
7.5°	2793.5	2786.0	2782.3	2776.7	2771.1	2763.7	2756.2	2750.6	2705.9	2666.8	2636.9
10°	2903.4	2899.7	2897.8	2890.4	2890.4	2879.2	2877.3	2864.3	2815.8	2780.4	2754.4
12.5°	3056.2	3048.8	3046.9	3037.6	3041.3	3037.6	3033.9	3026.4	2991.0	2950.0	2914.6
15°	3246.3	3246.3	3237.0	3229.6	3231.4	3227.7	3235.2	3225.8	3203.5	3166.2	3108.4
17.5°	3475.6	3471.8	3475.6	3470.0	3473.7	3477.4	3468.1	3470.0	3458.8	3412.2	3326.5
20°	3742.0	3736.5	3758.8	3749.5	3770.0	3751.4	3755.1	3760.7	3760.7	3699.2	3583.6
22.5°	4047.7	4043.9	4043.9	4062.6	4070.0	4071.9	4079.3	4084.9	4099.8	4021.6	3837.1
25°	4353.3	4366.3	4368.2	4392.4	4403.6	4403.6	4409.2	4429.7	4474.4	4366.3	4127.8
27.5°	4664.5	4696.2	4703.6	4720.4	4737.2	4754.0	4767.0	4781.9	4854.6	4737.2	4426.0
30°	4975.7	5011.1	5037.2	5055.9	5076.4	5117.4	5124.8	5154.6	5275.8	5132.3	4709.2
32.5°	5341.0	5391.3	5424.8	5449.1	5480.7	5519.9	5542.2	5579.5	5696.9	5462.1	4916.1
35°	5777.1	5806.9	5855.3	5896.3	5915.0	5982.0	6017.5	6026.8	6116.2	5747.2	5068.9
37.5°	6079.0	6129.3	6213.1	6270.9	6304.4	6341.7	6401.4	6440.5	6526.2	6006.3	5145.3
40°	6462.8	6539.3	6606.3	6692.1	6746.1	6774.1	6833.7	6865.4	6876.6	6228.0	5121.1
42.5°	6930.6	6999.6	7089.0	7158.0	7199.0	7230.6	7279.1	7292.1	7146.8	6332.4	4990.6
45°	7370.4	7476.6	7553.0	7603.4	7633.2	7649.9	7679.8	7681.6	7370.4	6280.2	4767.0
47.5°	7843.8	7920.2	7991.0	8026.4	8022.7	8026.4	8015.2	8007.7	7482.2	6099.5	4480.0
50°	8367.4	8417.7	8447.5	8464.3	8473.6	8438.2	8387.9	8354.4	7491.5	5842.3	4189.3
52.5°	9070.0	9133.3	9127.7	9125.9	9051.3	9017.8	8883.6	8814.7	7437.5	5540.4	3861.3
55°	10849.7	10788.2	10667.1	10726.7	10422.9	10264.5	10055.8	9862.0	7508.3	5253.4	3481.1
57.5°	14882.4	14906.7	14561.9	14377.4	13864.9	13223.9	12707.7	12206.4	8145.6	5078.2	2985.4
60°	19090.4	18773.6	18335.6	17668.5	17008.8	16056.5	15137.7	14269.3	8781.1	4895.6	2398.4
62.5°	20927.9	20476.9	19815.3	18952.5	17916.3	16751.6	15607.4	14548.9	8473.6	4304.8	1744.3
65°	20555.1	19865.6	19135.1	18125.0	16865.3	15588.7	14252.6	13171.7	7089.0	3210.9	1075.3
67.5°	18605.8	18020.7	17249.2	16050.9	14703.5	13374.8	12150.5	10939.1	5266.4	2001.5	601.9
70°	15704.3	15132.2	14349.5	13123.2	11777.7	10506.8	9209.7	8222.1	3356.3	965.3	434.2
72.5°	10894.4	10430.4	9876.9	9002.9	7823.3	6667.8	5790.1	5031.6	1859.8	512.5	396.9
75°	4424.1	4426.0	4325.3	3956.4	3343.2	2882.9	2458.0	2085.3	777.1	436.1	391.3
77.5°	1002.6	1019.4	1114.4	1056.6	952.3	890.8	797.6	704.4	473.3	449.1	395.1
80°	506.9	508.8	503.2	505.0	499.4	501.3	493.8	488.3	443.5	462.2	395.1
82.5°	423.0	432.3	430.5	430.5	432.3	432.3	432.3	430.5	460.3	486.4	382.0
85°	335.4	354.1	369.0	383.9	400.7	411.8	417.4	423.0	447.3	478.9	346.6
87.5°	253.4	275.8	294.4	309.4	335.4	335.4	354.1	367.1	367.1	374.6	182.6
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: P159397

CATALOG NUMBER: VST-F11-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2676.1	2676.1	2676.1	2676.1	2676.1
2.5°	2584.8	2577.3	2569.9	2566.1	2558.7
5°	2566.1	2551.2	2541.9	2541.9	2534.5
7.5°	2620.2	2614.6	2601.5	2594.1	2601.5
10°	2735.7	2726.4	2711.5	2700.3	2705.9
12.5°	2890.4	2853.1	2823.3	2810.3	2800.9
15°	3050.7	2976.1	2916.5	2882.9	2873.6
17.5°	3222.1	3091.7	3002.2	2951.9	2942.6
20°	3397.3	3235.2	3108.4	3043.2	3041.3
22.5°	3607.9	3391.7	3229.6	3143.8	3138.2
25°	3829.6	3531.5	3317.1	3207.2	3196.0
27.5°	4021.6	3643.3	3371.2	3240.7	3229.6
30°	4181.8	3727.1	3415.9	3265.0	3250.1
32.5°	4297.4	3775.6	3434.6	3272.4	3255.7
35°	4334.7	3756.9	3382.4	3205.3	3186.7
37.5°	4284.3	3635.8	3237.0	3041.3	3019.0
40°	4133.4	3423.4	3000.3	2799.1	2771.1
42.5°	3902.3	3162.5	2715.2	2523.3	2487.9
45°	3617.2	2868.0	2432.0	2217.6	2200.9
47.5°	3319.0	2558.7	2113.3	1919.5	1899.0
50°	2996.6	2200.9	1802.1	1591.5	1591.5
52.5°	2612.7	1852.4	1440.5	1282.1	1269.1
55°	2171.1	1459.2	1148.0	1026.8	1010.1
57.5°	1695.8	1121.9	916.9	846.1	827.4
60°	1246.7	842.3	738.0	698.8	691.4
62.5°	846.1	641.1	594.5	577.7	575.8
65°	572.1	499.4	486.4	480.8	482.7
67.5°	439.8	415.6	410.0	408.1	408.1
70°	382.0	367.1	361.5	363.4	361.5
72.5°	359.7	339.2	341.0	344.8	342.9
75°	352.2	326.1	333.6	335.4	328.0
77.5°	346.6	311.2	329.9	335.4	314.9
80°	335.4	298.2	342.9	344.8	309.4
82.5°	307.5	264.6	342.9	316.8	279.5
85°	260.9	201.3	387.6	275.8	206.9
87.5°	165.9	119.3	262.8	188.2	124.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)