

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: P159404

Luminaire Tested: **VST-F12-LED-E-U-T2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159404
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-T2-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27928.4 lumens
Efficiency: N/A
Efficacy: 91.1 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

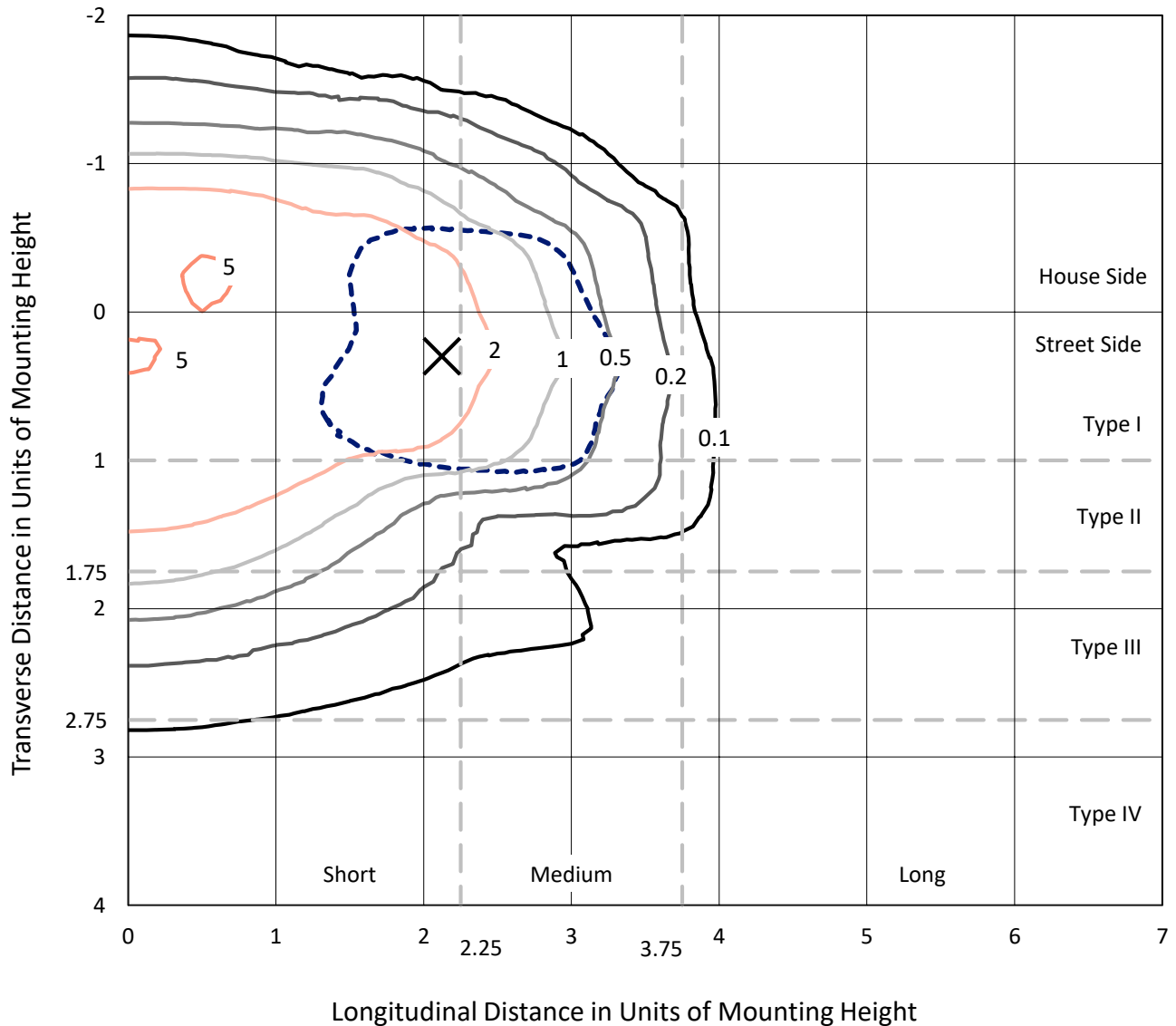
Input Watts (W): 306.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P159404
 CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

Iso-Footcandle Lines of Horizontal Illumination

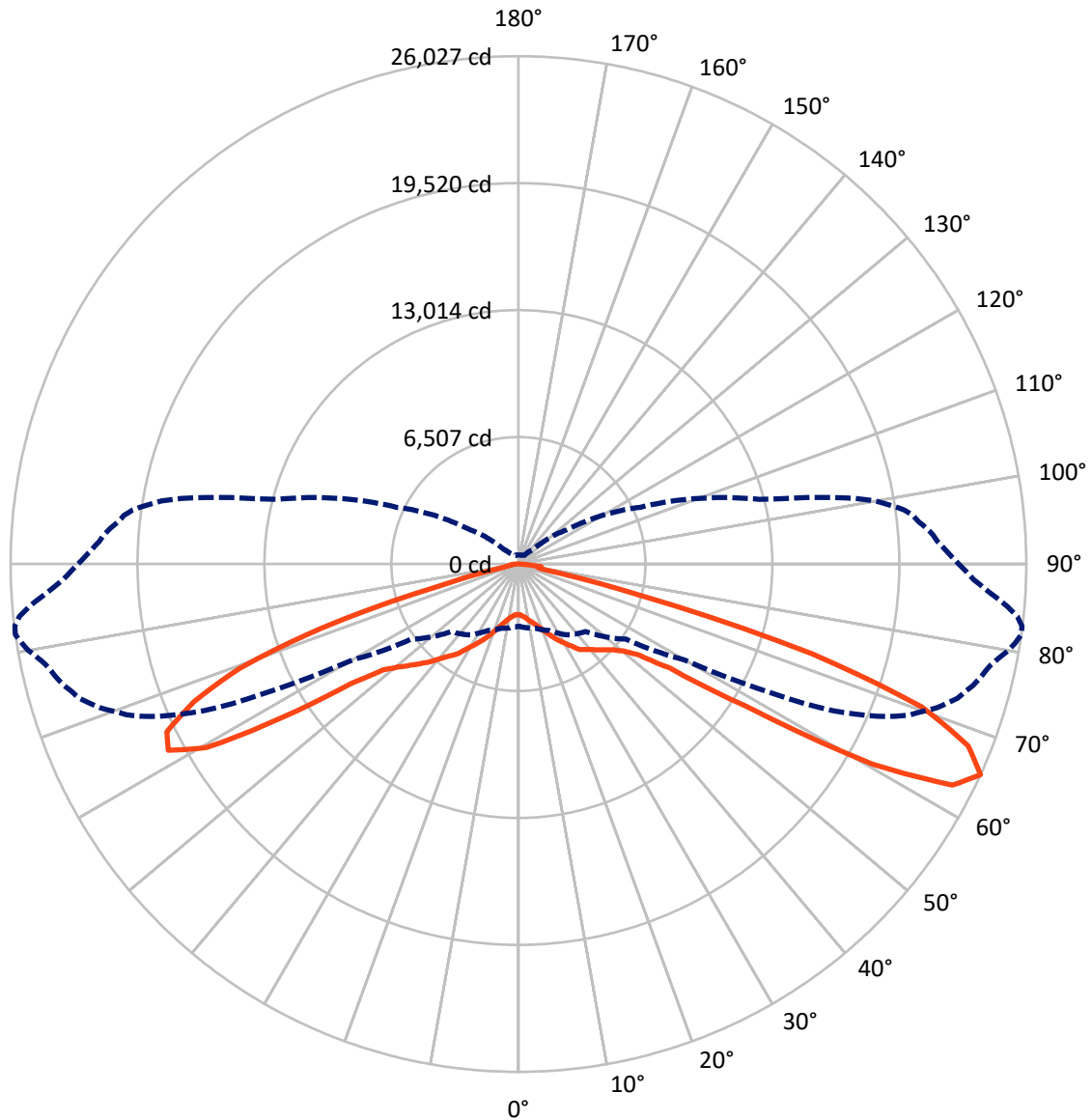
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.3 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159404
CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

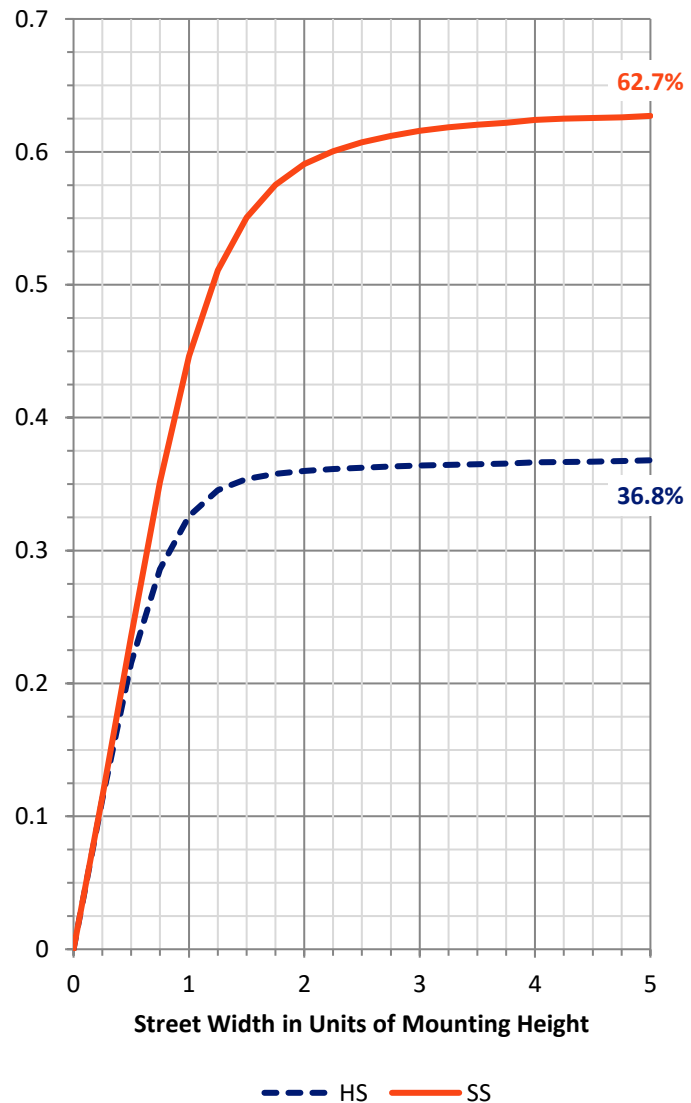
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10398.6	0.0	10398.6
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	17529.7	0.0	17529.7
	% Fixture	62.8	0.0	62.8
Total	Lumens	27928.4	0.0	27928.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	263.1	0.9
10°-20°	924.4	3.3
20°-30°	1831.6	6.6
30°-40°	3139.7	11.2
40°-50°	4716.6	16.9
50°-60°	6552.9	23.5
60°-70°	7475.9	26.8
70°-80°	2575.4	9.2
80°-90°	448.9	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°	27928.4	100.0
0°-180°	27928.4	100.0

Coefficient of Utilization



REPORT NUMBER: P159404

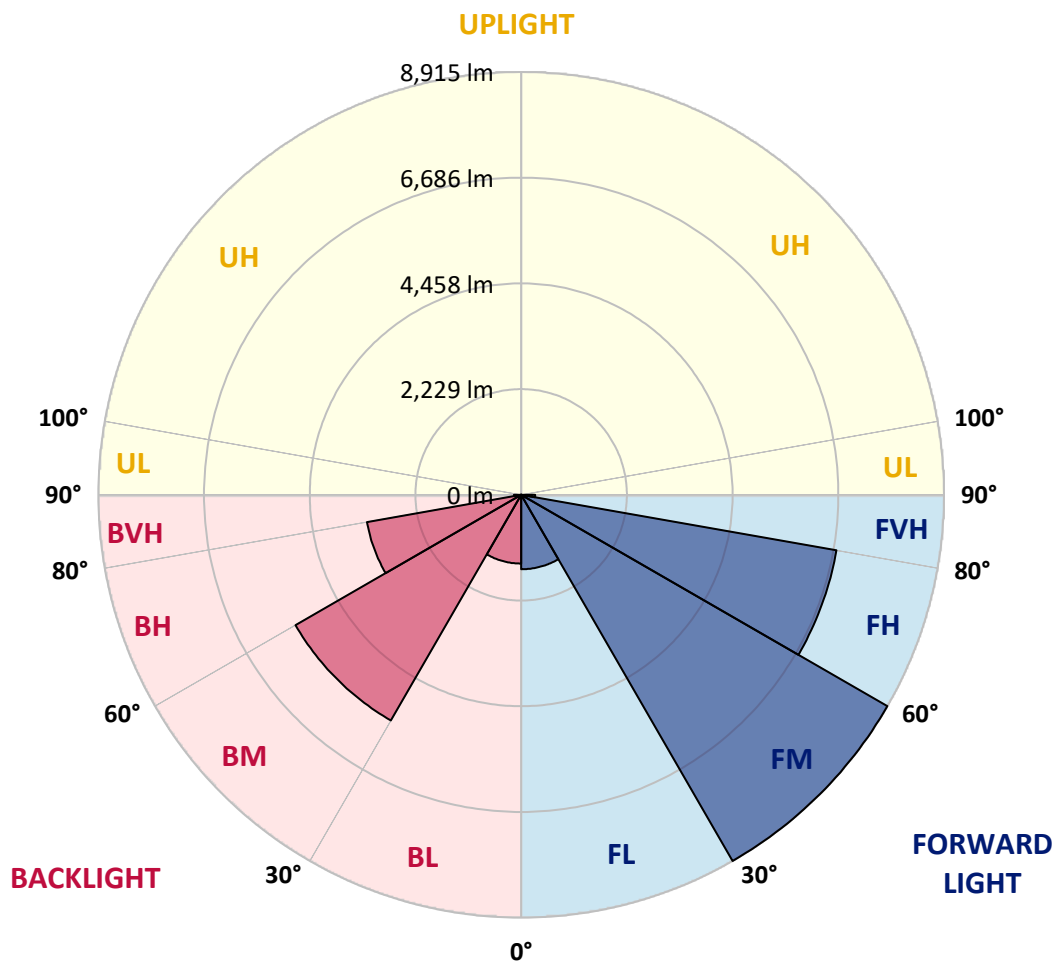
CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1569.0	5.6			
FM	(30°-60°)	8915.3	31.9			
FH	(60°-80°)	6750.0	24.2			G3/7500
FVH	(80°-90°)	295.5	1.1			G3/500
BL	(0°-30°)	1450.0	5.2	B3/2500		
BM	(30°-60°)	5494.0	19.7	B4/8500		
BH	(60°-80°)	3301.3	11.8	B4/5000		G4/5000
BVH	(80°-90°)	153.4	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





REPORT NUMBER: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2739.7	2741.5	2739.7	2734.3	2732.5	2716.2	2698.1	2689.0	2687.2	2680.0	2681.8
5°	2909.8	2904.4	2897.1	2888.1	2879.0	2851.9	2821.1	2804.9	2799.4	2794.0	2786.8
7.5°	3061.8	3065.4	3061.8	3049.1	3025.6	2991.2	2951.4	2926.1	2924.3	2918.9	2913.4
10°	3257.3	3266.3	3244.6	3222.9	3190.3	3137.8	3092.6	3060.0	3054.6	3047.3	3043.7
12.5°	3469.0	3470.8	3463.5	3414.7	3360.4	3288.0	3222.9	3190.3	3183.1	3174.0	3170.4
15°	3695.2	3697.0	3657.2	3610.1	3526.9	3440.0	3349.5	3313.3	3304.3	3306.1	3291.6
17.5°	3874.3	3877.9	3839.9	3780.2	3680.7	3577.5	3479.8	3450.9	3445.4	3447.3	3440.0
20°	3952.1	3957.6	3934.0	3888.8	3794.7	3704.2	3633.6	3615.5	3613.7	3610.1	3624.6
22.5°	3948.5	3950.3	3941.3	3923.2	3867.1	3814.6	3805.6	3816.4	3814.6	3818.2	3830.9
25°	3915.9	3921.4	3919.6	3926.8	3917.8	3937.7	3979.3	4017.3	4022.7	4029.9	4053.5
27.5°	3999.2	4010.0	3997.4	4004.6	4019.1	4086.0	4171.1	4229.0	4239.9	4259.8	4279.7
30°	4324.9	4310.4	4294.1	4276.0	4285.1	4326.7	4422.6	4473.3	4478.7	4493.2	4520.3
32.5°	4808.1	4791.8	4777.3	4748.3	4741.1	4723.0	4755.6	4768.3	4766.4	4780.9	4788.2
35°	5352.8	5354.6	5350.9	5372.7	5390.8	5298.5	5184.5	5153.7	5166.4	5150.1	5153.7
37.5°	5817.8	5823.2	5919.2	6038.6	6073.0	6015.1	5765.3	5642.3	5600.7	5595.2	5553.6
40°	6333.5	6333.5	6478.3	6624.9	6720.8	6793.2	6496.4	6279.3	6190.6	6165.3	6062.1
42.5°	6899.9	6871.0	7003.1	7164.1	7341.5	7506.2	7352.3	7108.0	6981.4	6936.1	6755.2
45°	7365.0	7346.9	7412.1	7562.3	7850.0	8172.1	8193.8	8068.9	7992.9	7898.8	7732.4
47.5°	7650.9	7641.9	7679.9	7842.7	8202.8	8724.0	9015.3	9078.7	9033.4	8961.1	8800.0
50°	7763.1	7750.4	7777.6	7958.6	8362.1	9049.7	9693.9	9992.5	10014.2	10030.5	9979.9
52.5°	7723.3	7707.0	7763.1	7915.1	8334.9	9163.7	10224.2	10797.8	10893.7	10975.1	11141.6
55°	7341.5	7316.1	7468.2	7754.1	8217.3	9122.1	10611.4	11572.3	11775.0	11992.1	12361.3
57.5°	6757.0	6735.3	6954.2	7346.9	8009.2	9008.1	10872.0	12551.3	13007.3	13398.2	14445.9
60°	6194.2	6176.1	6304.6	6684.6	7334.2	8452.6	10549.9	12880.6	13646.1	14489.3	16402.1
62.5°	5188.1	5139.2	5311.1	5631.4	6042.2	6992.2	9143.8	12147.7	13327.6	14567.2	17160.3
65°	3188.5	3259.1	3407.4	3762.1	4435.3	4887.7	6715.4	9827.9	11384.1	12938.5	16302.5
67.5°	2024.9	2044.8	2155.2	2401.3	2922.5	3376.7	4069.8	6167.1	7366.8	8895.9	12799.2
70°	1735.4	1748.1	1842.2	2099.1	2459.2	3018.4	3079.9	3221.1	3651.7	4625.3	7524.3
72.5°	1368.0	1389.8	1464.0	1686.5	2120.8	2721.6	3801.9	2546.1	2459.2	2540.7	3671.6
75°	814.3	839.6	901.2	1022.4	1362.6	2081.0	3982.9	2962.3	2761.4	2604.0	2533.4
77.5°	430.7	412.6	454.2	524.8	700.3	1109.3	2993.1	3630.0	3488.9	3300.7	2900.8
80°	213.5	220.8	233.4	247.9	313.1	450.6	1496.5	3754.9	4162.0	4343.0	3988.3
82.5°	85.1	95.9	135.7	144.8	171.9	191.8	481.3	2081.0	2980.4	4042.6	5278.6
85°	43.4	41.6	72.4	86.9	101.3	90.5	170.1	776.3	1397.0	2176.9	3526.9
87.5°	5.4	7.2	16.3	21.7	30.8	29.0	48.9	168.3	267.8	380.0	533.8
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: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2672.8	2670.9	2670.9	2663.7	2663.7	2665.5	2660.1	2656.5	2656.5	2658.3	2651.0
5°	2781.3	2775.9	2775.9	2768.7	2759.6	2759.6	2752.4	2750.6	2746.9	2739.7	2734.3
7.5°	2908.0	2902.6	2893.5	2888.1	2884.5	2879.0	2870.0	2866.4	2859.1	2851.9	2844.7
10°	3038.3	3031.1	3027.4	3018.4	3014.8	3003.9	2998.5	3000.3	2985.8	2980.4	2982.2
12.5°	3168.6	3161.3	3148.7	3145.1	3143.2	3132.4	3127.0	3123.3	3112.5	3110.7	3105.2
15°	3284.4	3288.0	3282.6	3273.5	3266.3	3264.5	3259.1	3255.4	3248.2	3241.0	3233.7
17.5°	3434.6	3440.0	3432.8	3420.1	3420.1	3418.3	3420.1	3418.3	3405.6	3411.1	3407.4
20°	3626.4	3630.0	3611.9	3617.4	3621.0	3619.2	3624.6	3630.0	3626.4	3626.4	3631.8
22.5°	3847.2	3852.6	3841.7	3849.0	3859.8	3850.8	3867.1	3865.3	3868.9	3874.3	3876.1
25°	4073.4	4084.2	4075.2	4095.1	4087.9	4095.1	4115.0	4109.6	4118.6	4133.1	4138.5
27.5°	4299.6	4306.8	4308.6	4321.3	4334.0	4344.8	4370.1	4370.1	4377.4	4402.7	4402.7
30°	4536.6	4543.9	4551.1	4569.2	4576.4	4596.3	4621.7	4628.9	4625.3	4661.5	4672.3
32.5°	4809.9	4817.1	4829.8	4851.5	4860.5	4880.4	4880.4	4900.4	4914.8	4945.6	4947.4
35°	5173.6	5179.0	5173.6	5171.8	5184.5	5211.6	5213.4	5242.4	5255.0	5285.8	5294.8
37.5°	5537.3	5535.5	5512.0	5486.7	5488.5	5477.6	5470.4	5483.0	5488.5	5490.3	5510.2
40°	6027.7	5980.7	5944.5	5881.1	5852.2	5807.0	5779.8	5778.0	5749.0	5745.4	5750.9
42.5°	6670.1	6615.8	6530.8	6424.0	6342.6	6259.4	6197.8	6161.6	6098.3	6065.7	6038.6
45°	7567.7	7433.8	7332.4	7205.8	7048.3	6903.6	6751.6	6682.8	6561.6	6487.4	6404.1
47.5°	8664.3	8532.2	8376.6	8246.3	8040.0	7839.1	7631.0	7448.2	7236.5	7068.2	6930.7
50°	9855.0	9777.2	9665.0	9543.7	9277.7	9145.6	8883.2	8635.3	8407.3	8106.9	7844.5
52.5°	11076.5	11121.7	11096.4	11052.9	10884.6	10834.0	10607.8	10305.6	10075.8	9869.5	9413.5
55°	12582.0	12636.3	12744.9	12808.2	12788.3	12916.8	12860.7	12625.5	12533.2	12437.3	12113.4
57.5°	14885.6	15272.9	15687.3	16051.0	16136.1	16592.1	16494.4	16729.6	16896.1	16776.7	16671.7
60°	17341.2	18123.0	18826.9	19563.4	20162.4	20611.2	21204.7	21604.6	21856.2	22308.6	22344.7
62.5°	18331.1	19393.3	20287.2	21141.4	21852.5	22475.0	23010.7	23562.6	24015.0	24424.0	24718.9
65°	17788.2	18897.5	19981.4	20848.2	21532.2	22067.9	22650.6	23088.5	23533.6	23796.0	24105.5
67.5°	14787.9	16257.3	17591.0	18568.1	19503.7	20048.4	20737.8	21168.5	21640.8	21917.7	22116.7
70°	9641.5	11554.2	13376.4	14858.5	16121.6	16756.8	17589.2	18177.3	18745.5	18760.0	19091.1
72.5°	5202.6	6802.2	8327.7	9842.3	11282.8	12127.8	12949.4	13664.2	14228.8	13988.1	14317.4
75°	2897.1	3646.3	4480.5	5390.8	6268.4	6751.6	7365.0	7368.6	7660.0	7202.1	7318.0
77.5°	2786.8	2752.4	2765.0	2790.4	2833.8	2741.5	2739.7	2683.6	2596.8	2439.3	2466.5
80°	3660.8	3222.9	2908.0	2414.0	1943.5	1585.2	1485.7	1509.2	1579.8	1720.9	1900.1
82.5°	5293.0	4923.9	4395.5	3617.4	2839.2	2189.6	1798.7	1596.1	1587.0	1728.2	1999.6
85°	3854.4	4077.0	4042.6	3374.9	2783.1	2260.2	1644.9	1389.8	1150.9	1094.8	1190.7
87.5°	568.2	470.5	530.2	443.3	322.1	249.7	219.0	175.5	168.3	171.9	188.2
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: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2652.9	2645.6	2638.4	2643.8	2638.4	2636.6	2631.1	2627.5	2625.7	2625.7	2625.7
5°	2734.3	2725.2	2719.8	2718.0	2712.6	2707.1	2705.3	2696.3	2694.5	2694.5	2689.0
7.5°	2844.7	2837.4	2828.4	2823.0	2819.3	2810.3	2801.2	2799.4	2797.6	2790.4	2785.0
10°	2973.1	2962.3	2951.4	2951.4	2944.2	2942.4	2933.3	2920.7	2918.9	2908.0	2904.4
12.5°	3094.4	3090.8	3078.1	3074.5	3069.1	3063.6	3058.2	3052.8	3047.3	3038.3	3041.9
15°	3239.2	3230.1	3219.3	3221.1	3219.3	3212.0	3204.8	3199.3	3195.7	3192.1	3192.1
17.5°	3412.9	3409.3	3407.4	3398.4	3391.2	3396.6	3396.6	3396.6	3387.5	3389.4	3391.2
20°	3633.6	3637.3	3633.6	3626.4	3624.6	3630.0	3617.4	3637.3	3626.4	3619.2	3622.8
22.5°	3877.9	3890.6	3876.1	3877.9	3887.0	3890.6	3877.9	3894.2	3888.8	3877.9	3887.0
25°	4143.9	4153.0	4145.8	4143.9	4149.4	4162.0	4160.2	4158.4	4171.1	4160.2	4165.7
27.5°	4417.2	4422.6	4426.2	4431.7	4435.3	4433.5	4440.7	4440.7	4448.0	4435.3	4440.7
30°	4688.6	4688.6	4695.9	4703.1	4703.1	4703.1	4717.6	4719.4	4708.5	4712.2	4699.5
32.5°	4978.2	4980.0	4987.2	4987.2	5001.7	5003.5	5019.8	4998.1	5019.8	5001.7	5005.3
35°	5318.4	5341.9	5345.5	5363.6	5378.1	5383.5	5383.5	5385.3	5405.2	5390.8	5396.2
37.5°	5517.4	5522.9	5537.3	5546.4	5546.4	5553.6	5559.0	5553.6	5559.0	5557.2	5562.7
40°	5752.7	5747.2	5763.5	5767.1	5759.9	5769.0	5767.1	5761.7	5776.2	5765.3	5772.6
42.5°	6038.6	6007.8	6006.0	6020.5	6006.0	6013.2	6011.4	5998.8	6016.9	6022.3	6016.9
45°	6344.4	6328.1	6295.5	6295.5	6281.1	6275.6	6277.4	6275.6	6277.4	6299.2	6306.4
47.5°	6842.0	6742.5	6686.4	6633.9	6590.5	6588.7	6568.8	6579.6	6594.1	6630.3	6662.9
50°	7676.3	7446.4	7305.3	7175.0	7080.9	7048.3	7010.3	7006.7	7019.4	7061.0	7117.1
52.5°	9163.7	8845.2	8544.9	8266.2	8023.7	7837.3	7745.0	7696.2	7678.1	7719.7	7774.0
55°	11885.3	11284.6	10861.1	10578.8	9976.2	9721.1	9393.6	9243.4	9096.8	9111.3	9203.5
57.5°	16536.0	16212.1	15857.4	15363.4	14994.2	14549.1	13731.1	13275.1	13295.0	13401.8	13068.8
60°	22630.7	22303.1	22156.6	21707.8	21450.8	21271.7	20837.4	20081.0	19813.1	19762.5	19150.8
62.5°	24945.1	25022.9	25138.7	25265.4	25258.2	25336.0	24956.0	24709.9	24400.4	23998.7	23394.3
65°	24340.7	24538.0	24773.2	25113.4	25500.7	25786.6	26027.3	25998.3	25708.8	25173.1	24534.3
67.5°	22294.1	22489.5	22661.4	23117.4	23752.6	24333.5	24847.4	25196.7	25003.0	24559.7	23814.1
70°	19217.8	19358.9	19467.5	19863.8	20560.5	21269.9	21941.2	22527.5	22467.8	21930.4	21335.0
72.5°	13924.8	14266.8	14451.3	14424.2	14854.9	15649.3	15743.4	16244.6	16384.0	15804.9	14856.7
75°	6784.1	6789.6	6576.0	6505.5	6527.2	6664.7	6402.3	6418.6	6328.1	5917.3	5578.9
77.5°	2370.6	2305.4	2149.8	1965.2	1701.0	1453.1	1201.6	1093.0	1056.8	950.0	875.8
80°	2043.0	2138.9	2108.2	1956.2	1677.5	1337.3	998.9	740.1	631.5	593.5	557.4
82.5°	2319.9	2689.0	2924.3	2911.6	2529.8	1900.1	1185.3	680.4	485.0	425.3	390.9
85°	1293.9	1391.6	1418.7	1292.0	1073.1	732.9	409.0	287.7	244.3	222.6	200.9
87.5°	206.3	188.2	184.6	161.1	152.0	139.3	123.1	115.8	106.8	101.3	101.3
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: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2623.9	2622.1	2616.7	2611.2	2607.6	2605.8	2604.0	2600.4	2598.6	2596.8	2593.1
5°	2685.4	2681.8	2672.8	2663.7	2660.1	2654.7	2649.2	2645.6	2642.0	2640.2	2632.9
7.5°	2781.3	2777.7	2766.9	2759.6	2757.8	2743.3	2741.5	2736.1	2727.0	2725.2	2714.4
10°	2897.1	2895.3	2886.3	2880.9	2877.2	2870.0	2859.1	2850.1	2841.0	2841.0	2833.8
12.5°	3031.1	3023.8	3029.2	3016.6	3013.0	3005.7	3000.3	2998.5	2987.6	2978.6	2976.8
15°	3188.5	3179.4	3179.4	3175.8	3172.2	3165.0	3163.2	3165.0	3154.1	3157.7	3146.9
17.5°	3383.9	3387.5	3385.7	3385.7	3376.7	3376.7	3362.2	3380.3	3367.6	3376.7	3373.1
20°	3628.2	3630.0	3626.4	3631.8	3635.5	3633.6	3631.8	3630.0	3635.5	3642.7	3637.3
22.5°	3888.8	3888.8	3887.0	3906.9	3885.2	3901.5	3906.9	3896.0	3925.0	3921.4	3926.8
25°	4171.1	4171.1	4185.6	4201.9	4205.5	4192.8	4200.0	4191.0	4209.1	4223.6	4227.2
27.5°	4433.5	4457.0	4467.9	4457.0	4466.1	4486.0	4484.1	4484.1	4496.8	4493.2	4527.6
30°	4703.1	4717.6	4732.1	4724.8	4728.4	4753.8	4755.6	4757.4	4773.7	4797.2	4822.5
32.5°	5010.7	5025.2	5018.0	5041.5	5039.7	5070.5	5075.9	5081.3	5132.0	5122.9	5175.4
35°	5388.9	5403.4	5396.2	5421.5	5417.9	5428.8	5448.7	5470.4	5479.4	5531.9	5573.5
37.5°	5566.3	5566.3	5582.6	5611.5	5622.4	5640.5	5671.2	5698.4	5743.6	5799.7	5864.9
40°	5779.8	5785.2	5807.0	5837.7	5857.6	5899.2	5955.3	5993.3	6062.1	6123.6	6199.6
42.5°	6038.6	6062.1	6087.4	6129.1	6172.5	6237.6	6317.3	6366.1	6456.6	6536.2	6630.3
45°	6340.8	6364.3	6424.0	6500.0	6563.4	6635.7	6700.9	6816.7	6898.1	6981.4	7062.8
47.5°	6706.3	6775.1	6823.9	6914.4	6992.2	7088.1	7169.6	7278.1	7366.8	7468.2	7536.9
50°	7175.0	7260.1	7323.4	7441.0	7517.0	7623.8	7726.9	7808.4	7898.8	7998.4	8054.5
52.5°	7848.2	7935.0	8014.6	8161.2	8255.3	8327.7	8465.2	8566.6	8649.8	8722.2	8783.7
55°	9306.7	9281.4	9502.1	9786.2	9818.8	10081.2	10130.1	10215.1	10368.9	10390.6	10562.5
57.5°	13474.2	13343.9	13664.2	14080.4	14008.0	13875.9	14427.8	14462.2	14384.4	14592.5	14357.2
60°	19241.3	19013.3	19100.2	19214.2	19049.5	18971.7	18998.8	19076.6	19000.6	18917.4	18689.4
62.5°	23092.1	22741.0	22489.5	22277.8	22010.0	21816.3	21599.2	21331.4	21259.0	20955.0	20699.8
65°	23913.7	23367.2	22969.1	22569.1	22200.0	21858.0	21530.4	21300.6	20996.6	20636.5	20370.5
67.5°	23010.7	22333.9	21751.2	21170.3	20752.3	20249.2	20003.1	19628.6	19254.0	18841.4	18597.1
70°	20386.8	19681.0	18948.2	18379.9	17811.7	17189.2	17068.0	16624.7	16409.3	15846.5	15748.8
72.5°	14071.3	13600.8	13273.3	12571.2	12225.6	11907.1	11805.7	11395.0	11438.4	10821.3	11045.7
75°	5003.5	4936.5	4840.6	4444.3	4373.8	4250.7	4218.1	4189.2	4482.3	4075.2	4370.1
77.5°	859.6	854.1	805.3	781.7	827.0	798.0	805.3	790.8	875.8	888.5	868.6
80°	533.8	519.4	503.1	492.2	494.0	483.2	485.0	488.6	494.0	492.2	497.6
82.5°	365.5	352.9	345.6	338.4	349.2	352.9	361.9	371.0	385.4	394.5	405.3
85°	199.1	182.8	182.8	181.0	195.4	206.3	220.8	238.9	264.2	285.9	309.4
87.5°	101.3	97.7	99.5	103.1	115.8	124.9	143.0	159.2	181.0	204.5	226.2
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: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2591.3	2591.3	2589.5	2589.5	2587.7	2585.9	2584.1	2578.7	2558.8	2540.7	2528.0
5°	2631.1	2625.7	2623.9	2618.5	2616.7	2613.0	2607.6	2602.2	2566.0	2533.4	2509.9
7.5°	2712.6	2705.3	2701.7	2696.3	2690.9	2683.6	2676.4	2670.9	2627.5	2589.5	2560.6
10°	2819.3	2815.7	2813.9	2806.7	2806.7	2795.8	2794.0	2781.3	2734.3	2699.9	2674.6
12.5°	2967.7	2960.5	2958.7	2949.6	2953.2	2949.6	2946.0	2938.8	2904.4	2864.6	2830.2
15°	3152.3	3152.3	3143.2	3136.0	3137.8	3134.2	3141.4	3132.4	3110.7	3074.5	3018.4
17.5°	3374.9	3371.3	3374.9	3369.4	3373.1	3376.7	3367.6	3369.4	3358.6	3313.3	3230.1
20°	3633.6	3628.2	3649.9	3640.9	3660.8	3642.7	3646.3	3651.7	3651.7	3592.0	3479.8
22.5°	3930.4	3926.8	3926.8	3944.9	3952.1	3953.9	3961.2	3966.6	3981.1	3905.1	3725.9
25°	4227.2	4239.9	4241.7	4265.2	4276.0	4276.0	4281.5	4301.4	4344.8	4239.9	4008.2
27.5°	4529.4	4560.2	4567.4	4583.7	4600.0	4616.2	4628.9	4643.4	4714.0	4600.0	4297.8
30°	4831.6	4866.0	4891.3	4909.4	4929.3	4969.1	4976.4	5005.3	5122.9	4983.6	4572.8
32.5°	5186.3	5235.1	5267.7	5291.2	5322.0	5360.0	5381.7	5417.9	5531.9	5303.9	4773.7
35°	5609.7	5638.7	5685.7	5725.5	5743.6	5808.8	5843.1	5852.2	5939.1	5580.8	4922.1
37.5°	5902.9	5951.7	6033.2	6089.3	6121.8	6158.0	6215.9	6253.9	6337.2	5832.3	4996.3
40°	6275.6	6349.8	6415.0	6498.2	6550.7	6577.8	6635.7	6666.5	6677.4	6047.6	4972.7
42.5°	6729.8	6796.8	6883.7	6950.6	6990.4	7021.2	7068.2	7080.9	6939.8	6149.0	4846.1
45°	7156.9	7260.1	7334.2	7383.1	7412.1	7428.3	7457.3	7459.1	7156.9	6098.3	4628.9
47.5°	7616.5	7690.7	7759.5	7793.9	7790.3	7793.9	7783.0	7775.8	7265.5	5922.8	4350.2
50°	8125.0	8173.9	8202.8	8219.1	8228.2	8193.8	8144.9	8112.4	7274.5	5673.0	4067.9
52.5°	8807.2	8868.8	8863.3	8861.5	8789.2	8756.6	8626.3	8559.3	7222.1	5379.9	3749.5
55°	10535.4	10475.7	10358.1	10416.0	10121.0	9967.2	9764.5	9576.3	7290.8	5101.2	3380.3
57.5°	14451.3	14474.9	14140.1	13960.9	13463.3	12840.8	12339.6	11852.8	7909.7	4931.1	2899.0
60°	18537.4	18229.8	17804.5	17156.7	16516.1	15591.4	14699.3	13856.0	8526.8	4753.8	2328.9
62.5°	20321.6	19883.7	19241.3	18403.5	17397.3	16266.4	15155.3	14127.4	8228.2	4180.1	1693.8
65°	19959.7	19290.2	18580.8	17600.0	16376.7	15137.2	13839.7	12790.1	6883.7	3117.9	1044.1
67.5°	18066.9	17498.7	16749.5	15585.9	14277.6	12987.4	11798.5	10622.3	5113.9	1943.5	584.5
70°	15249.4	14693.8	13933.8	12743.1	11436.6	10202.4	8943.0	7983.9	3259.1	937.4	421.6
72.5°	10578.8	10128.2	9590.8	8742.1	7596.6	6474.7	5622.4	4885.9	1806.0	497.6	385.4
75°	4296.0	4297.8	4200.0	3841.7	3246.4	2799.4	2386.8	2024.9	754.6	423.4	380.0
77.5°	973.6	989.8	1082.1	1026.0	924.7	865.0	774.5	684.0	459.6	436.1	383.6
80°	492.2	494.0	488.6	490.4	485.0	486.8	479.5	474.1	430.7	448.8	383.6
82.5°	410.8	419.8	418.0	418.0	419.8	419.8	419.8	418.0	447.0	472.3	371.0
85°	325.7	343.8	358.3	372.8	389.1	399.9	405.3	410.8	434.3	465.1	336.6
87.5°	246.1	267.8	285.9	300.4	325.7	325.7	343.8	356.5	356.5	363.7	177.3
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: P159404

CATALOG NUMBER: VST-F12-LED-E-U-T2-7030

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2598.6	2598.6	2598.6	2598.6	2598.6
2.5°	2509.9	2502.7	2495.4	2491.8	2484.6
5°	2491.8	2477.3	2468.3	2468.3	2461.0
7.5°	2544.3	2538.8	2526.2	2518.9	2526.2
10°	2656.5	2647.4	2632.9	2622.1	2627.5
12.5°	2806.7	2770.5	2741.5	2728.9	2719.8
15°	2962.3	2889.9	2832.0	2799.4	2790.4
17.5°	3128.8	3002.1	2915.2	2866.4	2857.3
20°	3298.9	3141.4	3018.4	2955.1	2953.2
22.5°	3503.4	3293.4	3136.0	3052.8	3047.3
25°	3718.7	3429.2	3221.1	3114.3	3103.4
27.5°	3905.1	3537.7	3273.5	3146.9	3136.0
30°	4060.7	3619.2	3317.0	3170.4	3155.9
32.5°	4172.9	3666.2	3335.1	3177.6	3161.3
35°	4209.1	3648.1	3284.4	3112.5	3094.4
37.5°	4160.2	3530.5	3143.2	2953.2	2931.5
40°	4013.7	3324.2	2913.4	2718.0	2690.9
42.5°	3789.3	3070.9	2636.6	2450.2	2415.8
45°	3512.4	2785.0	2361.5	2153.4	2137.1
47.5°	3222.9	2484.6	2052.1	1863.9	1844.0
50°	2909.8	2137.1	1749.9	1545.4	1545.4
52.5°	2537.0	1798.7	1398.8	1245.0	1232.3
55°	2108.2	1416.9	1114.7	997.1	980.8
57.5°	1646.7	1089.4	890.3	821.6	803.5
60°	1210.6	817.9	716.6	678.6	671.4
62.5°	821.6	622.5	577.3	561.0	559.2
65°	555.5	485.0	472.3	466.9	468.7
67.5°	427.1	403.5	398.1	396.3	396.3
70°	371.0	356.5	351.1	352.9	351.1
72.5°	349.2	329.3	331.2	334.8	333.0
75°	342.0	316.7	323.9	325.7	318.5
77.5°	336.6	302.2	320.3	325.7	305.8
80°	325.7	289.5	333.0	334.8	300.4
82.5°	298.6	257.0	333.0	307.6	271.4
85°	253.3	195.4	376.4	267.8	200.9
87.5°	161.1	115.8	255.2	182.8	121.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)