

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: P159609

Luminaire Tested: **VST-E11-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159609
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-E11-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (231) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30726.9 lumens
Efficiency: N/A
Efficacy: 113.9 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): 269.7
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



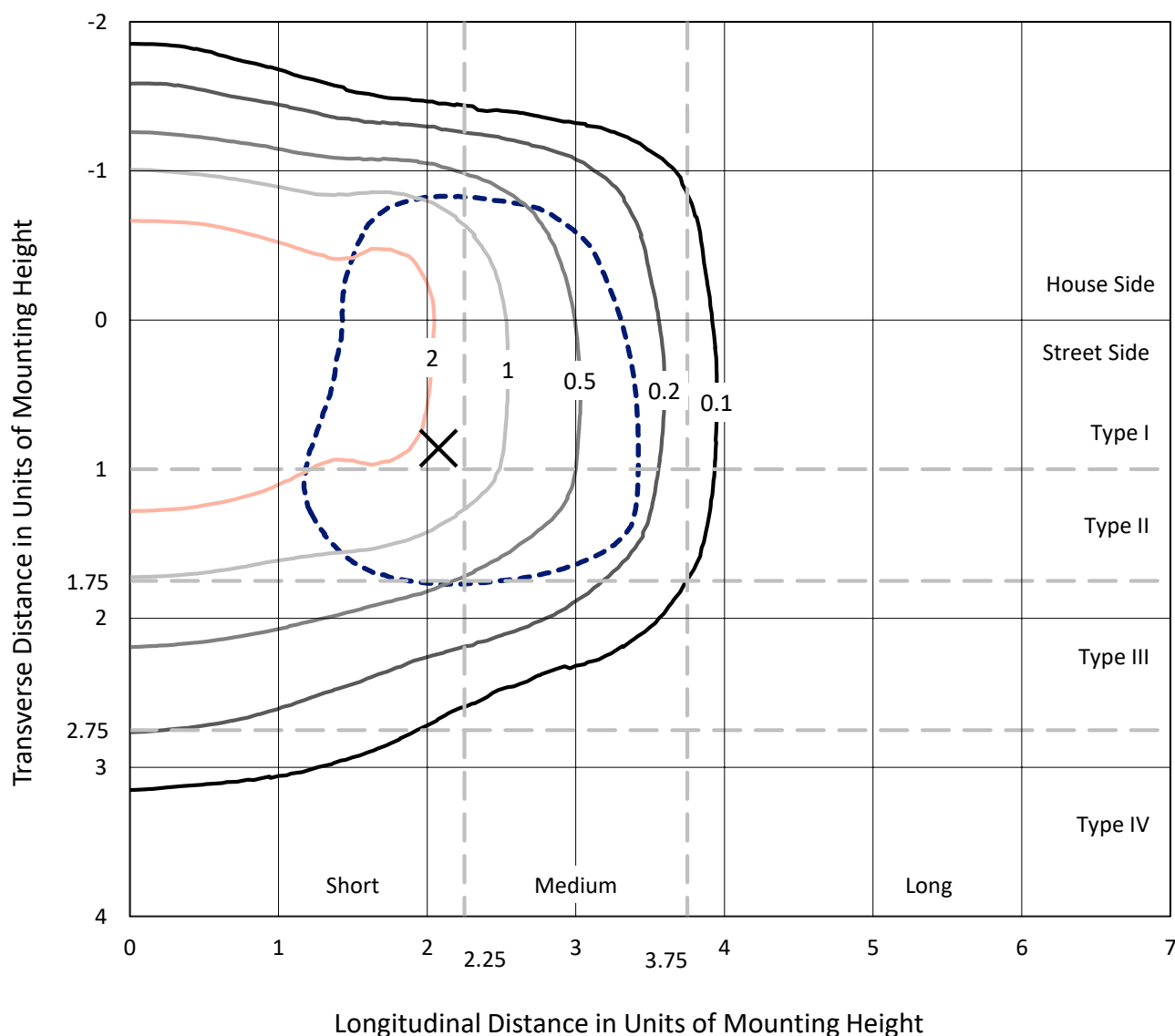
REPORT NUMBER: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

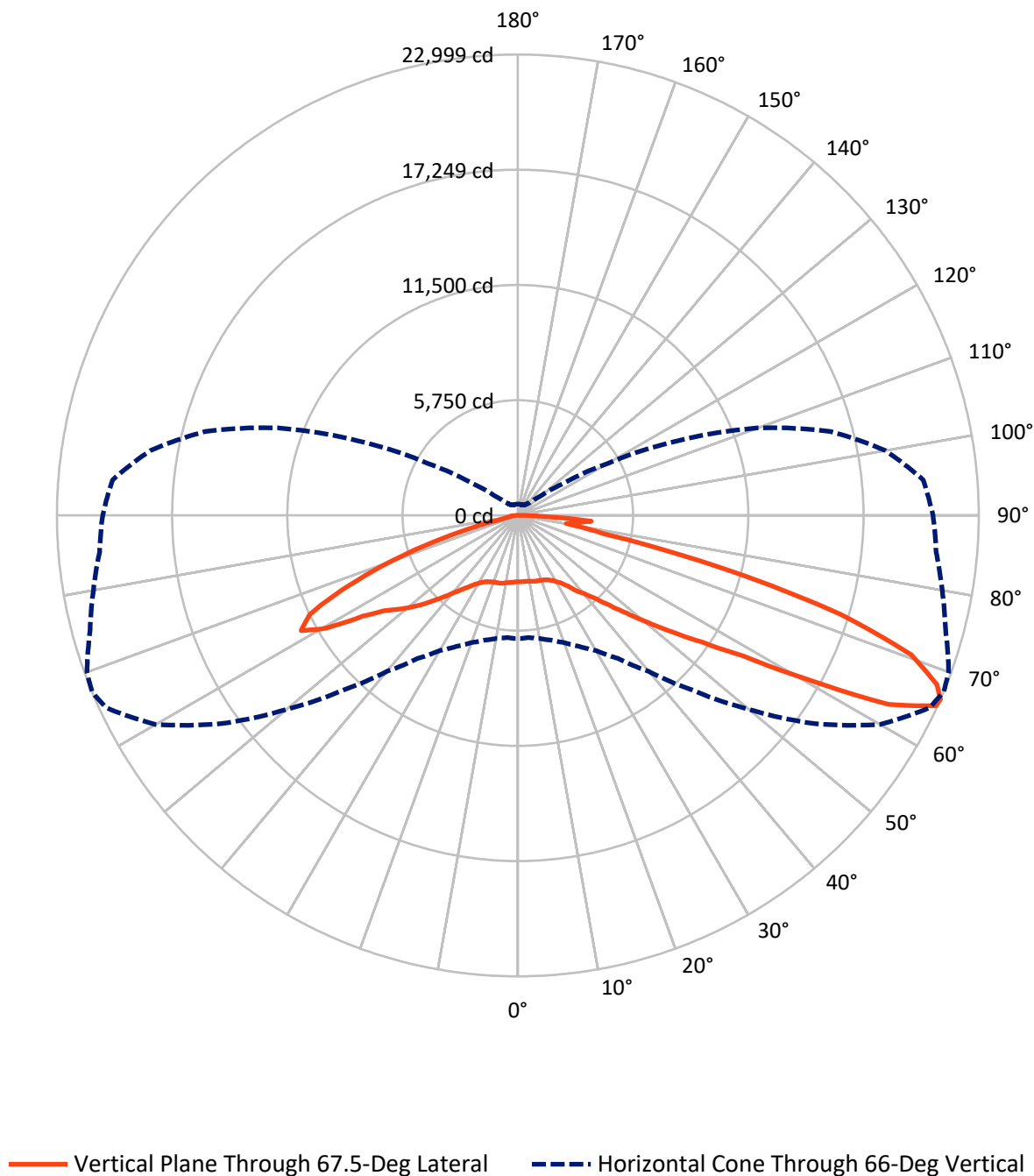


Based on 30 foot mounting height. Maximum calculated value = 3.7 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10632.9	0.0	10632.9
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	20094.0	0.0	20094.0
	% Fixture	65.4	0.0	65.4
Total	Lumens	30726.9	0.0	30726.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	318.2	1.0
10°-20°	942.1	3.1
20°-30°	1619.5	5.3
30°-40°	2617.3	8.5
40°-50°	4337.6	14.1
50°-60°	6807.4	22.2
60°-70°	9307.0	30.3
70°-80°	4092.8	13.3
80°-90°	685.1	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°	30726.9	100.0
0°-180°	30726.9	100.0

Coefficient of Utilization



REPORT NUMBER: P159609

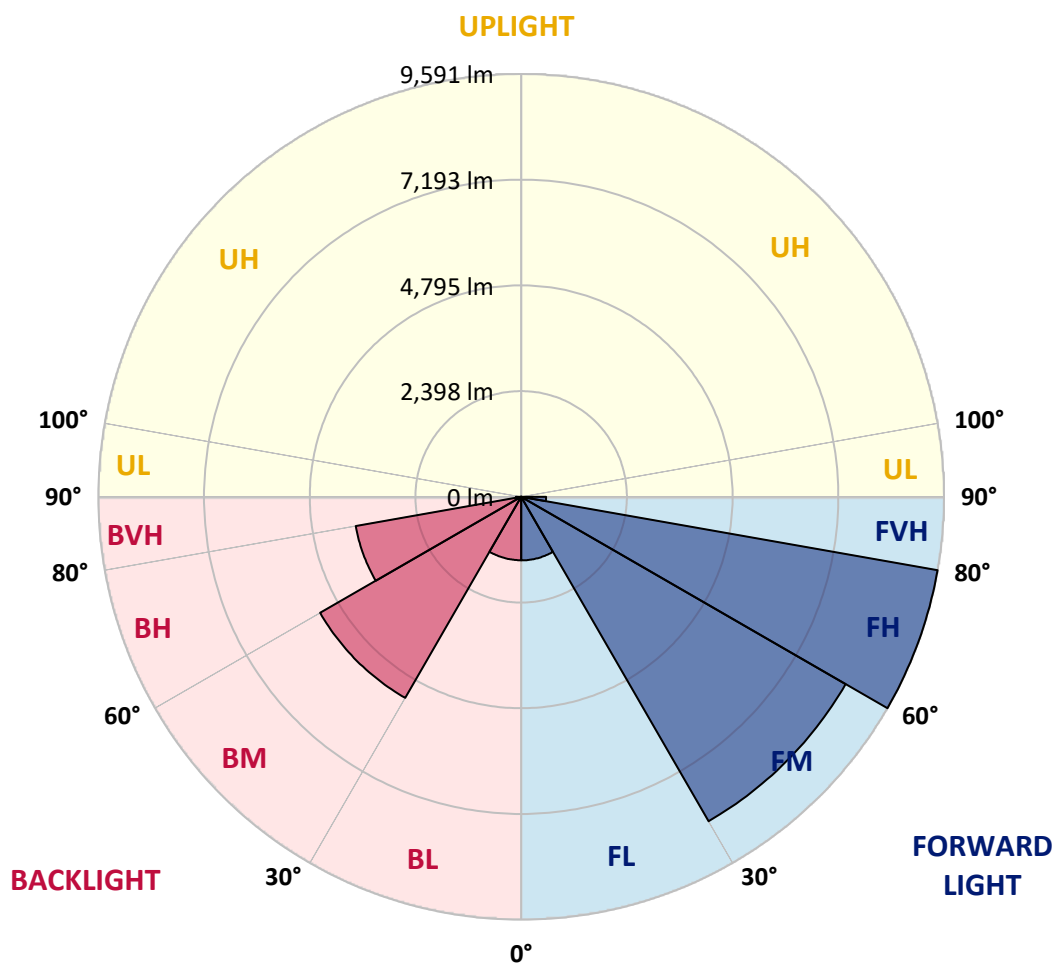
CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1441.4	4.7			
FM	(30°-60°)	8496.9	27.7			
FH	(60°-80°)	9590.6	31.2			G4/12000
FVH	(80°-90°)	565.2	1.8			G4/750
BL	(0°-30°)	1438.4	4.7	B3/2500		
BM	(30°-60°)	5265.4	17.1	B4/8500		
BH	(60°-80°)	3809.3	12.4	B4/5000		G4/5000
BVH	(80°-90°)	119.9	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: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5
2.5°	3309.4	3309.4	3311.4	3309.4	3309.4	3307.4	3315.5	3315.5	3315.5	3313.5	3319.5
5°	3301.4	3301.4	3303.4	3303.4	3305.4	3303.4	3309.4	3311.4	3311.4	3311.4	3317.5
7.5°	3281.3	3287.3	3283.3	3285.3	3287.3	3293.4	3301.4	3305.4	3309.4	3315.5	3317.5
10°	3239.1	3249.2	3247.1	3253.2	3255.2	3273.3	3279.3	3287.3	3301.4	3309.4	3315.5
12.5°	3180.8	3186.9	3188.9	3196.9	3204.9	3227.0	3243.1	3257.2	3277.3	3297.4	3317.5
15°	3134.6	3138.6	3138.6	3146.7	3158.7	3178.8	3198.9	3223.0	3253.2	3287.3	3319.5
17.5°	3148.7	3158.7	3150.7	3148.7	3152.7	3164.8	3182.8	3202.9	3239.1	3277.3	3315.5
20°	3241.1	3243.1	3239.1	3229.1	3221.0	3223.0	3223.0	3227.0	3249.2	3279.3	3309.4
22.5°	3317.5	3325.5	3323.5	3325.5	3323.5	3331.5	3327.5	3319.5	3311.4	3313.5	3327.5
25°	3383.8	3391.8	3391.8	3397.8	3407.9	3424.0	3436.0	3434.0	3422.0	3405.9	3399.9
27.5°	3492.3	3492.3	3492.3	3498.3	3512.4	3532.5	3552.6	3564.6	3574.7	3558.6	3524.4
30°	3663.1	3665.1	3659.1	3661.1	3671.1	3697.2	3721.4	3739.4	3759.5	3757.5	3713.3
32.5°	3850.0	3858.0	3856.0	3864.0	3878.1	3902.2	3928.3	3956.5	3982.6	3998.6	3970.5
35°	4091.1	4099.1	4101.1	4113.2	4129.3	4165.4	4201.6	4237.8	4265.9	4278.0	4271.9
37.5°	4486.9	4488.9	4480.9	4462.8	4468.8	4497.0	4539.2	4597.4	4615.5	4627.6	4655.7
40°	5079.7	5073.7	5041.5	5025.4	5015.4	5027.4	5019.4	5065.6	5107.8	5109.8	5107.8
42.5°	5799.0	5781.0	5750.8	5746.8	5742.8	5738.8	5716.7	5718.7	5756.8	5766.9	5754.8
45°	6514.4	6492.3	6470.2	6490.3	6466.2	6528.4	6546.5	6594.8	6600.8	6620.9	6590.7
47.5°	7101.1	7103.1	7103.1	7131.3	7179.5	7298.0	7404.5	7497.0	7531.1	7579.3	7585.4
50°	7545.2	7557.2	7595.4	7685.8	7788.3	7987.2	8166.1	8332.9	8483.6	8539.8	8688.5
52.5°	7804.4	7836.5	7916.9	8067.6	8250.5	8507.7	8789.0	9072.3	9333.5	9554.6	9731.4
55°	7758.2	7782.3	7922.9	8158.0	8443.4	8789.0	9182.8	9592.7	10000.6	10374.4	10663.7
57.5°	7460.8	7476.9	7617.5	7882.8	8238.4	8702.6	9259.2	9868.0	10440.7	11043.5	11537.8
60°	7071.0	7095.1	7225.7	7434.7	7806.4	8300.7	8945.7	9771.6	10685.8	11634.3	12558.6
62.5°	6821.8	6815.8	6930.3	7117.2	7396.5	7844.6	8465.5	9444.0	10709.9	12313.4	14139.9
65°	6407.9	6389.8	6508.4	6721.3	7024.8	7458.8	8047.5	8987.9	10456.8	12570.6	15160.7
66°	6150.7	6114.5	6233.1	6448.1	6751.5	7213.6	7778.3	8706.6	10149.3	12319.5	15052.2
67.5°	5700.6	5682.5	5738.8	5907.6	6132.6	6566.6	7155.4	8089.7	9421.9	11563.9	14256.5
70°	4633.6	4593.4	4637.6	4714.0	4800.4	4906.9	5268.6	6010.0	7137.3	9213.0	11485.6
72.5°	3156.7	3136.6	3219.0	3335.6	3566.6	3675.1	3817.8	3938.4	4336.2	5807.1	8011.4
75°	2401.2	2413.3	2517.7	2710.6	3008.0	3329.5	3643.0	3757.5	3624.9	3510.4	4547.2
77.5°	1346.3	1416.6	1543.2	1788.3	2103.8	2557.9	3104.5	3707.3	4008.7	3934.3	3679.2
80°	554.6	544.5	606.8	741.5	850.0	1221.7	1868.7	2624.2	3472.2	4008.7	3924.3
82.5°	154.7	158.7	205.0	263.2	339.6	432.0	675.1	1085.1	1768.2	2750.8	3600.8
85°	48.2	48.2	66.3	98.5	116.5	134.6	170.8	281.3	480.2	958.5	1943.1
87.5°	10.0	10.0	14.1	28.1	30.1	30.1	38.2	52.2	46.2	42.2	188.9
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: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5
2.5°	3313.5	3309.4	3311.4	3313.5	3311.4	3311.4	3309.4	3307.4	3309.4	3309.4	3315.5
5°	3311.4	3309.4	3311.4	3311.4	3311.4	3313.5	3313.5	3313.5	3319.5	3319.5	3329.5
7.5°	3315.5	3315.5	3319.5	3319.5	3319.5	3319.5	3321.5	3325.5	3335.6	3333.5	3351.6
10°	3323.5	3327.5	3337.6	3339.6	3339.6	3345.6	3349.6	3357.7	3367.7	3371.7	3387.8
12.5°	3333.5	3353.6	3371.7	3375.7	3381.8	3391.8	3397.8	3401.9	3419.9	3426.0	3446.1
15°	3345.6	3373.7	3395.8	3403.9	3411.9	3424.0	3432.0	3438.0	3454.1	3462.1	3486.3
17.5°	3347.6	3379.8	3405.9	3417.9	3428.0	3442.1	3454.1	3466.2	3484.2	3496.3	3520.4
20°	3345.6	3387.8	3428.0	3444.1	3454.1	3480.2	3498.3	3514.4	3536.5	3548.5	3572.7
22.5°	3367.7	3415.9	3470.2	3490.3	3506.4	3542.5	3566.6	3592.8	3620.9	3628.9	3647.0
25°	3419.9	3470.2	3538.5	3566.6	3594.8	3643.0	3677.1	3715.3	3743.5	3747.5	3753.5
27.5°	3508.4	3554.6	3637.0	3679.2	3725.4	3793.7	3843.9	3882.1	3922.3	3922.3	3918.3
30°	3687.2	3697.2	3783.6	3837.9	3906.2	4006.7	4081.0	4123.2	4153.4	4153.4	4119.2
32.5°	3918.3	3906.2	3984.6	4042.9	4137.3	4278.0	4378.4	4410.6	4442.7	4432.7	4374.4
35°	4251.8	4217.7	4261.9	4350.3	4456.8	4649.7	4754.2	4826.5	4846.6	4818.5	4726.0
37.5°	4671.8	4667.8	4689.9	4788.3	4906.9	5156.0	5262.5	5308.8	5292.7	5242.4	5079.7
40°	5115.9	5103.8	5089.7	5156.0	5288.7	5588.1	5776.9	5801.1	5779.0	5704.6	5499.6
42.5°	5708.6	5708.6	5642.3	5660.4	5770.9	6106.5	6329.5	6405.9	6407.9	6299.4	6026.1
45°	6524.4	6516.4	6399.8	6371.7	6456.1	6785.6	7073.0	7115.2	7115.2	6972.5	6673.1
47.5°	7505.0	7495.0	7380.4	7282.0	7298.0	7653.7	7892.8	7957.1	7900.8	7794.3	7438.7
50°	8610.2	8592.1	8475.5	8383.1	8342.9	8702.6	8905.5	8935.7	8853.3	8726.7	8340.9
52.5°	9731.4	9785.6	9717.3	9667.1	9681.1	9914.2	10123.2	9980.5	9938.3	9801.7	9413.9
55°	10898.8	11065.6	11216.3	11172.1	11224.3	11451.4	11491.6	11302.7	11226.4	11127.9	10695.9
57.5°	12074.3	12560.6	13054.9	13193.5	13322.1	13647.6	13601.4	13292.0	13350.3	13496.9	13010.7
60°	13716.0	15120.5	16374.4	16605.4	17005.3	17282.6	17344.9	17284.6	17555.9	17479.5	17049.5
62.5°	16237.7	18578.6	20322.8	20756.8	21158.7	21144.6	20933.6	20716.6	20983.9	20983.9	19860.6
65°	18038.1	20694.5	22561.2	22920.9	22904.8	22420.6	21922.2	21488.2	21450.0	21152.6	19511.0
66°	18122.5	20857.3	22685.8	22999.3	22878.7	22099.1	21502.3	20951.7	20716.6	20302.7	18620.8
67.5°	17363.0	20397.1	22279.9	22553.2	22235.7	21118.5	20296.7	19559.2	19217.6	18520.4	16937.0
70°	14242.4	17529.8	20268.5	20827.1	20467.5	19052.9	17927.6	16931.0	16277.9	15271.2	14129.9
72.5°	10396.5	12942.4	15908.2	16816.4	16760.2	15458.1	14551.9	13639.6	12781.6	11865.3	11031.4
75°	6757.5	8419.3	10073.0	10603.4	10348.3	9594.7	8945.7	8413.2	7599.4	6962.5	6807.7
77.5°	3858.0	4714.0	4458.8	4392.5	4073.0	3287.3	2186.2	1533.1	1384.5	1728.1	1894.8
80°	3671.1	3327.5	2724.7	2457.5	2258.5	1539.2	807.8	568.7	498.3	510.4	548.6
82.5°	4139.3	4314.1	3528.5	2947.7	2566.0	1872.7	1022.8	476.2	347.6	411.9	462.2
85°	3102.5	4368.4	4330.2	3669.1	3010.0	2158.1	1209.6	363.7	209.0	289.3	377.8
87.5°	628.9	1034.8	996.6	876.1	745.5	520.4	202.9	114.5	104.5	142.7	217.0
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: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5	3315.5
2.5°	3319.5	3319.5	3323.5	3329.5	3331.5	3331.5	3335.6	3331.5	3339.6	3341.6	3343.6
5°	3337.6	3343.6	3347.6	3357.7	3363.7	3367.7	3373.7	3369.7	3377.8	3379.8	3383.8
7.5°	3357.7	3367.7	3375.7	3379.8	3387.8	3387.8	3389.8	3385.8	3383.8	3377.8	3375.7
10°	3393.8	3399.9	3409.9	3405.9	3401.9	3387.8	3375.7	3357.7	3347.6	3329.5	3319.5
12.5°	3452.1	3456.1	3456.1	3438.0	3411.9	3379.8	3349.6	3319.5	3295.4	3275.3	3263.2
15°	3492.3	3500.3	3490.3	3464.2	3426.0	3381.8	3341.6	3301.4	3269.2	3243.1	3227.0
17.5°	3522.4	3520.4	3502.3	3466.2	3430.0	3391.8	3355.6	3313.5	3273.3	3235.1	3211.0
20°	3568.6	3548.5	3516.4	3478.2	3440.0	3407.9	3379.8	3339.6	3297.4	3245.1	3209.0
22.5°	3630.9	3594.8	3548.5	3508.4	3472.2	3442.1	3409.9	3375.7	3331.5	3273.3	3223.0
25°	3719.3	3657.1	3604.8	3564.6	3532.5	3498.3	3462.1	3417.9	3373.7	3313.5	3253.2
27.5°	3854.0	3761.5	3695.2	3659.1	3628.9	3582.7	3536.5	3484.2	3428.0	3365.7	3297.4
30°	4016.7	3906.2	3829.9	3797.7	3761.5	3709.3	3659.1	3586.7	3508.4	3434.0	3349.6
32.5°	4207.6	4095.1	4018.7	3994.6	3936.4	3876.1	3805.7	3709.3	3606.8	3496.3	3395.8
35°	4497.0	4354.3	4284.0	4227.7	4147.3	4075.0	3956.5	3829.9	3683.2	3536.5	3411.9
37.5°	4794.4	4649.7	4577.3	4499.0	4394.5	4261.9	4103.1	3922.3	3727.4	3546.5	3393.8
40°	5192.2	5035.5	4943.1	4822.5	4653.7	4446.7	4211.6	3964.5	3727.4	3502.3	3317.5
42.5°	5656.4	5511.7	5369.0	5170.1	4898.8	4597.4	4267.9	3950.4	3663.1	3403.9	3209.0
45°	6299.4	6052.2	5825.2	5505.7	5109.8	4685.9	4273.9	3884.1	3552.6	3265.2	3048.2
47.5°	7022.8	6703.3	6301.4	5801.1	5260.5	4720.0	4215.7	3759.5	3377.8	3066.3	2829.2
50°	7856.6	7366.4	6749.5	6036.1	5336.9	4673.8	4077.0	3550.6	3136.6	2779.0	2525.8
52.5°	8811.1	8063.6	7155.4	6202.9	5324.8	4533.1	3847.9	3275.3	2813.1	2433.3	2184.2
55°	9870.0	8823.1	7543.2	6309.4	5216.3	4259.9	3488.3	2887.5	2411.2	2037.5	1818.5
57.5°	11736.7	10155.4	8282.6	6452.1	4989.3	3845.9	3032.1	2397.2	1967.2	1649.7	1440.7
60°	15204.9	12484.2	9683.2	6787.7	4647.7	3327.5	2457.5	1880.8	1521.1	1290.0	1135.3
62.5°	17350.9	14123.9	10366.3	6739.4	4093.1	2618.2	1824.5	1394.5	1111.2	958.5	862.0
65°	16842.5	13480.9	9532.5	5789.0	3184.9	1856.7	1207.6	912.3	763.6	685.2	639.0
66°	16151.3	12761.5	8827.2	5184.2	2774.9	1551.2	996.6	765.6	657.1	598.8	574.7
67.5°	14702.6	11447.4	7613.5	4151.4	2079.7	1155.4	735.4	600.8	534.5	504.4	488.3
70°	12305.4	9223.0	5385.1	2451.4	1127.3	626.9	470.2	417.9	401.9	391.8	385.8
72.5°	9514.4	6677.1	3146.7	1205.6	568.7	405.9	357.7	335.6	329.5	329.5	331.5
75°	5994.0	3837.9	1408.6	580.7	385.8	327.5	305.4	295.4	297.4	299.4	297.4
77.5°	1991.3	1324.2	586.7	411.9	335.6	297.4	279.3	275.3	279.3	281.3	281.3
80°	572.7	500.3	424.0	363.7	307.4	277.3	261.2	259.2	269.3	271.3	267.2
82.5°	440.1	411.9	383.8	351.6	295.4	261.2	255.2	257.2	263.2	259.2	241.1
85°	403.9	399.9	287.3	285.3	257.2	249.2	243.1	245.1	239.1	217.0	196.9
87.5°	227.1	211.0	162.8	164.8	190.9	196.9	162.8	172.8	160.7	140.7	128.6
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: P159609

CATALOG NUMBER: VST-E11-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	3315.5	3315.5	3315.5	3315.5	3315.5
2.5°	3347.6	3345.6	3345.6	3351.6	3343.6
5°	3385.8	3383.8	3383.8	3389.8	3383.8
7.5°	3367.7	3361.7	3357.7	3355.6	3355.6
10°	3307.4	3301.4	3289.3	3285.3	3281.3
12.5°	3245.1	3239.1	3225.0	3225.0	3221.0
15°	3207.0	3198.9	3188.9	3182.8	3178.8
17.5°	3186.9	3174.8	3162.7	3156.7	3152.7
20°	3178.8	3162.7	3148.7	3138.6	3138.6
22.5°	3180.8	3160.7	3144.7	3132.6	3128.6
25°	3200.9	3170.8	3150.7	3138.6	3134.6
27.5°	3229.1	3192.9	3166.8	3150.7	3144.7
30°	3267.2	3217.0	3180.8	3160.7	3152.7
32.5°	3293.4	3223.0	3176.8	3148.7	3138.6
35°	3291.3	3200.9	3144.7	3108.5	3096.4
37.5°	3255.2	3148.7	3074.3	3030.1	3010.0
40°	3174.8	3052.2	2973.9	2931.7	2907.6
42.5°	3058.3	2925.6	2855.3	2809.1	2783.0
45°	2875.4	2744.8	2658.4	2622.2	2588.1
47.5°	2622.2	2489.6	2415.3	2363.0	2340.9
50°	2324.8	2192.2	2113.9	2071.7	2051.6
52.5°	1999.3	1872.7	1816.5	1776.3	1748.2
55°	1661.7	1545.2	1521.1	1476.9	1450.8
57.5°	1344.3	1276.0	1253.8	1209.6	1187.5
60°	1050.9	1028.8	1004.7	976.6	964.5
62.5°	813.8	793.7	787.7	769.6	767.6
65°	620.9	622.9	618.9	614.9	610.8
66°	564.6	562.6	564.6	560.6	558.6
67.5°	480.2	488.3	494.3	492.3	492.3
70°	389.8	395.8	403.9	401.9	401.9
72.5°	333.6	343.6	347.6	345.6	345.6
75°	301.4	311.5	311.5	307.4	305.4
77.5°	281.3	285.3	281.3	277.3	273.3
80°	261.2	257.2	251.2	245.1	241.1
82.5°	227.1	217.0	211.0	200.9	200.9
85°	182.9	174.8	160.7	150.7	140.7
87.5°	118.6	114.5	104.5	78.4	62.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)