

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: P159405

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159405
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
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30577.9 lumens
Efficiency: N/A
Efficacy: 99.7 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



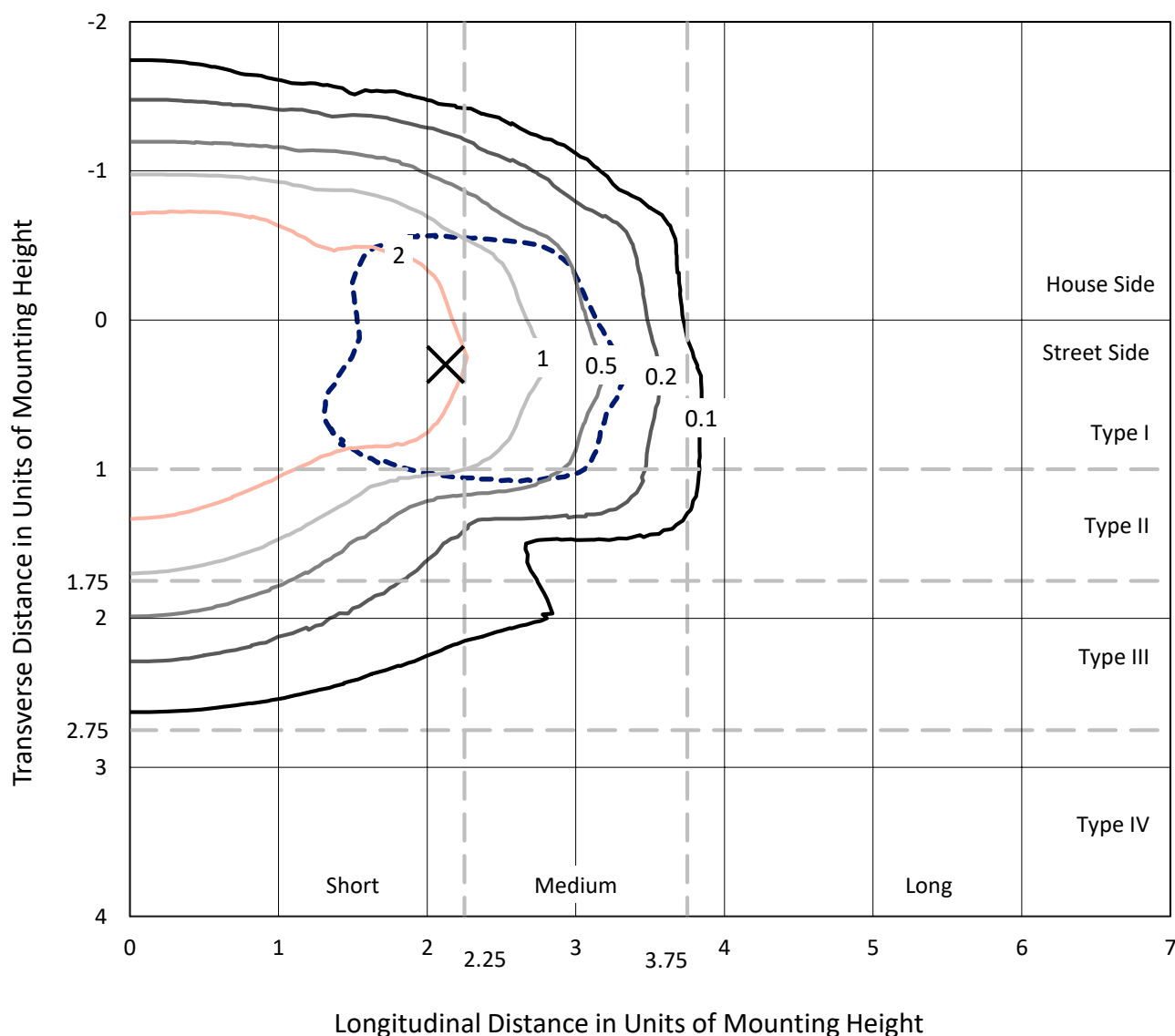
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

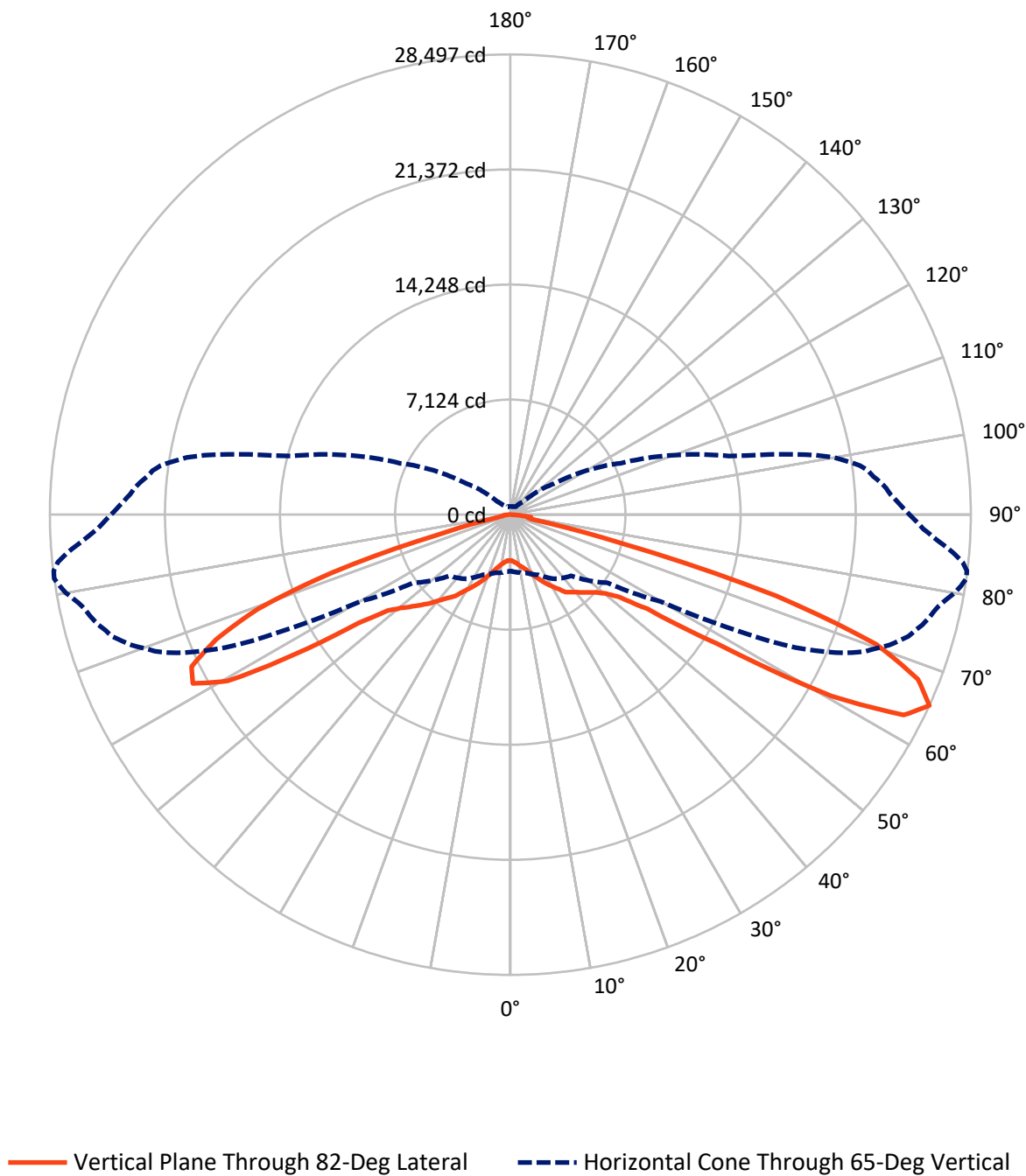


Based on 30 foot mounting height. Maximum calculated value = 4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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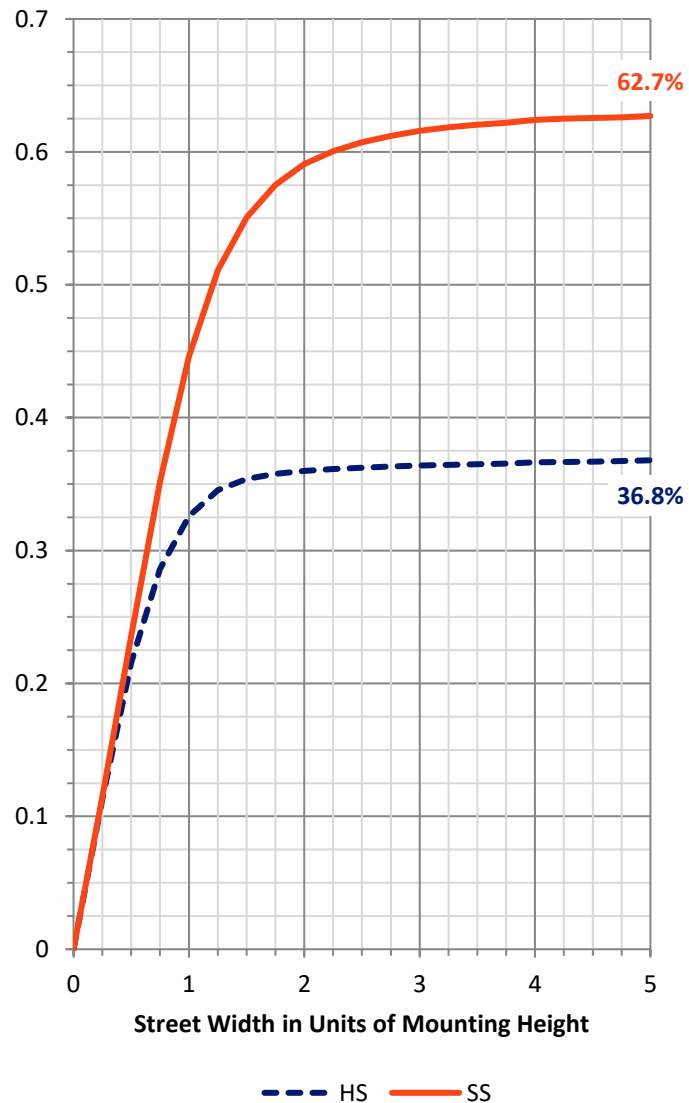
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11385.2	0.0	11385.2
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	19192.8	0.0	19192.8
	% Fixture	62.8	0.0	62.8
Total	Lumens	30577.9	0.0	30577.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.0	0.9
10°-20°	1012.1	3.3
20°-30°	2005.3	6.6
30°-40°	3437.6	11.2
40°-50°	5164.1	16.9
50°-60°	7174.6	23.5
60°-70°	8185.1	26.8
70°-80°	2819.7	9.2
80°-90°	491.4	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°	30577.9	100.0
0°-180°	30577.9	100.0

Coefficient of Utilization



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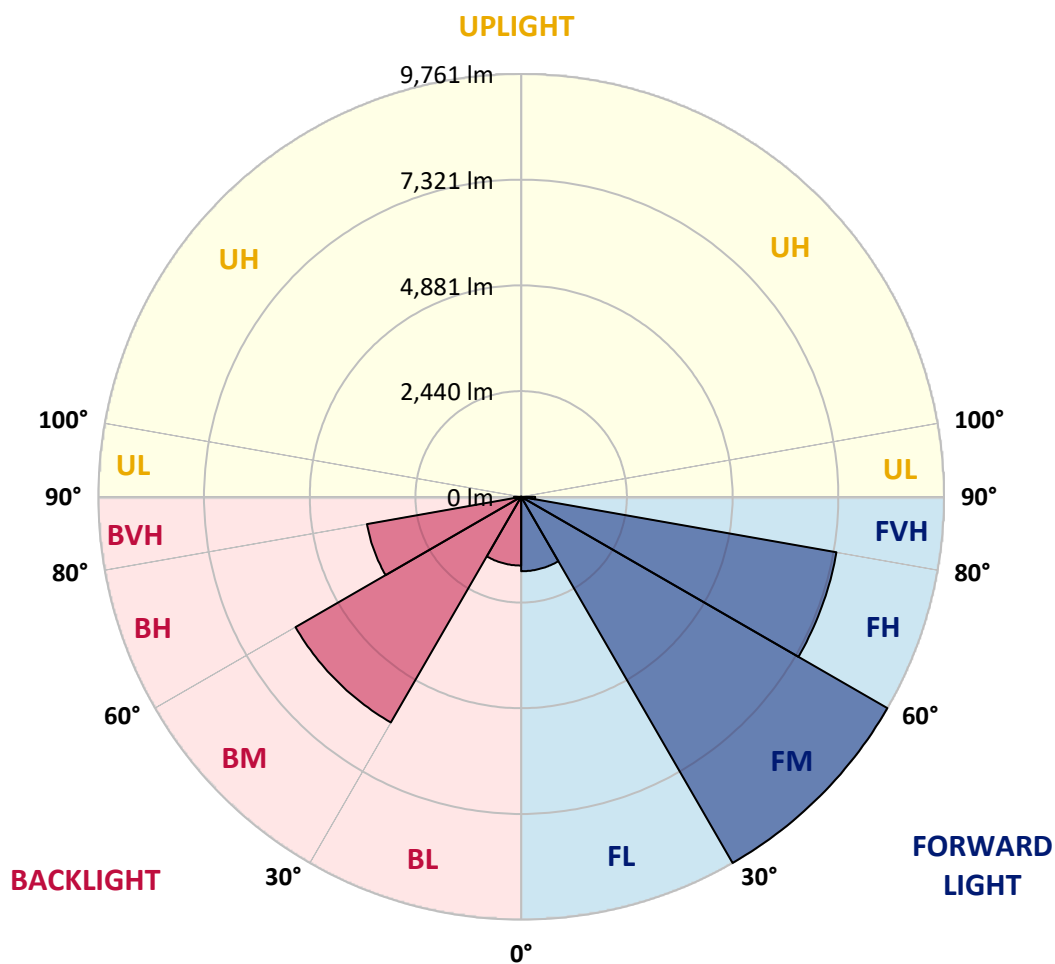
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1717.8	5.6			
FM	(30°-60°)	9761.1	31.9			
FH	(60°-80°)	7390.3	24.2			G3/7500
FVH	(80°-90°)	323.5	1.1			G3/500
BL	(0°-30°)	1587.6	5.2	B3/2500		
BM	(30°-60°)	6015.2	19.7	B4/8500		
BH	(60°-80°)	3614.5	11.8	B4/5000		G4/5000
BVH	(80°-90°)	167.9	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°	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2999.6	3001.6	2999.6	2993.7	2991.7	2973.9	2954.1	2944.2	2942.2	2934.2	2936.2
5°	3185.9	3179.9	3172.0	3162.1	3152.2	3122.5	3088.8	3071.0	3065.0	3059.1	3051.1
7.5°	3352.3	3356.3	3352.3	3338.4	3312.7	3275.0	3231.4	3203.7	3201.7	3195.8	3189.8
10°	3566.3	3576.2	3552.4	3528.6	3493.0	3435.5	3386.0	3350.3	3344.4	3336.4	3332.5
12.5°	3798.1	3800.1	3792.1	3738.6	3679.2	3599.9	3528.6	3493.0	3485.0	3475.1	3471.2
15°	4045.7	4047.7	4004.1	3952.6	3861.5	3766.4	3667.3	3627.7	3617.8	3619.8	3603.9
17.5°	4241.9	4245.8	4204.2	4138.9	4029.9	3917.0	3810.0	3778.3	3772.3	3774.3	3766.4
20°	4327.1	4333.0	4307.3	4257.7	4154.7	4055.6	3978.4	3958.6	3956.6	3952.6	3968.5
22.5°	4323.1	4325.1	4315.2	4295.4	4234.0	4176.5	4166.6	4178.5	4176.5	4180.5	4194.3
25°	4287.4	4293.4	4291.4	4299.3	4289.4	4311.2	4356.8	4398.4	4404.3	4412.3	4438.0
27.5°	4378.6	4390.5	4376.6	4384.5	4400.4	4473.7	4566.8	4630.2	4642.1	4663.9	4685.7
30°	4735.2	4719.4	4701.5	4681.7	4691.6	4737.2	4842.2	4897.7	4903.6	4919.5	4949.2
32.5°	5264.2	5246.4	5230.5	5198.8	5190.9	5171.1	5206.8	5220.6	5218.6	5234.5	5242.4
35°	5860.6	5862.5	5858.6	5882.4	5902.2	5801.1	5676.3	5642.6	5656.5	5638.7	5642.6
37.5°	6369.8	6375.7	6480.7	6611.5	6649.1	6585.7	6312.3	6177.6	6132.0	6126.1	6080.5
40°	6934.4	6934.4	7092.9	7253.4	7358.4	7437.6	7112.7	6875.0	6777.9	6750.2	6637.2
42.5°	7554.5	7522.8	7667.5	7843.8	8038.0	8218.3	8049.9	7782.4	7643.7	7594.2	7396.0
45°	8063.7	8043.9	8115.2	8279.7	8594.7	8947.4	8971.1	8834.4	8751.2	8648.2	8465.9
47.5°	8376.8	8366.9	8408.5	8586.8	8981.1	9551.7	9870.6	9940.0	9890.4	9811.2	9634.9
50°	8499.6	8485.7	8515.5	8713.6	9155.4	9908.3	10613.6	10940.5	10964.3	10982.1	10926.6
52.5°	8456.0	8438.2	8499.6	8666.0	9125.7	10033.1	11194.1	11822.2	11927.2	12016.3	12198.6
55°	8038.0	8010.2	8176.7	8489.7	8996.9	9987.5	11618.1	12670.2	12892.1	13129.8	13534.0
57.5°	7398.0	7374.2	7614.0	8043.9	8769.1	9862.7	11903.4	13742.0	14241.3	14669.2	15816.4
60°	6781.9	6762.0	6902.7	7318.8	8030.0	9254.5	11550.7	14102.6	14940.7	15863.9	17958.1
62.5°	5680.3	5626.8	5815.0	6165.7	6615.4	7655.6	10011.3	13300.2	14592.0	15949.1	18788.3
65°	3491.0	3568.2	3730.7	4119.0	4856.1	5351.4	7352.5	10760.2	12464.1	14166.0	17849.2
67.5°	2217.0	2238.8	2359.7	2629.1	3199.7	3697.0	4455.9	6752.1	8065.7	9739.9	14013.5
70°	1900.0	1913.9	2016.9	2298.3	2692.5	3304.7	3372.1	3526.6	3998.2	5064.1	8238.1
72.5°	1497.8	1521.6	1602.8	1846.5	2322.0	2979.8	4162.6	2787.6	2692.5	2781.7	4020.0
75°	891.6	919.3	986.7	1119.4	1491.9	2278.4	4360.8	3243.3	3023.4	2851.0	2773.8
77.5°	471.5	451.7	497.3	574.6	766.7	1214.5	3277.0	3974.4	3819.9	3613.8	3176.0
80°	233.8	241.7	255.6	271.4	342.8	493.3	1638.5	4111.1	4556.9	4755.0	4366.7
82.5°	93.1	105.0	148.6	158.5	188.2	210.0	527.0	2278.4	3263.1	4426.1	5779.3
85°	47.6	45.6	79.3	95.1	111.0	99.1	186.2	850.0	1529.5	2383.5	3861.5
87.5°	5.9	7.9	17.8	23.8	33.7	31.7	53.5	184.3	293.2	416.1	584.5
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

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2926.3	2924.3	2924.3	2916.4	2916.4	2918.4	2912.5	2908.5	2908.5	2910.5	2902.5
5°	3045.2	3039.3	3039.3	3031.3	3021.4	3021.4	3013.5	3011.5	3007.6	2999.6	2993.7
7.5°	3183.9	3177.9	3168.0	3162.1	3158.1	3152.2	3142.3	3138.3	3130.4	3122.5	3114.5
10°	3326.5	3318.6	3314.6	3304.7	3300.8	3288.9	3282.9	3284.9	3269.1	3263.1	3265.1
12.5°	3469.2	3461.3	3447.4	3443.4	3441.4	3429.6	3423.6	3419.7	3407.8	3405.8	3399.8
15°	3596.0	3599.9	3594.0	3584.1	3576.2	3574.2	3568.2	3564.3	3556.4	3548.4	3540.5
17.5°	3760.4	3766.4	3758.4	3744.6	3744.6	3742.6	3744.6	3742.6	3728.7	3734.7	3730.7
20°	3970.4	3974.4	3954.6	3960.5	3964.5	3962.5	3968.5	3974.4	3970.4	3970.4	3976.4
22.5°	4212.2	4218.1	4206.2	4214.1	4226.0	4216.1	4234.0	4232.0	4235.9	4241.9	4243.9
25°	4459.8	4471.7	4461.8	4483.6	4475.7	4483.6	4505.4	4499.4	4509.3	4525.2	4531.1
27.5°	4707.5	4715.4	4717.4	4731.2	4745.1	4757.0	4784.7	4784.7	4792.7	4820.4	4820.4
30°	4967.0	4974.9	4982.9	5002.7	5010.6	5032.4	5060.1	5068.1	5064.1	5103.7	5115.6
32.5°	5266.2	5274.1	5288.0	5311.8	5321.7	5343.5	5343.5	5365.3	5381.1	5414.8	5416.8
35°	5664.4	5670.4	5664.4	5662.4	5676.3	5706.0	5708.0	5739.7	5753.6	5787.3	5797.2
37.5°	6062.7	6060.7	6034.9	6007.2	6009.2	5997.3	5989.3	6003.2	6009.2	6011.1	6032.9
40°	6599.6	6548.1	6508.4	6439.1	6407.4	6357.9	6328.1	6326.2	6294.5	6290.5	6296.4
42.5°	7302.9	7243.5	7150.4	7033.5	6944.3	6853.2	6785.8	6746.2	6676.8	6641.2	6611.5
45°	8285.6	8139.0	8028.1	7889.4	7717.0	7558.5	7392.1	7316.8	7184.0	7102.8	7011.7
47.5°	9486.3	9341.6	9171.3	9028.6	8802.7	8582.8	8355.0	8154.9	7923.1	7738.8	7588.2
50°	10789.9	10704.7	10581.9	10449.2	10157.9	10013.3	9726.0	9454.6	9204.9	8876.0	8588.8
52.5°	12127.3	12176.8	12149.1	12101.5	11917.3	11861.8	11614.1	11283.3	11031.7	10805.8	10306.5
55°	13775.7	13835.1	13954.0	14023.4	14001.6	14142.2	14080.8	13823.2	13722.2	13617.2	13262.6
57.5°	16297.8	16721.8	17175.5	17573.8	17666.9	18166.2	18059.2	18316.7	18499.0	18368.3	18253.3
60°	18986.4	19842.3	20613.0	21419.4	22075.2	22566.5	23216.4	23654.3	23929.7	24425.0	24464.6
62.5°	20070.2	21233.2	22211.9	23147.1	23925.7	24607.2	25193.7	25798.0	26293.3	26741.1	27064.0
65°	19475.8	20690.3	21877.1	22826.1	23575.0	24161.5	24799.4	25278.9	25766.3	26053.6	26392.4
67.5°	16190.9	17799.6	19259.8	20329.7	21354.0	21950.4	22705.2	23176.8	23693.9	23997.0	24215.0
70°	10556.2	12650.3	14645.5	16268.1	17651.0	18346.5	19257.8	19901.8	20523.9	20539.7	20902.3
72.5°	5696.1	7447.6	9117.8	10776.1	12353.2	13278.4	14177.9	14960.5	15578.6	15315.1	15675.7
75°	3172.0	3992.2	4905.6	5902.2	6863.1	7392.1	8063.7	8067.7	8386.7	7885.4	8012.2
77.5°	3051.1	3013.5	3027.4	3055.1	3102.7	3001.6	2999.6	2938.2	2843.1	2670.7	2700.5
80°	4008.1	3528.6	3183.9	2643.0	2127.9	1735.6	1626.6	1652.4	1729.6	1884.2	2080.3
82.5°	5795.2	5391.0	4812.5	3960.5	3108.6	2397.3	1969.4	1747.5	1737.6	1892.1	2189.3
85°	4220.1	4463.8	4426.1	3695.0	3047.2	2474.6	1801.0	1521.6	1260.1	1198.7	1303.7
87.5°	622.1	515.1	580.5	485.4	352.7	273.4	239.7	192.2	184.3	188.2	206.1
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°	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2904.5	2896.6	2888.7	2894.6	2888.7	2886.7	2880.8	2876.8	2874.8	2874.8	2874.8
5°	2993.7	2983.8	2977.8	2975.9	2969.9	2964.0	2962.0	2952.1	2950.1	2950.1	2944.2
7.5°	3114.5	3106.6	3096.7	3090.8	3086.8	3076.9	3067.0	3065.0	3063.0	3055.1	3049.2
10°	3255.2	3243.3	3231.4	3231.4	3223.5	3221.5	3211.6	3197.8	3195.8	3183.9	3179.9
12.5°	3388.0	3384.0	3370.1	3366.2	3360.2	3354.3	3348.3	3342.4	3336.4	3326.5	3330.5
15°	3546.5	3536.5	3524.7	3526.6	3524.7	3516.7	3508.8	3502.9	3498.9	3494.9	3494.9
17.5°	3736.7	3732.7	3730.7	3720.8	3712.9	3718.8	3718.8	3718.8	3708.9	3710.9	3712.9
20°	3978.4	3982.3	3978.4	3970.4	3968.5	3974.4	3960.5	3982.3	3970.4	3962.5	3966.5
22.5°	4245.8	4259.7	4243.9	4245.8	4255.7	4259.7	4245.8	4263.7	4257.7	4245.8	4255.7
25°	4537.1	4547.0	4539.1	4537.1	4543.0	4556.9	4554.9	4552.9	4566.8	4554.9	4560.9
27.5°	4836.3	4842.2	4846.2	4852.1	4856.1	4854.1	4862.0	4862.0	4869.9	4856.1	4862.0
30°	5133.4	5133.4	5141.4	5149.3	5149.3	5149.3	5165.1	5167.1	5155.2	5159.2	5145.3
32.5°	5450.4	5452.4	5460.4	5460.4	5476.2	5478.2	5496.0	5472.2	5496.0	5476.2	5480.2
35°	5822.9	5848.7	5852.6	5872.5	5888.3	5894.2	5894.2	5896.2	5918.0	5902.2	5908.1
37.5°	6040.9	6046.8	6062.7	6072.6	6072.6	6080.5	6086.4	6080.5	6086.4	6084.4	6090.4
40°	6298.4	6292.5	6310.3	6314.3	6306.4	6316.3	6314.3	6308.3	6324.2	6312.3	6320.2
42.5°	6611.5	6577.8	6575.8	6591.7	6575.8	6583.7	6581.7	6567.9	6587.7	6593.6	6587.7
45°	6946.3	6928.5	6892.8	6892.8	6877.0	6871.0	6873.0	6871.0	6873.0	6896.8	6904.7
47.5°	7491.1	7382.2	7320.8	7263.3	7215.7	7213.8	7192.0	7203.9	7219.7	7259.3	7295.0
50°	8404.5	8152.9	7998.3	7855.7	7752.7	7717.0	7675.4	7671.4	7685.3	7730.9	7792.3
52.5°	10033.1	9684.4	9355.5	9050.4	8784.9	8580.8	8479.8	8426.3	8406.5	8452.1	8511.5
55°	13012.9	12355.1	11891.5	11582.4	10922.7	10643.3	10284.7	10120.3	9959.8	9975.6	10076.7
57.5°	18104.8	17750.1	17361.8	16820.9	16416.7	15929.3	15033.8	14534.5	14556.3	14673.2	14308.7
60°	24777.6	24419.0	24258.5	23767.2	23485.9	23289.7	22814.2	21986.0	21692.8	21637.3	20967.7
62.5°	27311.7	27396.9	27523.7	27662.3	27654.4	27739.6	27323.6	27054.1	26715.3	26275.5	25613.7
65°	26649.9	26865.9	27123.4	27495.9	27919.9	28233.0	28496.5	28464.8	28147.8	27561.3	26861.9
67.5°	24409.1	24623.1	24811.3	25310.6	26006.0	26642.0	27204.7	27587.1	27375.1	26889.7	26073.4
70°	21041.0	21195.5	21314.4	21748.3	22511.1	23287.7	24022.8	24664.7	24599.3	24010.9	23359.1
72.5°	15245.8	15620.3	15822.3	15792.6	16264.2	17133.9	17237.0	17785.8	17938.3	17304.3	16266.1
75°	7427.7	7433.7	7199.9	7122.6	7146.4	7297.0	7009.7	7027.5	6928.5	6478.7	6108.2
77.5°	2595.5	2524.1	2353.7	2151.6	1862.4	1591.0	1315.6	1196.7	1157.1	1040.2	958.9
80°	2236.8	2341.8	2308.2	2141.7	1836.6	1464.2	1093.7	810.3	691.5	649.9	610.2
82.5°	2540.0	2944.2	3201.7	3187.8	2769.8	2080.3	1297.7	745.0	531.0	465.6	428.0
85°	1416.6	1523.6	1553.3	1414.6	1174.9	802.4	447.8	315.0	267.5	243.7	219.9
87.5°	225.9	206.1	202.1	176.3	166.4	152.6	134.7	126.8	116.9	111.0	111.0
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: P159405

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

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2872.8	2870.8	2864.9	2859.0	2855.0	2853.0	2851.0	2847.1	2845.1	2843.1	2839.1
5°	2940.2	2936.2	2926.3	2916.4	2912.5	2906.5	2900.6	2896.6	2892.6	2890.7	2882.7
7.5°	3045.2	3041.2	3029.3	3021.4	3019.4	3003.6	3001.6	2995.7	2985.8	2983.8	2971.9
10°	3172.0	3170.0	3160.1	3154.2	3150.2	3142.3	3130.4	3120.5	3110.6	3110.6	3102.7
12.5°	3318.6	3310.7	3316.6	3302.8	3298.8	3290.9	3284.9	3282.9	3271.1	3261.2	3259.2
15°	3491.0	3481.1	3481.1	3477.1	3473.1	3465.2	3463.2	3465.2	3453.3	3457.3	3445.4
17.5°	3705.0	3708.9	3706.9	3706.9	3697.0	3697.0	3681.2	3701.0	3687.1	3697.0	3693.1
20°	3972.4	3974.4	3970.4	3976.4	3980.4	3978.4	3976.4	3974.4	3980.4	3988.3	3982.3
22.5°	4257.7	4257.7	4255.7	4277.5	4253.8	4271.6	4277.5	4265.7	4297.4	4293.4	4299.3
25°	4566.8	4566.8	4582.7	4600.5	4604.4	4590.6	4598.5	4588.6	4608.4	4624.3	4628.2
27.5°	4854.1	4879.8	4891.7	4879.8	4889.7	4911.5	4909.6	4909.6	4923.4	4919.5	4957.1
30°	5149.3	5165.1	5181.0	5173.1	5177.0	5204.8	5206.8	5208.7	5226.6	5252.3	5280.1
32.5°	5486.1	5502.0	5494.0	5519.8	5517.8	5551.5	5557.4	5563.4	5618.9	5608.9	5666.4
35°	5900.2	5916.0	5908.1	5935.9	5931.9	5943.8	5965.6	5989.3	5999.3	6056.7	6102.3
37.5°	6094.4	6094.4	6112.2	6143.9	6155.8	6175.6	6209.3	6239.0	6288.5	6349.9	6421.3
40°	6328.1	6334.1	6357.9	6391.5	6413.3	6458.9	6520.3	6561.9	6637.2	6704.6	6787.8
42.5°	6611.5	6637.2	6665.0	6710.5	6758.1	6829.4	6916.6	6970.1	7069.1	7156.3	7259.3
45°	6942.3	6968.1	7033.5	7116.7	7186.0	7265.3	7336.6	7463.4	7552.6	7643.7	7732.9
47.5°	7342.5	7417.8	7471.3	7570.4	7655.6	7760.6	7849.8	7968.6	8065.7	8176.7	8251.9
50°	7855.7	7948.8	8018.2	8146.9	8230.2	8347.0	8460.0	8549.1	8648.2	8757.2	8818.6
52.5°	8592.7	8687.8	8775.0	8935.5	9038.5	9117.8	9268.3	9379.3	9470.4	9549.7	9617.0
55°	10189.6	10161.9	10403.6	10714.7	10750.3	11037.6	11091.1	11184.2	11352.6	11376.4	11564.6
57.5°	14752.5	14609.8	14960.5	15416.2	15336.9	15192.3	15796.6	15834.2	15749.0	15976.9	15719.3
60°	21066.7	20817.1	20912.2	21037.0	20856.7	20771.5	20801.2	20886.4	20803.2	20712.1	20462.5
62.5°	25282.9	24898.5	24623.1	24391.3	24098.1	23886.1	23648.3	23355.1	23275.8	22943.0	22663.6
65°	26182.3	25584.0	25148.1	24710.3	24306.1	23931.6	23573.0	23321.4	22988.6	22594.3	22303.0
67.5°	25193.7	24452.7	23814.7	23178.8	22721.1	22170.3	21900.8	21490.7	21080.6	20628.9	20361.4
70°	22320.9	21548.2	20745.8	20123.7	19501.5	18820.0	18687.2	18201.8	17966.1	17349.9	17242.9
72.5°	15406.3	14891.1	14532.5	13763.8	13385.4	13036.7	12925.7	12476.0	12523.5	11847.9	12093.6
75°	5478.2	5404.9	5299.9	4866.0	4788.7	4654.0	4618.3	4586.6	4907.6	4461.8	4784.7
77.5°	941.1	935.2	881.7	855.9	905.4	873.7	881.7	865.8	958.9	972.8	951.0
80°	584.5	568.6	550.8	538.9	540.9	529.0	531.0	534.9	540.9	538.9	544.8
82.5°	400.2	386.3	378.4	370.5	382.4	386.3	396.3	406.2	422.0	431.9	443.8
85°	217.9	200.1	200.1	198.1	214.0	225.9	241.7	261.5	289.3	313.0	338.8
87.5°	111.0	107.0	109.0	112.9	126.8	136.7	156.5	174.4	198.1	223.9	247.7
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: P159405

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

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2837.2	2837.2	2835.2	2835.2	2833.2	2831.2	2829.2	2823.3	2801.5	2781.7	2767.8
5°	2880.8	2874.8	2872.8	2866.9	2864.9	2860.9	2855.0	2849.1	2809.4	2773.8	2748.0
7.5°	2969.9	2962.0	2958.0	2952.1	2946.1	2938.2	2930.3	2924.3	2876.8	2835.2	2803.5
10°	3086.8	3082.8	3080.9	3072.9	3072.9	3061.0	3059.1	3045.2	2993.7	2956.0	2928.3
12.5°	3249.3	3241.3	3239.4	3229.5	3233.4	3229.5	3225.5	3217.6	3179.9	3136.3	3098.7
15°	3451.4	3451.4	3441.4	3433.5	3435.5	3431.5	3439.5	3429.6	3405.8	3366.2	3304.7
17.5°	3695.0	3691.1	3695.0	3689.1	3693.1	3697.0	3687.1	3689.1	3677.2	3627.7	3536.5
20°	3978.4	3972.4	3996.2	3986.3	4008.1	3988.3	3992.2	3998.2	3998.2	3932.8	3810.0
22.5°	4303.3	4299.3	4299.3	4319.1	4327.1	4329.1	4337.0	4342.9	4358.8	4275.6	4079.4
25°	4628.2	4642.1	4644.1	4669.8	4681.7	4681.7	4687.7	4709.5	4757.0	4642.1	4388.5
27.5°	4959.1	4992.8	5000.7	5018.5	5036.4	5054.2	5068.1	5083.9	5161.2	5036.4	4705.5
30°	5290.0	5327.6	5355.3	5375.2	5397.0	5440.5	5448.5	5480.2	5608.9	5456.4	5006.6
32.5°	5678.3	5731.8	5767.4	5793.2	5826.9	5868.5	5892.3	5931.9	6056.7	5807.1	5226.6
35°	6141.9	6173.6	6225.1	6268.7	6288.5	6359.8	6397.5	6407.4	6502.5	6110.2	5389.0
37.5°	6462.9	6516.4	6605.5	6666.9	6702.6	6742.2	6805.6	6847.2	6938.4	6385.6	5470.3
40°	6871.0	6952.2	7023.6	7114.7	7172.2	7201.9	7265.3	7299.0	7310.8	6621.4	5444.5
42.5°	7368.3	7441.6	7536.7	7610.0	7653.6	7687.3	7738.8	7752.7	7598.1	6732.3	5305.8
45°	7835.9	7948.8	8030.0	8083.5	8115.2	8133.1	8164.8	8166.8	7835.9	6676.8	5068.1
47.5°	8339.1	8420.4	8495.6	8533.3	8529.3	8533.3	8521.4	8513.5	7954.8	6484.7	4762.9
50°	8895.9	8949.4	8981.1	8998.9	9008.8	8971.1	8917.7	8882.0	7964.7	6211.2	4453.9
52.5°	9642.8	9710.2	9704.2	9702.2	9623.0	9587.3	9444.7	9371.4	7907.2	5890.3	4105.2
55°	11534.9	11469.5	11340.7	11404.1	11081.2	10912.8	10690.9	10484.8	7982.5	5585.2	3701.0
57.5°	15822.3	15848.1	15481.6	15285.4	14740.6	14059.0	13510.2	12977.3	8660.1	5398.9	3174.0
60°	20296.0	19959.2	19493.6	18784.3	18083.0	17070.5	16093.8	15170.5	9335.7	5204.8	2549.9
62.5°	22249.5	21770.1	21066.7	20149.4	19047.8	17809.5	16593.1	15467.7	9008.8	4576.7	1854.5
65°	21853.3	21120.2	20343.6	19269.7	17930.4	16573.2	15152.7	14003.5	7536.7	3413.7	1143.2
67.5°	19780.9	19158.8	18338.5	17064.6	15632.1	14219.5	12917.8	11630.0	5599.0	2127.9	639.9
70°	16696.1	16087.8	15255.7	13952.0	12521.6	11170.3	9791.4	8741.3	3568.2	1026.3	461.6
72.5°	11582.4	11089.1	10500.7	9571.5	8317.3	7088.9	6155.8	5349.4	1977.3	544.8	422.0
75°	4703.5	4705.5	4598.5	4206.2	3554.4	3065.0	2613.3	2217.0	826.2	463.6	416.1
77.5°	1065.9	1083.7	1184.8	1123.4	1012.4	947.0	848.0	748.9	503.2	477.5	420.0
80°	538.9	540.9	534.9	536.9	531.0	533.0	525.0	519.1	471.5	491.4	420.0
82.5°	449.7	459.7	457.7	457.7	459.7	459.7	459.7	457.7	489.4	517.1	406.2
85°	356.6	376.4	392.3	408.1	426.0	437.9	443.8	449.7	475.5	509.2	368.5
87.5°	269.5	293.2	313.0	328.9	356.6	356.6	376.4	390.3	390.3	398.2	194.2
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: P159405

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

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2845.1	2845.1	2845.1	2845.1	2845.1
2.5°	2748.0	2740.1	2732.2	2728.2	2720.3
5°	2728.2	2712.3	2702.4	2702.4	2694.5
7.5°	2785.7	2779.7	2765.8	2757.9	2765.8
10°	2908.5	2898.6	2882.7	2870.8	2876.8
12.5°	3072.9	3033.3	3001.6	2987.7	2977.8
15°	3243.3	3164.1	3100.7	3065.0	3055.1
17.5°	3425.6	3286.9	3191.8	3138.3	3128.4
20°	3611.8	3439.5	3304.7	3235.4	3233.4
22.5°	3835.7	3605.9	3433.5	3342.4	3336.4
25°	4071.5	3754.5	3526.6	3409.7	3397.9
27.5°	4275.6	3873.4	3584.1	3445.4	3433.5
30°	4445.9	3962.5	3631.6	3471.2	3455.3
32.5°	4568.8	4014.0	3651.5	3479.1	3461.3
35°	4608.4	3994.2	3596.0	3407.8	3388.0
37.5°	4554.9	3865.4	3441.4	3233.4	3209.6
40°	4394.4	3639.6	3189.8	2975.9	2946.1
42.5°	4148.8	3362.2	2886.7	2682.6	2645.0
45°	3845.6	3049.2	2585.5	2357.7	2339.9
47.5°	3528.6	2720.3	2246.7	2040.7	2018.9
50°	3185.9	2339.9	1915.9	1692.0	1692.0
52.5°	2777.7	1969.4	1531.5	1363.1	1349.2
55°	2308.2	1551.3	1220.5	1091.7	1073.8
57.5°	1802.9	1192.7	974.8	899.5	879.7
60°	1325.5	895.5	784.6	743.0	735.0
62.5°	899.5	681.6	632.0	614.2	612.2
65°	608.2	531.0	517.1	511.2	513.1
67.5°	467.6	441.8	435.9	433.9	433.9
70°	406.2	390.3	384.4	386.3	384.4
72.5°	382.4	360.6	362.6	366.5	364.6
75°	374.5	346.7	354.6	356.6	348.7
77.5°	368.5	330.9	350.7	356.6	334.8
80°	356.6	317.0	364.6	366.5	328.9
82.5°	326.9	281.3	364.6	336.8	297.2
85°	277.4	214.0	412.1	293.2	219.9
87.5°	176.3	126.8	279.4	200.1	132.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)