

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: P158743

Luminaire Tested: **VST-F12-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158743
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
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-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24254.2 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B3 - 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

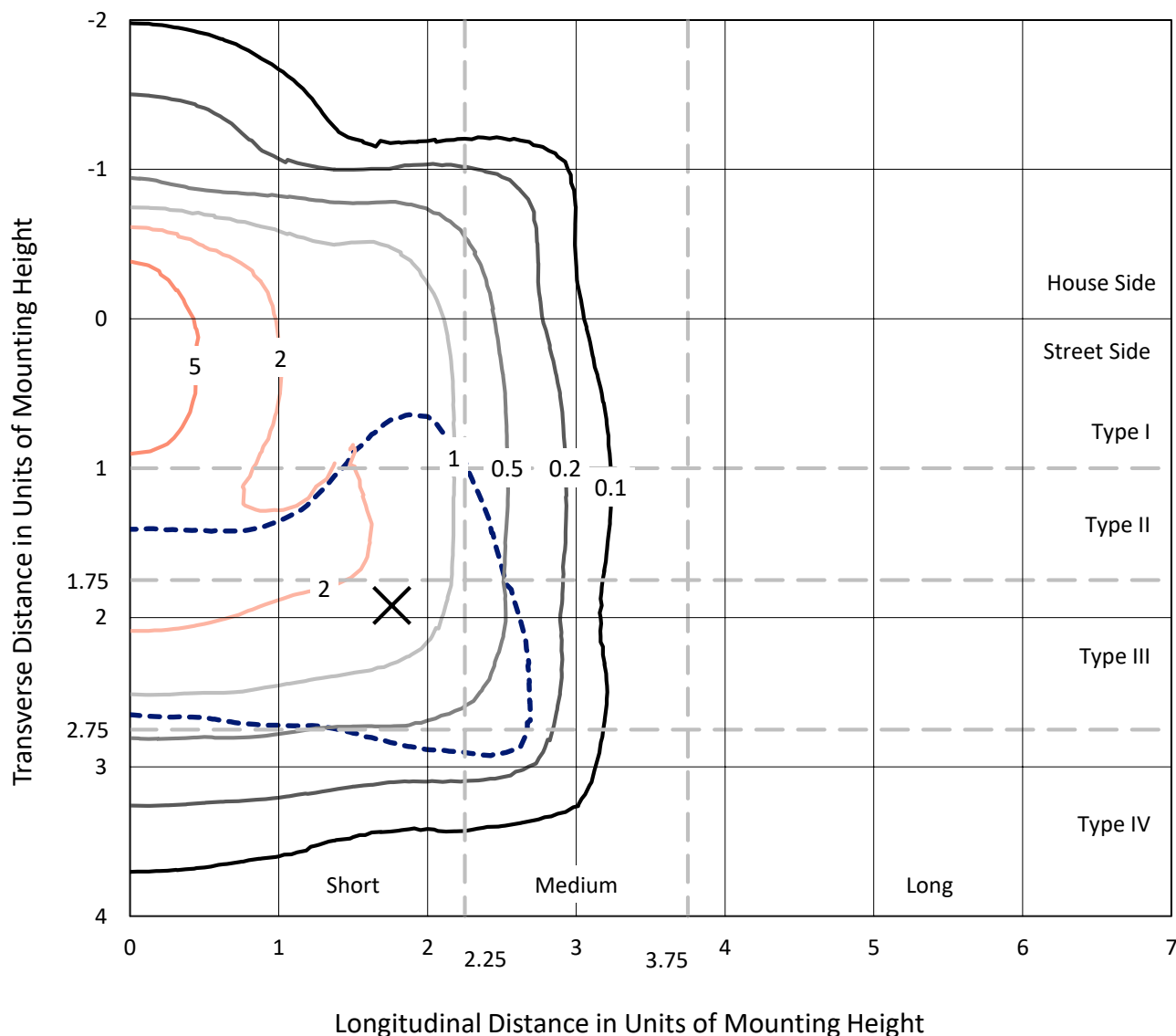


REPORT NUMBER: P158743

CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

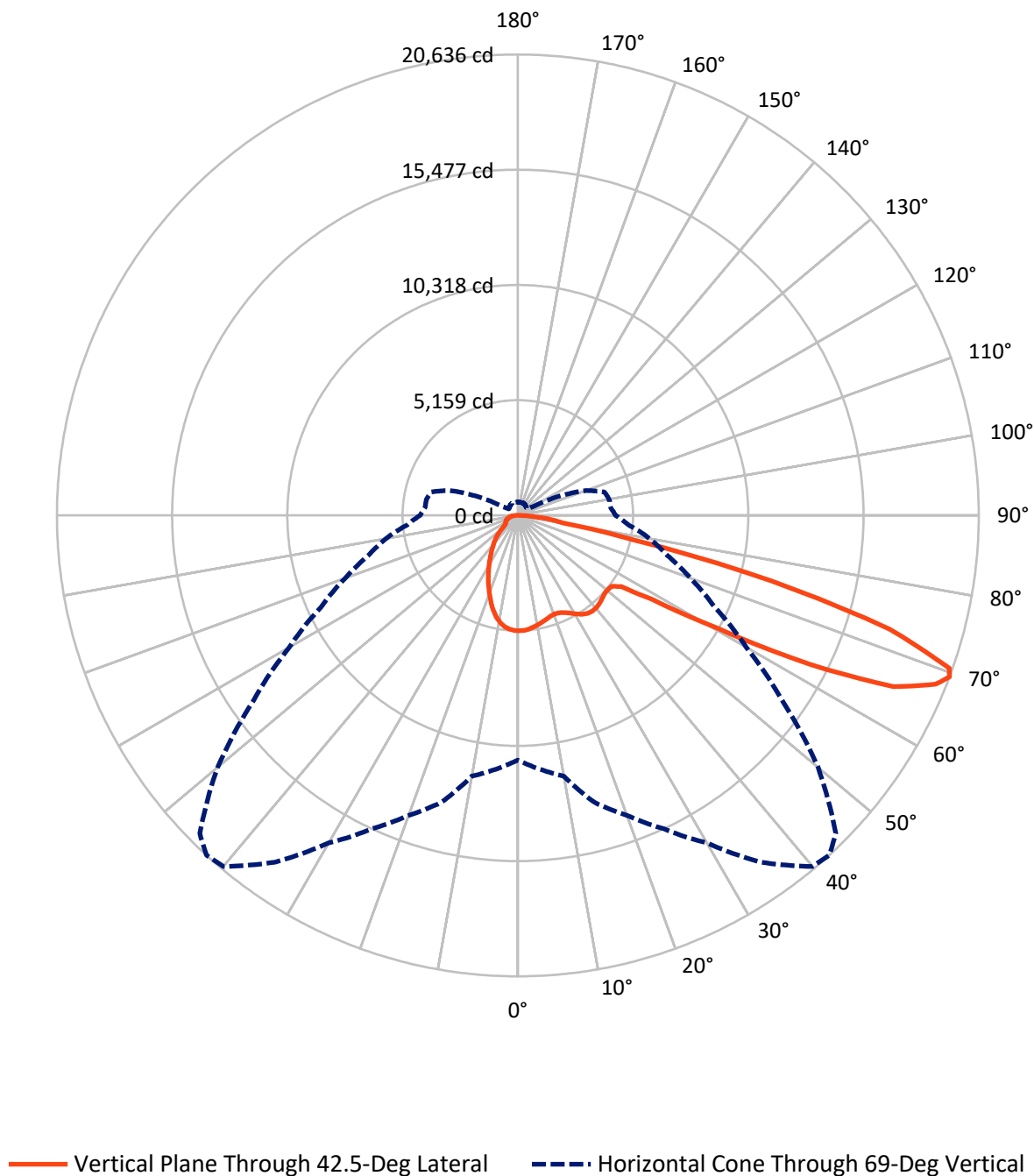


Based on 25 foot mounting height. Maximum calculated value = 8.3 fc
 Type IV - Short - Full Cutoff

REPORT NUMBER: P158743

CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5392.1	0.0	5392.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	18862.1	0.0	18862.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	24254.2	0.0	24254.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	480.8	2.0
10°-20°	1295.9	5.3
20°-30°	1889.7	7.8
30°-40°	2409.0	9.9
40°-50°	2802.9	11.6
50°-60°	4264.6	17.6
60°-70°	7533.3	31.1
70°-80°	3108.7	12.8
80°-90°	469.4	1.9
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°	24254.2	100.0
0°-180°	24254.2	100.0

Coefficient of Utilization



REPORT NUMBER: P158743

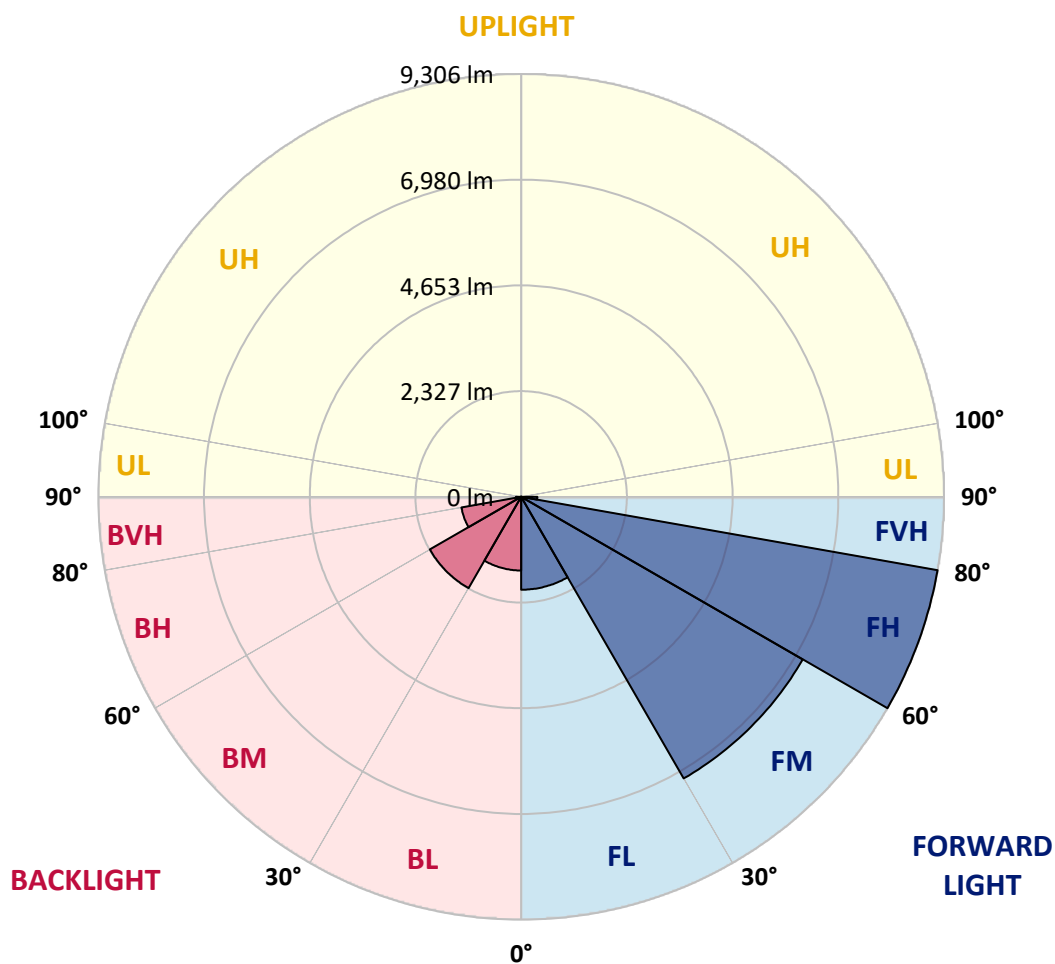
CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2045.2	8.4			
FM	(30°-60°)	7155.6	29.5			
FH	(60°-80°)	9306.3	38.4			G4/12000
FVH	(80°-90°)	355.0	1.5			G3/500
BL	(0°-30°)	1621.2	6.7	B3/2500		
BM	(30°-60°)	2320.9	9.6	B2/2500		
BH	(60°-80°)	1335.6	5.5	B3/2500		G3/2500
BVH	(80°-90°)	114.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P158743

CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3
2.5°	5148.6	5167.0	5160.3	5160.3	5165.3	5157.0	5157.0	5160.3	5151.9	5157.0	5155.3
5°	5130.2	5140.2	5136.9	5136.9	5136.9	5130.2	5126.9	5125.2	5113.5	5113.5	5108.5
7.5°	5090.1	5093.4	5098.4	5091.7	5090.1	5088.4	5076.7	5070.0	5056.6	5044.9	5048.3
10°	5036.6	5034.9	5043.3	5038.2	5031.5	5026.5	5016.5	5004.8	4989.7	4974.7	4973.0
12.5°	4976.4	4974.7	4981.4	4978.0	4973.0	4963.0	4954.6	4934.6	4911.1	4892.8	4891.1
15°	4937.9	4932.9	4939.6	4932.9	4924.5	4914.5	4899.4	4874.4	4832.6	4814.2	4799.1
17.5°	4974.7	4966.3	4969.7	4961.3	4949.6	4922.9	4887.7	4834.2	4774.0	4742.3	4718.9
20°	5103.4	5088.4	5091.7	5083.4	5056.6	5021.5	4954.6	4861.0	4759.0	4707.1	4670.4
22.5°	5287.4	5275.7	5280.7	5272.3	5245.6	5192.1	5091.7	4958.0	4812.5	4737.2	4678.7
25°	5566.6	5576.7	5580.0	5541.6	5526.5	5427.8	5289.1	5103.4	4909.5	4820.9	4740.6
27.5°	5881.0	5881.0	5896.1	5881.0	5850.9	5735.5	5539.9	5315.8	5066.7	4946.3	4849.3
30°	6187.0	6183.7	6212.1	6208.7	6160.3	6029.8	5807.4	5534.9	5250.6	5115.2	4991.4
32.5°	6511.4	6521.4	6539.8	6533.1	6469.6	6289.0	6021.5	5725.5	5426.2	5277.4	5138.6
35°	6862.6	6867.6	6874.3	6870.9	6742.2	6514.8	6178.7	5847.6	5536.5	5389.4	5245.6
37.5°	7213.7	7208.7	7200.3	7128.4	6981.3	6665.3	6274.0	5917.8	5591.7	5432.9	5284.0
40°	7528.1	7499.7	7472.9	7360.9	7135.1	6750.5	6310.8	5934.5	5586.7	5422.8	5277.4
42.5°	7700.3	7668.6	7613.4	7472.9	7198.7	6758.9	6285.7	5884.3	5534.9	5372.7	5228.9
45°	7732.1	7708.7	7655.2	7498.0	7183.6	6705.4	6208.7	5802.4	5457.9	5295.7	5160.3
47.5°	7656.8	7638.5	7586.6	7431.1	7118.4	6625.1	6120.1	5715.5	5382.7	5230.5	5100.1
50°	7541.5	7524.7	7484.6	7342.5	7044.8	6569.9	6075.0	5670.3	5357.6	5218.8	5098.4
52.5°	7728.7	7742.1	7625.1	7469.6	7123.4	6618.4	6125.1	5717.1	5402.8	5265.6	5140.2
55°	10640.0	10621.6	9917.6	9327.3	8272.2	7315.7	6601.7	6088.4	5752.2	5615.1	5498.1
57.5°	13825.5	13761.9	13472.6	12920.8	11787.1	10273.8	8897.6	7727.1	7265.6	7068.2	7081.6
60°	14865.5	14889.0	14827.1	14631.4	14225.1	13437.5	12390.7	11511.2	10645.0	10221.9	10270.4
62.5°	15442.4	15484.3	15537.8	15494.3	15362.2	15179.9	15047.8	15128.1	15007.7	14703.3	14460.9
65°	15522.7	15608.0	15785.2	15925.7	15994.3	16166.5	16571.2	17541.0	18427.3	18485.8	18059.4
67.5°	13934.2	14169.9	14554.5	15205.0	15761.8	16373.8	17350.4	18825.2	20132.9	20176.3	19778.4
69°	10956.0	11409.2	11859.0	13312.1	14290.3	15489.3	16934.0	18949.0	20515.8	20636.2	20134.5
70°	8778.9	9048.1	9436.0	10895.8	12357.3	13885.7	15979.2	18541.0	20253.3	20495.7	19942.2
72.5°	5270.7	5374.3	5508.1	6031.5	6784.0	8145.1	10920.9	15116.4	17084.5	17408.9	16704.9
75°	3407.9	3401.2	3412.9	3558.4	3601.8	3862.7	4737.2	7777.2	11145.0	11733.6	10890.8
77.5°	2566.8	2590.2	2553.4	2566.8	2555.1	2625.3	2652.1	2784.2	4399.5	5419.5	4845.9
80°	2265.8	2277.5	2279.2	2272.5	2190.5	2183.8	2227.3	2152.1	1999.9	2030.0	1944.7
82.5°	1292.6	1290.9	1306.0	1419.7	1466.5	1620.3	1683.9	1719.0	1586.9	1488.2	1346.1
85°	837.8	844.4	861.2	896.3	861.2	874.5	859.5	889.6	816.0	757.5	677.2
87.5°	342.8	342.8	364.5	396.3	369.5	362.9	311.0	307.7	260.9	235.8	183.9
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: P158743

CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3
2.5°	5145.3	5155.3	5150.3	5157.0	5151.9	5151.9	5145.3	5143.6	5148.6	5141.9	5143.6
5°	5100.1	5101.8	5093.4	5096.8	5086.7	5083.4	5078.4	5065.0	5073.3	5065.0	5068.3
7.5°	5034.9	5029.9	5018.2	5001.4	4989.7	4984.7	4974.7	4956.3	4959.6	4944.6	4953.0
10°	4951.3	4934.6	4914.5	4889.4	4872.7	4857.6	4835.9	4814.2	4802.5	4789.1	4787.4
12.5°	4857.6	4837.6	4810.8	4772.4	4735.6	4710.5	4677.0	4638.6	4626.9	4605.1	4593.4
15°	4755.6	4723.9	4692.1	4648.6	4608.5	4570.0	4524.9	4476.4	4444.6	4411.2	4386.1
17.5°	4663.7	4626.9	4585.1	4543.3	4499.8	4453.0	4396.1	4335.9	4289.1	4227.2	4177.1
20°	4591.8	4544.9	4503.1	4459.7	4411.2	4354.3	4285.8	4208.8	4130.2	4061.7	4003.2
22.5°	4563.3	4489.8	4439.6	4396.1	4347.6	4280.7	4197.1	4106.8	4011.5	3916.2	3839.3
25°	4586.7	4478.1	4399.5	4347.6	4305.8	4237.3	4143.6	4033.3	3922.9	3809.2	3705.5
27.5°	4655.3	4516.5	4402.8	4320.9	4272.4	4203.8	4105.2	3988.1	3857.7	3730.6	3603.5
30°	4762.3	4581.7	4437.9	4322.5	4247.3	4168.7	4065.0	3929.6	3797.5	3652.0	3513.2
32.5°	4866.0	4650.3	4478.1	4329.2	4213.9	4111.9	3996.5	3862.7	3720.6	3568.4	3424.6
35°	4939.6	4695.4	4493.1	4314.2	4162.0	4034.9	3911.2	3777.4	3638.6	3483.1	3336.0
37.5°	4974.7	4720.5	4494.8	4274.1	4093.5	3953.0	3820.9	3688.8	3558.4	3411.2	3272.4
40°	4973.0	4718.9	4471.4	4222.2	4011.5	3862.7	3732.3	3603.5	3481.4	3352.7	3227.3
42.5°	4936.2	4692.1	4437.9	4172.1	3953.0	3787.5	3652.0	3528.3	3424.6	3310.9	3205.5
45°	4879.4	4646.9	4402.8	4148.6	3936.3	3770.7	3626.9	3506.5	3414.6	3310.9	3220.6
47.5°	4835.9	4621.9	4407.8	4190.4	3988.1	3815.9	3663.7	3531.6	3453.0	3369.4	3305.9
50°	4842.6	4633.6	4424.5	4215.5	4024.9	3851.0	3703.8	3583.5	3526.6	3504.9	3489.8
52.5°	4877.7	4652.0	4474.7	4349.3	4284.1	4153.7	4066.7	3991.5	4033.3	3951.3	3854.3
55°	5325.8	5252.3	5424.5	5586.7	5792.4	5869.3	5795.7	5782.3	5849.2	5571.7	4934.6
57.5°	7176.9	7367.6	7633.4	7773.9	7944.5	7899.3	7728.7	7586.6	7419.4	7095.0	6300.7
60°	10325.6	10181.8	10061.4	9722.0	9444.4	9120.0	8758.8	8449.5	8153.5	7686.9	6827.5
62.5°	13569.6	12571.3	11736.9	10930.9	10282.1	9743.7	9220.3	8755.5	8307.3	7656.8	6732.1
65°	16375.5	14273.6	12706.8	11524.6	10576.4	9758.8	9086.5	8444.4	7874.2	7111.7	6197.0
67.5°	17636.3	15002.7	12723.5	11029.6	9717.0	8606.6	7737.1	6767.3	6128.5	5640.2	5125.2
69°	17542.7	14445.8	11815.5	9730.3	8222.0	6927.8	5994.7	4983.1	4371.0	4163.7	4152.0
70°	17097.9	13502.7	10755.4	8675.2	6949.5	5663.6	4769.0	3861.0	3290.8	3148.7	3401.2
72.5°	13959.2	9541.4	6740.5	5146.9	3958.0	3128.6	2551.7	2025.0	1617.0	1401.3	1448.1
75°	7884.3	4417.9	2856.1	2158.8	1824.3	1508.3	1294.3	1103.6	998.3	811.0	642.1
77.5°	2866.1	1896.2	1508.3	1304.3	924.7	637.1	533.4	466.5	423.1	423.1	403.0
80°	1812.6	1428.0	996.6	682.2	505.0	439.8	384.6	337.8	311.0	304.3	311.0
82.5°	1132.1	874.5	558.5	428.1	359.5	322.7	280.9	245.8	224.1	219.1	229.1
85°	558.5	433.1	339.4	302.7	284.3	264.2	232.4	199.0	192.3	205.7	240.8
87.5°	167.2	148.8	122.1	127.1	133.8	130.4	103.7	90.3	85.3	112.0	175.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3	5165.3
2.5°	5146.9	5145.3	5148.6	5143.6	5146.9	5148.6	5145.3	5160.3	5150.3	5151.9	5158.6
5°	5071.7	5068.3	5081.7	5078.4	5085.1	5091.7	5088.4	5110.1	5101.8	5108.5	5121.8
7.5°	4946.3	4953.0	4954.6	4954.6	4968.0	4989.7	4994.8	5008.1	5008.1	5026.5	5039.9
10°	4779.0	4780.7	4790.8	4789.1	4805.8	4829.2	4832.6	4856.0	4864.3	4894.4	4912.8
12.5°	4585.1	4576.7	4575.0	4573.4	4595.1	4620.2	4623.5	4663.7	4680.4	4707.1	4737.2
15°	4367.7	4346.0	4339.3	4352.6	4347.6	4362.7	4377.7	4399.5	4422.9	4476.4	4503.1
17.5°	4155.3	4111.9	4100.1	4085.1	4070.1	4070.1	4076.7	4103.5	4152.0	4180.4	4240.6
20°	3937.9	3886.1	3844.3	3804.2	3769.1	3755.7	3757.4	3790.8	3825.9	3872.7	3929.6
22.5°	3755.7	3677.1	3605.2	3551.7	3479.8	3478.1	3468.1	3478.1	3516.6	3528.3	3560.0
25°	3598.5	3493.2	3396.2	3309.2	3239.0	3202.2	3192.2	3188.8	3170.4	3165.4	3142.0
27.5°	3476.4	3349.3	3223.9	3118.6	3031.6	2981.5	2917.9	2872.8	2807.6	2790.8	2749.0
30°	3376.1	3239.0	3101.9	2964.7	2866.1	2775.8	2668.8	2590.2	2489.9	2424.6	2367.8
32.5°	3279.1	3140.3	3001.5	2866.1	2713.9	2573.5	2433.0	2310.9	2198.9	2098.6	2015.0
35°	3198.9	3066.8	2926.3	2762.4	2568.4	2366.1	2197.2	2058.4	1904.6	1799.2	1693.9
37.5°	3147.0	3026.6	2886.2	2660.4	2411.3	2193.9	2001.6	1832.7	1675.5	1516.7	1397.9
40°	3123.6	3018.3	2842.7	2566.8	2274.1	2033.4	1821.0	1633.7	1433.0	1254.1	1127.0
42.5°	3121.9	3014.9	2782.5	2463.1	2160.4	1897.9	1662.1	1438.1	1215.7	1031.7	906.3
45°	3152.0	3009.9	2718.9	2376.1	2060.1	1785.9	1504.9	1232.4	983.2	846.1	779.2
47.5°	3232.3	3018.3	2667.1	2295.9	1964.8	1650.4	1324.4	1006.6	801.0	737.4	737.4
50°	3376.1	3066.8	2653.7	2239.0	1869.5	1493.2	1103.6	812.7	709.0	709.0	729.1
52.5°	3596.8	3168.8	2677.1	2198.9	1750.8	1285.9	869.5	700.6	680.6	699.0	725.7
55°	4105.2	3349.3	2708.9	2130.3	1570.2	1020.0	717.4	662.2	670.5	692.3	717.4
57.5°	5038.2	3735.6	2742.4	1979.8	1279.2	785.9	650.5	647.1	662.2	682.2	704.0
60°	5651.9	4227.2	2827.6	1752.4	968.2	648.8	617.0	637.1	655.5	672.2	688.9
62.5°	5651.9	4366.0	2891.2	1498.3	727.4	590.3	595.3	627.1	648.8	657.2	667.2
65°	5290.7	4111.9	2675.5	1220.7	591.9	556.8	575.2	607.0	627.1	633.8	642.1
67.5°	4623.5	3631.9	2254.1	919.7	528.4	528.4	551.8	575.2	591.9	605.3	618.7
69°	4019.9	3259.1	1984.9	779.2	503.3	506.7	530.1	550.1	570.2	586.9	603.7
70°	3585.1	2979.8	1797.6	707.3	488.3	489.9	513.4	535.1	553.5	571.9	591.9
72.5°	1919.6	2058.4	1366.2	580.2	449.8	454.8	476.6	496.6	513.4	531.7	550.1
75°	653.8	884.6	869.5	474.9	406.3	419.7	433.1	451.5	473.2	484.9	495.0
77.5°	382.9	396.3	463.2	386.3	366.2	372.9	387.9	403.0	421.4	433.1	441.5
80°	321.1	319.4	321.1	314.4	319.4	334.4	344.5	364.5	381.3	384.6	382.9
82.5°	260.9	274.2	275.9	272.6	287.6	299.3	307.7	319.4	317.7	321.1	327.7
85°	232.4	230.8	242.5	244.1	244.1	235.8	237.4	237.4	237.4	242.5	244.1
87.5°	232.4	194.0	150.5	135.4	142.1	133.8	127.1	125.4	138.8	152.2	148.8
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: P158743

CATALOG NUMBER: VST-F12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	5165.3	5165.3	5165.3	5165.3	5165.3
2.5°	5162.0	5167.0	5163.6	5163.6	5167.0
5°	5126.9	5135.2	5131.9	5135.2	5135.2
7.5°	5046.6	5058.3	5066.7	5075.0	5070.0
10°	4931.2	4951.3	4964.7	4974.7	4969.7
12.5°	4759.0	4777.4	4805.8	4822.5	4809.1
15°	4523.2	4575.0	4591.8	4615.2	4601.8
17.5°	4277.4	4309.2	4329.2	4351.0	4364.4
20°	3949.7	3974.7	4001.5	4011.5	3996.5
22.5°	3555.0	3568.4	3563.4	3578.4	3548.3
25°	3121.9	3130.3	3125.3	3138.7	3113.6
27.5°	2712.3	2710.6	2712.3	2695.5	2678.8
30°	2317.6	2302.6	2295.9	2270.8	2265.8
32.5°	1964.8	1913.0	1886.2	1849.4	1841.1
35°	1612.0	1538.4	1489.9	1448.1	1429.7
37.5°	1295.9	1207.3	1150.4	1113.7	1108.6
40°	1025.0	943.1	903.0	882.9	879.6
42.5°	836.1	801.0	790.9	790.9	790.9
45°	762.5	760.8	769.2	775.9	777.6
47.5°	747.5	757.5	769.2	779.2	782.6
50°	747.5	757.5	765.9	775.9	779.2
52.5°	744.1	752.5	755.8	762.5	765.9
55°	734.1	739.1	739.1	742.4	745.8
57.5°	717.4	720.7	715.7	719.0	727.4
60°	700.6	704.0	695.6	704.0	709.0
62.5°	682.2	683.9	680.6	687.3	687.3
65°	652.1	648.8	653.8	658.8	660.5
67.5°	622.0	613.7	618.7	620.4	623.7
69°	598.6	593.6	595.3	598.6	602.0
70°	581.9	578.6	581.9	586.9	591.9
72.5°	540.1	541.8	553.5	563.5	573.6
75°	501.6	513.4	528.4	550.1	561.8
77.5°	454.8	463.2	474.9	498.3	520.0
80°	393.0	398.0	399.6	408.0	406.3
82.5°	319.4	314.4	311.0	307.7	306.0
85°	229.1	227.4	214.0	204.0	204.0
87.5°	137.1	130.4	123.7	115.4	110.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)