

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: P158738

Luminaire Tested: **VST-E12-LED-E-U-SL4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158738
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-E12-LED-E-U-SL4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (252) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29380.3 lumens
Efficiency: N/A
Efficacy: 100.7 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): 291.7
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

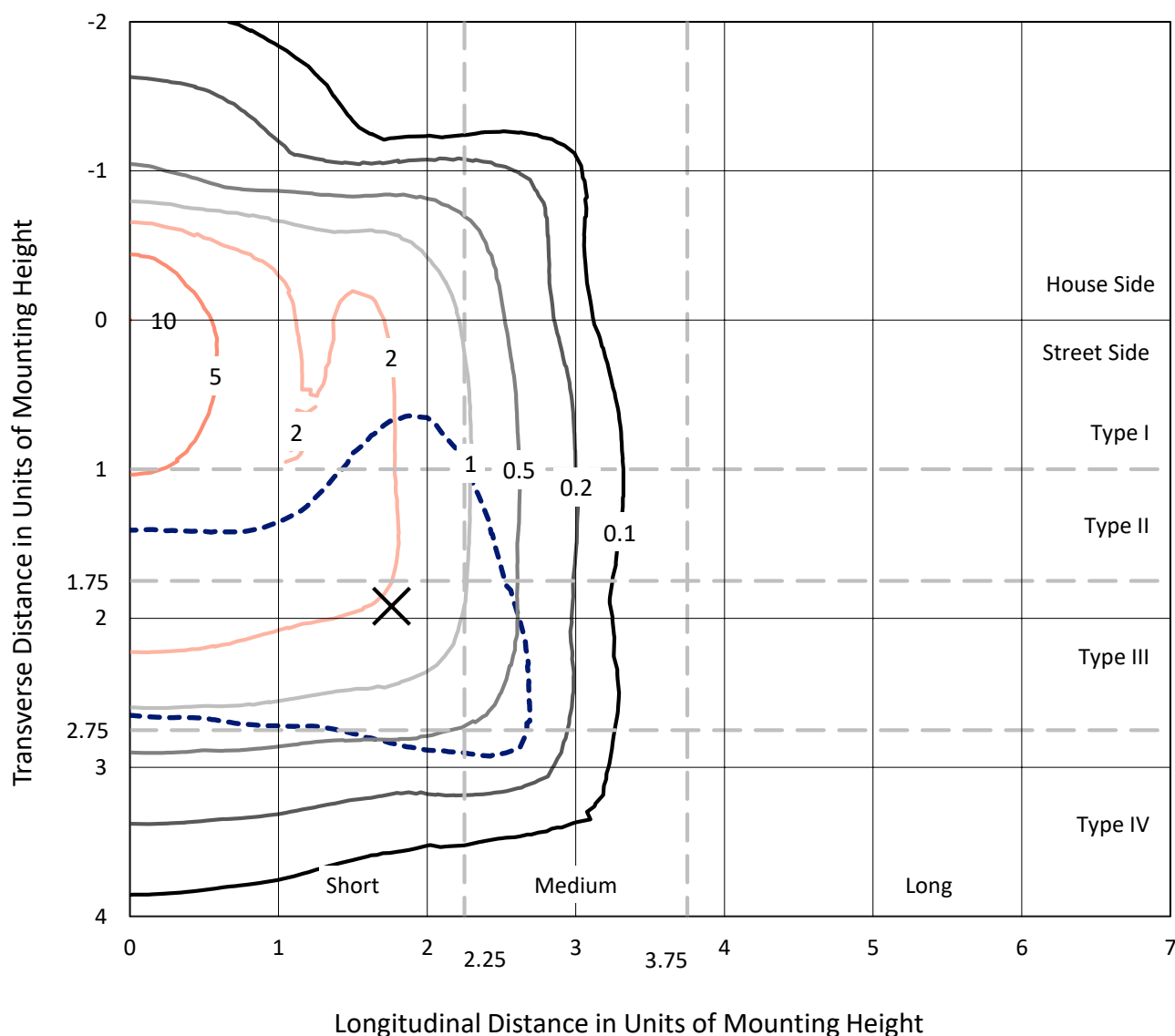


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

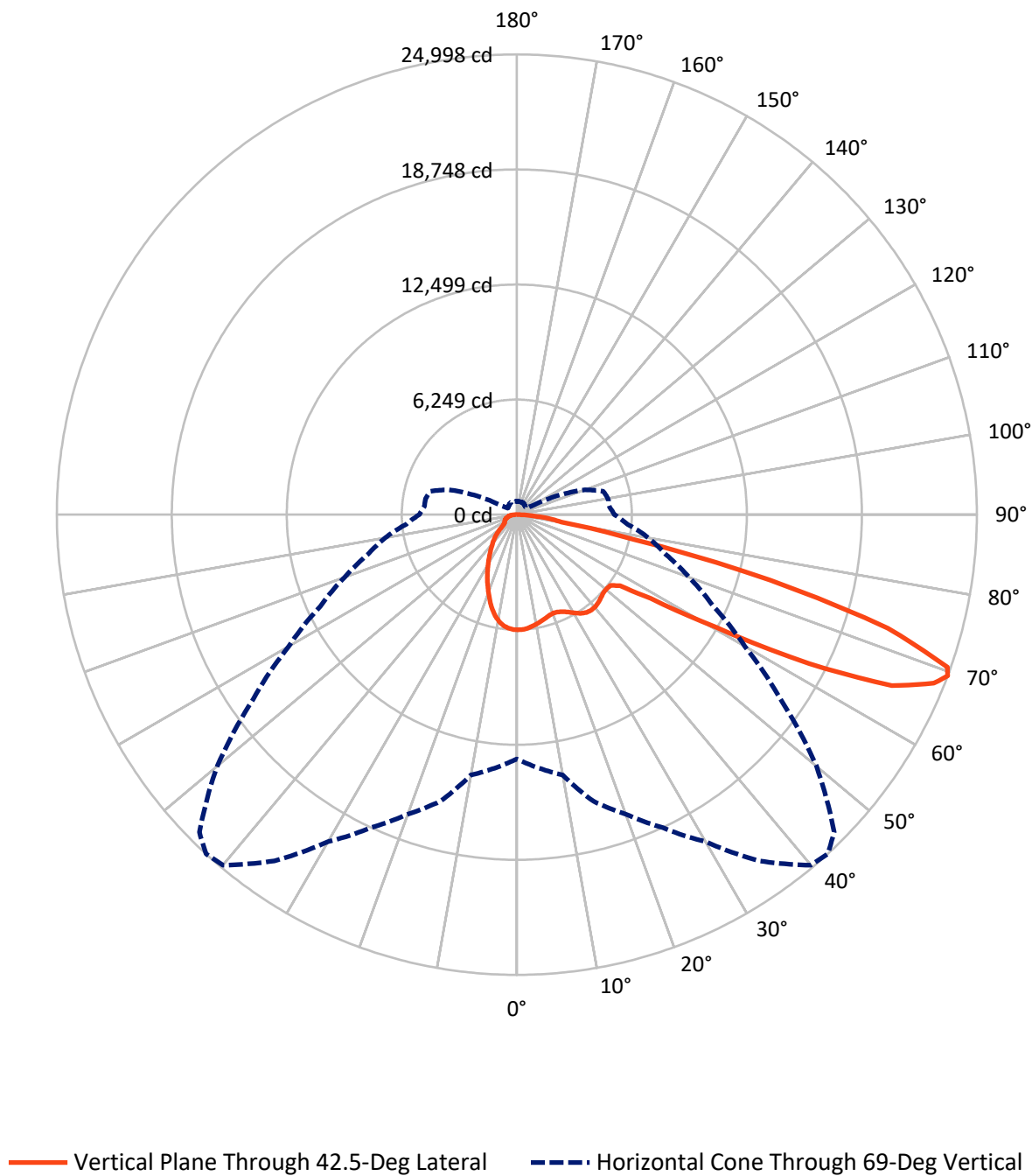


Based on 25 foot mounting height. Maximum calculated value = 10 fc
 Type IV - Short - Full Cutoff

REPORT NUMBER: P158738

CATALOG NUMBER: VST-E12-LED-E-U-SL4-8030

Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6531.7	0.0	6531.7
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	22848.6	0.0	22848.6
	% Fixture	77.8	0.0	77.8
Total	Lumens	29380.3	0.0	29380.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	582.4	2.0
10°-20°	1569.8	5.3
20°-30°	2289.1	7.8
30°-40°	2918.1	9.9
40°-50°	3395.3	11.6
50°-60°	5165.9	17.6
60°-70°	9125.4	31.1
70°-80°	3765.7	12.8
80°-90°	568.6	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°	29380.3	100.0
0°-180°	29380.3	100.0

Coefficient of Utilization



REPORT NUMBER: P158738

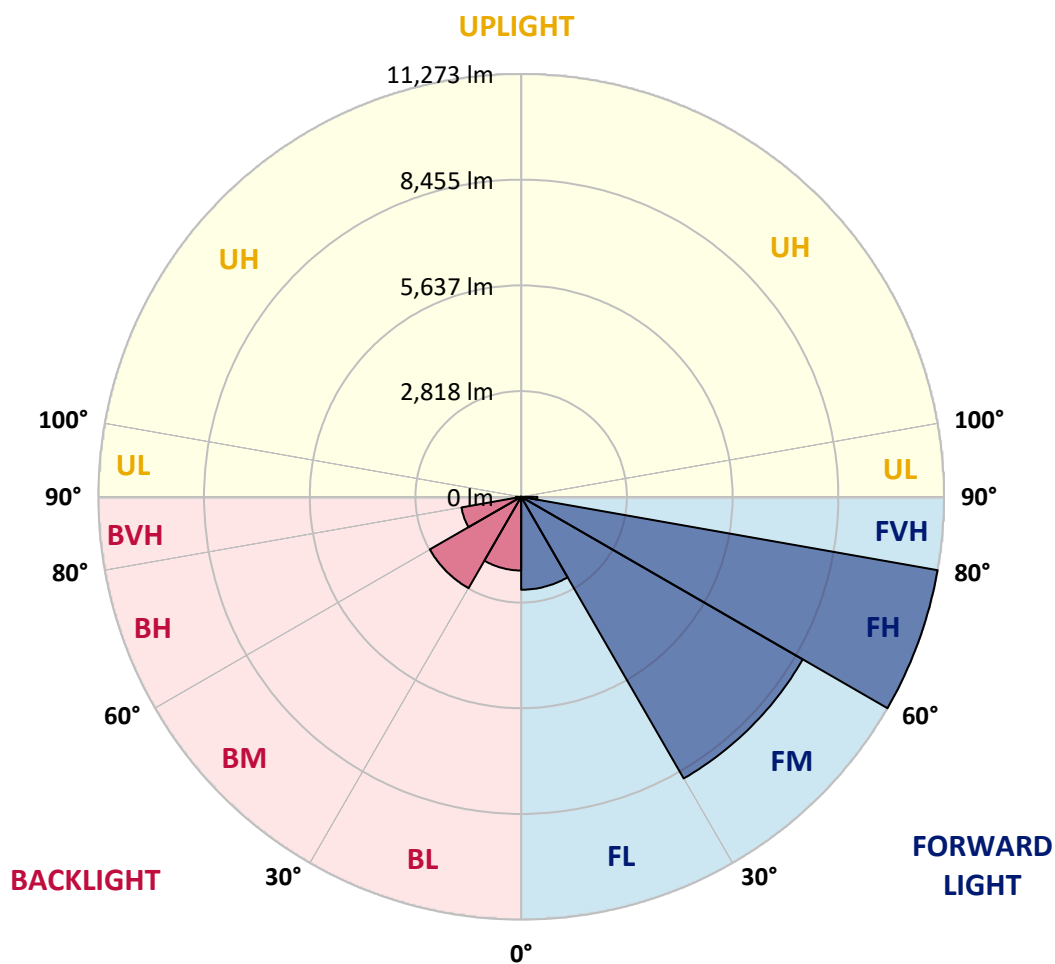
CATALOG NUMBER: VST-E12-LED-E-U-SL4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2477.5	8.4			
FM	(30°-60°)	8668.0	29.5			
FH	(60°-80°)	11273.2	38.4			G4/12000
FVH	(80°-90°)	430.0	1.5			G3/500
BL	(0°-30°)	1963.8	6.7	B3/2500		
BM	(30°-60°)	2811.4	9.6	B3/5000		
BH	(60°-80°)	1617.9	5.5	B3/2500		G3/2500
BVH	(80°-90°)	138.6	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: P158738

CATALOG NUMBER: VST-E12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0
2.5°	6236.8	6259.0	6250.9	6250.9	6257.0	6246.9	6246.9	6250.9	6240.8	6246.9	6244.9
5°	6214.5	6226.6	6222.6	6222.6	6222.6	6214.5	6210.4	6208.4	6194.2	6194.2	6188.1
7.5°	6165.9	6169.9	6176.0	6167.9	6165.9	6163.8	6149.7	6141.6	6125.3	6111.2	6115.2
10°	6101.0	6099.0	6109.1	6103.1	6095.0	6088.9	6076.7	6062.6	6044.3	6026.1	6024.1
12.5°	6028.1	6026.1	6034.2	6030.1	6024.1	6011.9	6001.8	5977.5	5949.1	5926.8	5924.8
15°	5981.5	5975.5	5983.6	5975.5	5965.3	5953.2	5934.9	5904.6	5853.9	5831.6	5813.4
17.5°	6026.1	6016.0	6020.0	6009.9	5995.7	5963.3	5920.8	5855.9	5783.0	5744.5	5716.2
20°	6182.1	6163.8	6167.9	6157.8	6125.3	6082.8	6001.8	5888.4	5764.8	5702.0	5657.4
22.5°	6404.9	6390.7	6396.8	6386.6	6354.2	6289.4	6167.9	6005.8	5829.6	5738.5	5667.6
25°	6743.1	6755.3	6759.4	6712.8	6694.5	6575.0	6406.9	6182.1	5947.1	5839.7	5742.5
27.5°	7124.0	7124.0	7142.2	7124.0	7087.5	6947.7	6710.7	6439.3	6137.5	5991.7	5874.2
30°	7494.6	7490.6	7525.0	7521.0	7462.2	7304.2	7034.8	6704.7	6360.3	6196.2	6046.4
32.5°	7887.6	7899.8	7922.0	7913.9	7837.0	7618.2	7294.1	6935.6	6573.0	6392.7	6224.6
35°	8313.0	8319.0	8327.2	8323.1	8167.1	7891.7	7484.5	7083.4	6706.7	6528.4	6354.2
37.5°	8738.3	8732.3	8722.1	8635.0	8456.8	8074.0	7600.0	7168.5	6773.5	6581.1	6400.8
40°	9119.2	9084.7	9052.3	8916.6	8643.1	8177.3	7644.5	7188.8	6767.5	6569.0	6392.7
42.5°	9327.8	9289.3	9222.5	9052.3	8720.1	8187.4	7614.1	7128.0	6704.7	6508.2	6334.0
45°	9366.3	9337.9	9273.1	9082.7	8701.9	8122.6	7521.0	7028.8	6611.5	6415.0	6250.9
47.5°	9275.1	9252.8	9190.0	9001.7	8622.9	8025.3	7413.6	6923.4	6520.3	6336.0	6178.0
50°	9135.4	9115.1	9066.5	8894.3	8533.8	7958.5	7358.9	6868.7	6490.0	6321.8	6176.0
52.5°	9362.2	9378.4	9236.6	9048.3	8629.0	8017.2	7419.7	6925.5	6544.6	6378.5	6226.6
55°	12888.8	12866.5	12013.7	11298.7	10020.5	8861.9	7997.0	7375.1	6968.0	6801.9	6660.1
57.5°	16747.5	16670.5	16320.1	15651.6	14278.3	12445.2	10778.1	9360.2	8801.1	8562.1	8578.3
60°	18007.4	18035.7	17960.8	17723.8	17231.6	16277.5	15009.5	13944.1	12894.8	12382.4	12441.1
62.5°	18706.2	18756.9	18821.7	18769.0	18609.0	18388.2	18228.2	18325.4	18179.6	17810.9	17517.2
65°	18803.4	18906.7	19121.5	19291.6	19374.7	19583.3	20073.5	21248.3	22321.9	22392.8	21876.2
67.5°	16879.1	17164.7	17630.6	18418.6	19093.1	19834.5	21017.4	22804.0	24388.0	24440.6	23958.5
69°	13271.6	13820.5	14365.4	16125.6	17310.6	18762.9	20513.0	22953.9	24851.8	24997.7	24390.0
70°	10634.3	10960.4	11430.3	13198.7	14969.0	16820.4	19356.4	22459.6	24533.8	24827.5	24157.0
72.5°	6384.6	6510.2	6672.3	7306.3	8217.8	9866.6	13229.1	18311.2	20695.3	21088.3	20235.5
75°	4128.1	4120.0	4134.2	4310.4	4363.1	4679.1	5738.5	9421.0	13500.5	14213.5	13192.6
77.5°	3109.3	3137.6	3093.1	3109.3	3095.1	3180.2	3212.6	3372.6	5329.3	6564.9	5870.1
80°	2744.7	2758.8	2760.9	2752.8	2653.5	2645.4	2698.1	2606.9	2422.6	2459.1	2355.7
82.5°	1565.8	1563.7	1582.0	1719.7	1776.4	1962.8	2039.8	2082.3	1922.3	1802.8	1630.6
85°	1014.8	1022.9	1043.2	1085.7	1043.2	1059.4	1041.1	1077.6	988.5	917.6	820.4
87.5°	415.2	415.2	441.6	480.1	447.7	439.6	376.8	372.7	316.0	285.6	222.8
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: P158738

CATALOG NUMBER: VST-E12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0
2.5°	6232.7	6244.9	6238.8	6246.9	6240.8	6240.8	6232.7	6230.7	6236.8	6228.7	6230.7
5°	6178.0	6180.0	6169.9	6174.0	6161.8	6157.8	6151.7	6135.5	6145.6	6135.5	6139.5
7.5°	6099.0	6092.9	6078.8	6058.5	6044.3	6038.2	6026.1	6003.8	6007.9	5989.6	5999.8
10°	5997.7	5977.5	5953.2	5922.8	5902.5	5884.3	5858.0	5831.6	5817.5	5801.3	5799.2
12.5°	5884.3	5860.0	5827.6	5781.0	5736.4	5706.1	5665.5	5619.0	5604.8	5578.4	5564.3
15°	5760.7	5722.3	5683.8	5631.1	5582.5	5535.9	5481.2	5422.5	5384.0	5343.5	5313.1
17.5°	5649.3	5604.8	5554.1	5503.5	5450.8	5394.1	5325.2	5252.3	5195.6	5120.7	5059.9
20°	5562.2	5505.5	5454.9	5402.2	5343.5	5274.6	5191.6	5098.4	5003.2	4920.1	4849.2
22.5°	5527.8	5438.7	5377.9	5325.2	5266.5	5185.5	5084.2	4974.8	4859.4	4743.9	4650.7
25°	5556.2	5424.5	5329.3	5266.5	5215.9	5132.8	5019.4	4885.7	4752.0	4614.3	4488.7
27.5°	5639.2	5471.1	5333.3	5234.1	5175.4	5092.3	4972.8	4831.0	4673.0	4519.1	4365.1
30°	5768.8	5550.1	5375.9	5236.1	5145.0	5049.8	4924.2	4760.1	4600.1	4423.9	4255.7
32.5°	5894.4	5633.1	5424.5	5244.2	5104.5	4980.9	4841.1	4679.1	4506.9	4322.6	4148.4
35°	5983.6	5687.8	5442.7	5226.0	5041.7	4887.7	4737.8	4575.8	4407.7	4219.3	4041.0
37.5°	6026.1	5718.2	5444.8	5177.4	4958.6	4788.5	4628.4	4468.4	4310.4	4132.2	3964.1
40°	6024.1	5716.2	5416.4	5114.6	4859.4	4679.1	4521.1	4365.1	4217.3	4061.3	3909.4
42.5°	5979.5	5683.8	5375.9	5053.8	4788.5	4587.9	4423.9	4274.0	4148.4	4010.6	3883.0
45°	5910.6	5629.1	5333.3	5025.5	4768.2	4567.7	4393.5	4247.6	4136.2	4010.6	3901.3
47.5°	5858.0	5598.7	5339.4	5076.1	4831.0	4622.4	4438.0	4278.0	4182.8	4081.5	4004.6
50°	5866.1	5612.9	5359.7	5106.5	4875.6	4664.9	4486.7	4340.8	4271.9	4245.6	4227.4
52.5°	5908.6	5635.2	5420.4	5268.5	5189.5	5031.5	4926.2	4835.1	4885.7	4786.4	4669.0
55°	6451.5	6362.3	6571.0	6767.5	7016.6	7109.8	7020.7	7004.4	7085.5	6749.2	5977.5
57.5°	8693.8	8924.7	9246.8	9416.9	9623.5	9568.8	9362.2	9190.0	8987.5	8594.5	7632.4
60°	12507.9	12333.7	12187.9	11776.7	11440.5	11047.5	10610.0	10235.2	9876.7	9311.6	8270.4
62.5°	16437.6	15228.3	14217.5	13241.2	12455.3	11803.0	11169.0	10605.9	10063.1	9275.1	8155.0
65°	19836.5	17290.3	15392.4	13960.3	12811.8	11821.3	11007.0	10229.2	9538.4	8614.8	7506.8
67.5°	21363.8	18173.5	15412.6	13360.7	11770.6	10425.7	9372.4	8197.5	7423.7	6832.3	6208.4
69°	21250.3	17499.0	14312.7	11786.8	9959.8	8392.0	7261.7	6036.2	5294.9	5043.7	5029.5
70°	20711.5	16356.5	13028.5	10508.7	8418.3	6860.6	5776.9	4677.1	3986.3	3814.2	4120.0
72.5°	16909.5	11557.9	8165.1	6234.7	4794.5	3789.9	3091.0	2453.0	1958.7	1697.4	1754.2
75°	9550.6	5351.6	3459.7	2615.0	2209.9	1827.1	1567.8	1336.9	1209.3	982.4	777.8
77.5°	3471.8	2297.0	1827.1	1580.0	1120.1	771.7	646.2	565.1	512.5	512.5	488.2
80°	2195.7	1729.8	1207.2	826.4	611.7	532.7	465.9	409.2	376.8	368.7	376.8
82.5°	1371.3	1059.4	676.5	518.5	435.5	390.9	340.3	297.8	271.4	265.4	277.5
85°	676.5	524.6	411.2	366.6	344.3	320.0	281.6	241.0	232.9	249.1	291.7
87.5°	202.6	180.3	147.9	153.9	162.0	158.0	125.6	109.4	103.3	135.7	212.7
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°	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0	6257.0
2.5°	6234.7	6232.7	6236.8	6230.7	6234.7	6236.8	6232.7	6250.9	6238.8	6240.8	6248.9
5°	6143.6	6139.5	6155.7	6151.7	6159.8	6167.9	6163.8	6190.2	6180.0	6188.1	6204.3
7.5°	5991.7	5999.8	6001.8	6001.8	6018.0	6044.3	6050.4	6066.6	6066.6	6088.9	6105.1
10°	5789.1	5791.1	5803.3	5801.3	5821.5	5849.9	5853.9	5882.3	5892.4	5928.9	5951.1
12.5°	5554.1	5544.0	5542.0	5540.0	5566.3	5596.7	5600.7	5649.3	5669.6	5702.0	5738.5
15°	5290.8	5264.5	5256.4	5272.6	5266.5	5284.7	5303.0	5329.3	5357.7	5422.5	5454.9
17.5°	5033.6	4980.9	4966.7	4948.5	4930.3	4930.3	4938.4	4970.8	5029.5	5063.9	5136.9
20°	4770.2	4707.4	4656.8	4608.2	4565.7	4549.4	4551.5	4592.0	4634.5	4691.2	4760.1
22.5°	4549.4	4454.2	4367.1	4302.3	4215.2	4213.2	4201.0	4213.2	4259.8	4274.0	4312.5
25°	4359.0	4231.4	4113.9	4008.6	3923.5	3879.0	3866.8	3862.8	3840.5	3834.4	3806.1
27.5°	4211.2	4057.2	3905.3	3777.7	3672.4	3611.6	3534.6	3479.9	3400.9	3380.7	3330.1
30°	4089.6	3923.5	3757.4	3591.4	3471.8	3362.5	3232.8	3137.6	3016.1	2937.1	2868.2
32.5°	3972.2	3804.0	3635.9	3471.8	3287.5	3117.4	2947.2	2799.3	2663.6	2542.1	2440.8
35°	3874.9	3714.9	3544.8	3346.3	3111.3	2866.2	2661.6	2493.5	2307.1	2179.5	2051.9
37.5°	3812.1	3666.3	3496.1	3222.7	2920.9	2657.6	2424.6	2220.0	2029.6	1837.2	1693.4
40°	3783.8	3656.2	3443.5	3109.3	2754.8	2463.1	2205.9	1979.0	1735.9	1519.2	1365.2
42.5°	3781.8	3652.1	3370.6	2983.7	2617.0	2299.0	2013.4	1742.0	1472.6	1249.8	1097.9
45°	3818.2	3646.0	3293.6	2878.3	2495.5	2163.3	1823.0	1492.9	1191.0	1024.9	943.9
47.5°	3915.4	3656.2	3230.8	2781.1	2380.1	1999.2	1604.3	1219.4	970.3	893.3	893.3
50°	4089.6	3714.9	3214.6	2712.2	2264.6	1808.8	1336.9	984.4	858.8	858.8	883.2
52.5°	4357.0	3838.5	3243.0	2663.6	2120.8	1557.7	1053.3	848.7	824.4	846.7	879.1
55°	4972.8	4057.2	3281.4	2580.6	1902.0	1235.6	869.0	802.1	812.3	838.6	869.0
57.5°	6103.1	4525.1	3321.9	2398.3	1549.6	952.0	787.9	783.9	802.1	826.4	852.8
60°	6846.5	5120.7	3425.3	2122.8	1172.8	785.9	747.4	771.7	794.0	814.3	834.5
62.5°	6846.5	5288.8	3502.2	1814.9	881.1	715.0	721.1	759.6	785.9	796.1	808.2
65°	6408.9	4980.9	3240.9	1478.7	717.1	674.5	696.8	735.3	759.6	767.7	777.8
67.5°	5600.7	4399.6	2730.5	1114.1	640.1	640.1	668.4	696.8	717.1	733.3	749.5
69°	4869.5	3947.9	2404.4	943.9	609.7	613.8	642.1	666.4	690.7	711.0	731.2
70°	4342.8	3609.6	2177.5	856.8	591.5	593.5	621.9	648.2	670.5	692.7	717.1
72.5°	2325.4	2493.5	1654.9	702.9	544.9	551.0	577.3	601.6	621.9	644.1	666.4
75°	792.0	1071.5	1053.3	575.3	492.2	508.4	524.6	546.9	573.2	587.4	599.6
77.5°	463.9	480.1	561.1	467.9	443.6	451.7	469.9	488.2	510.4	524.6	534.8
80°	388.9	386.9	388.9	380.8	386.9	405.1	417.3	441.6	461.8	465.9	463.9
82.5°	316.0	332.2	334.2	330.2	348.4	362.6	372.7	386.9	384.9	388.9	397.0
85°	281.6	279.5	293.7	295.7	295.7	285.6	287.6	287.6	287.6	293.7	295.7
87.5°	281.6	235.0	182.3	164.1	172.2	162.0	153.9	151.9	168.1	184.3	180.3
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: P158738

CATALOG NUMBER: VST-E12-LED-E-U-SL4-8030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	6257.0	6257.0	6257.0	6257.0	6257.0
2.5°	6253.0	6259.0	6255.0	6255.0	6259.0
5°	6210.4	6220.6	6216.5	6220.6	6220.6
7.5°	6113.2	6127.4	6137.5	6147.6	6141.6
10°	5973.4	5997.7	6013.9	6026.1	6020.0
12.5°	5764.8	5787.1	5821.5	5841.8	5825.6
15°	5479.2	5542.0	5562.2	5590.6	5574.4
17.5°	5181.4	5219.9	5244.2	5270.6	5286.8
20°	4784.4	4814.8	4847.2	4859.4	4841.1
22.5°	4306.4	4322.6	4316.5	4334.7	4298.3
25°	3781.8	3791.9	3785.8	3802.0	3771.6
27.5°	3285.5	3283.5	3285.5	3265.2	3245.0
30°	2807.5	2789.2	2781.1	2750.7	2744.7
32.5°	2380.1	2317.3	2284.9	2240.3	2230.2
35°	1952.7	1863.5	1804.8	1754.2	1731.9
37.5°	1569.8	1462.5	1393.6	1349.0	1343.0
40°	1241.7	1142.4	1093.8	1069.5	1065.5
42.5°	1012.8	970.3	958.1	958.1	958.1
45°	923.7	921.6	931.8	939.9	941.9
47.5°	905.4	917.6	931.8	943.9	948.0
50°	905.4	917.6	927.7	939.9	943.9
52.5°	901.4	911.5	915.6	923.7	927.7
55°	889.2	895.3	895.3	899.4	903.4
57.5°	869.0	873.0	866.9	871.0	881.1
60°	848.7	852.8	842.6	852.8	858.8
62.5°	826.4	828.5	824.4	832.5	832.5
65°	790.0	785.9	792.0	798.1	800.1
67.5°	753.5	743.4	749.5	751.5	755.5
69°	725.2	719.1	721.1	725.2	729.2
70°	704.9	700.9	704.9	711.0	717.1
72.5°	654.3	656.3	670.5	682.6	694.8
75°	607.7	621.9	640.1	666.4	680.6
77.5°	551.0	561.1	575.3	603.6	630.0
80°	476.0	482.1	484.1	494.2	492.2
82.5°	386.9	380.8	376.8	372.7	370.7
85°	277.5	275.5	259.3	247.1	247.1
87.5°	166.1	158.0	149.9	139.8	133.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)