

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: P158050

Luminaire Tested: **VST-E09-LED-E-U-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158050
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33711)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E09-LED-E-U-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (189) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28038.7 lumens
Efficiency: N/A
Efficacy: 124.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 225.7
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

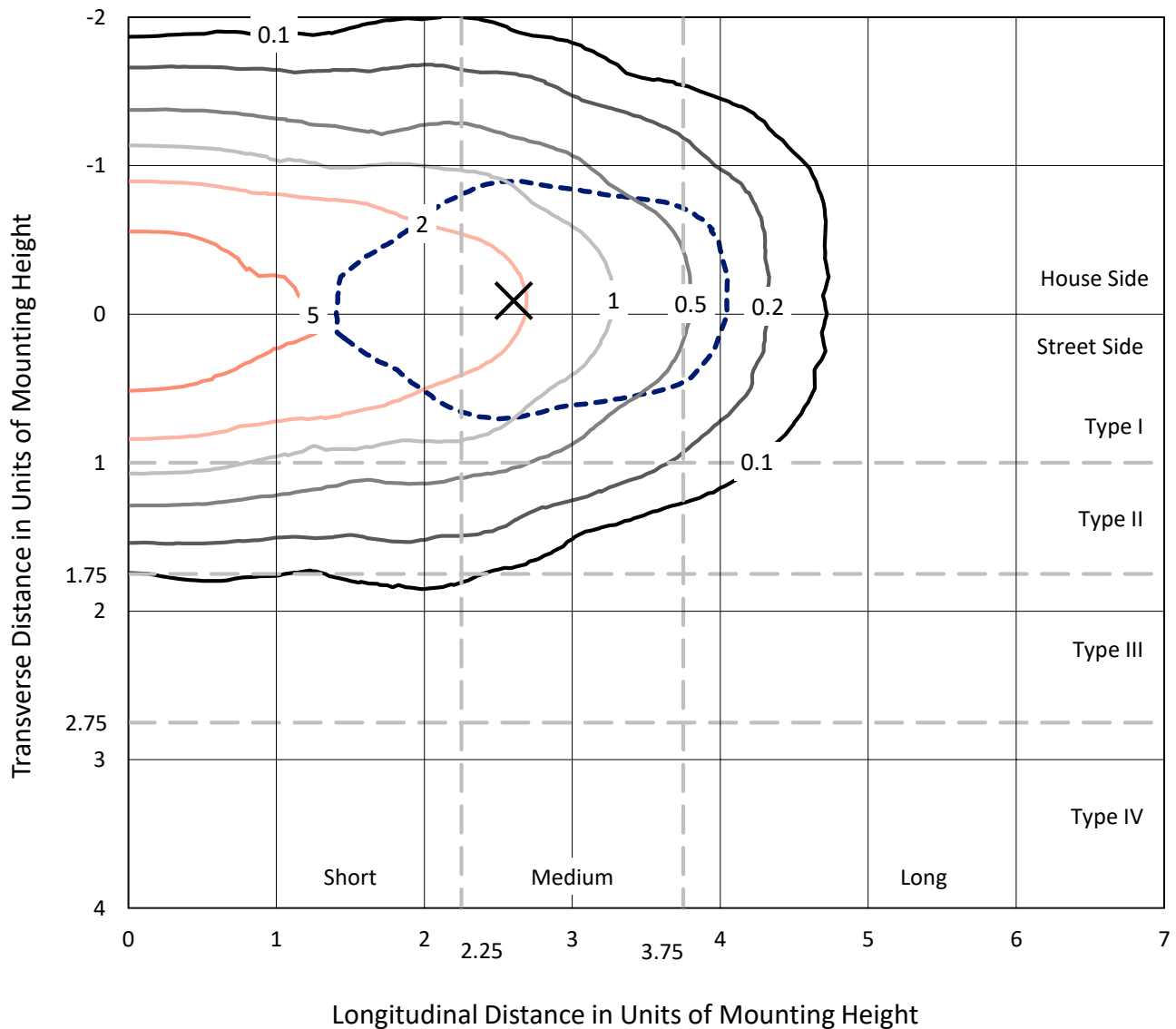


REPORT NUMBER: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

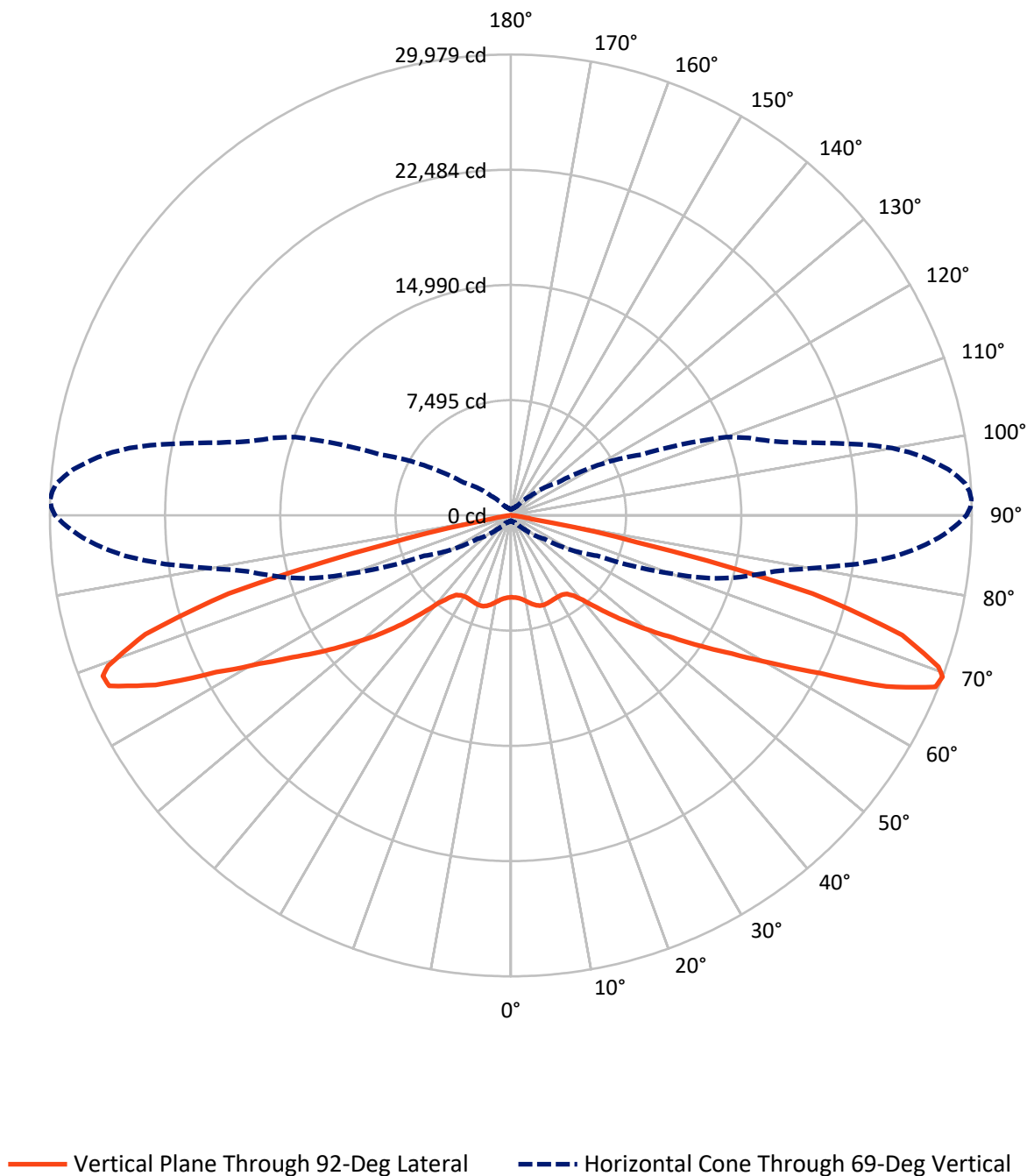


Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type I - Medium - Full Cutoff

REPORT NUMBER: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

Luminous Intensity Polar Plot



REPORT NUMBER: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14870.4	0.0	14870.4
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	13168.3	0.0	13168.3
	% Fixture	47.0	0.0	47.0
Total	Lumens	28038.7	0.0	28038.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.2	1.9
10°-20°	1646.4	5.9
20°-30°	2671.1	9.5
30°-40°	3328.9	11.9
40°-50°	4144.9	14.8
50°-60°	5111.7	18.2
60°-70°	6348.3	22.6
70°-80°	3900.7	13.9
80°-90°	365.6	1.3
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°	28038.7	100.0
0°-180°	28038.7	100.0

Coefficient of Utilization



REPORT NUMBER: P158050

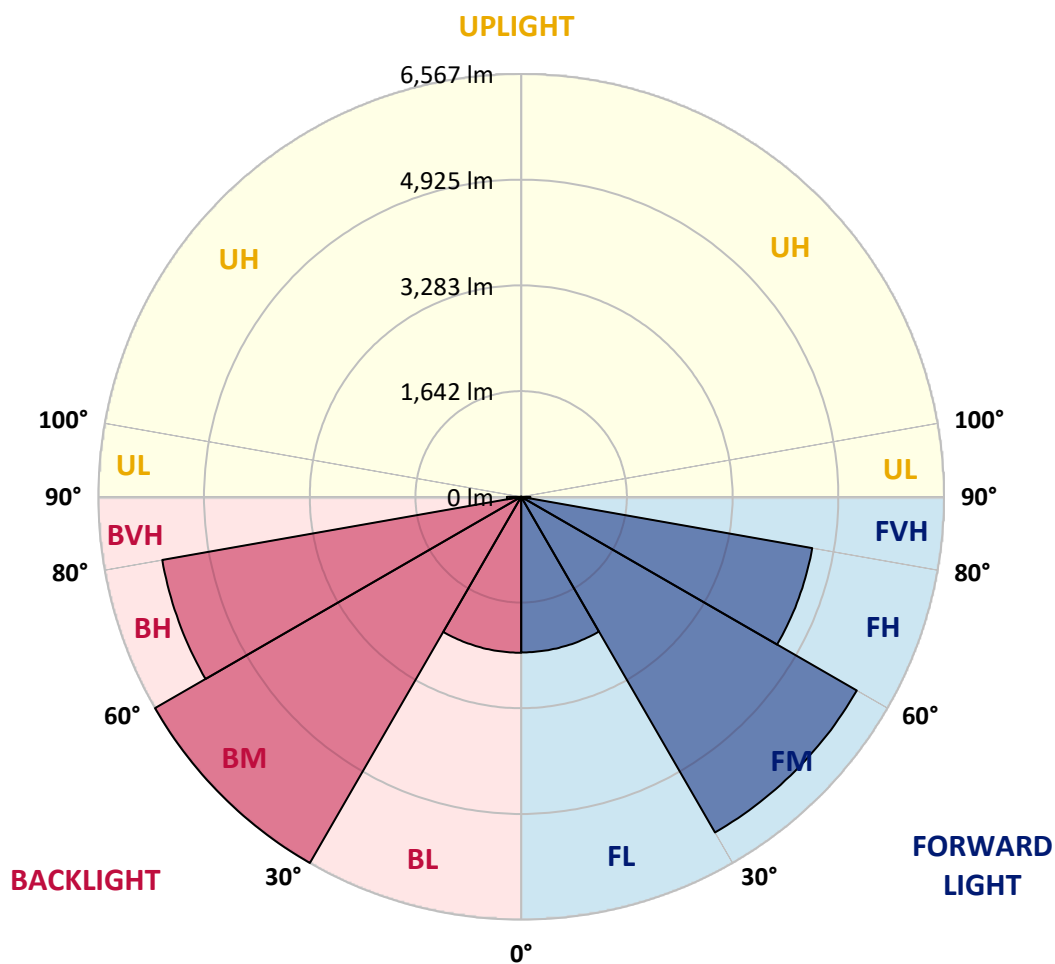
CATALOG NUMBER: VST-E09-LED-E-U-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2416.8	8.6			
FM	(30°-60°)	6018.8	21.5			
FH	(60°-80°)	4589.6	16.4			G2/5000
FVH	(80°-90°)	143.1	0.5			G2/225
BL	(0°-30°)	2421.9	8.6	B3/2500		
BM	(30°-60°)	6566.6	23.4	B4/8500		
BH	(60°-80°)	5659.4	20.2	B5		G5
BVH	(80°-90°)	222.4	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type I Medium





REPORT NUMBER: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2
2.5°	5410.8	5396.4	5409.0	5410.8	5409.0	5409.0	5392.8	5389.2	5367.6	5373.0	5371.2
5°	5484.6	5479.2	5488.2	5491.8	5495.4	5488.2	5475.6	5470.2	5455.8	5450.4	5448.6
7.5°	5553.0	5544.0	5558.4	5571.0	5580.0	5581.8	5583.6	5574.6	5574.6	5567.4	5567.4
10°	5610.6	5603.4	5626.8	5643.0	5671.8	5688.0	5706.0	5718.6	5725.8	5727.6	5725.8
12.5°	5635.8	5630.4	5668.2	5716.8	5770.8	5808.6	5853.6	5886.0	5895.0	5893.2	5902.2
15°	5592.6	5596.2	5653.8	5749.2	5864.4	5959.8	6022.8	6049.8	6057.0	6060.6	6062.4
17.5°	5475.6	5482.8	5565.6	5720.4	5922.0	6094.8	6188.4	6188.4	6174.0	6174.0	6172.2
20°	5288.4	5295.6	5403.6	5626.8	5923.8	6188.4	6321.6	6294.6	6240.6	6229.8	6219.0
22.5°	5029.2	5058.0	5176.8	5436.0	5846.4	6215.4	6404.4	6364.8	6280.2	6256.8	6240.6
25°	4735.8	4732.2	4874.4	5166.0	5659.2	6150.6	6427.8	6420.6	6330.6	6305.4	6276.6
27.5°	4401.0	4411.8	4543.2	4838.4	5373.0	5963.4	6388.2	6483.6	6409.8	6384.6	6357.6
30°	4057.2	4068.0	4192.2	4536.0	5047.2	5695.2	6307.2	6544.8	6516.0	6496.2	6478.2
32.5°	3711.6	3715.2	3862.8	4231.8	4771.8	5374.8	6184.8	6600.6	6640.2	6631.2	6624.0
35°	3387.6	3391.2	3551.4	3925.8	4500.0	5101.2	6037.2	6681.6	6809.4	6820.2	6827.4
37.5°	3072.6	3078.0	3241.8	3634.2	4231.8	4894.2	5873.4	6805.8	7047.0	7086.6	7093.8
40°	2759.4	2764.8	2921.4	3337.2	3960.0	4712.4	5747.4	6980.4	7367.4	7421.4	7477.2
42.5°	2460.6	2480.4	2613.6	3011.4	3657.6	4487.4	5693.4	7192.8	7747.2	7831.8	7894.8
45°	2181.6	2183.4	2334.6	2707.2	3299.4	4183.2	5657.4	7434.0	8172.0	8299.8	8386.2
47.5°	1882.8	1904.4	2062.8	2424.6	2964.6	3807.0	5542.2	7716.6	8634.6	8784.0	8958.6
50°	1593.0	1623.6	1776.6	2134.8	2658.6	3418.2	5232.6	8047.8	9154.8	9349.2	9550.8
52.5°	1314.0	1312.2	1474.2	1846.8	2350.8	3088.8	4730.4	8395.2	9756.0	9964.8	10182.6
55°	993.6	993.6	1153.8	1494.0	2017.8	2795.4	4192.2	8611.2	10314.0	10566.0	10803.6
57.5°	682.2	700.2	851.4	1144.8	1670.4	2527.2	3780.0	8487.0	10740.6	11053.8	11336.4
60°	505.8	523.8	635.4	822.6	1306.8	2210.4	3470.4	7902.0	10998.0	11413.8	11781.0
62.5°	437.4	450.0	556.2	658.8	941.4	1873.8	3196.8	7158.6	11368.8	11937.6	12448.8
65°	390.6	403.2	509.4	568.8	736.2	1506.6	3043.8	6733.8	11811.6	12681.0	13422.6
67.5°	361.8	376.2	466.2	509.4	642.6	1362.6	2925.0	6634.8	11808.0	12862.8	13809.6
69°	347.4	358.2	432.0	478.8	621.0	1319.4	2667.6	6204.6	11028.6	12160.8	13111.2
70°	338.4	349.2	412.2	459.0	613.8	1242.0	2430.0	5635.8	10141.2	11280.6	12245.4
72.5°	309.6	320.4	367.2	410.4	511.2	829.8	1693.8	3607.2	7246.8	8060.4	9163.8
75°	273.6	286.2	322.2	358.2	387.0	480.6	977.4	1872.0	4143.6	4761.0	5743.8
77.5°	223.2	235.8	273.6	331.2	327.6	365.4	635.4	1150.2	1940.4	2406.6	2770.2
80°	183.6	192.6	225.0	334.8	268.2	306.0	514.8	943.2	1366.2	1510.2	1596.6
82.5°	122.4	135.0	174.6	262.8	205.2	217.8	385.2	882.0	1155.6	1267.2	1371.6
85°	57.6	63.0	106.2	140.4	124.2	117.0	219.6	622.8	860.4	912.6	952.2
87.5°	0.0	0.0	5.4	10.8	16.2	16.2	39.6	131.4	241.2	291.6	288.0
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: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2
2.5°	5364.0	5365.8	5364.0	5364.0	5362.2	5358.6	5358.6	5355.0	5356.8	5355.0	5358.6
5°	5446.8	5446.8	5441.4	5437.8	5443.2	5437.8	5439.6	5430.6	5430.6	5425.2	5418.0
7.5°	5565.6	5565.6	5567.4	5556.6	5563.8	5565.6	5560.2	5556.6	5553.0	5544.0	5545.8
10°	5724.0	5724.0	5729.4	5715.0	5722.2	5725.8	5727.6	5727.6	5724.0	5707.8	5709.6
12.5°	5900.4	5896.8	5898.6	5891.4	5898.6	5902.2	5905.8	5902.2	5902.2	5898.6	5896.8
15°	6060.6	6058.8	6062.4	6057.0	6058.8	6062.4	6073.2	6071.4	6069.6	6058.8	6058.8
17.5°	6170.4	6165.0	6161.4	6159.6	6159.6	6157.8	6159.6	6159.6	6154.2	6152.4	6152.4
20°	6211.8	6197.4	6188.4	6183.0	6175.8	6172.2	6168.6	6170.4	6166.8	6161.4	6163.2
22.5°	6219.0	6199.2	6181.2	6165.0	6150.6	6141.6	6132.6	6129.0	6120.0	6114.6	6114.6
25°	6253.2	6222.6	6193.8	6166.8	6145.2	6125.4	6105.6	6091.2	6080.4	6067.8	6064.2
27.5°	6328.8	6296.4	6262.2	6228.0	6199.2	6159.6	6132.6	6103.8	6078.6	6058.8	6044.4
30°	6445.8	6413.4	6379.2	6339.6	6301.8	6260.4	6215.4	6181.2	6145.2	6105.6	6084.0
32.5°	6600.6	6579.0	6544.8	6507.0	6472.8	6429.6	6375.6	6323.4	6289.2	6242.4	6208.2
35°	6822.0	6796.8	6786.0	6769.8	6735.6	6708.6	6649.2	6600.6	6568.2	6503.4	6478.2
37.5°	7124.4	7122.6	7131.6	7126.2	7131.6	7097.4	7070.4	7068.6	7021.8	6958.8	6897.6
40°	7536.6	7558.2	7606.8	7641.0	7673.4	7677.0	7714.8	7675.2	7680.6	7671.6	7608.6
42.5°	8006.4	8080.2	8137.8	8238.6	8316.0	8388.0	8436.6	8503.2	8553.6	8598.6	8609.4
45°	8530.2	8640.0	8773.2	8863.2	9014.4	9135.0	9300.6	9428.4	9561.6	9693.0	9739.8
47.5°	9099.0	9235.8	9383.4	9550.8	9741.6	9930.6	10186.2	10382.4	10596.6	10774.8	10933.2
50°	9727.2	9869.4	10067.4	10260.0	10522.8	10740.6	11075.4	11332.8	11678.4	11916.0	12121.2
52.5°	10382.4	10560.6	10782.0	10994.4	11262.6	11541.6	11914.2	12294.0	12709.8	13069.8	13368.6
55°	11023.2	11242.8	11455.2	11703.6	12000.6	12324.6	12745.8	13246.2	13764.6	14176.8	14572.8
57.5°	11593.8	11847.6	12097.8	12349.8	12654.0	13030.2	13503.6	14043.6	14637.6	15186.6	15730.2
60°	12123.0	12427.2	12733.2	13048.2	13397.4	13861.8	14430.6	15094.8	15863.4	16614.0	17325.0
62.5°	12960.0	13359.6	13739.4	14146.2	14567.4	15112.8	15784.2	16655.4	17537.4	18475.2	19204.2
65°	14094.0	14655.6	15152.4	15679.8	16225.2	16954.2	17757.0	18799.2	20062.8	21024.0	22194.0
67.5°	14657.4	15397.2	16036.2	16623.0	17298.0	18034.2	18988.2	20221.2	21569.4	22962.6	24267.6
69°	13995.0	14758.2	15465.6	16122.6	16804.8	17519.4	18516.6	19782.0	21207.6	22714.2	23988.6
70°	13136.4	13899.6	14653.8	15402.6	16025.4	16722.0	17722.8	19027.8	20451.6	22017.6	23281.2
72.5°	10063.8	10981.8	11664.0	12366.0	13087.8	13678.2	14833.8	15933.6	17416.8	19006.2	20397.6
75°	6438.6	7282.8	8028.0	8625.6	9331.2	10038.6	10891.8	12114.0	13042.8	14347.8	15476.4
77.5°	3308.4	3558.6	4276.8	4491.0	4980.6	5365.8	5835.6	6141.6	6897.6	7057.8	7723.8
80°	1567.8	1413.0	1330.2	1254.6	1276.2	1267.2	1229.4	1179.0	1242.0	1215.0	1204.2
82.5°	1366.2	1218.6	972.0	826.2	714.6	606.6	522.0	478.8	484.2	498.6	504.0
85°	957.6	900.0	702.0	532.8	415.8	322.2	259.2	248.4	255.6	275.4	268.2
87.5°	277.2	289.8	255.6	178.2	124.2	90.0	70.2	79.2	75.6	73.8	77.4
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: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2
2.5°	5358.6	5356.8	5351.4	5346.0	5346.0	5342.4	5346.0	5347.8	5346.0	5346.0	5342.4
5°	5419.8	5421.6	5427.0	5416.2	5414.4	5416.2	5409.0	5407.2	5401.8	5407.2	5400.0
7.5°	5536.8	5542.2	5542.2	5535.0	5533.2	5538.6	5527.8	5524.2	5518.8	5517.0	5515.2
10°	5711.4	5716.8	5707.8	5702.4	5697.0	5704.2	5695.2	5695.2	5689.8	5684.4	5682.6
12.5°	5905.8	5902.2	5898.6	5902.2	5896.8	5896.8	5891.4	5887.8	5886.0	5884.2	5880.6
15°	6057.0	6069.6	6069.6	6073.2	6069.6	6069.6	6062.4	6064.2	6060.6	6058.8	6060.6
17.5°	6154.2	6157.8	6166.8	6172.2	6172.2	6174.0	6170.4	6174.0	6170.4	6170.4	6177.6
20°	6166.8	6170.4	6179.4	6188.4	6193.8	6197.4	6197.4	6202.8	6206.4	6210.0	6219.0
22.5°	6116.4	6121.8	6132.6	6148.8	6157.8	6161.4	6168.6	6177.6	6186.6	6193.8	6206.4
25°	6064.2	6066.0	6076.8	6093.0	6103.8	6112.8	6125.4	6136.2	6148.8	6163.2	6177.6
27.5°	6035.4	6033.6	6042.6	6058.8	6067.8	6080.4	6091.2	6107.4	6121.8	6139.8	6152.4
30°	6060.6	6046.2	6048.0	6055.2	6062.4	6071.4	6084.0	6098.4	6114.6	6130.8	6145.2
32.5°	6172.2	6139.8	6118.2	6112.8	6114.6	6116.4	6123.6	6132.6	6145.2	6157.8	6163.2
35°	6413.4	6357.6	6328.8	6305.4	6285.6	6269.4	6273.0	6271.2	6271.2	6282.0	6269.4
37.5°	6872.4	6802.2	6771.6	6730.2	6706.8	6647.4	6631.2	6627.6	6604.2	6604.2	6577.2
40°	7592.4	7551.0	7527.6	7489.8	7376.4	7390.8	7309.8	7311.6	7245.0	7252.2	7205.4
42.5°	8616.6	8622.0	8593.2	8568.0	8479.8	8440.2	8364.6	8256.6	8172.0	8170.2	8076.6
45°	9801.0	9865.8	9774.0	9806.4	9729.0	9622.8	9534.6	9396.0	9264.6	9223.2	9127.8
47.5°	11039.4	11145.6	11075.4	11088.0	11050.2	10899.0	10780.2	10609.2	10438.2	10323.0	10265.4
50°	12362.4	12432.6	12430.8	12396.6	12378.6	12231.0	12040.2	11910.6	11784.6	11629.8	11579.4
52.5°	13561.2	13725.0	13834.8	13809.6	13757.4	13669.2	13500.0	13388.4	13203.0	13181.4	13203.0
55°	14844.6	15057.0	15168.6	15303.6	15305.4	15289.2	15219.0	15177.6	15004.8	15024.6	14999.4
57.5°	16059.6	16371.0	16542.0	16830.0	16929.0	17060.4	17011.8	17065.8	16961.4	17029.8	17010.0
60°	17706.6	18138.6	18423.0	18817.2	19000.8	19330.2	19395.0	19434.6	19492.2	19632.6	19553.4
62.5°	19778.4	20412.0	21002.4	21538.8	21715.2	22210.2	22291.2	22600.8	22617.0	22712.4	22537.8
65°	23169.6	23941.8	24591.6	25234.2	25605.0	26184.6	26418.6	27019.8	26836.2	26913.6	26541.0
67.5°	25390.8	26289.0	27160.2	27768.6	28384.2	28976.4	29403.0	29791.8	29788.2	29712.6	29381.4
69°	25194.6	26195.4	27054.0	27869.4	28517.4	29125.8	29638.8	29890.8	29979.0	29869.2	29633.4
70°	24516.0	25543.8	26595.0	27266.4	27972.0	28639.8	29169.0	29444.4	29505.6	29428.2	29224.8
72.5°	21380.4	22366.8	23526.0	24136.2	24989.4	25471.8	26200.8	26557.2	26620.2	26521.2	26388.0
75°	16686.0	16864.2	18045.0	18433.8	19053.0	19609.2	20062.8	19947.6	20269.8	20206.8	20156.4
77.5°	7860.6	7385.4	8150.4	8506.8	8319.6	7821.0	8546.4	8022.6	8370.0	8821.8	8706.6
80°	1296.0	1292.4	1326.6	1402.2	1312.2	1393.2	1391.4	1351.8	1355.4	1452.6	1402.2
82.5°	498.6	509.4	514.8	529.2	529.2	531.0	540.0	550.8	541.8	559.8	556.2
85°	270.0	288.0	271.8	259.2	268.2	273.6	280.8	289.8	280.8	307.8	293.4
87.5°	70.2	73.8	64.8	64.8	63.0	57.6	57.6	61.2	66.6	79.2	86.4
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: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2
2.5°	5335.2	5337.0	5338.8	5333.4	5329.8	5329.8	5328.0	5324.4	5322.6	5322.6	5322.6
5°	5396.4	5400.0	5391.0	5389.2	5385.6	5382.0	5382.0	5378.4	5380.2	5380.2	5371.2
7.5°	5518.8	5513.4	5502.6	5495.4	5502.6	5490.0	5484.6	5488.2	5484.6	5486.4	5482.8
10°	5682.6	5682.6	5670.0	5677.2	5668.2	5653.8	5659.2	5653.8	5650.2	5637.6	5644.8
12.5°	5886.0	5880.6	5873.4	5857.2	5851.8	5850.0	5833.8	5835.6	5830.2	5826.6	5821.2
15°	6064.2	6062.4	6046.2	6037.2	6035.4	6028.2	6021.0	6017.4	6008.4	6006.6	6003.0
17.5°	6183.0	6177.6	6170.4	6161.4	6161.4	6150.6	6147.0	6138.0	6136.2	6130.8	6125.4
20°	6222.6	6224.4	6217.2	6210.0	6206.4	6199.2	6193.8	6186.6	6183.0	6175.8	6170.4
22.5°	6213.6	6213.6	6206.4	6204.6	6197.4	6186.6	6179.4	6170.4	6161.4	6152.4	6141.6
25°	6184.8	6183.0	6177.6	6168.6	6159.6	6143.4	6129.0	6114.6	6102.0	6091.2	6075.0
27.5°	6159.6	6156.0	6145.2	6132.6	6114.6	6096.6	6069.6	6049.8	6033.6	6019.2	6001.2
30°	6150.6	6138.0	6121.8	6102.0	6080.4	6053.4	6024.6	5999.4	5981.4	5967.0	5959.8
32.5°	6161.4	6145.2	6120.0	6094.8	6067.8	6035.4	6006.6	5985.0	5968.8	5965.2	5965.2
35°	6260.4	6233.4	6199.2	6163.2	6129.0	6102.0	6082.2	6080.4	6069.6	6082.2	6102.0
37.5°	6550.2	6526.8	6474.6	6427.8	6404.4	6391.8	6373.8	6377.4	6352.2	6391.8	6424.2
40°	7165.8	7137.0	7075.8	7038.0	6991.2	6946.2	6982.2	6971.4	6989.4	6982.2	7016.4
42.5°	8064.0	8035.2	7938.0	7923.6	7903.8	7885.8	7885.8	7871.4	7864.2	7889.4	7860.6
45°	9156.6	9099.0	9063.0	9106.2	9046.8	9064.8	9127.8	9043.2	9063.0	8946.0	8838.0
47.5°	10290.6	10285.2	10276.2	10328.4	10337.4	10364.4	10398.6	10312.2	10155.6	10067.4	9847.8
50°	11595.6	11651.4	11673.0	11723.4	11745.0	11764.8	11710.8	11583.0	11318.4	11084.4	10825.2
52.5°	13181.4	13084.2	13217.4	13266.0	13244.4	13165.2	12970.8	12814.2	12448.8	12112.2	11710.8
55°	15028.2	15051.6	14958.0	14920.2	14846.4	14626.8	14358.6	14005.8	13543.2	13104.0	12596.4
57.5°	16909.2	16900.2	16754.4	16549.2	16299.0	16034.4	15634.8	15129.0	14589.0	13998.6	13384.8
60°	19197.0	19188.0	18892.8	18541.8	18185.4	17758.8	17132.4	16524.0	15800.4	15024.6	14293.8
62.5°	22203.0	21816.0	21526.2	21002.4	20451.6	19893.6	19045.8	18237.6	17271.0	16291.8	15438.6
65°	26055.0	25417.8	25088.4	24328.8	23475.6	22604.4	21742.2	20680.2	19378.8	18194.4	17152.2
67.5°	28904.4	28321.2	27718.2	26960.4	26024.4	25052.4	23871.6	22534.2	21056.4	19728.0	18592.2
69°	29154.6	28609.2	27885.6	27126.0	26240.4	25183.8	23895.0	22397.4	20899.8	19555.2	18437.4
70°	28774.8	28195.2	27433.8	26643.6	25653.6	24656.4	23306.4	21745.8	20246.4	18898.2	17807.4
72.5°	25941.6	25376.4	24566.4	23621.4	22606.2	21753.0	20471.4	18844.2	17213.4	15967.8	15118.2
75°	19726.2	19602.0	19027.8	18477.0	17677.8	16725.6	15553.8	14459.4	13122.0	11804.4	11012.4
77.5°	8416.8	8703.0	9001.8	9045.0	9073.8	8780.4	8598.6	8323.2	7428.6	7021.8	6602.4
80°	1555.2	1389.6	1483.2	1494.0	1555.2	1587.6	1706.4	2023.2	2059.2	2136.6	2232.0
82.5°	552.6	561.6	576.0	581.4	586.8	608.4	689.4	826.2	950.4	1112.4	1328.4
85°	313.2	318.6	331.2	342.0	349.2	370.8	415.8	496.8	619.2	804.6	1090.8
87.5°	95.4	108.0	115.2	129.6	135.0	138.6	158.4	212.4	273.6	405.0	590.4
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: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2	5326.2
2.5°	5322.6	5320.8	5317.2	5313.6	5315.4	5311.8	5301.0	5297.4	5284.8	5275.8	5268.6
5°	5371.2	5369.4	5362.2	5364.0	5362.2	5344.2	5331.6	5310.0	5297.4	5277.6	5270.4
7.5°	5472.0	5470.2	5457.6	5463.0	5459.4	5432.4	5410.8	5376.6	5358.6	5333.4	5313.6
10°	5623.2	5623.2	5608.8	5610.6	5610.6	5574.6	5536.8	5479.2	5437.8	5398.2	5364.0
12.5°	5806.8	5799.6	5797.8	5788.8	5781.6	5742.0	5684.4	5607.0	5529.6	5464.8	5418.0
15°	5992.2	5981.4	5976.0	5965.2	5956.2	5920.2	5842.8	5747.4	5643.0	5538.6	5461.2
17.5°	6112.8	6105.6	6094.8	6091.2	6078.6	6042.6	5988.6	5893.2	5763.6	5617.8	5500.8
20°	6157.8	6145.2	6138.0	6130.8	6123.6	6098.4	6098.4	6037.2	5893.2	5688.0	5509.8
22.5°	6129.0	6121.8	6111.0	6105.6	6098.4	6102.0	6172.2	6163.2	5997.6	5704.2	5445.0
25°	6062.4	6053.4	6044.4	6044.4	6042.6	6080.4	6249.6	6273.0	6028.2	5625.0	5302.8
27.5°	5994.0	5981.4	5985.0	5986.8	5995.8	6076.8	6334.2	6301.8	5945.4	5434.2	5058.0
30°	5952.6	5952.6	5961.6	5976.0	5994.0	6136.2	6400.8	6237.0	5731.2	5146.2	4734.0
32.5°	5970.6	5988.6	6008.4	6044.4	6071.4	6267.6	6424.2	6069.6	5419.8	4789.8	4395.6
35°	6130.8	6152.4	6190.2	6246.0	6278.4	6456.6	6424.2	5824.8	5058.0	4483.8	4046.4
37.5°	6480.0	6501.6	6546.6	6589.8	6622.2	6694.2	6397.2	5513.4	4755.6	4167.0	3733.2
40°	7041.6	7072.2	7104.6	7097.4	7075.8	7005.6	6343.2	5223.6	4476.6	3889.8	3425.4
42.5°	7831.8	7803.0	7799.4	7729.2	7657.2	7356.6	6303.6	5034.6	4237.2	3598.2	3119.4
45°	8744.4	8627.4	8506.8	8413.2	8303.4	7741.8	6292.8	4881.6	3972.6	3274.2	2786.4
47.5°	9662.4	9475.2	9241.2	9095.4	8917.2	8152.2	6325.2	4676.4	3632.4	2921.4	2475.0
50°	10562.4	10256.4	9966.6	9792.0	9590.4	8623.8	6377.4	4330.8	3225.6	2601.0	2190.6
52.5°	11395.8	11001.6	10704.6	10499.4	10252.8	9172.8	6330.6	3877.2	2872.8	2293.2	1920.6
55°	12187.8	11752.2	11444.4	11228.4	10938.6	9723.6	5992.2	3465.0	2536.2	1992.6	1616.4
57.5°	12880.8	12463.2	12142.8	11849.4	11604.6	10202.4	5324.4	3124.8	2212.2	1648.8	1287.0
60°	13690.8	13221.0	12841.2	12528.0	12240.0	10449.0	4575.6	2822.4	1866.6	1276.2	930.6
62.5°	14783.4	14243.4	13804.2	13446.0	13069.8	10503.0	4064.4	2520.0	1481.4	923.4	676.8
65°	16403.4	15737.4	15188.4	14695.2	14185.8	10279.8	3812.4	2190.6	1101.6	685.8	567.0
67.5°	17690.4	16999.2	16363.8	15730.2	15078.6	9865.8	3756.6	1886.4	846.0	583.2	509.4
69°	17533.8	16875.0	16291.8	15606.0	14884.2	9345.6	3700.8	1769.4	772.2	541.8	482.4
70°	16930.8	16306.2	15714.0	15156.0	14272.2	8766.0	3553.2	1704.6	743.4	522.0	462.6
72.5°	14306.4	13582.8	13008.6	12313.8	11383.2	6514.2	2694.6	1378.8	682.2	477.0	417.6
75°	10434.6	9835.2	9262.8	8494.2	7588.8	3769.2	1677.6	788.4	500.4	432.0	378.0
77.5°	6093.0	5958.0	5405.4	4899.6	4003.2	1918.8	963.0	471.6	388.8	392.4	333.0
80°	2293.2	2442.6	2498.4	2323.8	2147.4	1324.8	700.2	383.4	338.4	387.0	282.6
82.5°	1672.2	1940.4	1972.8	1890.0	1758.6	1234.8	559.8	307.8	275.4	415.8	243.0
85°	1395.0	1544.4	1567.8	1481.4	1438.2	1045.8	390.6	216.0	201.6	298.8	181.8
87.5°	705.6	743.4	763.2	691.2	694.8	487.8	156.6	91.8	109.8	127.8	100.8
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: P158050

CATALOG NUMBER: VST-E09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	5326.2	5326.2
2.5°	5252.4	5263.2
5°	5259.6	5259.6
7.5°	5301.0	5301.0
10°	5346.0	5347.8
12.5°	5387.4	5385.6
15°	5419.8	5414.4
17.5°	5439.6	5434.2
20°	5419.8	5410.8
22.5°	5319.0	5293.8
25°	5135.4	5103.0
27.5°	4892.4	4870.8
30°	4575.6	4543.2
32.5°	4204.8	4188.6
35°	3850.2	3830.4
37.5°	3526.2	3520.8
40°	3252.6	3223.8
42.5°	2932.2	2919.6
45°	2606.4	2599.2
47.5°	2300.4	2293.2
50°	2017.8	2003.4
52.5°	1740.6	1717.2
55°	1432.8	1416.6
57.5°	1099.8	1085.4
60°	774.0	757.8
62.5°	550.8	532.8
65°	459.0	444.6
67.5°	415.8	399.6
69°	396.0	381.6
70°	383.4	372.6
72.5°	356.4	349.2
75°	325.8	320.4
77.5°	286.2	277.2
80°	239.4	230.4
82.5°	201.6	192.6
85°	135.0	122.4
87.5°	61.2	54.0
90°	0.0	0.0

(END OF REPORT)