

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: P158055

Luminaire Tested: **VST-F09-LED-E-U-RW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158055
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-F09-LED-E-U-RW
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23146.7 lumens
Efficiency: N/A
Efficacy: 98.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type I - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 234.8
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

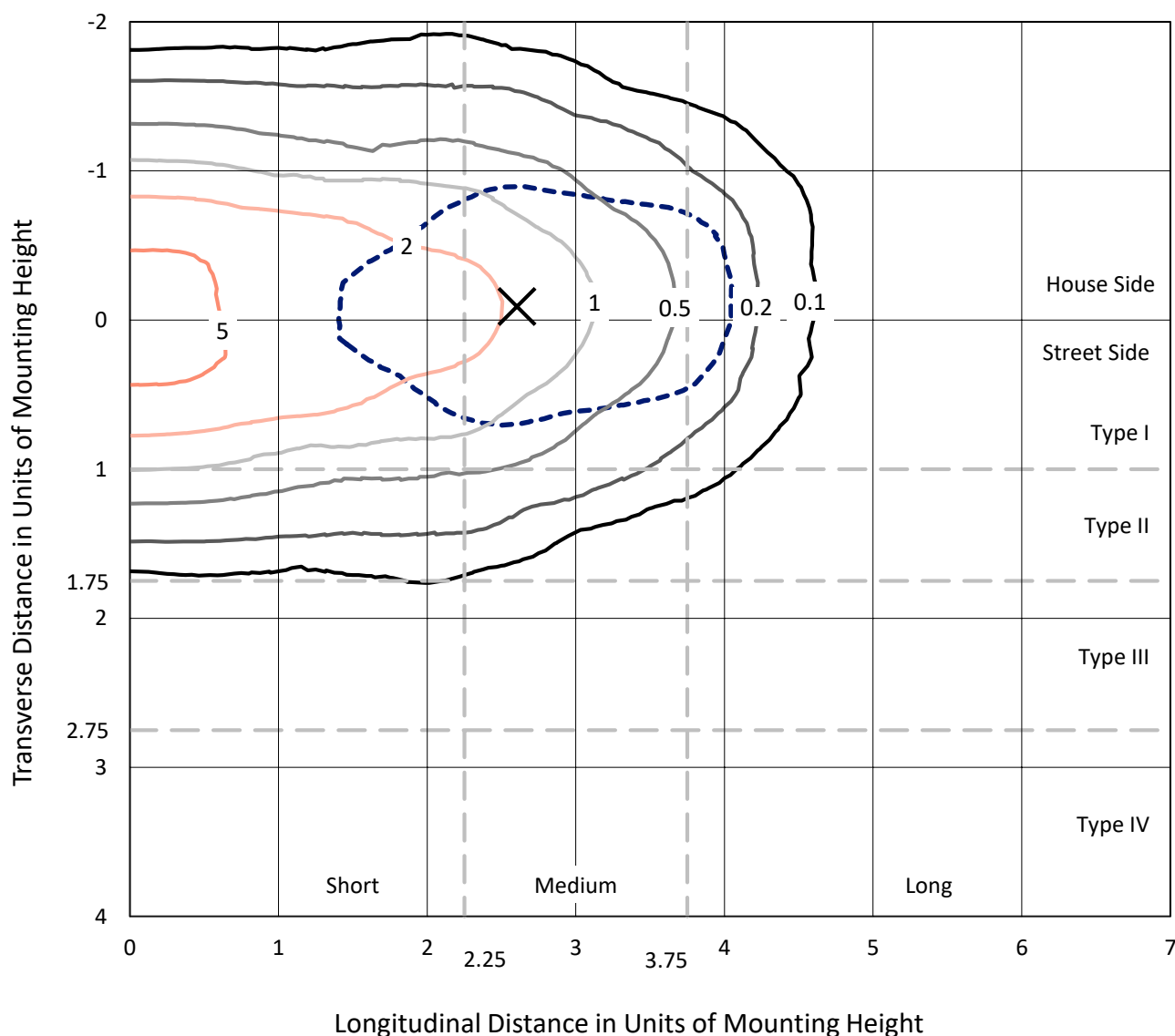


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

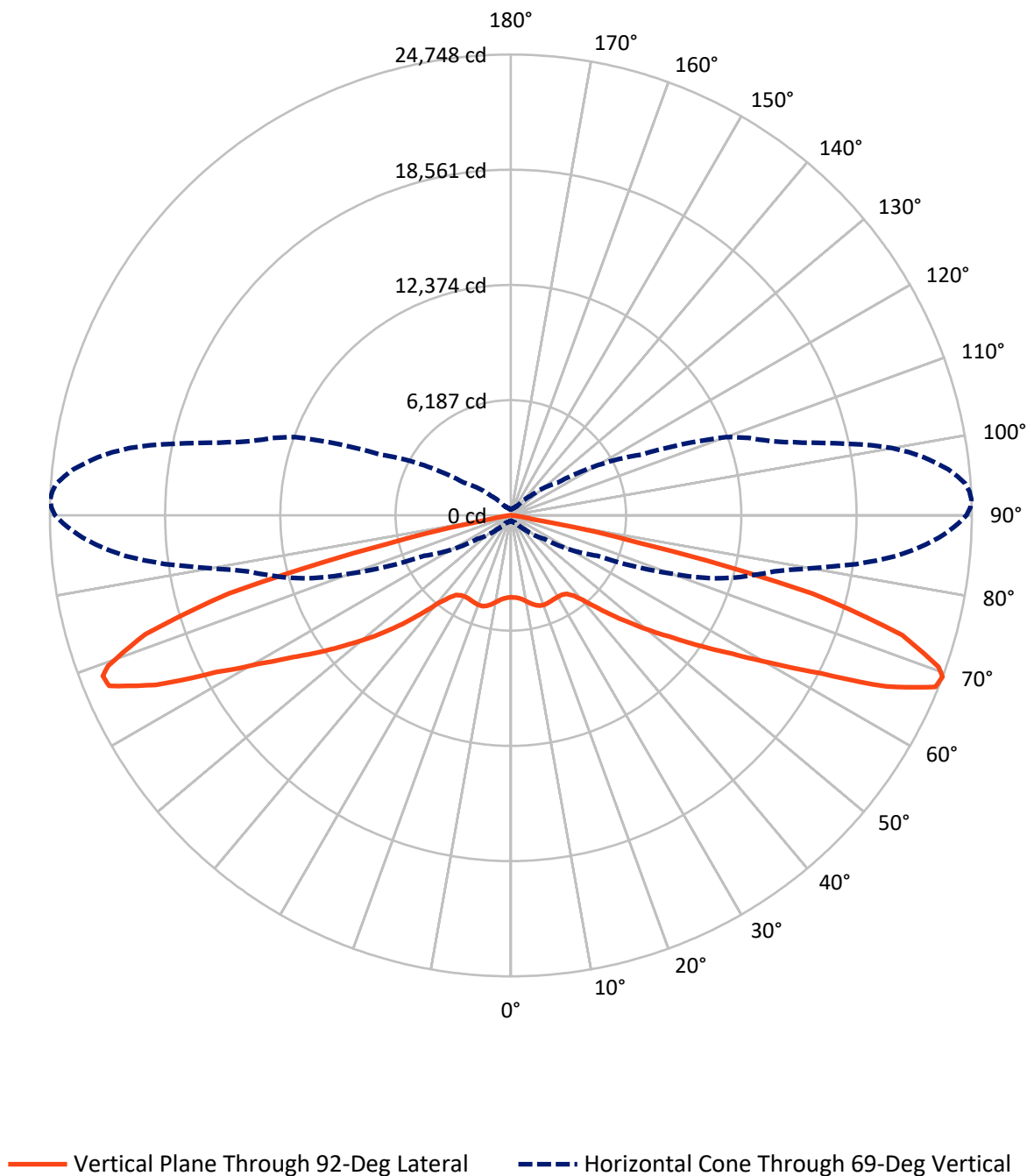


Based on 25 foot mounting height. Maximum calculated value = 7.2 fc
 Type I - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12275.9	0.0	12275.9
	% Fixture	53.0	0.0	53.0
Street Side	Lumens	10870.8	0.0	10870.8
	% Fixture	47.0	0.0	47.0
Total	Lumens	23146.7	0.0	23146.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	430.2	1.9
10°-20°	1359.1	5.9
20°-30°	2205.1	9.5
30°-40°	2748.1	11.9
40°-50°	3421.7	14.8
50°-60°	4219.8	18.2
60°-70°	5240.7	22.6
70°-80°	3220.1	13.9
80°-90°	301.8	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°	23146.7	100.0
0°-180°	23146.7	100.0

Coefficient of Utilization



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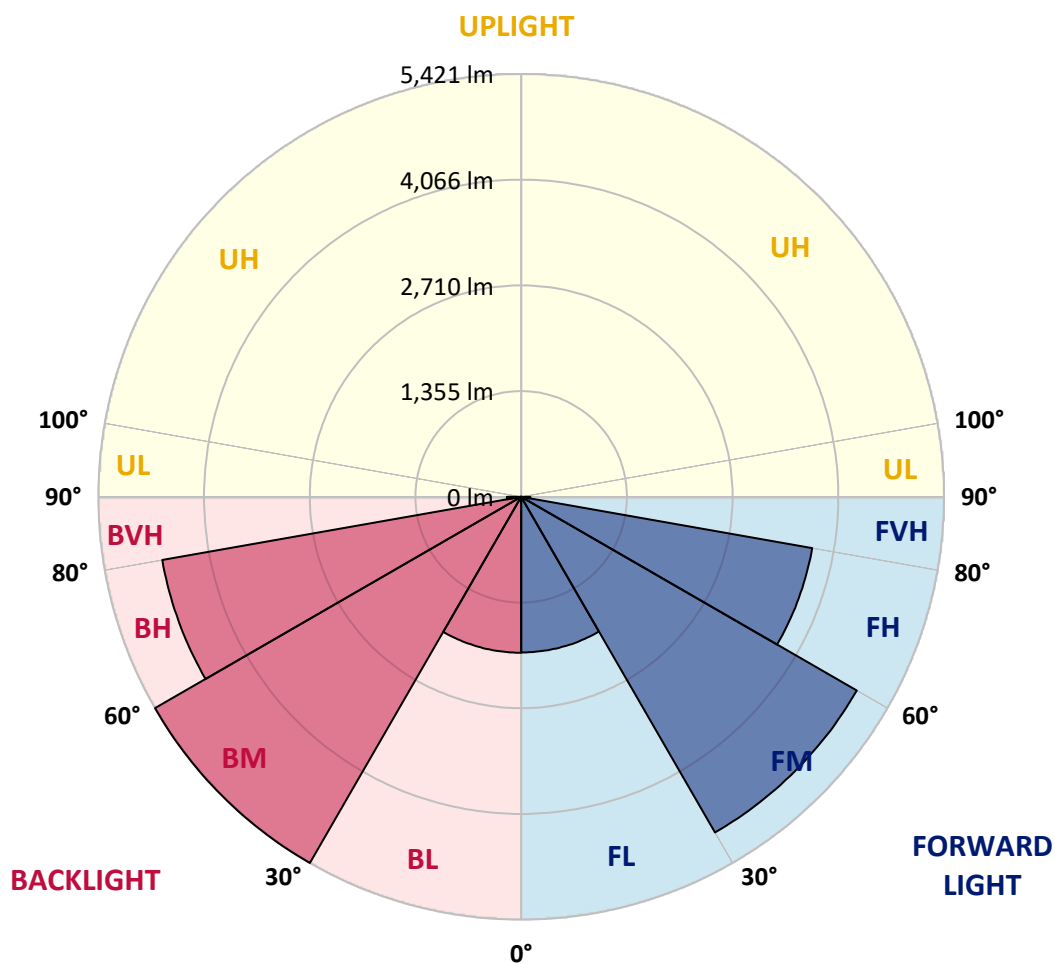
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1995.1	8.6			
FM	(30°-60°)	4968.7	21.5			
FH	(60°-80°)	3788.8	16.4			G2/5000
FVH	(80°-90°)	118.2	0.5			G2/225
BL	(0°-30°)	1999.3	8.6	B3/2500		
BM	(30°-60°)	5420.9	23.4	B4/8500		
BH	(60°-80°)	4672.0	20.2	B4/5000		G4/5000
BVH	(80°-90°)	183.6	0.8			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 I Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	70°	71°	72°
0°	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9
2.5°	4466.8	4454.9	4465.3	4466.8	4465.3	4465.3	4451.9	4448.9	4431.1	4435.5	4434.1
5°	4527.7	4523.2	4530.6	4533.6	4536.6	4530.6	4520.2	4515.8	4503.9	4499.4	4498.0
7.5°	4584.1	4576.7	4588.6	4599.0	4606.4	4607.9	4609.4	4602.0	4602.0	4596.0	4596.0
10°	4631.7	4625.7	4645.1	4658.4	4682.2	4695.6	4710.4	4720.8	4726.8	4728.3	4726.8
12.5°	4652.5	4648.0	4679.2	4719.4	4763.9	4795.1	4832.3	4859.0	4866.5	4865.0	4872.4
15°	4616.8	4619.8	4667.4	4746.1	4841.2	4920.0	4972.0	4994.3	5000.2	5003.2	5004.7
17.5°	4520.2	4526.2	4594.5	4722.3	4888.8	5031.4	5108.7	5108.7	5096.8	5096.8	5095.3
20°	4365.7	4371.6	4460.8	4645.1	4890.2	5108.7	5218.6	5196.3	5151.8	5142.9	5133.9
22.5°	4151.7	4175.5	4273.6	4487.6	4826.3	5131.0	5287.0	5254.3	5184.5	5165.1	5151.8
25°	3909.5	3906.5	4023.9	4264.7	4671.8	5077.5	5306.3	5300.4	5226.1	5205.3	5181.5
27.5°	3633.1	3642.1	3750.5	3994.2	4435.5	4922.9	5273.6	5352.4	5291.4	5270.6	5248.4
30°	3349.3	3358.2	3460.8	3744.6	4166.6	4701.5	5206.8	5402.9	5379.1	5362.8	5347.9
32.5°	3064.0	3067.0	3188.8	3493.5	3939.2	4437.0	5105.7	5449.0	5481.7	5474.2	5468.3
35°	2796.5	2799.5	2931.8	3240.8	3714.9	4211.2	4983.9	5515.8	5621.3	5630.2	5636.2
37.5°	2536.5	2541.0	2676.2	3000.1	3493.5	4040.3	4848.6	5618.4	5817.5	5850.2	5856.1
40°	2278.0	2282.4	2411.7	2754.9	3269.1	3890.2	4744.6	5762.5	6082.0	6126.6	6172.6
42.5°	2031.3	2047.6	2157.6	2486.0	3019.4	3704.5	4700.0	5937.8	6395.5	6465.3	6517.4
45°	1801.0	1802.5	1927.3	2234.9	2723.7	3453.3	4670.3	6137.0	6746.2	6851.7	6923.0
47.5°	1554.3	1572.1	1702.9	2001.6	2447.4	3142.8	4575.2	6370.2	7128.1	7251.4	7395.5
50°	1315.1	1340.3	1466.6	1762.3	2194.7	2821.8	4319.6	6643.7	7557.5	7718.0	7884.4
52.5°	1084.7	1083.3	1217.0	1524.6	1940.6	2549.9	3905.1	6930.4	8053.8	8226.2	8406.0
55°	820.2	820.2	952.5	1233.3	1665.7	2307.7	3460.8	7108.8	8514.5	8722.5	8918.6
57.5°	563.2	578.0	702.9	945.1	1379.0	2086.3	3120.5	7006.2	8866.6	9125.2	9358.5
60°	417.6	432.4	524.5	679.1	1078.8	1824.7	2864.9	6523.3	9079.1	9422.4	9725.5
62.5°	361.1	371.5	459.2	543.9	777.1	1546.9	2639.0	5909.6	9385.2	9854.8	10276.8
65°	322.5	332.9	420.5	469.6	607.8	1243.7	2512.7	5558.9	9750.8	10468.5	11080.7
67.5°	298.7	310.6	384.9	420.5	530.5	1124.9	2414.7	5477.2	9747.8	10618.6	11400.2
69°	286.8	295.7	356.6	395.3	512.7	1089.2	2202.2	5122.1	9104.4	10039.0	10823.6
70°	279.4	288.3	340.3	378.9	506.7	1025.3	2006.0	4652.5	8371.8	9312.4	10108.9
72.5°	255.6	264.5	303.1	338.8	422.0	685.0	1398.3	2977.8	5982.4	6654.1	7564.9
75°	225.9	236.3	266.0	295.7	319.5	396.7	806.9	1545.4	3420.6	3930.3	4741.7
77.5°	184.3	194.7	225.9	273.4	270.4	301.6	524.5	949.5	1601.8	1986.7	2286.9
80°	151.6	159.0	185.7	276.4	221.4	252.6	425.0	778.6	1127.8	1246.7	1318.0
82.5°	101.0	111.4	144.1	216.9	169.4	179.8	318.0	728.1	954.0	1046.1	1132.3
85°	47.6	52.0	87.7	115.9	102.5	96.6	181.3	514.1	710.3	753.4	786.1
87.5°	0.0	0.0	4.5	8.9	13.4	13.4	32.7	108.5	199.1	240.7	237.8
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):

	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°	83°
0°	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9
2.5°	4428.1	4429.6	4428.1	4428.1	4426.6	4423.7	4423.7	4420.7	4422.2	4420.7	4423.7
5°	4496.5	4496.5	4492.0	4489.0	4493.5	4489.0	4490.5	4483.1	4483.1	4478.6	4472.7
7.5°	4594.5	4594.5	4596.0	4587.1	4593.1	4594.5	4590.1	4587.1	4584.1	4576.7	4578.2
10°	4725.3	4725.3	4729.8	4717.9	4723.8	4726.8	4728.3	4728.3	4725.3	4711.9	4713.4
12.5°	4870.9	4868.0	4869.4	4863.5	4869.4	4872.4	4875.4	4872.4	4872.4	4869.4	4868.0
15°	5003.2	5001.7	5004.7	5000.2	5001.7	5004.7	5013.6	5012.1	5010.6	5001.7	5001.7
17.5°	5093.8	5089.4	5086.4	5084.9	5084.9	5083.4	5084.9	5084.9	5080.4	5079.0	5079.0
20°	5128.0	5116.1	5108.7	5104.2	5098.3	5095.3	5092.3	5093.8	5090.8	5086.4	5087.9
22.5°	5133.9	5117.6	5102.7	5089.4	5077.5	5070.0	5062.6	5059.6	5052.2	5047.8	5047.8
25°	5162.2	5136.9	5113.1	5090.8	5073.0	5056.7	5040.3	5028.4	5019.5	5009.1	5006.1
27.5°	5224.6	5197.8	5169.6	5141.4	5117.6	5084.9	5062.6	5038.8	5018.0	5001.7	4989.8
30°	5321.2	5294.4	5266.2	5233.5	5202.3	5168.1	5131.0	5102.7	5073.0	5040.3	5022.5
32.5°	5449.0	5431.1	5402.9	5371.7	5343.5	5307.8	5263.2	5220.1	5191.9	5153.3	5125.0
35°	5631.7	5610.9	5602.0	5588.6	5560.4	5538.1	5489.1	5449.0	5422.2	5368.7	5347.9
37.5°	5881.4	5879.9	5887.3	5882.9	5887.3	5859.1	5836.8	5835.3	5796.7	5744.7	5694.1
40°	6221.7	6239.5	6279.6	6307.8	6334.6	6337.6	6368.8	6336.1	6340.5	6333.1	6281.1
42.5°	6609.5	6670.4	6718.0	6801.2	6865.1	6924.5	6964.6	7019.6	7061.2	7098.4	7107.3
45°	7041.9	7132.5	7242.5	7316.8	7441.6	7541.2	7677.9	7783.4	7893.3	8001.8	8040.4
47.5°	7511.5	7624.4	7746.2	7884.4	8041.9	8198.0	8409.0	8570.9	8747.8	8894.9	9025.6
50°	8030.0	8147.4	8310.9	8469.9	8686.8	8866.6	9143.0	9355.5	9640.8	9837.0	10006.4
52.5°	8570.9	8718.0	8900.8	9076.2	9297.6	9527.9	9835.5	10149.0	10492.3	10789.4	11036.1
55°	9099.9	9281.2	9456.6	9661.6	9906.8	10174.3	10522.0	10935.1	11363.0	11703.3	12030.2
57.5°	9571.0	9780.5	9987.0	10195.1	10446.2	10756.8	11147.6	11593.3	12083.7	12536.9	12985.7
60°	10007.8	10259.0	10511.6	10771.6	11059.9	11443.3	11912.8	12461.1	13095.6	13715.3	14302.2
62.5°	10698.8	11028.7	11342.2	11678.0	12025.8	12476.0	13030.3	13749.4	14477.6	15251.7	15853.5
65°	11634.9	12098.6	12508.7	12944.1	13394.3	13996.1	14658.8	15519.2	16562.3	17355.8	18321.7
67.5°	12100.0	12710.8	13238.3	13722.7	14279.9	14887.7	15675.2	16693.1	17806.1	18956.2	20033.5
69°	11553.2	12183.3	12767.2	13309.6	13872.8	14462.7	15285.9	16330.5	17507.4	18751.1	19803.2
70°	10844.4	11474.5	12097.1	12715.2	13229.4	13804.4	14630.6	15707.9	16883.3	18176.1	19219.2
72.5°	8307.9	9065.7	9628.9	10208.4	10804.3	11291.7	12245.7	13153.6	14378.0	15690.1	16838.7
75°	5315.2	6012.1	6627.3	7120.6	7703.1	8287.1	8991.5	10000.4	10767.2	11844.5	12776.2
77.5°	2731.2	2937.7	3530.6	3707.4	4111.6	4429.6	4817.4	5070.0	5694.1	5826.4	6376.2
80°	1294.3	1166.5	1098.1	1035.7	1053.5	1046.1	1014.9	973.3	1025.3	1003.0	994.1
82.5°	1127.8	1006.0	802.4	682.0	589.9	500.8	430.9	395.3	399.7	411.6	416.1
85°	790.5	743.0	579.5	439.8	343.3	266.0	214.0	205.1	211.0	227.3	221.4
87.5°	228.8	239.2	211.0	147.1	102.5	74.3	58.0	65.4	62.4	60.9	63.9
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):

	84°	85°	86°	87°	88°	89°	90°	91°	92°	93°	94°
0°	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9
2.5°	4423.7	4422.2	4417.7	4413.3	4413.3	4410.3	4413.3	4414.7	4413.3	4413.3	4410.3
5°	4474.2	4475.7	4480.1	4471.2	4469.7	4471.2	4465.3	4463.8	4459.3	4463.8	4457.8
7.5°	4570.8	4575.2	4575.2	4569.3	4567.8	4572.3	4563.3	4560.4	4555.9	4554.4	4552.9
10°	4714.9	4719.4	4711.9	4707.5	4703.0	4709.0	4701.5	4701.5	4697.1	4692.6	4691.1
12.5°	4875.4	4872.4	4869.4	4872.4	4868.0	4868.0	4863.5	4860.5	4859.0	4857.6	4854.6
15°	5000.2	5010.6	5010.6	5013.6	5010.6	5010.6	5004.7	5006.1	5003.2	5001.7	5003.2
17.5°	5080.4	5083.4	5090.8	5095.3	5095.3	5096.8	5093.8	5096.8	5093.8	5093.8	5099.8
20°	5090.8	5093.8	5101.2	5108.7	5113.1	5116.1	5116.1	5120.6	5123.5	5126.5	5133.9
22.5°	5049.2	5053.7	5062.6	5076.0	5083.4	5086.4	5092.3	5099.8	5107.2	5113.1	5123.5
25°	5006.1	5007.6	5016.5	5029.9	5038.8	5046.3	5056.7	5065.6	5076.0	5087.9	5099.8
27.5°	4982.4	4980.9	4988.3	5001.7	5009.1	5019.5	5028.4	5041.8	5053.7	5068.6	5079.0
30°	5003.2	4991.3	4992.8	4998.7	5004.7	5012.1	5022.5	5034.4	5047.8	5061.1	5073.0
32.5°	5095.3	5068.6	5050.7	5046.3	5047.8	5049.2	5055.2	5062.6	5073.0	5083.4	5087.9
35°	5294.4	5248.4	5224.6	5205.3	5188.9	5175.5	5178.5	5177.0	5177.0	5185.9	5175.5
37.5°	5673.3	5615.4	5590.1	5555.9	5536.6	5487.6	5474.2	5471.2	5451.9	5451.9	5429.6
40°	6267.7	6233.5	6214.2	6183.0	6089.4	6101.3	6034.4	6035.9	5980.9	5986.9	5948.2
42.5°	7113.2	7117.7	7093.9	7073.1	7000.3	6967.6	6905.2	6816.0	6746.2	6744.7	6667.4
45°	8091.0	8144.5	8068.7	8095.4	8031.5	7943.9	7871.0	7756.6	7648.2	7614.0	7535.2
47.5°	9113.3	9201.0	9143.0	9153.4	9122.2	8997.4	8899.3	8758.2	8617.0	8521.9	8474.3
50°	10205.5	10263.4	10261.9	10233.7	10218.8	10097.0	9939.5	9832.5	9728.5	9600.7	9559.1
52.5°	11195.1	11330.3	11421.0	11400.2	11357.1	11284.3	11144.6	11052.5	10899.4	10881.6	10899.4
55°	12254.6	12429.9	12522.1	12633.5	12635.0	12621.6	12563.7	12529.5	12386.8	12403.2	12382.4
57.5°	13257.6	13514.7	13655.8	13893.6	13975.3	14083.8	14043.7	14088.2	14002.1	14058.5	14042.2
60°	14617.2	14973.9	15208.6	15534.1	15685.6	15957.6	16011.1	16043.7	16091.3	16207.2	16141.8
62.5°	16327.6	16850.6	17338.0	17780.8	17926.4	18335.1	18401.9	18657.5	18670.9	18749.7	18605.5
65°	19127.1	19764.6	20301.0	20831.5	21137.6	21616.0	21809.2	22305.5	22154.0	22217.8	21910.3
67.5°	20960.7	21702.2	22421.4	22923.7	23431.9	23920.7	24272.9	24593.9	24590.9	24528.5	24255.1
69°	20798.8	21625.0	22333.8	23006.9	23541.8	24044.1	24467.6	24675.6	24748.4	24657.8	24463.1
70°	20238.6	21087.0	21954.8	22509.1	23091.6	23642.9	24079.7	24307.1	24357.6	24293.7	24125.8
72.5°	17650.1	18464.4	19421.3	19925.0	20629.4	21027.6	21629.4	21923.6	21975.6	21893.9	21784.0
75°	13774.7	13921.8	14896.6	15217.6	15728.7	16187.9	16562.3	16467.2	16733.2	16681.2	16639.6
77.5°	6489.1	6096.8	6728.4	7022.6	6868.0	6456.4	7055.3	6622.9	6909.6	7282.6	7187.5
80°	1069.9	1066.9	1095.1	1157.6	1083.3	1150.1	1148.6	1115.9	1118.9	1199.2	1157.6
82.5°	411.6	420.5	425.0	436.9	436.9	438.4	445.8	454.7	447.3	462.1	459.2
85°	222.9	237.8	224.4	214.0	221.4	225.9	231.8	239.2	231.8	254.1	242.2
87.5°	58.0	60.9	53.5	53.5	52.0	47.6	47.6	50.5	55.0	65.4	71.3
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):

	95°	96°	97°	98°	99°	100°	101°	102°	103°	104°	105°
0°	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9
2.5°	4404.3	4405.8	4407.3	4402.9	4399.9	4399.9	4398.4	4395.4	4393.9	4393.9	4393.9
5°	4454.9	4457.8	4450.4	4448.9	4445.9	4443.0	4443.0	4440.0	4441.5	4441.5	4434.1
7.5°	4555.9	4551.4	4542.5	4536.6	4542.5	4532.1	4527.7	4530.6	4527.7	4529.2	4526.2
10°	4691.1	4691.1	4680.7	4686.7	4679.2	4667.4	4671.8	4667.4	4664.4	4654.0	4659.9
12.5°	4859.0	4854.6	4848.6	4835.3	4830.8	4829.3	4815.9	4817.4	4813.0	4810.0	4805.5
15°	5006.1	5004.7	4991.3	4983.9	4982.4	4976.4	4970.5	4967.5	4960.1	4958.6	4955.6
17.5°	5104.2	5099.8	5093.8	5086.4	5086.4	5077.5	5074.5	5067.1	5065.6	5061.1	5056.7
20°	5136.9	5138.4	5132.5	5126.5	5123.5	5117.6	5113.1	5107.2	5104.2	5098.3	5093.8
22.5°	5129.5	5129.5	5123.5	5122.1	5116.1	5107.2	5101.2	5093.8	5086.4	5079.0	5070.0
25°	5105.7	5104.2	5099.8	5092.3	5084.9	5071.5	5059.6	5047.8	5037.4	5028.4	5015.1
27.5°	5084.9	5081.9	5073.0	5062.6	5047.8	5032.9	5010.6	4994.3	4980.9	4969.0	4954.1
30°	5077.5	5067.1	5053.7	5037.4	5019.5	4997.2	4973.5	4952.7	4937.8	4925.9	4920.0
32.5°	5086.4	5073.0	5052.2	5031.4	5009.1	4982.4	4958.6	4940.8	4927.4	4924.4	4924.4
35°	5168.1	5145.8	5117.6	5087.9	5059.6	5037.4	5021.0	5019.5	5010.6	5021.0	5037.4
37.5°	5407.4	5388.0	5344.9	5306.3	5287.0	5276.6	5261.7	5264.7	5243.9	5276.6	5303.3
40°	5915.5	5891.8	5841.2	5810.0	5771.4	5734.3	5764.0	5755.1	5769.9	5764.0	5792.2
42.5°	6657.0	6633.3	6553.0	6541.1	6524.8	6509.9	6509.9	6498.0	6492.1	6512.9	6489.1
45°	7559.0	7511.5	7481.7	7517.4	7468.4	7483.2	7535.2	7465.4	7481.7	7385.1	7296.0
47.5°	8495.1	8490.7	8483.3	8526.4	8533.8	8556.1	8584.3	8513.0	8383.7	8310.9	8129.6
50°	9572.5	9618.5	9636.4	9678.0	9695.8	9712.1	9667.6	9562.1	9343.6	9150.4	8936.5
52.5°	10881.6	10801.3	10911.3	10951.4	10933.6	10868.2	10707.7	10578.4	10276.8	9998.9	9667.6
55°	12406.2	12425.5	12348.2	12317.0	12256.1	12074.8	11853.4	11562.1	11180.2	10817.7	10398.6
57.5°	13959.0	13951.5	13831.2	13661.8	13455.2	13236.8	12906.9	12489.4	12043.6	11556.2	11049.5
60°	15847.6	15840.2	15596.5	15306.7	15012.5	14660.3	14143.2	13641.0	13043.6	12403.2	11799.9
62.5°	18329.1	18009.7	17770.4	17338.0	16883.3	16422.7	15722.8	15055.6	14257.6	13449.3	12744.9
65°	21509.1	20983.0	20711.1	20084.0	19379.7	18660.5	17948.7	17072.0	15997.7	15019.9	14159.6
67.5°	23861.3	23379.9	22882.1	22256.5	21483.8	20681.4	19706.6	18602.5	17382.6	16286.0	15348.3
69°	24067.8	23617.6	23020.3	22393.2	21662.1	20789.9	19725.9	18489.6	17253.3	16143.3	15220.5
70°	23754.3	23275.8	22647.3	21995.0	21177.7	20354.5	19240.0	17951.7	16713.9	15600.9	14700.5
72.5°	21415.4	20948.9	20280.2	19500.1	18662.0	17957.6	16899.7	15556.4	14210.1	13181.8	12480.5
75°	16284.5	16181.9	15707.9	15253.2	14593.5	13807.4	12840.0	11936.6	10832.5	9744.8	9091.0
77.5°	6948.3	7184.5	7431.2	7466.9	7490.6	7248.4	7098.4	6871.0	6132.5	5796.7	5450.4
80°	1283.9	1147.1	1224.4	1233.3	1283.9	1310.6	1408.7	1670.2	1699.9	1763.8	1842.6
82.5°	456.2	463.6	475.5	480.0	484.4	502.2	569.1	682.0	784.6	918.3	1096.6
85°	258.6	263.0	273.4	282.3	288.3	306.1	343.3	410.1	511.2	664.2	900.5
87.5°	78.8	89.2	95.1	107.0	111.4	114.4	130.8	175.3	225.9	334.3	487.4
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-F09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	106°	107°	108°	109°	110°	115°	125°	135°	145°	155°	165°
0°	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9	4396.9
2.5°	4393.9	4392.5	4389.5	4386.5	4388.0	4385.0	4376.1	4373.1	4362.7	4355.3	4349.4
5°	4434.1	4432.6	4426.6	4428.1	4426.6	4411.8	4401.4	4383.5	4373.1	4356.8	4350.8
7.5°	4517.3	4515.8	4505.4	4509.8	4506.9	4484.6	4466.8	4438.5	4423.7	4402.9	4386.5
10°	4642.1	4642.1	4630.2	4631.7	4631.7	4602.0	4570.8	4523.2	4489.0	4456.3	4428.1
12.5°	4793.7	4787.7	4786.2	4778.8	4772.9	4740.2	4692.6	4628.7	4564.8	4511.3	4472.7
15°	4946.7	4937.8	4933.3	4924.4	4917.0	4887.3	4823.4	4744.6	4658.4	4572.3	4508.4
17.5°	5046.3	5040.3	5031.4	5028.4	5018.0	4988.3	4943.7	4865.0	4758.0	4637.6	4541.0
20°	5083.4	5073.0	5067.1	5061.1	5055.2	5034.4	5034.4	4983.9	4865.0	4695.6	4548.5
22.5°	5059.6	5053.7	5044.8	5040.3	5034.4	5037.4	5095.3	5087.9	4951.2	4709.0	4495.0
25°	5004.7	4997.2	4989.8	4989.8	4988.3	5019.5	5159.2	5178.5	4976.4	4643.6	4377.6
27.5°	4948.2	4937.8	4940.8	4942.3	4949.7	5016.5	5229.0	5202.3	4908.1	4486.1	4175.5
30°	4914.0	4914.0	4921.4	4933.3	4948.2	5065.6	5284.0	5148.8	4731.2	4248.3	3908.0
32.5°	4928.9	4943.7	4960.1	4989.8	5012.1	5174.1	5303.3	5010.6	4474.2	3954.1	3628.7
35°	5061.1	5079.0	5110.2	5156.2	5183.0	5330.1	5303.3	4808.5	4175.5	3701.5	3340.4
37.5°	5349.4	5367.2	5404.4	5440.0	5466.8	5526.2	5281.0	4551.4	3925.9	3440.0	3081.8
40°	5813.0	5838.3	5865.0	5859.1	5841.2	5783.3	5236.5	4312.2	3695.5	3211.1	2827.8
42.5°	6465.3	6441.6	6438.6	6380.6	6321.2	6073.1	5203.8	4156.2	3497.9	2970.4	2575.1
45°	7218.7	7122.1	7022.6	6945.3	6854.7	6391.0	5194.9	4029.9	3279.5	2702.9	2300.2
47.5°	7976.6	7822.0	7628.8	7508.5	7361.4	6729.8	5221.6	3860.5	2998.6	2411.7	2043.2
50°	8719.5	8466.9	8227.7	8083.5	7917.1	7119.2	5264.7	3575.2	2662.8	2147.2	1808.4
52.5°	9407.5	9082.1	8836.9	8667.5	8463.9	7572.4	5226.1	3200.7	2371.6	1893.1	1585.5
55°	10061.3	9701.7	9447.6	9269.3	9030.1	8027.1	4946.7	2860.4	2093.7	1644.9	1334.4
57.5°	10633.4	10288.7	10024.2	9782.0	9579.9	8422.3	4395.4	2579.6	1826.2	1361.1	1062.5
60°	11302.1	10914.3	10600.7	10342.2	10104.4	8625.9	3777.3	2330.0	1540.9	1053.5	768.2
62.5°	12204.1	11758.3	11395.7	11100.0	10789.4	8670.5	3355.3	2080.3	1222.9	762.3	558.7
65°	13541.4	12991.6	12538.4	12131.3	11710.7	8486.2	3147.2	1808.4	909.4	566.1	468.1
67.5°	14603.9	14033.3	13508.7	12985.7	12447.8	8144.5	3101.2	1557.3	698.4	481.4	420.5
69°	14474.6	13930.7	13449.3	12883.1	12287.3	7715.0	3055.1	1460.7	637.5	447.3	398.2
70°	13976.8	13461.2	12972.3	12511.7	11782.1	7236.6	2933.3	1407.2	613.7	430.9	381.9
72.5°	11810.3	11212.9	10738.9	10165.3	9397.1	5377.6	2224.5	1138.2	563.2	393.8	344.7
75°	8614.0	8119.2	7646.7	7012.2	6264.7	3111.6	1384.9	650.8	413.1	356.6	312.0
77.5°	5029.9	4918.5	4462.3	4044.7	3304.7	1584.0	795.0	389.3	321.0	323.9	274.9
80°	1893.1	2016.4	2062.5	1918.4	1772.7	1093.7	578.0	316.5	279.4	319.5	233.3
82.5°	1380.4	1601.8	1628.6	1560.2	1451.8	1019.4	462.1	254.1	227.3	343.3	200.6
85°	1151.6	1274.9	1294.3	1222.9	1187.3	863.3	322.5	178.3	166.4	246.7	150.1
87.5°	582.5	613.7	630.0	570.6	573.6	402.7	129.3	75.8	90.6	105.5	83.2
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-F09-LED-E-U-RW

CANDELA DISTRIBUTION (continued):

	175°	180°
0°	4396.9	4396.9
2.5°	4336.0	4344.9
5°	4341.9	4341.9
7.5°	4376.1	4376.1
10°	4413.3	4414.7
12.5°	4447.4	4445.9
15°	4474.2	4469.7
17.5°	4490.5	4486.1
20°	4474.2	4466.8
22.5°	4391.0	4370.2
25°	4239.4	4212.7
27.5°	4038.8	4021.0
30°	3777.3	3750.5
32.5°	3471.2	3457.8
35°	3178.4	3162.1
37.5°	2911.0	2906.5
40°	2685.1	2661.3
42.5°	2420.6	2410.2
45°	2151.6	2145.7
47.5°	1899.0	1893.1
50°	1665.7	1653.9
52.5°	1436.9	1417.6
55°	1182.8	1169.4
57.5°	907.9	896.0
60°	639.0	625.6
62.5°	454.7	439.8
65°	378.9	367.0
67.5°	343.3	329.9
69°	326.9	315.0
70°	316.5	307.6
72.5°	294.2	288.3
75°	269.0	264.5
77.5°	236.3	228.8
80°	197.6	190.2
82.5°	166.4	159.0
85°	111.4	101.0
87.5°	50.5	44.6
90°	0.0	0.0

(END OF REPORT)