

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: P159375

Luminaire Tested: **VST-F09-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159375
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-F09-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (63) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22933.4 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-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



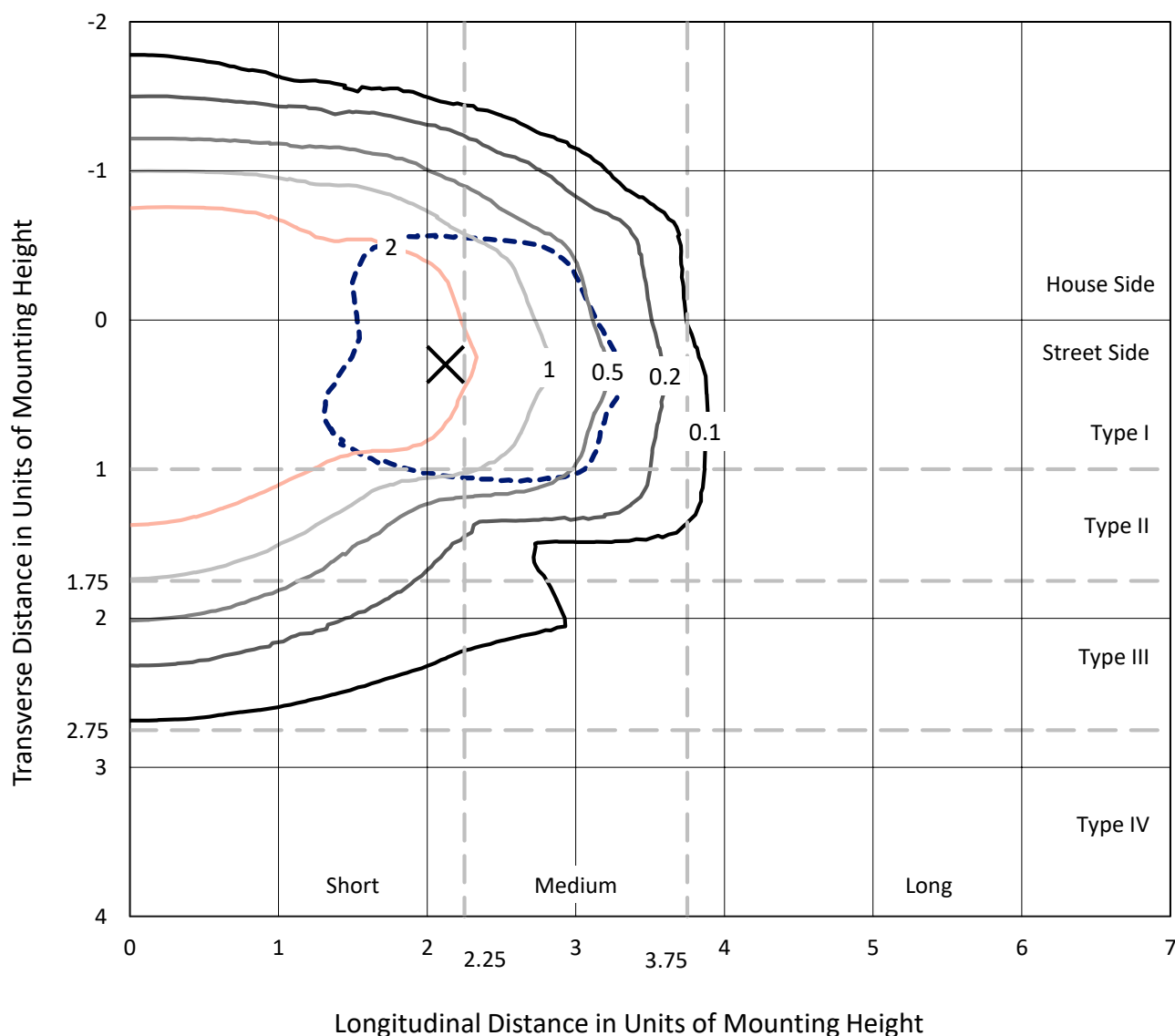
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

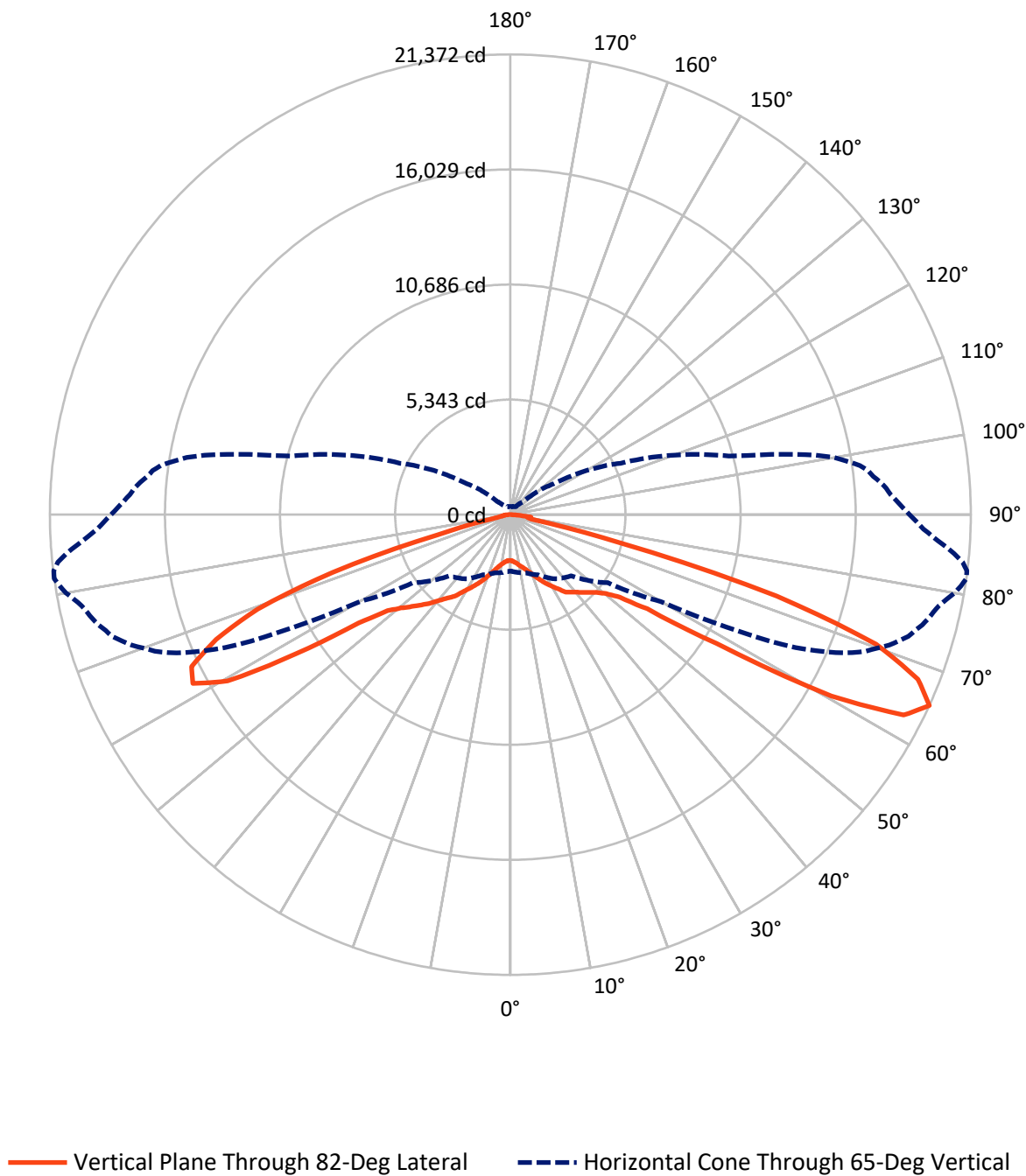


Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8538.9	0.0	8538.9
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	14394.6	0.0	14394.6
	% Fixture	62.8	0.0	62.8
Total	Lumens	22933.4	0.0	22933.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	216.0	0.9
10°-20°	759.0	3.3
20°-30°	1504.0	6.6
30°-40°	2578.2	11.2
40°-50°	3873.1	16.9
50°-60°	5381.0	23.5
60°-70°	6138.8	26.8
70°-80°	2114.8	9.2
80°-90°	368.6	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°	22933.4	100.0
0°-180°	22933.4	100.0

Coefficient of Utilization



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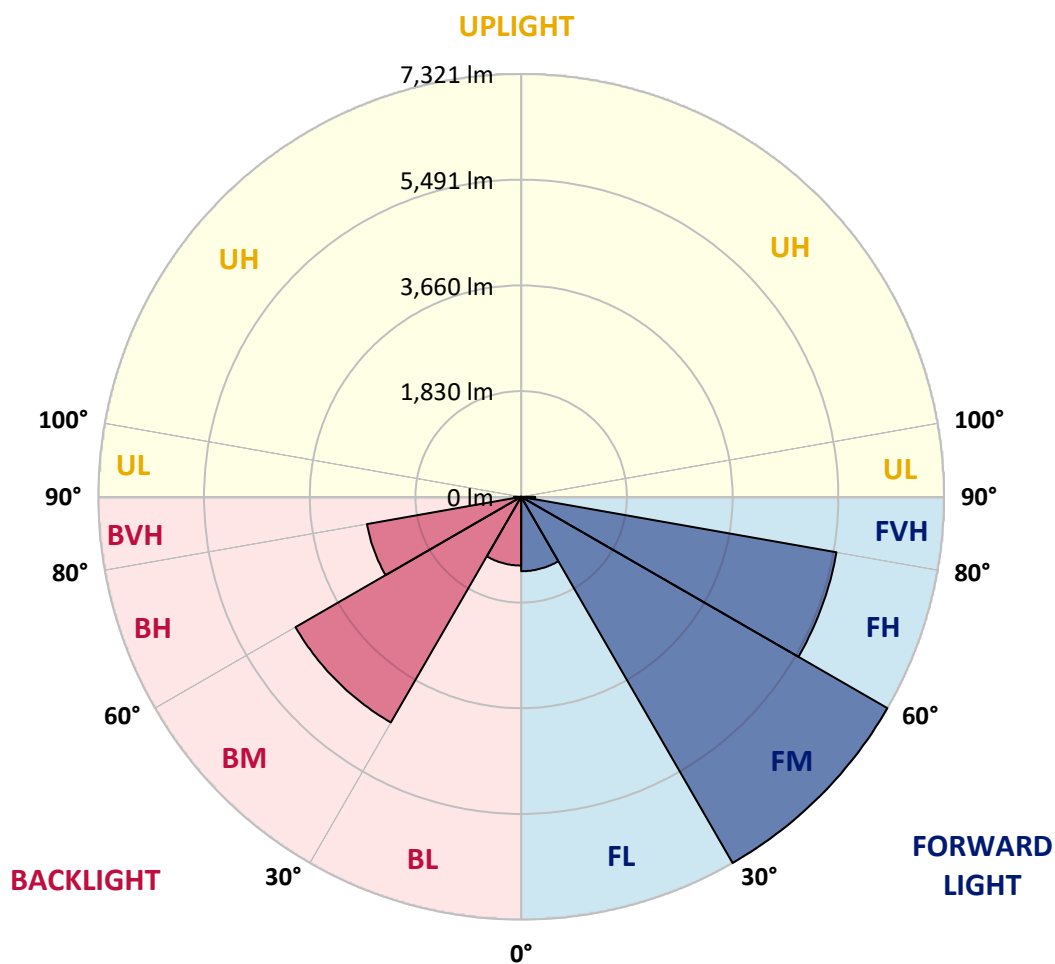
CATALOG NUMBER: VST-F09-LED-E-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1288.4	5.6			
FM	(30°-60°)	7320.8	31.9			
FH	(60°-80°)	5542.8	24.2			G3/7500
FVH	(80°-90°)	242.6	1.1			G3/500
BL	(0°-30°)	1190.7	5.2	B3/2500		
BM	(30°-60°)	4511.4	19.7	B3/5000		
BH	(60°-80°)	2710.8	11.8	B4/5000		G4/5000
BVH	(80°-90°)	125.9	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°	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2249.7	2251.2	2249.7	2245.3	2243.8	2230.4	2215.5	2208.1	2206.6	2200.7	2202.2
5°	2389.4	2384.9	2379.0	2371.6	2364.1	2341.8	2316.6	2303.2	2298.8	2294.3	2288.4
7.5°	2514.2	2517.2	2514.2	2503.8	2484.5	2456.3	2423.6	2402.8	2401.3	2396.8	2392.4
10°	2674.7	2682.1	2664.3	2646.5	2619.7	2576.6	2539.5	2512.7	2508.3	2502.3	2499.4
12.5°	2848.6	2850.0	2844.1	2804.0	2759.4	2700.0	2646.5	2619.7	2613.8	2606.3	2603.4
15°	3034.3	3035.8	3003.1	2964.5	2896.1	2824.8	2750.5	2720.8	2713.3	2714.8	2702.9
17.5°	3181.4	3184.4	3153.2	3104.1	3022.4	2937.7	2857.5	2833.7	2829.2	2830.7	2824.8
20°	3245.3	3249.8	3230.4	3193.3	3116.0	3041.7	2983.8	2968.9	2967.4	2964.5	2976.3
22.5°	3242.3	3243.8	3236.4	3221.5	3175.5	3132.4	3124.9	3133.9	3132.4	3135.3	3145.7
25°	3215.6	3220.0	3218.6	3224.5	3217.1	3233.4	3267.6	3298.8	3303.3	3309.2	3328.5
27.5°	3283.9	3292.9	3282.5	3288.4	3300.3	3355.3	3425.1	3472.7	3481.6	3497.9	3514.3
30°	3551.4	3539.5	3526.1	3511.3	3518.7	3552.9	3631.6	3673.3	3677.7	3689.6	3711.9
32.5°	3948.2	3934.8	3922.9	3899.1	3893.2	3878.3	3905.1	3915.5	3914.0	3925.9	3931.8
35°	4395.4	4396.9	4393.9	4411.8	4426.6	4350.8	4257.2	4232.0	4242.4	4229.0	4232.0
37.5°	4777.3	4781.8	4860.5	4958.6	4986.8	4939.3	4734.2	4633.2	4599.0	4594.5	4560.4
40°	5200.8	5200.8	5319.7	5440.0	5518.8	5578.2	5334.5	5156.2	5083.4	5062.6	4977.9
42.5°	5665.9	5642.1	5750.6	5882.9	6028.5	6163.7	6037.4	5836.8	5732.8	5695.6	5547.0
45°	6047.8	6032.9	6086.4	6209.8	6446.0	6710.5	6728.4	6625.8	6563.4	6486.1	6349.4
47.5°	6282.6	6275.1	6306.4	6440.1	6735.8	7163.7	7403.0	7455.0	7417.8	7358.4	7226.1
50°	6374.7	6364.3	6386.6	6535.2	6866.6	7431.2	7960.2	8205.4	8223.2	8236.6	8195.0
52.5°	6342.0	6328.6	6374.7	6499.5	6844.3	7524.8	8395.6	8866.6	8945.4	9012.3	9149.0
55°	6028.5	6007.7	6132.5	6367.3	6747.7	7490.6	8713.6	9502.6	9669.0	9847.4	10150.5
57.5°	5548.5	5530.7	5710.5	6032.9	6576.8	7397.0	8927.6	10306.5	10681.0	11001.9	11862.3
60°	5086.4	5071.5	5177.0	5489.1	6022.5	6940.8	8663.1	10577.0	11205.5	11898.0	13468.6
62.5°	4260.2	4220.1	4361.2	4624.3	4961.6	5741.7	7508.5	9975.1	10944.0	11961.9	14091.2
65°	2618.2	2676.2	2798.0	3089.3	3642.1	4013.5	5514.3	8070.2	9348.1	10624.5	13386.9
67.5°	1662.8	1679.1	1769.8	1971.8	2399.8	2772.8	3341.9	5064.1	6049.3	7304.9	10510.1
70°	1425.0	1435.4	1512.7	1723.7	2019.4	2478.6	2529.1	2645.0	2998.6	3798.1	6178.6
72.5°	1123.4	1141.2	1202.1	1384.9	1741.5	2234.9	3122.0	2090.7	2019.4	2086.3	3015.0
75°	668.7	689.5	740.0	839.6	1118.9	1708.8	3270.6	2432.5	2267.6	2138.3	2080.3
77.5°	353.7	338.8	373.0	430.9	575.1	910.9	2457.8	2980.8	2864.9	2710.4	2382.0
80°	175.3	181.3	191.7	203.6	257.1	370.0	1228.9	3083.3	3417.7	3566.3	3275.0
82.5°	69.8	78.8	111.4	118.9	141.2	157.5	395.3	1708.8	2447.4	3319.6	4334.5
85°	35.7	34.2	59.4	71.3	83.2	74.3	139.7	637.5	1147.1	1787.6	2896.1
87.5°	4.5	5.9	13.4	17.8	25.3	23.8	40.1	138.2	219.9	312.0	438.4
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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CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2194.7	2193.3	2193.3	2187.3	2187.3	2188.8	2184.3	2181.4	2181.4	2182.9	2176.9
5°	2283.9	2279.4	2279.4	2273.5	2266.1	2266.1	2260.1	2258.6	2255.7	2249.7	2245.3
7.5°	2387.9	2383.5	2376.0	2371.6	2368.6	2364.1	2356.7	2353.7	2347.8	2341.8	2335.9
10°	2494.9	2489.0	2486.0	2478.6	2475.6	2466.7	2462.2	2463.7	2451.8	2447.4	2448.8
12.5°	2601.9	2595.9	2585.5	2582.6	2581.1	2572.2	2567.7	2564.7	2555.8	2554.3	2549.9
15°	2697.0	2700.0	2695.5	2688.1	2682.1	2680.6	2676.2	2673.2	2667.3	2661.3	2655.4
17.5°	2820.3	2824.8	2818.8	2808.4	2808.4	2806.9	2808.4	2806.9	2796.5	2801.0	2798.0
20°	2977.8	2980.8	2965.9	2970.4	2973.4	2971.9	2976.3	2980.8	2977.8	2977.8	2982.3
22.5°	3159.1	3163.6	3154.7	3160.6	3169.5	3162.1	3175.5	3174.0	3177.0	3181.4	3182.9
25°	3344.9	3353.8	3346.3	3362.7	3356.7	3362.7	3379.0	3374.6	3382.0	3393.9	3398.4
27.5°	3530.6	3536.5	3538.0	3548.4	3558.8	3567.8	3588.6	3588.6	3594.5	3615.3	3615.3
30°	3725.3	3731.2	3737.2	3752.0	3758.0	3774.3	3795.1	3801.0	3798.1	3827.8	3836.7
32.5°	3949.6	3955.6	3966.0	3983.8	3991.2	4007.6	4007.6	4023.9	4035.8	4061.1	4062.6
35°	4248.3	4252.8	4248.3	4246.8	4257.2	4279.5	4281.0	4304.8	4315.2	4340.4	4347.9
37.5°	4547.0	4545.5	4526.2	4505.4	4506.9	4498.0	4492.0	4502.4	4506.9	4508.4	4524.7
40°	4949.7	4911.0	4881.3	4829.3	4805.5	4768.4	4746.1	4744.6	4720.8	4717.9	4722.3
42.5°	5477.2	5432.6	5362.8	5275.1	5208.2	5139.9	5089.4	5059.6	5007.6	4980.9	4958.6
45°	6214.2	6104.3	6021.0	5917.0	5787.8	5668.9	5544.1	5487.6	5388.0	5327.1	5258.8
47.5°	7114.7	7006.2	6878.4	6771.5	6602.1	6437.1	6266.2	6116.1	5942.3	5804.1	5691.2
50°	8092.5	8028.6	7936.4	7836.9	7618.4	7510.0	7294.5	7090.9	6903.7	6657.0	6441.6
52.5°	9095.5	9132.6	9111.8	9076.2	8938.0	8896.4	8710.6	8462.5	8273.7	8104.3	7729.9
55°	10331.8	10376.4	10465.5	10517.5	10501.2	10606.7	10560.6	10367.4	10291.7	10212.9	9946.9
57.5°	12223.4	12541.4	12881.7	13180.3	13250.2	13624.6	13544.4	13737.6	13874.3	13776.2	13690.0
60°	14239.8	14881.7	15459.8	16064.5	16556.4	16924.9	17412.3	17740.7	17947.2	18318.7	18348.4
62.5°	15052.6	15924.9	16658.9	17360.3	17944.3	18455.4	18895.3	19348.5	19720.0	20055.8	20298.0
65°	14606.8	15517.7	16407.8	17119.6	17681.3	18121.1	18599.6	18959.2	19324.7	19540.2	19794.3
67.5°	12143.1	13349.7	14444.9	15247.3	16015.5	16462.8	17028.9	17382.6	17770.4	17997.8	18161.2
70°	7917.1	9487.8	10984.1	12201.1	13238.3	13759.8	14443.4	14926.3	15392.9	15404.8	15676.7
72.5°	4272.1	5585.7	6838.3	8082.1	9264.9	9958.8	10633.4	11220.4	11684.0	11486.4	11756.8
75°	2379.0	2994.2	3679.2	4426.6	5147.3	5544.1	6047.8	6050.8	6290.0	5914.1	6009.2
77.5°	2288.4	2260.1	2270.5	2291.3	2327.0	2251.2	2249.7	2203.7	2132.3	2003.1	2025.3
80°	3006.1	2646.5	2387.9	1982.3	1595.9	1301.7	1220.0	1239.3	1297.2	1413.1	1560.2
82.5°	4346.4	4043.3	3609.4	2970.4	2331.4	1798.0	1477.0	1310.6	1303.2	1419.1	1642.0
85°	3165.1	3347.8	3319.6	2771.3	2285.4	1855.9	1350.7	1141.2	945.1	899.0	977.8
87.5°	466.6	386.3	435.4	364.1	264.5	205.1	179.8	144.1	138.2	141.2	154.5
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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CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2178.4	2172.5	2166.5	2171.0	2166.5	2165.0	2160.6	2157.6	2156.1	2156.1	2156.1
5°	2245.3	2237.8	2233.4	2231.9	2227.4	2223.0	2221.5	2214.1	2212.6	2212.6	2208.1
7.5°	2335.9	2330.0	2322.5	2318.1	2315.1	2307.7	2300.2	2298.8	2297.3	2291.3	2286.9
10°	2441.4	2432.5	2423.6	2423.6	2417.6	2416.1	2408.7	2398.3	2396.8	2387.9	2384.9
12.5°	2541.0	2538.0	2527.6	2524.6	2520.2	2515.7	2511.2	2506.8	2502.3	2494.9	2497.9
15°	2659.8	2652.4	2643.5	2645.0	2643.5	2637.6	2631.6	2627.2	2624.2	2621.2	2621.2
17.5°	2802.5	2799.5	2798.0	2790.6	2784.7	2789.1	2789.1	2789.1	2781.7	2783.2	2784.7
20°	2983.8	2986.7	2983.8	2977.8	2976.3	2980.8	2970.4	2986.7	2977.8	2971.9	2974.9
22.5°	3184.4	3194.8	3182.9	3184.4	3191.8	3194.8	3184.4	3197.8	3193.3	3184.4	3191.8
25°	3402.8	3410.2	3404.3	3402.8	3407.3	3417.7	3416.2	3414.7	3425.1	3416.2	3420.6
27.5°	3627.2	3631.6	3634.6	3639.1	3642.1	3640.6	3646.5	3646.5	3652.5	3642.1	3646.5
30°	3850.1	3850.1	3856.0	3862.0	3862.0	3862.0	3873.9	3875.3	3866.4	3869.4	3859.0
32.5°	4087.8	4089.3	4095.3	4095.3	4107.2	4108.6	4122.0	4104.2	4122.0	4107.2	4110.1
35°	4367.2	4386.5	4389.5	4404.3	4416.2	4420.7	4420.7	4422.2	4438.5	4426.6	4431.1
37.5°	4530.6	4535.1	4547.0	4554.4	4554.4	4560.4	4564.8	4560.4	4564.8	4563.3	4567.8
40°	4723.8	4719.4	4732.7	4735.7	4729.8	4737.2	4735.7	4731.2	4743.1	4734.2	4740.2
42.5°	4958.6	4933.3	4931.9	4943.7	4931.9	4937.8	4936.3	4925.9	4940.8	4945.2	4940.8
45°	5209.7	5196.3	5169.6	5169.6	5157.7	5153.3	5154.7	5153.3	5154.7	5172.6	5178.5
47.5°	5618.4	5536.6	5490.6	5447.5	5411.8	5410.3	5394.0	5402.9	5414.8	5444.5	5471.2
50°	6303.4	6114.7	5998.8	5891.8	5814.5	5787.8	5756.6	5753.6	5764.0	5798.2	5844.2
52.5°	7524.8	7263.3	7016.6	6787.8	6588.7	6435.6	6359.8	6319.7	6304.9	6339.0	6383.6
55°	9759.7	9266.4	8918.6	8686.8	8192.0	7982.5	7713.5	7590.2	7469.8	7481.7	7557.5
57.5°	13578.6	13312.6	13021.3	12615.7	12312.5	11947.0	11275.3	10900.9	10917.2	11004.9	10731.5
60°	18583.2	18314.3	18193.9	17825.4	17614.4	17467.3	17110.7	16489.5	16269.6	16228.0	15725.8
62.5°	20483.7	20547.6	20642.7	20746.8	20740.8	20804.7	20492.7	20290.6	20036.5	19706.6	19210.3
65°	19987.4	20149.4	20342.6	20621.9	20939.9	21174.7	21372.3	21348.6	21110.8	20671.0	20146.4
67.5°	18306.8	18467.3	18608.5	18982.9	19504.5	19981.5	20403.5	20690.3	20531.3	20167.2	19555.0
70°	15780.7	15896.6	15985.8	16311.2	16883.3	17465.8	18017.1	18498.5	18449.5	18008.2	17519.3
72.5°	11434.3	11715.2	11866.8	11844.5	12198.1	12850.5	12927.7	13339.3	13453.7	12978.2	12199.6
75°	5570.8	5575.3	5399.9	5342.0	5359.8	5472.7	5257.3	5270.6	5196.3	4859.0	4581.2
77.5°	1946.6	1893.1	1765.3	1613.7	1396.8	1193.2	986.7	897.5	867.8	780.1	719.2
80°	1677.6	1756.4	1731.1	1606.3	1377.5	1098.1	820.2	607.8	518.6	487.4	457.7
82.5°	1905.0	2208.1	2401.3	2390.9	2077.4	1560.2	973.3	558.7	398.2	349.2	321.0
85°	1062.5	1142.7	1165.0	1061.0	881.2	601.8	335.8	236.3	200.6	182.8	164.9
87.5°	169.4	154.5	151.6	132.2	124.8	114.4	101.0	95.1	87.7	83.2	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



REPORT NUMBER: P159375

CATALOG NUMBER: VST-F09-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2154.6	2153.1	2148.7	2144.2	2141.2	2139.8	2138.3	2135.3	2133.8	2132.3	2129.4
5°	2205.1	2202.2	2194.7	2187.3	2184.3	2179.9	2175.4	2172.5	2169.5	2168.0	2162.0
7.5°	2283.9	2280.9	2272.0	2266.1	2264.6	2252.7	2251.2	2246.7	2239.3	2237.8	2228.9
10°	2379.0	2377.5	2370.1	2365.6	2362.7	2356.7	2347.8	2340.4	2332.9	2332.9	2327.0
12.5°	2489.0	2483.0	2487.5	2477.1	2474.1	2468.2	2463.7	2462.2	2453.3	2445.9	2444.4
15°	2618.2	2610.8	2610.8	2607.8	2604.9	2598.9	2597.4	2598.9	2590.0	2593.0	2584.1
17.5°	2778.7	2781.7	2780.2	2780.2	2772.8	2772.8	2760.9	2775.7	2765.3	2772.8	2769.8
20°	2979.3	2980.8	2977.8	2982.3	2985.3	2983.8	2982.3	2980.8	2985.3	2991.2	2986.7
22.5°	3193.3	3193.3	3191.8	3208.2	3190.3	3203.7	3208.2	3199.2	3223.0	3220.0	3224.5
25°	3425.1	3425.1	3437.0	3450.4	3453.3	3442.9	3448.9	3441.4	3456.3	3468.2	3471.2
27.5°	3640.6	3659.9	3668.8	3659.9	3667.3	3683.7	3682.2	3682.2	3692.6	3689.6	3717.8
30°	3862.0	3873.9	3885.7	3879.8	3882.8	3903.6	3905.1	3906.5	3919.9	3939.2	3960.0
32.5°	4114.6	4126.5	4120.5	4139.8	4138.4	4163.6	4168.1	4172.5	4214.1	4206.7	4249.8
35°	4425.1	4437.0	4431.1	4451.9	4448.9	4457.8	4474.2	4492.0	4499.4	4542.5	4576.7
37.5°	4570.8	4570.8	4584.1	4607.9	4616.8	4631.7	4657.0	4679.2	4716.4	4762.5	4815.9
40°	4746.1	4750.6	4768.4	4793.7	4810.0	4844.2	4890.2	4921.4	4977.9	5028.4	5090.8
42.5°	4958.6	4977.9	4998.7	5032.9	5068.6	5122.1	5187.4	5227.6	5301.9	5367.2	5444.5
45°	5206.8	5226.1	5275.1	5337.5	5389.5	5449.0	5502.5	5597.6	5664.4	5732.8	5799.6
47.5°	5506.9	5563.4	5603.5	5677.8	5741.7	5820.4	5887.3	5976.5	6049.3	6132.5	6189.0
50°	5891.8	5961.6	6013.6	6110.2	6172.6	6260.3	6345.0	6411.9	6486.1	6567.9	6613.9
52.5°	6444.5	6515.9	6581.2	6701.6	6778.9	6838.3	6951.3	7034.5	7102.8	7162.3	7212.8
55°	7642.2	7621.4	7802.7	8036.0	8062.7	8278.2	8318.3	8388.2	8514.5	8532.3	8673.5
57.5°	11064.3	10957.4	11220.4	11562.1	11502.7	11394.2	11847.4	11875.7	11811.8	11982.7	11789.5
60°	15800.1	15612.8	15684.1	15777.8	15642.5	15578.6	15600.9	15664.8	15602.4	15534.1	15346.8
62.5°	18962.1	18673.9	18467.3	18293.5	18073.5	17914.6	17736.2	17516.3	17456.9	17207.2	16997.7
65°	19636.8	19188.0	18861.1	18532.7	18229.6	17948.7	17679.8	17491.1	17241.4	16945.7	16727.3
67.5°	18895.3	18339.5	17861.1	17384.1	17040.8	16627.7	16425.6	16118.0	15810.5	15471.7	15271.1
70°	16740.7	16161.1	15559.3	15092.7	14626.2	14115.0	14015.4	13651.4	13474.5	13012.4	12932.2
72.5°	11554.7	11168.4	10899.4	10322.9	10039.0	9777.5	9694.3	9357.0	9392.7	8886.0	9070.2
75°	4108.6	4053.7	3974.9	3649.5	3591.5	3490.5	3463.7	3440.0	3680.7	3346.3	3588.6
77.5°	705.8	701.4	661.2	641.9	679.1	655.3	661.2	649.4	719.2	729.6	713.3
80°	438.4	426.5	413.1	404.2	405.7	396.7	398.2	401.2	405.7	404.2	408.6
82.5°	300.2	289.8	283.8	277.9	286.8	289.8	297.2	304.6	316.5	323.9	332.9
85°	163.5	150.1	150.1	148.6	160.5	169.4	181.3	196.1	216.9	234.8	254.1
87.5°	83.2	80.2	81.7	84.7	95.1	102.5	117.4	130.8	148.6	167.9	185.7
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: P159375

CATALOG NUMBER: VST-F09-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2127.9	2127.9	2126.4	2126.4	2124.9	2123.4	2121.9	2117.5	2101.1	2086.3	2075.9
5°	2160.6	2156.1	2154.6	2150.2	2148.7	2145.7	2141.2	2136.8	2107.1	2080.3	2061.0
7.5°	2227.4	2221.5	2218.5	2214.1	2209.6	2203.7	2197.7	2193.3	2157.6	2126.4	2102.6
10°	2315.1	2312.1	2310.6	2304.7	2304.7	2295.8	2294.3	2283.9	2245.3	2217.0	2196.2
12.5°	2436.9	2431.0	2429.5	2422.1	2425.1	2422.1	2419.1	2413.2	2384.9	2352.3	2324.0
15°	2588.5	2588.5	2581.1	2575.1	2576.6	2573.7	2579.6	2572.2	2554.3	2524.6	2478.6
17.5°	2771.3	2768.3	2771.3	2766.8	2769.8	2772.8	2765.3	2766.8	2757.9	2720.8	2652.4
20°	2983.8	2979.3	2997.2	2989.7	3006.1	2991.2	2994.2	2998.6	2998.6	2949.6	2857.5
22.5°	3227.5	3224.5	3224.5	3239.4	3245.3	3246.8	3252.7	3257.2	3269.1	3206.7	3059.6
25°	3471.2	3481.6	3483.1	3502.4	3511.3	3511.3	3515.7	3532.1	3567.8	3481.6	3291.4
27.5°	3719.3	3744.6	3750.5	3763.9	3777.3	3790.6	3801.0	3812.9	3870.9	3777.3	3529.1
30°	3967.5	3995.7	4016.5	4031.4	4047.7	4080.4	4086.3	4110.1	4206.7	4092.3	3755.0
32.5°	4258.7	4298.8	4325.6	4344.9	4370.2	4401.4	4419.2	4448.9	4542.5	4355.3	3919.9
35°	4606.4	4630.2	4668.8	4701.5	4716.4	4769.9	4798.1	4805.5	4876.9	4582.7	4041.8
37.5°	4847.2	4887.3	4954.1	5000.2	5027.0	5056.7	5104.2	5135.4	5203.8	4789.2	4102.7
40°	5153.3	5214.2	5267.7	5336.0	5379.1	5401.4	5449.0	5474.2	5483.1	4966.0	4083.4
42.5°	5526.2	5581.2	5652.5	5707.5	5740.2	5765.5	5804.1	5814.5	5698.6	5049.2	3979.4
45°	5876.9	5961.6	6022.5	6062.7	6086.4	6099.8	6123.6	6125.1	5876.9	5007.6	3801.0
47.5°	6254.3	6315.3	6371.7	6400.0	6397.0	6400.0	6391.0	6385.1	5966.1	4863.5	3572.2
50°	6671.9	6712.0	6735.8	6749.2	6756.6	6728.4	6688.2	6661.5	5973.5	4658.4	3340.4
52.5°	7232.1	7282.6	7278.2	7276.7	7217.2	7190.5	7083.5	7028.5	5930.4	4417.7	3078.9
55°	8651.2	8602.1	8505.5	8553.1	8310.9	8184.6	8018.2	7863.6	5986.9	4188.9	2775.7
57.5°	11866.8	11886.1	11611.2	11464.1	11055.4	10544.3	10132.7	9732.9	6495.1	4049.2	2380.5
60°	15222.0	14969.4	14620.2	14088.2	13562.2	12802.9	12070.3	11377.9	7001.8	3903.6	1912.4
62.5°	16687.2	16327.6	15800.1	15112.1	14285.9	13357.2	12444.8	11600.8	6756.6	3432.5	1390.8
65°	16390.0	15840.2	15257.7	14452.3	13447.8	12429.9	11364.5	10502.7	5652.5	2560.3	857.4
67.5°	14835.7	14369.1	13753.9	12798.4	11724.1	10664.6	9688.4	8722.5	4199.3	1595.9	480.0
70°	12522.1	12065.9	11441.8	10464.0	9391.2	8377.8	7343.5	6556.0	2676.2	769.7	346.2
72.5°	8686.8	8316.8	7875.5	7178.6	6238.0	5316.7	4616.8	4012.1	1483.0	408.6	316.5
75°	3527.6	3529.1	3448.9	3154.7	2665.8	2298.8	1960.0	1662.8	619.6	347.7	312.0
77.5°	799.4	812.8	888.6	842.5	759.3	710.3	636.0	561.7	377.4	358.1	315.0
80°	404.2	405.7	401.2	402.7	398.2	399.7	393.8	389.3	353.7	368.5	315.0
82.5°	337.3	344.7	343.3	343.3	344.7	344.7	344.7	343.3	367.0	387.8	304.6
85°	267.5	282.3	294.2	306.1	319.5	328.4	332.9	337.3	356.6	381.9	276.4
87.5°	202.1	219.9	234.8	246.7	267.5	267.5	282.3	292.7	292.7	298.7	145.6
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: P159375

CATALOG NUMBER: VST-F09-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2133.8	2133.8	2133.8	2133.8	2133.8
2.5°	2061.0	2055.1	2049.1	2046.1	2040.2
5°	2046.1	2034.3	2026.8	2026.8	2020.9
7.5°	2089.2	2084.8	2074.4	2068.4	2074.4
10°	2181.4	2173.9	2162.0	2153.1	2157.6
12.5°	2304.7	2275.0	2251.2	2240.8	2233.4
15°	2432.5	2373.1	2325.5	2298.8	2291.3
17.5°	2569.2	2465.2	2393.9	2353.7	2346.3
20°	2708.9	2579.6	2478.6	2426.5	2425.1
22.5°	2876.8	2704.4	2575.1	2506.8	2502.3
25°	3053.6	2815.9	2645.0	2557.3	2548.4
27.5°	3206.7	2905.0	2688.1	2584.1	2575.1
30°	3334.5	2971.9	2723.7	2603.4	2591.5
32.5°	3426.6	3010.5	2738.6	2609.3	2595.9
35°	3456.3	2995.7	2697.0	2555.8	2541.0
37.5°	3416.2	2899.1	2581.1	2425.1	2407.2
40°	3295.8	2729.7	2392.4	2231.9	2209.6
42.5°	3111.6	2521.6	2165.0	2012.0	1983.7
45°	2884.2	2286.9	1939.2	1768.3	1754.9
47.5°	2646.5	2040.2	1685.1	1530.5	1514.2
50°	2389.4	1754.9	1436.9	1269.0	1269.0
52.5°	2083.3	1477.0	1148.6	1022.3	1011.9
55°	1731.1	1163.5	915.3	818.8	805.4
57.5°	1352.2	894.5	731.1	674.6	659.8
60°	994.1	671.6	588.4	557.2	551.3
62.5°	674.6	511.2	474.0	460.6	459.2
65°	456.2	398.2	387.8	383.4	384.9
67.5°	350.7	331.4	326.9	325.4	325.4
70°	304.6	292.7	288.3	289.8	288.3
72.5°	286.8	270.4	271.9	274.9	273.4
75°	280.8	260.0	266.0	267.5	261.5
77.5°	276.4	248.2	263.0	267.5	251.1
80°	267.5	237.8	273.4	274.9	246.7
82.5°	245.2	211.0	273.4	252.6	222.9
85°	208.0	160.5	309.1	219.9	164.9
87.5°	132.2	95.1	209.5	150.1	99.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)