

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: P159377

Luminaire Tested: **VST-F09-LED-E-U-T2-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159377
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-T2-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (63) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23532.1 lumens
Efficiency: N/A
Efficacy: 100.2 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



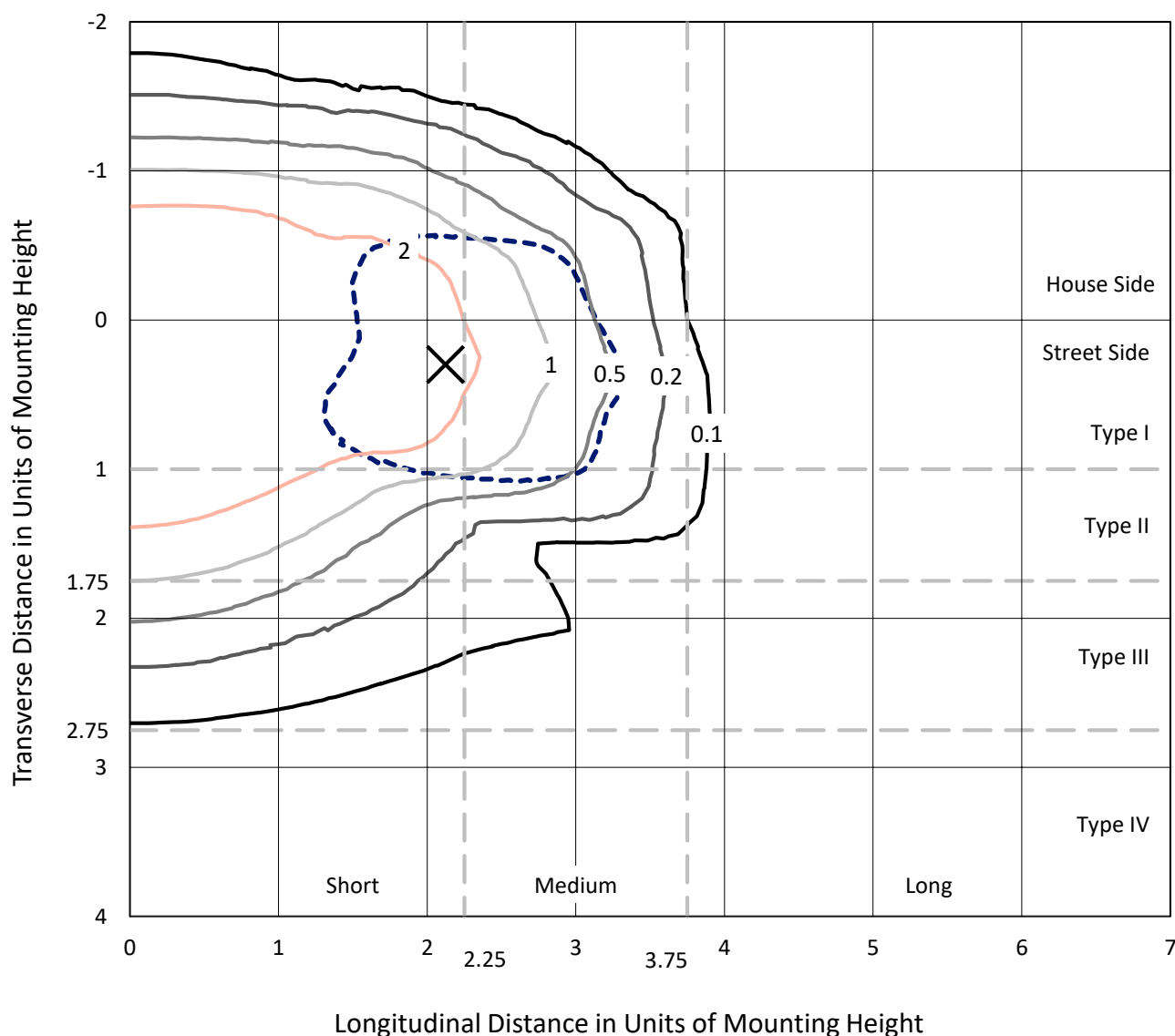
REPORT NUMBER: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

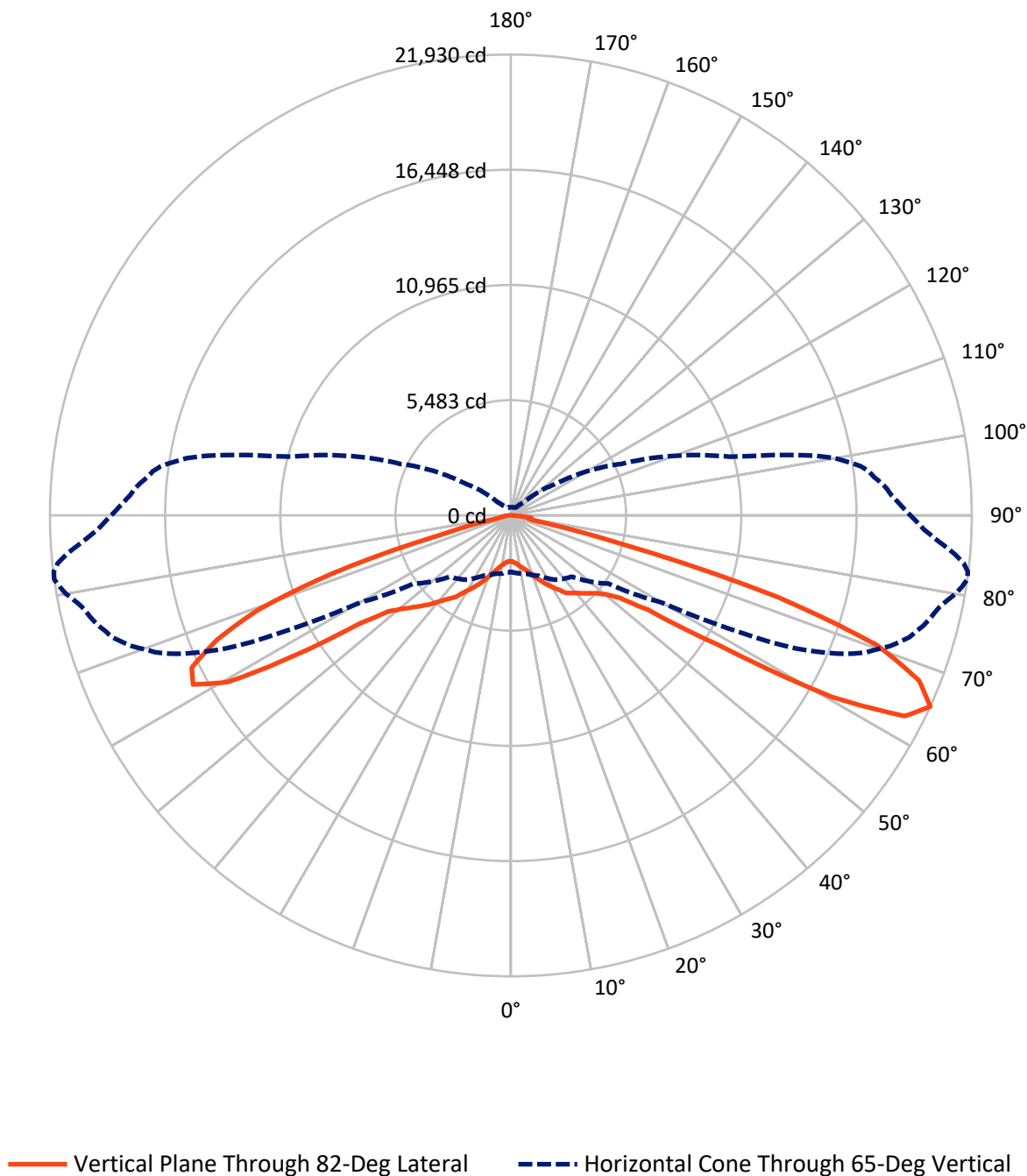


Based on 25 foot mounting height. Maximum calculated value = 4.5 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

Luminous Intensity Polar Plot



REPORT NUMBER: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

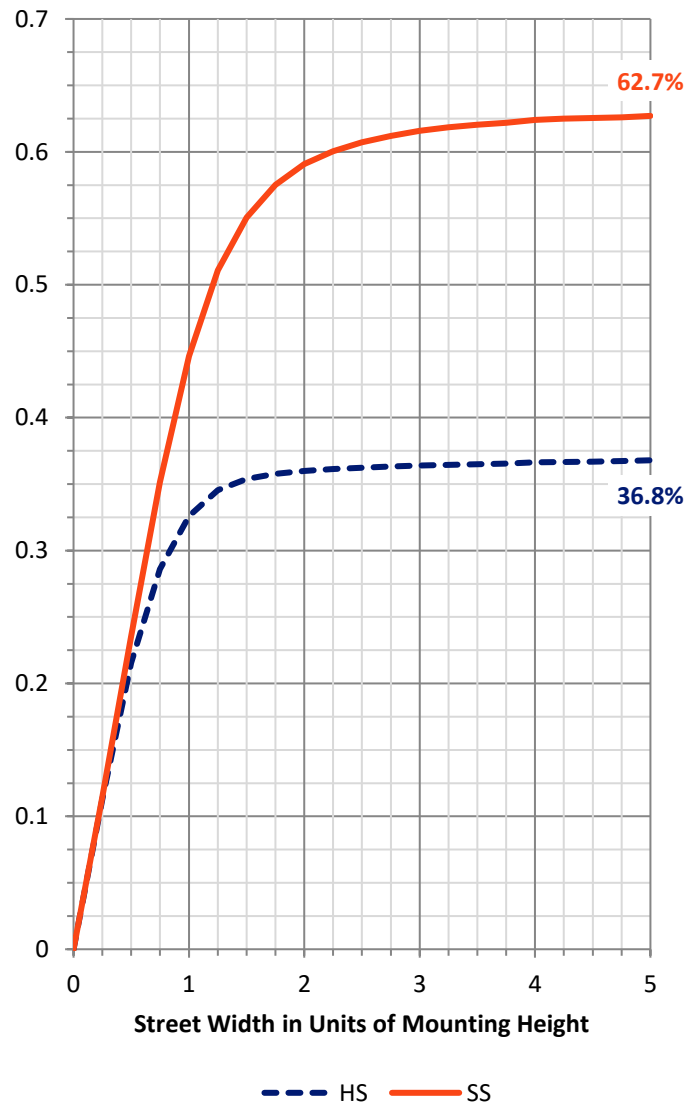
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8761.8	0.0	8761.8
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	14770.4	0.0	14770.4
	% Fixture	62.8	0.0	62.8
Total	Lumens	23532.1	0.0	23532.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	0.9
10°-20°	778.9	3.3
20°-30°	1543.3	6.6
30°-40°	2645.5	11.2
40°-50°	3974.2	16.9
50°-60°	5521.4	23.5
60°-70°	6299.1	26.8
70°-80°	2170.0	9.2
80°-90°	378.2	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°	23532.1	100.0
0°-180°	23532.1	100.0

Coefficient of Utilization



REPORT NUMBER: P159377

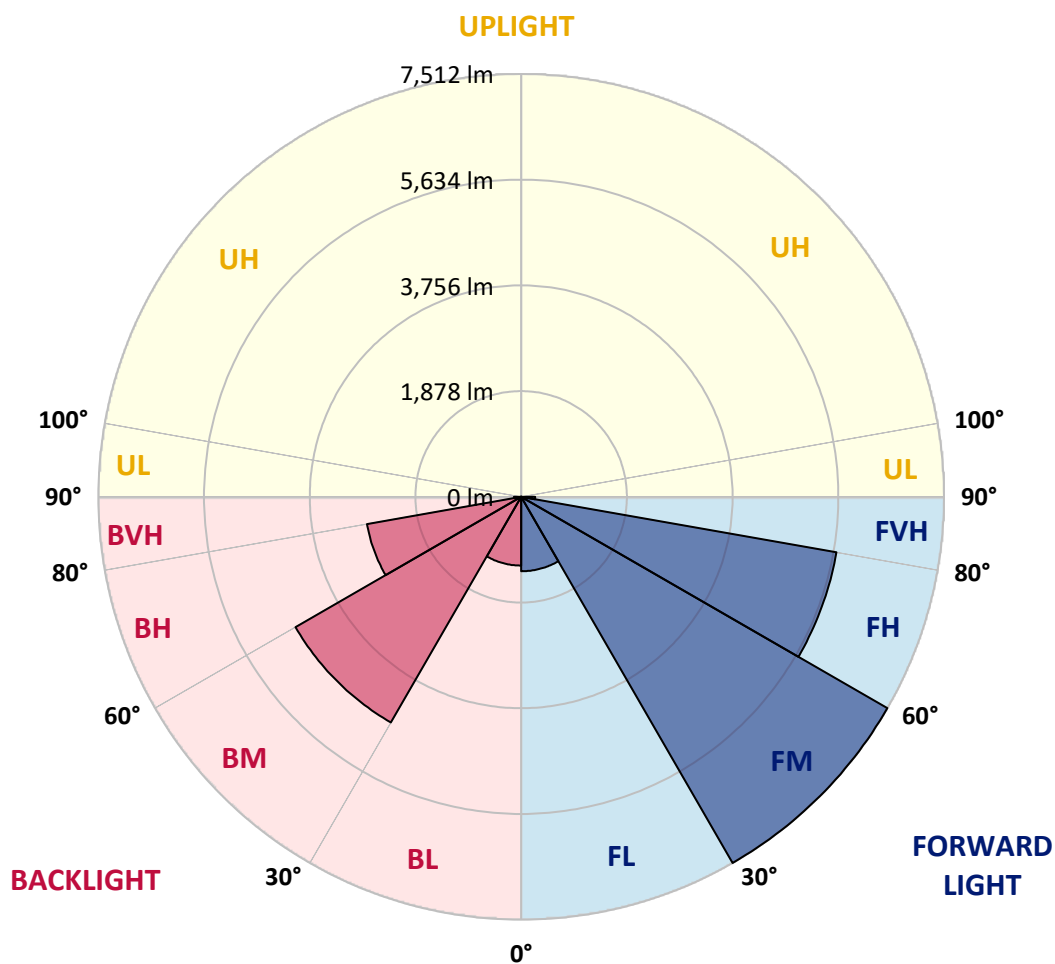
CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1322.0	5.6			
FM	(30°-60°)	7511.9	31.9			
FH	(60°-80°)	5687.5	24.2			G3/7500
FVH	(80°-90°)	249.0	1.1			G3/500
BL	(0°-30°)	1221.8	5.2	B3/2500		
BM	(30°-60°)	4629.2	19.7	B3/5000		
BH	(60°-80°)	2781.6	11.8	B4/5000		G4/5000
BVH	(80°-90°)	129.2	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





REPORT NUMBER: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2308.5	2310.0	2308.5	2303.9	2302.4	2288.6	2273.4	2265.8	2264.2	2258.1	2259.7
5°	2451.8	2447.2	2441.1	2433.5	2425.9	2403.0	2377.1	2363.3	2358.8	2354.2	2348.1
7.5°	2579.9	2582.9	2579.9	2569.2	2549.4	2520.4	2486.8	2465.5	2464.0	2459.4	2454.8
10°	2744.5	2752.1	2733.9	2715.6	2688.1	2643.9	2605.8	2578.3	2573.8	2567.7	2564.6
12.5°	2922.9	2924.4	2918.3	2877.2	2831.4	2770.4	2715.6	2688.1	2682.0	2674.4	2671.3
15°	3113.5	3115.0	3081.5	3041.8	2971.7	2898.5	2822.3	2791.8	2784.2	2785.7	2773.5
17.5°	3264.5	3267.5	3235.5	3185.2	3101.3	3014.4	2932.1	2907.7	2903.1	2904.6	2898.5
20°	3330.0	3334.6	3314.8	3276.7	3197.4	3121.1	3061.7	3046.4	3044.9	3041.8	3054.0
22.5°	3327.0	3328.5	3320.9	3305.6	3258.4	3214.1	3206.5	3215.7	3214.1	3217.2	3227.9
25°	3299.5	3304.1	3302.6	3308.7	3301.1	3317.8	3352.9	3384.9	3389.5	3395.6	3415.4
27.5°	3369.7	3378.8	3368.1	3374.2	3386.4	3442.9	3514.5	3563.3	3572.5	3589.2	3606.0
30°	3644.1	3631.9	3618.2	3603.0	3610.6	3645.6	3726.5	3769.1	3773.7	3785.9	3808.8
32.5°	4051.2	4037.5	4025.3	4000.9	3994.8	3979.6	4007.0	4017.7	4016.2	4028.4	4034.5
35°	4510.2	4511.7	4508.6	4526.9	4542.2	4464.4	4368.4	4342.4	4353.1	4339.4	4342.4
37.5°	4902.0	4906.6	4987.4	5088.0	5117.0	5068.2	4857.8	4754.1	4719.1	4714.5	4679.4
40°	5336.6	5336.6	5458.6	5582.1	5662.9	5723.9	5473.8	5290.8	5216.1	5194.8	5107.9
42.5°	5813.8	5789.4	5900.7	6036.4	6185.9	6324.6	6195.0	5989.2	5882.4	5844.3	5691.8
45°	6205.7	6190.4	6245.3	6371.9	6614.3	6885.7	6904.0	6798.8	6734.8	6655.5	6515.2
47.5°	6446.6	6439.0	6471.0	6608.2	6911.6	7350.8	7596.2	7649.6	7611.5	7550.5	7414.8
50°	6541.1	6530.4	6553.3	6705.8	7045.8	7625.2	8168.0	8419.6	8437.9	8451.6	8408.9
52.5°	6507.6	6493.9	6541.1	6669.2	7022.9	7721.3	8614.8	9098.1	9178.9	9247.5	9387.8
55°	6185.9	6164.5	6292.6	6533.5	6923.8	7686.2	8941.1	9750.7	9921.5	10104.4	10415.5
57.5°	5693.4	5675.1	5859.6	6190.4	6748.5	7590.1	9160.6	10575.6	10959.8	11289.1	12172.0
60°	5219.2	5203.9	5312.2	5632.4	6179.8	7122.0	8889.2	10853.1	11498.0	12208.6	13820.2
62.5°	4371.4	4330.3	4475.1	4745.0	5091.1	5891.6	7704.5	10235.6	11229.7	12274.1	14459.1
65°	2686.6	2746.0	2871.1	3169.9	3737.1	4118.3	5658.3	8280.8	9592.1	10901.9	13736.3
67.5°	1706.2	1723.0	1816.0	2023.3	2462.4	2845.2	3429.1	5196.3	6207.2	7495.6	10784.5
70°	1462.2	1472.9	1552.2	1768.7	2072.1	2543.3	2595.1	2714.0	3076.9	3897.2	6339.9
72.5°	1152.7	1171.0	1233.5	1421.1	1787.0	2293.2	3203.5	2145.3	2072.1	2140.7	3093.7
75°	686.1	707.5	759.3	861.5	1148.1	1753.4	3355.9	2496.0	2326.7	2194.1	2134.6
77.5°	362.9	347.6	382.7	442.2	590.1	934.7	2521.9	3058.6	2939.7	2781.1	2444.2
80°	179.9	186.0	196.7	208.9	263.8	379.7	1261.0	3163.8	3506.9	3659.4	3360.5
82.5°	71.7	80.8	114.4	122.0	144.8	161.6	405.6	1753.4	2511.2	3406.3	4447.7
85°	36.6	35.1	61.0	73.2	85.4	76.2	143.3	654.1	1177.1	1834.3	2971.7
87.5°	4.6	6.1	13.7	18.3	25.9	24.4	41.2	141.8	225.7	320.2	449.8
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: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2252.0	2250.5	2250.5	2244.4	2244.4	2245.9	2241.4	2238.3	2238.3	2239.8	2233.7
5°	2343.5	2338.9	2338.9	2332.8	2325.2	2325.2	2319.1	2317.6	2314.5	2308.5	2303.9
7.5°	2450.3	2445.7	2438.1	2433.5	2430.4	2425.9	2418.2	2415.2	2409.1	2403.0	2396.9
10°	2560.0	2553.9	2550.9	2543.3	2540.2	2531.1	2526.5	2528.0	2515.8	2511.2	2512.8
12.5°	2669.8	2663.7	2653.0	2650.0	2648.5	2639.3	2634.7	2631.7	2622.5	2621.0	2616.4
15°	2767.4	2770.4	2765.9	2758.2	2752.1	2750.6	2746.0	2743.0	2736.9	2730.8	2724.7
17.5°	2893.9	2898.5	2892.4	2881.8	2881.8	2880.2	2881.8	2880.2	2869.6	2874.1	2871.1
20°	3055.6	3058.6	3043.4	3047.9	3051.0	3049.5	3054.0	3058.6	3055.6	3055.6	3060.1
22.5°	3241.6	3246.2	3237.0	3243.1	3252.3	3244.6	3258.4	3256.8	3259.9	3264.5	3266.0
25°	3432.2	3441.3	3433.7	3450.5	3444.4	3450.5	3467.2	3462.7	3470.3	3482.5	3487.1
27.5°	3622.8	3628.9	3630.4	3641.1	3651.7	3660.9	3682.2	3682.2	3688.3	3709.7	3709.7
30°	3822.5	3828.6	3834.7	3850.0	3856.1	3872.8	3894.2	3900.3	3897.2	3927.7	3936.9
32.5°	4052.7	4058.8	4069.5	4087.8	4095.4	4112.2	4112.2	4129.0	4141.2	4167.1	4168.6
35°	4359.2	4363.8	4359.2	4357.7	4368.4	4391.2	4392.8	4417.2	4427.8	4453.8	4461.4
37.5°	4665.7	4664.2	4644.3	4623.0	4624.5	4615.4	4609.3	4620.0	4624.5	4626.0	4642.8
40°	5078.9	5039.3	5008.8	4955.4	4931.0	4892.9	4870.0	4868.5	4844.1	4841.0	4845.6
42.5°	5620.2	5574.4	5502.8	5412.8	5344.2	5274.1	5222.2	5191.7	5138.4	5110.9	5088.0
45°	6376.4	6263.6	6178.2	6071.5	5938.8	5816.9	5688.8	5630.9	5528.7	5466.2	5396.0
47.5°	7300.4	7189.1	7058.0	6948.2	6774.4	6605.2	6429.8	6275.8	6097.4	5955.6	5839.7
50°	8303.7	8238.1	8143.6	8041.5	7817.3	7706.0	7484.9	7276.0	7083.9	6830.8	6609.7
52.5°	9332.9	9371.0	9349.7	9313.1	9171.3	9128.6	8938.0	8683.4	8489.7	8315.9	7931.7
55°	10601.5	10647.2	10738.7	10792.1	10775.3	10883.6	10836.3	10638.1	10560.3	10479.5	10206.6
57.5°	12542.5	12868.8	13217.9	13524.4	13596.1	13980.3	13898.0	14096.2	14236.5	14135.8	14047.4
60°	14611.5	15270.2	15863.4	16483.9	16988.6	17366.7	17866.9	18203.8	18415.8	18796.9	18827.4
62.5°	15445.6	16340.6	17093.8	17813.5	18412.7	18937.2	19388.5	19853.6	20234.8	20579.4	20827.9
65°	14988.2	15922.8	16836.1	17566.5	18142.8	18594.2	19085.1	19454.1	19829.2	20050.3	20311.0
67.5°	12460.1	13698.2	14822.0	15645.3	16433.6	16892.6	17473.5	17836.4	18234.3	18467.6	18635.3
70°	8123.8	9735.4	11270.8	12519.6	13583.9	14119.1	14820.4	15316.0	15794.7	15806.9	16086.0
72.5°	4383.6	5731.5	7016.8	8293.0	9506.7	10218.8	10911.0	11513.3	11989.0	11786.2	12063.7
75°	2441.1	3072.3	3775.2	4542.2	5281.7	5688.8	6205.7	6208.7	6454.2	6068.4	6166.0
77.5°	2348.1	2319.1	2329.8	2351.1	2387.7	2310.0	2308.5	2261.2	2188.0	2055.3	2078.2
80°	3084.5	2715.6	2450.3	2034.0	1637.6	1335.7	1251.8	1271.6	1331.1	1450.0	1601.0
82.5°	4459.9	4148.8	3703.6	3047.9	2392.3	1844.9	1515.6	1344.8	1337.2	1456.1	1684.8
85°	3247.7	3435.2	3406.3	2843.6	2345.0	1904.4	1386.0	1171.0	969.7	922.5	1003.3
87.5°	478.8	396.4	446.7	373.6	271.4	210.4	184.5	147.9	141.8	144.8	158.6
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: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2235.3	2229.2	2223.1	2227.6	2223.1	2221.5	2217.0	2213.9	2212.4	2212.4	2212.4
5°	2303.9	2296.3	2291.7	2290.2	2285.6	2281.0	2279.5	2271.9	2270.3	2270.3	2265.8
7.5°	2396.9	2390.8	2383.2	2378.6	2375.5	2367.9	2360.3	2358.8	2357.2	2351.1	2346.6
10°	2505.1	2496.0	2486.8	2486.8	2480.7	2479.2	2471.6	2460.9	2459.4	2450.3	2447.2
12.5°	2607.3	2604.2	2593.6	2590.5	2586.0	2581.4	2576.8	2572.2	2567.7	2560.0	2563.1
15°	2729.3	2721.7	2712.5	2714.0	2712.5	2706.4	2700.3	2695.7	2692.7	2689.6	2689.6
17.5°	2875.7	2872.6	2871.1	2863.5	2857.4	2861.9	2861.9	2861.9	2854.3	2855.8	2857.4
20°	3061.7	3064.7	3061.7	3055.6	3054.0	3058.6	3047.9	3064.7	3055.6	3049.5	3052.5
22.5°	3267.5	3278.2	3266.0	3267.5	3275.1	3278.2	3267.5	3281.2	3276.7	3267.5	3275.1
25°	3491.6	3499.3	3493.2	3491.6	3496.2	3506.9	3505.4	3503.8	3514.5	3505.4	3509.9
27.5°	3721.9	3726.5	3729.5	3734.1	3737.1	3735.6	3741.7	3741.7	3747.8	3737.1	3741.7
30°	3950.6	3950.6	3956.7	3962.8	3962.8	3962.8	3975.0	3976.5	3967.4	3970.4	3959.7
32.5°	4194.5	4196.1	4202.2	4202.2	4214.4	4215.9	4229.6	4211.3	4229.6	4214.4	4217.4
35°	4481.2	4501.0	4504.1	4519.3	4531.5	4536.1	4536.1	4537.6	4554.4	4542.2	4546.8
37.5°	4648.9	4653.5	4665.7	4673.3	4673.3	4679.4	4684.0	4679.4	4684.0	4682.5	4687.0
40°	4847.1	4842.6	4856.3	4859.3	4853.2	4860.9	4859.3	4854.8	4867.0	4857.8	4863.9
42.5°	5088.0	5062.1	5060.6	5072.8	5060.6	5066.7	5065.2	5054.5	5069.7	5074.3	5069.7
45°	5345.7	5332.0	5304.6	5304.6	5292.4	5287.8	5289.3	5287.8	5289.3	5307.6	5313.7
47.5°	5765.0	5681.2	5633.9	5589.7	5553.1	5551.6	5534.8	5543.9	5556.1	5586.6	5614.1
50°	6467.9	6274.3	6155.4	6045.6	5966.3	5938.8	5906.8	5903.8	5914.5	5949.5	5996.8
52.5°	7721.3	7452.9	7199.8	6965.0	6760.7	6603.6	6525.9	6484.7	6469.5	6504.5	6550.3
55°	10014.5	9508.3	9151.5	8913.6	8405.9	8190.9	7914.9	7788.4	7664.8	7677.0	7754.8
57.5°	13933.0	13660.1	13361.3	12945.0	12634.0	12258.9	11569.7	11185.5	11202.2	11292.2	11011.6
60°	19068.3	18792.4	18668.9	18290.7	18074.2	17923.3	17557.3	16920.0	16694.3	16651.6	16136.3
62.5°	21018.5	21084.1	21181.6	21288.4	21282.3	21347.8	21027.6	20820.3	20559.5	20221.1	19711.8
65°	20509.2	20675.4	20873.6	21160.3	21486.6	21727.5	21930.3	21905.9	21661.9	21210.6	20672.4
67.5°	18784.7	18949.4	19094.3	19478.5	20013.7	20503.1	20936.2	21230.4	21067.3	20693.7	20065.5
70°	16192.7	16311.6	16403.1	16737.0	17324.1	17921.7	18487.4	18981.4	18931.1	18478.3	17976.6
72.5°	11732.8	12021.0	12176.5	12153.7	12516.6	13185.9	13265.2	13687.6	13805.0	13317.0	12518.1
75°	5716.2	5720.8	5540.9	5481.4	5499.7	5615.6	5394.5	5408.2	5332.0	4985.9	4700.8
77.5°	1997.4	1942.5	1811.4	1655.9	1433.3	1224.4	1012.4	920.9	890.4	800.5	738.0
80°	1721.4	1802.2	1776.3	1648.2	1413.4	1126.8	841.7	623.6	532.1	500.1	469.6
82.5°	1954.7	2265.8	2464.0	2453.3	2131.6	1601.0	998.7	573.3	408.6	358.3	329.3
85°	1090.2	1172.5	1195.4	1088.7	904.2	617.5	344.6	242.4	205.8	187.5	169.2
87.5°	173.8	158.6	155.5	135.7	128.1	117.4	103.7	97.6	90.0	85.4	85.4
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: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2210.9	2209.3	2204.8	2200.2	2197.1	2195.6	2194.1	2191.0	2189.5	2188.0	2184.9
5°	2262.7	2259.7	2252.0	2244.4	2241.4	2236.8	2232.2	2229.2	2226.1	2224.6	2218.5
7.5°	2343.5	2340.5	2331.3	2325.2	2323.7	2311.5	2310.0	2305.4	2297.8	2296.3	2287.1
10°	2441.1	2439.6	2432.0	2427.4	2424.3	2418.2	2409.1	2401.5	2393.8	2393.8	2387.7
12.5°	2553.9	2547.8	2552.4	2541.7	2538.7	2532.6	2528.0	2526.5	2517.3	2509.7	2508.2
15°	2686.6	2679.0	2679.0	2675.9	2672.9	2666.8	2665.2	2666.8	2657.6	2660.7	2651.5
17.5°	2851.3	2854.3	2852.8	2852.8	2845.2	2845.2	2833.0	2848.2	2837.5	2845.2	2842.1
20°	3057.1	3058.6	3055.6	3060.1	3063.2	3061.7	3060.1	3058.6	3063.2	3069.3	3064.7
22.5°	3276.7	3276.7	3275.1	3291.9	3273.6	3287.3	3291.9	3282.8	3307.2	3304.1	3308.7
25°	3514.5	3514.5	3526.7	3540.4	3543.5	3532.8	3538.9	3531.3	3546.5	3558.7	3561.8
27.5°	3735.6	3755.4	3764.6	3755.4	3763.0	3779.8	3778.3	3778.3	3789.0	3785.9	3814.9
30°	3962.8	3975.0	3987.2	3981.1	3984.1	4005.5	4007.0	4008.5	4022.3	4042.1	4063.4
32.5°	4222.0	4234.2	4228.1	4247.9	4246.4	4272.3	4276.9	4281.5	4324.2	4316.5	4360.7
35°	4540.7	4552.9	4546.8	4568.1	4565.1	4574.2	4591.0	4609.3	4616.9	4661.1	4696.2
37.5°	4690.1	4690.1	4703.8	4728.2	4737.4	4752.6	4778.5	4801.4	4839.5	4886.8	4941.7
40°	4870.0	4874.6	4892.9	4918.8	4935.6	4970.6	5017.9	5049.9	5107.9	5159.7	5223.7
42.5°	5088.0	5107.9	5129.2	5164.3	5200.9	5255.8	5322.9	5364.0	5440.3	5507.3	5586.6
45°	5342.7	5362.5	5412.8	5476.9	5530.2	5591.2	5646.1	5743.7	5812.3	5882.4	5951.0
47.5°	5650.7	5708.6	5749.8	5826.0	5891.6	5972.4	6041.0	6132.5	6207.2	6292.6	6350.5
50°	6045.6	6117.2	6170.6	6269.7	6333.8	6423.7	6510.6	6579.2	6655.5	6739.3	6786.6
52.5°	6612.8	6686.0	6753.1	6876.6	6955.8	7016.8	7132.7	7218.1	7288.2	7349.2	7401.1
55°	7841.7	7820.4	8006.4	8245.8	8273.2	8494.3	8535.5	8607.1	8736.7	8755.0	8899.9
57.5°	11353.2	11243.4	11513.3	11864.0	11803.0	11691.7	12156.7	12185.7	12120.1	12295.5	12097.3
60°	16212.5	16020.4	16093.6	16189.6	16050.9	15985.3	16008.2	16073.8	16009.7	15939.6	15747.5
62.5°	19457.2	19161.4	18949.4	18771.0	18545.4	18382.2	18199.3	17973.6	17912.6	17656.4	17441.5
65°	20149.4	19688.9	19353.5	19016.5	18705.5	18417.3	18141.3	17947.7	17691.5	17388.1	17164.0
67.5°	19388.5	18818.3	18327.3	17837.9	17485.7	17061.8	16854.4	16538.8	16223.2	15875.6	15669.7
70°	17177.7	16583.0	15965.5	15486.7	15008.0	14483.5	14381.3	14007.8	13826.3	13352.1	13269.8
72.5°	11856.3	11459.9	11183.9	10592.3	10301.1	10032.8	9947.4	9601.3	9637.9	9117.9	9307.0
75°	4215.9	4159.5	4078.7	3744.8	3685.3	3581.6	3554.2	3529.8	3776.8	3433.7	3682.2
77.5°	724.2	719.7	678.5	658.7	696.8	672.4	678.5	666.3	738.0	748.6	731.9
80°	449.8	437.6	423.9	414.7	416.3	407.1	408.6	411.7	416.3	414.7	419.3
82.5°	308.0	297.3	291.2	285.1	294.3	297.3	304.9	312.6	324.8	332.4	341.5
85°	167.7	154.0	154.0	152.5	164.7	173.8	186.0	201.3	222.6	240.9	260.7
87.5°	85.4	82.3	83.9	86.9	97.6	105.2	120.5	134.2	152.5	172.3	190.6
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: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2183.4	2183.4	2181.9	2181.9	2180.4	2178.8	2177.3	2172.7	2156.0	2140.7	2130.1
5°	2217.0	2212.4	2210.9	2206.3	2204.8	2201.7	2197.1	2192.6	2162.1	2134.6	2114.8
7.5°	2285.6	2279.5	2276.4	2271.9	2267.3	2261.2	2255.1	2250.5	2213.9	2181.9	2157.5
10°	2375.5	2372.5	2371.0	2364.9	2364.9	2355.7	2354.2	2343.5	2303.9	2274.9	2253.6
12.5°	2500.6	2494.5	2492.9	2485.3	2488.4	2485.3	2482.3	2476.2	2447.2	2413.7	2384.7
15°	2656.1	2656.1	2648.5	2642.4	2643.9	2640.8	2646.9	2639.3	2621.0	2590.5	2543.3
17.5°	2843.6	2840.6	2843.6	2839.1	2842.1	2845.2	2837.5	2839.1	2829.9	2791.8	2721.7
20°	3061.7	3057.1	3075.4	3067.8	3084.5	3069.3	3072.3	3076.9	3076.9	3026.6	2932.1
22.5°	3311.7	3308.7	3308.7	3323.9	3330.0	3331.5	3337.6	3342.2	3354.4	3290.4	3139.4
25°	3561.8	3572.5	3574.0	3593.8	3603.0	3603.0	3607.5	3624.3	3660.9	3572.5	3377.3
27.5°	3816.4	3842.3	3848.4	3862.2	3875.9	3889.6	3900.3	3912.5	3971.9	3875.9	3621.2
30°	4071.0	4100.0	4121.4	4136.6	4153.4	4186.9	4193.0	4217.4	4316.5	4199.1	3853.0
32.5°	4369.9	4411.1	4438.5	4458.3	4484.2	4516.3	4534.6	4565.1	4661.1	4469.0	4022.3
35°	4726.7	4751.1	4790.7	4824.3	4839.5	4894.4	4923.4	4931.0	5004.2	4702.3	4147.3
37.5°	4973.7	5014.9	5083.5	5130.7	5158.2	5188.7	5237.5	5269.5	5339.6	4914.2	4209.8
40°	5287.8	5350.3	5405.2	5475.3	5519.5	5542.4	5591.2	5617.1	5626.3	5095.7	4190.0
42.5°	5670.5	5726.9	5800.1	5856.5	5890.1	5916.0	5955.6	5966.3	5847.4	5181.1	4083.2
45°	6030.3	6117.2	6179.8	6220.9	6245.3	6259.0	6283.4	6285.0	6030.3	5138.4	3900.3
47.5°	6417.6	6480.1	6538.1	6567.0	6564.0	6567.0	6557.9	6551.8	6121.8	4990.5	3665.5
50°	6846.1	6887.2	6911.6	6925.4	6933.0	6904.0	6862.8	6835.4	6129.4	4780.0	3427.6
52.5°	7420.9	7472.7	7468.2	7466.6	7405.6	7378.2	7268.4	7212.0	6085.2	4533.0	3159.3
55°	8877.0	8826.7	8727.6	8776.4	8527.8	8398.2	8227.5	8068.9	6143.2	4298.2	2848.2
57.5°	12176.5	12196.4	11914.3	11763.3	11344.0	10819.5	10397.2	9987.0	6664.6	4154.9	2442.6
60°	15619.4	15360.2	15001.9	14456.0	13916.3	13137.1	12385.4	11674.9	7184.6	4005.5	1962.3
62.5°	17122.8	16753.8	16212.5	15506.6	14658.8	13705.9	12769.7	11903.6	6933.0	3522.1	1427.2
65°	16817.8	16253.7	15656.0	14829.6	13798.9	12754.4	11661.2	10776.8	5800.1	2627.1	879.8
67.5°	15223.0	14744.2	14113.0	13132.6	12030.2	10943.0	9941.3	8950.2	4308.9	1637.6	492.5
70°	12849.0	12380.9	11740.5	10737.2	9636.3	8596.5	7535.2	6727.1	2746.0	789.8	355.3
72.5°	8913.6	8533.9	8081.1	7366.0	6400.8	5455.5	4737.4	4116.8	1521.7	419.3	324.8
75°	3619.7	3621.2	3538.9	3237.0	2735.4	2358.8	2011.1	1706.2	635.8	356.8	320.2
77.5°	820.3	834.0	911.8	864.5	779.1	728.8	652.6	576.4	387.3	367.5	323.2
80°	414.7	416.3	411.7	413.2	408.6	410.2	404.1	399.5	362.9	378.1	323.2
82.5°	346.1	353.7	352.2	352.2	353.7	353.7	353.7	352.2	376.6	398.0	312.6
85°	274.5	289.7	301.9	314.1	327.8	337.0	341.5	346.1	365.9	391.9	283.6
87.5°	207.4	225.7	240.9	253.1	274.5	274.5	289.7	300.4	300.4	306.5	149.4
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: P159377

CATALOG NUMBER: VST-F09-LED-E-U-T2-7060

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2189.5	2189.5	2189.5	2189.5	2189.5
2.5°	2114.8	2108.7	2102.6	2099.6	2093.5
5°	2099.6	2087.4	2079.7	2079.7	2073.6
7.5°	2143.8	2139.2	2128.5	2122.4	2128.5
10°	2238.3	2230.7	2218.5	2209.3	2213.9
12.5°	2364.9	2334.4	2310.0	2299.3	2291.7
15°	2496.0	2435.0	2386.2	2358.8	2351.1
17.5°	2636.3	2529.5	2456.3	2415.2	2407.6
20°	2779.6	2646.9	2543.3	2489.9	2488.4
22.5°	2951.9	2775.0	2642.4	2572.2	2567.7
25°	3133.3	2889.4	2714.0	2624.1	2614.9
27.5°	3290.4	2980.9	2758.2	2651.5	2642.4
30°	3421.5	3049.5	2794.8	2671.3	2659.1
32.5°	3516.0	3089.1	2810.1	2677.4	2663.7
35°	3546.5	3073.9	2767.4	2622.5	2607.3
37.5°	3505.4	2974.8	2648.5	2488.4	2470.1
40°	3381.9	2800.9	2454.8	2290.2	2267.3
42.5°	3192.8	2587.5	2221.5	2064.5	2035.5
45°	2959.5	2346.6	1989.8	1814.4	1800.7
47.5°	2715.6	2093.5	1729.1	1570.5	1553.7
50°	2451.8	1800.7	1474.4	1302.1	1302.1
52.5°	2137.7	1515.6	1178.6	1049.0	1038.3
55°	1776.3	1193.9	939.2	840.1	826.4
57.5°	1387.5	917.9	750.2	692.2	677.0
60°	1020.0	689.2	603.8	571.8	565.7
62.5°	692.2	524.5	486.4	472.7	471.1
65°	468.1	408.6	398.0	393.4	394.9
67.5°	359.8	340.0	335.4	333.9	333.9
70°	312.6	300.4	295.8	297.3	295.8
72.5°	294.3	277.5	279.0	282.1	280.6
75°	288.2	266.8	272.9	274.5	268.4
77.5°	283.6	254.6	269.9	274.5	257.7
80°	274.5	244.0	280.6	282.1	253.1
82.5°	251.6	216.5	280.6	259.2	228.7
85°	213.5	164.7	317.1	225.7	169.2
87.5°	135.7	97.6	215.0	154.0	102.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)