

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: P159604

Luminaire Tested: **VST-F10-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159604
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F10-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (70) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23059.8 lumens
Efficiency: N/A
Efficacy: 89.1 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 258.7
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



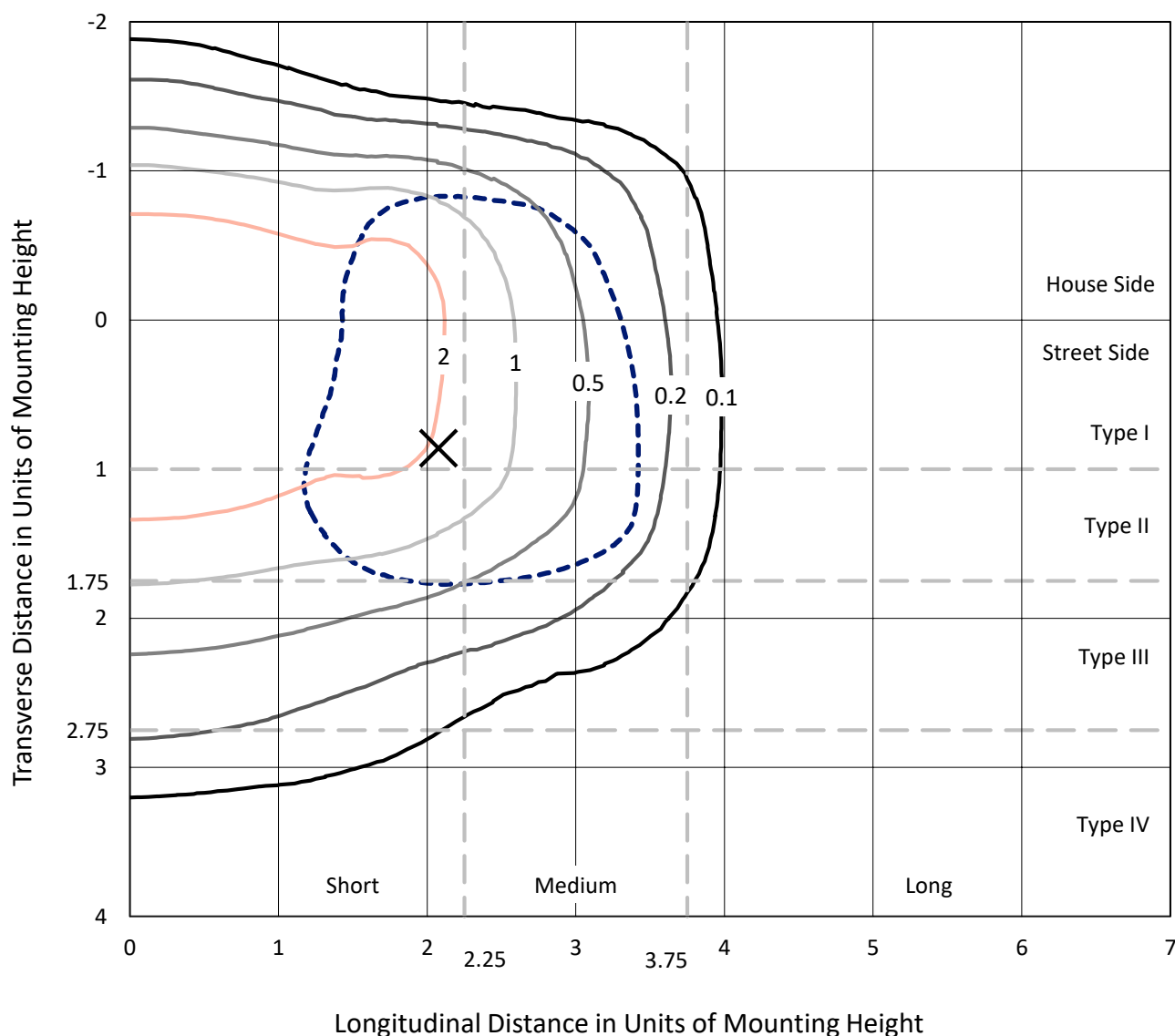
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

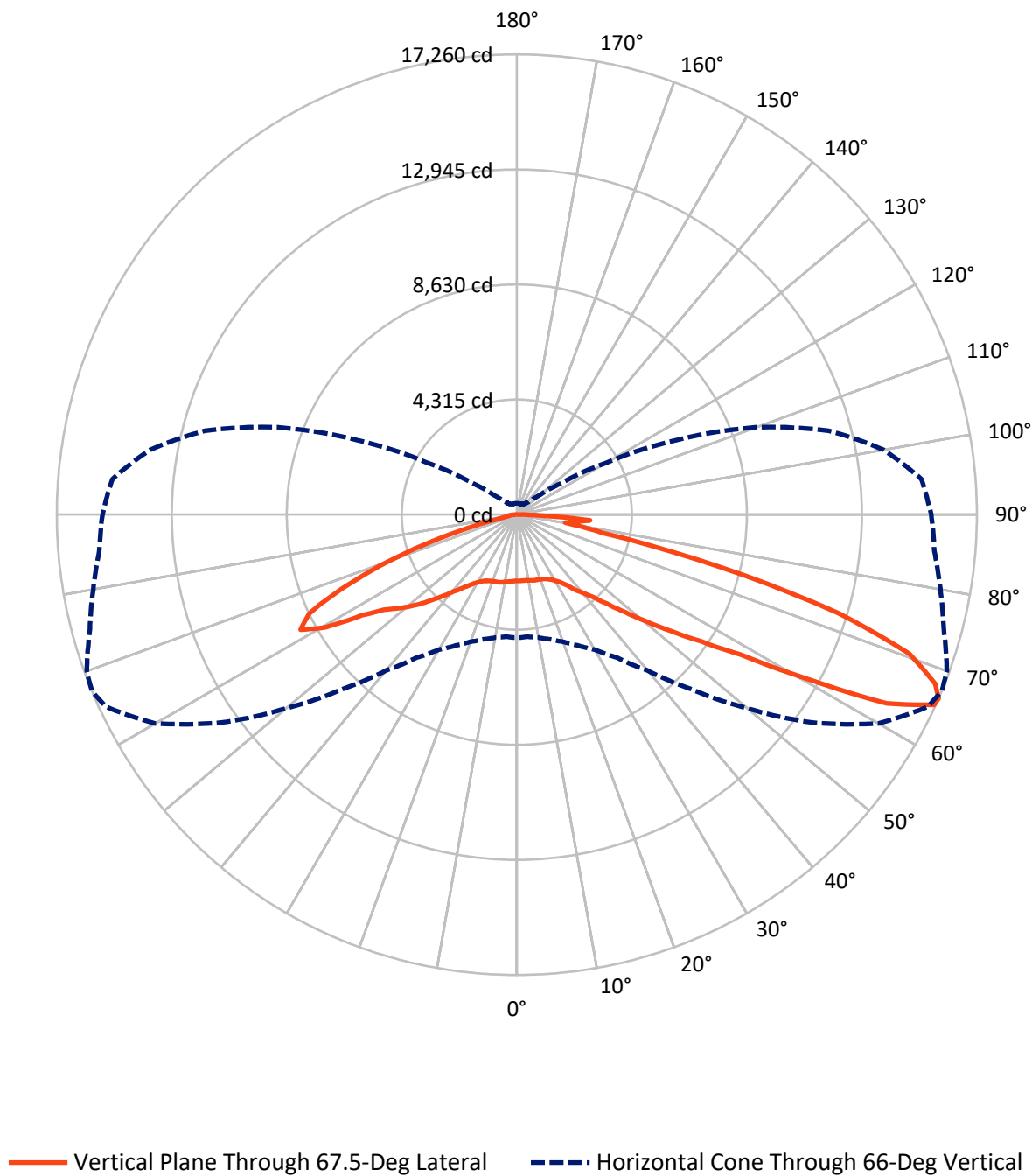


Based on 25 foot mounting height. Maximum calculated value = 4 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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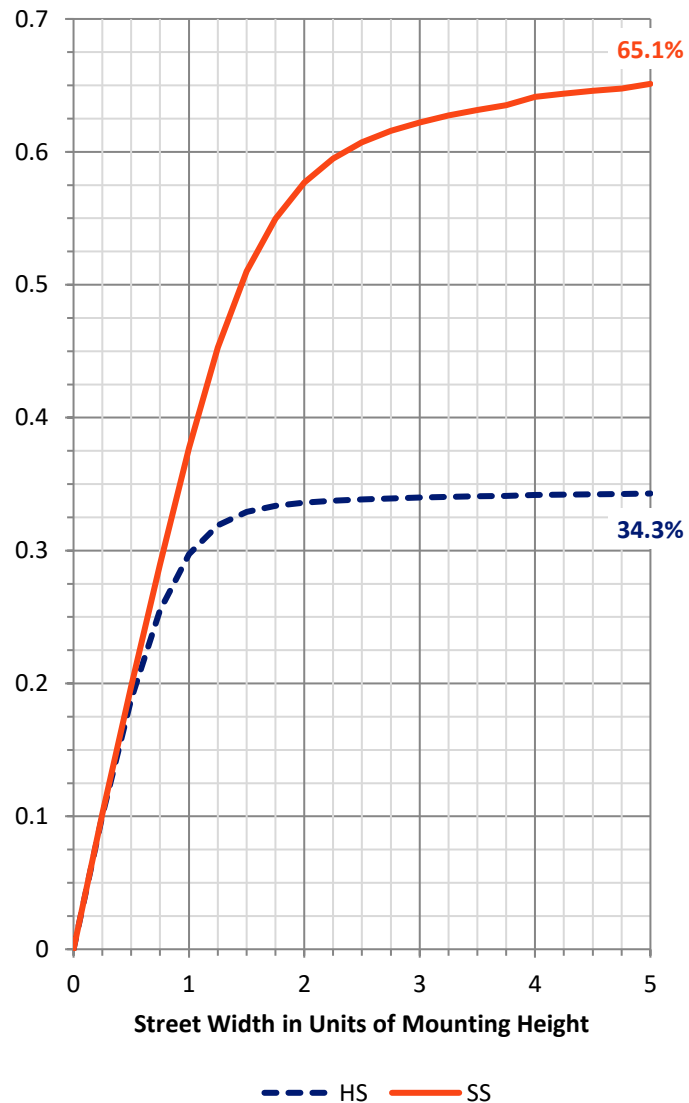
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7979.7	0.0	7979.7
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	15080.1	0.0	15080.1
	% Fixture	65.4	0.0	65.4
Total	Lumens	23059.8	0.0	23059.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.8	1.0
10°-20°	707.0	3.1
20°-30°	1215.4	5.3
30°-40°	1964.2	8.5
40°-50°	3255.2	14.1
50°-60°	5108.8	22.2
60°-70°	6984.7	30.3
70°-80°	3071.6	13.3
80°-90°	514.1	2.2
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°	23059.8	100.0
0°-180°	23059.8	100.0

Coefficient of Utilization



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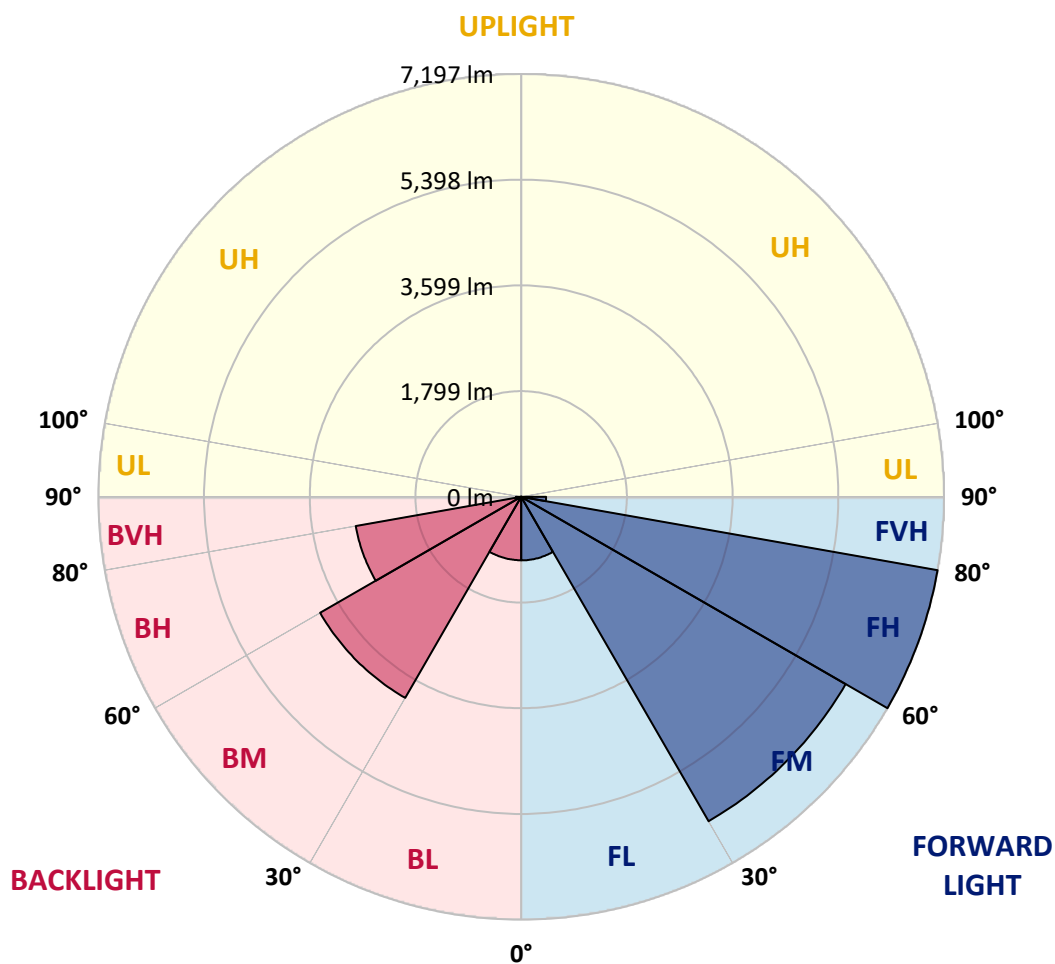
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1081.7	4.7			
FM	(30°-60°)	6376.7	27.7			
FH	(60°-80°)	7197.5	31.2			G3/7500
FVH	(80°-90°)	424.2	1.8			G3/500
BL	(0°-30°)	1079.5	4.7	B3/2500		
BM	(30°-60°)	3951.5	17.1	B3/5000		
BH	(60°-80°)	2858.8	12.4	B4/5000		G4/5000
BVH	(80°-90°)	90.0	0.4			G1/100
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°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2
2.5°	2483.7	2483.7	2485.2	2483.7	2483.7	2482.1	2488.2	2488.2	2488.2	2486.7	2491.2
5°	2477.6	2477.6	2479.1	2479.1	2480.6	2479.1	2483.7	2485.2	2485.2	2485.2	2489.7
7.5°	2462.5	2467.1	2464.1	2465.6	2467.1	2471.6	2477.6	2480.6	2483.7	2488.2	2489.7
10°	2430.9	2438.4	2436.9	2441.4	2442.9	2456.5	2461.0	2467.1	2477.6	2483.7	2488.2
12.5°	2387.1	2391.7	2393.2	2399.2	2405.2	2421.8	2433.9	2444.4	2459.5	2474.6	2489.7
15°	2352.5	2355.5	2355.5	2361.5	2370.6	2385.6	2400.7	2418.8	2441.4	2467.1	2491.2
17.5°	2363.0	2370.6	2364.5	2363.0	2366.0	2375.1	2388.7	2403.7	2430.9	2459.5	2488.2
20°	2432.4	2433.9	2430.9	2423.3	2417.3	2418.8	2418.8	2421.8	2438.4	2461.0	2483.7
22.5°	2489.7	2495.7	2494.2	2495.7	2494.2	2500.2	2497.2	2491.2	2485.2	2486.7	2497.2
25°	2539.5	2545.5	2545.5	2550.0	2557.5	2569.6	2578.7	2577.1	2568.1	2556.0	2551.5
27.5°	2620.9	2620.9	2620.9	2625.4	2636.0	2651.0	2666.1	2675.2	2682.7	2670.6	2645.0
30°	2749.1	2750.6	2746.0	2747.6	2755.1	2774.7	2792.8	2806.4	2821.4	2819.9	2786.8
32.5°	2889.3	2895.3	2893.8	2899.9	2910.4	2928.5	2948.1	2969.2	2988.8	3000.9	2979.8
35°	3070.3	3076.3	3077.8	3086.8	3098.9	3126.1	3153.2	3180.3	3201.5	3210.5	3206.0
37.5°	3367.3	3368.8	3362.8	3349.2	3353.8	3374.9	3406.5	3450.3	3463.8	3472.9	3494.0
40°	3812.2	3807.7	3783.5	3771.5	3763.9	3773.0	3767.0	3801.6	3833.3	3834.8	3833.3
42.5°	4352.1	4338.5	4315.9	4312.8	4309.8	4306.8	4290.2	4291.7	4320.4	4327.9	4318.9
45°	4888.9	4872.3	4855.7	4870.8	4852.7	4899.4	4913.0	4949.2	4953.7	4968.8	4946.2
47.5°	5329.2	5330.7	5330.7	5351.8	5388.0	5477.0	5556.9	5626.3	5651.9	5688.1	5692.7
50°	5662.5	5671.5	5700.2	5768.1	5845.0	5994.2	6128.5	6253.6	6366.7	6408.9	6520.5
52.5°	5857.0	5881.1	5941.5	6054.6	6191.8	6384.8	6595.9	6808.6	7004.6	7170.5	7303.2
55°	5822.3	5840.4	5946.0	6122.4	6336.6	6595.9	6891.5	7199.1	7505.3	7785.7	8002.9
57.5°	5599.2	5611.2	5716.8	5915.8	6182.7	6531.1	6948.8	7405.7	7835.5	8287.9	8658.9
60°	5306.6	5324.7	5422.7	5579.6	5858.5	6229.5	6713.6	7333.3	8019.5	8731.2	9424.9
62.5°	5119.6	5115.1	5201.0	5341.3	5550.9	5887.2	6353.1	7087.5	8037.6	9240.9	10611.7
65°	4809.0	4795.4	4884.4	5044.2	5271.9	5597.6	6039.5	6745.2	7847.6	9434.0	11377.8
66°	4615.9	4588.8	4677.8	4839.1	5066.8	5413.7	5837.4	6534.1	7616.8	9245.5	11296.3
67.5°	4278.2	4264.6	4306.8	4433.5	4602.4	4928.1	5369.9	6071.2	7071.0	8678.5	10699.2
70°	3477.4	3447.3	3480.4	3537.7	3602.6	3682.5	3953.9	4510.4	5356.4	6914.1	8619.7
72.5°	2369.0	2354.0	2415.8	2503.3	2676.7	2758.1	2865.2	2955.7	3254.2	4358.1	6012.3
75°	1802.0	1811.1	1889.5	2034.3	2257.5	2498.7	2734.0	2819.9	2720.4	2634.5	3412.6
77.5°	1010.4	1063.1	1158.1	1342.1	1578.9	1919.7	2329.8	2782.2	3008.4	2952.6	2761.1
80°	416.2	408.7	455.4	556.4	637.9	916.9	1402.4	1969.4	2605.8	3008.4	2945.1
82.5°	116.1	119.1	153.8	197.5	254.8	324.2	506.7	814.3	1327.0	2064.4	2702.3
85°	36.2	36.2	49.8	73.9	87.5	101.0	128.2	211.1	360.4	719.3	1458.2
87.5°	7.5	7.5	10.6	21.1	22.6	22.6	28.7	39.2	34.7	31.7	141.8
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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CATALOG NUMBER: VST-F10-LED-E-U-T3-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2
2.5°	2486.7	2483.7	2485.2	2486.7	2485.2	2485.2	2483.7	2482.1	2483.7	2483.7	2488.2
5°	2485.2	2483.7	2485.2	2485.2	2485.2	2486.7	2486.7	2486.7	2491.2	2491.2	2498.7
7.5°	2488.2	2488.2	2491.2	2491.2	2491.2	2491.2	2492.7	2495.7	2503.3	2501.8	2515.3
10°	2494.2	2497.2	2504.8	2506.3	2506.3	2510.8	2513.8	2519.8	2527.4	2530.4	2542.5
12.5°	2501.8	2516.8	2530.4	2533.4	2537.9	2545.5	2550.0	2553.0	2566.6	2571.1	2586.2
15°	2510.8	2531.9	2548.5	2554.5	2560.6	2569.6	2575.6	2580.2	2592.2	2598.3	2616.4
17.5°	2512.3	2536.4	2556.0	2565.1	2572.6	2583.2	2592.2	2601.3	2614.8	2623.9	2642.0
20°	2510.8	2542.5	2572.6	2584.7	2592.2	2611.8	2625.4	2637.5	2654.1	2663.1	2681.2
22.5°	2527.4	2563.6	2604.3	2619.4	2631.4	2658.6	2676.7	2696.3	2717.4	2723.4	2737.0
25°	2566.6	2604.3	2655.6	2676.7	2697.8	2734.0	2759.6	2788.3	2809.4	2812.4	2816.9
27.5°	2632.9	2667.6	2729.5	2761.1	2795.8	2847.1	2884.8	2913.4	2943.6	2943.6	2940.6
30°	2767.2	2774.7	2839.5	2880.3	2931.5	3006.9	3062.7	3094.4	3117.0	3117.0	3091.4
32.5°	2940.6	2931.5	2990.3	3034.1	3104.9	3210.5	3285.9	3310.0	3334.2	3326.6	3282.9
35°	3190.9	3165.3	3198.4	3264.8	3344.7	3489.5	3567.9	3622.2	3637.3	3616.2	3546.8
37.5°	3506.1	3503.1	3519.6	3593.5	3682.5	3869.5	3949.4	3984.1	3972.0	3934.3	3812.2
40°	3839.3	3830.3	3819.7	3869.5	3969.0	4193.7	4335.5	4353.6	4337.0	4281.2	4127.4
42.5°	4284.2	4284.2	4234.4	4248.0	4330.9	4582.8	4750.2	4807.5	4809.0	4727.5	4522.5
45°	4896.4	4890.4	4802.9	4781.8	4845.2	5092.5	5308.1	5339.8	5339.8	5232.7	5008.0
47.5°	5632.3	5624.8	5538.8	5464.9	5477.0	5743.9	5923.4	5971.6	5929.4	5849.5	5582.6
50°	6461.7	6448.2	6360.7	6291.3	6261.2	6531.1	6683.4	6706.0	6644.2	6549.2	6259.7
52.5°	7303.2	7343.9	7292.6	7254.9	7265.5	7440.4	7597.2	7490.2	7458.5	7356.0	7064.9
55°	8179.3	8304.5	8417.6	8384.4	8423.6	8594.0	8624.2	8482.4	8425.1	8351.2	8027.0
57.5°	9061.5	9426.4	9797.4	9901.4	9998.0	10242.2	10207.6	9975.3	10019.1	10129.1	9764.2
60°	10293.5	11347.6	12288.6	12462.0	12762.1	12970.2	13016.9	12971.7	13175.3	13118.0	12795.3
62.5°	12186.0	13942.8	15251.8	15577.5	15879.1	15868.5	15710.2	15547.3	15747.9	15747.9	14904.9
65°	13537.2	15530.8	16931.7	17201.6	17189.5	16826.1	16452.1	16126.4	16097.8	15874.6	14642.6
66°	13600.5	15652.9	17025.2	17260.4	17169.9	16584.8	16137.0	15723.8	15547.3	15236.7	13974.5
67.5°	13030.5	15307.6	16720.6	16925.6	16687.4	15848.9	15232.2	14678.7	14422.4	13899.1	12710.8
70°	10688.6	13155.7	15211.1	15630.3	15360.4	14298.7	13454.3	12706.3	12216.2	11460.7	10604.2
72.5°	7802.3	9712.9	11938.7	12620.3	12578.1	11600.9	10920.8	10236.2	9592.3	8904.7	8278.8
75°	5071.4	6318.5	7559.5	7957.6	7766.1	7200.6	6713.6	6313.9	5703.2	5225.2	5109.1
77.5°	2895.3	3537.7	3346.2	3296.5	3056.7	2467.1	1640.7	1150.6	1039.0	1296.9	1422.0
80°	2755.1	2497.2	2044.8	1844.3	1695.0	1155.1	606.2	426.8	374.0	383.0	411.7
82.5°	3106.5	3237.6	2648.0	2212.2	1925.7	1405.4	767.6	357.4	260.9	309.1	346.8
85°	2328.3	3278.4	3249.7	2753.6	2259.0	1619.6	907.8	272.9	156.8	217.2	283.5
87.5°	472.0	776.6	748.0	657.5	559.5	390.6	152.3	86.0	78.4	107.1	162.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2	2488.2
2.5°	2491.2	2491.2	2494.2	2498.7	2500.2	2500.2	2503.3	2500.2	2506.3	2507.8	2509.3
5°	2504.8	2509.3	2512.3	2519.8	2524.4	2527.4	2531.9	2528.9	2534.9	2536.4	2539.5
7.5°	2519.8	2527.4	2533.4	2536.4	2542.5	2542.5	2544.0	2541.0	2539.5	2534.9	2533.4
10°	2547.0	2551.5	2559.1	2556.0	2553.0	2542.5	2533.4	2519.8	2512.3	2498.7	2491.2
12.5°	2590.7	2593.7	2593.7	2580.2	2560.6	2536.4	2513.8	2491.2	2473.1	2458.0	2449.0
15°	2620.9	2626.9	2619.4	2599.8	2571.1	2537.9	2507.8	2477.6	2453.5	2433.9	2421.8
17.5°	2643.5	2642.0	2628.4	2601.3	2574.1	2545.5	2518.3	2486.7	2456.5	2427.9	2409.8
20°	2678.2	2663.1	2639.0	2610.3	2581.7	2557.5	2536.4	2506.3	2474.6	2435.4	2408.3
22.5°	2724.9	2697.8	2663.1	2632.9	2605.8	2583.2	2559.1	2533.4	2500.2	2456.5	2418.8
25°	2791.3	2744.5	2705.3	2675.2	2651.0	2625.4	2598.3	2565.1	2531.9	2486.7	2441.4
27.5°	2892.3	2823.0	2773.2	2746.0	2723.4	2688.7	2654.1	2614.8	2572.6	2525.9	2474.6
30°	3014.5	2931.5	2874.2	2850.1	2823.0	2783.7	2746.0	2691.8	2632.9	2577.1	2513.8
32.5°	3157.7	3073.3	3016.0	2997.9	2954.1	2908.9	2856.1	2783.7	2706.8	2623.9	2548.5
35°	3374.9	3267.8	3215.0	3172.8	3112.5	3058.2	2969.2	2874.2	2764.1	2654.1	2560.6
37.5°	3598.1	3489.5	3435.2	3376.4	3298.0	3198.4	3079.3	2943.6	2797.3	2661.6	2547.0
40°	3896.6	3779.0	3709.6	3619.2	3492.5	3337.2	3160.7	2975.3	2797.3	2628.4	2489.7
42.5°	4245.0	4136.4	4029.3	3880.1	3676.5	3450.3	3203.0	2964.7	2749.1	2554.5	2408.3
45°	4727.5	4542.1	4371.7	4131.9	3834.8	3516.6	3207.5	2914.9	2666.1	2450.5	2287.6
47.5°	5270.4	5030.6	4729.0	4353.6	3947.9	3542.3	3163.8	2821.4	2534.9	2301.2	2123.2
50°	5896.2	5528.3	5065.3	4530.0	4005.2	3507.6	3059.7	2664.6	2354.0	2085.5	1895.5
52.5°	6612.5	6051.6	5369.9	4655.2	3996.2	3402.0	2887.8	2458.0	2111.2	1826.2	1639.2
55°	7407.2	6621.6	5661.0	4735.1	3914.7	3196.9	2617.9	2167.0	1809.6	1529.1	1364.7
57.5°	8808.2	7621.4	6215.9	4842.1	3744.3	2886.3	2275.6	1799.0	1476.3	1238.1	1081.2
60°	11410.9	9369.1	7267.0	5094.0	3488.0	2497.2	1844.3	1411.5	1141.5	968.1	852.0
62.5°	13021.5	10599.6	7779.7	5057.8	3071.8	1964.9	1369.3	1046.5	833.9	719.3	646.9
65°	12639.9	10117.1	7153.9	4344.5	2390.2	1393.4	906.3	684.6	573.0	514.2	479.5
66°	12121.2	9577.2	6624.6	3890.6	2082.5	1164.2	748.0	574.5	493.1	449.4	431.3
67.5°	11033.9	8591.0	5713.8	3115.5	1560.8	867.1	551.9	450.9	401.1	378.5	366.4
70°	9234.9	6921.7	4041.4	1839.7	846.0	470.5	352.9	313.7	301.6	294.1	289.5
72.5°	7140.3	5011.0	2361.5	904.8	426.8	304.6	268.4	251.8	247.3	247.3	248.8
75°	4498.3	2880.3	1057.1	435.8	289.5	245.8	229.2	221.7	223.2	224.7	223.2
77.5°	1494.4	993.8	440.3	309.1	251.8	223.2	209.6	206.6	209.6	211.1	211.1
80°	429.8	375.5	318.2	272.9	230.7	208.1	196.0	194.5	202.1	203.6	200.6
82.5°	330.2	309.1	288.0	263.9	221.7	196.0	191.5	193.0	197.5	194.5	181.0
85°	303.1	300.1	215.6	214.1	193.0	187.0	182.5	184.0	179.5	162.9	147.8
87.5°	170.4	158.3	122.1	123.7	143.3	147.8	122.1	129.7	120.6	105.6	96.5
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):

	160°	165°	170°	175°	180°
0°	2488.2	2488.2	2488.2	2488.2	2488.2
2.5°	2512.3	2510.8	2510.8	2515.3	2509.3
5°	2541.0	2539.5	2539.5	2544.0	2539.5
7.5°	2527.4	2522.9	2519.8	2518.3	2518.3
10°	2482.1	2477.6	2468.6	2465.6	2462.5
12.5°	2435.4	2430.9	2420.3	2420.3	2417.3
15°	2406.7	2400.7	2393.2	2388.7	2385.6
17.5°	2391.7	2382.6	2373.6	2369.0	2366.0
20°	2385.6	2373.6	2363.0	2355.5	2355.5
22.5°	2387.1	2372.1	2360.0	2351.0	2347.9
25°	2402.2	2379.6	2364.5	2355.5	2352.5
27.5°	2423.3	2396.2	2376.6	2364.5	2360.0
30°	2452.0	2414.3	2387.1	2372.1	2366.0
32.5°	2471.6	2418.8	2384.1	2363.0	2355.5
35°	2470.1	2402.2	2360.0	2332.9	2323.8
37.5°	2442.9	2363.0	2307.2	2274.0	2259.0
40°	2382.6	2290.6	2231.8	2200.2	2182.1
42.5°	2295.2	2195.6	2142.8	2108.2	2088.6
45°	2157.9	2059.9	1995.1	1967.9	1942.3
47.5°	1967.9	1868.4	1812.6	1773.4	1756.8
50°	1744.7	1645.2	1586.4	1554.7	1539.7
52.5°	1500.4	1405.4	1363.2	1333.1	1311.9
55°	1247.1	1159.6	1141.5	1108.4	1088.8
57.5°	1008.8	957.6	941.0	907.8	891.2
60°	788.7	772.1	754.0	732.9	723.8
62.5°	610.7	595.7	591.1	577.6	576.1
65°	466.0	467.5	464.5	461.4	458.4
66°	423.7	422.2	423.7	420.7	419.2
67.5°	360.4	366.4	371.0	369.5	369.5
70°	292.5	297.1	303.1	301.6	301.6
72.5°	250.3	257.9	260.9	259.4	259.4
75°	226.2	233.7	233.7	230.7	229.2
77.5°	211.1	214.1	211.1	208.1	205.1
80°	196.0	193.0	188.5	184.0	181.0
82.5°	170.4	162.9	158.3	150.8	150.8
85°	137.2	131.2	120.6	113.1	105.6
87.5°	89.0	86.0	78.4	58.8	46.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)