

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: P159380

Luminaire Tested: **VST-E10-LED-E-U-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159380
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-E10-LED-E-U-T2
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 AREA
Light Source: (210) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30867.2 lumens
Efficiency: N/A
Efficacy: 124.6 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): 247.7
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



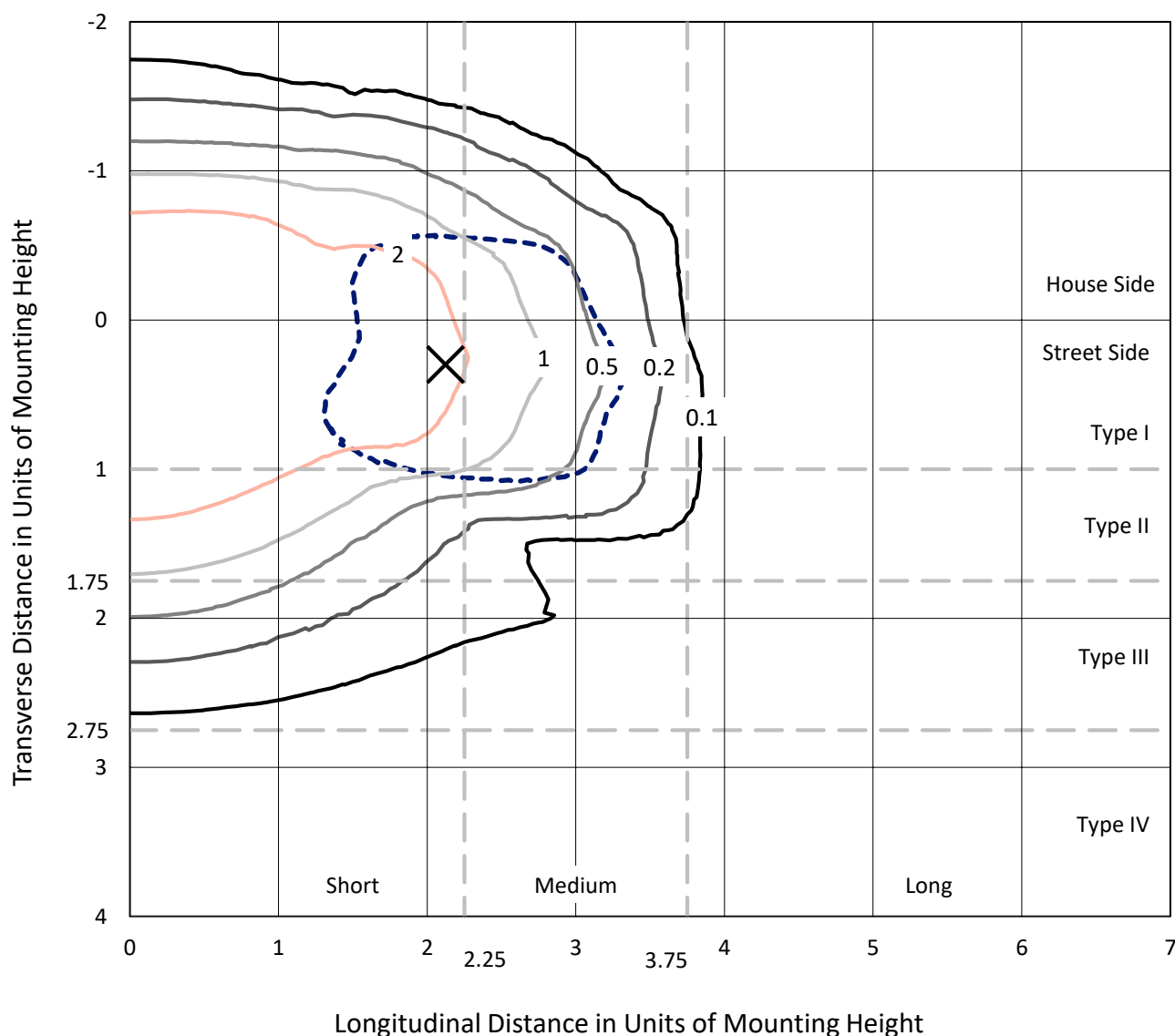
REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

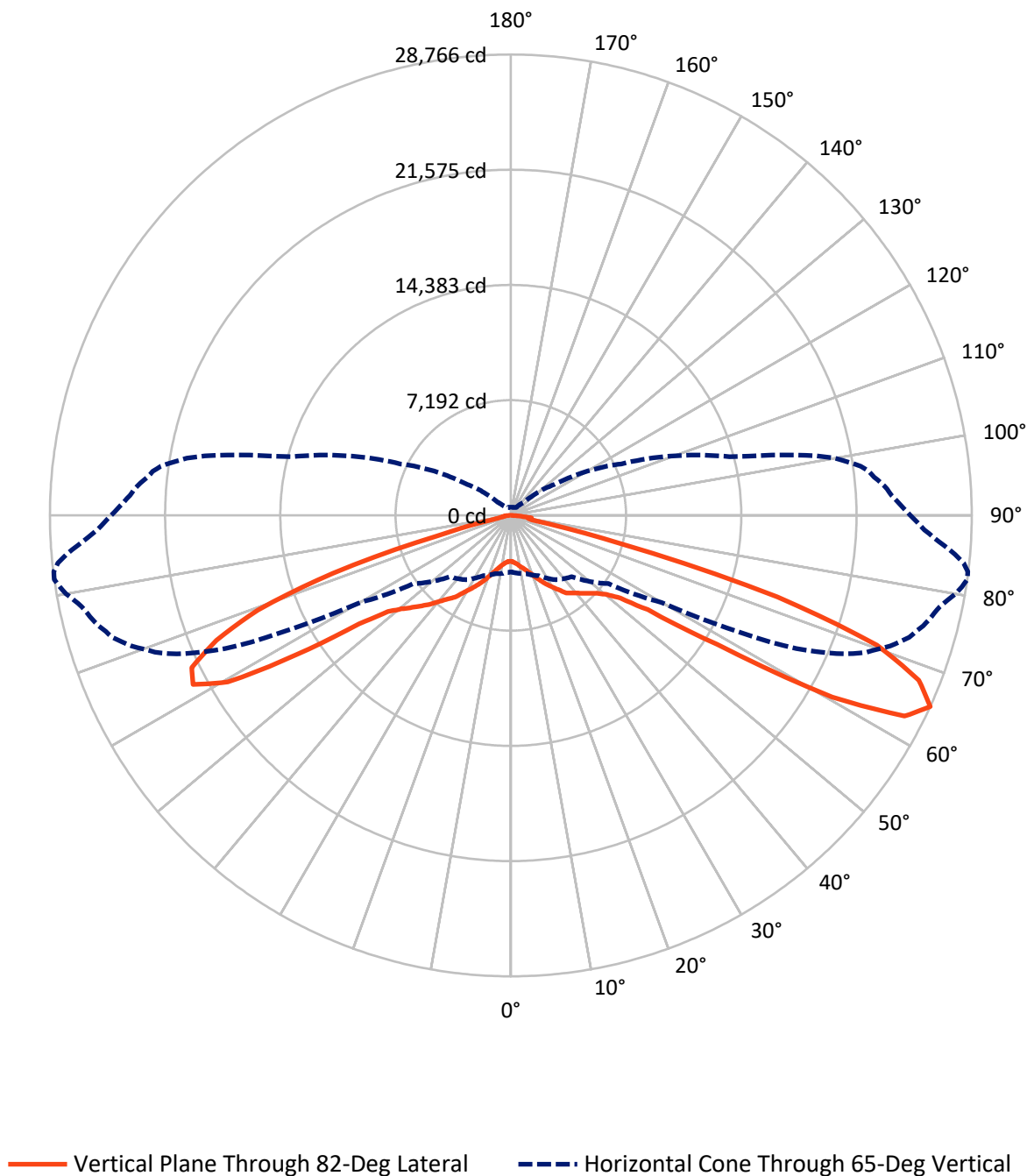


Based on 30 foot mounting height. Maximum calculated value = 4.1 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

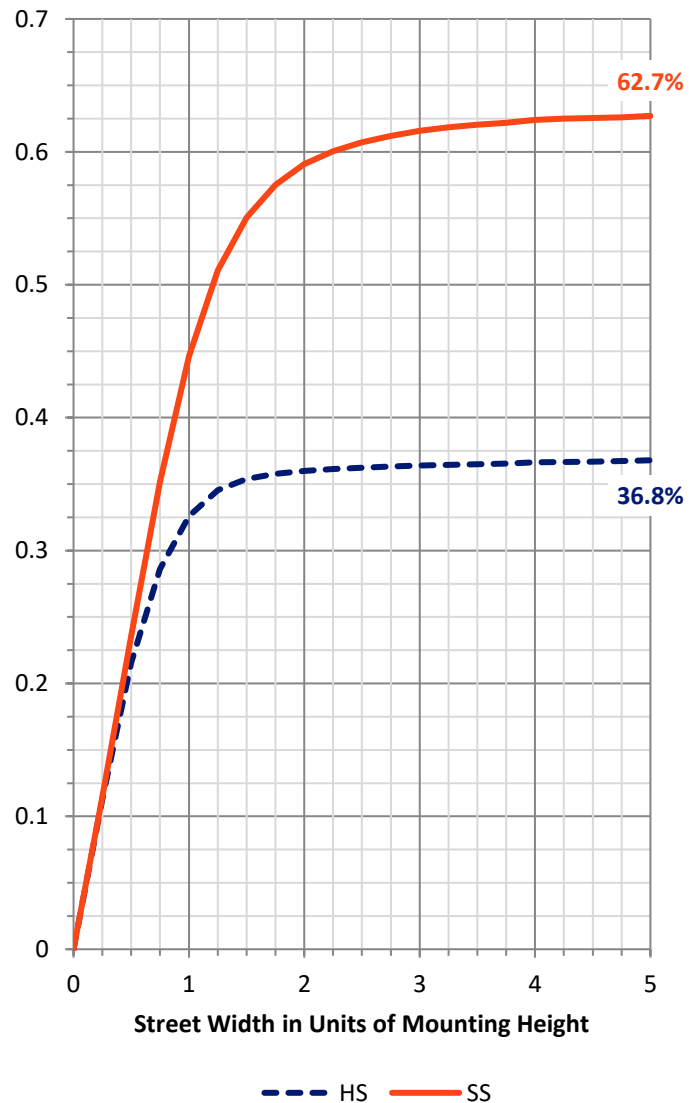
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11492.8	0.0	11492.8
	% Fixture	37.2	0.0	37.2
Street Side	Lumens	19374.3	0.0	19374.3
	% Fixture	62.8	0.0	62.8
Total	Lumens	30867.2	0.0	30867.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.8	0.9
10°-20°	1021.6	3.3
20°-30°	2024.3	6.6
30°-40°	3470.1	11.2
40°-50°	5212.9	16.9
50°-60°	7242.5	23.5
60°-70°	8262.5	26.8
70°-80°	2846.3	9.2
80°-90°	496.1	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°	30867.2	100.0
0°-180°	30867.2	100.0

Coefficient of Utilization



REPORT NUMBER: P159380

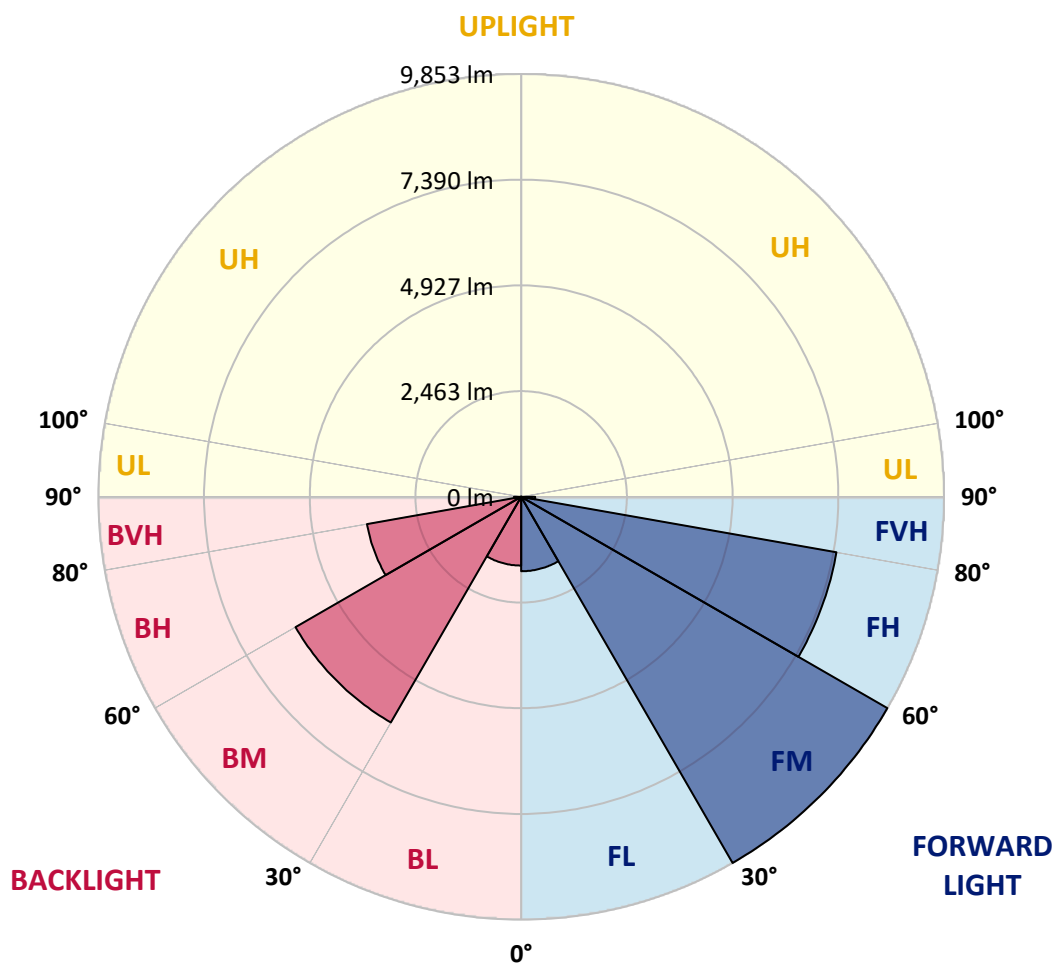
CATALOG NUMBER: VST-E10-LED-E-U-T2

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1734.1	5.6			
FM	(30°-60°)	9853.4	31.9			
FH	(60°-80°)	7460.2	24.2			G3/7500
FVH	(80°-90°)	326.6	1.1			G3/500
BL	(0°-30°)	1602.6	5.2	B3/2500		
BM	(30°-60°)	6072.1	19.7	B4/8500		
BH	(60°-80°)	3648.6	11.8	B4/5000		G4/5000
BVH	(80°-90°)	169.5	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: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	64°
0°	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872
2.5°	3028	3030	3028	3022	3020	3002	2982	2972	2970	2962	2964
5°	3216	3210	3202	3192	3182	3152	3118	3100	3094	3088	3080
7.5°	3384	3388	3384	3370	3344	3306	3262	3234	3232	3226	3220
10°	3600	3610	3586	3562	3526	3468	3418	3382	3376	3368	3364
12.5°	3834	3836	3828	3774	3714	3634	3562	3526	3518	3508	3504
15°	4084	4086	4042	3990	3898	3802	3702	3662	3652	3654	3638
17.5°	4282	4286	4244	4178	4068	3954	3846	3814	3808	3810	3802
20°	4368	4374	4348	4298	4194	4094	4016	3996	3994	3990	4006
22.5°	4364	4366	4356	4336	4274	4216	4206	4218	4216	4220	4234
25°	4328	4334	4332	4340	4330	4352	4398	4440	4446	4454	4480
27.5°	4420	4432	4418	4426	4442	4516	4610	4674	4686	4708	4730
30°	4780	4764	4746	4726	4736	4782	4888	4944	4950	4966	4996
32.5°	5314	5296	5280	5248	5240	5220	5256	5270	5268	5284	5292
35°	5916	5918	5914	5938	5958	5856	5730	5696	5710	5692	5696
37.5°	6430	6436	6542	6674	6712	6648	6372	6236	6190	6184	6138
40°	7000	7000	7160	7322	7428	7508	7180	6940	6842	6814	6700
42.5°	7626	7594	7740	7918	8114	8296	8126	7856	7716	7666	7466
45°	8140	8120	8192	8358	8676	9032	9056	8918	8834	8730	8546
47.5°	8456	8446	8488	8668	9066	9642	9964	10034	9984	9904	9726
50°	8580	8566	8596	8796	9242	10002	10714	11044	11068	11086	11030
52.5°	8536	8518	8580	8748	9212	10128	11300	11934	12040	12130	12314
55°	8114	8086	8254	8570	9082	10082	11728	12790	13014	13254	13662
57.5°	7468	7444	7686	8120	8852	9956	12016	13872	14376	14808	15966
60°	6846	6826	6968	7388	8106	9342	11660	14236	15082	16014	18128
62.5°	5734	5680	5870	6224	6678	7728	10106	13426	14730	16100	18966
65°	3524	3602	3766	4158	4902	5402	7422	10862	12582	14300	18018
67.5°	2238	2260	2382	2654	3230	3732	4498	6816	8142	9832	14146
70°	1918	1932	2036	2320	2718	3336	3404	3560	4036	5112	8316
72.5°	1512	1536	1618	1864	2344	3008	4202	2814	2718	2808	4058
75°	900	928	996	1130	1506	2300	4402	3274	3052	2878	2800
77.5°	476	456	502	580	774	1226	3308	4012	3856	3648	3206
80°	236	244	258	274	346	498	1654	4150	4600	4800	4408
82.5°	94	106	150	160	190	212	532	2300	3294	4468	5834
85°	48	46	80	96	112	100	188	858	1544	2406	3898
87.5°	6	8	18	24	34	32	54	186	296	420	590
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°	75°
0°	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872
2.5°	2954	2952	2952	2944	2944	2946	2940	2936	2936	2938	2930
5°	3074	3068	3068	3060	3050	3050	3042	3040	3036	3028	3022
7.5°	3214	3208	3198	3192	3188	3182	3172	3168	3160	3152	3144
10°	3358	3350	3346	3336	3332	3320	3314	3316	3300	3294	3296
12.5°	3502	3494	3480	3476	3474	3462	3456	3452	3440	3438	3432
15°	3630	3634	3628	3618	3610	3608	3602	3598	3590	3582	3574
17.5°	3796	3802	3794	3780	3780	3778	3780	3778	3764	3770	3766
20°	4008	4012	3992	3998	4002	4000	4006	4012	4008	4008	4014
22.5°	4252	4258	4246	4254	4266	4256	4274	4272	4276	4282	4284
25°	4502	4514	4504	4526	4518	4526	4548	4542	4552	4568	4574
27.5°	4752	4760	4762	4776	4790	4802	4830	4830	4838	4866	4866
30°	5014	5022	5030	5050	5058	5080	5108	5116	5112	5152	5164
32.5°	5316	5324	5338	5362	5372	5394	5394	5416	5432	5466	5468
35°	5718	5724	5718	5716	5730	5760	5762	5794	5808	5842	5852
37.5°	6120	6118	6092	6064	6066	6054	6046	6060	6066	6068	6090
40°	6662	6610	6570	6500	6468	6418	6388	6386	6354	6350	6356
42.5°	7372	7312	7218	7100	7010	6918	6850	6810	6740	6704	6674
45°	8364	8216	8104	7964	7790	7630	7462	7386	7252	7170	7078
47.5°	9576	9430	9258	9114	8886	8664	8434	8232	7998	7812	7660
50°	10892	10806	10682	10548	10254	10108	9818	9544	9292	8960	8670
52.5°	12242	12292	12264	12216	12030	11974	11724	11390	11136	10908	10404
55°	13906	13966	14086	14156	14134	14276	14214	13954	13852	13746	13388
57.5°	16452	16880	17338	17740	17834	18338	18230	18490	18674	18542	18426
60°	19166	20030	20808	21622	22284	22780	23436	23878	24156	24656	24696
62.5°	20260	21434	22422	23366	24152	24840	25432	26042	26542	26994	27320
65°	19660	20886	22084	23042	23798	24390	25034	25518	26010	26300	26642
67.5°	16344	17968	19442	20522	21556	22158	22920	23396	23918	24224	24444
70°	10656	12770	14784	16422	17818	18520	19440	20090	20718	20734	21100
72.5°	5750	7518	9204	10878	12470	13404	14312	15102	15726	15460	15824
75°	3202	4030	4952	5958	6928	7462	8140	8144	8466	7960	8088
77.5°	3080	3042	3056	3084	3132	3030	3028	2966	2870	2696	2726
80°	4046	3562	3214	2668	2148	1752	1642	1668	1746	1902	2100
82.5°	5850	5442	4858	3998	3138	2420	1988	1764	1754	1910	2210
85°	4260	4506	4468	3730	3076	2498	1818	1536	1272	1210	1316
87.5°	628	520	586	490	356	276	242	194	186	190	208
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	86°
0°	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872
2.5°	2932	2924	2916	2922	2916	2914	2908	2904	2902	2902	2902
5°	3022	3012	3006	3004	2998	2992	2990	2980	2978	2978	2972
7.5°	3144	3136	3126	3120	3116	3106	3096	3094	3092	3084	3078
10°	3286	3274	3262	3262	3254	3252	3242	3228	3226	3214	3210
12.5°	3420	3416	3402	3398	3392	3386	3380	3374	3368	3358	3362
15°	3580	3570	3558	3560	3558	3550	3542	3536	3532	3528	3528
17.5°	3772	3768	3766	3756	3748	3754	3754	3754	3744	3746	3748
20°	4016	4020	4016	4008	4006	4012	3998	4020	4008	4000	4004
22.5°	4286	4300	4284	4286	4296	4300	4286	4304	4298	4286	4296
25°	4580	4590	4582	4580	4586	4600	4598	4596	4610	4598	4604
27.5°	4882	4888	4892	4898	4902	4900	4908	4908	4916	4902	4908
30°	5182	5182	5190	5198	5198	5198	5214	5216	5204	5208	5194
32.5°	5502	5504	5512	5512	5528	5530	5548	5524	5548	5528	5532
35°	5878	5904	5908	5928	5944	5950	5950	5952	5974	5958	5964
37.5°	6098	6104	6120	6130	6130	6138	6144	6138	6144	6142	6148
40°	6358	6352	6370	6374	6366	6376	6374	6368	6384	6372	6380
42.5°	6674	6640	6638	6654	6638	6646	6644	6630	6650	6656	6650
45°	7012	6994	6958	6958	6942	6936	6938	6936	6938	6962	6970
47.5°	7562	7452	7390	7332	7284	7282	7260	7272	7288	7328	7364
50°	8484	8230	8074	7930	7826	7790	7748	7744	7758	7804	7866
52.5°	10128	9776	9444	9136	8868	8662	8560	8506	8486	8532	8592
55°	13136	12472	12004	11692	11026	10744	10382	10216	10054	10070	10172
57.5°	18276	17918	17526	16980	16572	16080	15176	14672	14694	14812	14444
60°	25012	24650	24488	23992	23708	23510	23030	22194	21898	21842	21166
62.5°	27570	27656	27784	27924	27916	28002	27582	27310	26968	26524	25856
65°	26902	27120	27380	27756	28184	28500	28766	28734	28414	27822	27116
67.5°	24640	24856	25046	25550	26252	26894	27462	27848	27634	27144	26320
70°	21240	21396	21516	21954	22724	23508	24250	24898	24832	24238	23580
72.5°	15390	15768	15972	15942	16418	17296	17400	17954	18108	17468	16420
75°	7498	7504	7268	7190	7214	7366	7076	7094	6994	6540	6166
77.5°	2620	2548	2376	2172	1880	1606	1328	1208	1168	1050	968
80°	2258	2364	2330	2162	1854	1478	1104	818	698	656	616
82.5°	2564	2972	3232	3218	2796	2100	1310	752	536	470	432
85°	1430	1538	1568	1428	1186	810	452	318	270	246	222
87.5°	228	208	204	178	168	154	136	128	118	112	112
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	87°	88°	89°	90°	91°	92°	93°	94°	95°	96°	97°
0°	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872
2.5°	2900	2898	2892	2886	2882	2880	2878	2874	2872	2870	2866
5°	2968	2964	2954	2944	2940	2934	2928	2924	2920	2918	2910
7.5°	3074	3070	3058	3050	3048	3032	3030	3024	3014	3012	3000
10°	3202	3200	3190	3184	3180	3172	3160	3150	3140	3140	3132
12.5°	3350	3342	3348	3334	3330	3322	3316	3314	3302	3292	3290
15°	3524	3514	3514	3510	3506	3498	3496	3498	3486	3490	3478
17.5°	3740	3744	3742	3742	3732	3732	3716	3736	3722	3732	3728
20°	4010	4012	4008	4014	4018	4016	4014	4012	4018	4026	4020
22.5°	4298	4298	4296	4318	4294	4312	4318	4306	4338	4334	4340
25°	4610	4610	4626	4644	4648	4634	4642	4632	4652	4668	4672
27.5°	4900	4926	4938	4926	4936	4958	4956	4956	4970	4966	5004
30°	5198	5214	5230	5222	5226	5254	5256	5258	5276	5302	5330
32.5°	5538	5554	5546	5572	5570	5604	5610	5616	5672	5662	5720
35°	5956	5972	5964	5992	5988	6000	6022	6046	6056	6114	6160
37.5°	6152	6152	6170	6202	6214	6234	6268	6298	6348	6410	6482
40°	6388	6394	6418	6452	6474	6520	6582	6624	6700	6768	6852
42.5°	6674	6700	6728	6774	6822	6894	6982	7036	7136	7224	7328
45°	7008	7034	7100	7184	7254	7334	7406	7534	7624	7716	7806
47.5°	7412	7488	7542	7642	7728	7834	7924	8044	8142	8254	8330
50°	7930	8024	8094	8224	8308	8426	8540	8630	8730	8840	8902
52.5°	8674	8770	8858	9020	9124	9204	9356	9468	9560	9640	9708
55°	10286	10258	10502	10816	10852	11142	11196	11290	11460	11484	11674
57.5°	14892	14748	15102	15562	15482	15336	15946	15984	15898	16128	15868
60°	21266	21014	21110	21236	21054	20968	20998	21084	21000	20908	20656
62.5°	25522	25134	24856	24622	24326	24112	23872	23576	23496	23160	22878
65°	26430	25826	25386	24944	24536	24158	23796	23542	23206	22808	22514
67.5°	25432	24684	24040	23398	22936	22380	22108	21694	21280	20824	20554
70°	22532	21752	20942	20314	19686	18998	18864	18374	18136	17514	17406
72.5°	15552	15032	14670	13894	13512	13160	13048	12594	12642	11960	12208
75°	5530	5456	5350	4912	4834	4698	4662	4630	4954	4504	4830
77.5°	950	944	890	864	914	882	890	874	968	982	960
80°	590	574	556	544	546	534	536	540	546	544	550
82.5°	404	390	382	374	386	390	400	410	426	436	448
85°	220	202	202	200	216	228	244	264	292	316	342
87.5°	112	108	110	114	128	138	158	176	200	226	250
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	98°	99°	100°	101°	102°	103°	104°	105°	115°	125°	135°
0°	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872	2872
2.5°	2864	2864	2862	2862	2860	2858	2856	2850	2828	2808	2794
5°	2908	2902	2900	2894	2892	2888	2882	2876	2836	2800	2774
7.5°	2998	2990	2986	2980	2974	2966	2958	2952	2904	2862	2830
10°	3116	3112	3110	3102	3102	3090	3088	3074	3022	2984	2956
12.5°	3280	3272	3270	3260	3264	3260	3256	3248	3210	3166	3128
15°	3484	3484	3474	3466	3468	3464	3472	3462	3438	3398	3336
17.5°	3730	3726	3730	3724	3728	3732	3722	3724	3712	3662	3570
20°	4016	4010	4034	4024	4046	4026	4030	4036	4036	3970	3846
22.5°	4344	4340	4340	4360	4368	4370	4378	4384	4400	4316	4118
25°	4672	4686	4688	4714	4726	4726	4732	4754	4802	4686	4430
27.5°	5006	5040	5048	5066	5084	5102	5116	5132	5210	5084	4750
30°	5340	5378	5406	5426	5448	5492	5500	5532	5662	5508	5054
32.5°	5732	5786	5822	5848	5882	5924	5948	5988	6114	5862	5276
35°	6200	6232	6284	6328	6348	6420	6458	6468	6564	6168	5440
37.5°	6524	6578	6668	6730	6766	6806	6870	6912	7004	6446	5522
40°	6936	7018	7090	7182	7240	7270	7334	7368	7380	6684	5496
42.5°	7438	7512	7608	7682	7726	7760	7812	7826	7670	6796	5356
45°	7910	8024	8106	8160	8192	8210	8242	8244	7910	6740	5116
47.5°	8418	8500	8576	8614	8610	8614	8602	8594	8030	6546	4808
50°	8980	9034	9066	9084	9094	9056	9002	8966	8040	6270	4496
52.5°	9734	9802	9796	9794	9714	9678	9534	9460	7982	5946	4144
55°	11644	11578	11448	11512	11186	11016	10792	10584	8058	5638	3736
57.5°	15972	15998	15628	15430	14880	14192	13638	13100	8742	5450	3204
60°	20488	20148	19678	18962	18254	17232	16246	15314	9424	5254	2574
62.5°	22460	21976	21266	20340	19228	17978	16750	15614	9094	4620	1872
65°	22060	21320	20536	19452	18100	16730	15296	14136	7608	3446	1154
67.5°	19968	19340	18512	17226	15780	14354	13040	11740	5652	2148	646
70°	16854	16240	15400	14084	12640	11276	9884	8824	3602	1036	466
72.5°	11692	11194	10600	9662	8396	7156	6214	5400	1996	550	426
75°	4748	4750	4642	4246	3588	3094	2638	2238	834	468	420
77.5°	1076	1094	1196	1134	1022	956	856	756	508	482	424
80°	544	546	540	542	536	538	530	524	476	496	424
82.5°	454	464	462	462	464	464	464	462	494	522	410
85°	360	380	396	412	430	442	448	454	480	514	372
87.5°	272	296	316	332	360	360	380	394	394	402	196
90°	0	0	0	0	0	0	0	0	0	0	0

REPORT NUMBER: P159380

CATALOG NUMBER: VST-E10-LED-E-U-T2

CANDELA DISTRIBUTION (continued):

	145°	155°	165°	175°	180°
0°	2872	2872	2872	2872	2872
2.5°	2774	2766	2758	2754	2746
5°	2754	2738	2728	2728	2720
7.5°	2812	2806	2792	2784	2792
10°	2936	2926	2910	2898	2904
12.5°	3102	3062	3030	3016	3006
15°	3274	3194	3130	3094	3084
17.5°	3458	3318	3222	3168	3158
20°	3646	3472	3336	3266	3264
22.5°	3872	3640	3466	3374	3368
25°	4110	3790	3560	3442	3430
27.5°	4316	3910	3618	3478	3466
30°	4488	4000	3666	3504	3488
32.5°	4612	4052	3686	3512	3494
35°	4652	4032	3630	3440	3420
37.5°	4598	3902	3474	3264	3240
40°	4436	3674	3220	3004	2974
42.5°	4188	3394	2914	2708	2670
45°	3882	3078	2610	2380	2362
47.5°	3562	2746	2268	2060	2038
50°	3216	2362	1934	1708	1708
52.5°	2804	1988	1546	1376	1362
55°	2330	1566	1232	1102	1084
57.5°	1820	1204	984	908	888
60°	1338	904	792	750	742
62.5°	908	688	638	620	618
65°	614	536	522	516	518
67.5°	472	446	440	438	438
70°	410	394	388	390	388
72.5°	386	364	366	370	368
75°	378	350	358	360	352
77.5°	372	334	354	360	338
80°	360	320	368	370	332
82.5°	330	284	368	340	300
85°	280	216	416	296	222
87.5°	178	128	282	202	134
90°	0	0	0	0	0

(END OF REPORT)