

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: P159820

Luminaire Tested: **VST-E10-LED-E-U-T4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159820
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(10) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (210) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29763.6 lumens
Efficiency: N/A
Efficacy: 120.2 lumens/watt
Luminous Opening: Rectangular (W 1.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B3 - 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



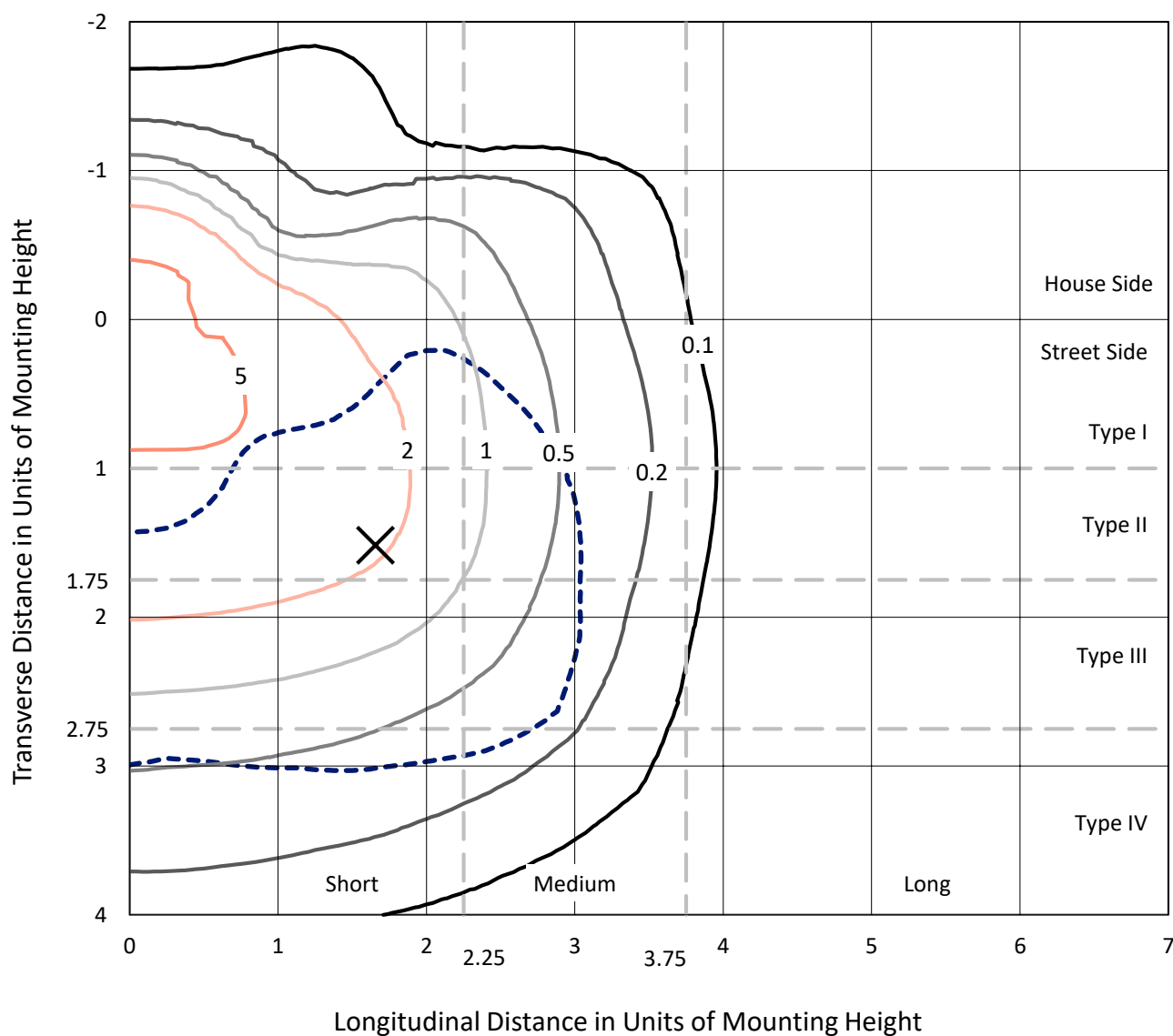
REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

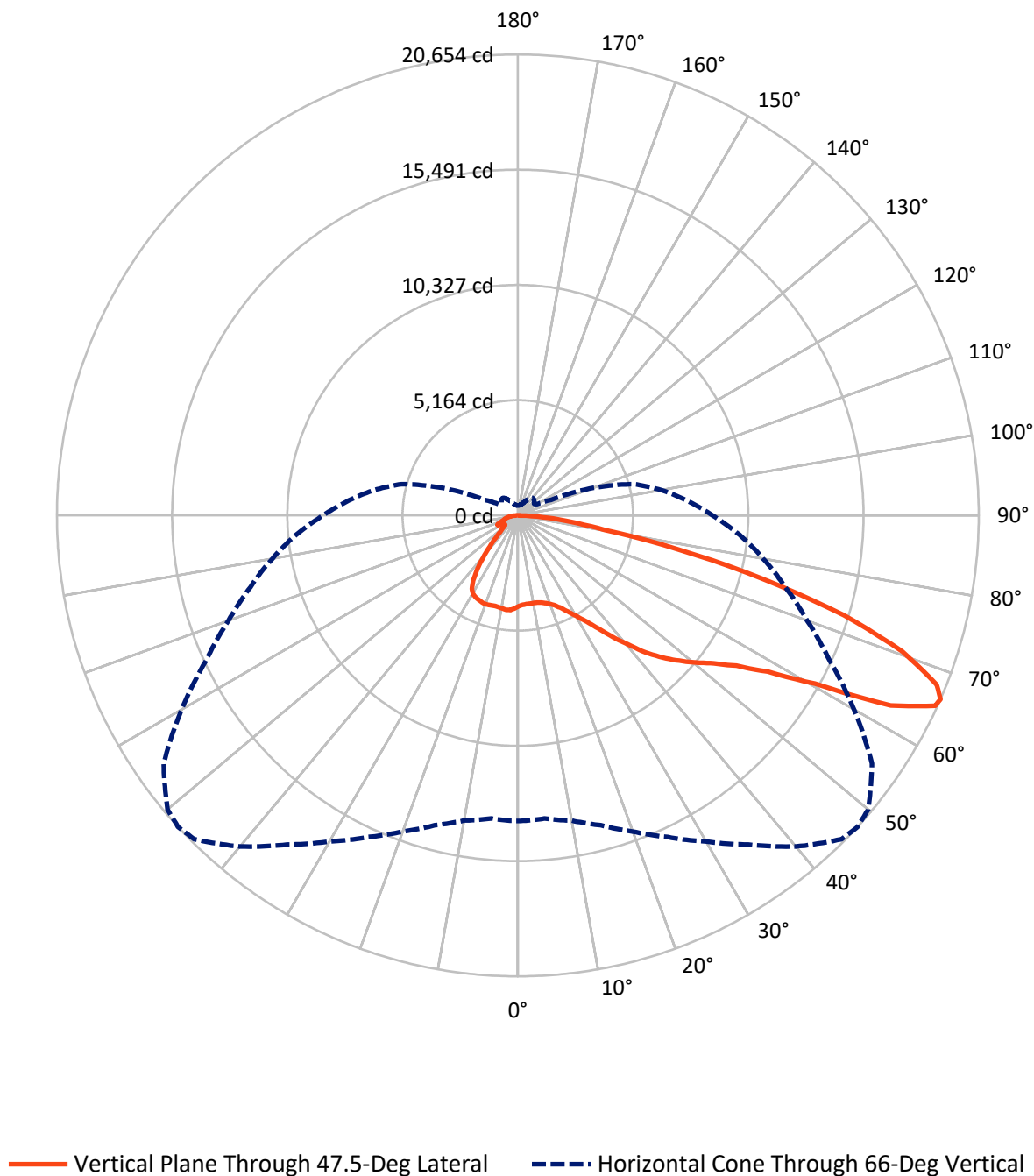


Based on 25 foot mounting height. Maximum calculated value = 6.7 fc
 Type IV - Short - Semi-Cutoff

REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

Luminous Intensity Polar Plot



REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

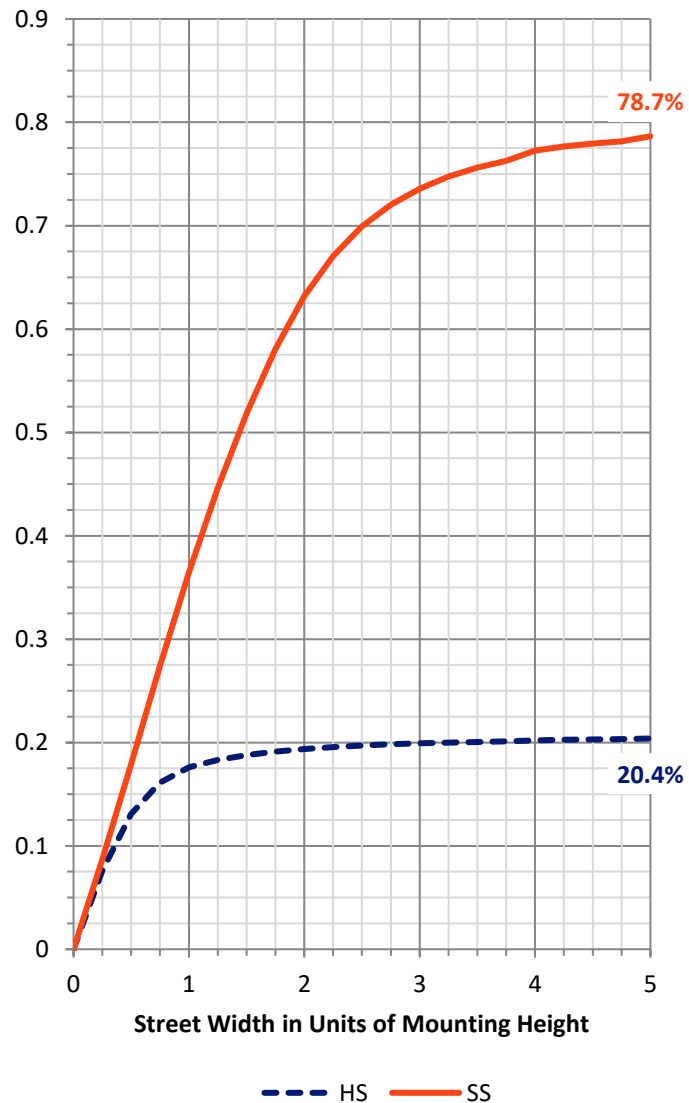
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6162.4	0.0	6162.4
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	23601.2	0.0	23601.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	29763.6	0.0	29763.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	392.5	1.3
10°-20°	1176.9	4.0
20°-30°	2008.1	6.7
30°-40°	3031.0	10.2
40°-50°	3939.6	13.2
50°-60°	5404.7	18.2
60°-70°	8314.2	27.9
70°-80°	4806.1	16.1
80°-90°	690.4	2.3
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°	29763.6	100.0
0°-180°	29763.6	100.0

Coefficient of Utilization



REPORT NUMBER: P159820

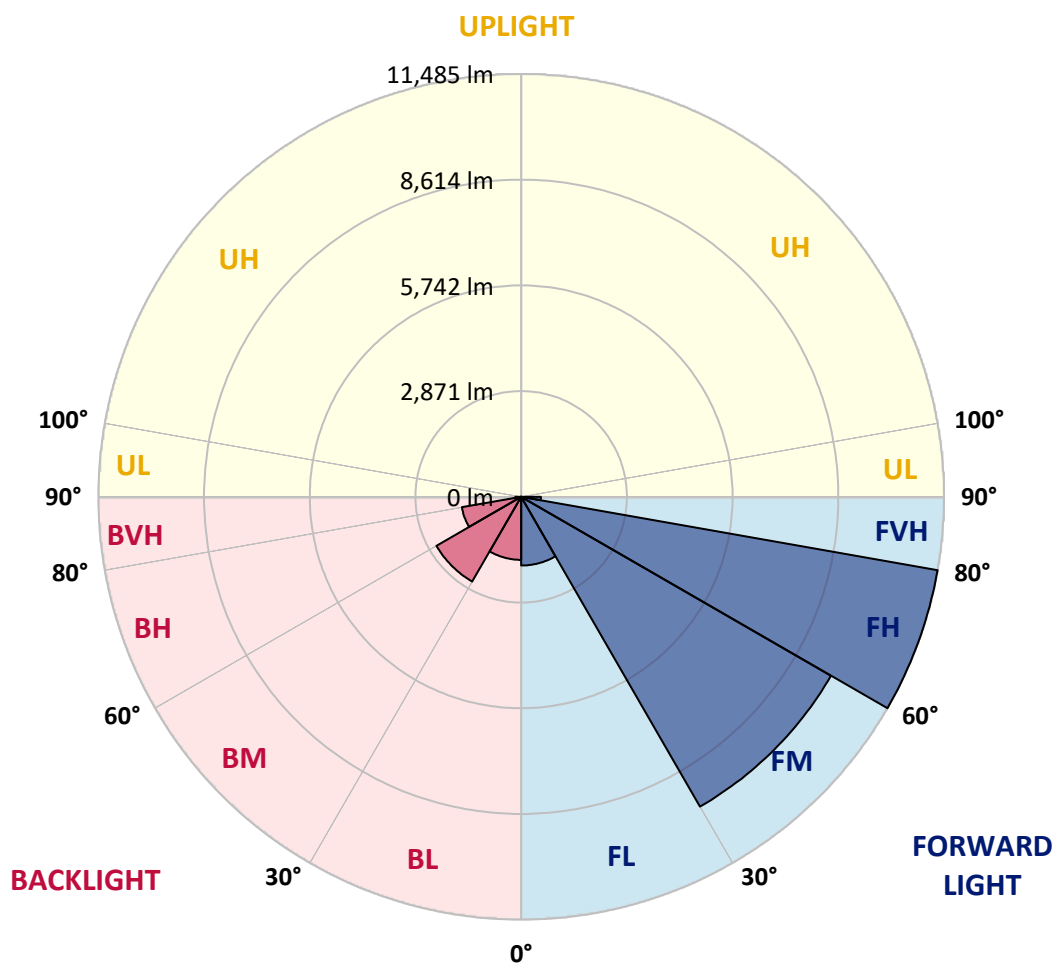
CATALOG NUMBER: VST-E10-LED-E-U-T4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1865.6	6.3			
FM	(30°-60°)	9716.5	32.6			
FH	(60°-80°)	11484.8	38.6			G4/12000
FVH	(80°-90°)	534.3	1.8			G4/750
BL	(0°-30°)	1712.0	5.8	B3/2500		
BM	(30°-60°)	2658.7	8.9	B3/5000		
BH	(60°-80°)	1635.5	5.5	B3/2500		G3/2500
BVH	(80°-90°)	156.1	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072
2.5°	3968	3970	3972	3972	3978	3978	3988	3994	3996	4008	4016
5°	3894	3892	3894	3898	3908	3916	3936	3950	3962	3982	3992
7.5°	3862	3866	3870	3872	3880	3900	3918	3932	3956	3980	3990
10°	3904	3910	3904	3908	3908	3926	3934	3944	3962	3984	3990
12.5°	4002	4014	4002	3992	3984	4000	3996	3988	3998	4004	4004
15°	4164	4164	4156	4142	4122	4124	4106	4088	4080	4066	4056
17.5°	4322	4318	4300	4282	4268	4262	4236	4212	4184	4162	4138
20°	4476	4492	4470	4444	4422	4408	4388	4340	4306	4270	4246
22.5°	4742	4728	4704	4666	4644	4620	4578	4526	4474	4430	4400
25°	5016	5002	4968	4940	4908	4888	4842	4778	4728	4660	4620
27.5°	5310	5298	5258	5236	5214	5190	5150	5084	5038	4960	4918
30°	5642	5640	5586	5582	5550	5524	5496	5440	5394	5316	5266
32.5°	5996	5988	5950	5938	5960	5942	5902	5844	5784	5738	5682
35°	6500	6486	6464	6474	6488	6538	6476	6426	6354	6294	6216
37.5°	6868	6848	6874	6930	7010	7048	7102	7104	7070	6990	6922
40°	7206	7198	7258	7336	7484	7592	7694	7744	7756	7704	7602
42.5°	7492	7516	7596	7716	7924	8088	8278	8396	8470	8442	8396
45°	7832	7844	7942	8094	8292	8564	8814	9014	9144	9142	9090
47.5°	8258	8260	8344	8522	8734	9010	9326	9592	9764	9772	9732
50°	8764	8760	8852	9020	9246	9512	9848	10180	10420	10420	10362
52.5°	9416	9408	9458	9606	9824	10104	10438	10822	11082	11138	11012
55°	10286	10298	10310	10440	10626	10848	11232	11586	11934	11966	11892
57.5°	11292	11252	11338	11550	11762	12040	12312	12730	13142	13212	13202
60°	12864	12812	12900	13170	13404	13842	14308	14848	15336	15480	15306
62.5°	14310	14374	14494	14808	15148	15732	16432	17358	18284	18788	18752
65°	14180	14120	14350	14778	15394	16138	17008	18124	19458	20470	20560
66°	13698	13636	13884	14374	15078	15906	16872	18008	19372	20516	20654
67.5°	12902	12840	13120	13566	14292	15334	16378	17620	19038	20134	20246
70°	11366	11282	11500	12004	12592	13600	14594	15910	17366	18242	18284
72.5°	9628	9432	9664	10052	10472	11306	12172	13072	14232	15042	15274
75°	6986	7088	7156	7412	7690	8380	8888	9642	10540	11126	11312
77.5°	3706	3860	3956	4212	4672	5198	5748	6214	6804	7132	7360
80°	2080	2188	2344	2546	2770	3174	3500	3740	3824	3882	3934
82.5°	1144	1418	1650	1790	1922	2084	2278	2478	2542	2446	2396
85°	178	262	798	974	1060	1184	1324	1472	1474	1268	1384
87.5°	50	56	114	172	168	136	168	306	180	90	104
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072
2.5°	4020	4024	4034	4044	4054	4064	4070	4080	4088	4100	4114
5°	4004	4014	4032	4054	4074	4092	4106	4126	4144	4160	4184
7.5°	4004	4024	4054	4078	4096	4118	4140	4160	4180	4196	4212
10°	4006	4026	4056	4084	4104	4128	4146	4164	4186	4196	4216
12.5°	4014	4022	4044	4072	4096	4120	4138	4156	4180	4184	4198
15°	4054	4042	4048	4068	4094	4114	4134	4148	4164	4160	4172
17.5°	4128	4098	4086	4088	4100	4114	4122	4124	4126	4108	4110
20°	4228	4186	4158	4144	4128	4114	4092	4066	4042	4006	4002
22.5°	4378	4316	4286	4248	4200	4140	4086	4022	3970	3916	3896
25°	4596	4532	4500	4440	4354	4268	4190	4104	4028	3964	3934
27.5°	4888	4824	4790	4728	4622	4536	4428	4336	4244	4150	4112
30°	5242	5186	5148	5098	5006	4912	4786	4644	4498	4348	4274
32.5°	5660	5598	5570	5512	5416	5318	5178	4996	4752	4516	4368
35°	6182	6112	6080	6004	5892	5748	5598	5354	5024	4696	4454
37.5°	6880	6724	6618	6444	6264	6062	5848	5598	5208	4802	4466
40°	7498	7340	7136	6886	6606	6328	6084	5800	5376	4878	4428
42.5°	8266	7986	7660	7322	6950	6608	6318	5984	5490	4898	4322
45°	8968	8634	8198	7748	7286	6856	6530	6158	5588	4898	4194
47.5°	9608	9208	8686	8126	7588	7118	6748	6336	5726	4960	4156
50°	10200	9740	9146	8496	7892	7390	6992	6564	5936	5120	4248
52.5°	10824	10336	9612	8922	8256	7718	7294	6846	6208	5372	4410
55°	11642	11070	10248	9488	8756	8162	7680	7184	6506	5656	4608
57.5°	12932	12102	11280	10292	9602	8820	8292	7722	6990	6026	4906
60°	15190	14170	13182	12046	11194	10376	9578	8834	7952	6862	5560
62.5°	18414	17378	15826	14436	13150	12066	11026	10080	8948	7756	6366
65°	20340	19154	17304	15436	13874	12530	11340	10182	8960	7798	6610
66°	20494	19372	17396	15422	13800	12406	11168	9970	8718	7606	6530
67.5°	20208	19242	17208	15150	13492	11986	10714	9458	8200	7170	6264
70°	18190	17492	15748	13820	12166	10838	9496	8288	7096	6230	5558
72.5°	14912	14028	12808	11512	10210	9032	7812	6784	5784	5154	4678
75°	10954	10158	8814	8006	7146	6406	5584	4610	3900	3584	3468
77.5°	6944	6080	4946	4054	3486	2996	2362	1878	1504	1566	1734
80°	3508	3022	2262	1786	1544	1284	1016	770	562	642	726
82.5°	2252	1880	1498	1180	996	878	702	510	380	428	524
85°	1356	1146	914	748	650	542	398	282	280	300	370
87.5°	206	294	170	182	192	206	182	154	134	174	220
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072	4072
2.5°	4128	4132	4140	4150	4148	4162	4170	4162	4180	4180	4190
5°	4204	4210	4224	4234	4238	4250	4254	4252	4256	4258	4262
7.5°	4226	4242	4248	4254	4256	4260	4260	4256	4256	4254	4258
10°	4220	4226	4230	4228	4228	4224	4222	4220	4220	4216	4222
12.5°	4200	4200	4200	4196	4196	4194	4194	4194	4198	4200	4210
15°	4160	4160	4164	4162	4168	4178	4190	4198	4208	4210	4216
17.5°	4098	4100	4112	4138	4164	4194	4216	4222	4214	4194	4180
20°	3990	4016	4064	4126	4184	4222	4232	4208	4170	4118	4090
22.5°	3894	3946	4032	4134	4206	4232	4202	4146	4078	4018	3976
25°	3932	3992	4082	4170	4216	4202	4142	4062	3990	3920	3852
27.5°	4092	4152	4216	4242	4226	4174	4090	4004	3908	3808	3724
30°	4244	4278	4282	4256	4198	4114	4016	3916	3794	3674	3568
32.5°	4292	4252	4180	4106	4026	3940	3826	3694	3564	3428	3310
35°	4278	4116	3938	3780	3684	3586	3482	3306	3160	3044	2968
37.5°	4152	3856	3582	3352	3202	3086	2932	2786	2660	2608	2546
40°	3976	3524	3144	2822	2666	2518	2346	2234	2198	2150	2152
42.5°	3724	3136	2646	2276	2106	1944	1822	1756	1758	1718	1726
45°	3458	2746	2130	1762	1594	1456	1388	1368	1370	1372	1360
47.5°	3296	2442	1708	1336	1188	1110	1074	1064	1066	1068	1054
50°	3272	2284	1426	1022	926	882	864	854	854	846	834
52.5°	3340	2244	1288	886	794	754	740	732	720	704	682
55°	3448	2280	1246	840	750	710	692	688	668	638	602
57.5°	3648	2410	1274	852	758	722	710	706	678	632	586
60°	4222	2788	1414	920	816	786	786	780	742	676	610
62.5°	5014	3342	1604	1014	896	892	926	928	860	754	650
65°	5396	3602	1670	1034	918	964	1032	1032	936	790	656
66°	5398	3596	1650	1010	894	954	1024	1024	924	780	646
67.5°	5260	3484	1584	966	840	896	958	956	866	740	618
70°	4718	3082	1396	894	776	778	800	786	726	640	562
72.5°	4068	2578	1210	848	726	688	670	658	620	568	520
75°	3120	2002	1054	806	682	616	592	582	556	526	488
77.5°	1912	1372	894	738	632	572	546	526	500	472	446
80°	824	828	716	626	550	480	446	422	408	398	384
82.5°	576	594	546	486	420	370	340	334	336	336	332
85°	432	424	382	348	318	286	262	260	268	268	262
87.5°	250	252	216	202	210	180	164	166	186	184	180
90°	0	0	0	0	0	0	0	0	0	0	0



REPORT NUMBER: P159820

CATALOG NUMBER: VST-E10-LED-E-U-T4

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	4072	4072	4072	4072	4072
2.5°	4190	4196	4194	4200	4194
5°	4268	4266	4264	4272	4262
7.5°	4256	4258	4258	4258	4256
10°	4226	4234	4238	4246	4244
12.5°	4216	4228	4240	4252	4254
15°	4218	4226	4232	4238	4240
17.5°	4166	4164	4158	4154	4150
20°	4060	4050	4040	4024	4032
22.5°	3928	3900	3868	3842	3840
25°	3774	3722	3670	3636	3624
27.5°	3638	3576	3522	3492	3484
30°	3476	3420	3372	3346	3330
32.5°	3236	3192	3132	3112	3110
35°	2902	2868	2826	2818	2808
37.5°	2524	2512	2492	2468	2464
40°	2120	2128	2122	2108	2086
42.5°	1730	1744	1746	1756	1766
45°	1378	1390	1390	1400	1412
47.5°	1058	1050	1056	1066	1072
50°	800	794	784	776	768
52.5°	644	632	604	596	588
55°	568	546	526	518	518
57.5°	546	518	496	486	482
60°	550	510	482	466	460
62.5°	568	512	474	456	450
65°	566	508	472	452	446
66°	556	502	468	450	446
67.5°	540	494	464	448	442
70°	508	478	456	442	436
72.5°	482	462	442	426	422
75°	458	438	420	412	406
77.5°	422	404	394	386	382
80°	374	362	350	342	336
82.5°	326	310	298	292	288
85°	266	256	238	226	224
87.5°	178	168	162	152	142
90°	0	0	0	0	0

(END OF REPORT)