



Testing Laboratory
1126



LUMINOUS INTENSITY DISTRIBUTION TEST REPORT

Report number : LUR20110252

Issued date : May 26, 2011

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Laboratory Accreditation No. : 1126



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台灣大電力研究試驗中心

Taiwan Electric Research & Testing Center

PHOTOVOLTAIC and LIGHTING Laboratory

Report No. : LUR20110252

LUMINOUS INTENSITY DISTRIBUTION TEST REPORT

Applicant : Top Win Optoelectronics Corp.

Applicant's address : 2F., No.148, Jian 1st Rd., Zhonghe City, Taipei County 235, Taiwan (R.O.C.)

Product : LED Street Light

Brand /Model No. : Slite/ TW-PI2036M04

Standard :

- 1.CIE 70: 1987 The Measurement of Absolute Luminous Intensity Distributions.
- 2.CIE 84:1989 The Measurement of Luminous Flux.
- 3.Illuminating engineering society of north America "Lighting Handbook"8th ed. 1995.

Sampling procedure : Sent by applicant

Product dimension : 265mm(L) × 150mm(W) × 40mm(H)

Sampling date : May 19, 2011

Testing date : May 19, 2011~May 24, 2011

Testing engineers : Chen-Lung Hsieh, Young-Tsan Lin

Result of test : Refer to page 3~10

Signatory of the report _____

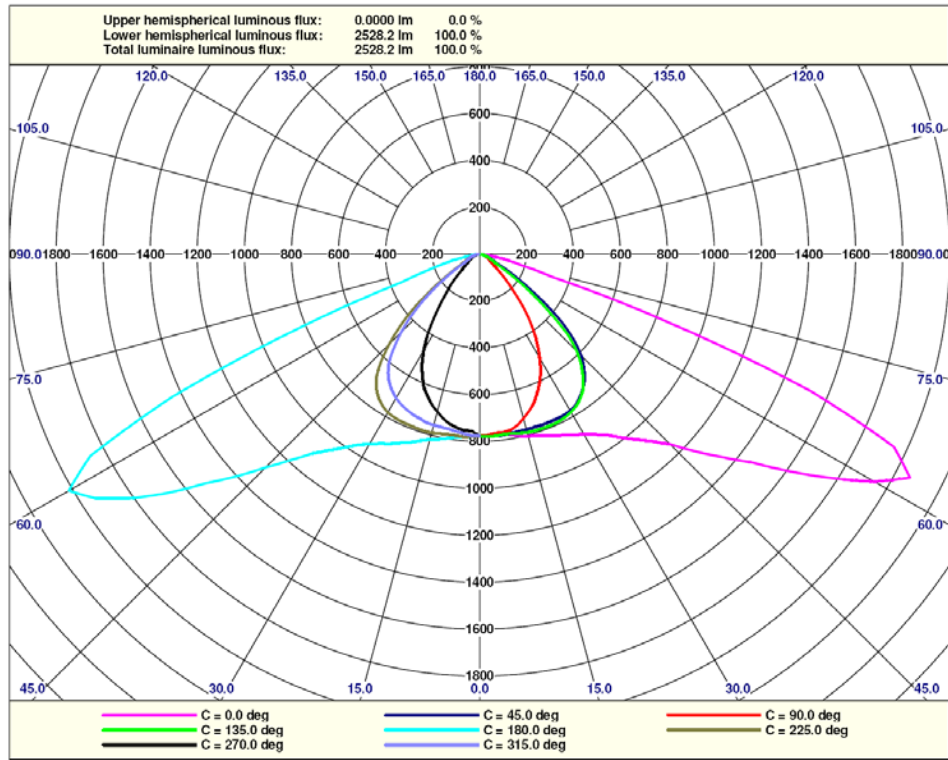




1. TEST RESULT :

(1) Luminous intensity distribution in polar coordinate

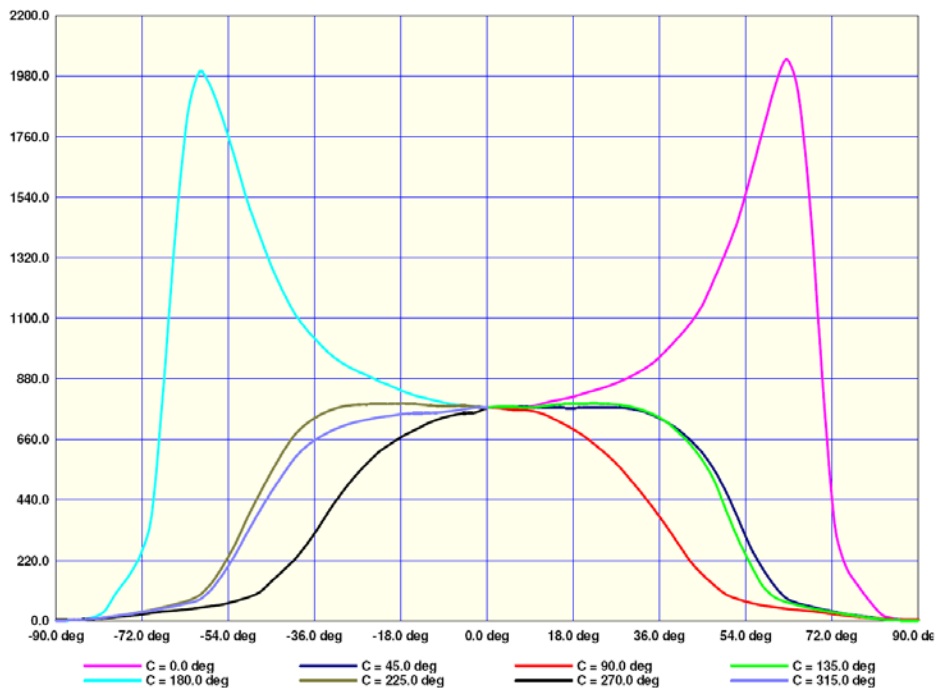
unit : cd



All luminous intensity values (shown radially from centre) are in cd.
Elevation angle values are shown around the outside of the graph.

(2) Luminous intensity distribution in Cartesian coordinate

unit : cd





(3) Beam side intensity summary

unit : cd

γ \ C	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0
0.0	775	775	775	775	775	775	775	775	775	775	775	775	775
2.5	779	775	774	771	773	774	775	775	775	775	781	778	776
5.0	776	775	773	773	772	770	775	777	775	777	774	773	776
7.5	775	778	776	771	769	772	779	774	769	778	774	771	778
10.0	782	787	782	775	774	779	780	774	770	776	774	770	771
12.5	795	796	792	785	785	788	786	778	776	774	771	766	764
15.0	804	802	800	793	795	797	792	786	781	775	773	763	754
17.5	812	808	805	801	804	802	798	792	789	773	769	758	745
20.0	826	819	817	815	815	812	805	799	794	775	766	751	734
22.5	838	834	835	832	829	826	817	807	796	775	759	742	723
25.0	851	850	849	852	847	840	830	818	798	775	753	727	707
27.5	868	868	870	870	862	856	843	827	799	775	743	710	683
30.0	888	888	890	893	880	875	858	833	800	771	731	691	656
32.5	912	916	920	921	908	893	871	839	800	763	713	665	625
35.0	941	953	950	950	936	915	885	841	795	745	693	634	579
37.5	985	992	987	981	967	938	897	843	786	723	666	600	532
40.0	1030	1040	1040	1020	1000	964	904	840	771	695	625	554	474
42.5	1080	1080	1080	1070	1040	983	910	831	751	657	576	486	409
45.0	1150	1160	1140	1120	1080	999	910	815	721	611	512	413	325
47.5	1240	1240	1220	1200	1120	1010	905	794	681	548	434	328	253
50.0	1350	1340	1320	1260	1160	1030	894	763	615	467	335	252	191
52.5	1460	1460	1420	1330	1200	1040	876	715	528	369	252	176	138
55.0	1620	1610	1540	1410	1230	1030	838	615	416	265	179	119	90.6
57.5	1780	1770	1640	1480	1260	1020	767	491	314	190	119	80.6	72.0
60.0	1940	1900	1750	1510	1250	972	652	380	221	126	76.8	67.2	63.0
62.5	2060	2000	1790	1520	1220	879	520	276	150	78.7	64.4	57.2	54.4
65.0	1940	1860	1700	1420	1140	727	405	197	94.9	63.0	54.8	49.6	46.7
67.5	1520	1470	1330	1180	952	511	284	115	66.8	52.9	45.2	43.4	39.7
70.0	874	797	851	809	605	306	136	68.7	51.0	42.2	38.2	35.2	33.5
72.5	323	308	321	328	263	128	79.6	50.6	36.7	33.8	31.2	28.8	26.9
75.0	187	184	181	157	130	82.5	55.8	36.0	28.0	24.7	24.4	22.8	22.3
77.5	126	125	121	107	83.9	56.8	40.2	26.1	20.8	19.4	18.4	17.8	17.2
80.0	67.7	65.3	67.7	63.4	50.1	37.9	24.6	17.4	14.7	13.4	13.4	12.4	11.4
82.5	17.9	18.9	28.0	26.1	15.9	11.4	11.4	9.5	9.5	8.1	8.6	7.6	10.0
85.0	8.1	8.1	9.1	7.2	6.7	6.2	5.7	5.2	4.8	4.6	4.8	4.6	6.7
87.5	3.3	3.1	3.3	2.9	3.1	2.9	3.1	2.9	2.9	2.9	3.2	3.3	3.6
90.0	1.4	1.6	1.6	1.6	1.7	1.7	1.9	2.0	2.1	2.5	2.6	2.9	3.2

γ \ C	65.0	70.0	75.0	80.0	85.0	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0
0.0	775	775	775	775	775	775	775	775	775	775	775	775	775
2.5	778	782	779	781	771	773	778	781	780	775	776	781	776
5.0	778	780	782	775	769	767	774	781	776	777	778	777	775
7.5	773	772	778	768	768	767	772	781	768	770	774	772	778
10.0	766	765	767	764	761	762	768	772	763	763	767	770	776
12.5	759	759	757	755	751	747	755	758	753	755	759	769	773
15.0	748	748	740	738	732	724	736	739	738	744	748	764	770
17.5	737	733	721	719	710	702	713	719	721	732	736	757	765
20.0	724	716	700	694	684	675	688	698	702	714	723	745	756
22.5	705	692	672	667	655	641	656	669	675	695	706	730	746
25.0	684	663	643	628	614	605	615	632	644	667	684	712	734
27.5	656	629	608	587	573	563	573	593	607	630	655	684	718
30.0	621	583	565	542	521	512	526	548	557	588	620	656	695
32.5	573	538	510	485	476	460	464	487	505	539	574	620	671
35.0	525	486	452	429	411	403	406	428	446	477	524	573	639
37.5	470	428	389	368	349	343	346	364	385	416	464	521	591
40.0	400	356	315	294	275	279	278	296	318	350	390	459	533
42.5	331	287	250	232	217	213	211	224	250	280	316	390	466
45.0	260	223	195	181	169	168	165	175	187	207	244	299	382
47.5	201	171	149	138	128	128	124	134	144	158	178	227	282
50.0	145	123	106	97.8	94.4	93.5	90.1	96.3	99.2	114	129	166	209
52.5	106	93.0	84.9	82.0	78.7	77.7	76.3	78.2	80.1	82.5	90.1	105	142
55.0	79.6	74.4	70.6	69.2	65.8	65.3	64.9	66.3	68.2	69.6	73.4	77.7	90.6
57.5	67.2	64.9	62.5	61.0	57.2	56.3	57.2	58.7	59.1	61.0	63.4	67.2	70.6
60.0	59.6	56.8	54.4	53.4	52.0	50.1	50.1	51.5	52.0	53.9	55.3	58.7	61.0
62.5	51.0	48.6	48.6	48.2	46.3	43.9	44.6	46.4	46.4	46.0	46.8	49.6	52.9
65.0	43.5	42.5	44.4	43.5	42.2	39.7	39.6	41.2	41.1	40.0	40.3	41.8	44.9
67.5	37.0	37.4	37.2	36.9	35.5	36.0	34.4	35.4	34.5	34.7	34.0	35.7	38.0
70.0	31.7	30.8	30.6	30.5	30.3	30.3	28.6	29.6	29.0	29.0	29.0	29.6	30.9
72.5	27.0	26.0	25.6	25.1	24.7	24.1	23.3	24.3	23.8	24.3	25.6	24.4	25.1
75.0	23.7	21.7	20.7	20.4	18.9	18.9	17.9	19.5	19.5	20.1	21.1	19.4	19.6
77.5	19.1	16.6	16.2	15.0	13.8	13.8	13.8	13.8	14.5	14.9	14.6	12.9	13.8
80.0	13.4	12.4	11.9	11.0	10.5	9.5	10.0	9.5	10.5	10.0	10.0	10.0	9.5
82.5	8.6	8.1	7.6	7.2	7.2	7.2	6.7	6.7	6.2	6.2	6.2	8.1	5.2
85.0	5.2	5.2	5.2	5.2	4.8	4.8	4.6	4.3	4.1	3.8	3.3	4.3	2.8
87.5	3.8	4.1	4.1	4.2	4.1	3.9	3.6	3.5	3.1	2.9	2.5	2.1	2.0
90.0	3.3	3.6	3.6	3.8	3.6	3.5	3.2	3.1	2.8	2.6	2.1	2.0	1.9



$\gamma \setminus C$	130.0	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0	180.0	185.0	190.0
0.0	775	775	775	775	775	775	775	775	775	775	775	775	775
2.5	776	779	776	778	774	774	775	774	776	781	778	775	777
5.0	773	778	779	777	776	775	774	779	776	780	783	780	776
7.5	777	775	777	782	783	783	784	789	785	788	788	789	788
10.0	779	776	778	791	791	794	796	799	801	798	797	801	803
12.5	781	782	786	800	797	801	806	807	811	807	808	810	815
15.0	779	787	795	805	802	808	813	816	820	818	818	818	821
17.5	778	789	801	810	810	815	821	829	833	834	834	831	831
20.0	770	790	804	817	823	831	837	848	848	853	854	850	848
22.5	764	790	813	824	838	849	854	866	866	870	870	868	864
25.0	758	789	818	833	855	865	876	890	887	893	892	887	883
27.5	750	786	821	843	869	885	899	914	910	912	910	914	910
30.0	741	778	822	851	887	905	924	940	935	937	934	941	937
32.5	720	767	817	858	900	931	956	975	974	964	964	973	971
35.0	699	749	807	861	912	955	983	1010	1010	1010	1010	1010	1010
37.5	665	724	792	859	919	974	1020	1050	1060	1050	1050	1070	1060
40.0	611	684	771	851	921	993	1050	1090	1110	1100	1110	1110	1110
42.5	550	641	736	831	918	1010	1090	1130	1170	1180	1190	1190	1170
45.0	477	584	694	805	910	1020	1120	1200	1250	1270	1290	1280	1260
47.5	387	511	637	768	894	1030	1160	1270	1340	1390	1400	1390	1360
50.0	284	397	559	715	870	1030	1190	1330	1440	1520	1520	1510	1460
52.5	204	293	430	622	828	1020	1210	1390	1550	1650	1670	1640	1560
55.0	133	205	316	500	758	993	1210	1430	1630	1770	1820	1770	1660
57.5	85.4	124	227	376	623	922	1180	1440	1680	1870	1940	1880	1700
60.0	68.2	83.9	149	272	478	808	1130	1420	1680	1900	2020	1930	1720
62.5	58.7	67.7	93.5	181	358	662	1030	1350	1580	1770	1870	1790	1590
65.0	49.6	56.8	72.5	120	253	490	859	1140	1300	1350	1440	1350	1260
67.5	41.1	46.1	60.1	86.3	150	285	592	746	881	898	856	791	839
70.0	34.1	38.3	48.2	67.7	103	156	262	323	346	368	354	362	371
72.5	27.5	30.3	37.9	52.9	79.2	114	153	192	216	224	229	220	211
75.0	22.0	24.1	29.5	38.2	57.7	80.6	110	134	148	152	157	151	146
77.5	15.7	17.2	21.7	26.6	36.4	52.9	67.2	80.6	89.7	83.0	102	83.9	86.3
80.0	10.5	10.5	12.9	15.3	19.4	19.8	26.3	31.2	34.8	33.2	27.8	32.1	36.2
82.5	5.7	5.2	5.7	6.7	7.6	7.2	8.6	11.4	12.4	12.9	11.0	12.4	14.9
85.0	3.1	2.5	2.8	2.8	3.1	3.1	3.6	3.2	3.9	3.1	3.9	3.1	3.9
87.5	1.7	1.4	1.6	1.4	1.4	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.7
90.0	1.7	1.6	1.4	1.4	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.6

$\gamma \setminus C$	195.0	200.0	205.0	210.0	215.0	220.0	225.0	230.0	235.0	240.0	245.0	250.0	255.0
0.0	775	775	775	775	775	775	775	775	775	775	775	775	775
2.5	779	773	775	780	783	779	778	780	778	774	780	780	780
5.0	778	781	780	778	778	784	783	779	777	771	773	780	775
7.5	783	784	789	784	780	784	779	776	778	771	769	777	766
10.0	796	792	799	793	789	786	781	776	777	768	765	766	758
12.5	808	800	807	804	796	792	784	778	775	765	759	755	750
15.0	814	812	811	810	803	797	789	783	772	757	751	738	733
17.5	833	826	823	815	809	803	790	781	764	748	737	724	716
20.0	852	843	835	826	818	810	789	774	755	737	723	703	695
22.5	871	866	855	837	826	817	788	766	742	721	703	681	664
25.0	890	889	873	854	836	822	788	759	729	704	675	654	630
27.5	912	913	895	868	845	826	785	748	711	682	642	616	588
30.0	942	935	913	884	851	824	780	737	689	647	604	571	529
32.5	967	961	935	898	856	817	767	717	662	609	556	515	468
35.0	1010	993	961	913	858	806	748	686	626	560	488	449	401
37.5	1040	1020	981	924	858	788	720	645	565	486	420	369	334
40.0	1100	1050	998	934	851	765	682	589	494	416	352	301	261
42.5	1140	1090	1020	936	838	732	618	518	419	344	282	239	208
45.0	1220	1130	1040	930	815	675	543	432	340	274	216	185	166
47.5	1290	1180	1050	914	769	605	462	350	269	214	166	143	127
50.0	1360	1220	1060	878	689	518	378	274	197	152	122	99.2	91.6
52.5	1430	1250	1040	819	588	408	280	192	133	102	83.5	80.1	75.8
55.0	1470	1260	1000	724	466	315	203	127	86.3	75.8	70.1	66.3	64.9
57.5	1490	1230	910	608	379	233	136	84.4	70.1	64.9	62.0	58.2	56.8
60.0	1470	1150	775	478	278	160	91.6	71.5	62.0	57.2	54.8	52.0	50.1
62.5	1360	993	628	374	203	103	72.0	61.5	54.4	51.0	47.0	44.6	44.5
65.0	1100	791	468	268	134	78.7	61.0	51.0	46.3	43.9	40.8	39.9	41.1
67.5	725	542	295	149	92.0	65.3	50.1	43.6	39.7	36.3	35.1	34.7	33.5
70.0	333	273	155	113	74.4	51.5	40.0	36.6	33.2	30.6	29.5	29.0	28.5
72.5	188	158	117	84.9	56.8	39.3	32.2	28.6	26.6	25.4	26.1	25.3	23.8
75.0	130	111	84.9	61.5	41.4	29.9	24.6	23.1	21.6	20.4	23.1	21.4	20.2
77.5	76.8	70.6	51.5	37.6	25.6	21.6	17.6	17.1	15.2	14.5	16.0	15.0	15.3
80.0	32.7	29.0	19.2	16.9	14.3	13.4	11.4	11.4	10.0	11.0	11.4	11.0	10.5
82.5	13.8	10.0	7.6	8.1	7.6	6.7	6.2	6.7	6.2	8.6	7.2	7.2	7.2
85.0	3.6	3.9	3.2	3.5	3.3	3.6	3.8	4.1	3.9	4.8	4.8	4.8	4.8
87.5	1.7	1.7	1.7	2.0	2.0	2.3	2.6	2.9	3.2	3.5	3.6	3.8	3.9
90.0	1.6	1.7	1.6	1.9	2.0	2.1	2.5	2.8	3.1	3.2	3.5	3.6	3.6



$\gamma \setminus C$	260.0	265.0	270.0	275.0	280.0	285.0	290.0	295.0	300.0	305.0	310.0	315.0	320.0
0.0	775	775	775	775	775	775	775	775	775	775	775	775	775
2.5	774	771	755	770	778	776	771	772	772	767	772	775	770
5.0	774	762	755	767	773	771	770	769	769	767	765	768	771
7.5	767	754	746	755	761	761	761	757	759	763	759	762	766
10.0	756	747	734	742	750	750	751	751	751	755	755	757	762
12.5	742	735	717	728	737	735	736	737	741	745	751	755	759
15.0	722	718	694	710	714	715	719	720	728	734	745	755	761
17.5	705	696	673	687	692	695	700	702	717	722	738	753	762
20.0	681	665	645	656	667	670	675	687	699	711	729	745	761
22.5	648	632	616	625	636	638	651	662	682	697	716	741	761
25.0	612	591	574	584	592	600	614	634	660	681	703	732	761
27.5	568	545	528	537	546	558	573	598	629	661	686	723	759
30.0	513	481	474	472	490	498	527	557	593	630	664	709	754
32.5	441	417	414	409	421	439	472	499	545	597	641	691	743
35.0	376	354	344	347	358	377	402	440	494	554	609	668	729
37.5	308	289	281	275	294	313	341	378	434	500	570	639	710
40.0	240	225	225	220	235	245	275	303	363	428	508	597	678
42.5	194	183	184	180	185	197	214	243	298	363	445	535	638
45.0	156	147	144	146	150	159	173	195	238	297	376	470	584
47.5	111	108	102	105	111	116	136	154	188	228	304	399	516
50.0	88.7	84.9	84.4	83.9	85.4	88.2	101	112	138	176	233	323	432
52.5	73.9	72.5	72.0	71.1	75.4	76.3	79.2	83.5	99.2	125	172	242	350
55.0	63.9	62.5	60.1	61.0	63.0	64.9	66.8	69.6	74.9	83.5	113	173	266
57.5	57.2	55.3	53.9	53.4	56.8	58.2	59.1	61.5	64.9	67.7	76.8	114	194
60.0	50.1	49.1	48.2	48.2	50.1	52.0	52.0	53.9	57.7	59.6	65.3	74.9	123
62.5	45.7	44.9	42.2	43.4	46.1	46.7	44.8	46.3	50.1	52.9	56.3	63.9	80.6
65.0	40.8	38.7	38.3	38.7	40.8	40.8	40.8	40.4	43.2	46.1	48.6	54.4	64.4
67.5	34.5	33.4	34.5	34.2	34.7	34.0	35.1	35.4	36.4	38.7	41.4	45.5	53.4
70.0	28.8	28.3	28.8	28.6	28.6	28.8	29.2	29.8	31.2	32.1	34.4	37.2	41.6
72.5	24.0	22.7	22.6	23.1	23.1	23.8	24.1	25.6	25.7	25.4	28.2	30.5	32.8
75.0	19.5	18.2	17.9	17.8	18.5	18.9	20.2	22.1	21.6	21.4	22.6	23.1	25.3
77.5	14.5	13.4	13.4	12.9	14.3	14.3	15.9	16.9	16.6	15.2	16.6	18.4	18.6
80.0	10.5	10.0	9.1	10.0	10.5	10.5	11.4	11.4	11.4	10.5	11.9	11.9	13.4
82.5	7.6	7.2	6.7	6.7	7.2	7.2	7.2	6.7	8.1	6.2	7.2	6.7	7.2
85.0	4.8	5.2	4.8	4.6	4.6	4.3	4.2	4.1	5.2	3.2	4.3	3.3	3.5
87.5	4.1	4.1	3.9	3.6	3.5	3.1	2.8	2.5	2.3	2.1	2.3	2.0	1.9
90.0	3.8	3.6	3.5	3.3	3.1	2.8	2.5	2.1	2.0	1.7	1.6	1.4	1.4

$\gamma \setminus C$	325.0	330.0	335.0	340.0	345.0	350.0	355.0	360.0
0.0	775	775	775	775	775	775	775	775
2.5	768	769	768	770	770	770	771	779
5.0	764	765	770	771	768	774	776	776
7.5	766	767	765	765	766	774	778	775
10.0	765	770	766	768	773	776	783	782
12.5	767	772	770	777	781	786	792	795
15.0	769	775	776	785	792	793	798	804
17.5	770	780	783	793	801	801	804	812
20.0	770	784	792	803	815	815	816	826
22.5	770	790	805	817	827	835	832	838
25.0	776	797	821	829	845	851	850	851
27.5	779	809	834	844	860	870	870	868
30.0	784	817	847	859	879	890	896	888
32.5	785	826	861	879	905	915	920	912
35.0	786	833	871	902	929	943	949	941
37.5	778	837	884	925	961	974	983	985
40.0	764	837	898	954	990	1020	1030	1030
42.5	737	830	906	977	1030	1060	1070	1080
45.0	705	813	911	1000	1070	1110	1130	1150
47.5	656	788	914	1020	1130	1180	1230	1240
50.0	578	753	907	1050	1180	1270	1330	1350
52.5	496	696	892	1070	1230	1360	1450	1460
55.0	402	594	847	1070	1270	1450	1580	1620
57.5	309	494	756	1050	1310	1540	1720	1780
60.0	221	397	651	990	1310	1590	1820	1940
62.5	152	297	540	885	1280	1590	1860	2060
65.0	97.8	222	416	755	1140	1480	1690	1940
67.5	68.2	136	292	562	910	1150	1310	1520
70.0	53.4	81.1	151	340	597	735	759	874
72.5	41.6	59.6	89.7	145	203	271	266	323
75.0	30.0	45.1	64.9	98.7	133	162	172	187
77.5	22.7	31.8	44.6	63.0	88.7	105	111	126
80.0	15.0	18.4	29.0	38.2	49.1	57.2	63.0	67.7
82.5	7.6	9.1	9.5	12.9	19.4	21.8	20.4	17.9
85.0	3.8	4.3	4.3	5.2	5.7	7.6	8.1	8.1
87.5	1.9	1.9	1.9	2.1	2.1	2.6	2.6	3.3
90.0	1.0	1.4	1.0	1.0	1.4	1.4	1.4	1.4



(4) Luminous Flux Table

Lumen Summary				Luminaire Summary	
Zone	Lumens (lm)	Lamp %	Luminaire %	Total Lumens (0 - 180 deg):	2528 lm
0-30 deg	641.2	25.4	25.4	Downward Lumens (0 - 90 deg):	2528 lm
0-40 deg	1082	42.8	42.8	Upward Lumens (90 - 180 deg):	-
0-60 deg	2067	81.8	81.8	Light Output Ratio (LOR):	100.0%
0-70 deg	2447	96.8	96.8	Downward LOR (DLOR):	100.0%
40-90 deg	1446	57.2	57.2	Upward LOR (ULOR):	0.0%
60-90 deg	460.8	18.2	18.2		
80-90 deg	7.740	0.3	0.3		
90-100 deg	0.000	0.0	0.0		

Complete Zonal Lumen Analysis

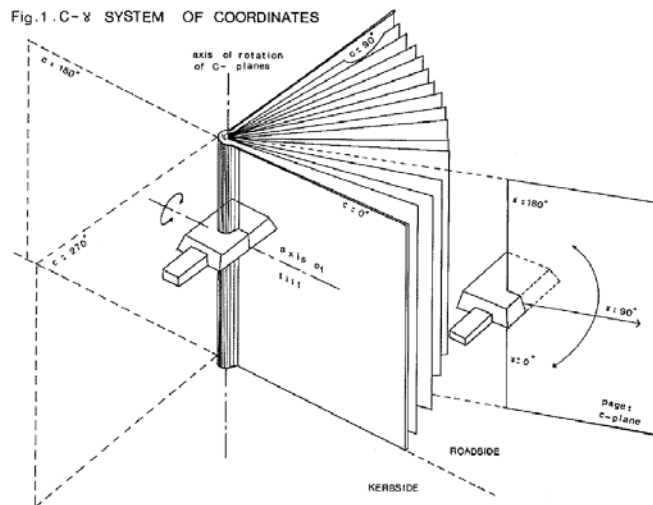
Elevation	Cone	Lumens (lm)	Cumulative	Lamp %	Luminaire %
0 deg	0.00 - 1.25	1.2	1.2	0.0	0.0
2.5 deg	1.25 - 3.75	9.3	10.4	0.4	0.4
5 deg	3.75 - 6.25	18.5	28.9	1.1	1.1
7.5 deg	6.25 - 8.75	27.7	56.6	2.2	2.2
10 deg	8.75 - 11.25	36.8	93.4	3.7	3.7
12.5 deg	11.25 - 13.75	45.9	139.3	5.5	5.5
15 deg	13.75 - 16.25	54.7	193.9	7.7	7.7
17.5 deg	16.25 - 18.75	63.3	257.2	10.2	10.2
20 deg	18.75 - 21.25	71.7	328.9	13.0	13.0
22.5 deg	21.25 - 23.75	79.8	408.7	16.2	16.2
25 deg	23.75 - 26.25	87.5	496.2	19.6	19.6
27.5 deg	26.25 - 28.75	94.6	590.8	23.4	23.4
30 deg	28.75 - 31.25	100.8	691.6	27.4	27.4
32.5 deg	31.25 - 33.75	106.3	797.9	31.6	31.6
35 deg	33.75 - 36.25	110.9	908.8	35.9	35.9
37.5 deg	36.25 - 38.75	114.6	1023.4	40.5	40.5
40 deg	38.75 - 41.25	117.1	1140.5	45.1	45.1
42.5 deg	41.25 - 43.75	119.1	1259.6	49.8	49.8
45 deg	43.75 - 46.25	120.9	1380.5	54.6	54.6
47.5 deg	46.25 - 48.75	122.7	1503.2	59.5	59.5
50 deg	48.75 - 51.25	124.0	1627.1	64.4	64.4
52.5 deg	51.25 - 53.75	125.3	1752.4	69.3	69.3
55 deg	53.75 - 56.25	126.2	1878.6	74.3	74.3
57.5 deg	56.25 - 58.75	126.4	2005.0	79.3	79.3
60 deg	58.75 - 61.25	124.6	2129.6	84.2	84.2
62.5 deg	61.25 - 63.75	118.2	2247.8	88.9	88.9
65 deg	63.75 - 66.25	101.9	2349.7	92.9	92.9
67.5 deg	66.25 - 68.75	75.3	2425.0	95.9	95.9
70 deg	68.75 - 71.25	43.7	2468.7	97.6	97.6
72.5 deg	71.25 - 73.75	22.9	2491.6	98.6	98.6
75 deg	73.75 - 76.25	15.6	2507.2	99.2	99.2
77.5 deg	76.25 - 78.75	10.4	2517.6	99.6	99.6
80 deg	78.75 - 81.25	5.7	2523.3	99.8	99.8
82.5 deg	81.25 - 83.75	2.6	2525.9	99.9	99.9
85 deg	83.75 - 86.25	1.2	2527.1	100.0	100.0
87.5 deg	86.25 - 88.75	0.7	2527.9	100.0	100.0
90 deg	88.75 - 90.00	0.3	2528.2	100.0	100.0

2. Basic characteristics :

Item		Test Value	Note
Input electrical characteristics	Voltage (Vac)	220	
	Frequency(Hz)	60	
	Current (A)	0.1844	
	Power (W)	37.497	
	Power factor (p.f.)	0.9243	
Output optical characteristics	Total luminous flux (lm)	2528.2	
	Luminous efficacy (lm/W)	67.42	
	Correlated Color Temp. (K)	3121.0	
	Color Rendering Index(CRI),Ra	80.4	

3.Note :

- (1) Horizontal alignment follows with the lighting plane of luminaire.
- (2) The light source : LED.
- (3) The test data are measured while the output is stable after operating about 60 minutes.
- (4) Ambient conditions of test: $(25\pm 1)^{\circ}\text{C}$, $(60\pm 10)\%$ R. H.
- (5) Test C-plane is as the diagram (Lighting plane is in the rear).



4. Test equipment

Item	Test equipment	Test equipment brand/ Model
Input electrical characteristics	Power meter	YOKOGAWA/ WT210
Output optical characteristics	Mirror swinging gonio-photometer, gonio-spectrometer	PSI/ LG 2.0



4.PHOTO :

Front view of appearance



Side view of appearance





財團法人

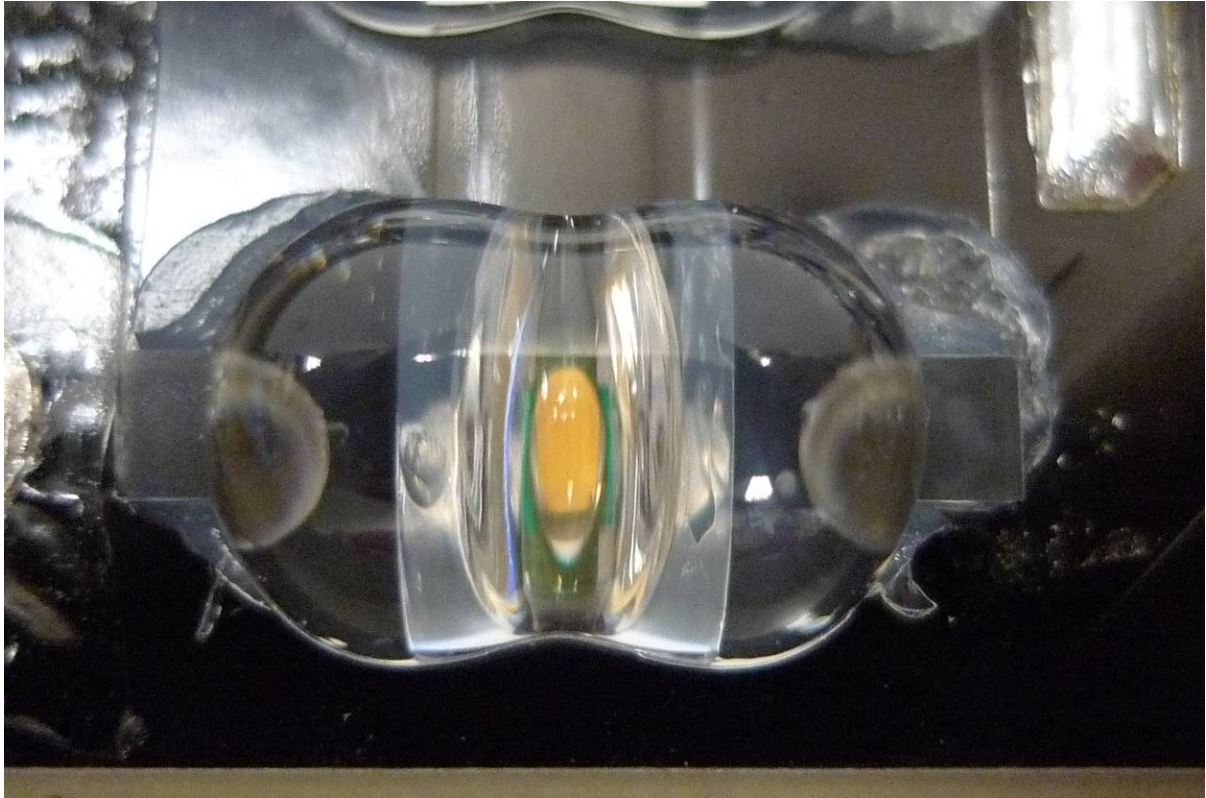
台灣大電力研究試驗中心

Taiwan Electric Research & Testing Center

PHOTOVOLTAIC and LIGHTING Laboratory

Report No. : LUR20110252

LED



Control gear