

Performance Test Report

Report No.: 20100901-P0

Client information:		
Name	RAB Lighting Inc	
Address	Northvale, New Jersey 07647 USA	
Reception Date	2020-08-19	
Test Date	2020-08-19~2020-08-20	
Sample description:		
Sample Type	Down light	
Type/Model	WFRD4R99FA120WS	
Test Voltage/Frequency	120V/60Hz	
Sample Quantities.	2	
Sample No.	001~002	
Test standard:		
According to IES LM-79-08		
Remarks of this test:		
/		
Description of measurement uncertainty:		
/		
Test case verdicts:		
Test case does not apply to the test object.....:	N/A	
Test item does meet the requirement.....:	P	
Test item does not meet the requirement.....:	F	
General test result: see test result		
Prepared by /Date		
Reviewed by /Date		
Approved by/Date		

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1. Performance Test Result

1.1 Photometric Measurements at 25°C - Integrating Sphere Method

1.1.1 2700K

Sample No.	Base orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor	Absolute Luminous Flux (lm)	Lumen Efficacy (lm/W)
001	Base up	120.0	74.04	8.56	0.964	679.6	79.42
002	Base up	120.0	73.95	8.55	0.964	678.1	79.30
Average		120.0	74.00	8.55	0.964	678.9	79.36

Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	2736	93.5	0.4559	0.4081	0.2611	0.5258	2.4183	24.2	92	98
002	Base up	2742	93.5	0.4555	0.4080	0.2608	0.5257	2.4128	24.3	91	98
Average		2739	93.5	0.4557	0.4081	0.2610	0.5258	2.4156	24.3	92	98

1.1.2 3000K

Sample No.	Base orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor	Absolute Luminous Flux (lm)	Lumen Efficacy (lm/W)
001	Base up	120.0	74.07	8.56	0.964	697.2	81.43
002	Base up	120.0	73.94	8.55	0.964	697.3	81.57
Average		120.0	74.01	8.56	0.964	697.3	81.50

Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	3028	94.9	0.4323	0.3978	0.2503	0.5182	2.4714	24.7	92	99
002	Base up	3032	94.9	0.4319	0.3976	0.2502	0.5180	2.4730	24.4	92	99
Average		3030	94.9	0.4321	0.3977	0.2503	0.5181	2.4722	24.6	92	99

1.1.3 3500K

Sample No.	Base orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor	Absolute Luminous Flux (lm)	Lumen Efficacy (lm/W)
001	Base up	120.0	74.02	8.55	0.964	715.4	83.63
002	Base up	120.0	73.92	8.55	0.964	716.5	83.82
Average		120.0	73.97	8.55	0.964	715.9	83.73

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Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	3457	95.7	0.4053	0.3856	0.2378	0.5091	2.5263	24.9	92	100
002	Base up	3459	95.8	0.4051	0.3853	0.2378	0.5089	2.5326	24.4	92	100
Average		3458	95.8	0.4052	0.3855	0.2378	0.5090	2.5295	24.7	92	100

1.1.4 4000K

Sample No.	Base orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor	Absolute Luminous Flux (lm)	Lumen Efficacy (lm/W)
001	Base up	120.0	73.94	8.54	0.963	729.9	85.42
002	Base up	120.0	73.84	8.54	0.964	731.8	85.71
Average		120.0	73.89	8.54	0.964	730.9	85.57

Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	3979	95.6	0.3805	0.3741	0.2262	0.5004	2.5700	24.9	92	99
002	Base up	3980	95.7	0.3803	0.3735	0.2263	0.5001	2.5807	24.4	92	99
Average		3980	95.7	0.3804	0.3738	0.2263	0.5003	2.5754	24.7	92	99

1.1.5 5000K

Sample No.	Base orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor	Absolute Luminous Flux (lm)	Lumen Efficacy (lm/W)
001	Base up	120.0	73.62	8.51	0.963	744.6	87.54
002	Base up	120.0	73.57	8.50	0.964	746.7	87.82
Average		120.0	73.60	8.50	0.963	745.7	87.68

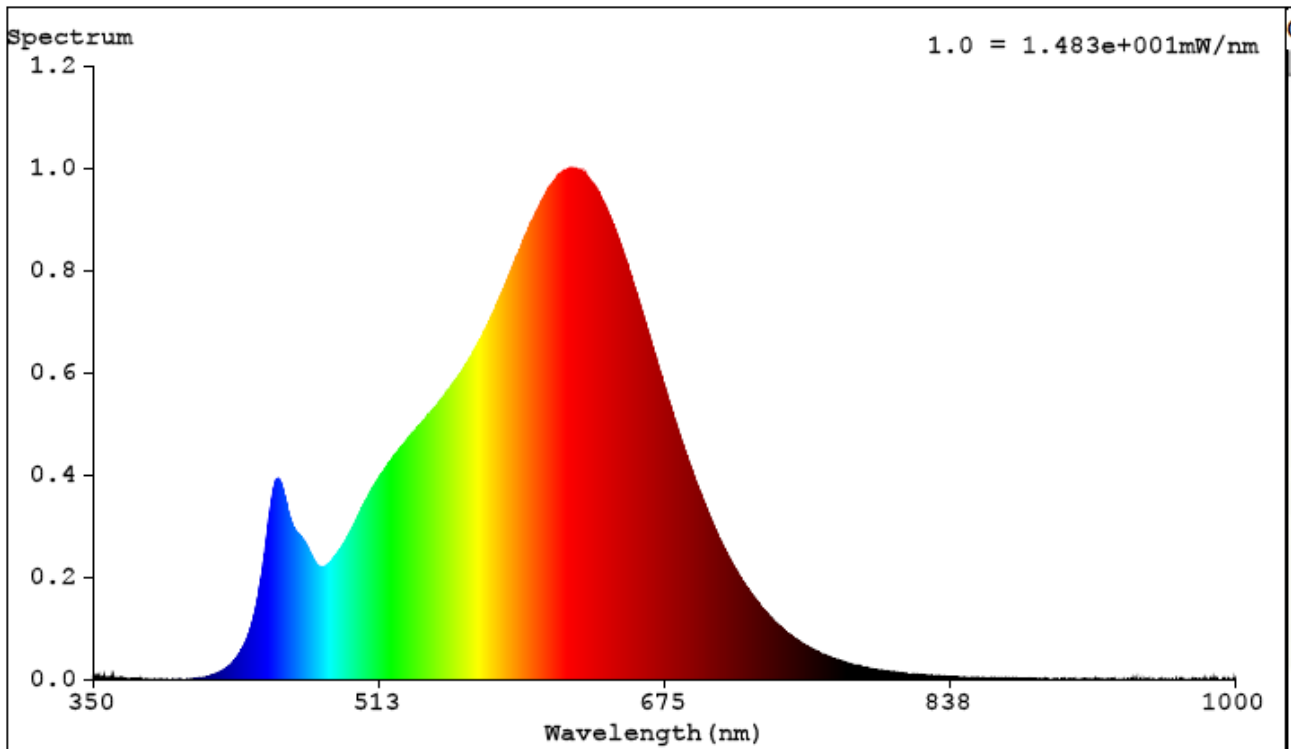
Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	4983	93.3	0.3460	0.3573	0.2099	0.4876	2.6124	24.8	91	99
002	Base up	4996	93.6	0.3456	0.3563	0.2100	0.4870	2.6276	24.5	91	99
Average		4990	93.5	0.3458	0.3568	0.2100	0.4873	2.6200	24.7	91	99

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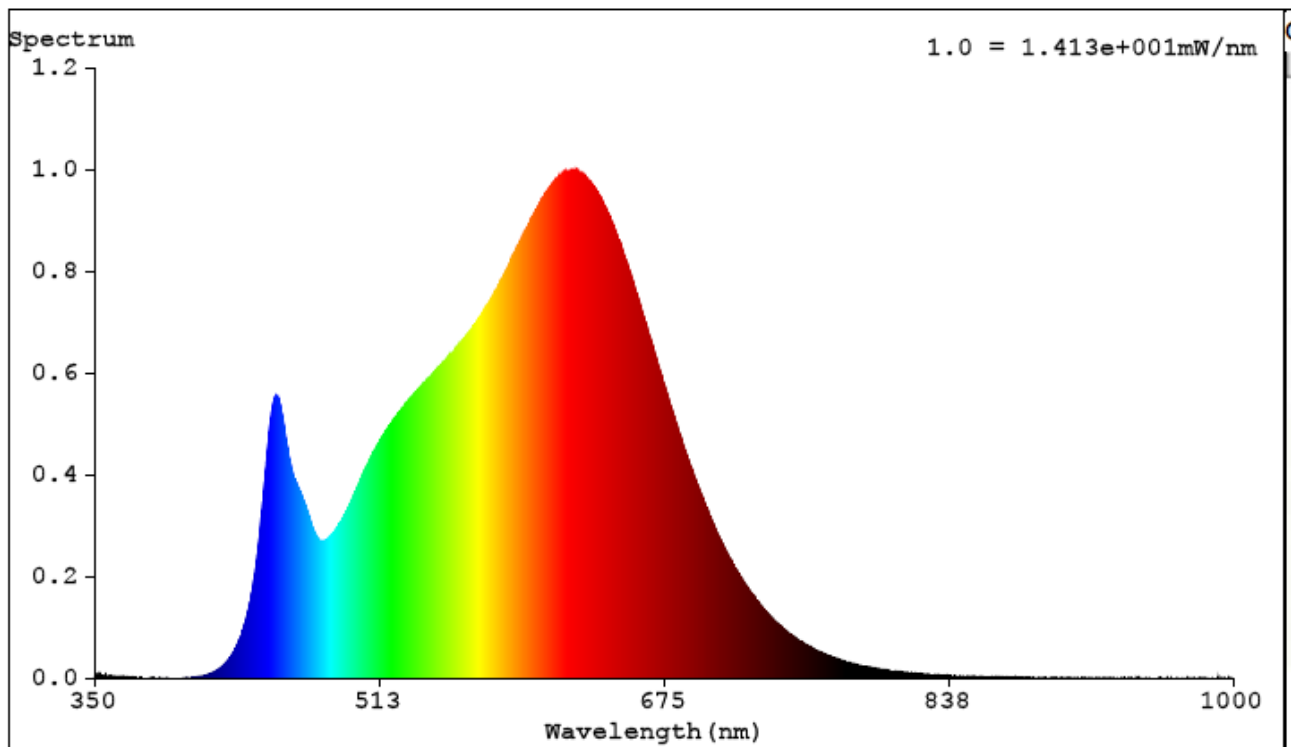
1.2 Test data

1.2.1 Spectral Power Distribution (sample No.:001)

1.2.1.1 2700K

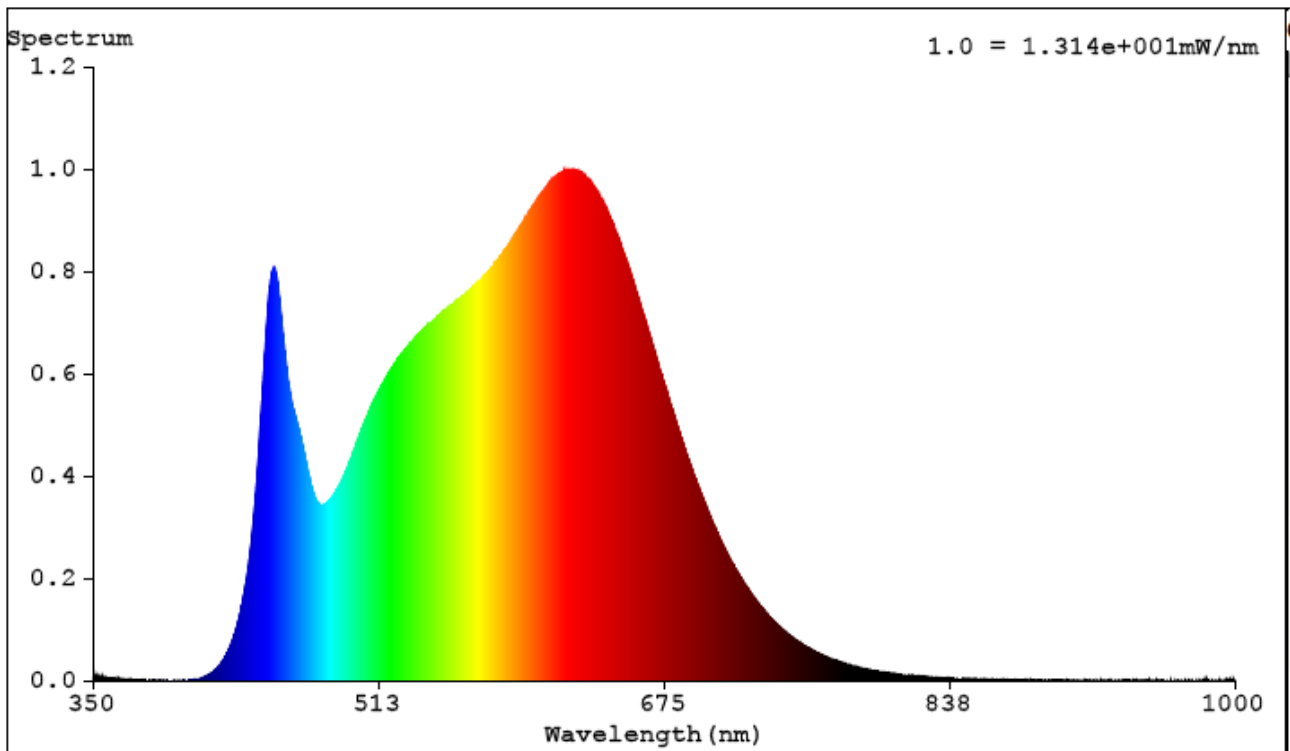


1.2.1.2 3000K

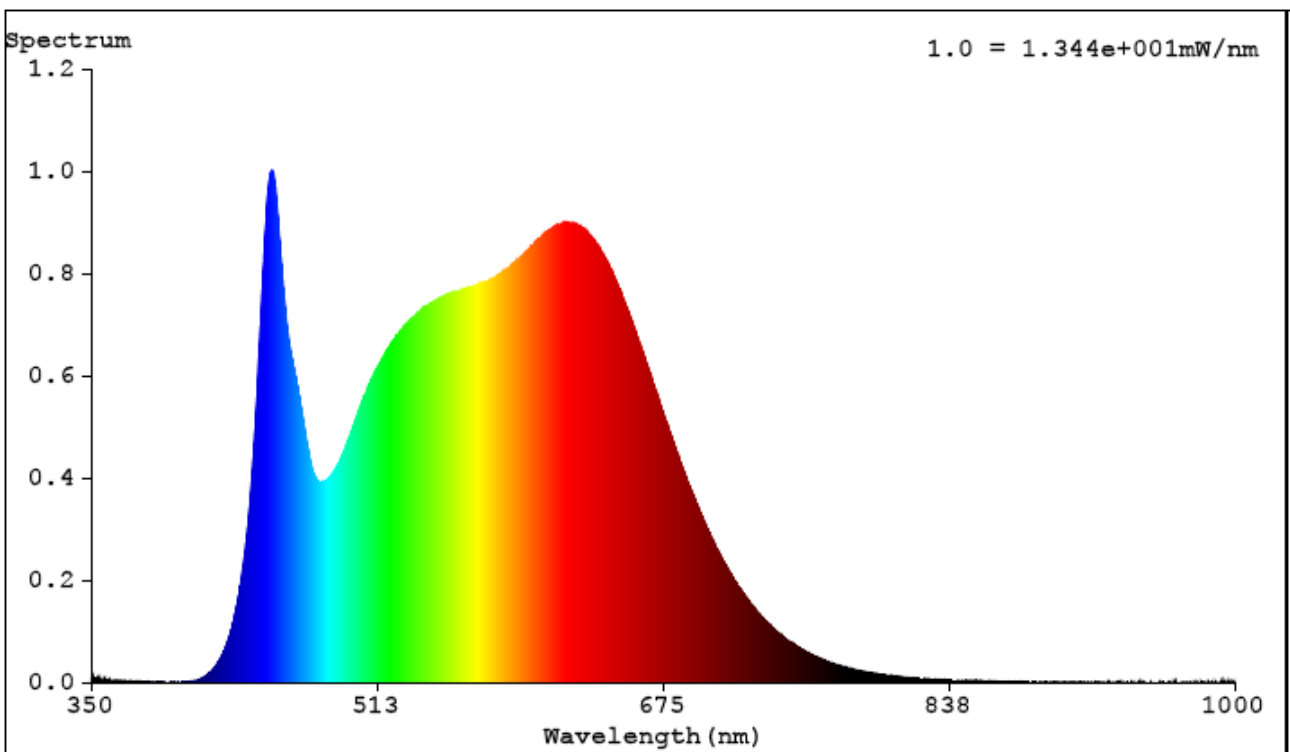


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1.2.1.3 3500K

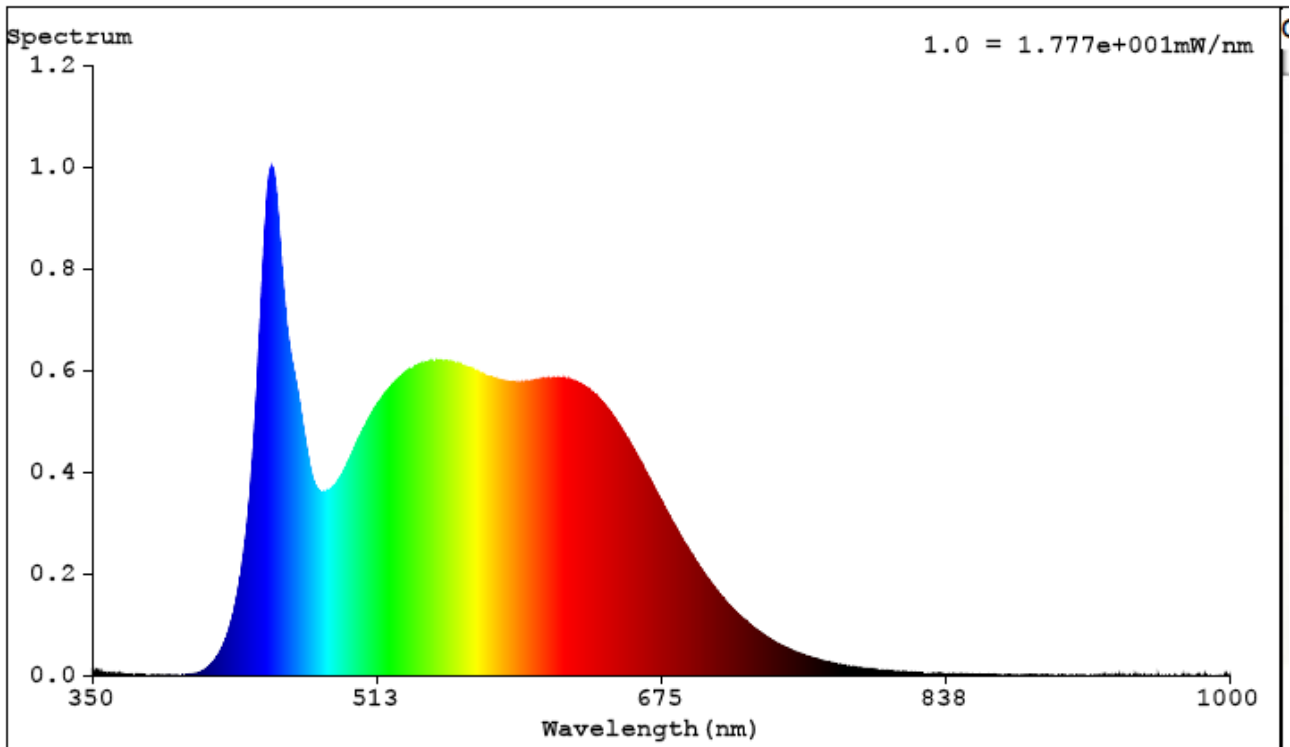


1.2.1.4 4000K



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1.2.1.5 5000K



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1.2.2 Tabulated Spectral Power Distribution (sample No.:001)

1.2.2.1 2700K

WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)
350	0.0084	0.1248	570	0.6629	9.832	790	0.0232	0.3435
355	0.003	0.04472	575	0.6974	10.34	795	0.0196	0.2914
360	0.0014	0.02027	580	0.7345	10.89	800	0.0164	0.2426
365	0.0019	0.0281	585	0.7747	11.49	805	0.0142	0.2101
370	0.0014	0.02143	590	0.8164	12.11	810	0.0127	0.1888
375	0.0016	0.02322	595	0.8594	12.75	815	0.0108	0.1607
380	0.0012	0.01771	600	0.8974	13.31	820	0.0094	0.1391
385	0.0013	0.0191	605	0.9336	13.85	825	0.0075	0.1116
390	0.0009	0.01372	610	0.964	14.3	830	0.0067	0.09955
395	0.0006	0.009004	615	0.9865	14.63	835	0.0057	0.08421
400	0.0009	0.01354	620	0.9978	14.8	840	0.0048	0.07152
405	0.0012	0.01831	625	0.9964	14.78	845	0.0045	0.06668
410	0.0021	0.03181	630	0.986	14.62	850	0.0041	0.06098
415	0.0056	0.08362	635	0.9669	14.34	855	0.0031	0.04611
420	0.0114	0.1688	640	0.9348	13.86	860	0.0022	0.032
425	0.0207	0.3065	645	0.8969	13.3	865	0.002	0.02918
430	0.0357	0.5291	650	0.8519	12.63	870	0.0023	0.03455
435	0.0609	0.9035	655	0.7993	11.86	875	0.0025	0.03679
440	0.1038	1.54	660	0.746	11.06	880	0.0019	0.02745
445	0.1853	2.748	665	0.6898	10.23	885	0.0016	0.02418
450	0.312	4.627	670	0.6312	9.362	890	0.0011	0.01584
455	0.3918	5.811	675	0.5734	8.504	895	0.0014	0.02045
460	0.3428	5.084	680	0.5193	7.702	900	0.0008	0.01135
465	0.2917	4.326	685	0.4646	6.891	905	0.0008	0.0126
470	0.2706	4.014	690	0.4154	6.161	910	0.0003	0.004143
475	0.2379	3.529	695	0.3686	5.467	915	0	0
480	0.2191	3.249	700	0.3263	4.839	920	0.0009	0.01317
485	0.2293	3.401	705	0.2864	4.248	925	0	0
490	0.2517	3.733	710	0.2503	3.713	930	0.0001	0.001575
495	0.2797	4.149	715	0.2181	3.235	935	0	0
500	0.3134	4.648	720	0.1904	2.823	940	0	0.000249
505	0.3487	5.172	725	0.166	2.462	945	0	0
510	0.3793	5.625	730	0.1419	2.104	950	0.0002	0.003687
515	0.4063	6.026	735	0.1236	1.833	955	0	0
520	0.4314	6.398	740	0.106	1.572	960	0.0006	0.008739
525	0.4535	6.725	745	0.0913	1.355	965	0	0
530	0.4746	7.039	750	0.0788	1.169	970	0	0
535	0.4943	7.331	755	0.0672	0.9972	975	0.001	0.01513
540	0.5136	7.617	760	0.0582	0.8628	980	0.001	0.01557
545	0.5338	7.916	765	0.0497	0.7369	985	0	0
550	0.5552	8.234	770	0.0432	0.6403	990	0.0005	0.007865
555	0.5788	8.584	775	0.0367	0.5443	995	0	0
560	0.6033	8.947	780	0.0309	0.4578	1000	0	0
565	0.6315	9.367	785	0.0266	0.3942			

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1.2.2.2 3000K

WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)
350	0.0043	0.06012	570	0.7111	10.05	790	0.0226	0.3199
355	0.0043	0.06084	575	0.7381	10.43	795	0.0196	0.2765
360	0.0017	0.0243	580	0.7691	10.87	800	0.0169	0.2387
365	0.003	0.04266	585	0.8025	11.34	805	0.0146	0.2068
370	0.0019	0.02623	590	0.8371	11.83	810	0.0125	0.1773
375	0.0011	0.0158	595	0.8733	12.34	815	0.0107	0.1512
380	0.0013	0.01894	600	0.908	12.83	820	0.0091	0.1281
385	0.0009	0.01333	605	0.9401	13.29	825	0.008	0.1125
390	0.0011	0.01548	610	0.967	13.67	830	0.0066	0.0934
395	0.0009	0.01232	615	0.9867	13.95	835	0.0055	0.07819
400	0.0012	0.01685	620	0.9953	14.07	840	0.0046	0.06546
405	0.0018	0.02479	625	0.9962	14.08	845	0.0043	0.06079
410	0.0031	0.04408	630	0.9844	13.91	850	0.0038	0.05407
415	0.0078	0.1107	635	0.9646	13.63	855	0.0032	0.04511
420	0.0162	0.2292	640	0.9354	13.22	860	0.0034	0.0485
425	0.0308	0.4351	645	0.8972	12.68	865	0.0026	0.03688
430	0.0562	0.7938	650	0.855	12.09	870	0.0024	0.03415
435	0.0992	1.402	655	0.8028	11.35	875	0.002	0.02772
440	0.1733	2.45	660	0.7492	10.59	880	0.0016	0.02293
445	0.3125	4.416	665	0.6934	9.801	885	0.0012	0.01749
450	0.4951	6.998	670	0.6326	8.942	890	0.0016	0.02245
455	0.5479	7.745	675	0.5766	8.149	895	0.0009	0.01212
460	0.4521	6.39	680	0.5209	7.363	900	0.0005	0.006472
465	0.3838	5.424	685	0.4686	6.623	905	0.0006	0.008362
470	0.3426	4.842	690	0.4164	5.886	910	0.0004	0.005651
475	0.2903	4.103	695	0.3718	5.256	915	0.0009	0.01225
480	0.2686	3.796	700	0.3289	4.648	920	0.0002	0.002574
485	0.28	3.957	705	0.287	4.056	925	0.0006	0.008782
490	0.3057	4.32	710	0.2531	3.578	930	0	0
495	0.3373	4.767	715	0.2196	3.104	935	0	0
500	0.3769	5.327	720	0.1917	2.71	940	0.0014	0.01993
505	0.4157	5.876	725	0.1667	2.355	945	0	0
510	0.4484	6.338	730	0.144	2.036	950	0.0006	0.008757
515	0.479	6.77	735	0.1234	1.744	955	0.0002	0.002292
520	0.5055	7.144	740	0.1068	1.51	960	0	0
525	0.5291	7.479	745	0.0923	1.305	965	0	0
530	0.5494	7.766	750	0.0787	1.113	970	0	0
535	0.5687	8.037	755	0.0677	0.9568	975	0	0
540	0.5871	8.298	760	0.0585	0.8262	980	0	0.000629
545	0.6055	8.559	765	0.0502	0.7089	985	0	0
550	0.6243	8.823	770	0.0434	0.6133	990	0	0
555	0.6425	9.081	775	0.0365	0.5162	995	0.0003	0.004746
560	0.6643	9.389	780	0.0317	0.4474	1000	0	0
565	0.6851	9.683	785	0.0267	0.3772			

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1.2.2.3 3500K

WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)
350	0.0066	0.08625	570	0.7813	10.27	790	0.023	0.3019
355	0.0065	0.08492	575	0.7996	10.51	795	0.0193	0.2534
360	0.003	0.03975	580	0.8218	10.8	800	0.0172	0.2255
365	0.0033	0.04377	585	0.846	11.12	805	0.0141	0.1849
370	0.0026	0.03403	590	0.8721	11.46	810	0.0122	0.1597
375	0.0023	0.0305	595	0.8982	11.8	815	0.0105	0.1381
380	0.0016	0.02079	600	0.9264	12.17	820	0.0097	0.1272
385	0.0017	0.02254	605	0.952	12.51	825	0.0077	0.1016
390	0.0013	0.01704	610	0.9749	12.81	830	0.0067	0.08792
395	0.0009	0.0114	615	0.9906	13.02	835	0.0056	0.07321
400	0.0012	0.01602	620	0.9975	13.11	840	0.005	0.0661
405	0.0018	0.02368	625	0.9977	13.11	845	0.0044	0.05821
410	0.0043	0.0563	630	0.9864	12.96	850	0.0037	0.04799
415	0.0108	0.1418	635	0.9658	12.69	855	0.0031	0.04049
420	0.0239	0.3137	640	0.9378	12.32	860	0.0027	0.03578
425	0.0467	0.6138	645	0.9003	11.83	865	0.0019	0.0256
430	0.0862	1.133	650	0.8568	11.26	870	0.0014	0.01864
435	0.1545	2.03	655	0.8059	10.59	875	0.0022	0.02919
440	0.2731	3.588	660	0.7525	9.889	880	0.001	0.01309
445	0.4931	6.479	665	0.6962	9.148	885	0.0017	0.02248
450	0.7537	9.904	670	0.6381	8.385	890	0.0014	0.01823
455	0.7764	10.2	675	0.5828	7.659	895	0.0014	0.0181
460	0.6125	8.048	680	0.5275	6.932	900	0.0008	0.01071
465	0.5179	6.805	685	0.4729	6.214	905	0.0004	0.005365
470	0.4489	5.898	690	0.4217	5.541	910	0.0007	0.009078
475	0.3711	4.876	695	0.3758	4.938	915	0	0.000103
480	0.3428	4.505	700	0.3309	4.348	920	0.0001	0.000676
485	0.3551	4.666	705	0.2915	3.83	925	0.0011	0.01475
490	0.3828	5.03	710	0.2549	3.349	930	0	0
495	0.4196	5.514	715	0.222	2.917	935	0	0
500	0.466	6.124	720	0.1939	2.548	940	0.0001	0.001528
505	0.5109	6.713	725	0.1675	2.201	945	0.0003	0.00354
510	0.5493	7.218	730	0.1458	1.916	950	0.0006	0.007517
515	0.5827	7.657	735	0.1251	1.644	955	0.0018	0.02425
520	0.6113	8.032	740	0.1079	1.418	960	0	0
525	0.6367	8.366	745	0.0926	1.217	965	0.0001	0.001841
530	0.6592	8.662	750	0.0801	1.053	970	0.0004	0.005108
535	0.6762	8.885	755	0.0685	0.9001	975	0	0
540	0.6939	9.118	760	0.0593	0.7797	980	0	0.000573
545	0.7087	9.313	765	0.0508	0.6679	985	0.0029	0.03861
550	0.7246	9.521	770	0.0433	0.5687	990	0.0002	0.001979
555	0.737	9.684	775	0.0371	0.4879	995	0.002	0.02584
560	0.752	9.882	780	0.0321	0.4222	1000	0.0003	0.003597
565	0.765	10.05	785	0.0276	0.3625			

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1.2.2.4 4000K

WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)
350	0.0096	0.1294	570	0.7782	10.46	790	0.0214	0.2871
355	0.0062	0.08391	575	0.7841	10.54	795	0.0187	0.2507
360	0.0069	0.09306	580	0.7931	10.66	800	0.0158	0.2123
365	0.0036	0.04819	585	0.8056	10.83	805	0.0134	0.1794
370	0.0031	0.0418	590	0.8188	11	810	0.0109	0.146
375	0.0027	0.03569	595	0.8349	11.22	815	0.0097	0.131
380	0.0018	0.0239	600	0.8516	11.44	820	0.0085	0.1146
385	0.0015	0.01952	605	0.8679	11.66	825	0.0075	0.1008
390	0.0011	0.01529	610	0.8837	11.88	830	0.0065	0.08686
395	0.0017	0.02251	615	0.8948	12.02	835	0.0059	0.07869
400	0.0016	0.02125	620	0.8999	12.09	840	0.0048	0.06494
405	0.0022	0.02926	625	0.8964	12.05	845	0.0038	0.05053
410	0.005	0.06663	630	0.8871	11.92	850	0.0037	0.04927
415	0.0135	0.1808	635	0.8678	11.66	855	0.0027	0.03584
420	0.0303	0.407	640	0.8419	11.31	860	0.0021	0.0287
425	0.0599	0.8044	645	0.8095	10.88	865	0.0018	0.02485
430	0.1106	1.487	650	0.7706	10.36	870	0.0018	0.02391
435	0.1993	2.679	655	0.727	9.77	875	0.0018	0.02384
440	0.3507	4.712	660	0.6789	9.123	880	0.0021	0.02844
445	0.6289	8.451	665	0.63	8.466	885	0.0011	0.01448
450	0.9489	12.75	670	0.5784	7.773	890	0.0014	0.01825
455	0.9491	12.75	675	0.5262	7.072	895	0.0012	0.01576
460	0.7336	9.858	680	0.4781	6.425	900	0.0011	0.01495
465	0.6149	8.263	685	0.4288	5.762	905	0.0005	0.007277
470	0.5209	7.001	690	0.3836	5.154	910	0.0005	0.006078
475	0.4235	5.691	695	0.3407	4.579	915	0.0007	0.009163
480	0.3907	5.25	700	0.301	4.045	920	0.0014	0.01911
485	0.4	5.376	705	0.2647	3.557	925	0.0005	0.006856
490	0.4272	5.741	710	0.2332	3.134	930	0	0.000396
495	0.4656	6.257	715	0.2032	2.73	935	0.0007	0.009328
500	0.5134	6.899	720	0.1776	2.387	940	0	0
505	0.5603	7.529	725	0.1536	2.064	945	0.0002	0.003014
510	0.597	8.022	730	0.1332	1.79	950	0	0
515	0.6325	8.5	735	0.1154	1.551	955	0	0
520	0.6622	8.899	740	0.099	1.33	960	0	0
525	0.6855	9.212	745	0.0848	1.14	965	0.0028	0.03789
530	0.7051	9.476	750	0.0734	0.9862	970	0	0
535	0.721	9.689	755	0.0633	0.8503	975	0	0
540	0.7354	9.883	760	0.0542	0.728	980	0	0
545	0.7447	10.01	765	0.0467	0.6276	985	0	0
550	0.7556	10.15	770	0.0397	0.5336	990	0.0001	0.001736
555	0.7622	10.24	775	0.0336	0.4517	995	0	0
560	0.7678	10.32	780	0.0293	0.3933	1000	0	0
565	0.7725	10.38	785	0.0246	0.3308			

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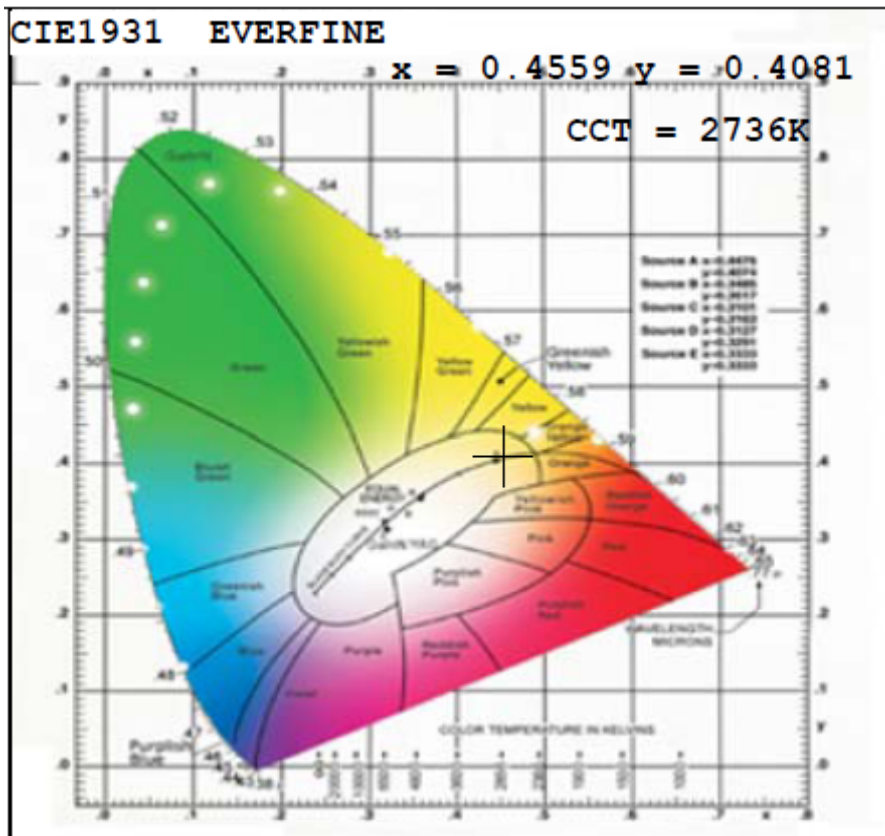
1.2.2.5 5000K

WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)	WL (nm)	Relative Spectral	Absolute Spectral (mW/nm)
350	0.0096	0.1713	570	0.5973	10.61	790	0.0142	0.253
355	0.0046	0.0816	575	0.5878	10.44	795	0.0125	0.2222
360	0.0014	0.02482	580	0.5832	10.36	800	0.0106	0.1886
365	0.0036	0.06401	585	0.5782	10.27	805	0.0088	0.1566
370	0.0025	0.04443	590	0.5761	10.24	810	0.0073	0.1302
375	0.0019	0.03323	595	0.5745	10.21	815	0.0069	0.1231
380	0.0016	0.02839	600	0.5776	10.26	820	0.0058	0.1033
385	0.0011	0.02016	605	0.5797	10.3	825	0.0045	0.08008
390	0.0017	0.02933	610	0.5826	10.35	830	0.0042	0.07448
395	0.0014	0.02528	615	0.5835	10.37	835	0.0041	0.07232
400	0.0014	0.02564	620	0.5839	10.37	840	0.0034	0.0613
405	0.0021	0.03703	625	0.5791	10.29	845	0.0026	0.04561
410	0.0052	0.09174	630	0.5706	10.14	850	0.0026	0.04583
415	0.0137	0.2437	635	0.5575	9.905	855	0.0026	0.04552
420	0.0313	0.5566	640	0.5424	9.637	860	0.0013	0.02331
425	0.0621	1.103	645	0.522	9.275	865	0.0015	0.02732
430	0.1144	2.033	650	0.4974	8.839	870	0.0016	0.02926
435	0.2048	3.64	655	0.4679	8.314	875	0.0009	0.01592
440	0.3568	6.339	660	0.4398	7.814	880	0.001	0.0179
445	0.6357	11.3	665	0.4098	7.282	885	0.0007	0.01185
450	0.9507	16.89	670	0.3751	6.666	890	0.0003	0.004878
455	0.9428	16.75	675	0.343	6.094	895	0.0004	0.006727
460	0.721	12.81	680	0.3118	5.541	900	0.0004	0.006707
465	0.5978	10.62	685	0.2805	4.984	905	0	0
470	0.4958	8.81	690	0.2524	4.484	910	0.0009	0.01658
475	0.3982	7.075	695	0.2242	3.983	915	0.0002	0.003842
480	0.361	6.413	700	0.199	3.535	920	0	0
485	0.3632	6.454	705	0.1749	3.108	925	0	0
490	0.3815	6.779	710	0.154	2.737	930	0	0
495	0.4112	7.306	715	0.134	2.381	935	0	0
500	0.4496	7.989	720	0.1177	2.092	940	0	0
505	0.4865	8.645	725	0.1021	1.813	945	0.001	0.01761
510	0.5179	9.202	730	0.0891	1.584	950	0	0
515	0.5442	9.669	735	0.0761	1.351	955	0.0009	0.01646
520	0.5658	10.05	740	0.0658	1.169	960	0	0
525	0.585	10.39	745	0.0569	1.011	965	0.0002	0.003816
530	0.5989	10.64	750	0.0494	0.8769	970	0	0
535	0.6084	10.81	755	0.042	0.7456	975	0.0008	0.01471
540	0.614	10.91	760	0.0363	0.6455	980	0	0
545	0.6177	10.97	765	0.0309	0.5498	985	0	0
550	0.6178	10.98	770	0.0267	0.4749	990	0	0
555	0.6165	10.95	775	0.023	0.4079	995	0	0
560	0.6111	10.86	780	0.0198	0.3512	1000	0	0
565	0.6037	10.73	785	0.0169	0.3012			

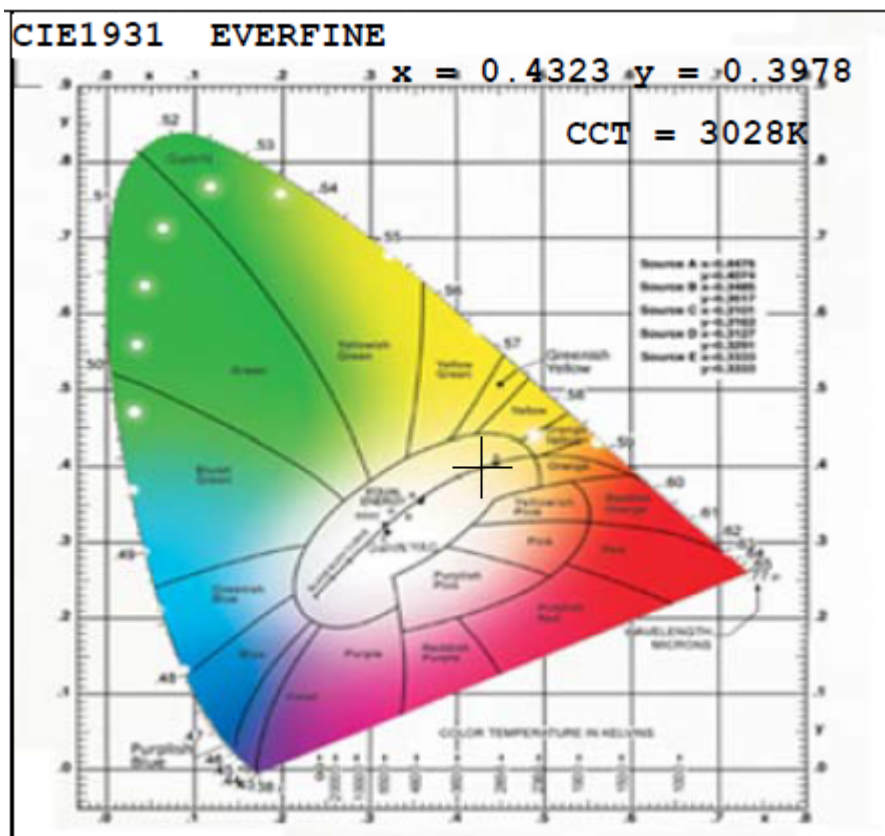
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1.2.3 CIE Chromaticity Diagram (sample No.:001)

1.2.3.1 2700K

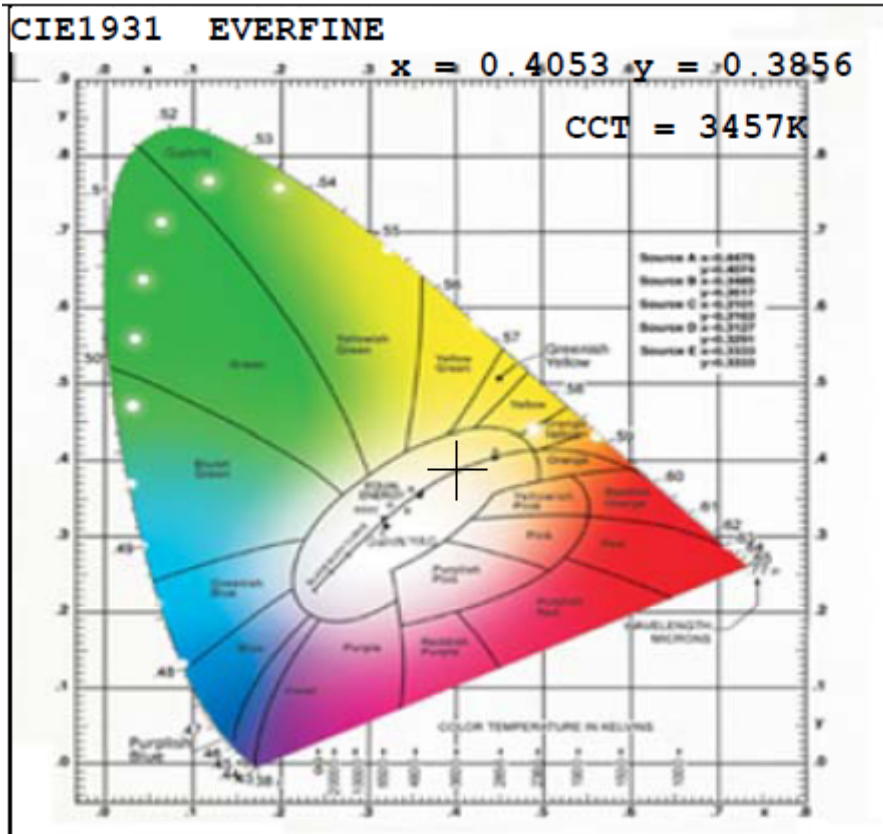


1.2.3.2 3000K

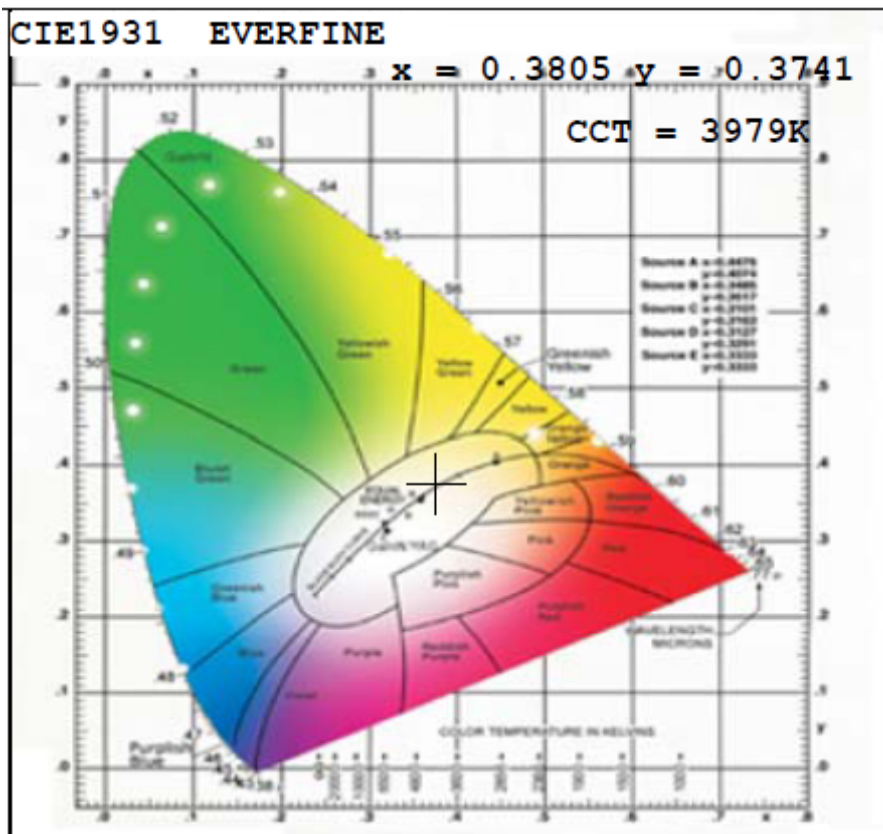


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1.2.3.3 3500K

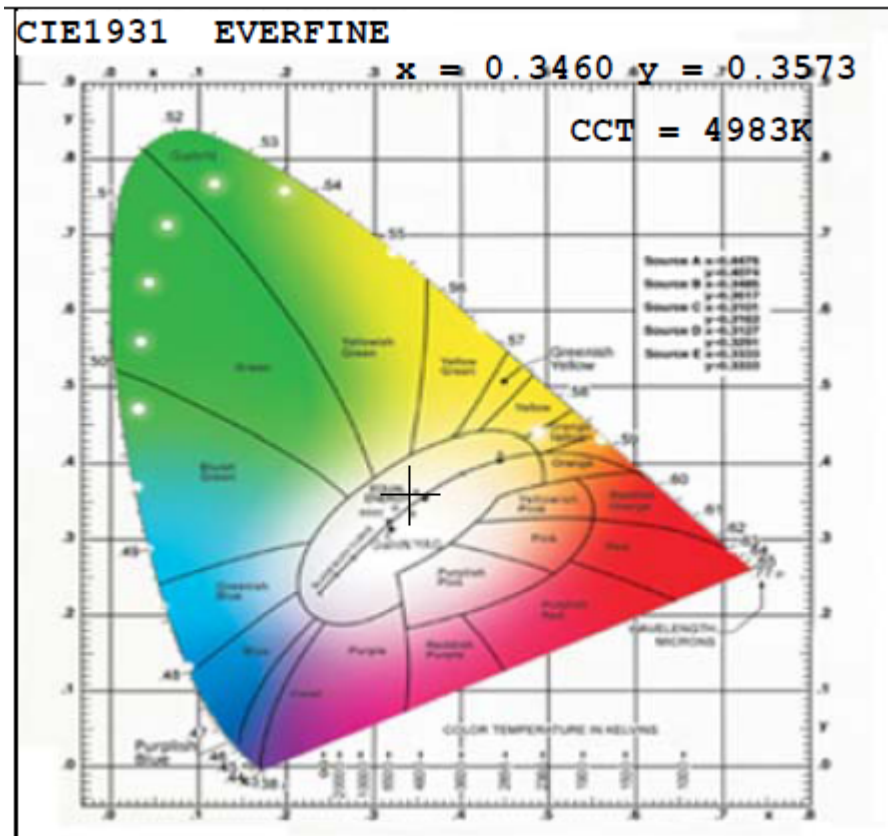


1.2.3.4 4000K



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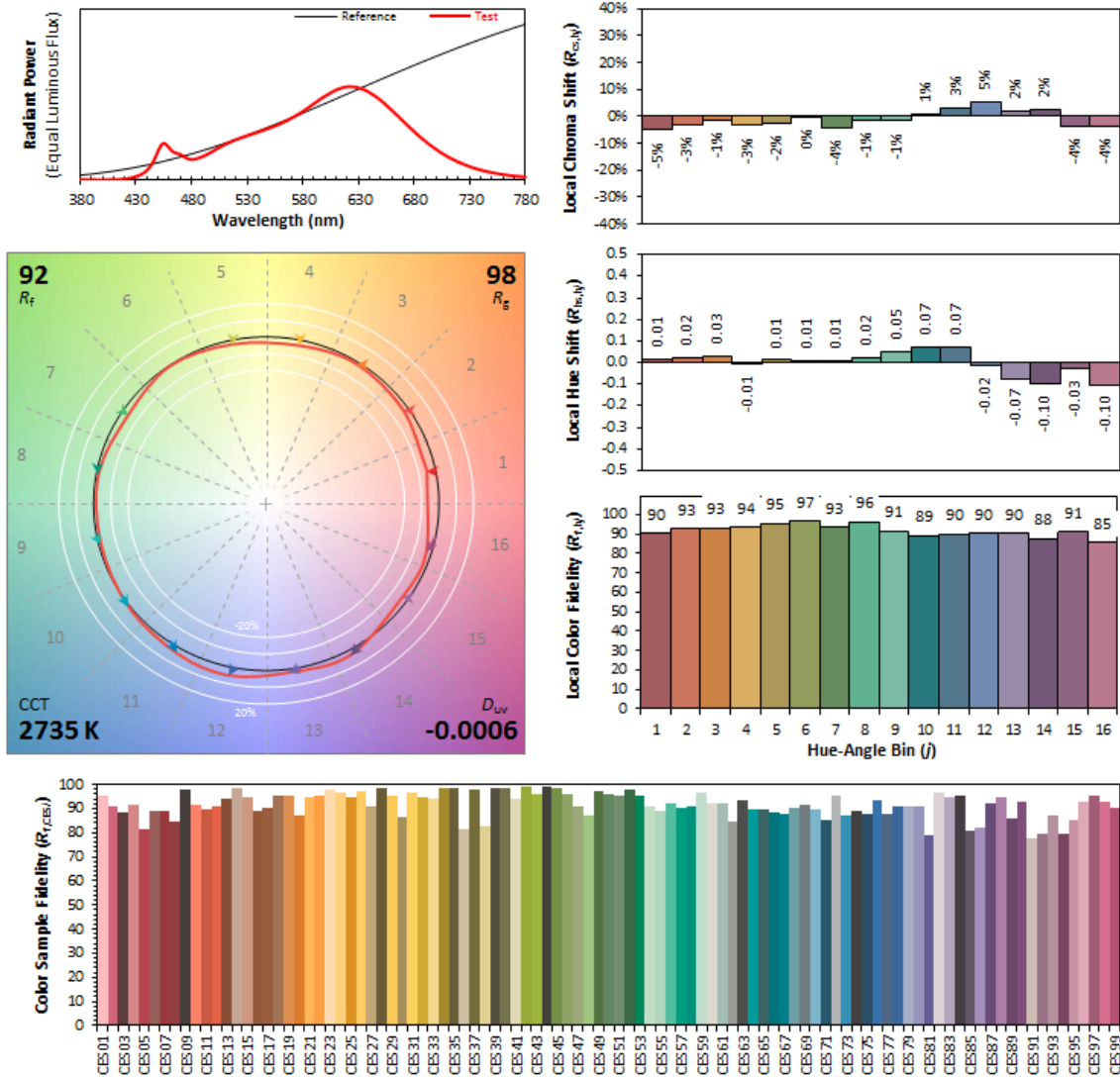
1.2.3.5 5000K



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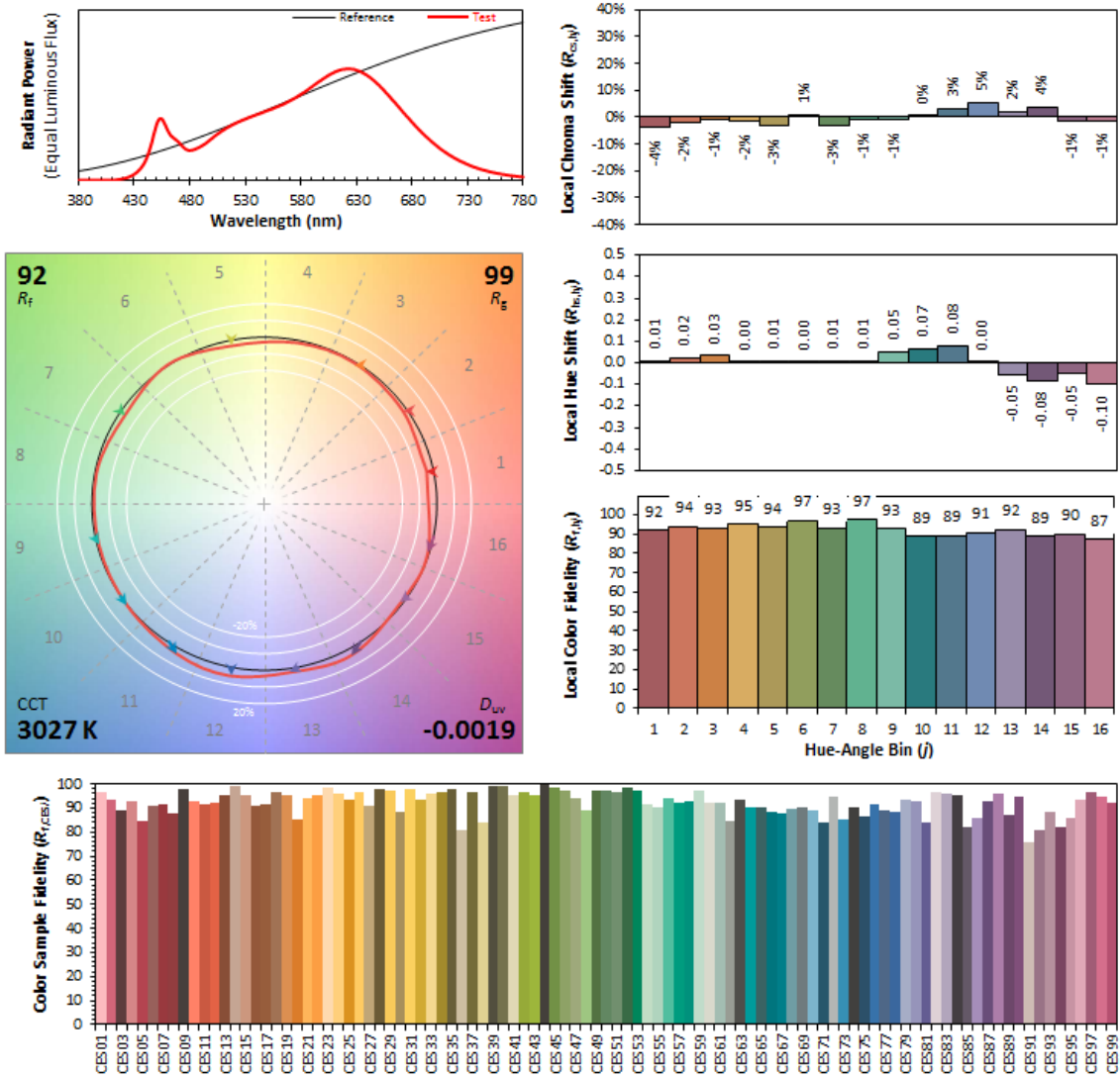
1.2.4 The TM-30 value for Color Rendition

1.2.4.1 2700K



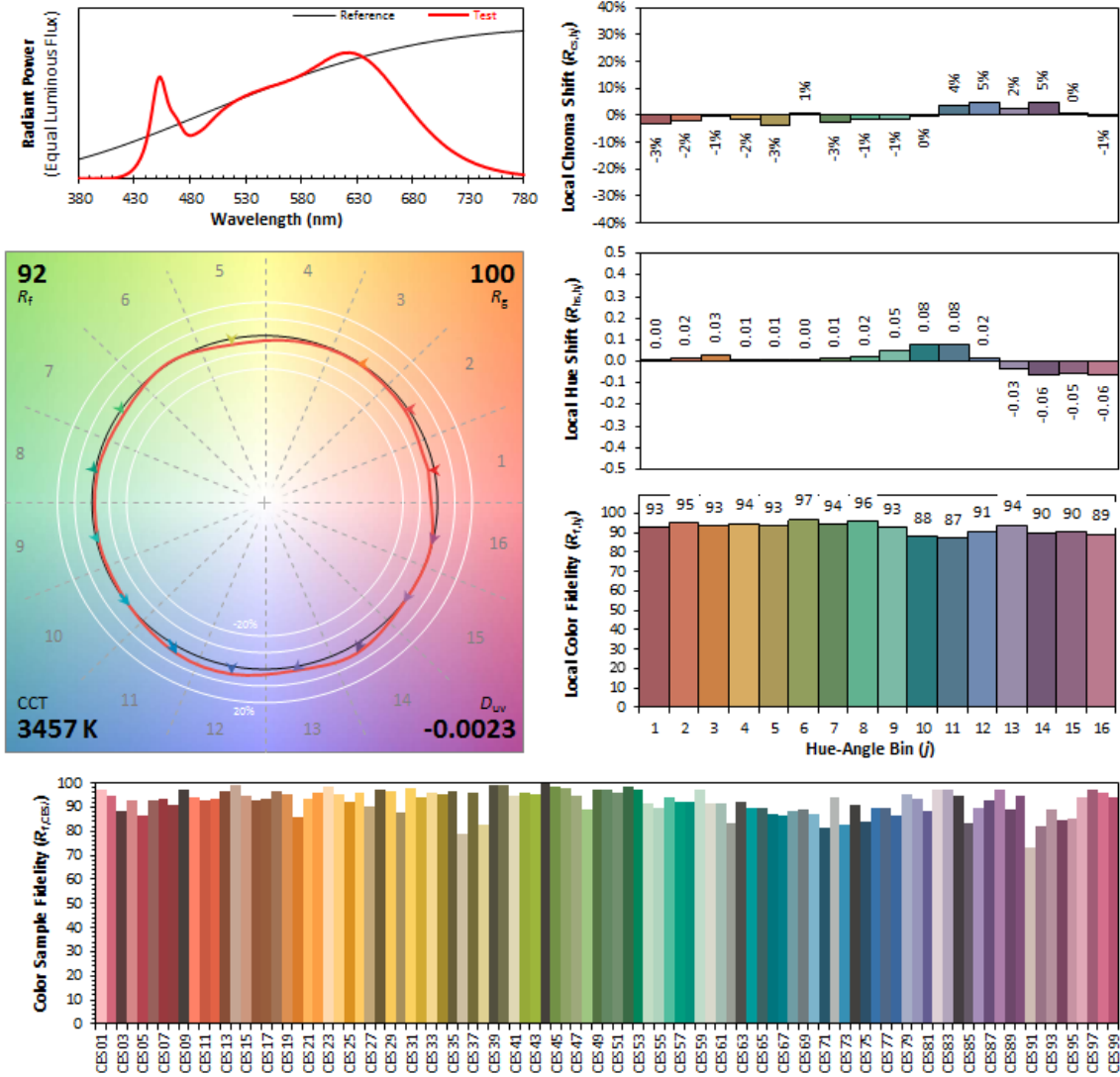
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1.2.4.2 3000K



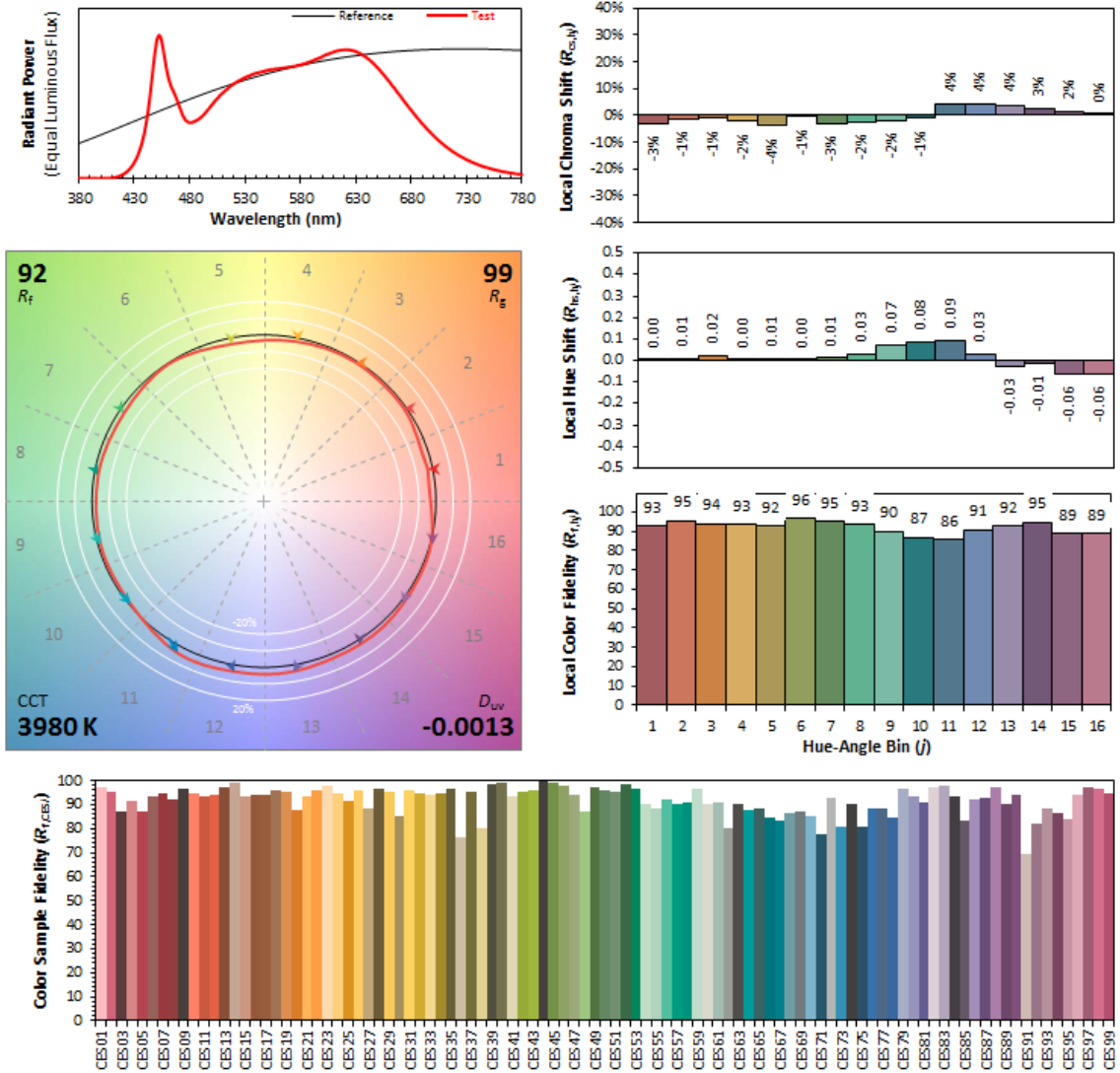
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1.2.4.3 3500K



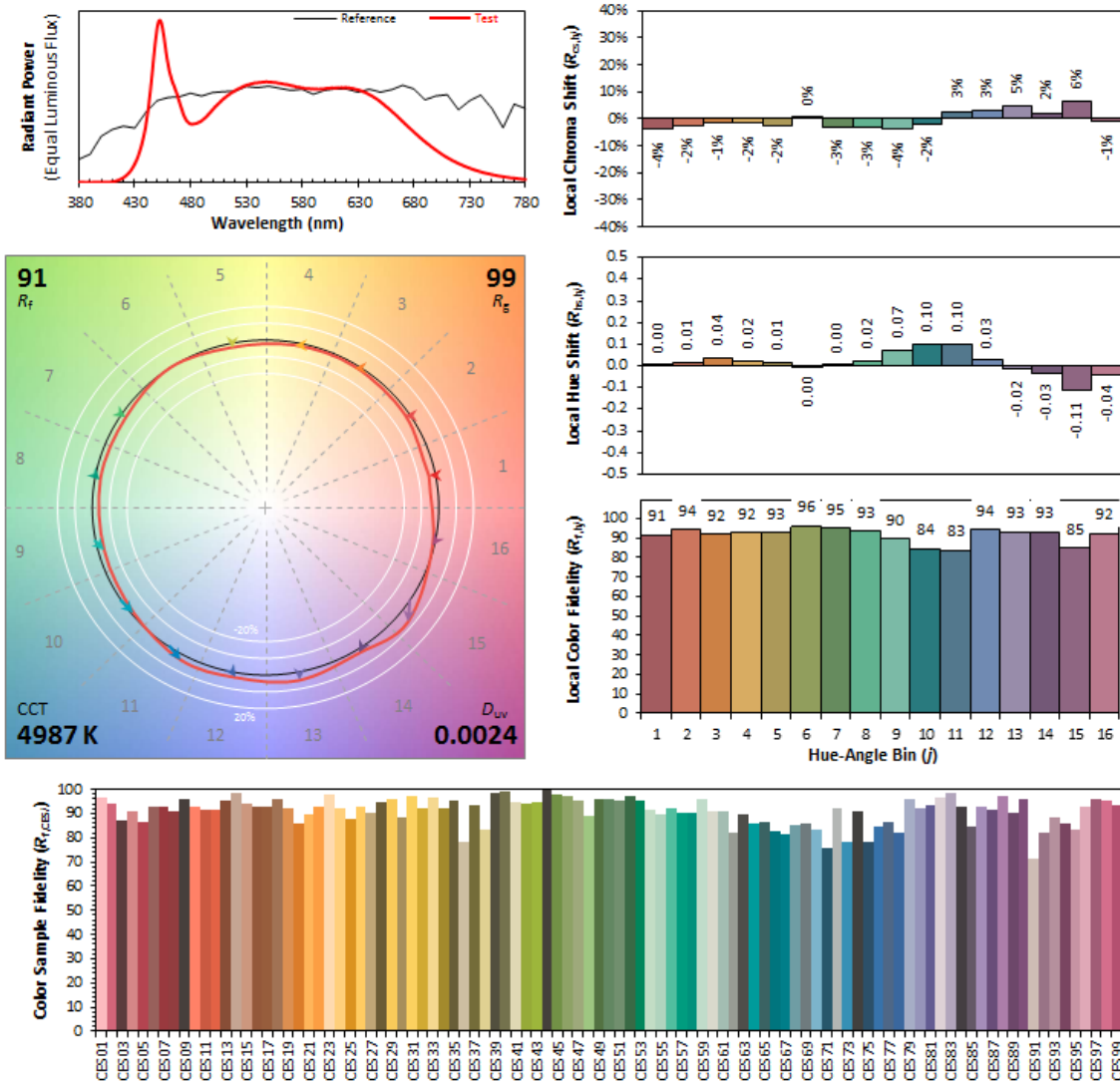
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1.2.4.4 4000K



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1.2.4.5 5000K



1.3 CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

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ANNEX 1 PICTURE



Fig.1 View of sample

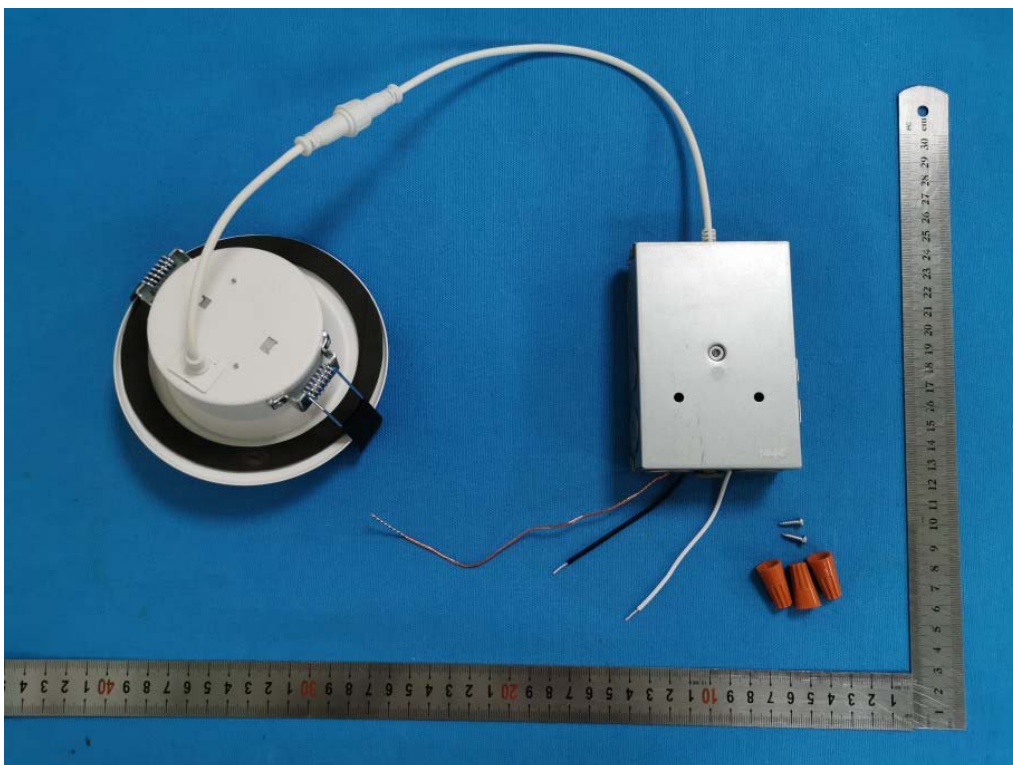


Fig.2 View of sample

-----END-----

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