

# Performance Test Report

Report No.: 20100902-P0

<b>Client information:</b>		
Name	RAB Lighting Inc	
Address	Northvale, New Jersey 07647 USA	
Reception Date	2020-08-19	
Test Date	2020-08-19~2020-08-23	
<b>Sample description:</b>		
Sample Type	Down light	
Type/Model	WFRD6R139FA120WS	
Test Voltage/Frequency	120V/60Hz	
Sample Quantities.	2	
Sample No.	001~002	
<b>Test standard:</b>		
According to IES LM-79-08		
<b>Remarks of this test:</b>		
/		
<b>Description of measurement uncertainty:</b>		
/		
<b>Test case verdicts:</b>		
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	
<b>General test result: see test result</b>		
Prepared by /Date		
Reviewed by /Date		
Approved by/Date		

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

## 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	106.30	12.46	0.976	1139.0	91.44
002	Base up	120.0	103.40	12.12	0.977	1116.5	92.12
Average		120.0	104.85	12.29	0.977	1127.8	91.78

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	2725	93.7	0.4583	0.4109	0.2613	0.5272	4.0671	25.2	91	97
002	Base up	2725	93.9	0.4581	0.4106	0.2614	0.5271	3.9949	25.1	91	97
Average		2725	93.8	0.4582	0.4108	0.2614	0.5272	4.0310	25.2	91	97

#### 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	106.40	12.46	0.976	1167.0	93.66
002	Base up	120.0	103.40	12.13	0.977	1140.0	94.01
Average		120.0	104.90	12.30	0.977	1153.5	93.84

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	3010	95.0	0.4341	0.3995	0.2507	0.5191	4.1566	25.2	92	98
002	Base up	3017	95.1	0.4336	0.3993	0.2505	0.5190	4.0656	24.8	92	98
Average		3014	95.1	0.4339	0.3994	0.2506	0.5191	4.1111	25.0	92	98

#### 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	106.50	12.47	0.976	1202.3	96.43
002	Base up	120.0	103.20	12.10	0.977	1171.6	96.82
Average		120.0	104.85	12.29	0.977	1187.0	96.63

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

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	3442	95.8	0.4062	0.3862	0.2382	0.5095	4.2709	24.9	91	98
002	Base up	3456	95.9	0.4055	0.3860	0.2378	0.5093	4.1640	25.3	91	98
Average		3449	95.9	0.4059	0.3861	0.2380	0.5094	4.2175	25.1	91	98

#### 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	106.50	12.47	0.976	1232.1	98.77
002	Base up	120.0	103.20	12.10	0.977	1200.2	99.22
Average		120.0	104.85	12.29	0.977	1216.2	99.00

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	3984	95.8	0.3802	0.3736	0.2262	0.5002	4.3641	25.2	90	98
002	Base up	4003	95.8	0.3795	0.3736	0.2258	0.5000	4.2508	25.2	90	98
Average		3994	95.8	0.3798	0.3736	0.2260	0.5001	4.3075	25.2	90	98

#### 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	106.40	12.46	0.976	1272.4	102.13
002	Base up	120.0	103.10	12.08	0.977	1244.3	103.01
Average		120.0	104.75	12.27	0.977	1258.4	102.57

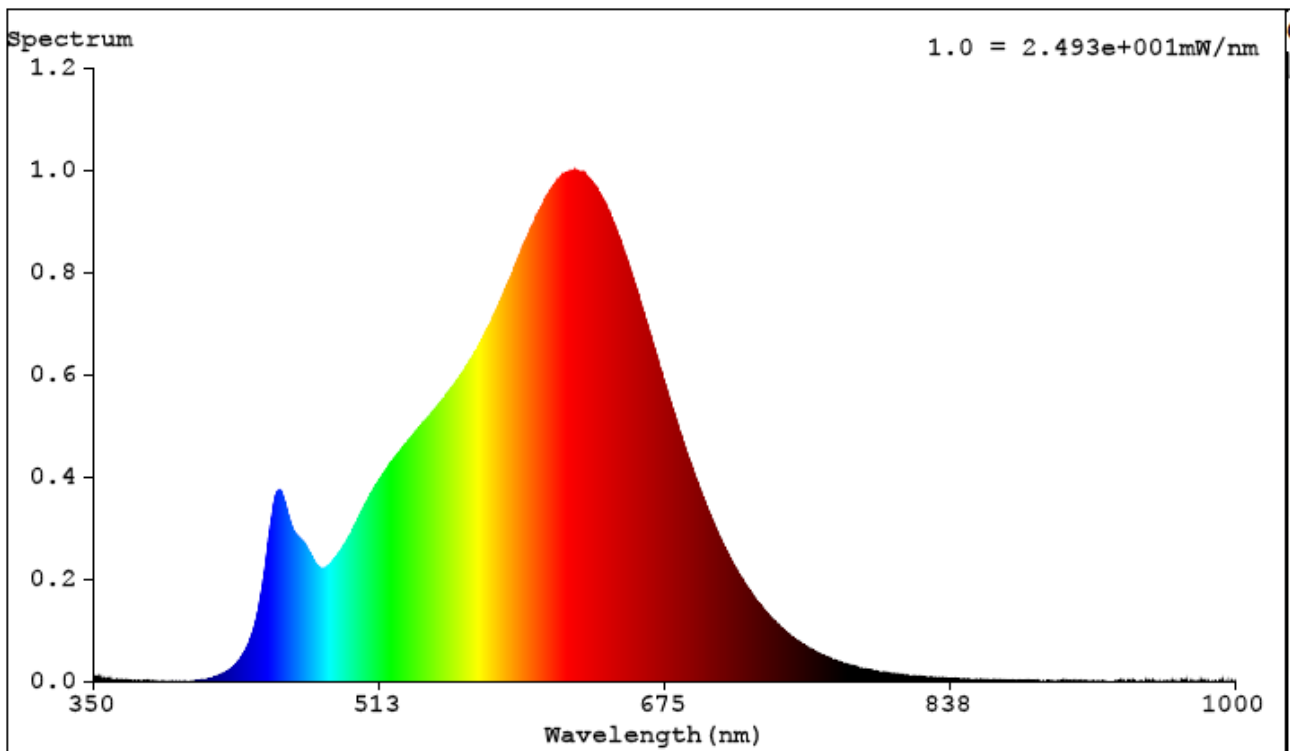
Sample No.	Base orientation	Correlated Color Temperature (K)	CRI	CIE 1931 Chromaticity Coordinate		CIE 1976 Chromaticity Coordinate		Radiant Flux (W)	Ambient Temp (°C)	Rf	Rg
				x	y	u'	v'				
001	Base up	5080	94.2	0.3433	0.3553	0.2088	0.4862	4.4908	25.2	90	97
002	Base up	5089	94.1	0.3431	0.3559	0.2084	0.4865	4.3856	25.2	90	97
Average		5085	94.2	0.3432	0.3556	0.2086	0.4864	4.4382	25.2	90	97

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

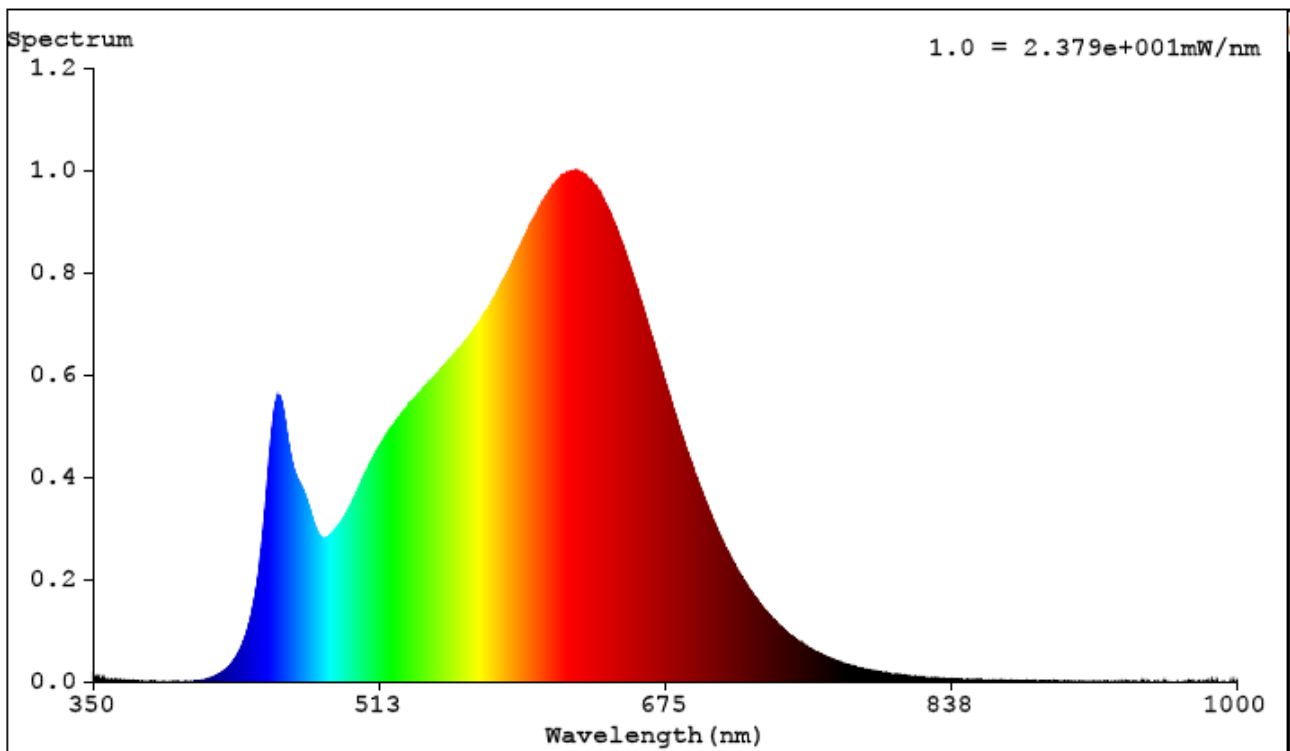
1.2 Test data

1.2.1 Spectral Power Distribution (sample No.:001)

1.2.1.1 2700K

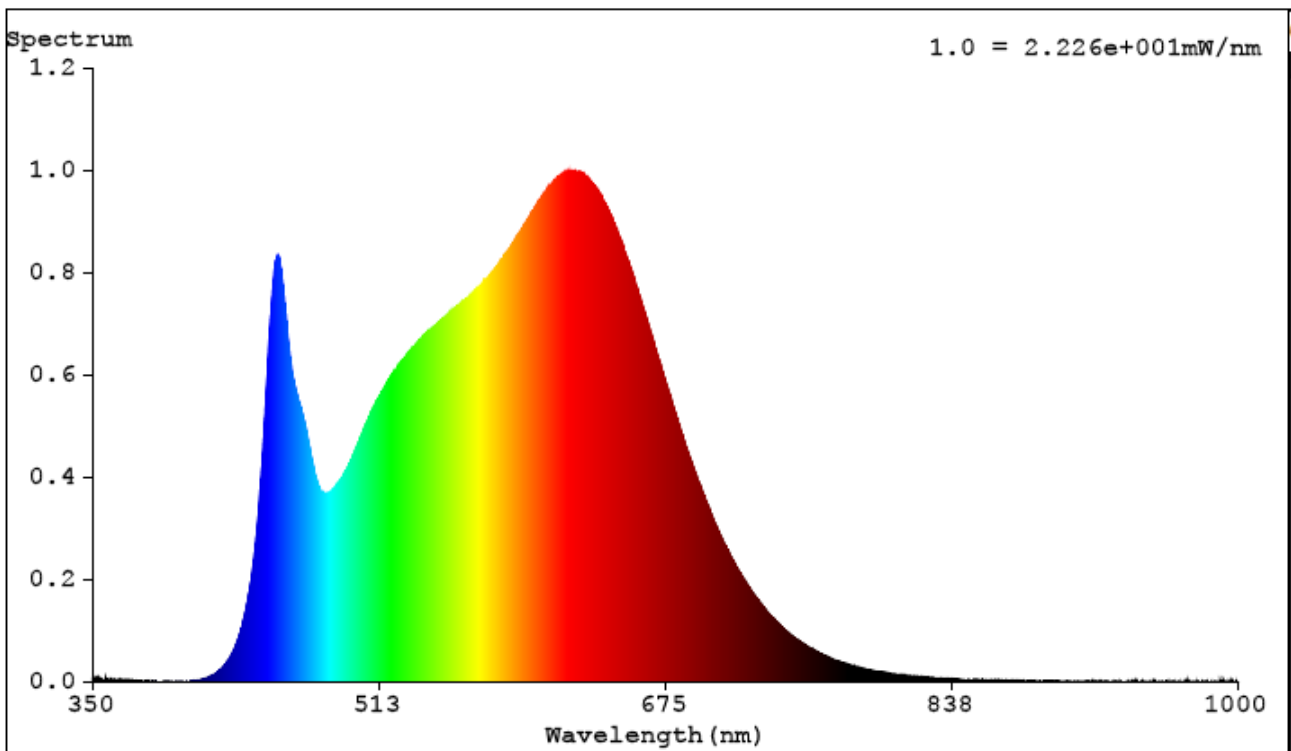


1.2.1.2 3000K

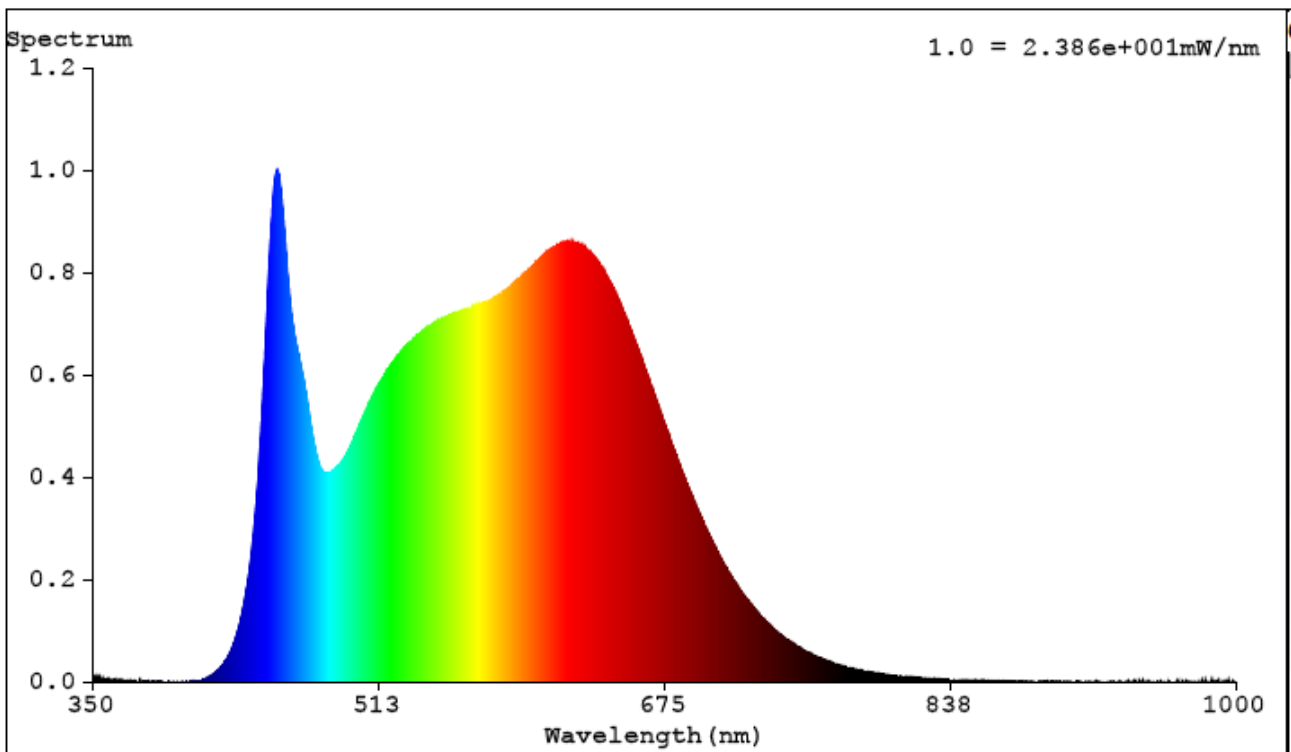


This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

1.2.1.3 3500K

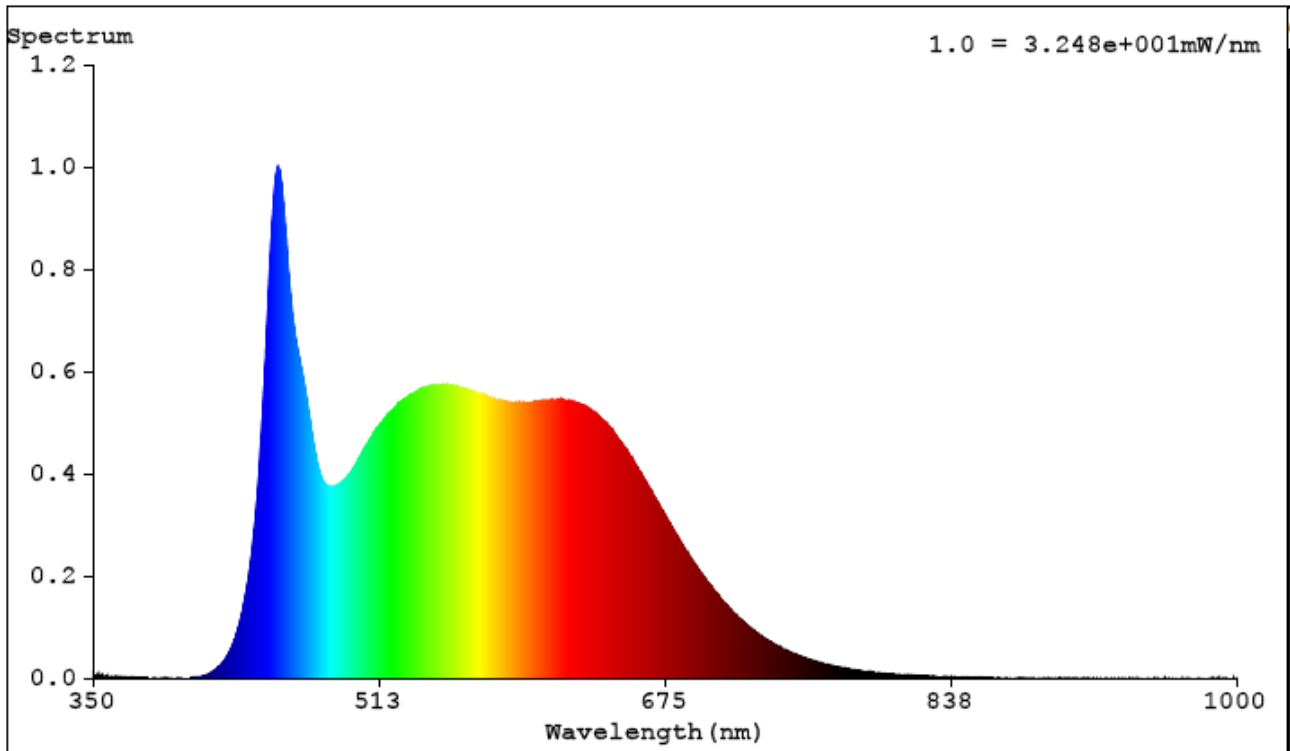


1.2.1.4 4000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

1.2.1.5 5000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

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	0.0017	0.04284	570	0.6592	16.44	790	0.0235	0.5863
355	0.0019	0.04831	575	0.6926	17.27	795	0.0201	0.5009
360	0.0003	0.008473	580	0.7295	18.19	800	0.0175	0.4375
365	0.002	0.04926	585	0.7701	19.2	805	0.0147	0.3658
370	0.0015	0.03769	590	0.8102	20.2	810	0.0127	0.3173
375	0.0009	0.02315	595	0.853	21.27	815	0.0111	0.2771
380	0.001	0.02565	600	0.8912	22.22	820	0.0094	0.2337
385	0.0008	0.02031	605	0.9266	23.1	825	0.0082	0.2057
390	0.0007	0.01782	610	0.9589	23.91	830	0.0071	0.1776
395	0.0009	0.0215	615	0.982	24.48	835	0.0058	0.1436
400	0.0008	0.02084	620	0.9956	24.82	840	0.005	0.1251
405	0.0008	0.02064	625	0.9989	24.9	845	0.0048	0.1187
410	0.0022	0.05452	630	0.9903	24.69	850	0.0039	0.09623
415	0.0047	0.1183	635	0.9715	24.22	855	0.0034	0.08524
420	0.0099	0.2456	640	0.9424	23.5	860	0.003	0.07595
425	0.0174	0.4332	645	0.9051	22.56	865	0.0017	0.04343
430	0.0298	0.7435	650	0.8637	21.53	870	0.0023	0.05669
435	0.0507	1.263	655	0.8122	20.25	875	0.0015	0.03814
440	0.087	2.168	660	0.7584	18.91	880	0.0013	0.03213
445	0.1572	3.92	665	0.7014	17.49	885	0.002	0.05007
450	0.2788	6.952	670	0.6436	16.05	890	0.0009	0.02156
455	0.3714	9.259	675	0.5857	14.6	895	0.0009	0.02148
460	0.3363	8.384	680	0.5305	13.23	900	0.0004	0.009339
465	0.2897	7.221	685	0.4771	11.89	905	0.0004	0.01059
470	0.2709	6.755	690	0.4259	10.62	910	0.0003	0.008322
475	0.2402	5.988	695	0.3778	9.419	915	0.0009	0.02143
480	0.2203	5.492	700	0.3338	8.323	920	0	0
485	0.2299	5.731	705	0.2936	7.321	925	0.001	0.02506
490	0.2521	6.285	710	0.2584	6.443	930	0	0
495	0.279	6.956	715	0.2244	5.595	935	0.0013	0.03338
500	0.3121	7.78	720	0.1964	4.896	940	0.002	0.04999
505	0.3464	8.636	725	0.1707	4.255	945	0	0
510	0.3784	9.433	730	0.1484	3.699	950	0.0006	0.0147
515	0.4054	10.11	735	0.1271	3.17	955	0	0
520	0.4296	10.71	740	0.1103	2.751	960	0	0
525	0.4512	11.25	745	0.0943	2.351	965	0.0001	0.002259
530	0.4737	11.81	750	0.0817	2.037	970	0	0
535	0.4938	12.31	755	0.0699	1.743	975	0	0
540	0.5138	12.81	760	0.0605	1.51	980	0	0
545	0.5345	13.33	765	0.0516	1.287	985	0	0
550	0.5543	13.82	770	0.0444	1.106	990	0	0
555	0.5773	14.39	775	0.0384	0.9564	995	0	0
560	0.6031	15.04	780	0.0325	0.8093	1000	0.0008	0.01908
565	0.6296	15.7	785	0.0273	0.6814			

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

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	0.0096	0.2289	570	0.7062	16.8	790	0.0238	0.5663
355	0.0031	0.07431	575	0.7329	17.43	795	0.0205	0.4865
360	0.0039	0.09259	580	0.7653	18.2	800	0.0169	0.4029
365	0.0018	0.04367	585	0.7979	18.98	805	0.015	0.357
370	0.0031	0.07434	590	0.832	19.79	810	0.0123	0.293
375	0.001	0.02408	595	0.8683	20.65	815	0.0111	0.2635
380	0.0015	0.03627	600	0.9028	21.47	820	0.0087	0.2062
385	0.0011	0.02661	605	0.9354	22.25	825	0.0079	0.1881
390	0.0009	0.0205	610	0.9628	22.9	830	0.007	0.1676
395	0.0012	0.02957	615	0.9837	23.4	835	0.0061	0.1455
400	0.001	0.02344	620	0.9964	23.7	840	0.0053	0.1253
405	0.0015	0.03574	625	0.9982	23.74	845	0.0043	0.1022
410	0.0025	0.06037	630	0.9894	23.53	850	0.0035	0.0841
415	0.0061	0.1446	635	0.9685	23.04	855	0.0041	0.09838
420	0.0127	0.3028	640	0.9415	22.39	860	0.0021	0.05068
425	0.0234	0.557	645	0.9043	21.51	865	0.0024	0.05753
430	0.0422	1.005	650	0.8606	20.47	870	0.0019	0.04414
435	0.0755	1.795	655	0.8108	19.28	875	0.0017	0.04002
440	0.1327	3.157	660	0.7592	18.06	880	0.0018	0.04203
445	0.2443	5.81	665	0.701	16.67	885	0.0029	0.06951
450	0.4327	10.29	670	0.6447	15.33	890	0.0005	0.01261
455	0.5585	13.29	675	0.5873	13.97	895	0.0007	0.01685
460	0.4849	11.53	680	0.5305	12.62	900	0.0005	0.01076
465	0.4059	9.655	685	0.4773	11.35	905	0.0008	0.01883
470	0.3674	8.738	690	0.4275	10.17	910	0.0009	0.02032
475	0.3142	7.472	695	0.3783	8.998	915	0	0
480	0.2818	6.704	700	0.3352	7.974	920	0.0008	0.01795
485	0.2876	6.841	705	0.2944	7.002	925	0.0005	0.01201
490	0.3088	7.346	710	0.2589	6.158	930	0.0001	0.003323
495	0.3364	8.001	715	0.2257	5.369	935	0.0004	0.009405
500	0.3727	8.865	720	0.1963	4.67	940	0	0
505	0.4108	9.772	725	0.1713	4.075	945	0	0.000177
510	0.4442	10.57	730	0.1479	3.519	950	0.0004	0.00966
515	0.4735	11.26	735	0.1276	3.035	955	0.0017	0.04008
520	0.5002	11.9	740	0.1095	2.606	960	0	0
525	0.5235	12.45	745	0.0945	2.249	965	0	0
530	0.5445	12.95	750	0.0817	1.942	970	0	0
535	0.5622	13.37	755	0.07	1.665	975	0.0007	0.01665
540	0.5827	13.86	760	0.0602	1.433	980	0	0
545	0.6001	14.27	765	0.0518	1.233	985	0.0011	0.02589
550	0.6193	14.73	770	0.044	1.047	990	0	0
555	0.6398	15.22	775	0.0381	0.9068	995	0	0
560	0.6596	15.69	780	0.0326	0.7763	1000	0	0
565	0.6819	16.22	785	0.0279	0.6633			

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.



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	0.0088	0.1951	570	0.7729	17.21	790	0.0233	0.5177
355	0.0048	0.1077	575	0.7928	17.65	795	0.0205	0.4564
360	0.0051	0.1145	580	0.8152	18.15	800	0.0171	0.3816
365	0.0041	0.09208	585	0.839	18.68	805	0.0146	0.3261
370	0.0018	0.04074	590	0.8653	19.26	810	0.0132	0.2944
375	0.0016	0.03535	595	0.894	19.9	815	0.011	0.2444
380	0.0017	0.038	600	0.9218	20.52	820	0.0104	0.2317
385	0.0015	0.03234	605	0.9486	21.12	825	0.0076	0.1699
390	0.0016	0.03454	610	0.9706	21.61	830	0.0071	0.1585
395	0.0013	0.02944	615	0.9887	22.01	835	0.0059	0.1317
400	0.0012	0.0271	620	0.9953	22.16	840	0.0049	0.1098
405	0.0014	0.03143	625	0.9951	22.15	845	0.0043	0.0963
410	0.0032	0.07102	630	0.9862	21.96	850	0.0043	0.09543
415	0.0079	0.1759	635	0.9694	21.58	855	0.004	0.09006
420	0.017	0.3781	640	0.9391	20.91	860	0.0031	0.06798
425	0.033	0.7339	645	0.9052	20.15	865	0.0021	0.04716
430	0.0608	1.352	650	0.862	19.19	870	0.0013	0.02849
435	0.1115	2.482	655	0.812	18.08	875	0.0018	0.03972
440	0.1997	4.445	660	0.7566	16.84	880	0.0012	0.02729
445	0.3717	8.276	665	0.7029	15.65	885	0.0018	0.04028
450	0.6558	14.6	670	0.6449	14.36	890	0.0019	0.04296
455	0.8321	18.52	675	0.5884	13.1	895	0.0015	0.03372
460	0.7032	15.65	680	0.5334	11.87	900	0.0014	0.03218
465	0.5746	12.79	685	0.4796	10.68	905	0.0012	0.02667
470	0.5117	11.39	690	0.429	9.549	910	0.0008	0.018
475	0.426	9.483	695	0.3818	8.499	915	0.0005	0.01144
480	0.3704	8.246	700	0.3373	7.509	920	0.0007	0.01449
485	0.3712	8.264	705	0.2966	6.602	925	0	0
490	0.3927	8.742	710	0.2596	5.778	930	0	0
495	0.4212	9.377	715	0.2269	5.052	935	0.0002	0.005208
500	0.4604	10.25	720	0.1992	4.435	940	0.0003	0.006555
505	0.5028	11.19	725	0.1725	3.84	945	0.0003	0.00619
510	0.5397	12.02	730	0.149	3.316	950	0	0
515	0.5717	12.73	735	0.1285	2.861	955	0	0
520	0.6015	13.39	740	0.1109	2.468	960	0.0007	0.01627
525	0.6255	13.92	745	0.0954	2.125	965	0	0
530	0.6467	14.4	750	0.0822	1.829	970	0	0
535	0.6649	14.8	755	0.0704	1.567	975	0	0
540	0.6833	15.21	760	0.0609	1.356	980	0	0
545	0.6974	15.53	765	0.052	1.159	985	0.0002	0.005301
550	0.7137	15.89	770	0.0445	0.9911	990	0	0
555	0.7286	16.22	775	0.0381	0.8476	995	0	0
560	0.7431	16.54	780	0.0329	0.7315	1000	0	0
565	0.7566	16.84	785	0.0273	0.6088			

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

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	0.0005	0.01291	570	0.7371	17.59	790	0.0205	0.4888
355	0.005	0.1203	575	0.7447	17.77	795	0.0181	0.4313
360	0.0035	0.08332	580	0.7541	17.99	800	0.015	0.3576
365	0.0026	0.0629	585	0.7662	18.28	805	0.0133	0.3173
370	0.0025	0.06081	590	0.7807	18.63	810	0.0113	0.2688
375	0.0019	0.04583	595	0.7959	18.99	815	0.009	0.2156
380	0.0014	0.03397	600	0.8124	19.38	820	0.0086	0.205
385	0.0013	0.03131	605	0.8299	19.8	825	0.0069	0.1644
390	0.0012	0.02936	610	0.8446	20.15	830	0.006	0.1425
395	0.0014	0.03367	615	0.8551	20.4	835	0.0052	0.1244
400	0.001	0.02437	620	0.8599	20.52	840	0.0043	0.1035
405	0.0017	0.03997	625	0.8573	20.45	845	0.0041	0.09778
410	0.0035	0.0845	630	0.8488	20.25	850	0.0032	0.07546
415	0.0085	0.2034	635	0.8326	19.86	855	0.0033	0.07931
420	0.0198	0.4727	640	0.807	19.25	860	0.0024	0.05617
425	0.0385	0.9193	645	0.7769	18.54	865	0.0019	0.04502
430	0.0732	1.747	650	0.7401	17.66	870	0.0025	0.0587
435	0.1348	3.217	655	0.6962	16.61	875	0.0011	0.02696
440	0.2437	5.813	660	0.652	15.56	880	0.0012	0.02759
445	0.4507	10.75	665	0.6042	14.42	885	0.0013	0.02996
450	0.7917	18.89	670	0.5557	13.26	890	0.0002	0.003918
455	0.999	23.84	675	0.5068	12.09	895	0.0016	0.03715
460	0.8382	20	680	0.4598	10.97	900	0.0007	0.01586
465	0.6752	16.11	685	0.4131	9.855	905	0	0
470	0.592	14.12	690	0.3703	8.835	910	0.001	0.02372
475	0.4841	11.55	695	0.3293	7.858	915	0.0002	0.004694
480	0.4148	9.897	700	0.2918	6.962	920	0.0016	0.03896
485	0.4082	9.739	705	0.2562	6.113	925	0	0
490	0.4244	10.13	710	0.2246	5.358	930	0.0017	0.03998
495	0.4505	10.75	715	0.1975	4.712	935	0	0.000491
500	0.4885	11.65	720	0.1716	4.093	940	0	0
505	0.5288	12.62	725	0.1502	3.584	945	0.001	0.02447
510	0.5643	13.46	730	0.1281	3.057	950	0.0012	0.028
515	0.5943	14.18	735	0.112	2.673	955	0.0015	0.03655
520	0.6219	14.84	740	0.0957	2.283	960	0	0
525	0.6448	15.38	745	0.0829	1.977	965	0	0
530	0.6631	15.82	750	0.0709	1.693	970	0	0
535	0.678	16.18	755	0.0615	1.466	975	0.0011	0.02526
540	0.6924	16.52	760	0.0519	1.238	980	0	0
545	0.7024	16.76	765	0.0452	1.078	985	0	0
550	0.7114	16.97	770	0.0385	0.919	990	0.0044	0.104
555	0.7193	17.16	775	0.0329	0.7846	995	0	0
560	0.7247	17.29	780	0.0283	0.6764	1000	0	0
565	0.7295	17.41	785	0.0238	0.567			

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

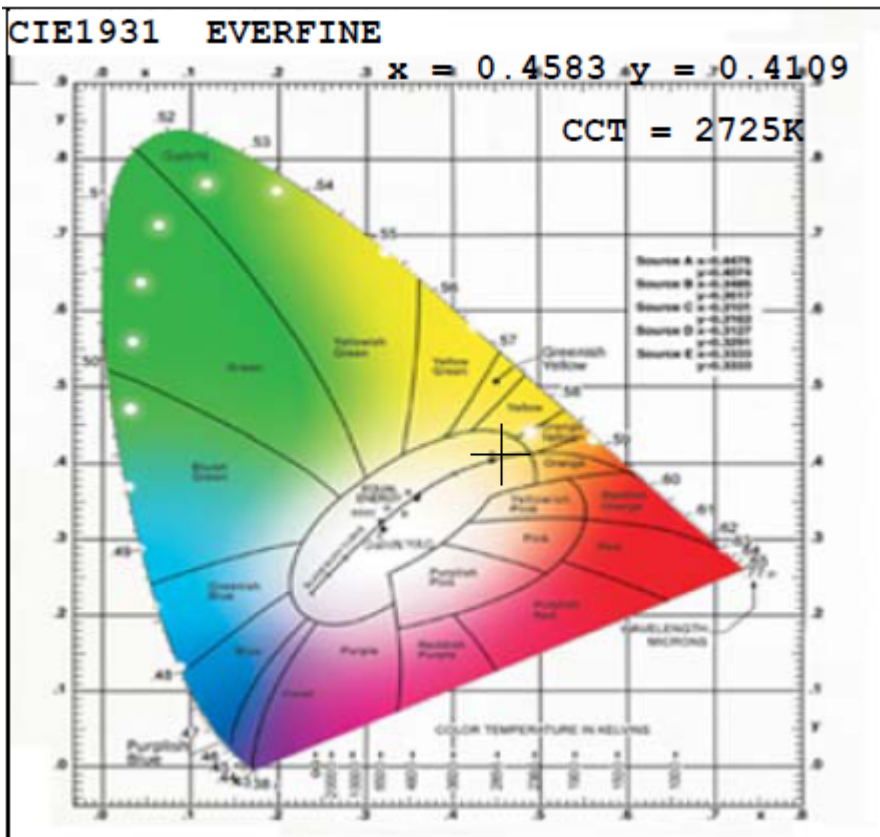
1.2.2.5 5000K

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	0.0109	0.3531	570	0.5554	18.04	790	0.0135	0.4389
355	0.0074	0.2389	575	0.5487	17.82	795	0.0118	0.382
360	0.0037	0.119	580	0.545	17.7	800	0.01	0.3262
365	0.0032	0.1042	585	0.5412	17.58	805	0.0083	0.2708
370	0.0019	0.06121	590	0.5381	17.47	810	0.0071	0.2311
375	0.0019	0.06212	595	0.5377	17.46	815	0.0066	0.2142
380	0.0016	0.05088	600	0.54	17.54	820	0.0057	0.185
385	0.001	0.03349	605	0.5438	17.66	825	0.0046	0.1504
390	0.0011	0.03697	610	0.5428	17.63	830	0.0039	0.1279
395	0.001	0.03279	615	0.5443	17.68	835	0.0037	0.1199
400	0.0013	0.04258	620	0.5442	17.67	840	0.003	0.09836
405	0.0016	0.05142	625	0.5382	17.48	845	0.0022	0.07276
410	0.0034	0.109	630	0.5305	17.23	850	0.0023	0.0763
415	0.0085	0.2748	635	0.5202	16.9	855	0.0022	0.07247
420	0.019	0.6178	640	0.5035	16.35	860	0.0016	0.05085
425	0.0382	1.241	645	0.4861	15.79	865	0.0015	0.0498
430	0.0728	2.363	650	0.4627	15.03	870	0.0015	0.04929
435	0.1356	4.405	655	0.4361	14.16	875	0.0008	0.02692
440	0.2448	7.951	660	0.408	13.25	880	0.001	0.032
445	0.4501	14.62	665	0.3799	12.34	885	0.0007	0.02325
450	0.7851	25.5	670	0.3493	11.34	890	0	0
455	0.9996	32.46	675	0.3202	10.4	895	0.0008	0.02511
460	0.84	27.28	680	0.2893	9.396	900	0.0008	0.02611
465	0.6659	21.63	685	0.2611	8.481	905	0.0002	0.008005
470	0.5741	18.65	690	0.2339	7.597	910	0.0007	0.02351
475	0.4633	15.05	695	0.2089	6.784	915	0.0001	0.003539
480	0.3903	12.68	700	0.1849	6.006	920	0.0006	0.02073
485	0.3749	12.17	705	0.1637	5.317	925	0.0005	0.01499
490	0.3821	12.41	710	0.1427	4.633	930	0	0
495	0.3965	12.88	715	0.1251	4.062	935	0	0
500	0.4243	13.78	720	0.1099	3.568	940	0	0
505	0.4551	14.78	725	0.0947	3.074	945	0.0002	0.007686
510	0.482	15.65	730	0.083	2.697	950	0	0
515	0.5059	16.43	735	0.0714	2.32	955	0.0009	0.02956
520	0.525	17.05	740	0.0632	2.054	960	0	0
525	0.5409	17.57	745	0.0533	1.73	965	0.0004	0.0135
530	0.5548	18.02	750	0.0459	1.491	970	0	0
535	0.5627	18.27	755	0.0399	1.297	975	0	0
540	0.5698	18.51	760	0.0341	1.107	980	0	0
545	0.5722	18.58	765	0.029	0.9416	985	0	0
550	0.5736	18.63	770	0.025	0.8117	990	0.0013	0.04284
555	0.5711	18.55	775	0.0212	0.6881	995	0	0
560	0.5677	18.44	780	0.0183	0.5935	1000	0.0003	0.01005
565	0.562	18.25	785	0.016	0.5205			

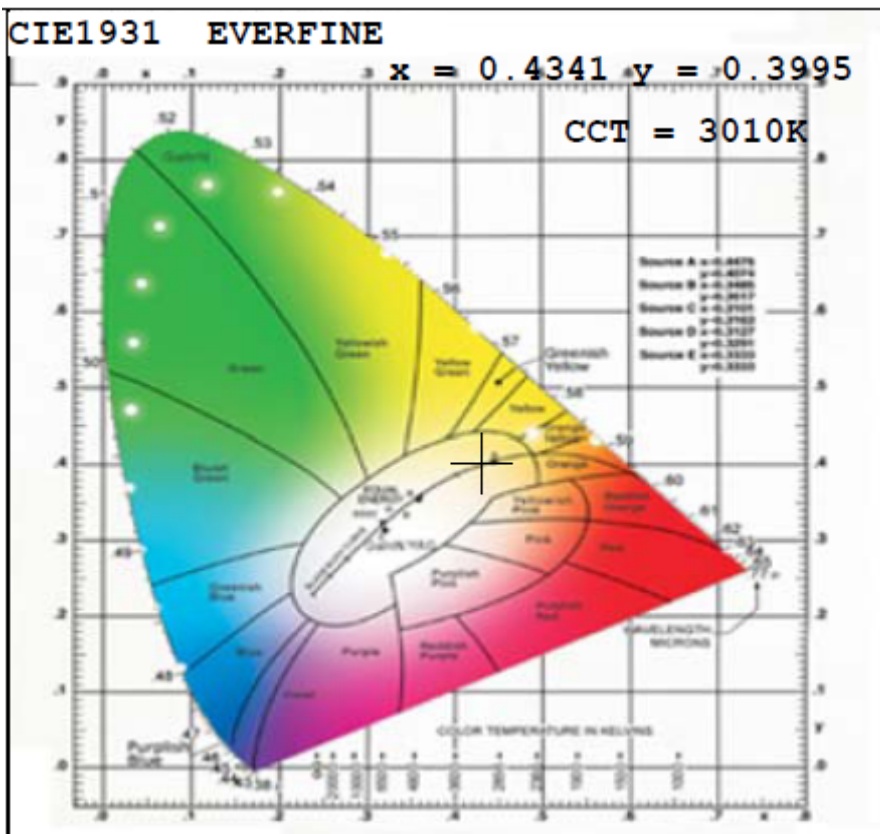
This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

1.2.3 CIE Chromaticity Diagram (sample No.:001)

1.2.3.1 2700K

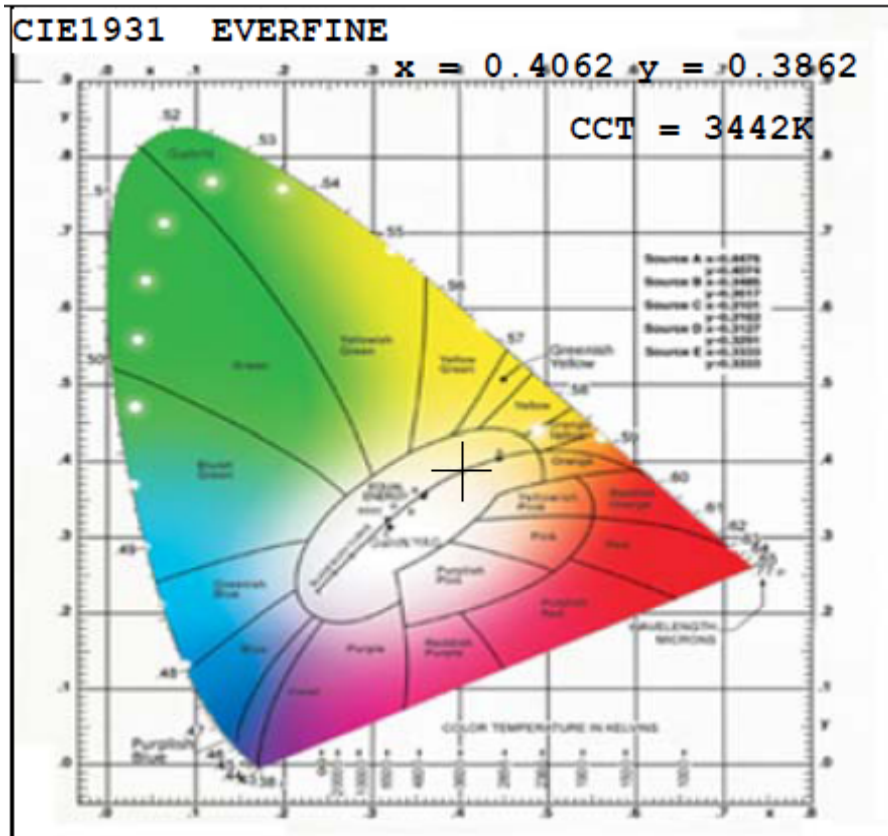


1.2.3.2 3000K

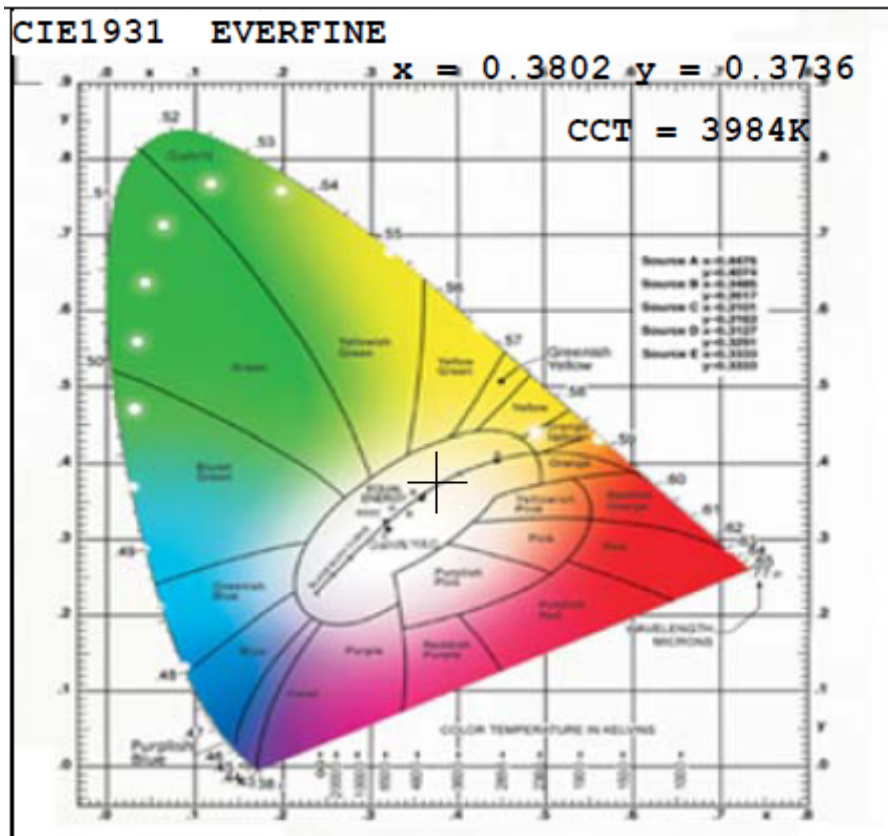


This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

1.2.3.3 3500K

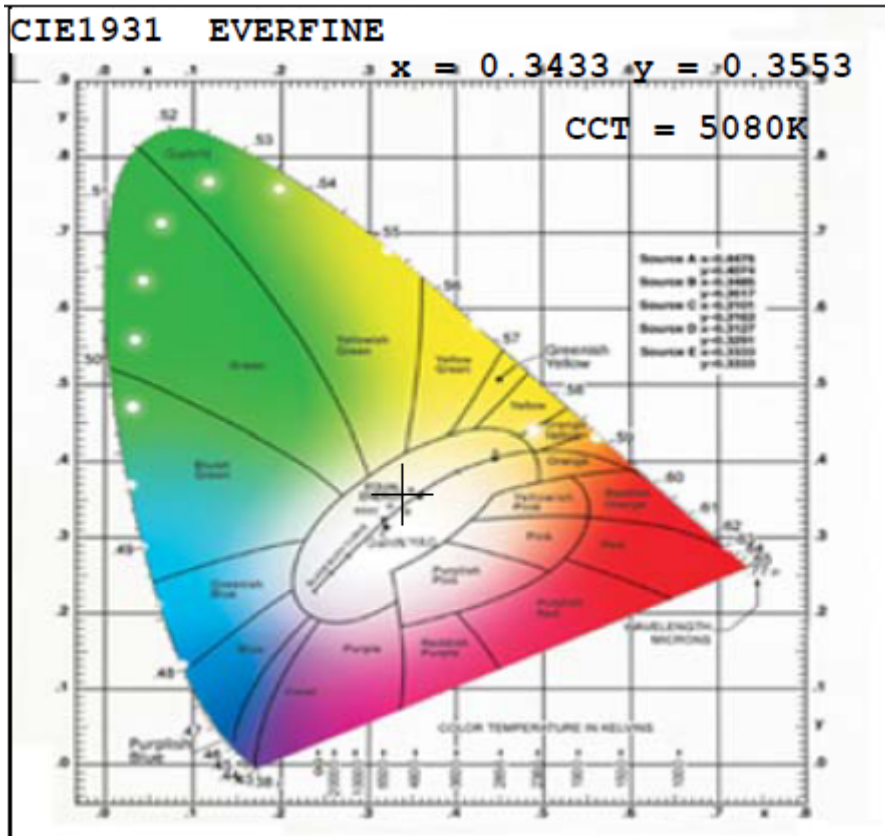


1.2.3.4 4000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

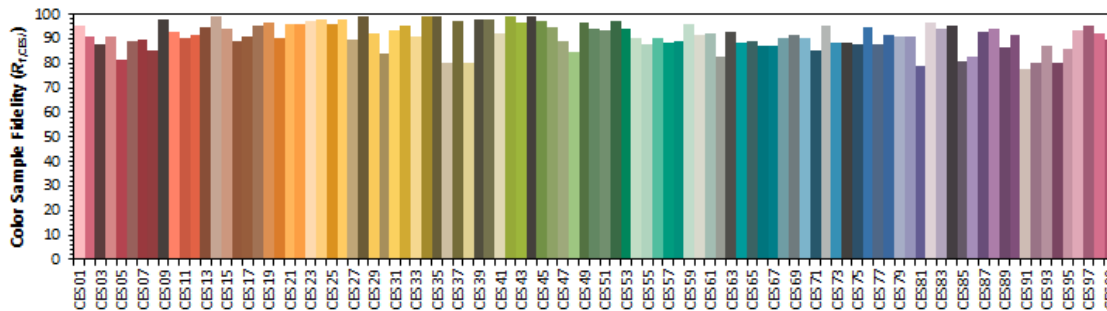
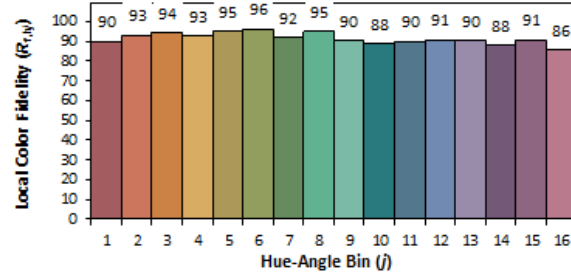
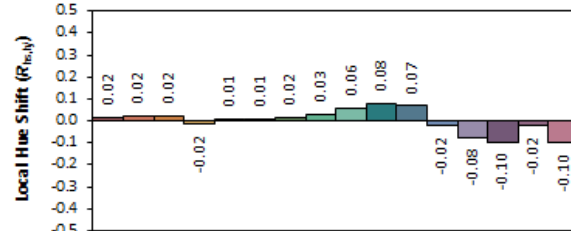
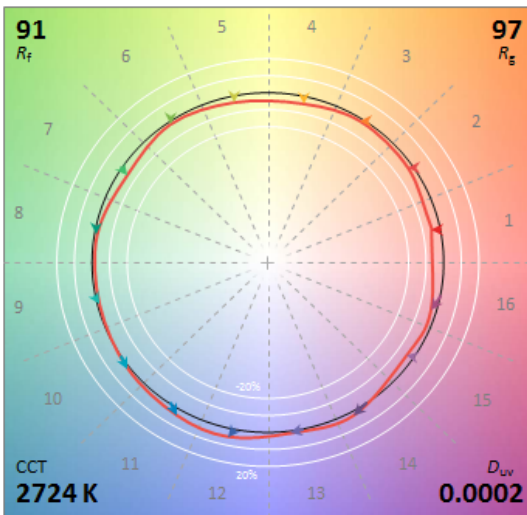
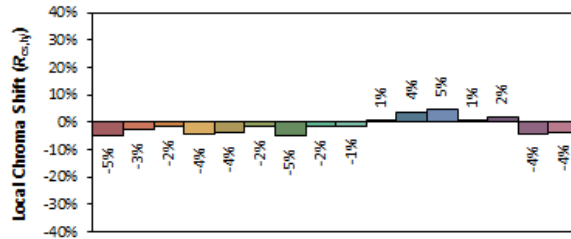
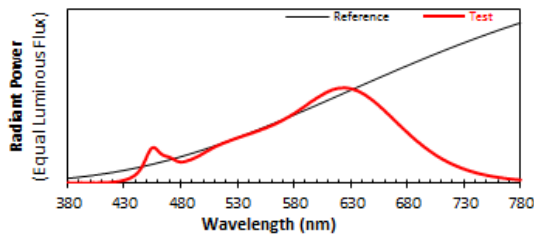
1.2.3.5 5000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

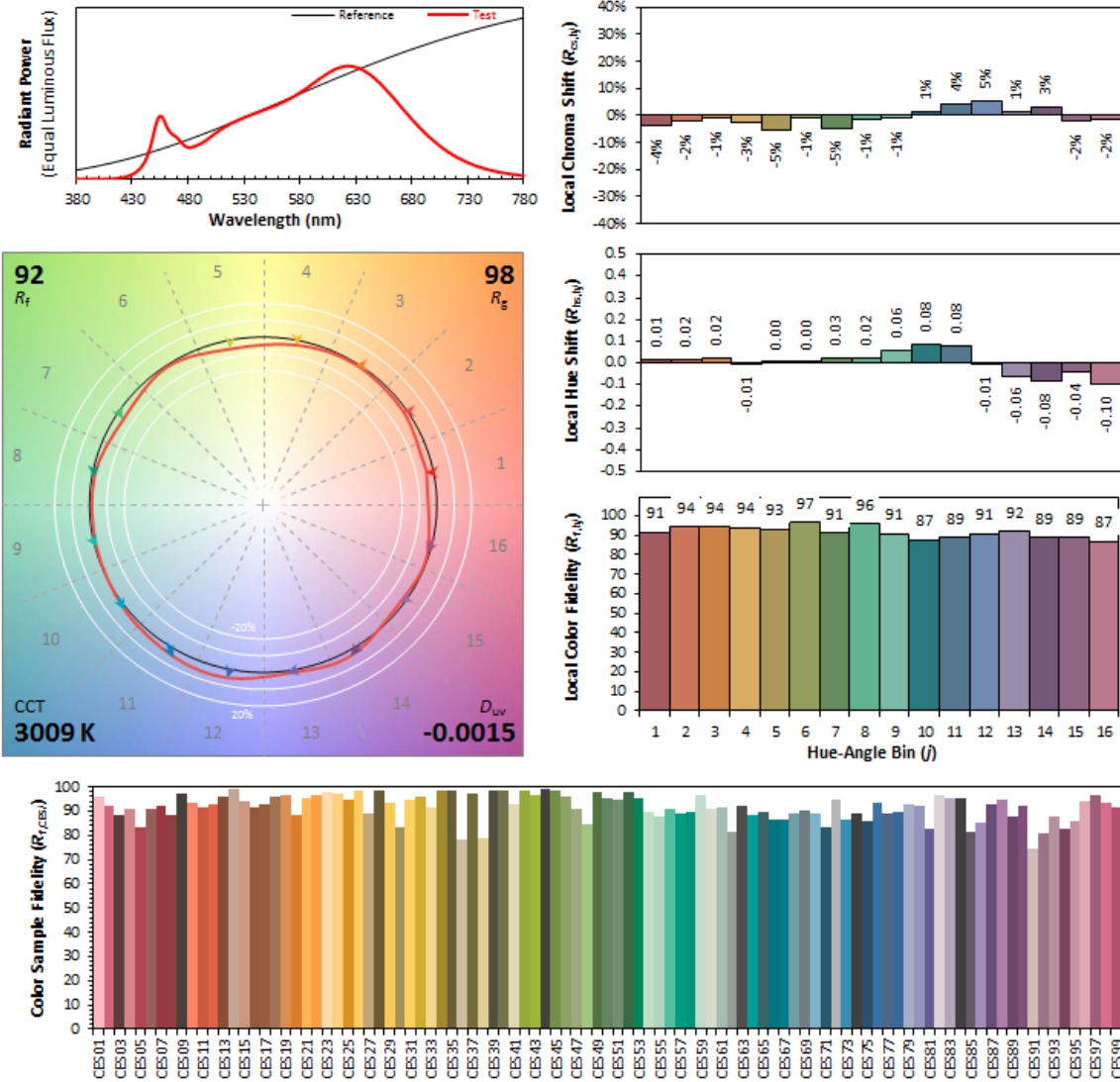
## 1.2.4 The TM-30 value for Color Rendition

### 1.2.4.1 2700K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

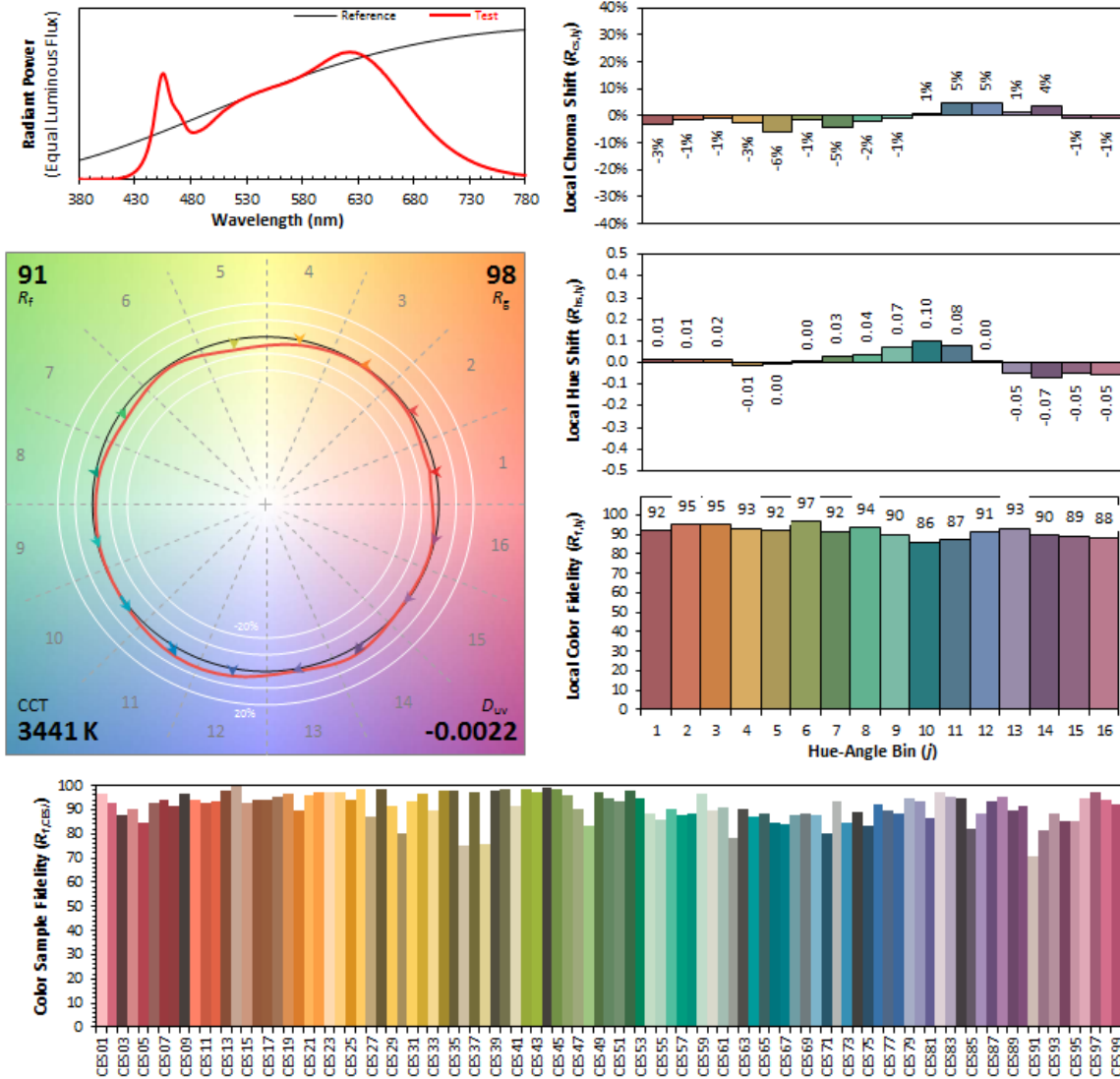
1.2.4.2 3000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

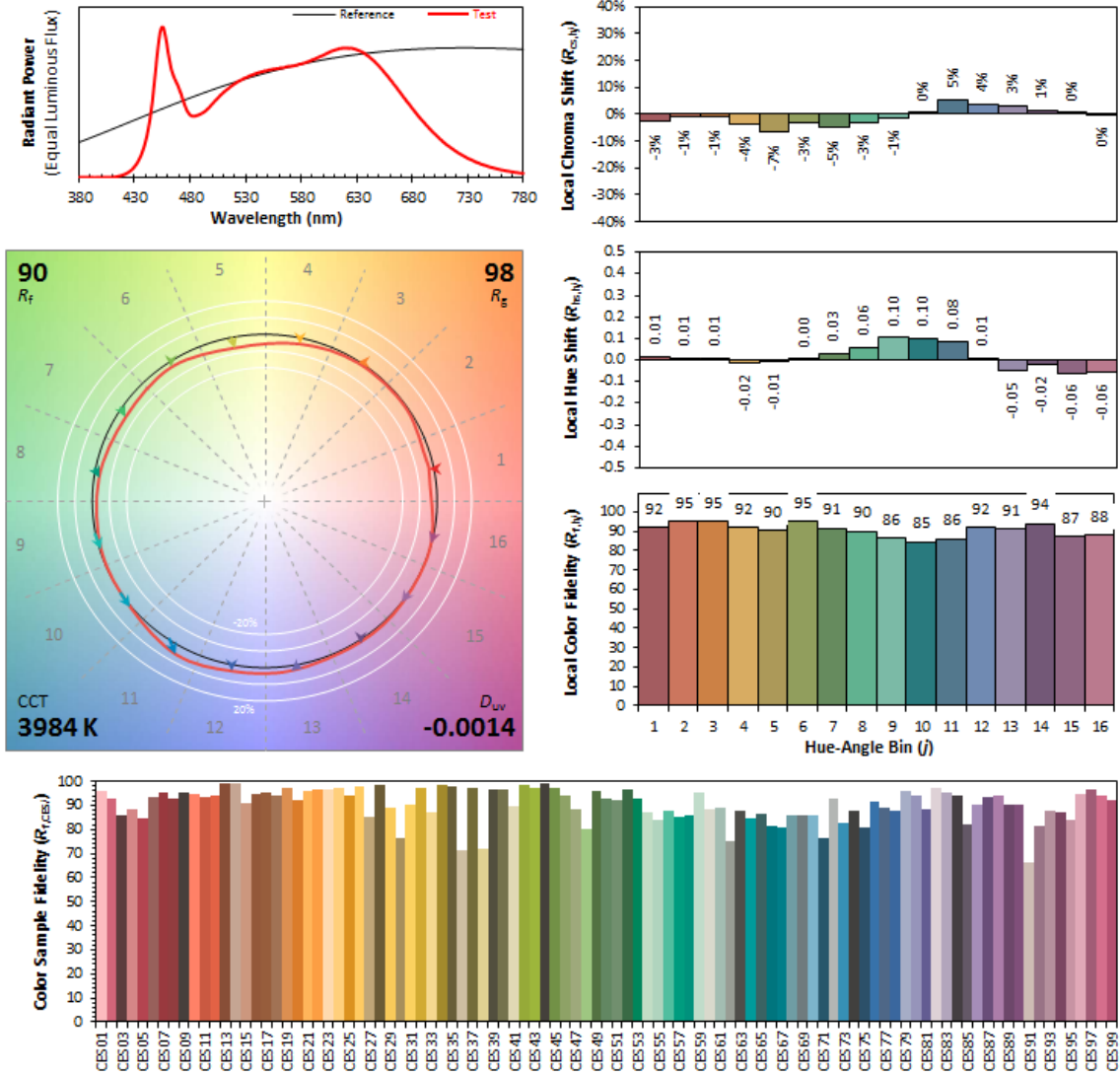


1.2.4.3 3500K



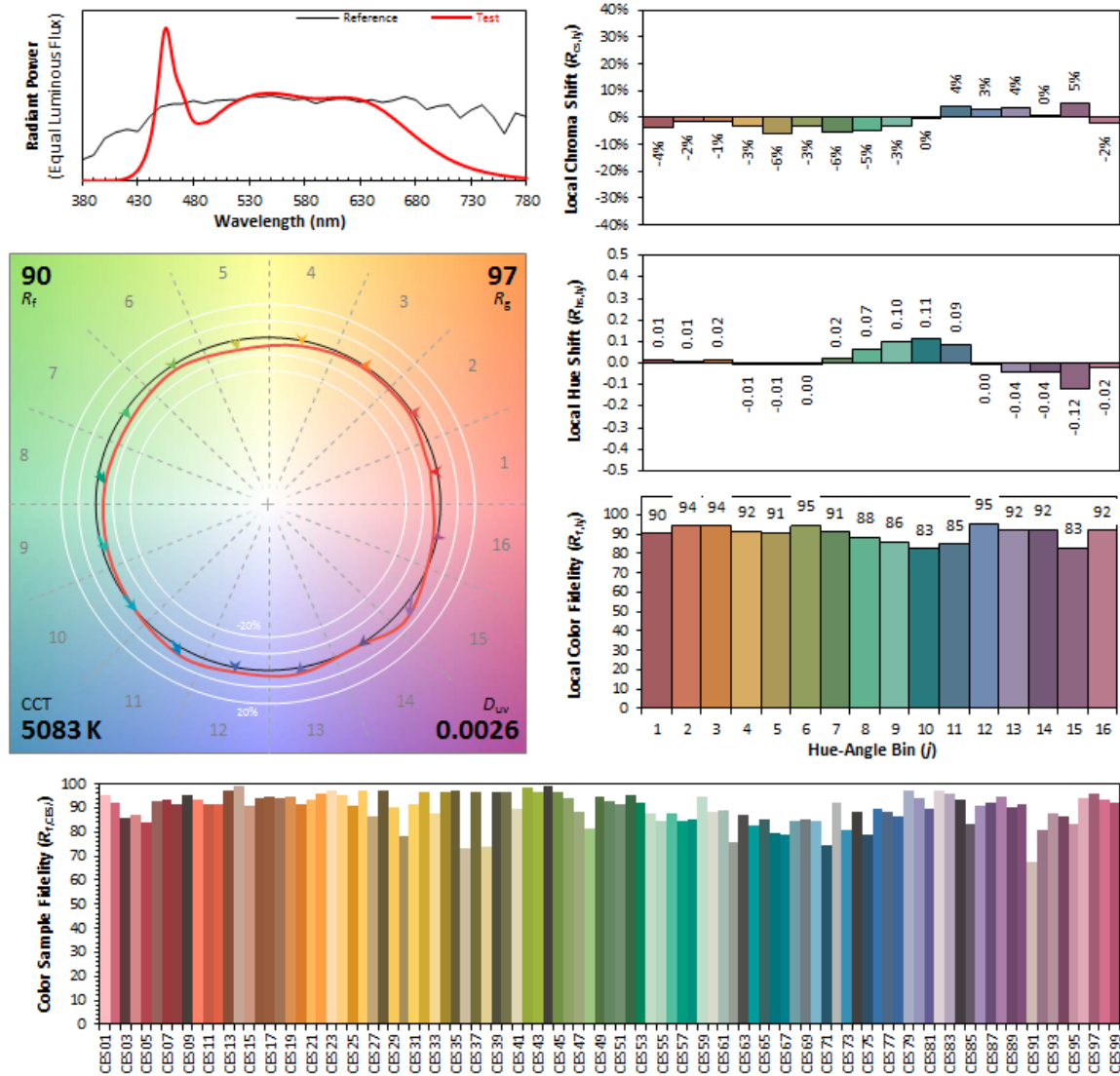
This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

1.2.4.4 4000K



This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

### 1.2.4.5 5000K

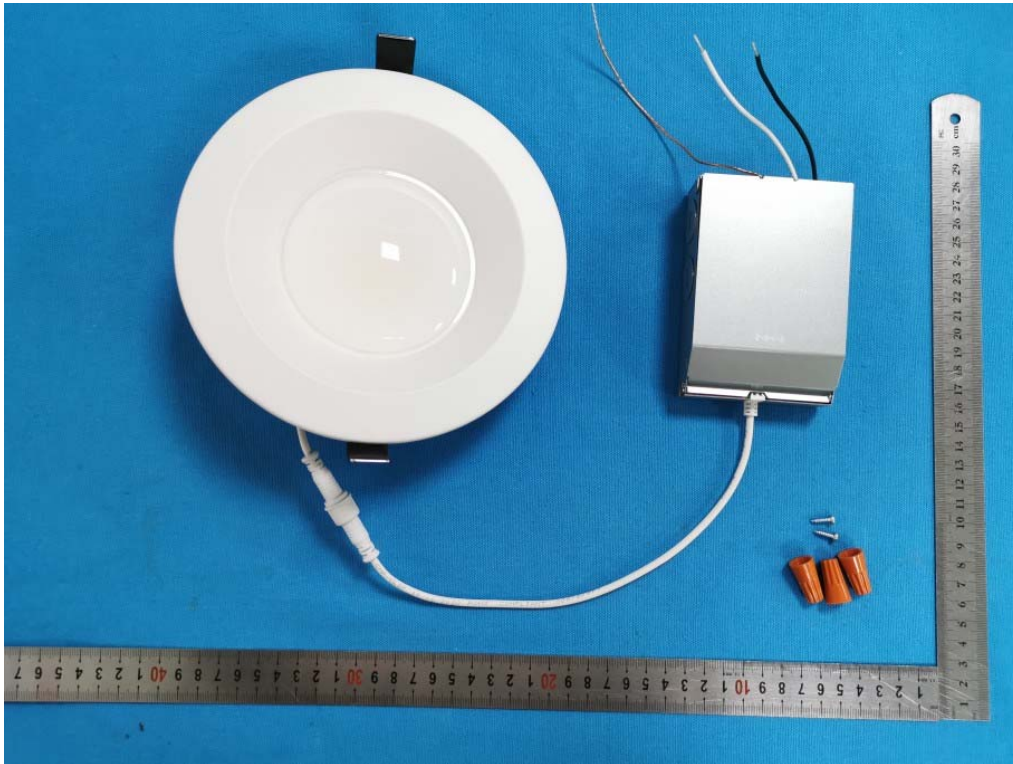


### 1.3 CONCLUSION

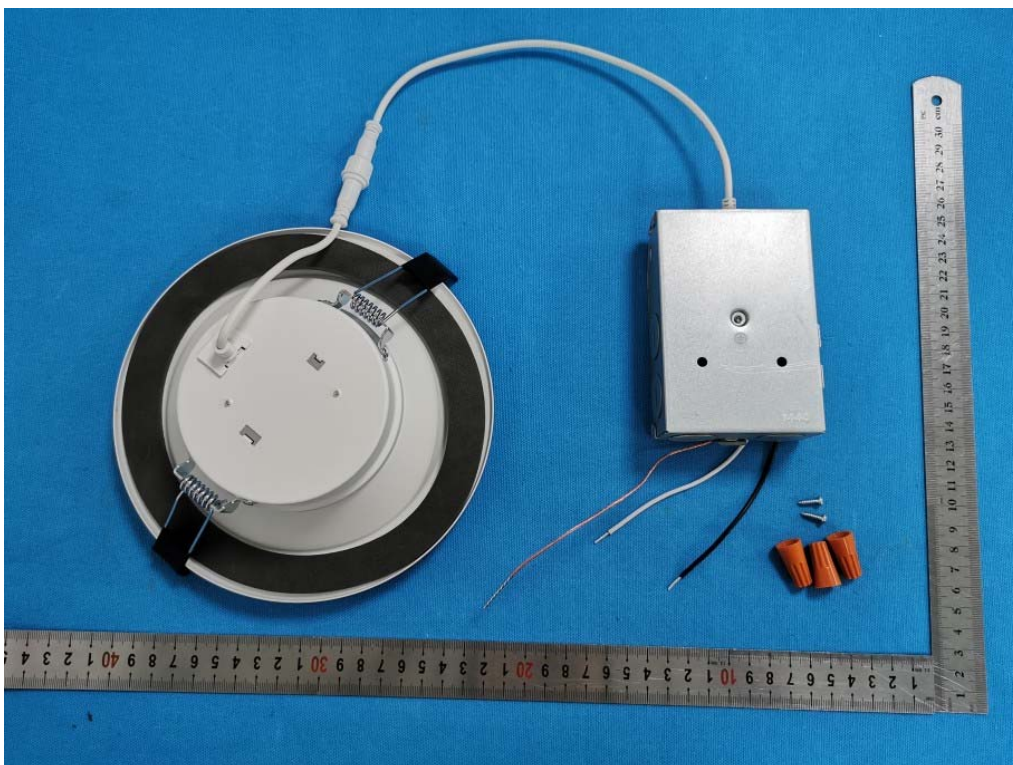
The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.

**ANNEX 1 PICTURE**



**Fig.1 View of sample**



**Fig.2 View of sample**

-----END-----

This test report can't be reproduced except in full, without written approval of the laboratory.  
And this test report only to the items tested.