

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhre
 Product Spec: LED-PL-2G11-I-18-WWM
 Manufacturer: METOLIGHT
 Buyer: 4778

Product Type: LED-PL-Röhre-2G11
 Product Number: 1
 Submitted Unit: 101259

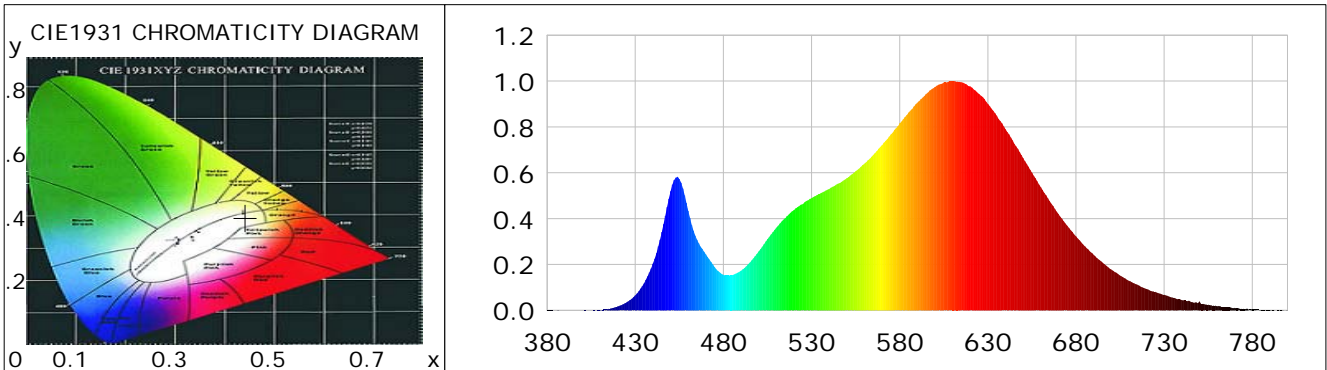
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4420$ $y=0.3957$ $u(u')=0.2576$ $v=0.3459$ $v'=0.5188$
 CCT: $T_c=2847K$ ($duv=-0.00398$) Color Ratio: $R=0.247$ $G=0.730$ $B=0.024$
 Peak Wavelength: 610.8nm Half Bandwidth: 130.7nm
 Dominant Wavelength: 585.0nm Color Purity: 0.514
 CRI: $R_a=85.5$, $avgR(1\sim14)=81.1$, $avgR(1\sim15)=81.0$ TM30: $R_f=85$, $R_g=99$
 GAI: $GAI_BB_8=108.7$, $GAI_BB_15=115.2$, $GAI_EES=57.7$

R1 =85	R2 =93	R3 =96	R4 =84	R5 =85	R6 =92	R7 =83	R8 =65
R9 =24	R10=83	R11=84	R12=75	R13=87	R14=99	R15=79	

Color Quality Scale: $Q_a=83.1$, $Q_f=83.4$, $Q_p=88.1$, $Q_g=96.3$

Q1 =81	Q2 =96	Q3 =81	Q4 =79	Q5 =84	Q6 =85	Q7 =82	Q8 =84
Q9 =96	Q10=88	Q11=85	Q12=83	Q13=83	Q14=77	Q15=78	



Photometric Parameters

Luminous Flux: 1824.0 lm	Efficiency: 97.07 lm/W	Radiant Power: 5.774 W
Total mains efficacy: 114.16 lm/W	Energy Efficiency Class: E (EU 2019/2015)	
Pupil Flux: 2246.07 Plm	Pupil Lumens Per Watt: 119.54 Plm/W	Pupil Factor (Kp): 1.231
Cirtopic Flux: 4076.67 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.0860A	Power: 18.79W
Power Factor: 0.9380	Frequency: 49.99Hz	

Test Information

Scan Range: 380~800:1nm	Photometric Method: sphere-spectroradiometer
Stabilization Time: 0 ms ALC.: 1.0000	Photometric Condition: Sphere diameter: 2.00m, 4PI
Max of Signal: 45694 (2407)	CCD Integration Time: 192.36 ms

Condition: Tx:0.0°C, Ti:0.0°C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-26 12:20:37
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0008	0.0299	525	0.4635	17.8928	670	0.4210	16.2533
385	0.0001	0.0022	530	0.4890	18.8795	675	0.3697	14.2721
390	0.0009	0.0335	535	0.5100	19.6882	680	0.3226	12.4551
395	0.0001	0.0037	540	0.5293	20.4337	685	0.2798	10.8036
400	0.0006	0.0215	545	0.5524	21.3260	690	0.2417	9.3328
405	0.0002	0.0061	550	0.5762	22.2441	695	0.2085	8.0497
410	0.0019	0.0718	555	0.6066	23.4166	700	0.1783	6.8817
415	0.0069	0.2671	560	0.6398	24.7000	705	0.1518	5.8601
420	0.0171	0.6595	565	0.6781	26.1804	710	0.1291	4.9847
425	0.0343	1.3248	570	0.7211	27.8376	715	0.1114	4.3002
430	0.0650	2.5076	575	0.7673	29.6205	720	0.0934	3.6054
435	0.1173	4.5279	580	0.8162	31.5086	725	0.0807	3.1142
440	0.2032	7.8437	585	0.8622	33.2865	730	0.0677	2.6143
445	0.3416	13.1890	590	0.9061	34.9808	735	0.0554	2.1375
450	0.5200	20.0748	595	0.9440	36.4448	740	0.0450	1.7379
455	0.5731	22.1243	600	0.9744	37.6159	745	0.0376	1.4534
460	0.4345	16.7754	605	0.9939	38.3694	750	0.0385	1.4880
465	0.3084	11.9045	610	0.9990	38.5682	755	0.0248	0.9588
470	0.2449	9.4538	615	0.9949	38.4081	760	0.0179	0.6906
475	0.1887	7.2845	620	0.9768	37.7100	765	0.0134	0.5159
480	0.1550	5.9848	625	0.9436	36.4290	770	0.0106	0.4080
485	0.1541	5.9473	630	0.8999	34.7430	775	0.0065	0.2528
490	0.1726	6.6630	635	0.8492	32.7823	780	0.0060	0.2322
495	0.2085	8.0507	640	0.7899	30.4930	785	0.0023	0.0889
500	0.2570	9.9227	645	0.7268	28.0585	790	0.0020	0.0783
505	0.3112	12.0136	650	0.6640	25.6353	795	0.0010	0.0388
510	0.3602	13.9072	655	0.6005	23.1818	800	0.0037	0.1428
515	0.4017	15.5082	660	0.5379	20.7644			
520	0.4377	16.8976	665	0.4774	18.4298			

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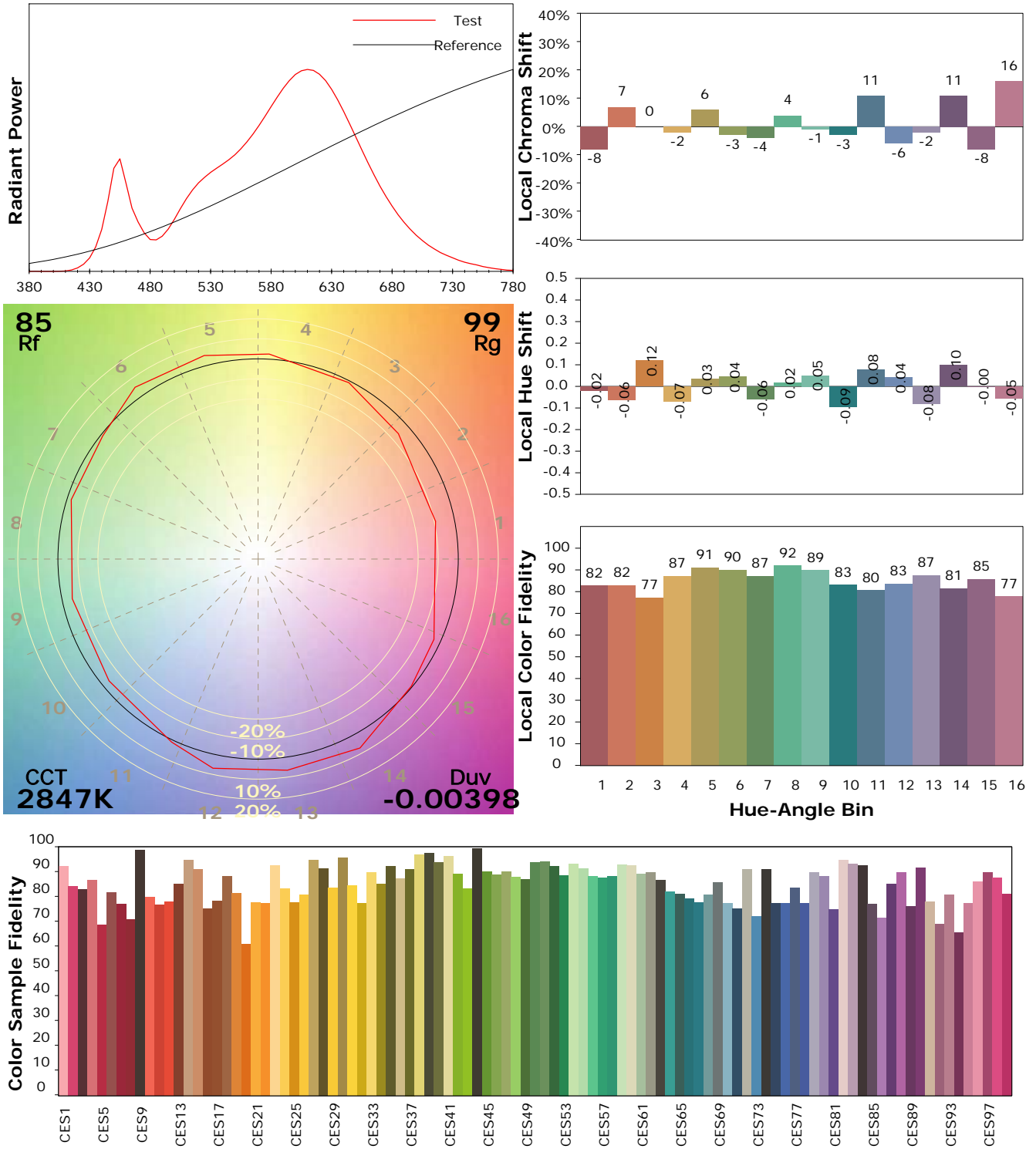
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IES TM-30-18 Color Rendition Report

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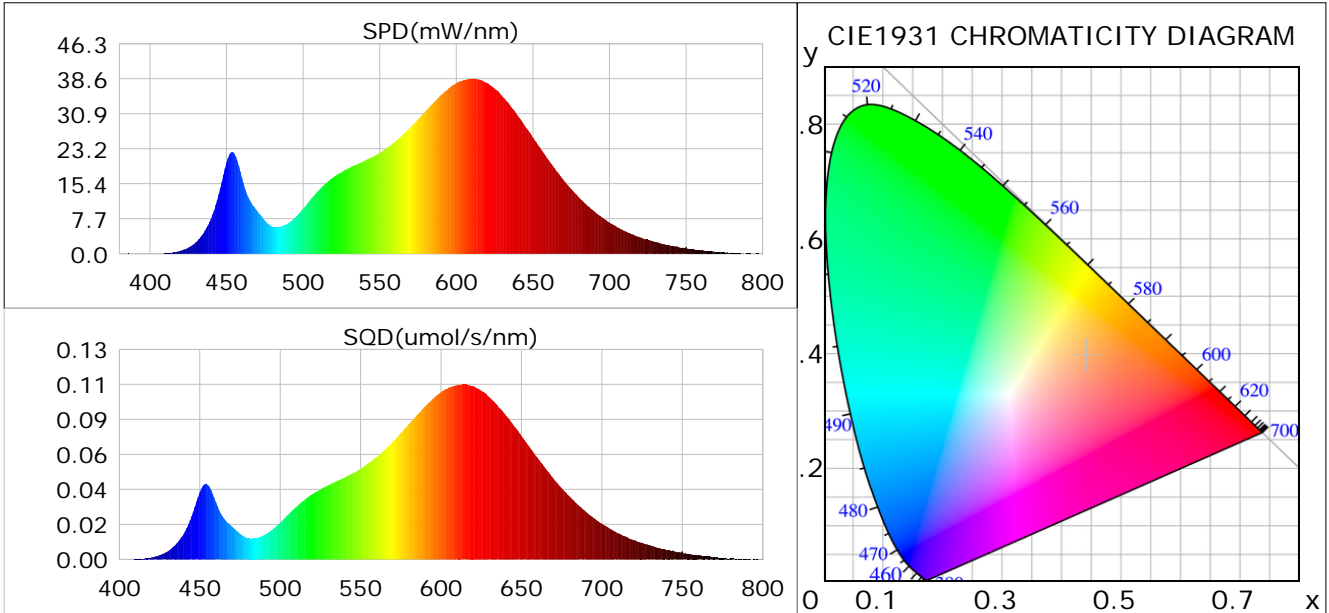
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Plant optical param data

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 Dominant Wavelength: 585.0nm Color Purity: 0.514
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Plant Optical Param

$ \mu_v(lm)$: 1824.00	$Q_v(lm.s)$: 1824.00
$ \mu_e, \dot{E}(W/nm)$: 5.77	$Q_e(J)$: 5.77
$ \mu_e(W)$: 5.59	$ \mu_{fr}(W)$: 0.19
$ \zeta_e$: 0.30	$ \zeta_{fr}$: 0.01
PPE(umol/s/w): 1.44	Kfr: 0.06
Erb_Ratio: 3.28	PPF(umol/s): 27.15
PFuv(360-400)(umol/s): 0.00	PPF(400-500)(umol/s): 2.91
PPF(500-600)(umol/s): 11.07	PPF(600-700)(umol/s): 13.17
PPfr(700-800)(umol/s): 1.12	PPF.t(umol): 27.15
$ \mu_{ch-A.t}(J)$: 0.46	$ \mu_{ch-A}(W)$: 0.46
$ \mu_{ch-B.t}(J)$: 0.23	$ \mu_{ch-B}(W)$: 0.23
$ \mu_b.t(J)$: 0.75	$ \mu_b(W)$: 0.75
$ \mu_y.t(J)$: 2.38	$ \mu_y(W)$: 2.38
$ \mu_r.t(J)$: 2.51	$ \mu_r(W)$: 2.51

Electric Parameters

Voltage: 230.80V	Current: 0.0860A	Power: 18.79W
Power Factor: 0.9380	Frequency: 49.99Hz	

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