

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhre
 Product Spec: LED-PL-2G10-4-15W-WWM
 Manufacturer: METOLIGHT
 Buyer: 3258

Product Type: LED-PL-Röhren-2G10
 Product Number: 1
 Submitted Unit: 103393

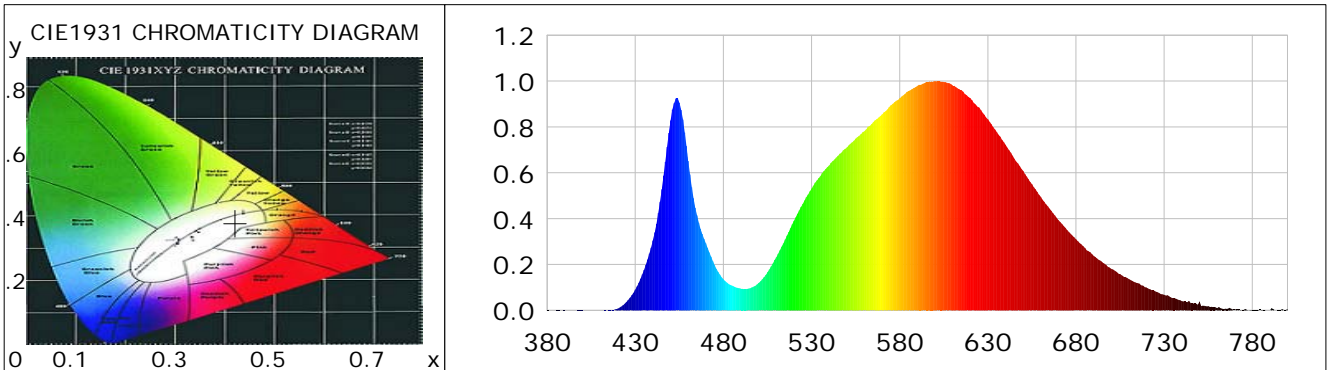
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4215$ $y=0.3790$ $u(u')=0.2515$ $v=0.3391$ $v'=0.5087$
 CCT: $T_c=3062K$ ($duv=-0.00819$) Color Ratio: $R=0.222$ $G=0.757$ $B=0.021$
 Peak Wavelength: 600.1nm Half Bandwidth: 132.0nm
 Dominant Wavelength: 586.2nm Color Purity: 0.403
 CRI: $R_a=76.3$, $avgR(1\sim14)=68.5$, $avgR(1\sim15)=68.8$ TM30: $R_f=74$, $R_g=98$
 GAI: $GAI_BB_8=113.3$, $GAI_BB_15=121.3$, $GAI_EES=67.0$

R1 =75	R2 =86	R3 =91	R4 =70	R5 =73	R6 =78	R7 =80	R8 =57
R9 =2	R10=63	R11=62	R12=50	R13=78	R14=94	R15=73	

Color Quality Scale: $Q_a=71.9$, $Q_f=70.5$, $Q_p=79.1$, $Q_g=95.4$

Q1 =77	Q2 =96	Q3 =63	Q4 =58	Q5 =67	Q6 =70	Q7 =70	Q8 =77
Q9 =93	Q10=77	Q11=71	Q12=70	Q13=74	Q14=69	Q15=72	



Photometric Parameters

Luminous Flux: 1272.5 lm	Efficiency: 84.95 lm/W	Radiant Power: 3.926 W
Total mains efficacy: 99.90 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 1545.35 Plm	Pupil Lumens Per Watt: 103.16 Plm/W	Pupil Factor (Kp): 1.214
Cirtopic Flux: 2792.79 lm		

Electric Parameters

Voltage: 231.00V	Current: 0.0710A	Power: 14.98W
Power Factor: 0.9090	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: 47050 (2406)	CCD Integration Time: 308.15 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-05 09:57:00
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0016	0.0401	525	0.4645	11.6510	670	0.3940	9.8814
385	0.0011	0.0281	530	0.5308	13.3146	675	0.3498	8.7743
390	0.0011	0.0281	535	0.5856	14.6883	680	0.3106	7.7914
395	0.0000	0.0002	540	0.6324	15.8619	685	0.2724	6.8331
400	0.0008	0.0201	545	0.6738	16.9015	690	0.2378	5.9641
405	0.0001	0.0028	550	0.7105	17.8203	695	0.2089	5.2403
410	0.0003	0.0081	555	0.7490	18.7862	700	0.1810	4.5405
415	0.0015	0.0367	560	0.7812	19.5954	705	0.1581	3.9652
420	0.0075	0.1879	565	0.8211	20.5953	710	0.1361	3.4146
425	0.0369	0.9256	570	0.8550	21.4460	715	0.1193	2.9920
430	0.0901	2.2601	575	0.8943	22.4325	720	0.0996	2.4993
435	0.1765	4.4272	580	0.9252	23.2059	725	0.0826	2.0726
440	0.3050	7.6507	585	0.9566	23.9936	730	0.0678	1.7002
445	0.5281	13.2463	590	0.9789	24.5530	735	0.0533	1.3375
450	0.8283	20.7768	595	0.9951	24.9600	740	0.0411	1.0310
455	0.9061	22.7285	600	1.0000	25.0829	745	0.0316	0.7924
460	0.6516	16.3439	605	0.9966	24.9987	750	0.0381	0.9565
465	0.4141	10.3863	610	0.9813	24.6131	755	0.0183	0.4600
470	0.2929	7.3472	615	0.9608	24.1006	760	0.0105	0.2624
475	0.1971	4.9443	620	0.9258	23.2219	765	0.0080	0.2005
480	0.1356	3.4015	625	0.8849	22.1964	770	0.0038	0.0950
485	0.1078	2.7046	630	0.8333	20.9023	775	0.0017	0.0432
490	0.0944	2.3678	635	0.7777	19.5076	780	0.0025	0.0637
495	0.0962	2.4139	640	0.7219	18.1070	785	0.0037	0.0918
500	0.1195	2.9966	645	0.6618	16.6009	790	0.0010	0.0252
505	0.1665	4.1772	650	0.6083	15.2570	795	0.0014	0.0346
510	0.2324	5.8292	655	0.5502	13.8012	800	0.0071	0.1782
515	0.3086	7.7399	660	0.4954	12.4270			
520	0.3908	9.8015	665	0.4436	11.1273			

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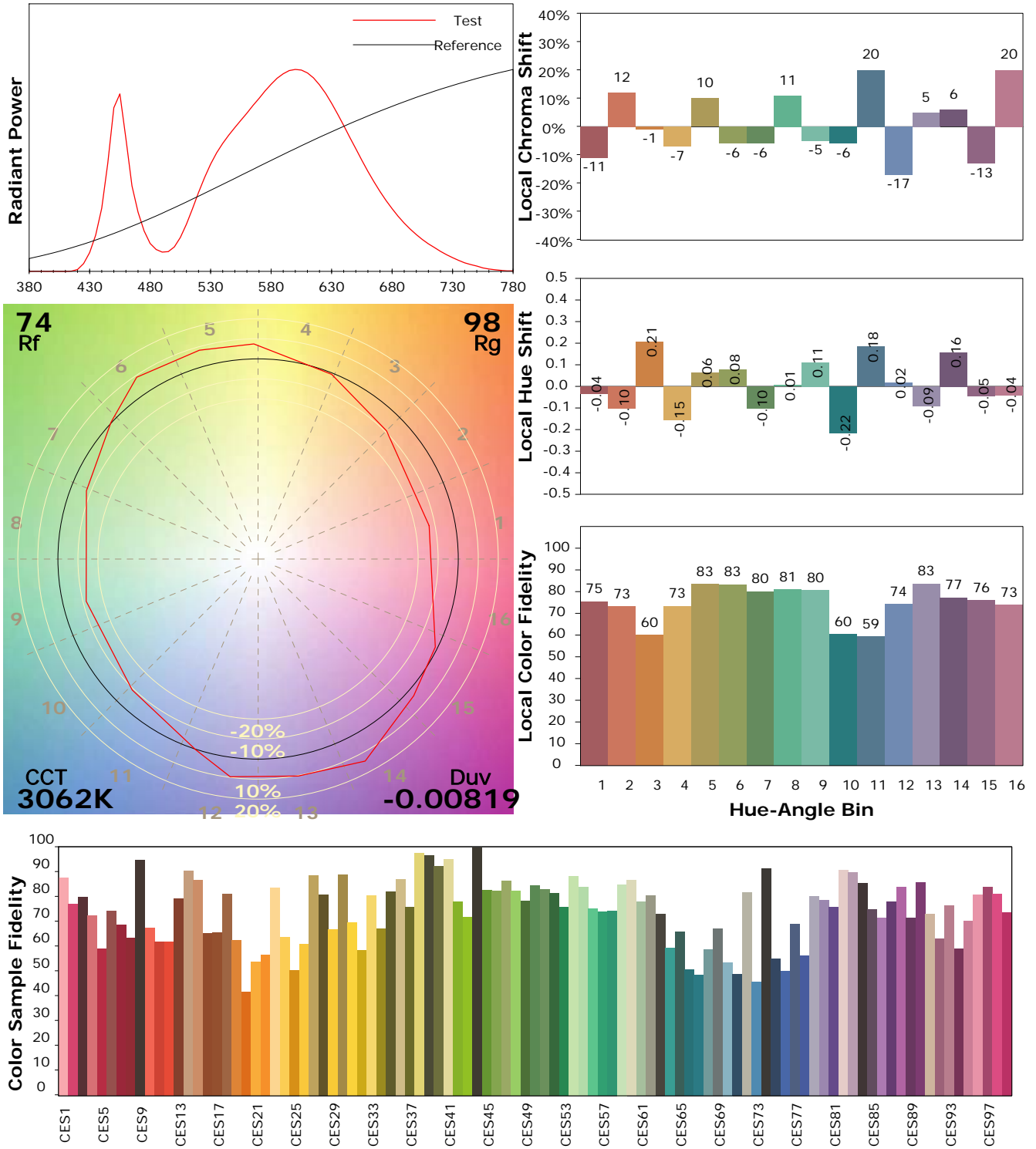
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IES TM-30-18 Color Rendition Report

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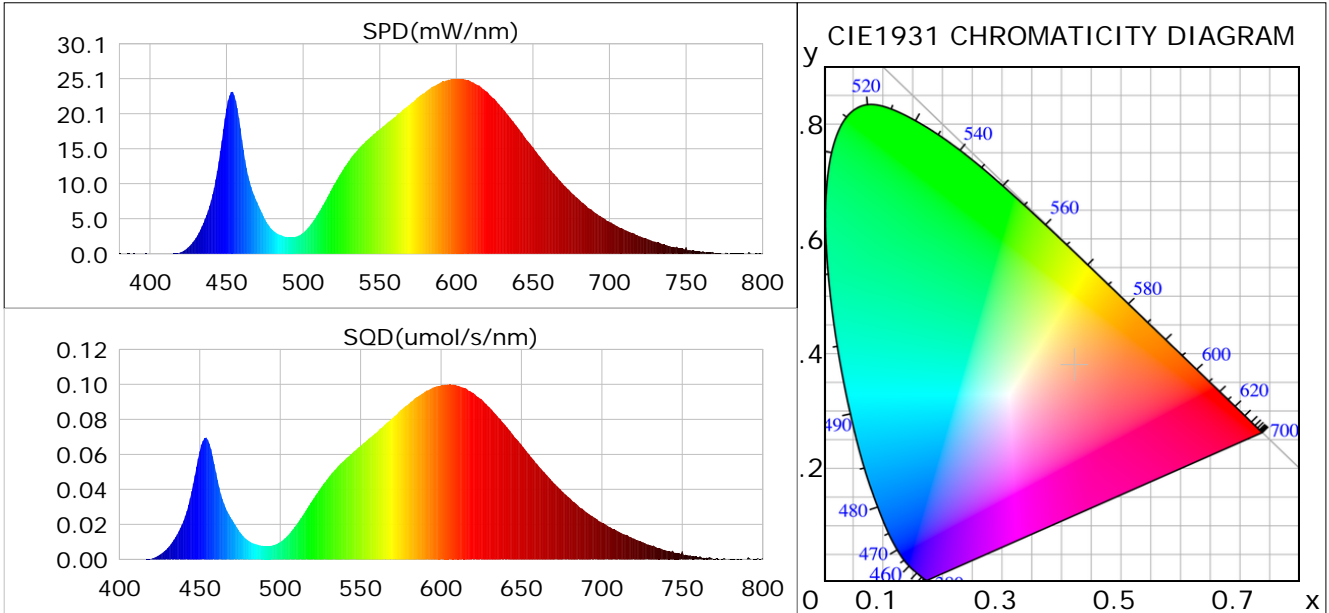
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Test Device: Lisun LMS-9000B
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 Inspector:

Plant optical param data

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 Dominant Wavelength: 586.2nm Color Purity: 0.403
 CRI: $R_a=76.3$



Plant Optical Param

$ \mu_v(lm): 1272.52$	$Q_v(lm.s): 1272.52$
$ \mu_e, \dot{E}(W/nm): 3.93$	$Q_e(J): 3.93$
$ \mu_e(W): 3.81$	$ \mu_{fr}(W): 0.12$
$ \zeta_e: 0.25$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.22$	$K_{fr}: 0.05$
$Erb_Ratio: 2.45$	$PPF(umol/s): 18.30$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 2.37$
$PPF(500-600)(umol/s): 7.84$	$PPF(600-700)(umol/s): 8.10$
$PPF_{fr}(700-800)(umol/s): 0.72$	$PPF.t(umol): 18.30$
$ \mu_{ch-A.t}(J): 0.32$	$ \mu_{ch-A}(W): 0.32$
$ \mu_{ch-B.t}(J): 0.17$	$ \mu_{ch-B}(W): 0.17$
$ \mu_b.t(J): 0.62$	$ \mu_b(W): 0.62$
$ \mu_y.t(J): 1.67$	$ \mu_y(W): 1.67$
$ \mu_r.t(J): 1.54$	$ \mu_r(W): 1.54$

Electric Parameters

Voltage: 231.00V	Current: 0.0710A	Power: 14.98W
Power Factor: 0.9090	Frequency: 49.99Hz	

Condition: $T_x:0.0^\circ C$, $T_i:0.0^\circ C$, R.H.: 60%
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