

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G24D-08-NW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G24
 Product Number: 1
 Submitted Unit: 101993

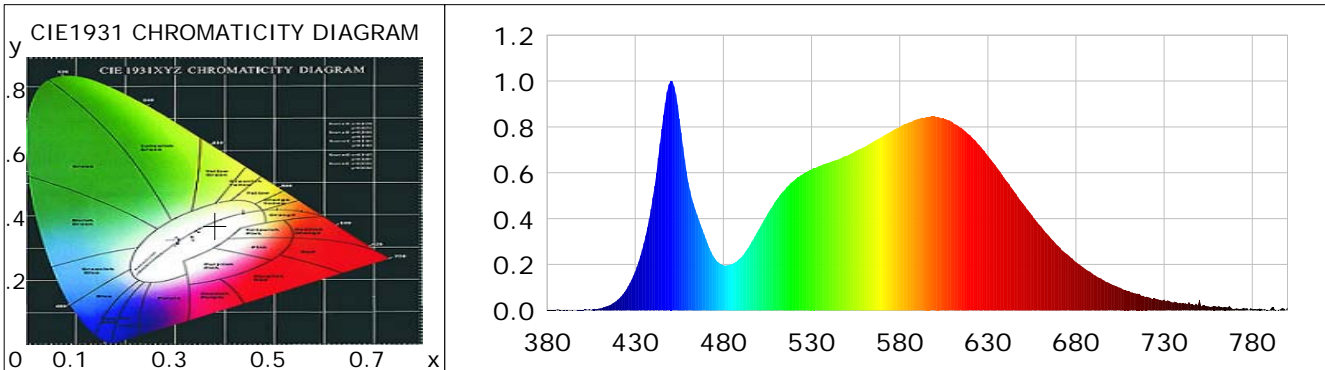
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3809$ $y=0.3708$ $u(u')=0.2278$ $v=0.3326$ $v'=0.4990$
 CCT: $T_c=3942K$ ($duv=-0.00297$) Color Ratio: $R=0.190$ $G=0.778$ $B=0.033$
 Peak Wavelength: 450.4nm Half Bandwidth: 21.6nm
 Dominant Wavelength: 581.0nm Color Purity: 0.256
 CRI: $R_a=83.9$, $avgR(1\sim14)=77.7$, $avgR(1\sim15)=77.8$ TM30: $R_f=83$, $R_g=98$
 GAI: $GAI_BB_8=99.2$, $GAI_BB_15=104.9$, $GAI_EES=77.3$

R1 =83	R2 =89	R3 =92	R4 =84	R5 =83	R6 =85	R7 =86	R8 =69
R9 =19	R10=73	R11=83	R12=63	R13=85	R14=95	R15=79	

Color Quality Scale: $Q_a=82.5$, $Q_f=81.9$, $Q_p=84.4$, $Q_g=95.9$

Q1 =84	Q2 =98	Q3 =76	Q4 =75	Q5 =82	Q6 =84	Q7 =85	Q8 =89
Q9 =96	Q10=86	Q11=83	Q12=83	Q13=84	Q14=75	Q15=78	



Photometric Parameters

Luminous Flux: 671.76 lm Efficiency: 85.57 lm/W Radiant Power: 2.071 W
 Total mains efficacy: 100.64 lm/W Energy Efficiency Class: F (EU 2019/2015)
 Pupil Flux: 995.40 Plm Pupil Lumens Per Watt: 126.80 Plm/W Pupil Factor (Kp): 1.482
 Circopic Flux: 1991.22 lm

Electric Parameters

Voltage: 231.00V Current: 0.0360A Power: 7.85W
 Power Factor: 0.9340 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: 45299 (2660) CCD Integration Time: 387.28 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 14:23:47
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0022	0.0302	525	0.5939	8.2001	670	0.2802	3.8685
385	0.0028	0.0382	530	0.6142	8.4809	675	0.2447	3.3785
390	0.0031	0.0431	535	0.6304	8.7051	680	0.2107	2.9098
395	0.0006	0.0078	540	0.6448	8.9037	685	0.1819	2.5123
400	0.0032	0.0435	545	0.6580	9.0862	690	0.1553	2.1445
405	0.0021	0.0286	550	0.6743	9.3109	695	0.1335	1.8438
410	0.0086	0.1192	555	0.6952	9.5999	700	0.1141	1.5752
415	0.0216	0.2977	560	0.7124	9.8368	705	0.0990	1.3665
420	0.0466	0.6429	565	0.7360	10.1626	710	0.0846	1.1682
425	0.0916	1.2645	570	0.7571	10.4544	715	0.0729	1.0065
430	0.1696	2.3419	575	0.7792	10.7598	720	0.0598	0.8258
435	0.2941	4.0609	580	0.7997	11.0425	725	0.0523	0.7217
440	0.4928	6.8040	585	0.8185	11.3012	730	0.0468	0.6460
445	0.7912	10.9244	590	0.8341	11.5170	735	0.0336	0.4645
450	1.0000	13.8080	595	0.8429	11.6383	740	0.0300	0.4146
455	0.8364	11.5486	600	0.8455	11.6746	745	0.0265	0.3654
460	0.5591	7.7205	605	0.8370	11.5566	750	0.0457	0.6316
465	0.4177	5.7674	610	0.8204	11.3276	755	0.0180	0.2488
470	0.3120	4.3074	615	0.7959	10.9891	760	0.0152	0.2099
475	0.2280	3.1481	620	0.7635	10.5422	765	0.0146	0.2019
480	0.1965	2.7135	625	0.7212	9.9577	770	0.0070	0.0962
485	0.2022	2.7918	630	0.6743	9.3102	775	0.0110	0.1514
490	0.2298	3.1725	635	0.6239	8.6150	780	0.0068	0.0940
495	0.2839	3.9198	640	0.5692	7.8601	785	0.0073	0.1005
500	0.3521	4.8614	645	0.5173	7.1431	790	0.0028	0.0387
505	0.4197	5.7950	650	0.4648	6.4182	795	0.0018	0.0244
510	0.4804	6.6332	655	0.4148	5.7281	800	0.0133	0.1832
515	0.5275	7.2835	660	0.3676	5.0761			
520	0.5661	7.8171	665	0.3211	4.4343			

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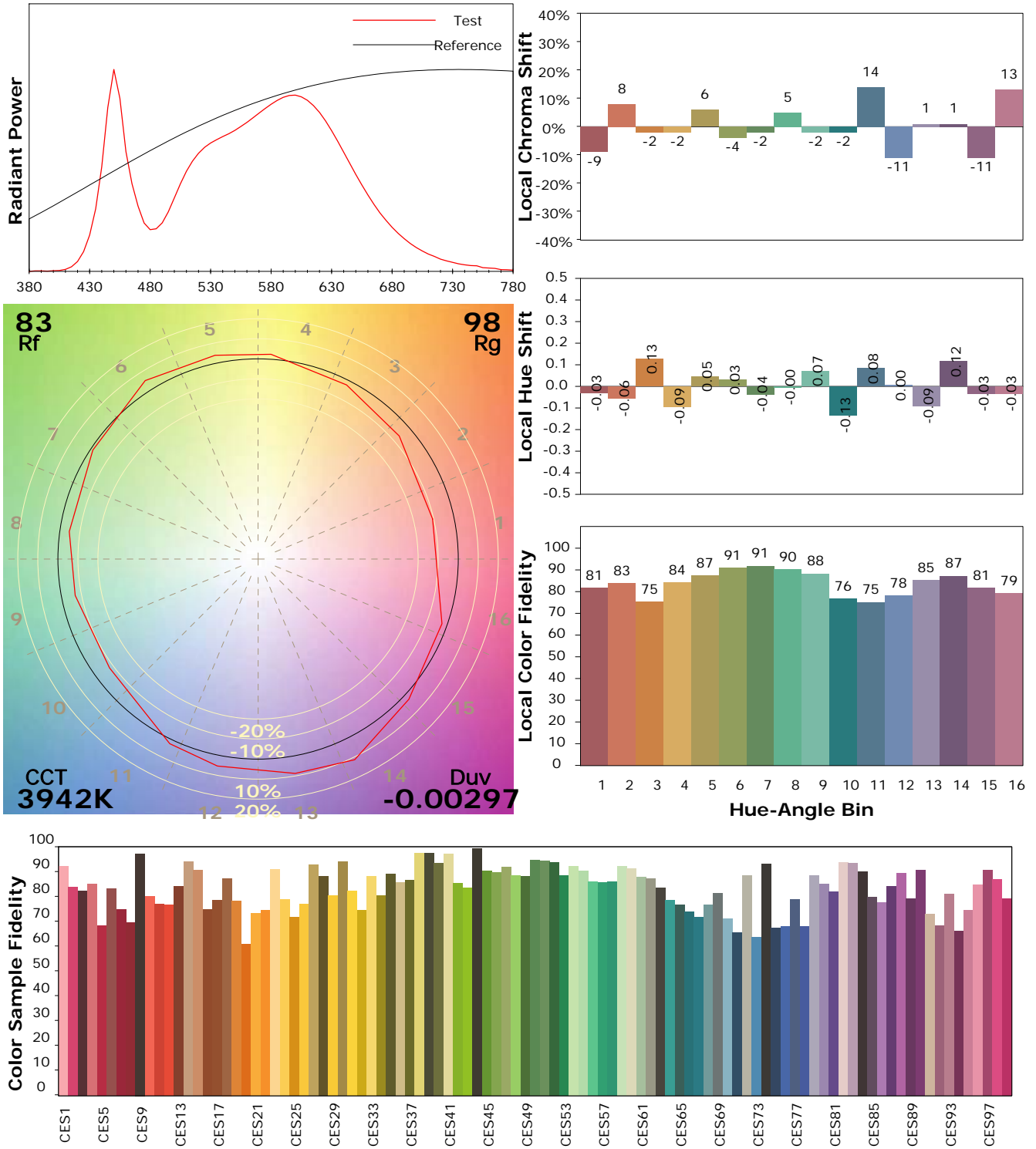
Test Device: Lisun LMS-9000B
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 Inspector:

IES TM-30-18 Color Rendition Report

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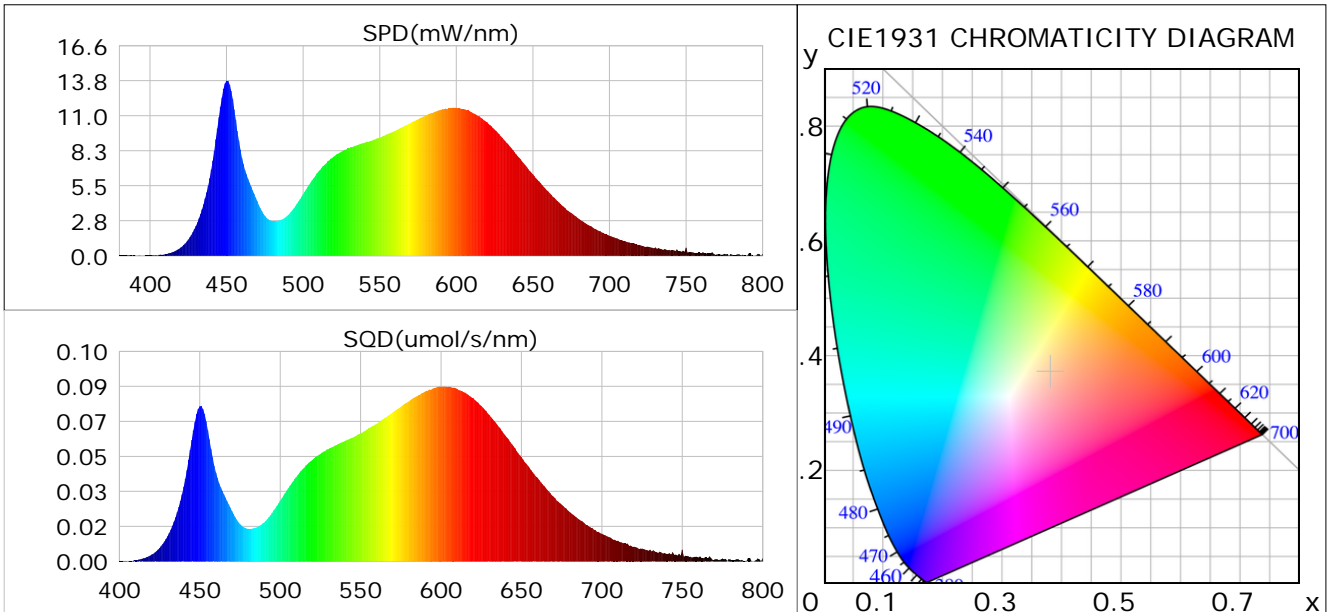
Condition: Tx:0.0°C, Ti:0.0°C, R.H.: 60%
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 Operator: CRE

Test Device: Lisun LMS-9000B
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 Inspector:

Plant optical param data

CIE Colorimetric Parameters

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 Dominant Wavelength: 581.0nm Color Purity: 0.256
 CRI: $R_a=83.9$



Plant Optical Param

$ \mu_v(lm): 671.76$	$Q_v(lm.s): 671.76$
$ \mu_e, \dot{E}(W/nm): 2.07$	$Q_e(J): 2.07$
$ \mu_e(W): 2.03$	$ \mu_{fr}(W): 0.05$
$ \zeta_e: 0.26$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.21$	$K_{fr}: 0.04$
$Erb_Ratio: 1.49$	$PPF(umol/s): 9.49$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 1.69$
$PPF(500-600)(umol/s): 4.31$	$PPF(600-700)(umol/s): 3.48$
$PPF_{fr}(700-800)(umol/s): 0.28$	$PPF.t(umol): 9.49$
$ \mu_{ch-A.t}(J): 0.17$	$ \mu_{ch-A}(W): 0.17$
$ \mu_{ch-B.t}(J): 0.09$	$ \mu_{ch-B}(W): 0.09$
$ \mu_b.t(J): 0.44$	$ \mu_b(W): 0.44$
$ \mu_y.t(J): 0.93$	$ \mu_y(W): 0.93$
$ \mu_r.t(J): 0.67$	$ \mu_r(W): 0.67$

Electric Parameters

Voltage: 231.00V	Current: 0.0360A	Power: 7.85W
Power Factor: 0.9340	Frequency: 49.99Hz	

Condition: $T_x:0.0^\circ C$, $T_i:0.0^\circ C$, R.H.: 60%
 Test Lab:
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Test Device: Lisun LMS-9000B
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