

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-2G11-17-NW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-2G11
 Product Number: 1
 Submitted Unit: 101971

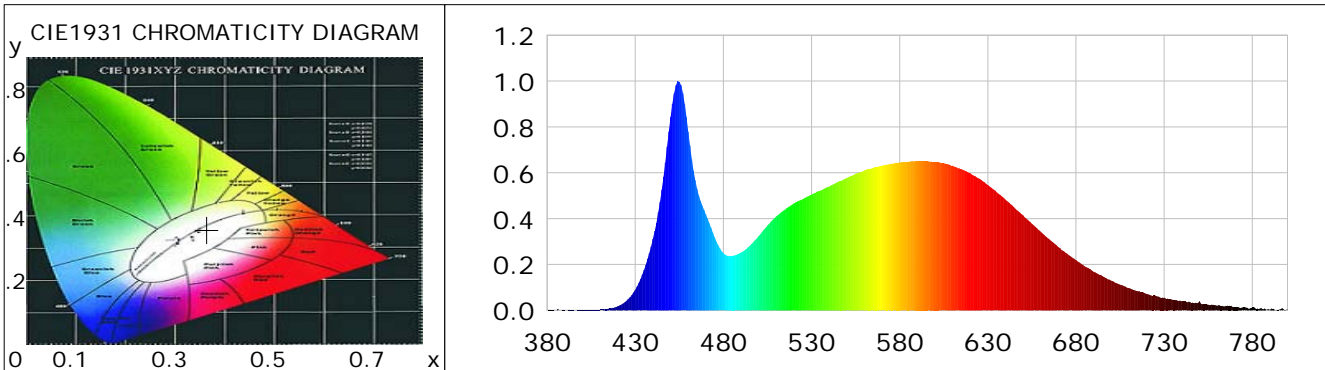
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3641$ $y=0.3581$ $u(u')=0.2217$ $v=0.3271$ $v'=0.4906$
 CCT: $T_c=4357K$ ($duv=-0.00385$) Color Ratio: $R=0.181$ $G=0.776$ $B=0.043$
 Peak Wavelength: 454.4nm Half Bandwidth: 21.5nm
 Dominant Wavelength: 580.8nm Color Purity: 0.167
 CRI: $R_a=87.1$, $avgR(1\sim14)=81.8$, $avgR(1\sim15)=82.0$ TM30: $R_f=84$, $R_g=96$
 GAI: $GAI_BB_8=98.2$, $GAI_BB_15=104.9$, $GAI_EES=82.5$

R1 =87	R2 =93	R3 =94	R4 =85	R5 =86	R6 =87	R7 =89	R8 =76
R9 =39	R10=80	R11=83	R12=61	R13=89	R14=97	R15=85	

Color Quality Scale: $Q_a=84.1$, $Q_f=83.8$, $Q_p=85.1$, $Q_g=95.4$

Q1 =87	Q2 =99	Q3 =78	Q4 =73	Q5 =80	Q6 =83	Q7 =87	Q8 =90
Q9 =97	Q10=89	Q11=85	Q12=84	Q13=85	Q14=81	Q15=83	



Photometric Parameters

Luminous Flux: 1510.4 lm Efficiency: 91.27 lm/W Radiant Power: 4.916 W
 Total mains efficacy: 107.33 lm/W Energy Efficiency Class: F (EU 2019/2015)
 Pupil Flux: 2424.19 Plm Pupil Lumens Per Watt: 146.48 Plm/W Pupil Factor (Kp): 1.605
 Circopic Flux: 5156.29 lm

Electric Parameters

Voltage: 230.90V Current: 0.0750A Power: 16.55W
 Power Factor: 0.9470 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: 43600 (2483) CCD Integration Time: 176.65 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-01 13:47:24
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.0228	525	0.4851	18.1732	670	0.2763	10.3517
385	0.0007	0.0253	530	0.5048	18.9088	675	0.2472	9.2585
390	0.0008	0.0306	535	0.5219	19.5509	680	0.2197	8.2289
395	0.0012	0.0448	540	0.5402	20.2366	685	0.1920	7.1910
400	0.0014	0.0542	545	0.5599	20.9738	690	0.1682	6.3010
405	0.0016	0.0596	550	0.5775	21.6319	695	0.1488	5.5726
410	0.0037	0.1403	555	0.5961	22.3282	700	0.1293	4.8449
415	0.0077	0.2899	560	0.6109	22.8855	705	0.1124	4.2090
420	0.0176	0.6597	565	0.6217	23.2870	710	0.0977	3.6590
425	0.0416	1.5591	570	0.6312	23.6434	715	0.0842	3.1544
430	0.0900	3.3698	575	0.6399	23.9705	720	0.0716	2.6831
435	0.1763	6.6023	580	0.6448	24.1557	725	0.0643	2.4105
440	0.3108	11.6424	585	0.6483	24.2860	730	0.0555	2.0780
445	0.5267	19.7282	590	0.6519	24.4208	735	0.0457	1.7105
450	0.8432	31.5840	595	0.6503	24.3613	740	0.0392	1.4665
455	0.9968	37.3408	600	0.6470	24.2359	745	0.0345	1.2908
460	0.7799	29.2161	605	0.6410	24.0110	750	0.0394	1.4775
465	0.5308	19.8826	610	0.6306	23.6238	755	0.0246	0.9204
470	0.4183	15.6694	615	0.6160	23.0744	760	0.0201	0.7528
475	0.3187	11.9375	620	0.5985	22.4177	765	0.0192	0.7199
480	0.2496	9.3490	625	0.5746	21.5240	770	0.0140	0.5233
485	0.2381	8.9197	630	0.5462	20.4616	775	0.0135	0.5063
490	0.2521	9.4445	635	0.5152	19.2984	780	0.0119	0.4474
495	0.2813	10.5388	640	0.4831	18.0954	785	0.0099	0.3696
500	0.3245	12.1554	645	0.4483	16.7939	790	0.0029	0.1083
505	0.3701	13.8654	650	0.4145	15.5284	795	0.0029	0.1095
510	0.4099	15.3531	655	0.3775	14.1402	800	0.0055	0.2045
515	0.4402	16.4906	660	0.3435	12.8655			
520	0.4668	17.4875	665	0.3090	11.5740			

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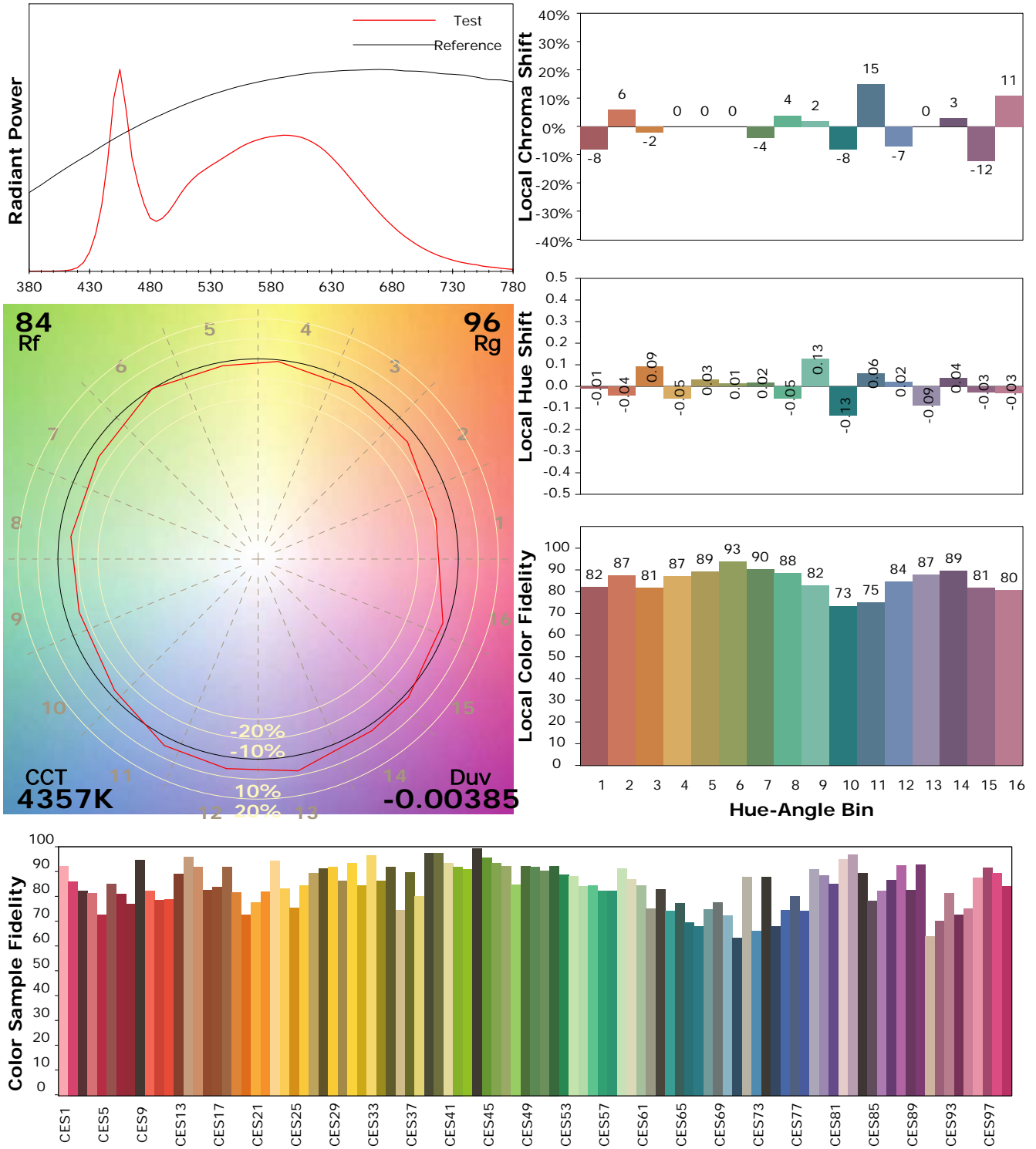
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IES TM-30-18 Color Rendition Report

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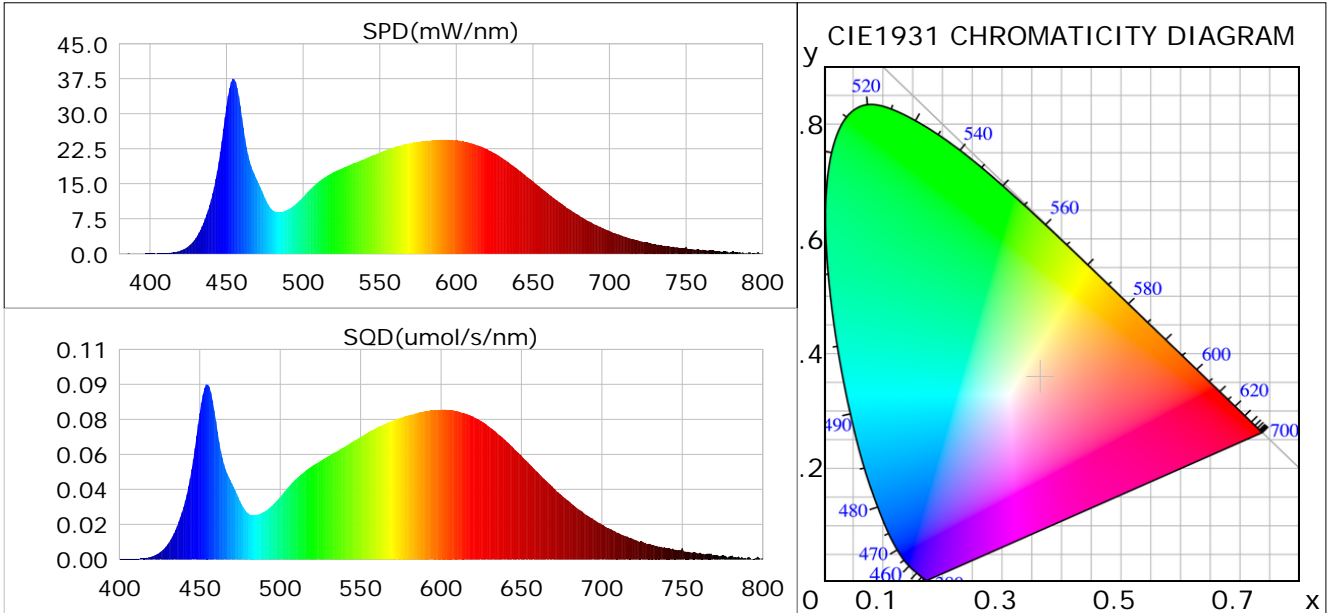
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Test Device: Lisun LMS-9000B
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Plant optical param data

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 CCT: $T_c=4357K$ ($duv=-0.00385$) Color Ratio: $R=0.181$ $G=0.776$ $B=0.043$
 Peak Wavelength: 454.4nm Half Bandwidth: 21.5nm
 Dominant Wavelength: 580.8nm Color Purity: 0.167
 CRI: $R_a=87.1$



Plant Optical Param

$ \mu_v(lm): 1510.45$	$Q_v(lm.s): 1510.45$
$ \mu_e, \dot{E}(W/nm): 4.92$	$Q_e(J): 4.92$
$ \mu_e(W): 4.77$	$ \mu_{fr}(W): 0.16$
$ \zeta_e: 0.29$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.34$	$K_{fr}: 0.06$
$Erb_Ratio: 1.29$	$PPF(umol/s): 22.26$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 4.54$
$PPF(500-600)(umol/s): 9.64$	$PPF(600-700)(umol/s): 8.08$
$PPF_r(700-800)(umol/s): 0.92$	$PPF.t(umol): 22.26$
$ \mu_{ch-A.t}(J): 0.39$	$ \mu_{ch-A}(W): 0.39$
$ \mu_{ch-B.t}(J): 0.24$	$ \mu_{ch-B}(W): 0.24$
$ \mu_b.t(J): 1.18$	$ \mu_b(W): 1.18$
$ \mu_y.t(J): 2.09$	$ \mu_y(W): 2.09$
$ \mu_r.t(J): 1.54$	$ \mu_r(W): 1.54$

Electric Parameters

Voltage: 230.90V	Current: 0.0750A	Power: 16.55W
Power Factor: 0.9470	Frequency: 49.99Hz	

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

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