

Lightsource Test Report

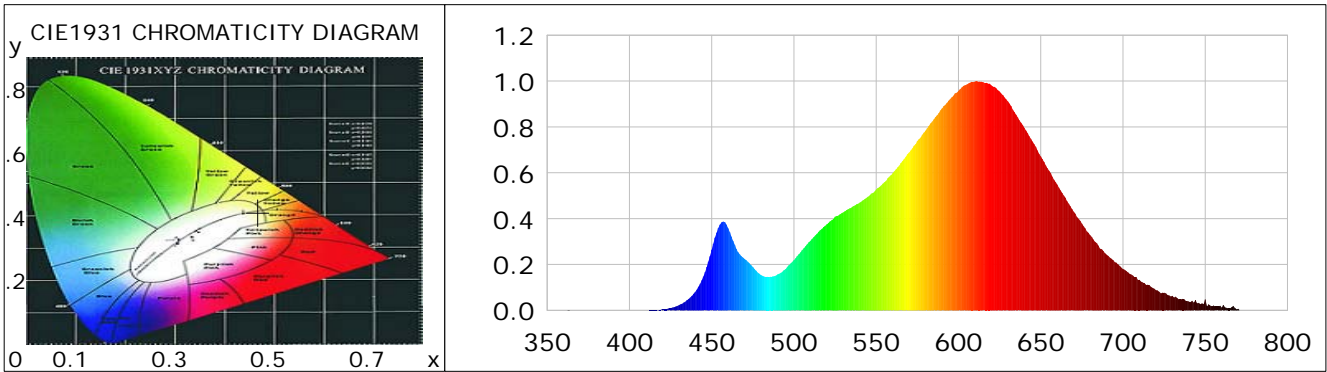
Product Information

Product Category: LED-PL-Röhre
 Product Spec: LED-PL-2G7-06-WW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-2G7
 Product Number: 1
 Submitted Unit: 101989

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4673$ $y=0.4123$ $u(u')=0.2666$ $v=0.3527$ $v'=0.5291$
 CCT: $T_c=2612K$ ($duv=0.00006$) Color Ratio: $R=0.262$ $G=0.717$ $B=0.021$
 Peak Wavelength: 611.0nm Half Bandwidth: 118.3nm
 Dominant Wavelength: 584.6nm Color Purity: 0.641
 CRI: $R_a=84.0$, $avgR(1\sim14)=79.3$, $avgR(1\sim15)=79.1$ TM30: $R_f=85$, $R_g=95$
 GAI: $GAI_BB_8=93.4$, $GAI_BB_15=103.3$, $GAI_EES=42.8$
 R1 =83 R2 =93 R3 =97 R4 =82 R5 =83 R6 =92 R7 =82 R8 =61
 R9 =17 R10=82 R11=81 R12=73 R13=85 R14=99 R15=76
 Color Quality Scale: $Q_a=83.2$, $Q_f=85.9$, $Q_p=85.4$, $Q_g=90.5$
 Q1 =79 Q2 =93 Q3 =84 Q4 =80 Q5 =82 Q6 =84 Q7 =84 Q8 =86
 Q9 =94 Q10=90 Q11=87 Q12=85 Q13=84 Q14=75 Q15=76



Photometric Parameters

Luminous Flux: 592.49 lm Efficiency: 95.56 lm/W Radiant Power: 1.855 W
 Total mains efficacy: 112.38 lm/W Energy Efficiency Class: E (EU 2019/2015)
 Pupil Flux: 674.56 Plm Pupil Lumens Per Watt: 108.80 Plm/W Pupil Factor (Kp): 1.139
 Circopic Flux: 1165.07 lm

Electric Parameters

Voltage: 230.90V Current: 0.0290A Power: 6.20W
 Power Factor: 0.9260 Frequency: 49.99Hz

Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-spectroradiometer
 Stabilization Time: 0 ms ALC.: 1.0000 Photometric Condition: Sphere diameter: 2.00m, 4PI
 Max of Signal: 45812 (2401) CCD Integration Time: 677.00 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 09:19:01
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0010	0.0129	525	0.1806	2.3992	670	0.7969	10.5865
385	0.0002	0.0025	530	0.2192	2.9125	675	0.7361	9.7796
390	0.0002	0.0030	535	0.2626	3.4892	680	0.6720	8.9280
395	0.0002	0.0026	540	0.3030	4.0253	685	0.6091	8.0915
400	0.0003	0.0042	545	0.3424	4.5483	690	0.5490	7.2939
405	0.0001	0.0008	550	0.3750	4.9820	695	0.4914	6.5288
410	0.0001	0.0014	555	0.4086	5.4283	700	0.4306	5.7209
415	0.0004	0.0048	560	0.4279	5.6847	705	0.3787	5.0314
420	0.0002	0.0027	565	0.4484	5.9577	710	0.3280	4.3578
425	0.0001	0.0007	570	0.4703	6.2474	715	0.2824	3.7523
430	0.0003	0.0036	575	0.4959	6.5879	720	0.2433	3.2323
435	0.0001	0.0010	580	0.5271	7.0025	725	0.2102	2.7925
440	0.0004	0.0058	585	0.5589	7.4253	730	0.1803	2.3947
445	0.0017	0.0222	590	0.5980	7.9451	735	0.1568	2.0826
450	0.0042	0.0560	595	0.6424	8.5349	740	0.1328	1.7643
455	0.0094	0.1255	600	0.6886	9.1486	745	0.1118	1.4850
460	0.0221	0.2939	605	0.7390	9.8171	750	0.0883	1.1726
465	0.0441	0.5863	610	0.7835	10.4085	755	0.0774	1.0287
470	0.0809	1.0751	615	0.8331	11.0674	760	0.0634	0.8422
475	0.1478	1.9631	620	0.8807	11.7006	765	0.0470	0.6242
480	0.2640	3.5072	625	0.9225	12.2552	770	0.0385	0.5115
485	0.3738	4.9658	630	0.9572	12.7164	775	0.0314	0.4171
490	0.3580	4.7567	635	0.9857	13.0947	780	0.0476	0.6321
495	0.2677	3.5568	640	0.9983	13.2629	785	0.0213	0.2828
500	0.2246	2.9832	645	0.9951	13.2201	790	0.0123	0.1631
505	0.1892	2.5141	650	0.9814	13.0384	795	0.0095	0.1256
510	0.1537	2.0424	655	0.9548	12.6840	800	0.0066	0.0873
515	0.1455	1.9333	660	0.9115	12.1098			
520	0.1564	2.0779	665	0.8531	11.3341			

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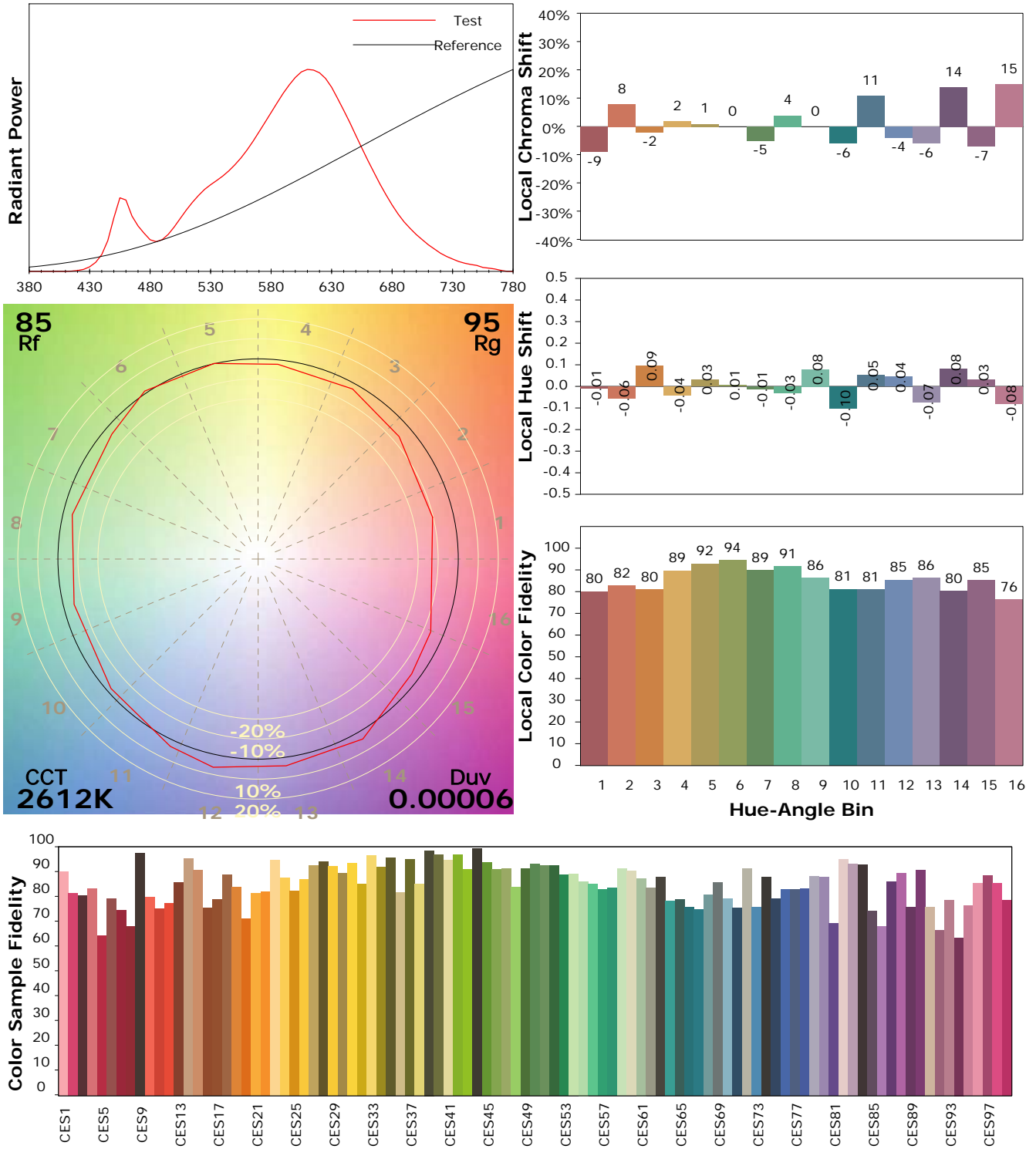
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IES TM-30-18 Color Rendition Report

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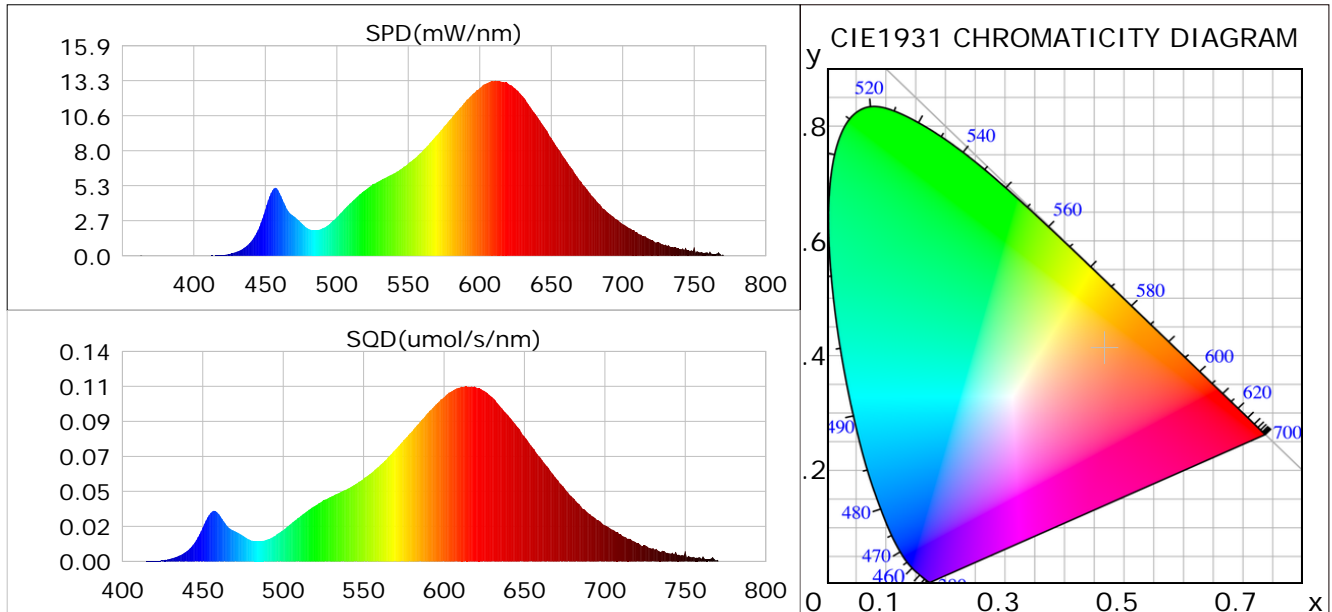
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Test Device: Lisun LMS-9000B
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Plant optical param data

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 CRI: $R_a=84.0$



Plant Optical Param

$ \mu_v(lm): 592.49$	$Q_v(lm.s): 592.49$
$ \mu_e, \dot{E}(W/nm): 1.86$	$Q_e(J): 1.86$
$ \mu_e(W): 2.43$	$ \mu_{fr}(W): 0.08$
$ \zeta_e: 0.39$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.42$	$K_{fr}: 0.06$
$Erb_Ratio: 4.68$	$PPF(umol/s): 8.83$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 0.71$
$PPF(500-600)(umol/s): 3.54$	$PPF(600-700)(umol/s): 4.57$
$PPF_{fr}(700-800)(umol/s): 0.36$	$PPF.t(umol): 8.83$
$ \mu_{ch-A.t}(J): 0.14$	$ \mu_{ch-A}(W): 0.14$
$ \mu_{ch-B.t}(J): 0.07$	$ \mu_{ch-B}(W): 0.07$
$ \mu_b.t(J): 0.25$	$ \mu_b(W): 0.25$
$ \mu_y.t(J): 1.03$	$ \mu_y(W): 1.03$
$ \mu_r.t(J): 1.18$	$ \mu_r(W): 1.18$

Electric Parameters

Voltage: 230.90V	Current: 0.0290A	Power: 6.20W
Power Factor: 0.9260	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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