

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G24D-10-WW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G24
 Product Number: 1
 Submitted Unit: 100473

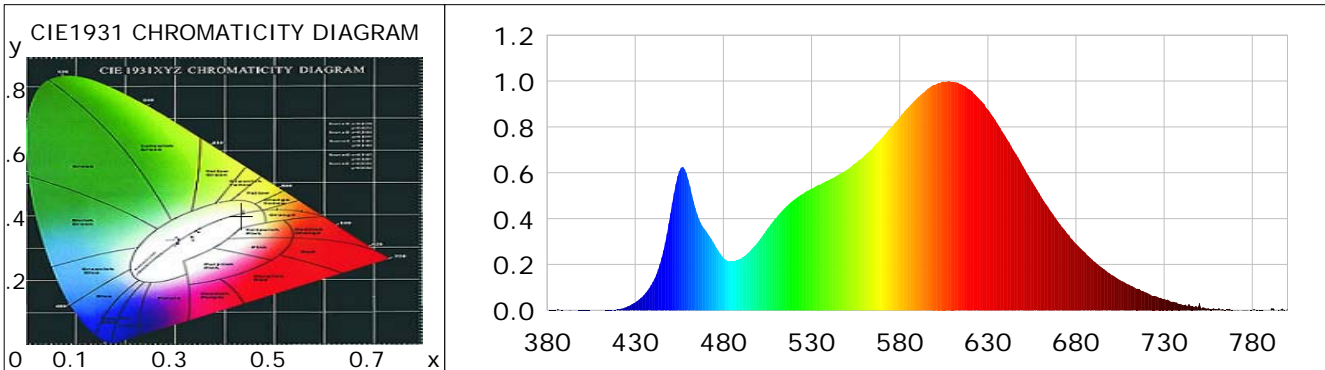
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4342$ $y=0.4017$ $u(u')=0.2499$ $v=0.3467$ $v'=0.5200$
 CCT: $T_c=3027K$ ($duv=-0.00058$) Color Ratio: $R=0.233$ $G=0.739$ $B=0.028$
 Peak Wavelength: 607.8nm Half Bandwidth: 136.7nm
 Dominant Wavelength: 582.9nm Color Purity: 0.509
 CRI: $R_a=85.7$, $avgR(1\sim14)=80.9$, $avgR(1\sim15)=80.8$ TM30: $R_f=85$, $R_g=95$
 GAI: $GAI_BB_8=94.8$, $GAI_BB_15=103.8$, $GAI_EES=55.2$

R1 =85	R2 =94	R3 =97	R4 =84	R5 =85	R6 =93	R7 =83	R8 =65
R9 =22	R10=85	R11=83	R12=71	R13=88	R14=99	R15=79	

Color Quality Scale: $Q_a=84.6$, $Q_f=86.2$, $Q_p=85.8$, $Q_g=92.0$

Q1 =81	Q2 =94	Q3 =84	Q4 =80	Q5 =83	Q6 =85	Q7 =86	Q8 =88
Q9 =96	Q10=92	Q11=89	Q12=87	Q13=86	Q14=77	Q15=78	



Photometric Parameters

Luminous Flux: 812.30 lm	Efficiency: 85.24 lm/W	Radiant Power: 2.491 W
Total mains efficacy: 100.24 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 1051.53 Plm	Pupil Lumens Per Watt: 110.34 Plm/W	Pupil Factor (Kp): 1.295
Cirtopic Flux: 1970.79 lm		

Electric Parameters

Voltage: 231.00V	Current: 0.0760A	Power: 9.53W
Power Factor: 0.5410	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: 46660 (2620)	CCD Integration Time: 424.18 ms

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0001	0.0013	525	0.5081	8.3793	670	0.3852	6.3524
385	0.0011	0.0183	530	0.5306	8.7503	675	0.3355	5.5317
390	0.0007	0.0115	535	0.5486	9.0464	680	0.2899	4.7802
395	0.0000	0.0005	540	0.5691	9.3854	685	0.2534	4.1783
400	0.0008	0.0126	545	0.5899	9.7271	690	0.2145	3.5375
405	0.0001	0.0010	550	0.6129	10.1062	695	0.1839	3.0329
410	0.0005	0.0088	555	0.6417	10.5819	700	0.1552	2.5600
415	0.0018	0.0294	560	0.6750	11.1302	705	0.1313	2.1646
420	0.0044	0.0721	565	0.7118	11.7372	710	0.1126	1.8575
425	0.0140	0.2312	570	0.7526	12.4108	715	0.0943	1.5542
430	0.0349	0.5749	575	0.7970	13.1424	720	0.0770	1.2700
435	0.0674	1.1121	580	0.8414	13.8748	725	0.0623	1.0279
440	0.1240	2.0452	585	0.8857	14.6063	730	0.0500	0.8248
445	0.2307	3.8035	590	0.9264	15.2767	735	0.0378	0.6237
450	0.4234	6.9814	595	0.9600	15.8302	740	0.0254	0.4188
455	0.6086	10.0358	600	0.9833	16.2142	745	0.0187	0.3090
460	0.5705	9.4075	605	0.9982	16.4609	750	0.0320	0.5272
465	0.4211	6.9446	610	0.9967	16.4361	755	0.0097	0.1592
470	0.3472	5.7260	615	0.9860	16.2595	760	0.0047	0.0773
475	0.2874	4.7392	620	0.9616	15.8564	765	0.0038	0.0627
480	0.2292	3.7802	625	0.9225	15.2130	770	0.0024	0.0403
485	0.2142	3.5325	630	0.8754	14.4349	775	0.0028	0.0464
490	0.2264	3.7337	635	0.8189	13.5033	780	0.0023	0.0379
495	0.2569	4.2371	640	0.7579	12.4975	785	0.0023	0.0374
500	0.3013	4.9692	645	0.6931	11.4299	790	0.0002	0.0033
505	0.3568	5.8842	650	0.6270	10.3400	795	0.0020	0.0334
510	0.4043	6.6676	655	0.5617	9.2627	800	0.0064	0.1049
515	0.4469	7.3694	660	0.4988	8.2250			
520	0.4820	7.9481	665	0.4392	7.2421			

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

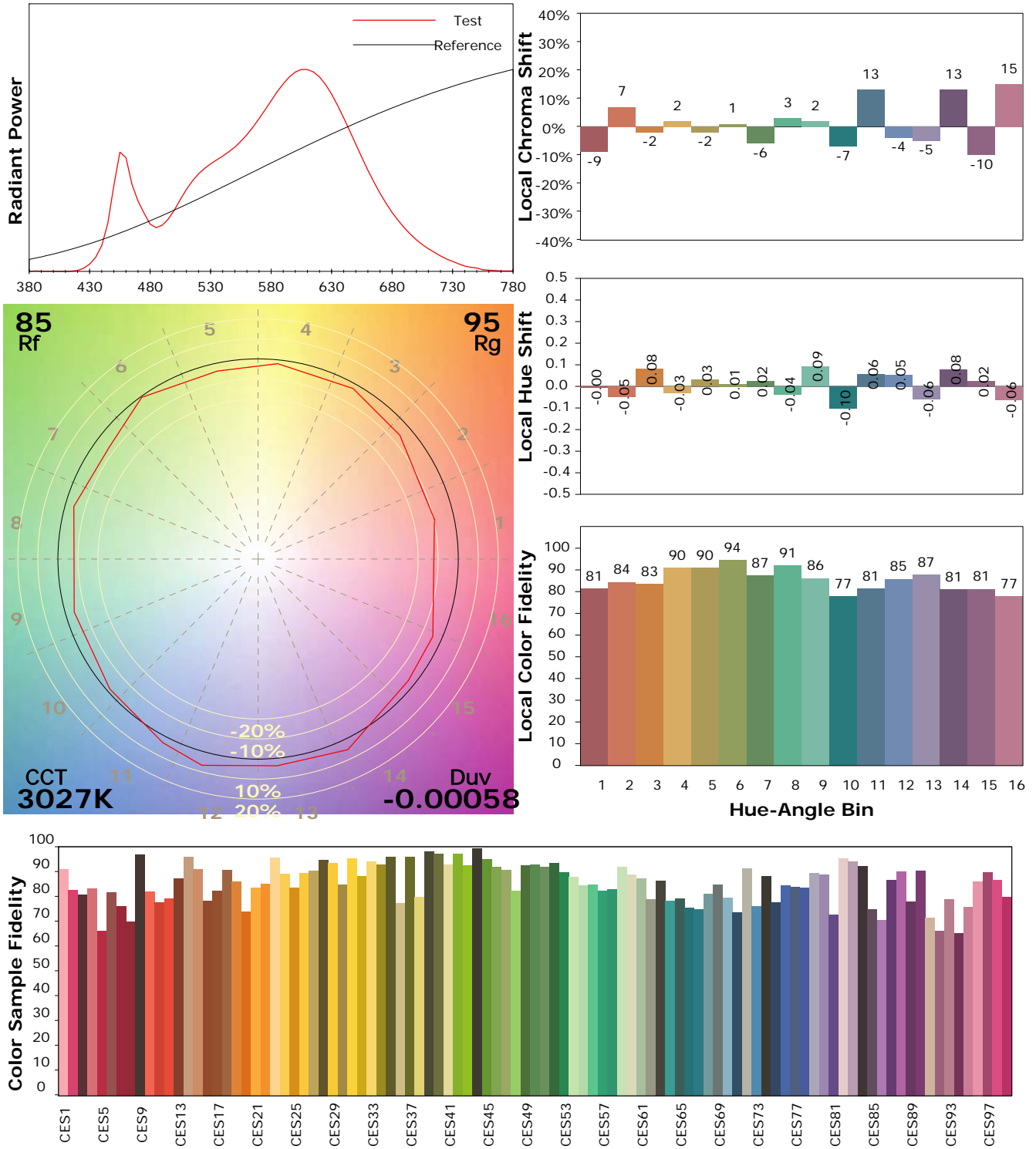
Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 14:06:20
 Inspector:

IES TM-30-18 Color Rendition Report

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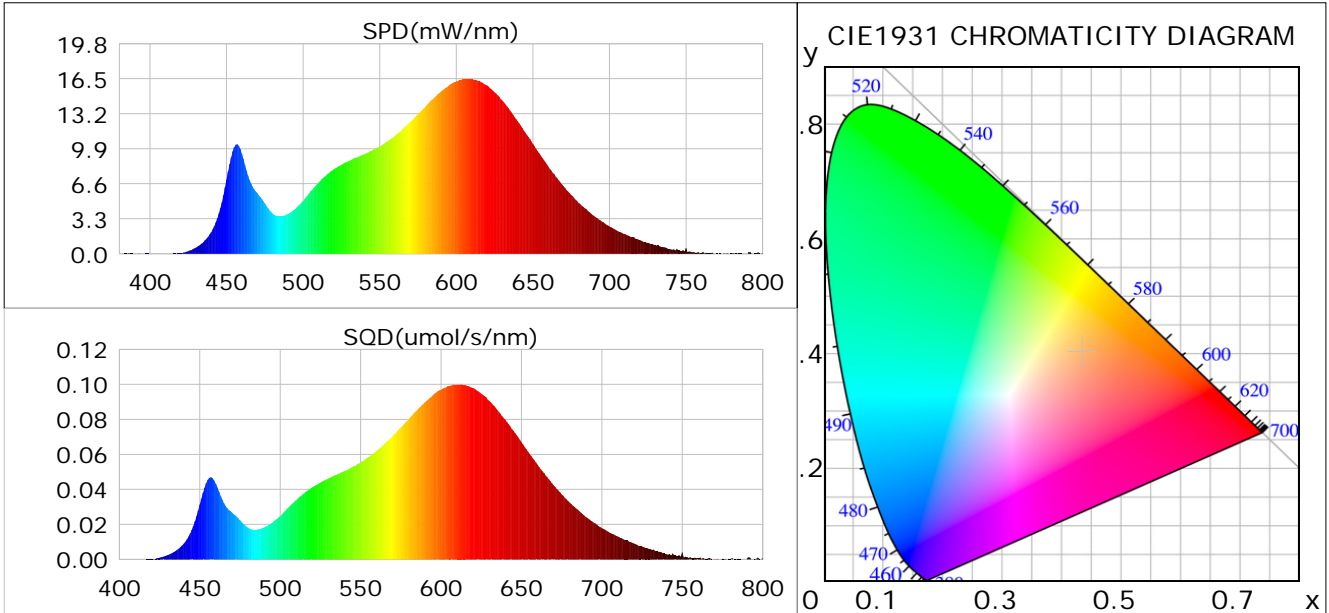
Condition: Tx:0.0°C, Ti:0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 14:06:20
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4342$ $y=0.4017$ $u(u')=0.2499$ $v=0.3467$ $v'=0.5200$
 CCT: $T_c=3027K$ ($duv=-0.00058$) Color Ratio: $R=0.233$ $G=0.739$ $B=0.028$
 Peak Wavelength: 607.8nm Half Bandwidth: 136.7nm
 Dominant Wavelength: 582.9nm Color Purity: 0.509
 CRI: $R_a=85.7$



Plant Optical Param

$ \mu_v(lm): 812.30$	$Q_v(lm.s): 812.30$
$ \mu_e, \dot{E}(W/nm): 2.49$	$Q_e(J): 2.49$
$ \mu_e(W): 2.43$	$ \mu_{fr}(W): 0.06$
$ \zeta_e: 0.26$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.23$	$K_{fr}: 0.04$
$Erb_Ratio: 2.90$	$PPF(umol/s): 11.75$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 1.36$
$PPF(500-600)(umol/s): 4.99$	$PPF(600-700)(umol/s): 5.40$
$PPF_{fr}(700-800)(umol/s): 0.36$	$PPF.t(umol): 11.75$
$ \mu_{ch-A.t}(J): 0.19$	$ \mu_{ch-A}(W): 0.19$
$ \mu_{ch-B.t}(J): 0.10$	$ \mu_{ch-B}(W): 0.10$
$ \mu_b.t(J): 0.35$	$ \mu_b(W): 0.35$
$ \mu_y.t(J): 1.07$	$ \mu_y(W): 1.07$
$ \mu_r.t(J): 1.03$	$ \mu_r(W): 1.03$

Electric Parameters

Voltage: 231.00V	Current: 0.0760A	Power: 9.53W
Power Factor: 0.5410	Frequency: 49.99Hz	

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 14:06:20
 Inspector: