

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G24D-06-NW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G24
 Product Number: 1
 Submitted Unit: 101964

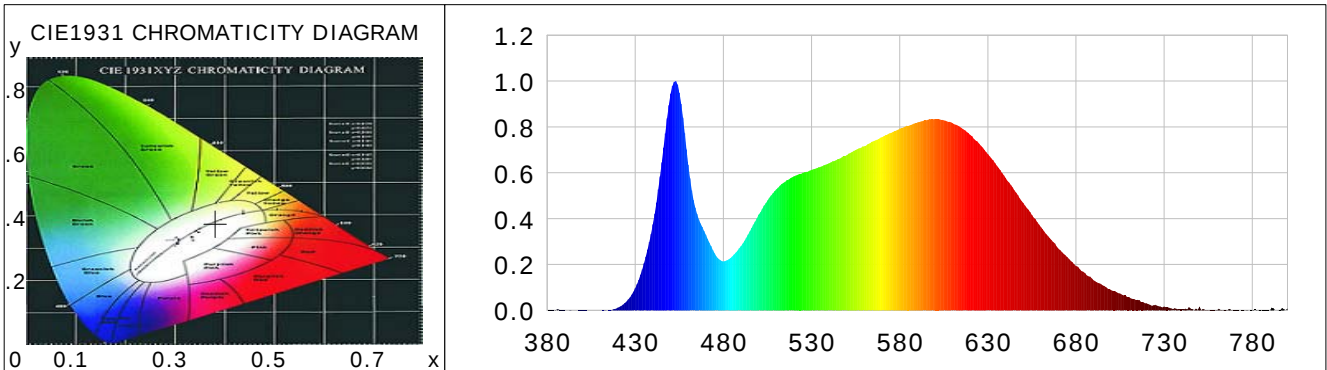
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3814$ $y=0.3778$ $u(u')=0.2253$ $v=0.3348$ $v'=0.5022$
 CCT: $T_c=3981K$ ($duv=0.00021$) Color Ratio: $R=0.188$ $G=0.776$ $B=0.035$
 Peak Wavelength: 452.7nm Half Bandwidth: 20.0nm
 Dominant Wavelength: 579.0nm Color Purity: 0.279
 CRI: $R_a=85.4$, $avgR(1\sim14)=79.4$, $avgR(1\sim15)=79.4$ TM30: $R_f=85$, $R_g=97$
 GAI: $GAI_BB_8=94.1$, $GAI_BB_15=100.8$, $GAI_EES=73.9$

R1 =84	R2 =90	R3 =95	R4 =85	R5 =84	R6 =87	R7 =88	R8 =70
R9 =21	R10=77	R11=85	R12=63	R13=86	R14=97	R15=79	

Color Quality Scale: $Q_a=84.9$, $Q_f=84.9$, $Q_p=85.2$, $Q_g=94.4$

Q1 =84	Q2 =98	Q3 =80	Q4 =78	Q5 =84	Q6 =86	Q7 =87	Q8 =90
Q9 =98	Q10=90	Q11=87	Q12=87	Q13=86	Q14=77	Q15=79	



Photometric Parameters

Luminous Flux: 533.92 lm	Efficiency: 92.37 lm/W	Radiant Power: 1.609 W
Total mains efficacy: 108.63 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 807.46 Plm	Pupil Lumens Per Watt: 139.70 Plm/W	Pupil Factor (Kp): 1.512
Cirtpic Flux: 1634.99 lm		

Electric Parameters

Voltage: 230.60V	Current: 0.0300A	Power: 5.78W
Power Factor: 0.8340	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: 44606 (2556)	CCD Integration Time: 453.07 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 13:32:33
 Inspector:

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G24D-06-NW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G24
 Product Number: 1
 Submitted Unit: 101964

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.0050	525	0.6000	6.5402	670	0.2698	2.9414
385	0.0027	0.0296	530	0.6125	6.6772	675	0.2327	2.5365
390	0.0012	0.0131	535	0.6261	6.8250	680	0.1938	2.1128
395	0.0001	0.0007	540	0.6420	6.9984	685	0.1632	1.7792
400	0.0013	0.0145	545	0.6597	7.1912	690	0.1311	1.4294
405	0.0001	0.0008	550	0.6767	7.3761	695	0.1095	1.1938
410	0.0004	0.0043	555	0.6989	7.6184	700	0.0875	0.9542
415	0.0020	0.0216	560	0.7161	7.8059	705	0.0737	0.8030
420	0.0116	0.1262	565	0.7376	8.0405	710	0.0582	0.6339
425	0.0378	0.4123	570	0.7554	8.2349	715	0.0454	0.4953
430	0.0970	1.0573	575	0.7738	8.4355	720	0.0305	0.3327
435	0.2056	2.2412	580	0.7925	8.6387	725	0.0237	0.2588
440	0.3755	4.0937	585	0.8044	8.7685	730	0.0169	0.1844
445	0.6450	7.0315	590	0.8193	8.9305	735	0.0061	0.0662
450	0.9447	10.2977	595	0.8293	9.0395	740	0.0051	0.0560
455	0.9499	10.3548	600	0.8348	9.1002	745	0.0077	0.0839
460	0.6357	6.9295	605	0.8289	9.0360	750	0.0159	0.1733
465	0.4207	4.5860	610	0.8167	8.9025	755	0.0042	0.0456
470	0.3298	3.5949	615	0.7960	8.6765	760	0.0019	0.0203
475	0.2487	2.7112	620	0.7656	8.3452	765	0.0018	0.0198
480	0.2135	2.3273	625	0.7272	7.9267	770	0.0010	0.0109
485	0.2348	2.5598	630	0.6809	7.4228	775	0.0024	0.0259
490	0.2805	3.0582	635	0.6314	6.8823	780	0.0028	0.0303
495	0.3445	3.7553	640	0.5776	6.2962	785	0.0024	0.0257
500	0.4180	4.5562	645	0.5238	5.7103	790	0.0000	0.0005
505	0.4789	5.2203	650	0.4689	5.1111	795	0.0022	0.0239
510	0.5282	5.7573	655	0.4160	4.5351	800	0.0086	0.0935
515	0.5606	6.1109	660	0.3644	3.9720			
520	0.5844	6.3700	665	0.3159	3.4432			

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

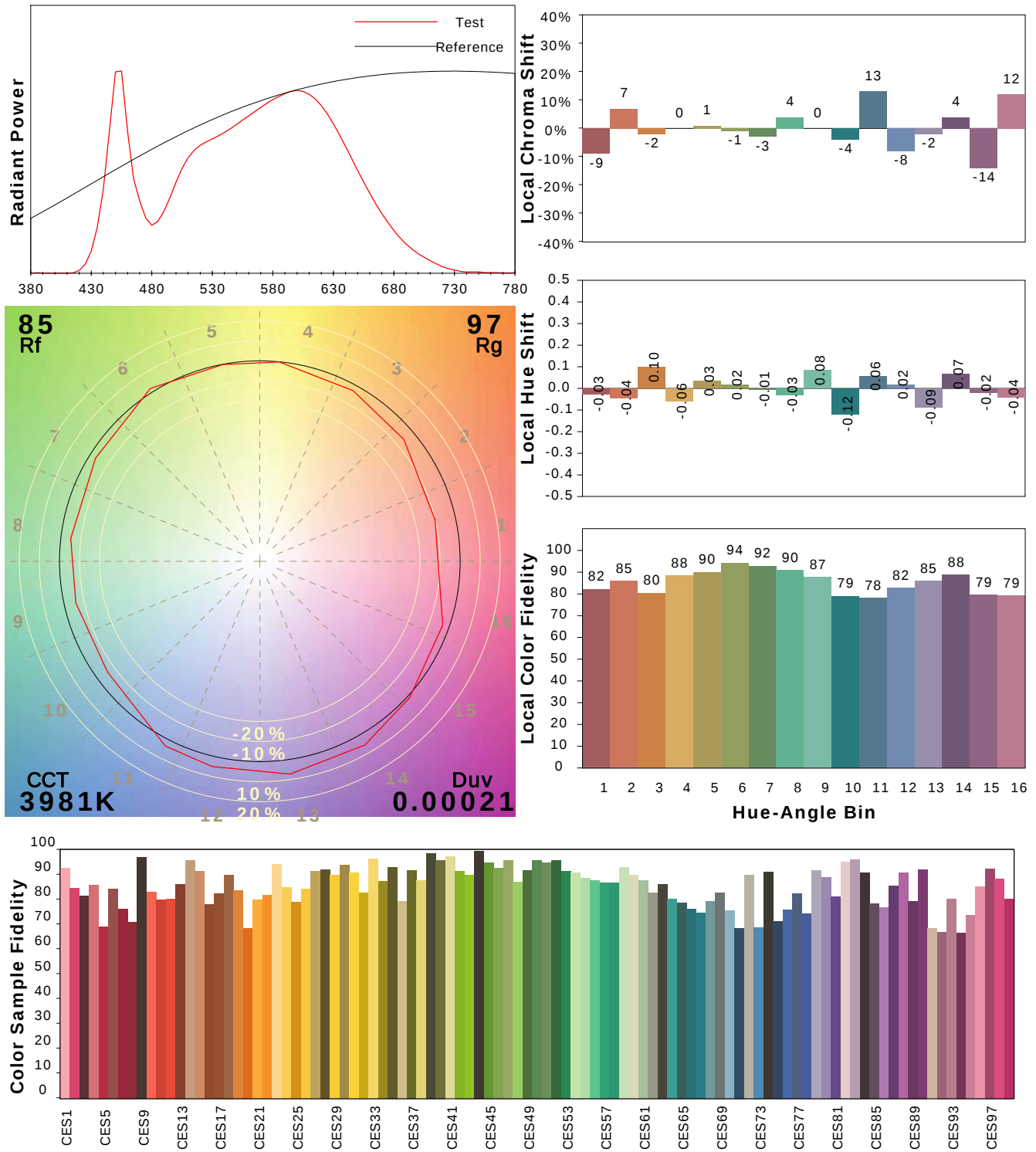
Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 13:32:33
 Inspector:

IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G24D-06-NW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G24
 Product Number: 1
 Submitted Unit: 101964



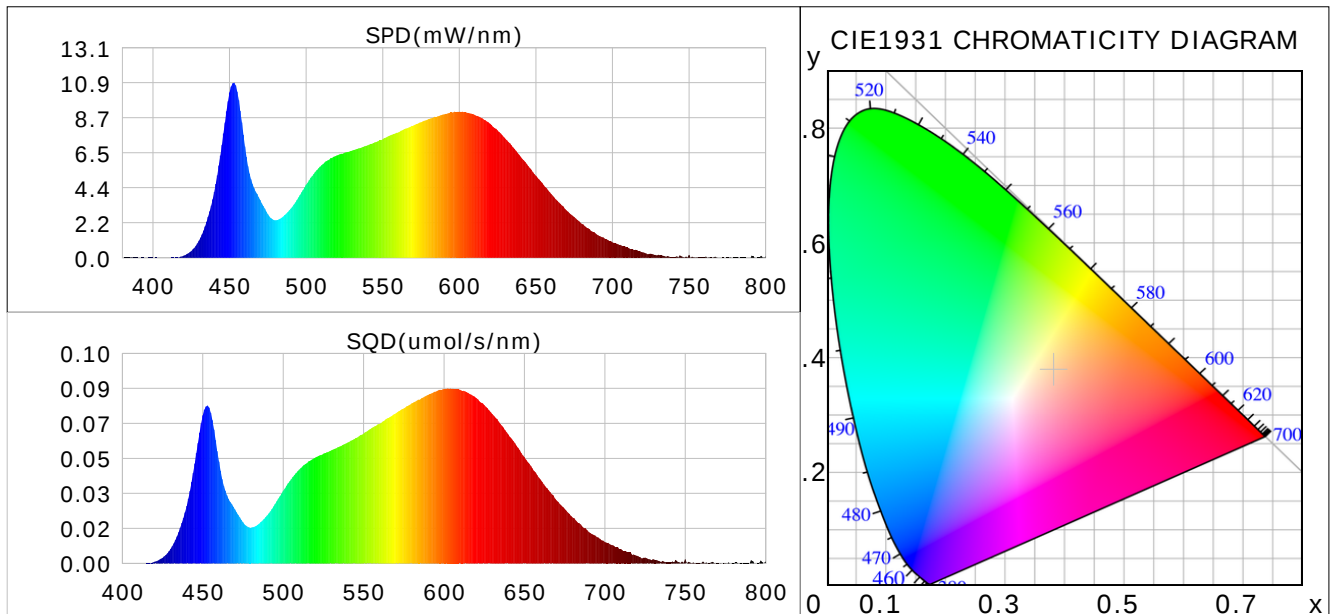
Condition: Tx:0.0°C, Ti:0.0°C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-03 13:32:33
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3814$ $y=0.3778$ $u(u')=0.2253$ $v=0.3348$ $v'=0.5022$
 CCT: $T_c=3981K$ ($duv=0.00021$) Color Ratio: $R=0.188$ $G=0.776$ $B=0.035$
 Peak Wavelength: 452.7nm Half Bandwidth: 20.0nm
 Dominant Wavelength: 579.0nm Color Purity: 0.279
 CRI: Ra= 85.4



Plant Optical Param

$\mu_v(lm): 533.92$	$Q_v(lm.s): 533.92$
$\mu_e, \dot{E}(W/nm): 1.61$	$Q_e(J): 1.61$
$\mu_e(W): 1.59$	$\mu_{fr}(W): 0.02$
$\dot{C}_e: 0.28$	$\dot{C}_{fr}: 0.00$
$PPE(umol/s/w): 1.29$	$K_{fr}: 0.02$
$Erb_Ratio: 1.51$	$PPF(umol/s): 7.46$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 1.31$
$PPF(500-600)(umol/s): 3.43$	$PPF(600-700)(umol/s): 2.72$
$PF_{fr}(700-800)(umol/s): 0.11$	$PPF.t(umol): 7.46$
$\mu_{ch-A.t}(J): 0.13$	$\mu_{ch-A}(W): 0.13$
$\mu_{ch-B.t}(J): 0.07$	$\mu_{ch-B}(W): 0.07$
$\mu_b.t(J): 0.34$	$\mu_b(W): 0.34$
$\mu_y.t(J): 0.74$	$\mu_y(W): 0.74$
$\mu_r.t(J): 0.52$	$\mu_r(W): 0.52$

Electric Parameters

Voltage: 230.60V	Current: 0.0300A	Power: 5.78W
Power Factor: 0.8340	Frequency: 49.99Hz	

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 13:32:33
 Inspector: