

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhren
 Product Spec: LED-PL-G23-06-CW
 Manufacturer: METOLIGHT
 Buyer: 2320

Product Type: LED-PL-Röhren-G23
 Product Number: 1
 Submitted Unit: 102007

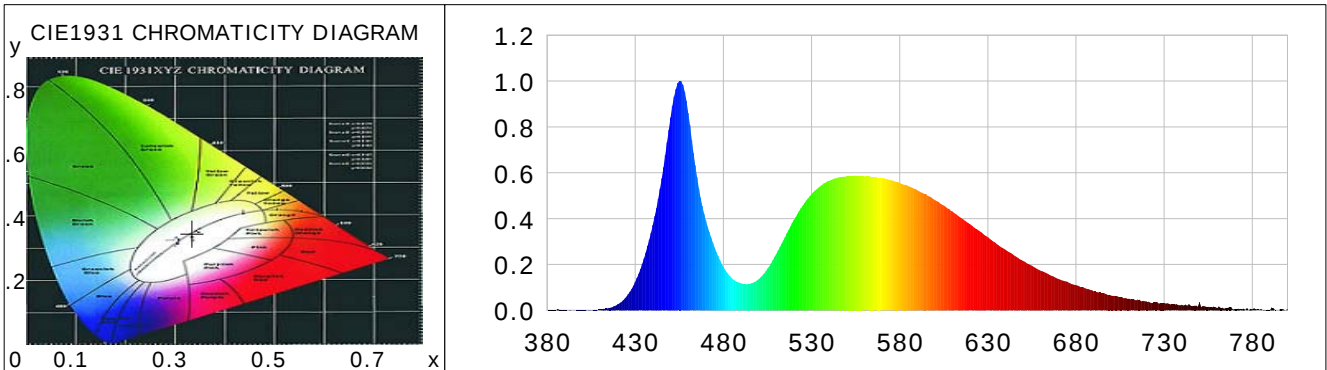
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3345$ $y=0.3463$ $u(u')=0.2063$ $v=0.3203$ $v'=0.4805$
 CCT: $T_c=5414K$ ($duv=0.00176$) Color Ratio: $R=0.137$ $G=0.824$ $B=0.039$
 Peak Wavelength: 455.4nm Half Bandwidth: 23.5nm
 Dominant Wavelength: 558.4nm Color Purity: 0.043
 CRI: $R_a=73.3$, $avgR(1\sim14)=64.1$, $avgR(1\sim15)=64.4$ TM30: $R_f=73$, $R_g=91$
 GAI: $GAI_BB_8=87.8$, $GAI_BB_15=95.6$, $GAI_EES=80.2$

R1 = 71	R2 = 80	R3 = 82	R4 = 71	R5 = 70	R6 = 69	R7 = 84	R8 = 60
R9 = 0	R10 = 47	R11 = 63	R12 = 38	R13 = 73	R14 = 89	R15 = 69	

Color Quality Scale: $Q_a=69.6$, $Q_f=69.2$, $Q_p=71.3$, $Q_g=88.3$

Q1 = 81	Q2 = 96	Q3 = 62	Q4 = 51	Q5 = 61	Q6 = 66	Q7 = 74	Q8 = 83
Q9 = 90	Q10 = 74	Q11 = 67	Q12 = 69	Q13 = 72	Q14 = 62	Q15 = 69	



Photometric Parameters

Luminous Flux: 602.13 lm	Efficiency: 86.51 lm/W	Radiant Power: 1.831 W
Total mains efficacy: 101.74 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 983.19 Plm	Pupil Lumens Per Watt: 141.26 Plm/W	Pupil Factor (Kp): 1.633
Cirtpic Flux: 2088.40 lm		

Electric Parameters

Voltage: 230.20V	Current: 0.0620A	Power: 6.96W
Power Factor: 0.4870	Frequency: 50.00Hz	

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: 44272 (2515)	CCD Integration Time: 382.06 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 13:25:34
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0013	0.0219	525	0.4571	8.0085	670	0.1368	2.3971
385	0.0010	0.0174	530	0.5074	8.8901	675	0.1250	2.1908
390	0.0012	0.0211	535	0.5416	9.4884	680	0.1098	1.9240
395	0.0007	0.0118	540	0.5652	9.9027	685	0.0968	1.6958
400	0.0015	0.0256	545	0.5793	10.1492	690	0.0827	1.4491
405	0.0009	0.0157	550	0.5851	10.2510	695	0.0740	1.2972
410	0.0048	0.0836	555	0.5882	10.3045	700	0.0648	1.1349
415	0.0106	0.1864	560	0.5856	10.2597	705	0.0586	1.0261
420	0.0262	0.4584	565	0.5830	10.2135	710	0.0511	0.8957
425	0.0596	1.0446	570	0.5757	10.0864	715	0.0470	0.8242
430	0.1243	2.1775	575	0.5679	9.9494	720	0.0387	0.6782
435	0.2266	3.9700	580	0.5545	9.7140	725	0.0351	0.6145
440	0.3730	6.5341	585	0.5414	9.4844	730	0.0322	0.5646
445	0.5764	10.0985	590	0.5235	9.1710	735	0.0256	0.4487
450	0.8408	14.7306	595	0.5064	8.8712	740	0.0238	0.4164
455	1.0000	17.5194	600	0.4806	8.4194	745	0.0205	0.3594
460	0.8614	15.0906	605	0.4569	8.0039	750	0.0361	0.6317
465	0.5814	10.1853	610	0.4310	7.5501	755	0.0159	0.2787
470	0.3928	6.8813	615	0.4027	7.0543	760	0.0103	0.1811
475	0.2741	4.8027	620	0.3753	6.5745	765	0.0108	0.1885
480	0.1893	3.3163	625	0.3464	6.0690	770	0.0061	0.1071
485	0.1385	2.4270	630	0.3187	5.5826	775	0.0076	0.1336
490	0.1175	2.0581	635	0.2891	5.0653	780	0.0046	0.0806
495	0.1154	2.0223	640	0.2644	4.6316	785	0.0051	0.0901
500	0.1360	2.3827	645	0.2392	4.1909	790	0.0008	0.0134
505	0.1820	3.1890	650	0.2156	3.7778	795	0.0011	0.0189
510	0.2462	4.3126	655	0.1941	3.4010	800	0.0075	0.1314
515	0.3198	5.6025	660	0.1730	3.0312			
520	0.3948	6.9174	665	0.1545	2.7074			

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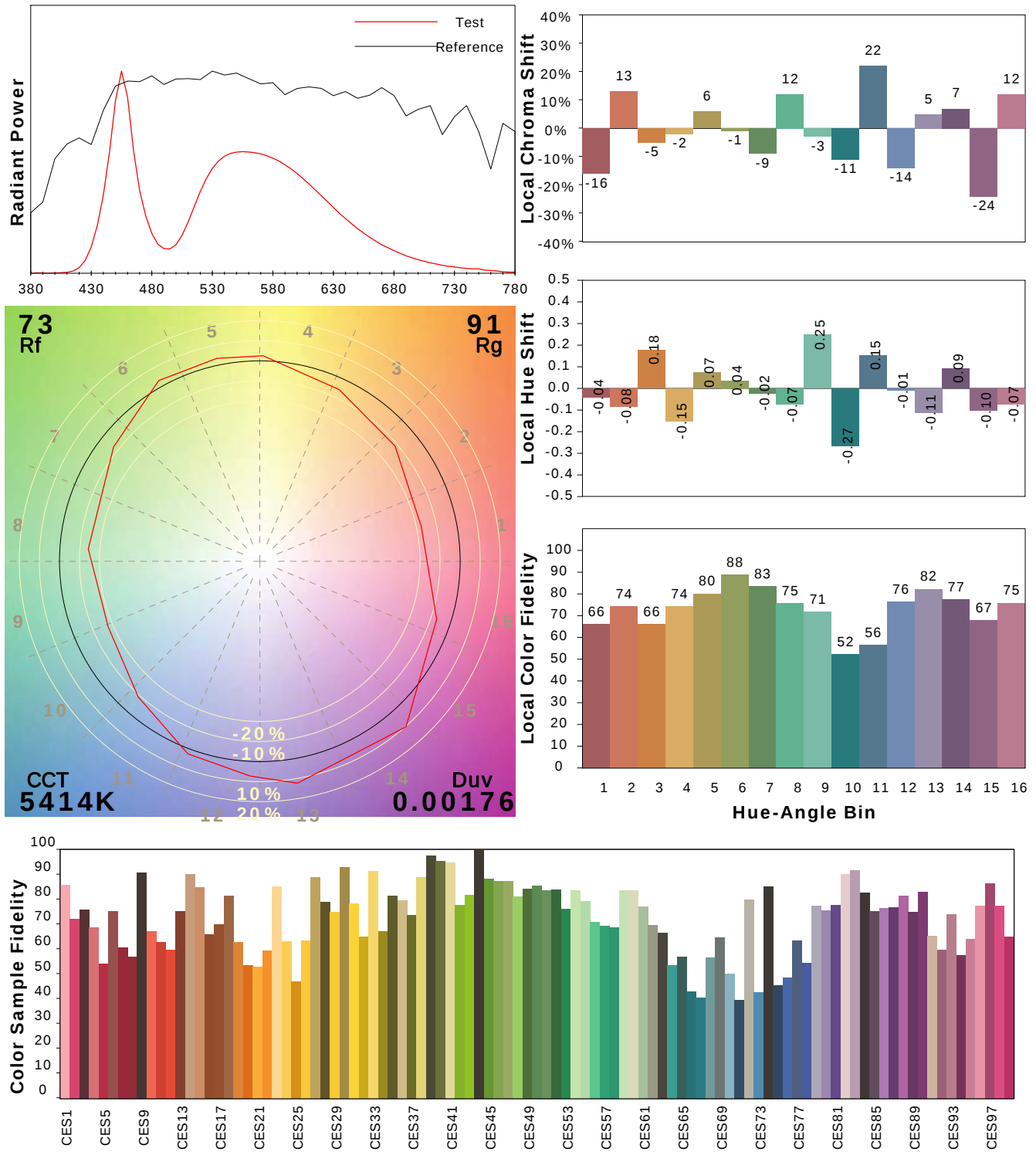
Test Device: Lisun LMS-9000B
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IES TM-30-18 Color Rendition Report

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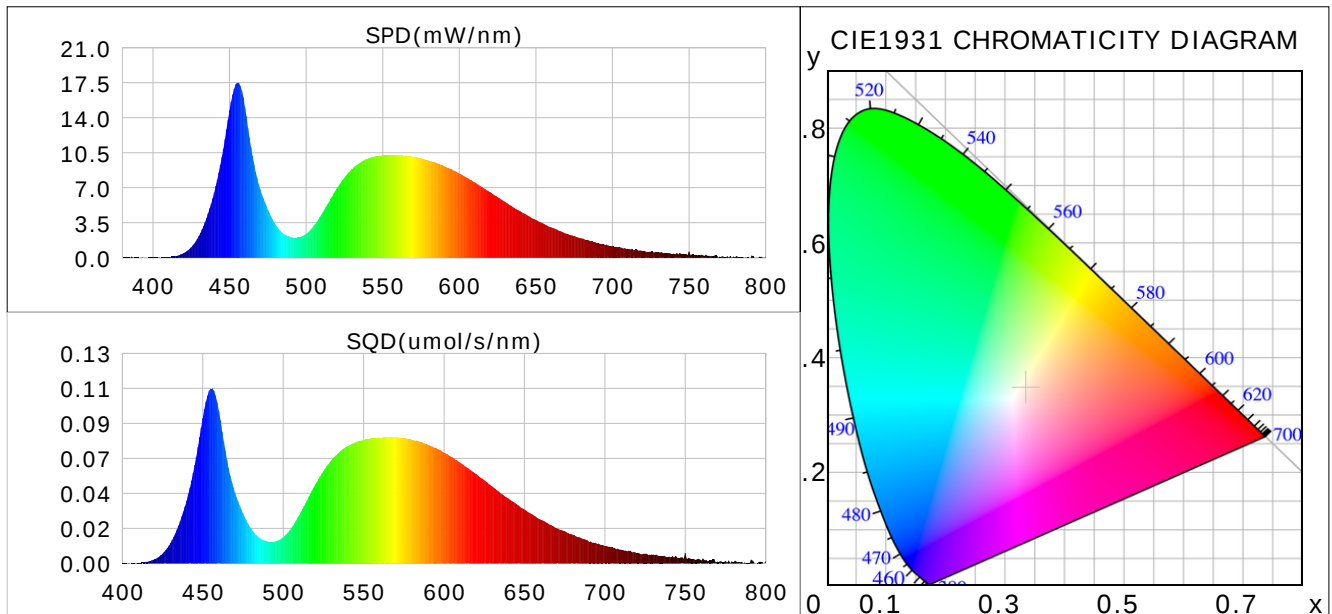
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Plant optical param data

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 CRI: Ra= 73.3



Plant Optical Param

$\mu_v(lm)$: 602.13	$Q_v(lm.s)$: 602.13
$\mu_e, \dot{E}(W/nm)$: 1.83	$Q_e(J)$: 1.83
$\mu_e(W)$: 1.79	$\mu_{fr}(W)$: 0.04
$\dot{C}_e$: 0.26	$\dot{C}_{fr}$: 0.01
$PPE(umol/s/w)$: 1.17	K_{fr} : 0.03
Erb_Ratio : 0.79	$PPF(umol/s)$: 8.17
$PF_{uv}(360-400)(umol/s)$: 0.00	$PPF(400-500)(umol/s)$: 2.01
$PPF(500-600)(umol/s)$: 3.97	$PPF(600-700)(umol/s)$: 2.19
$PF_{fr}(700-800)(umol/s)$: 0.24	$PPF.t(umol)$: 8.17
$\mu_{ch-A.t}(J)$: 0.15	$\mu_{ch-A}(W)$: 0.15
$\mu_{ch-B.t}(J)$: 0.10	$\mu_{ch-B}(W)$: 0.10
$\mu_b.t(J)$: 0.53	$\mu_b(W)$: 0.53
$\mu_y.t(J)$: 0.86	$\mu_y(W)$: 0.86
$\mu_r.t(J)$: 0.42	$\mu_r(W)$: 0.42

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