

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhre
 Product Spec: LED-PL-2G11-I-23-WWM-360
 Manufacturer: METOLIGHT
 Buyer: 4493

Product Type: LED-PL-Röhre-2G11
 Product Number: 1
 Submitted Unit: 104616

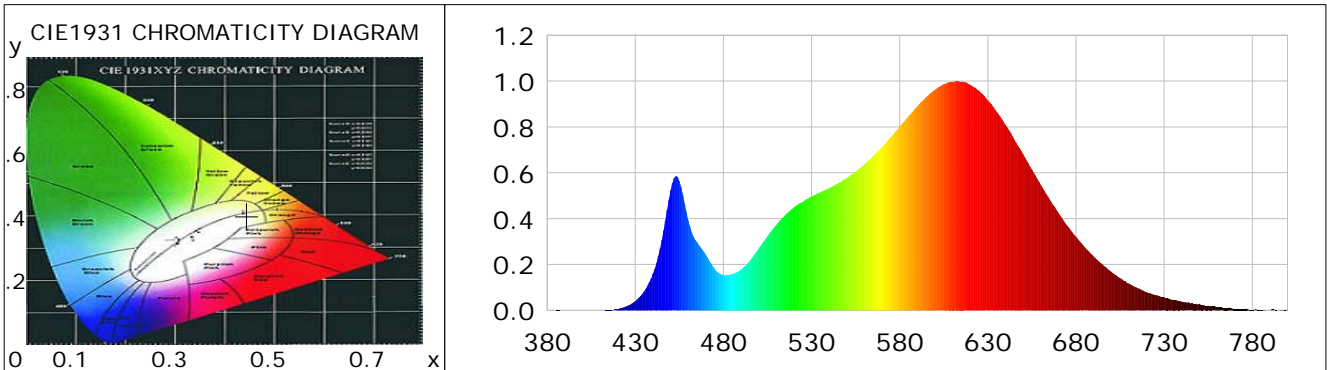
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4449$ $y=0.4006$ $u(u')=0.2573$ $v=0.3475$ $v'=0.5212$
 CCT: $T_c=2842K$ ($duv=-0.00235$) Color Ratio: $R=0.248$ $G=0.728$ $B=0.023$
 Peak Wavelength: 612.7nm Half Bandwidth: 133.0nm
 Dominant Wavelength: 584.4nm Color Purity: 0.538
 CRI: $R_a = 86.7$, $avgR(1\sim14) = 82.4$, $avgR(1\sim15) = 82.2$ TM30: $R_f = 86$, $R_g = 99$
 GAI: $GAI_BB_8 = 103.9$, $GAI_BB_15 = 111.3$, $GAI_EES = 55.0$

R1 =86	R2 =93	R3 =97	R4 =86	R5 =87	R6 =92	R7 =85	R8 =67
R9 =28	R10=84	R11=86	R12=74	R13=88	R14=99	R15=80	

Color Quality Scale: $Q_a = 84.7$, $Q_f = 85.6$, $Q_p = 88.6$, $Q_g = 95.5$

Q1 =82	Q2 =95	Q3 =83	Q4 =81	Q5 =86	Q6 =86	Q7 =84	Q8 =86
Q9 =96	Q10=90	Q11=87	Q12=86	Q13=86	Q14=78	Q15=79	



Photometric Parameters

Luminous Flux: 2425.1 lm	Efficiency: 106.64 lm/W	Radiant Power: 7.618 W
Total mains efficacy: 125.41 lm/W	Energy Efficiency Class: E (EU 2019/2015)	
Pupil Flux: 2986.53 Plm	Pupil Lumens Per Watt: 131.33 Plm/W	Pupil Factor (Kp): 1.232
Cirtopic Flux: 5400.97 lm		

Electric Parameters

Voltage: 230.60V	Current: 0.1040A	Power: 22.74W
Power Factor: 0.9430	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: 55741 (2358)	CCD Integration Time: 191.98 ms

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: 2021-02-26 12:00:22
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.0206	525	0.4723	24.2566	670	0.4264	21.8978
385	0.0008	0.0412	530	0.4970	25.5254	675	0.3698	18.9915
390	0.0005	0.0236	535	0.5151	26.4538	680	0.3206	16.4659
395	0.0001	0.0026	540	0.5326	27.3552	685	0.2746	14.1061
400	0.0003	0.0152	545	0.5540	28.4518	690	0.2346	12.0505
405	0.0000	0.0022	550	0.5773	29.6496	695	0.1998	10.2603
410	0.0006	0.0294	555	0.6049	31.0692	700	0.1684	8.6515
415	0.0014	0.0696	560	0.6373	32.7315	705	0.1408	7.2315
420	0.0059	0.3025	565	0.6727	34.5508	710	0.1169	6.0020
425	0.0181	0.9293	570	0.7124	36.5896	715	0.0970	4.9821
430	0.0402	2.0634	575	0.7561	38.8355	720	0.0795	4.0851
435	0.0821	4.2181	580	0.8016	41.1725	725	0.0673	3.4570
440	0.1594	8.1878	585	0.8466	43.4807	730	0.0566	2.9094
445	0.3068	15.7560	590	0.8903	45.7266	735	0.0457	2.3464
450	0.5226	26.8427	595	0.9300	47.7666	740	0.0377	1.9384
455	0.5647	29.0037	600	0.9621	49.4138	745	0.0300	1.5390
460	0.3934	20.2070	605	0.9867	50.6799	750	0.0292	1.5018
465	0.2974	15.2741	610	0.9970	51.2078	755	0.0199	1.0223
470	0.2428	12.4703	615	0.9980	51.2597	760	0.0143	0.7330
475	0.1811	9.3022	620	0.9840	50.5401	765	0.0101	0.5201
480	0.1541	7.9160	625	0.9575	49.1781	770	0.0065	0.3355
485	0.1587	8.1486	630	0.9152	47.0051	775	0.0055	0.2836
490	0.1778	9.1344	635	0.8663	44.4923	780	0.0041	0.2102
495	0.2162	11.1040	640	0.8087	41.5332	785	0.0021	0.1066
500	0.2693	13.8316	645	0.7448	38.2548	790	0.0006	0.0283
505	0.3234	16.6089	650	0.6811	34.9807	795	0.0005	0.0260
510	0.3735	19.1815	655	0.6147	31.5703	800	0.0031	0.1597
515	0.4149	21.3075	660	0.5477	28.1290			
520	0.4492	23.0705	665	0.4853	24.9277			

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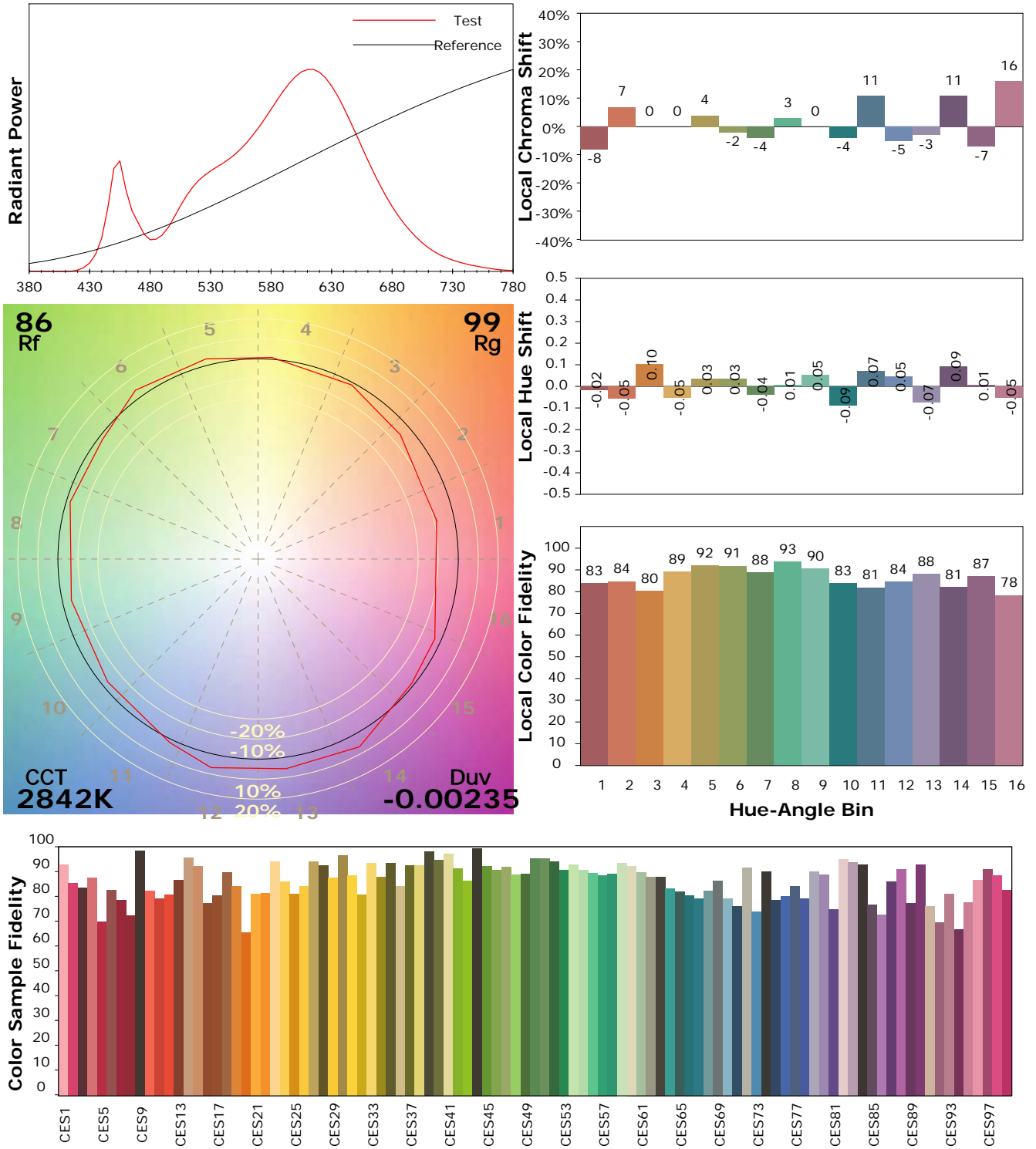
Test Device: Lisun LMS-9000B
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IES TM-30-18 Color Rendition Report

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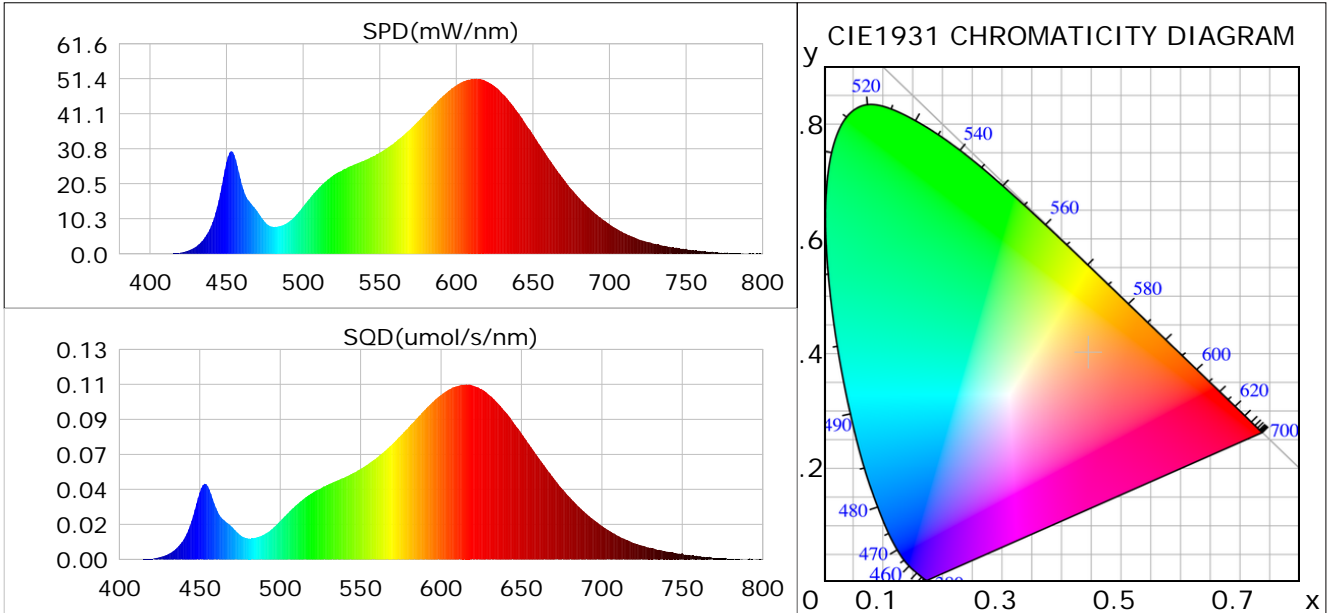
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Plant optical param data

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Plant Optical Param

$ \mu_v(lm)$: 2425.10	$Q_v(lm.s)$: 2425.10
$ \mu_e, \dot{E}(W/nm)$: 7.62	$Q_e(J)$: 7.62
$ \mu_e(W)$: 7.41	$ \mu_{fr}(W)$: 0.22
$ \zeta_e$: 0.33	$ \zeta_{fr}$: 0.01
PPE(umol/s/w): 1.58	Kfr: 0.06
Erb_Ratio: 3.51	PPF(umol/s): 36.03
PFuv(360-400)(umol/s): 0.00	PPF(400-500)(umol/s): 3.66
PPF(500-600)(umol/s): 14.70	PPF(600-700)(umol/s): 17.67
PPfr(700-800)(umol/s): 1.29	PPF.t(umol): 36.03
$ \mu_{ch-A.t}(J)$: 0.60	$ \mu_{ch-A}(W)$: 0.60
$ \mu_{ch-B.t}(J)$: 0.30	$ \mu_{ch-B}(W)$: 0.30
$ \mu_b.t(J)$: 0.94	$ \mu_b(W)$: 0.94
$ \mu_y.t(J)$: 3.16	$ \mu_y(W)$: 3.16
$ \mu_r.t(J)$: 3.36	$ \mu_r(W)$: 3.36

Electric Parameters

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Power Factor: 0.9430	Frequency: 49.99Hz	

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