

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-010-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101200

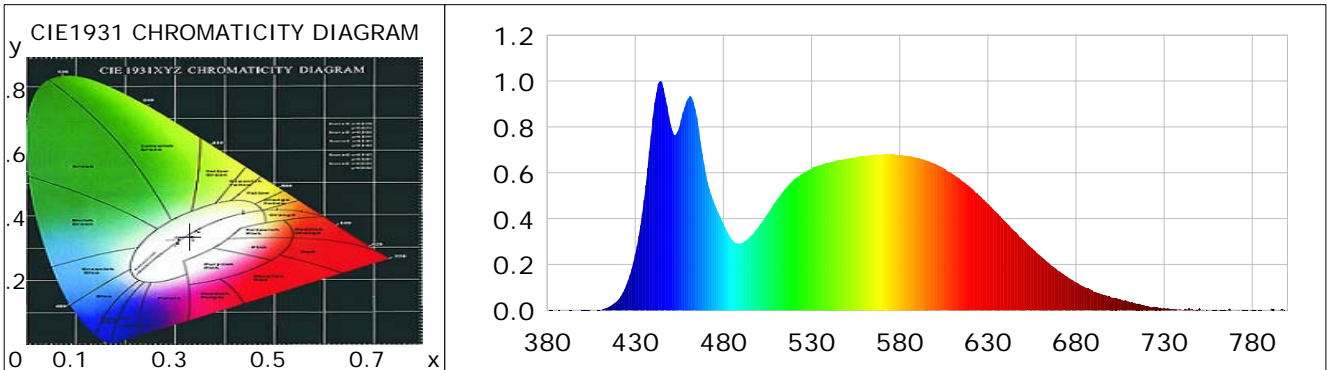
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3300$ $y=0.3371$ $u(u')=0.2067$ $v=0.3168$ $v'=0.4752$
 CCT: $T_c=5612K$ ($duv=-0.00092$) Color Ratio: $R=0.150$ $G=0.799$ $B=0.050$
 Peak Wavelength: 444.3nm Half Bandwidth: 37.9nm
 Dominant Wavelength: 507.6nm Color Purity: 0.010
 CRI: $R_a=84.1$, $avgR(1\sim14)=77.6$, $avgR(1\sim15)=77.8$ TM30: $R_f=83$, $R_g=96$
 GAI: $GAI_BB_8=95.0$, $GAI_BB_15=99.3$, $GAI_EES=88.1$

R1 =83	R2 =89	R3 =90	R4 =84	R5 =84	R6 =83	R7 =88	R8 =72
R9 =17	R10=71	R11=82	R12=64	R13=85	R14=94	R15=80	

Color Quality Scale: $Q_a=80.7$, $Q_f=80.4$, $Q_p=81.8$, $Q_g=93.4$

Q1 =86	Q2 =98	Q3 =76	Q4 =70	Q5 =77	Q6 =81	Q7 =86	Q8 =90
Q9 =95	Q10=84	Q11=79	Q12=79	Q13=81	Q14=73	Q15=78	



Photometric Parameters

Luminous Flux: 1129.9 lm	Efficiency: 119.95 lm/W	Radiant Power: 3.579 W
Total mains efficacy: 141.06 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 1992.46 Plm	Pupil Lumens Per Watt: 211.51 Plm/W	Pupil Factor (Kp): 1.763
Cirtopic Flux: 4437.15 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.0420A	Power: 9.42W
Power Factor: 0.9490	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: 45293 (2675)	CCD Integration Time: 275.30 ms

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.0072	525	0.5974	15.4193	670	0.1724	4.4498
385	0.0006	0.0154	530	0.6179	15.9491	675	0.1475	3.8083
390	0.0005	0.0138	535	0.6328	16.3326	680	0.1227	3.1680
395	0.0001	0.0030	540	0.6434	16.6077	685	0.1007	2.5997
400	0.0010	0.0245	545	0.6562	16.9377	690	0.0815	2.1042
405	0.0002	0.0064	550	0.6620	17.0881	695	0.0697	1.7993
410	0.0023	0.0606	555	0.6672	17.2220	700	0.0561	1.4487
415	0.0155	0.4008	560	0.6717	17.3383	705	0.0488	1.2603
420	0.0431	1.1123	565	0.6772	17.4794	710	0.0382	0.9867
425	0.1117	2.8835	570	0.6789	17.5233	715	0.0292	0.7549
430	0.2455	6.3372	575	0.6812	17.5822	720	0.0189	0.4882
435	0.4820	12.4419	580	0.6782	17.5046	725	0.0141	0.3650
440	0.8412	21.7131	585	0.6717	17.3372	730	0.0107	0.2755
445	0.9974	25.7455	590	0.6639	17.1358	735	0.0043	0.1103
450	0.8116	20.9493	595	0.6532	16.8601	740	0.0028	0.0712
455	0.7998	20.6445	600	0.6388	16.4882	745	0.0041	0.1049
460	0.9240	23.8489	605	0.6198	15.9992	750	0.0101	0.2616
465	0.8413	21.7147	610	0.5941	15.3344	755	0.0035	0.0896
470	0.5972	15.4141	615	0.5665	14.6218	760	0.0010	0.0259
475	0.4623	11.9336	620	0.5373	13.8689	765	0.0013	0.0323
480	0.3785	9.7709	625	0.5019	12.9550	770	0.0013	0.0345
485	0.3070	7.9247	630	0.4647	11.9942	775	0.0016	0.0412
490	0.2929	7.5607	635	0.4259	10.9919	780	0.0037	0.0950
495	0.3191	8.2374	640	0.3865	9.9758	785	0.0018	0.0460
500	0.3651	9.4228	645	0.3462	8.9357	790	0.0001	0.0029
505	0.4204	10.8508	650	0.3085	7.9630	795	0.0008	0.0202
510	0.4793	12.3703	655	0.2714	7.0061	800	0.0037	0.0942
515	0.5294	13.6650	660	0.2367	6.1088			
520	0.5697	14.7048	665	0.2038	5.2610			

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

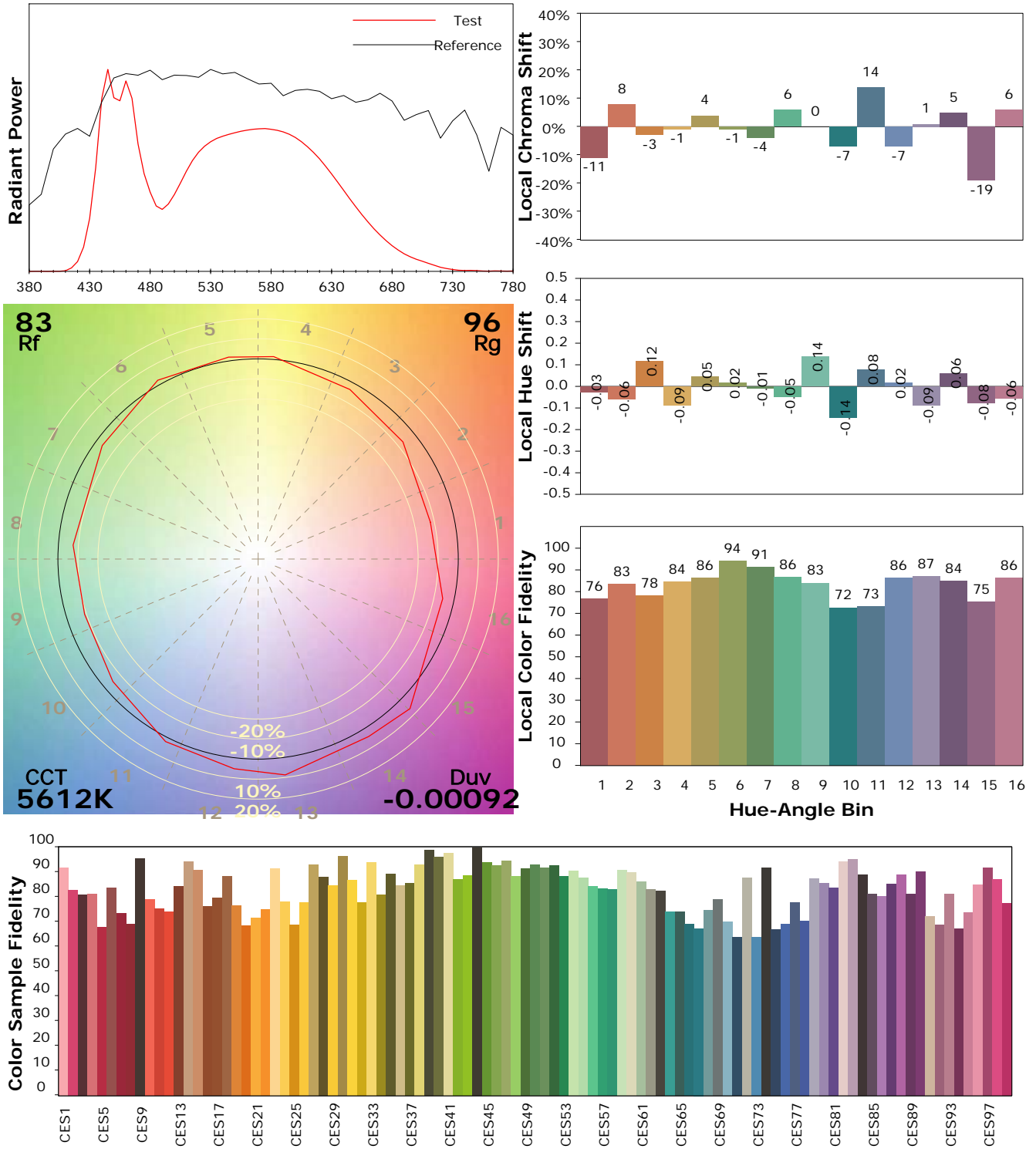
Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 09:36:16
 Inspector:

IES TM-30-18 Color Rendition Report

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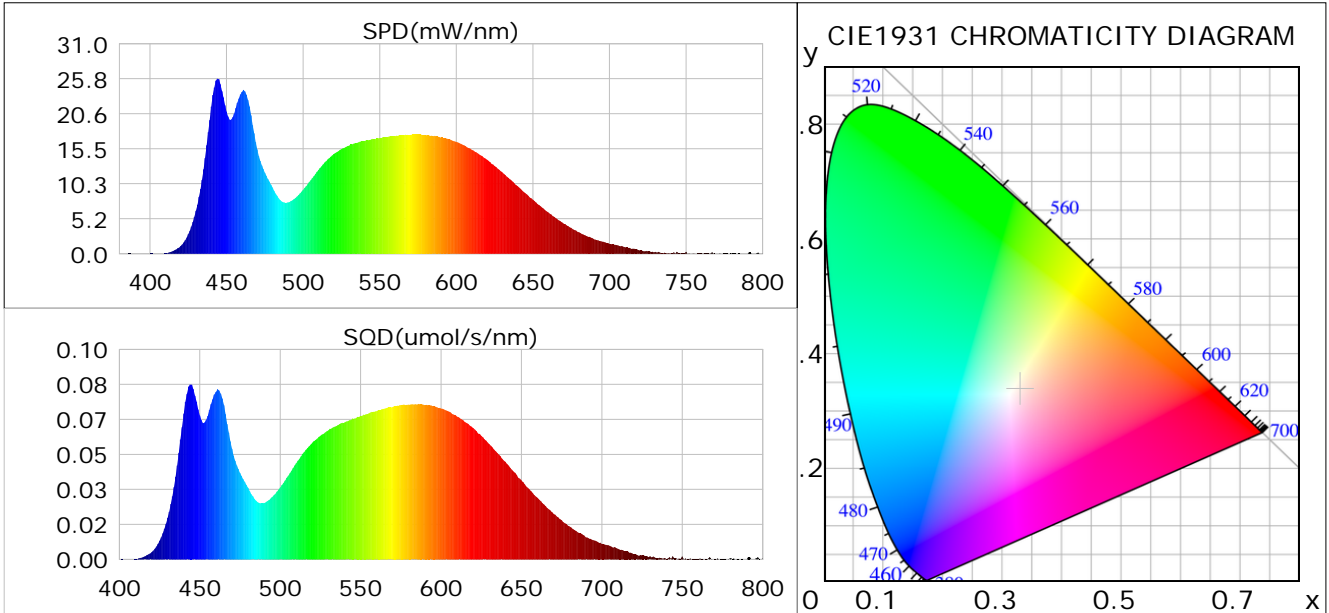
Condition: Tx:0.0°C, Ti:0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 09:36:16
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Plant optical param data

CIE Colorimetric Parameters

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 CCT: $T_c=5612K$ ($duv=-0.00092$) Color Ratio: $R=0.150$ $G=0.799$ $B=0.050$
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 Dominant Wavelength: 507.6nm Color Purity: 0.010
 CRI: $R_a=84.1$



Plant Optical Param

$ \mu_v(lm): 1129.90$	$Q_v(lm.s): 1129.90$
$ \mu_e, \dot{E}(W/nm): 3.58$	$Q_e(J): 3.58$
$ \mu_e(W): 3.55$	$ \mu_{fr}(W): 0.03$
$ \zeta_e: 0.38$	$ \zeta_{fr}: 0.00$
$PPE(umol/s/w): 1.71$	$K_{fr}: 0.02$
$Erb_Ratio: 0.74$	$PPF(umol/s): 16.10$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 4.30$
$PPF(500-600)(umol/s): 7.40$	$PPF(600-700)(umol/s): 4.41$
$PPF_{fr}(700-800)(umol/s): 0.17$	$PPF.t(umol): 16.10$
$ \mu_{ch-A.t}(J): 0.31$	$ \mu_{ch-A}(W): 0.31$
$ \mu_{ch-B.t}(J): 0.20$	$ \mu_{ch-B}(W): 0.20$
$ \mu_b.t(J): 1.12$	$ \mu_b(W): 1.12$
$ \mu_y.t(J): 1.61$	$ \mu_y(W): 1.61$
$ \mu_r.t(J): 0.85$	$ \mu_r(W): 0.85$

Electric Parameters

Voltage: 230.80V	Current: 0.0420A	Power: 9.42W
Power Factor: 0.9490	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: 2021-08-18 09:36:16
 Inspector: