

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-100-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101306

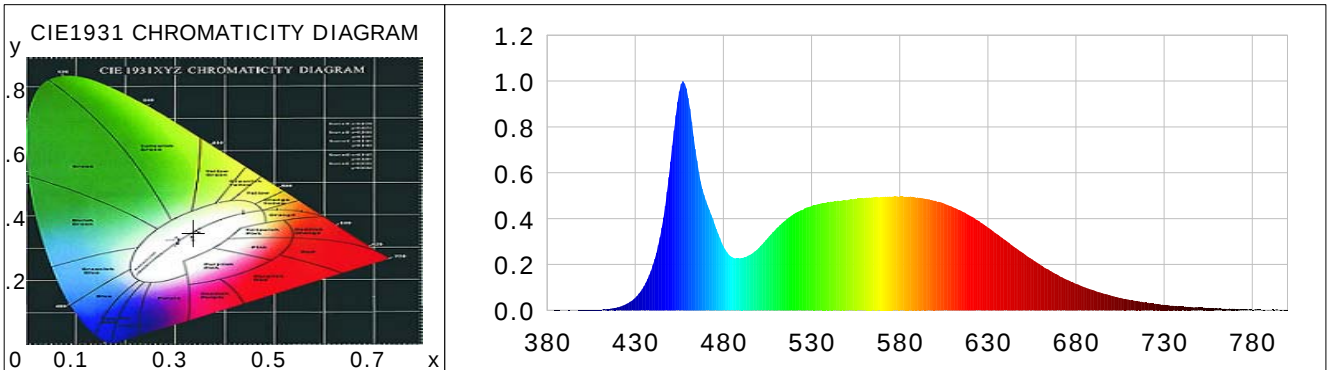
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3370$ $y=0.3485$ $u(u')=0.2071$ $v=0.3213$ $v'=0.4820$
 CCT: $T_c=5314K$ ($duv=0.00181$) Color Ratio: $R=0.156$ $G=0.792$ $B=0.053$
 Peak Wavelength: 457.0nm Half Bandwidth: 21.4nm
 Dominant Wavelength: 563.5nm Color Purity: 0.057
 CRI: $R_a=85.2$, $avgR(1\sim14)=79.1$, $avgR(1\sim15)=79.2$ TM30: $R_f=83$, $R_g=93$
 GAI: $GAI_BB_8=91.9$, $GAI_BB_15=98.6$, $GAI_EES=83.3$

R1 =85	R2 =93	R3 =94	R4 =82	R5 =83	R6 =87	R7 =87	R8 =71
R9 =23	R10=79	R11=80	R12=58	R13=88	R14=97	R15=81	

Color Quality Scale: $Q_a=82.0$, $Q_f=82.2$, $Q_p=81.6$, $Q_g=91.9$

Q1 =82	Q2 =98	Q3 =79	Q4 =71	Q5 =76	Q6 =79	Q7 =85	Q8 =90
Q9 =97	Q10=89	Q11=84	Q12=84	Q13=84	Q14=76	Q15=79	



Photometric Parameters

Luminous Flux: 12060 lm	Efficiency: 121.11 lm/W	Radiant Power: 38.269 W
Total mains efficacy: 142.42 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 21302.71 Plm	Pupil Lumens Per Watt: 213.93 Plm/W	Pupil Factor (Kp): 1.766
Cirtpic Flux: 47838.59 lm		

Electric Parameters

Voltage: 230.90V	Current: 0.4360A	Power: 99.58W
Power Factor: 0.9860	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: 45711 (2594)	CCD Integration Time: 18.88 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 11:10:52
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.1819	525	0.4381	162.9394	670	0.1533	57.0162
385	0.0008	0.3141	530	0.4546	169.1011	675	0.1328	49.4035
390	0.0011	0.3911	535	0.4652	173.0158	680	0.1157	43.0440
395	0.0009	0.3465	540	0.4717	175.4541	685	0.1002	37.2844
400	0.0014	0.5125	545	0.4784	177.9480	690	0.0873	32.4741
405	0.0020	0.7495	550	0.4802	178.6071	695	0.0746	27.7403
410	0.0033	1.2137	555	0.4871	181.1872	700	0.0637	23.6955
415	0.0060	2.2438	560	0.4906	182.4844	705	0.0550	20.4555
420	0.0135	5.0240	565	0.4935	183.5511	710	0.0464	17.2576
425	0.0279	10.3953	570	0.4949	184.0630	715	0.0398	14.8207
430	0.0549	20.4029	575	0.4961	184.5177	720	0.0343	12.7751
435	0.1058	39.3608	580	0.4964	184.6562	725	0.0287	10.6689
440	0.1975	73.4527	585	0.4952	184.1856	730	0.0240	8.9417
445	0.3606	134.1193	590	0.4926	183.2075	735	0.0206	7.6690
450	0.6480	241.0124	595	0.4863	180.8833	740	0.0177	6.5814
455	0.9544	354.9777	600	0.4782	177.8676	745	0.0149	5.5341
460	0.9258	344.3498	605	0.4664	173.4904	750	0.0131	4.8733
465	0.6534	243.0313	610	0.4508	167.6929	755	0.0109	4.0709
470	0.4801	178.5771	615	0.4337	161.3322	760	0.0097	3.6143
475	0.3754	139.6273	620	0.4120	153.2487	765	0.0068	2.5451
480	0.2794	103.9225	625	0.3892	144.7781	770	0.0064	2.3855
485	0.2321	86.3274	630	0.3615	134.4476	775	0.0044	1.6412
490	0.2277	84.6796	635	0.3331	123.8920	780	0.0042	1.5507
495	0.2416	89.8491	640	0.3051	113.4874	785	0.0037	1.3722
500	0.2715	100.9841	645	0.2763	102.7619	790	0.0013	0.4850
505	0.3141	116.8219	650	0.2494	92.7497	795	0.0012	0.4557
510	0.3571	132.8285	655	0.2228	82.8807	800	0.0024	0.8968
515	0.3913	145.5340	660	0.1975	73.4738			
520	0.4205	156.4249	665	0.1745	64.8943			

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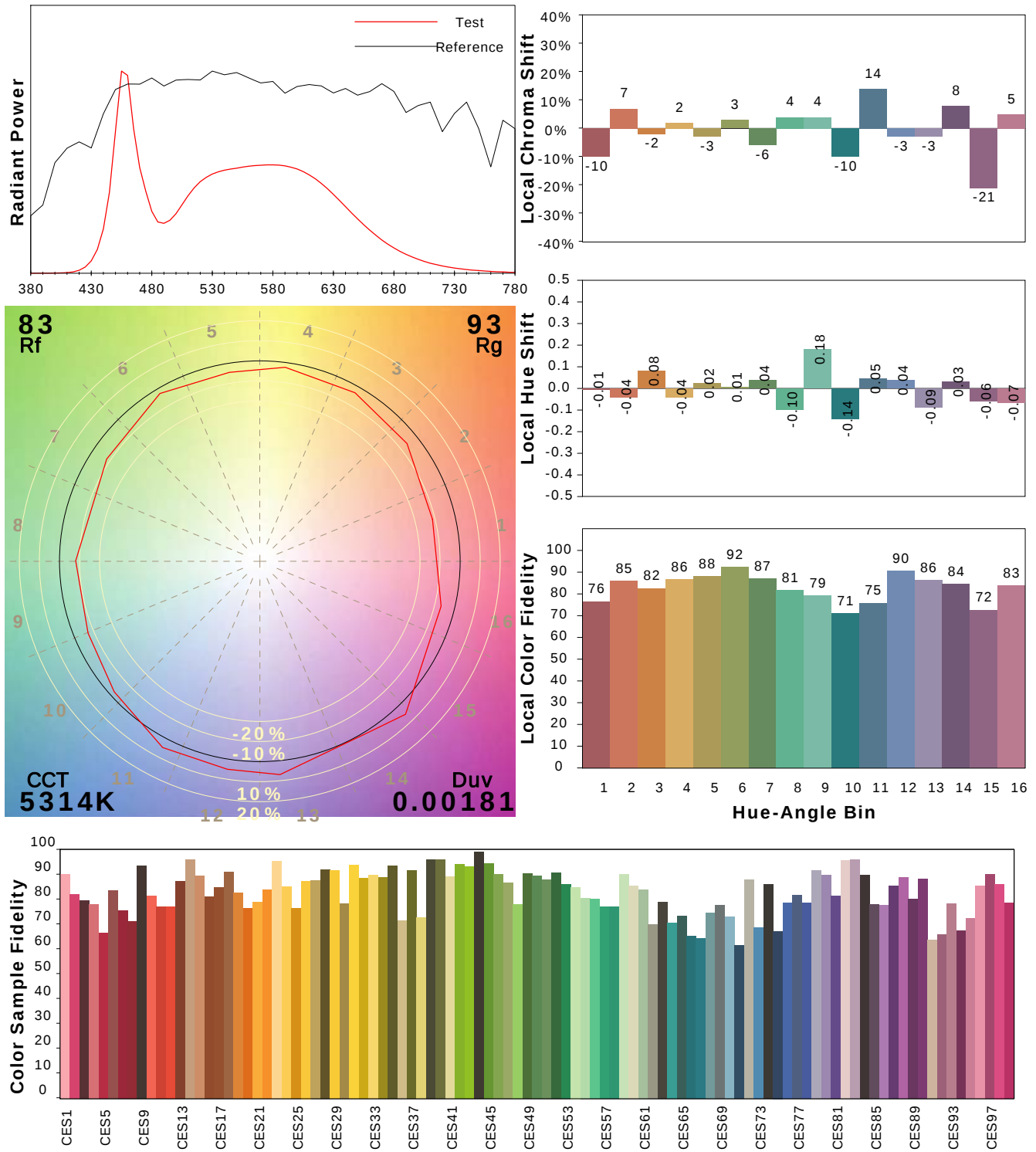
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IES TM-30-18 Color Rendition Report

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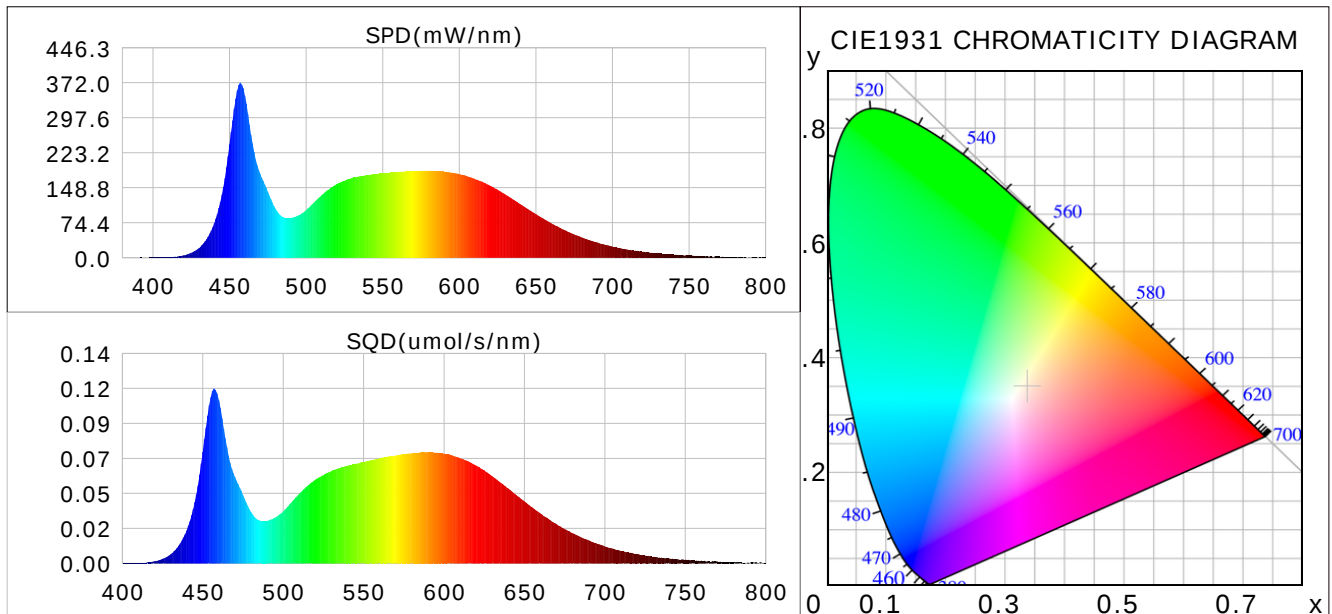
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Plant optical param data

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 CRI: Ra= 85.2



Plant Optical Param

$\mu_v(\text{lm})$: 12060.00	$Q_v(\text{lm.s})$: 12060.00
$\mu_e, \dot{E}(\text{W/nm})$: 38.27	$Q_e(\text{J})$: 38.27
$\mu_e(\text{W})$: 37.60	$\mu_{fr}(\text{W})$: 0.71
ζ_e : 0.38	ζ_{fr} : 0.01
$PPE(\mu\text{mol/s/w})$: 1.73	K_{fr} : 0.04
E_{rb_Ratio} : 0.87	$PPF(\mu\text{mol/s})$: 172.21
$PF_{uv}(360-400)(\mu\text{mol/s})$: 0.02	$PPF(400-500)(\mu\text{mol/s})$: 42.84
$PPF(500-600)(\mu\text{mol/s})$: 78.33	$PPF(600-700)(\mu\text{mol/s})$: 51.03
$PF_{fr}(700-800)(\mu\text{mol/s})$: 4.16	$PPF.t(\mu\text{mol})$: 172.21
$\mu_{ch-A.t}(\text{J})$: 2.88	$\mu_{ch-A}(\text{W})$: 2.88
$\mu_{ch-B.t}(\text{J})$: 2.13	$\mu_{ch-B}(\text{W})$: 2.13
$\mu_{b.t}(\text{J})$: 11.06	$\mu_b(\text{W})$: 11.06
$\mu_{y.t}(\text{J})$: 17.04	$\mu_y(\text{W})$: 17.04
$\mu_{r.t}(\text{J})$: 9.78	$\mu_r(\text{W})$: 9.78

Electric Parameters

Voltage: 230.90V	Current: 0.4360A	Power: 99.58W
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