

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-020-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101201

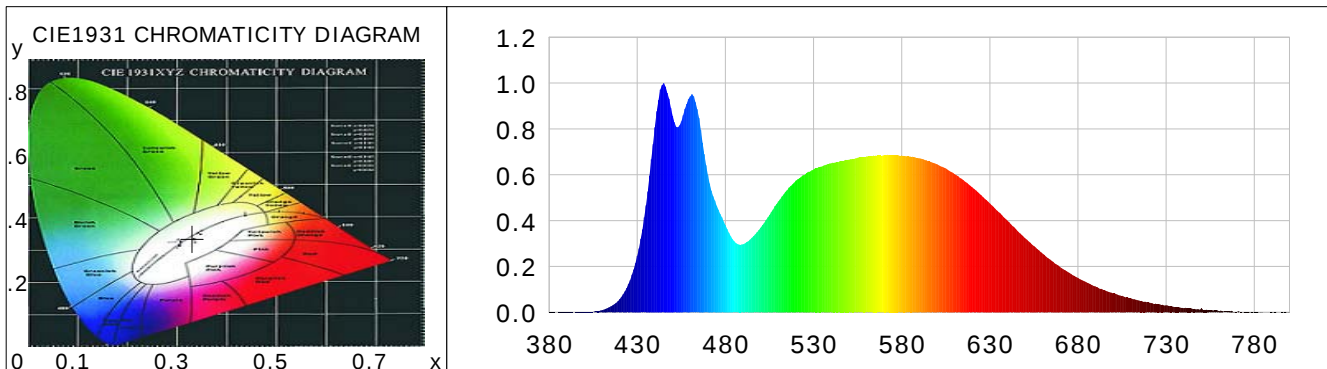
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3305$ $y=0.3366$ $u(u')=0.2072$ $v=0.3166$ $v'=0.4750$
 CCT: $T_c=5590K$ ($duv=-0.00141$) Color Ratio: $R=0.152$ $G=0.798$ $B=0.050$
 Peak Wavelength: 444.9nm Half Bandwidth: 37.8nm
 Dominant Wavelength: 507.9nm Color Purity: 0.009
 CRI: $R_a=84.7$, $avgR(1\sim14)=78.4$, $avgR(1\sim15)=78.7$ TM30: $R_f=83$, $R_g=96$
 GAI: $GAI_BB_8=95.7$, $GAI_BB_15=100.1$, $GAI_EES=88.7$

R1 =84	R2 =89	R3 =90	R4 =84	R5 =84	R6 =84	R7 =88	R8 =73
R9 =21	R10=72	R11=82	R12=65	R13=86	R14=95	R15=81	

Color Quality Scale: $Q_a=81.1$, $Q_f=80.7$, $Q_p=82.4$, $Q_g=94.0$

Q1 =86	Q2 =98	Q3 =76	Q4 =70	Q5 =78	Q6 =82	Q7 =86	Q8 =90
Q9 =94	Q10=84	Q11=79	Q12=79	Q13=81	Q14=74	Q15=79	



Photometric Parameters

Luminous Flux: 2343.0 lm	Efficiency: 118.21 lm/W	Radiant Power: 7.557 W
Total mains efficacy: 139.02 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 4132.48 Plm	Pupil Lumens Per Watt: 208.50 Plm/W	Pupil Factor (Kp): 1.764
Cirtpic Flux: 9210.14 lm		

Electric Parameters

Voltage: 230.60V	Current: 0.0880A	Power: 19.82W
Power Factor: 0.9700	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: 46160 (2562)	CCD Integration Time: 131.46 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 09:25:46
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0009	0.0483	525	0.6002	31.7905	670	0.1967	10.4180
385	0.0009	0.0501	530	0.6232	33.0055	675	0.1726	9.1402
390	0.0012	0.0636	535	0.6371	33.7416	680	0.1502	7.9531
395	0.0007	0.0383	540	0.6506	34.4596	685	0.1302	6.8970
400	0.0016	0.0828	545	0.6594	34.9278	690	0.1124	5.9550
405	0.0027	0.1456	550	0.6659	35.2720	695	0.0974	5.1585
410	0.0098	0.5173	555	0.6737	35.6813	700	0.0827	4.3798
415	0.0263	1.3905	560	0.6796	35.9948	705	0.0720	3.8122
420	0.0579	3.0644	565	0.6839	36.2214	710	0.0610	3.2333
425	0.1240	6.5691	570	0.6859	36.3277	715	0.0509	2.6955
430	0.2461	13.0342	575	0.6858	36.3223	720	0.0437	2.3139
435	0.4667	24.7184	580	0.6842	36.2376	725	0.0361	1.9129
440	0.8074	42.7649	585	0.6791	35.9698	730	0.0312	1.6520
445	1.0000	52.9653	590	0.6718	35.5827	735	0.0235	1.2438
450	0.8571	45.3986	595	0.6590	34.9021	740	0.0187	0.9928
455	0.8334	44.1397	600	0.6459	34.2108	745	0.0152	0.8037
460	0.9424	49.9125	605	0.6279	33.2571	750	0.0187	0.9907
465	0.8477	44.8977	610	0.6031	31.9450	755	0.0084	0.4466
470	0.5994	31.7451	615	0.5768	30.5514	760	0.0051	0.2689
475	0.4652	24.6381	620	0.5458	28.9074	765	0.0049	0.2569
480	0.3807	20.1651	625	0.5114	27.0888	770	0.0023	0.1223
485	0.3103	16.4330	630	0.4747	25.1427	775	0.0029	0.1510
490	0.2970	15.7321	635	0.4372	23.1559	780	0.0023	0.1205
495	0.3251	17.2188	640	0.3994	21.1567	785	0.0009	0.0490
500	0.3697	19.5810	645	0.3609	19.1158	790	0.0015	0.0774
505	0.4245	22.4856	650	0.3232	17.1182	795	0.0010	0.0511
510	0.4840	25.6332	655	0.2892	15.3187	800	0.0033	0.1728
515	0.5332	28.2431	660	0.2556	13.5366			
520	0.5746	30.4356	665	0.2255	11.9415			

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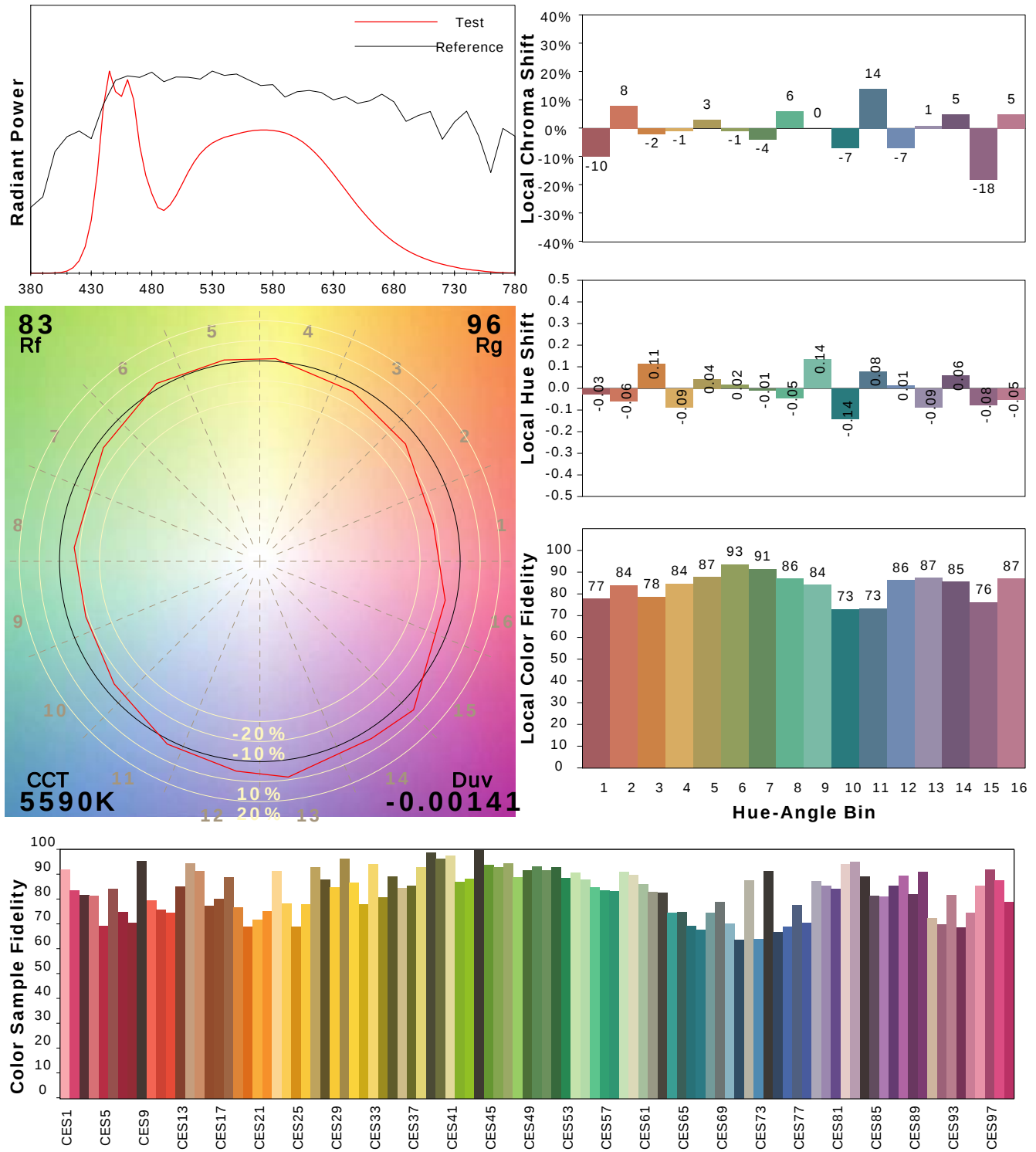
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IES TM-30-18 Color Rendition Report

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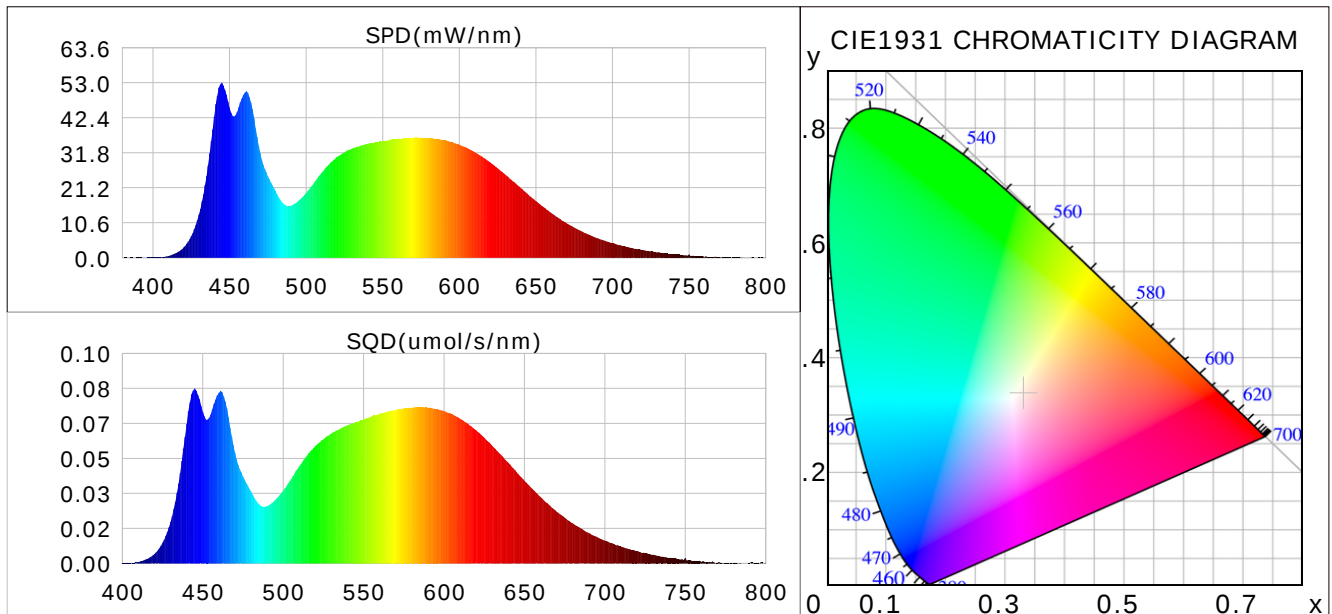
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Plant optical param data

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 CRI: Ra= 84.7



Plant Optical Param

$\mu_v(lm): 2343.00$	$Q_v(lm.s): 2343.00$
$\mu_e, E(W/nm): 7.56$	$Q_e(J): 7.56$
$\mu_e(W): 7.44$	$\mu_{fr}(W): 0.12$
$\mu_{ce}: 0.38$	$\mu_{cfr}: 0.01$
$PPE(umol/s/w): 1.71$	$K_{fr}: 0.03$
$Erb_Ratio: 0.77$	$PPF(umol/s): 33.82$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 8.95$
$PPF(500-600)(umol/s): 15.31$	$PPF(600-700)(umol/s): 9.56$
$PF_{fr}(700-800)(umol/s): 0.69$	$PPF.t(umol): 33.82$
$\mu_{ch-A.t}(J): 0.66$	$\mu_{ch-A}(W): 0.66$
$\mu_{ch-B.t}(J): 0.42$	$\mu_{ch-B}(W): 0.42$
$\mu_{b.t}(J): 2.33$	$\mu_b(W): 2.33$
$\mu_{y.t}(J): 3.33$	$\mu_y(W): 3.33$
$\mu_{r.t}(J): 1.83$	$\mu_r(W): 1.83$

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