

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-030-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101202

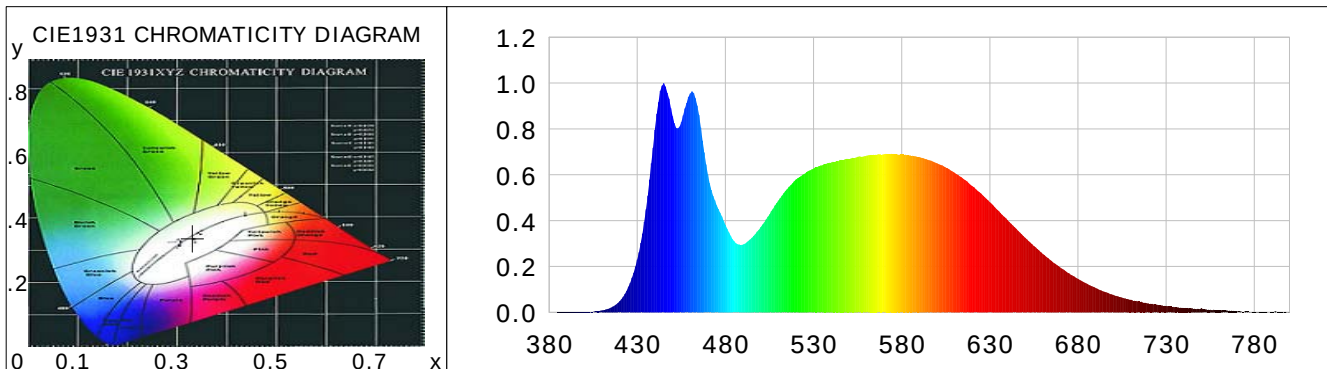
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3313$ $y=0.3380$ $u(u')=0.2073$ $v=0.3172$ $v'=0.4758$
 CCT: $T_c=5550K$ ($duv=-0.00106$) Color Ratio: $R=0.152$ $G=0.798$ $B=0.050$
 Peak Wavelength: 444.9nm Half Bandwidth: 37.6nm
 Dominant Wavelength: 527.1nm Color Purity: 0.010
 CRI: $R_a=84.6$, $avgR(1\sim14)=78.3$, $avgR(1\sim15)=78.5$ TM30: $R_f=83$, $R_g=96$
 GAI: $GAI_BB_8=95.4$, $GAI_BB_15=99.9$, $GAI_EES=88.1$

R1 =84	R2 =89	R3 =91	R4 =84	R5 =84	R6 =84	R7 =88	R8 =73
R9 =21	R10=72	R11=82	R12=64	R13=86	R14=95	R15=81	

Color Quality Scale: $Q_a=81.1$, $Q_f=80.8$, $Q_p=82.3$, $Q_g=93.8$

Q1 =86	Q2 =98	Q3 =76	Q4 =70	Q5 =77	Q6 =82	Q7 =86	Q8 =90
Q9 =95	Q10=84	Q11=80	Q12=80	Q13=81	Q14=74	Q15=79	



Photometric Parameters

Luminous Flux: 3517.7 lm	Efficiency: 119.45 lm/W	Radiant Power: 11.285 W
Total mains efficacy: 140.47 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 6191.48 Plm	Pupil Lumens Per Watt: 210.24 Plm/W	Pupil Factor (Kp): 1.760
Cirtpic Flux: 13782.61 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.1350A	Power: 29.45W
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: 49986 (2590)	CCD Integration Time: 94.19 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 10:01:15
 Inspector:

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-030-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101202

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0007	0.0516	525	0.6046	47.7463	670	0.1956	15.4442
385	0.0010	0.0755	530	0.6272	49.5322	675	0.1700	13.4245
390	0.0012	0.0958	535	0.6422	50.7130	680	0.1460	11.5335
395	0.0019	0.1533	540	0.6539	51.6384	685	0.1256	9.9205
400	0.0021	0.1697	545	0.6646	52.4866	690	0.1064	8.4058
405	0.0032	0.2528	550	0.6692	52.8510	695	0.0896	7.0766
410	0.0085	0.6734	555	0.6784	53.5761	700	0.0766	6.0485
415	0.0204	1.6093	560	0.6831	53.9461	705	0.0645	5.0934
420	0.0485	3.8306	565	0.6872	54.2695	710	0.0554	4.3782
425	0.1120	8.8455	570	0.6898	54.4724	715	0.0472	3.7301
430	0.2301	18.1681	575	0.6906	54.5357	720	0.0389	3.0707
435	0.4491	35.4654	580	0.6884	54.3639	725	0.0333	2.6276
440	0.7963	62.8865	585	0.6836	53.9854	730	0.0283	2.2341
445	1.0000	78.9729	590	0.6772	53.4779	735	0.0226	1.7838
450	0.8557	67.5747	595	0.6648	52.4993	740	0.0189	1.4892
455	0.8305	65.5901	600	0.6505	51.3701	745	0.0169	1.3342
460	0.9544	75.3746	605	0.6318	49.8954	750	0.0183	1.4464
465	0.8613	68.0205	610	0.6088	48.0810	755	0.0118	0.9304
470	0.6023	47.5647	615	0.5827	46.0146	760	0.0095	0.7527
475	0.4672	36.8963	620	0.5511	43.5192	765	0.0072	0.5702
480	0.3825	30.2083	625	0.5181	40.9155	770	0.0052	0.4087
485	0.3106	24.5291	630	0.4802	37.9214	775	0.0042	0.3353
490	0.2963	23.3981	635	0.4423	34.9265	780	0.0029	0.2271
495	0.3253	25.6878	640	0.4027	31.8025	785	0.0022	0.1706
500	0.3718	29.3649	645	0.3647	28.8016	790	0.0017	0.1340
505	0.4276	33.7652	650	0.3255	25.7036	795	0.0015	0.1206
510	0.4874	38.4894	655	0.2897	22.8769	800	0.0040	0.3128
515	0.5382	42.5033	660	0.2554	20.1729			
520	0.5798	45.7911	665	0.2247	17.7460			

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

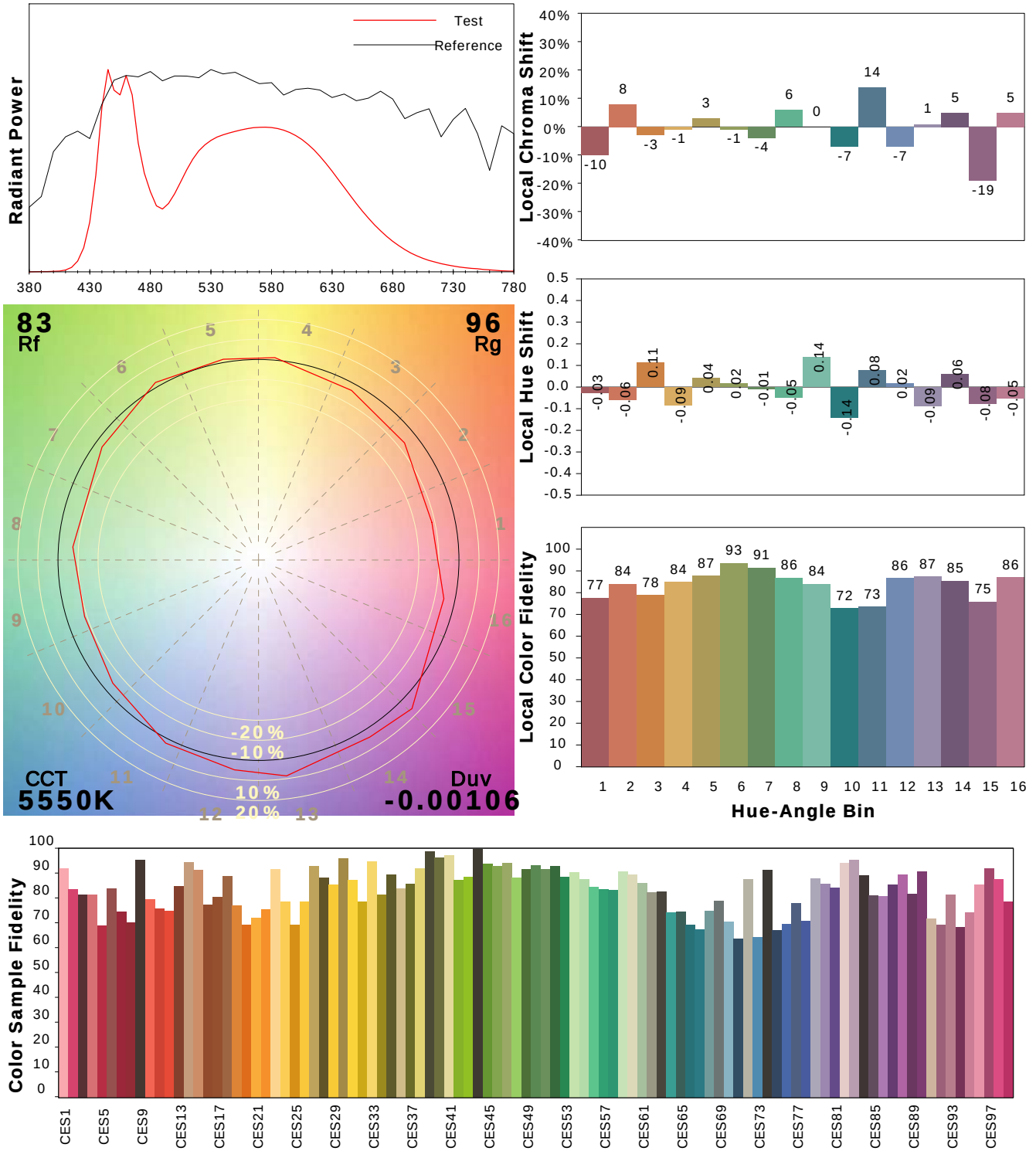
Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 10:01:15
 Inspector:

IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FL-030-W2-CW
 Manufacturer: METOLIGHT
 Buyer: 5069

Product Type: LED-HiPower-Fluter
 Product Number: 1
 Submitted Unit: 101202



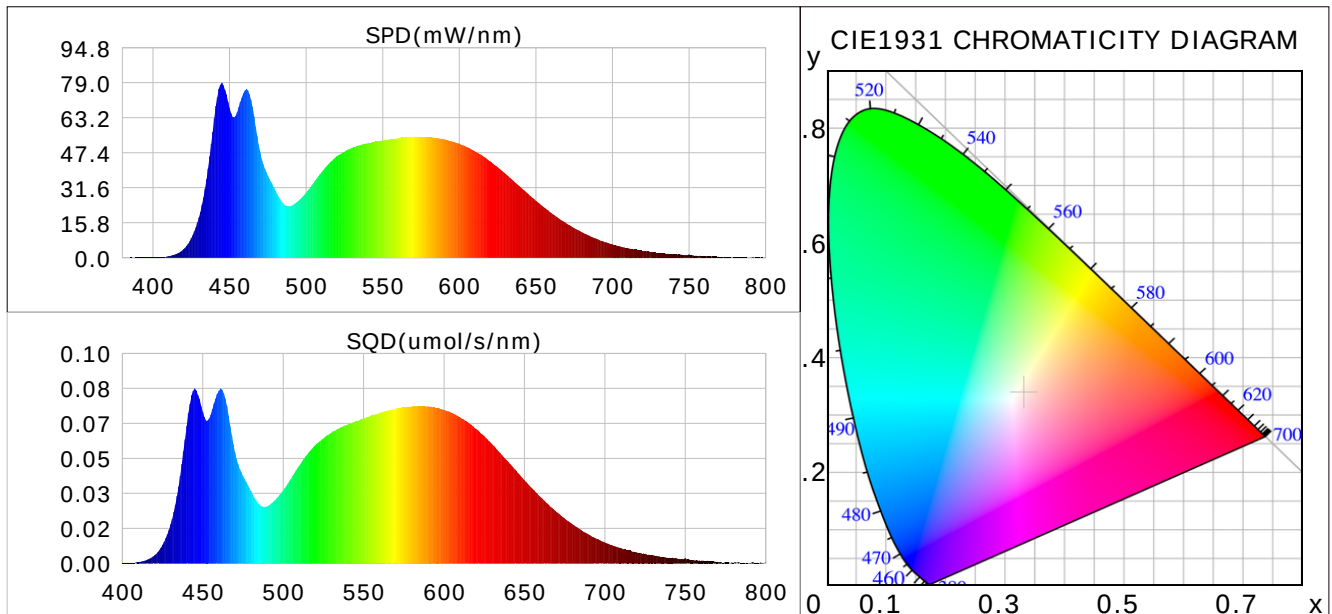
Condition: Tx:0.0°C, Ti:0.0°C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 10:01:15
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3313$ $y=0.3380$ $u(u')=0.2073$ $v=0.3172$ $v'=0.4758$
 CCT: $T_c=5550K$ ($duv=-0.00106$) Color Ratio: $R=0.152$ $G=0.798$ $B=0.050$
 Peak Wavelength: 444.9nm Half Bandwidth: 37.6nm
 Dominant Wavelength: 527.1nm Color Purity: 0.010
 CRI: Ra= 84.6



Plant Optical Param

$\mu_v(lm): 3517.70$	$Q_v(lm.s): 3517.70$
$\mu_e, \dot{E}(W/nm): 11.29$	$Q_e(J): 11.29$
$\mu_e(W): 11.12$	$\mu_{fr}(W): 0.17$
$\dot{C}_e: 0.38$	$\dot{C}_{fr}: 0.01$
$PPE(umol/s/w): 1.72$	$K_{fr}: 0.03$
$Erb_Ratio: 0.78$	$PPF(umol/s): 50.56$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 13.29$
$PPF(500-600)(umol/s): 22.99$	$PPF(600-700)(umol/s): 14.28$
$PF_{fr}(700-800)(umol/s): 1.00$	$PPF.t(umol): 50.56$
$\mu_{ch-A.t}(J): 0.98$	$\mu_{ch-A}(W): 0.98$
$\mu_{ch-B.t}(J): 0.63$	$\mu_{ch-B}(W): 0.63$
$\mu_b.t(J): 3.46$	$\mu_b(W): 3.46$
$\mu_y.t(J): 5.00$	$\mu_y(W): 5.00$
$\mu_r.t(J): 2.74$	$\mu_r(W): 2.74$

Electric Parameters

Voltage: 230.80V	Current: 0.1350A	Power: 29.45W
Power Factor: 0.9430	Frequency: 49.99Hz	

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 10:01:15
 Inspector: