

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FLS-AX3-360-CW
 Manufacturer: METOLIGHT
 Buyer: 1953

Product Type: LED-HiPower-Station
 Product Number: 1
 Submitted Unit: 101794

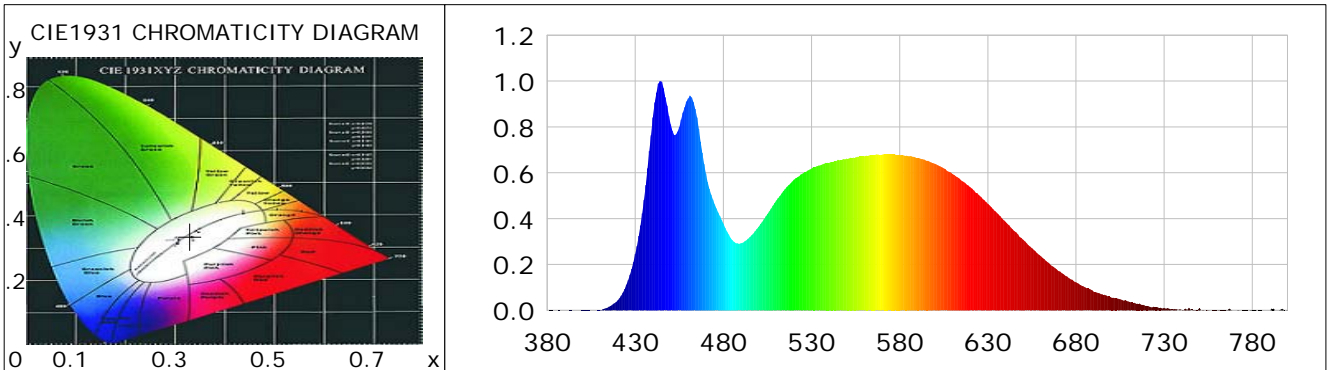
CIE Colorimetric Parameters

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: 43102 lm	Efficiency: 121.41 lm/W	Radiant Power: 136.525 W
Total mains efficacy: 142.78 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 76006.00 Plm	Pupil Lumens Per Watt: 214.10 Plm/W	Pupil Factor (Kp): 1.763
Cirtpic Flux: 169262.70 lm		

Electric Parameters

Voltage: 230.00V	Current: 1.5430A	Power: 355.00W
Power Factor: 0.9590	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

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FLS-AX3-360-CW
 Manufacturer: METOLIGHT
 Buyer: 1953

Product Type: LED-HiPower-Station
 Product Number: 1
 Submitted Unit: 101794

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.2730	525	0.5974	588.1978	670	0.1724	169.7444
385	0.0006	0.5890	530	0.6179	608.4044	675	0.1475	145.2734
390	0.0005	0.5261	535	0.6328	623.0349	680	0.1227	120.8499
395	0.0001	0.1153	540	0.6434	633.5311	685	0.1007	99.1706
400	0.0010	0.9360	545	0.6562	646.1188	690	0.0815	80.2665
405	0.0002	0.2432	550	0.6620	651.8547	695	0.0697	68.6383
410	0.0023	2.3118	555	0.6672	656.9629	700	0.0561	55.2624
415	0.0155	15.2883	560	0.6717	661.3983	705	0.0488	48.0776
420	0.0431	42.4299	565	0.6772	666.7818	710	0.0382	37.6407
425	0.1117	109.9963	570	0.6789	668.4575	715	0.0292	28.7964
430	0.2455	241.7425	575	0.6812	670.7049	720	0.0189	18.6220
435	0.4820	474.6177	580	0.6782	667.7439	725	0.0141	13.9224
440	0.8412	828.2826	585	0.6717	661.3580	730	0.0107	10.5110
445	0.9974	982.1064	590	0.6639	653.6747	735	0.0043	4.2094
450	0.8116	799.1484	595	0.6532	643.1576	740	0.0028	2.7146
455	0.7998	787.5188	600	0.6388	628.9724	745	0.0041	4.0029
460	0.9240	909.7590	605	0.6198	610.3182	750	0.0101	9.9789
465	0.8413	828.3439	610	0.5941	584.9562	755	0.0035	3.4161
470	0.5972	587.9971	615	0.5665	557.7726	760	0.0010	0.9867
475	0.4623	455.2291	620	0.5373	529.0524	765	0.0013	1.2324
480	0.3785	372.7281	625	0.5019	494.1928	770	0.0013	1.3176
485	0.3070	302.3030	630	0.4647	457.5380	775	0.0016	1.5722
490	0.2929	288.4159	635	0.4259	419.3040	780	0.0037	3.6233
495	0.3191	314.2318	640	0.3865	380.5434	785	0.0018	1.7534
500	0.3651	359.4473	645	0.3462	340.8682	790	0.0001	0.1098
505	0.4204	413.9209	650	0.3085	303.7619	795	0.0008	0.7713
510	0.4793	471.8876	655	0.2714	267.2582	800	0.0037	3.5943
515	0.5294	521.2733	660	0.2367	233.0325			
520	0.5697	560.9394	665	0.2038	200.6897			

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

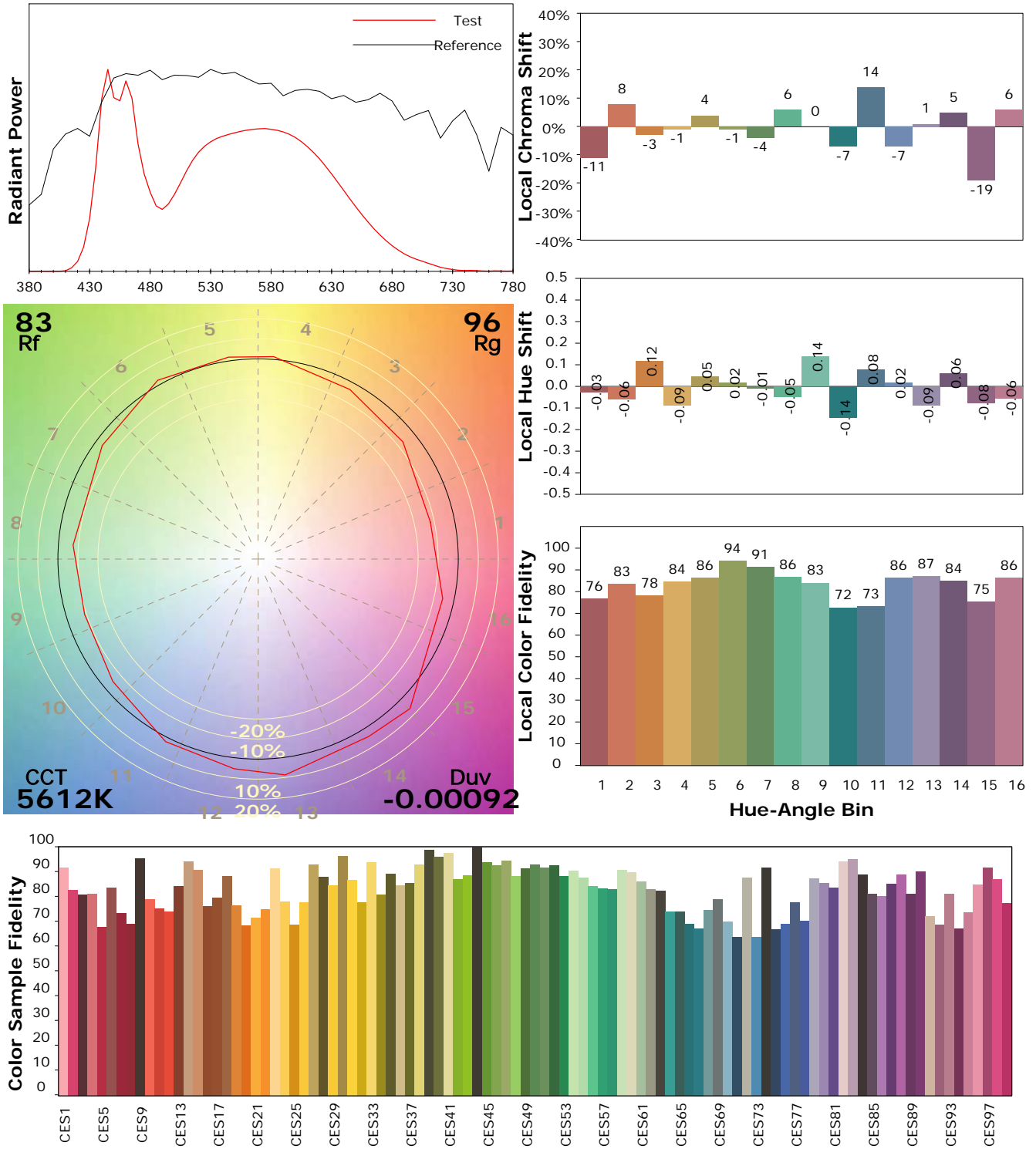
Test Device: Lisun LMS-9000B
 Test Time: 2021-08-18 09:36:16
 Inspector:

IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FLS-AX3-360-CW
 Manufacturer: METOLIGHT
 Buyer: 1953

Product Type: LED-HiPower-Station
 Product Number: 1
 Submitted Unit: 101794



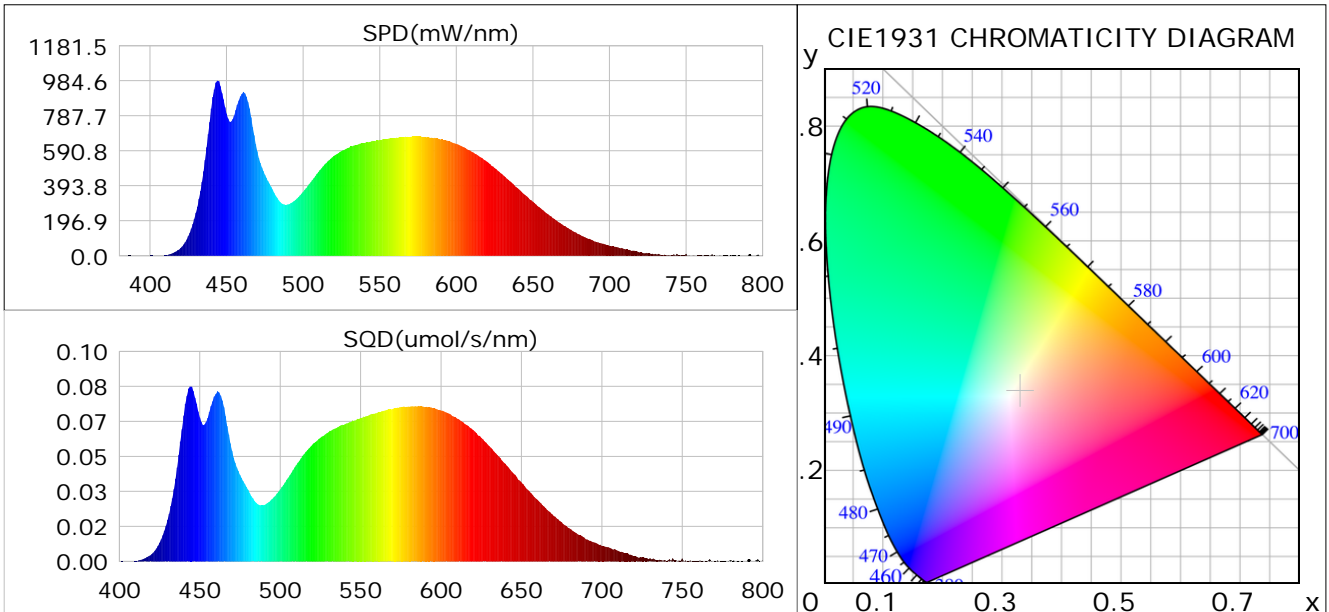
Condition: Tx:0.0°C, Ti:0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

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

Plant optical param data

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: $R_a=84.1$



Plant Optical Param

$ \mu_v(lm): 43102.00$	$Q_v(lm.s): 43102.00$
$ \mu_e, \dot{E}(W/nm): 136.53$	$Q_e(J): 136.53$
$ \mu_e(W): 135.48$	$ \mu_{fr}(W): 1.13$
$ \zeta_e: 0.38$	$ \zeta_{fr}: 0.00$
$PPE(umol/s/w): 1.73$	$K_{fr}: 0.02$
$Erb_Ratio: 0.74$	$PPF(umol/s): 614.34$
$PF_{uv}(360-400)(umol/s): 0.05$	$PPF(400-500)(umol/s): 163.98$
$PPF(500-600)(umol/s): 282.18$	$PPF(600-700)(umol/s): 168.17$
$PPF_{fr}(700-800)(umol/s): 6.45$	$PPF.t(umol): 614.34$
$ \mu_{ch-A.t}(J): 12.00$	$ \mu_{ch-A}(W): 12.00$
$ \mu_{ch-B.t}(J): 7.67$	$ \mu_{ch-B}(W): 7.67$
$ \mu_b.t(J): 42.74$	$ \mu_b(W): 42.74$
$ \mu_y.t(J): 61.36$	$ \mu_y(W): 61.36$
$ \mu_r.t(J): 32.37$	$ \mu_r(W): 32.37$

Electric Parameters

Voltage: 230.00V	Current: 1.5430A	Power: 355.00W
Power Factor: 0.9590	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: