

Lightsource Test Report

Product Information

Product Category: LED-HiPower
 Product Spec: LED-FLS-AX4-480-CW
 Manufacturer: METOLIGHT
 Buyer: 1953

Product Type: LED-HiPower-Station
 Product Number: 1
 Submitted Unit: 101795

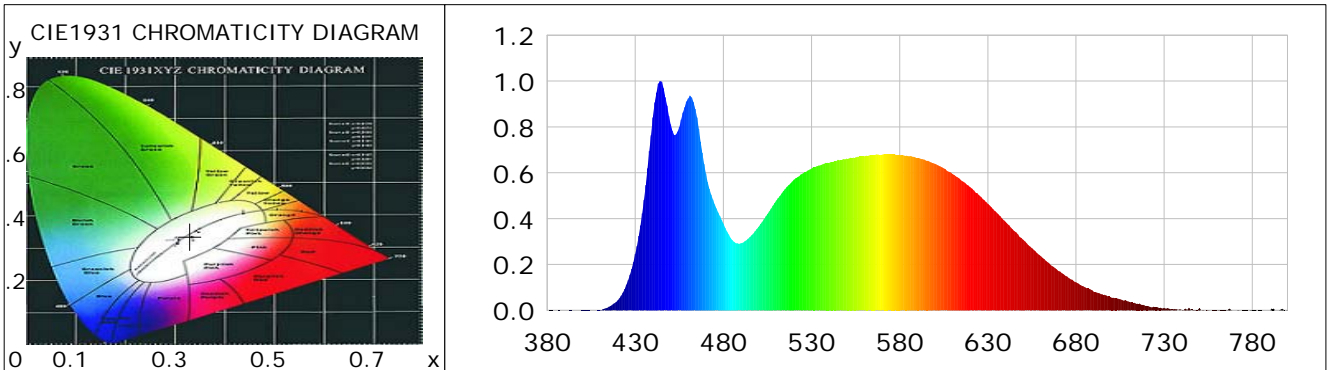
CIE Colorimetric Parameters

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: 57350 lm	Efficiency: 119.98 lm/W	Radiant Power: 181.656 W
Total mains efficacy: 141.10 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 101130.90 Plm	Pupil Lumens Per Watt: 211.57 Plm/W	Pupil Factor (Kp): 1.763
Cirtpic Flux: 225214.97 lm		

Electric Parameters

Voltage: 230.00V	Current: 2.0780A	Power: 478.00W
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

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:

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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	0.3633	525	0.5974	782.6352	670	0.1724	225.8559
385	0.0006	0.7837	530	0.6179	809.5214	675	0.1475	193.2956
390	0.0005	0.7001	535	0.6328	828.9883	680	0.1227	160.7985
395	0.0001	0.1534	540	0.6434	842.9541	685	0.1007	131.9529
400	0.0010	1.2454	545	0.6562	859.7028	690	0.0815	106.7997
405	0.0002	0.3236	550	0.6620	867.3348	695	0.0697	91.3277
410	0.0023	3.0760	555	0.6672	874.1316	700	0.0561	73.5302
415	0.0155	20.3420	560	0.6717	880.0331	705	0.0488	63.9704
420	0.0431	56.4557	565	0.6772	887.1963	710	0.0382	50.0833
425	0.1117	146.3572	570	0.6789	889.4259	715	0.0292	38.3154
430	0.2455	321.6540	575	0.6812	892.4162	720	0.0189	24.7777
435	0.4820	631.5095	580	0.6782	888.4764	725	0.0141	18.5247
440	0.8412	1102.0836	585	0.6717	879.9796	730	0.0107	13.9856
445	0.9974	1306.7560	590	0.6639	869.7565	735	0.0043	5.6009
450	0.8116	1063.3187	595	0.6532	855.7628	740	0.0028	3.6119
455	0.7998	1047.8446	600	0.6388	836.8884	745	0.0041	5.3261
460	0.9240	1210.4931	605	0.6198	812.0678	750	0.0101	13.2776
465	0.8413	1102.1651	610	0.5941	778.3221	755	0.0035	4.5453
470	0.5972	782.3682	615	0.5665	742.1525	760	0.0010	1.3129
475	0.4623	605.7117	620	0.5373	703.9384	765	0.0013	1.6398
480	0.3785	495.9388	625	0.5019	657.5555	770	0.0013	1.7532
485	0.3070	402.2337	630	0.4647	608.7839	775	0.0016	2.0919
490	0.2929	383.7561	635	0.4259	557.9111	780	0.0037	4.8211
495	0.3191	418.1057	640	0.3865	506.3376	785	0.0018	2.3330
500	0.3651	478.2679	645	0.3462	453.5472	790	0.0001	0.1460
505	0.4204	550.7485	650	0.3085	404.1748	795	0.0008	1.0262
510	0.4793	627.8770	655	0.2714	355.6044	800	0.0037	4.7824
515	0.5294	693.5879	660	0.2367	310.0648			
520	0.5697	746.3662	665	0.2038	267.0306			

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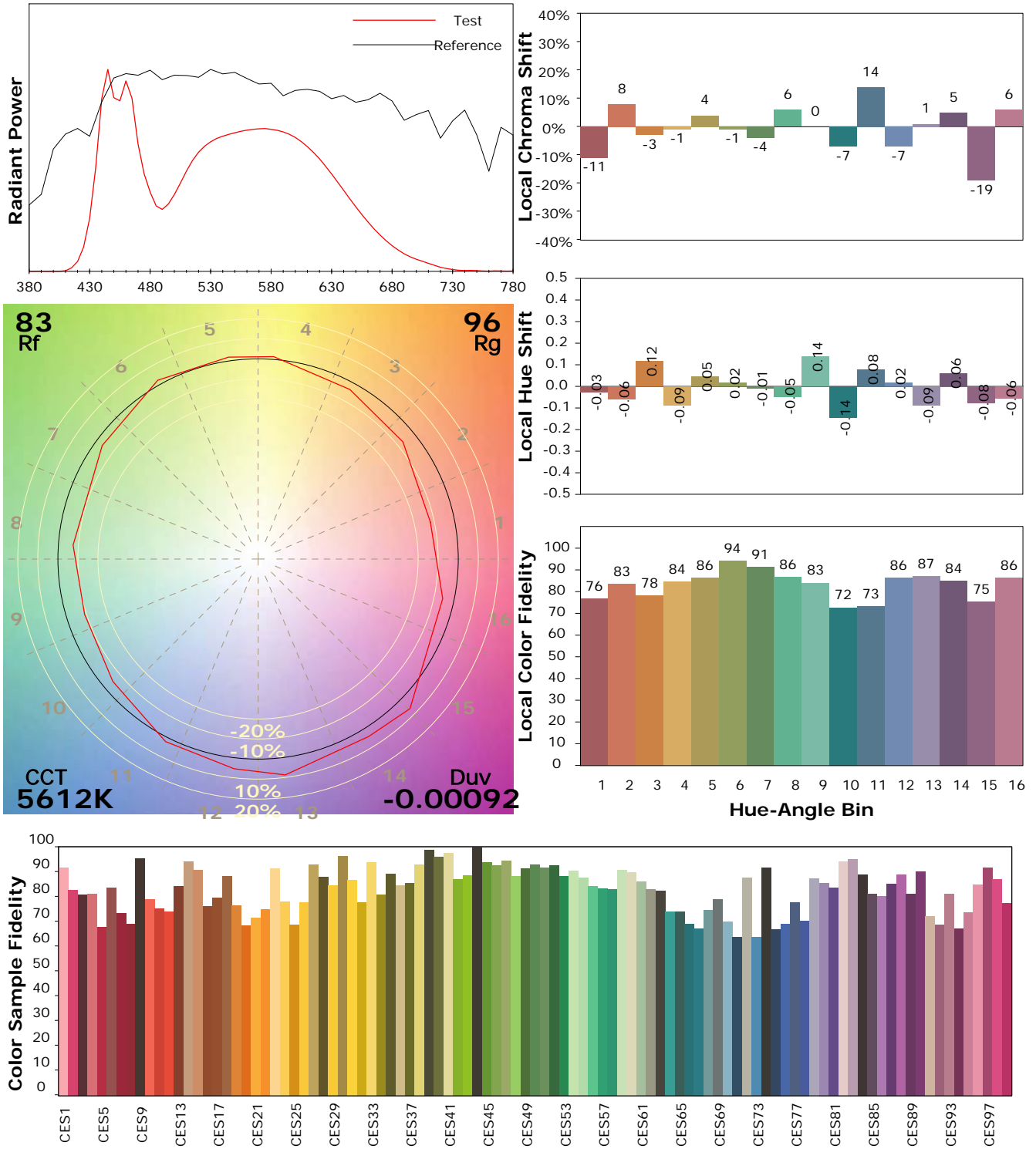
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IES TM-30-18 Color Rendition Report

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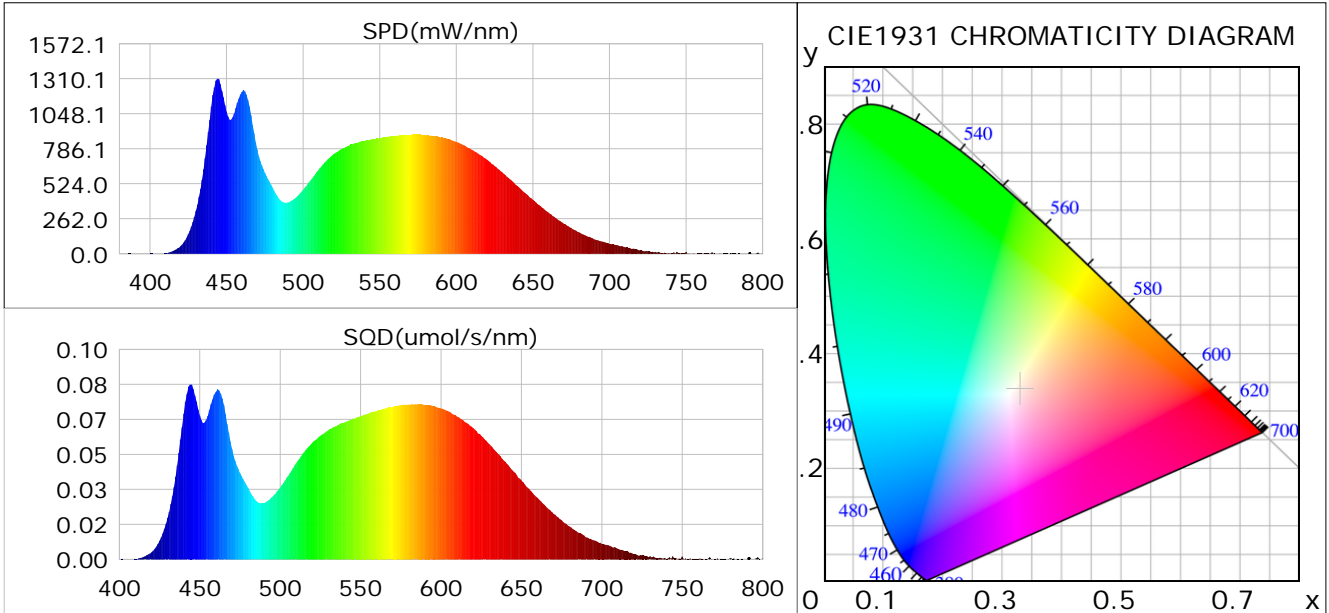
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Test Device: Lisun LMS-9000B
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Plant optical param data

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 CRI: $R_a=84.1$



Plant Optical Param

$ \mu_v(lm): 57350.00$	$Q_v(lm.s): 57350.00$
$ \mu_e, \dot{E}(W/nm): 181.66$	$Q_e(J): 181.66$
$ \mu_e(W): 180.27$	$ \mu_{fr}(W): 1.50$
$ \zeta_e: 0.38$	$ \zeta_{fr}: 0.00$
$PPE(umol/s/w): 1.71$	$K_{fr}: 0.02$
$Erb_Ratio: 0.74$	$PPF(umol/s): 817.42$
$PF_{uv}(360-400)(umol/s): 0.06$	$PPF(400-500)(umol/s): 218.19$
$PPF(500-600)(umol/s): 375.46$	$PPF(600-700)(umol/s): 223.77$
$PPF_r(700-800)(umol/s): 8.58$	$PPF.t(umol): 817.42$
$ \mu_{ch-A.t}(J): 15.97$	$ \mu_{ch-A}(W): 15.97$
$ \mu_{ch-B.t}(J): 10.20$	$ \mu_{ch-B}(W): 10.20$
$ \mu_b.t(J): 56.87$	$ \mu_b(W): 56.87$
$ \mu_y.t(J): 81.64$	$ \mu_y(W): 81.64$
$ \mu_r.t(J): 43.07$	$ \mu_r(W): 43.07$

Electric Parameters

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