

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-E14-Kerze-Q68-4W-WW-S
 Manufacturer: METOLIGHT
 Buyer: 2801

Product Type: LED-LED-Lampen-E-14
 Product Number: 1
 Submitted Unit: 102383

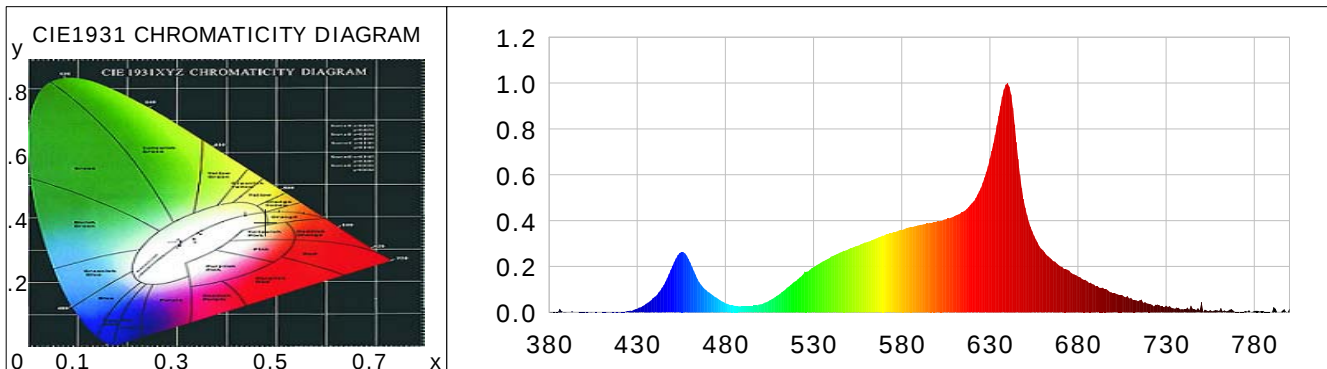
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4788$ $y=0.3884$ $u(u')=0.2857$ $v=0.3476$ $v'=0.5215$
 CCT: $T_c=2290K$ ($duv=-0.00893$) Color Ratio: $R=0.301$ $G=0.684$ $B=0.015$
 Peak Wavelength: 639.8nm Half Bandwidth: 26.8nm
 Dominant Wavelength: 589.9nm Color Purity: 0.603
 CRI: $R_a=90.7$, $avgR(1\sim14)=87.9$, $avgR(1\sim15)=88.4$ TM30: $R_f=81$, $R_g=110$
 GAI: $GAI_BB_8=161.3$, $GAI_BB_15=163.8$, $GAI_EES=56.3$

R1 =93	R2 =95	R3 =88	R4 =87	R5 =90	R6 =90	R7 =91	R8 =91
R9 =84	R10=81	R11=82	R12=74	R13=93	R14=91	R15=96	

Color Quality Scale: $Q_a=76.1$, $Q_f=69.7$, $Q_p=98.8$, $Q_g=108.8$

Q1 =82	Q2 =91	Q3 =70	Q4 =69	Q5 =78	Q6 =75	Q7 =62	Q8 =71
Q9 =91	Q10=79	Q11=75	Q12=75	Q13=79	Q14=86	Q15=87	



Photometric Parameters

Luminous Flux: 262.70 lm	Efficiency: 55.77 lm/W	Radiant Power: 0.904 W
Total mains efficacy: 55.77 lm/W	Energy Efficiency Class: G (EU 2019/2015)	
Pupil Flux: 270.15 Plm	Pupil Lumens Per Watt: 57.36 Plm/W	Pupil Factor (Kp): 1.028
Cirtpic Flux: 442.03 lm		

Electric Parameters

Voltage: 231.10V	Current: 0.0260A	Power: 4.71W
Power Factor: 0.7650	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: 41121 (3236)	CCD Integration Time: 1000.00 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-08-17 09:22:48
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0013	0.0160	525	0.1778	2.1658	670	0.2007	2.4454
385	0.0017	0.0208	530	0.1966	2.3958	675	0.1821	2.2190
390	0.0012	0.0143	535	0.2207	2.6893	680	0.1566	1.9081
395	0.0003	0.0037	540	0.2429	2.9600	685	0.1365	1.6633
400	0.0013	0.0161	545	0.2604	3.1726	690	0.1137	1.3855
405	0.0003	0.0031	550	0.2762	3.3657	695	0.1009	1.2297
410	0.0013	0.0163	555	0.2902	3.5354	700	0.0826	1.0067
415	0.0022	0.0269	560	0.3054	3.7206	705	0.0750	0.9143
420	0.0035	0.0429	565	0.3206	3.9060	710	0.0634	0.7727
425	0.0036	0.0442	570	0.3355	4.0878	715	0.0529	0.6445
430	0.0156	0.1899	575	0.3485	4.2455	720	0.0376	0.4582
435	0.0373	0.4548	580	0.3603	4.3898	725	0.0343	0.4184
440	0.0682	0.8309	585	0.3725	4.5391	730	0.0290	0.3535
445	0.1190	1.4501	590	0.3805	4.6356	735	0.0154	0.1880
450	0.2028	2.4713	595	0.3879	4.7263	740	0.0128	0.1558
455	0.2628	3.2015	600	0.3960	4.8254	745	0.0155	0.1892
460	0.2174	2.6489	605	0.4057	4.9426	750	0.0452	0.5505
465	0.1324	1.6133	610	0.4201	5.1183	755	0.0102	0.1238
470	0.0894	1.0892	615	0.4393	5.3521	760	0.0057	0.0696
475	0.0641	0.7812	620	0.4773	5.8150	765	0.0068	0.0827
480	0.0398	0.4844	625	0.5441	6.6298	770	0.0025	0.0299
485	0.0291	0.3544	630	0.6711	8.1761	775	0.0060	0.0731
490	0.0259	0.3151	635	0.8573	10.4459	780	0.0062	0.0761
495	0.0269	0.3280	640	1.0000	12.1840	785	0.0057	0.0696
500	0.0356	0.4333	645	0.7424	9.0449	790	0.0000	0.0006
505	0.0523	0.6374	650	0.4569	5.5675	795	0.0012	0.0150
510	0.0760	0.9259	655	0.3344	4.0744	800	0.0177	0.2154
515	0.1076	1.3106	660	0.2722	3.3167			
520	0.1363	1.6610	665	0.2315	2.8211			

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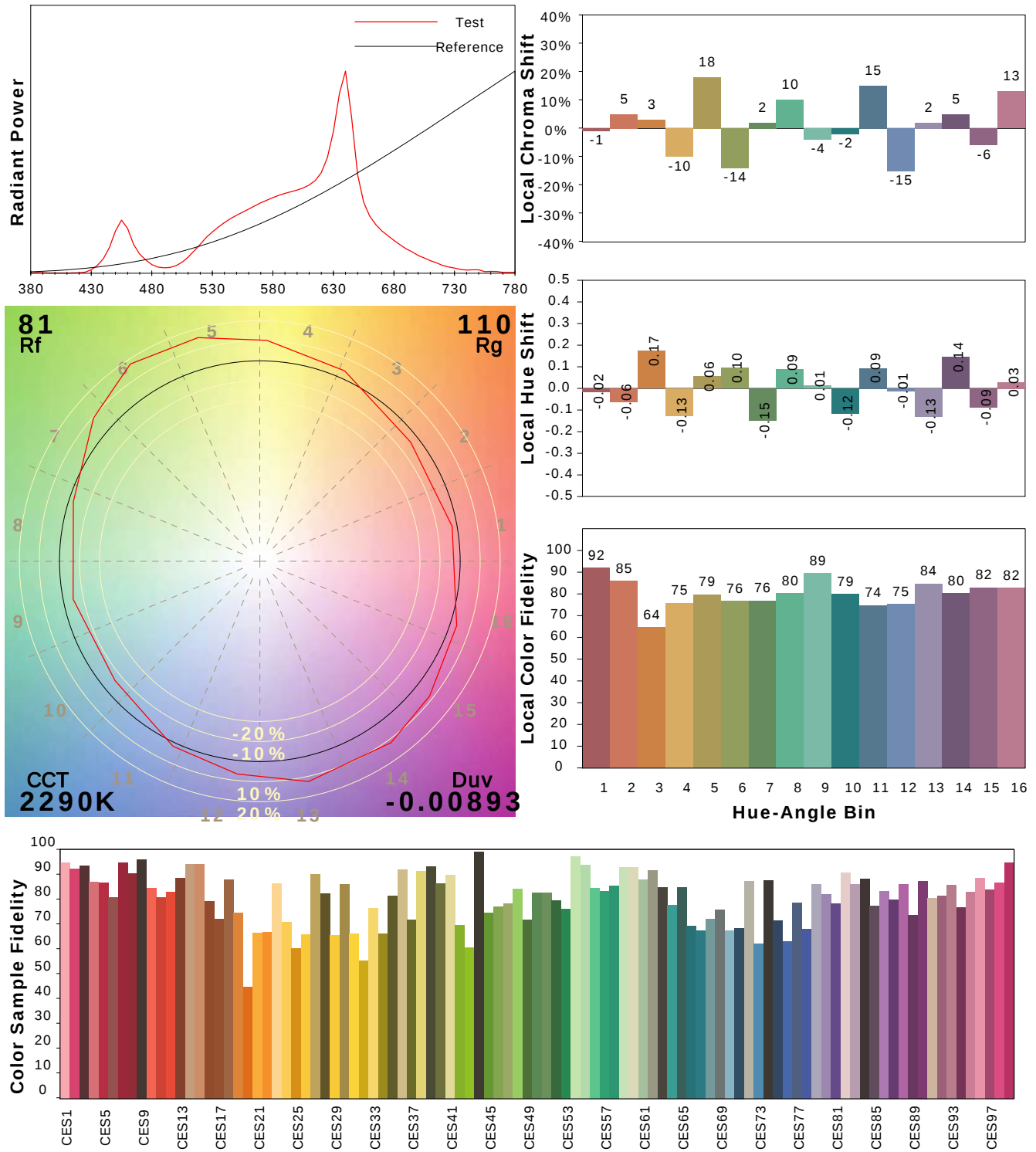
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IES TM-30-18 Color Rendition Report

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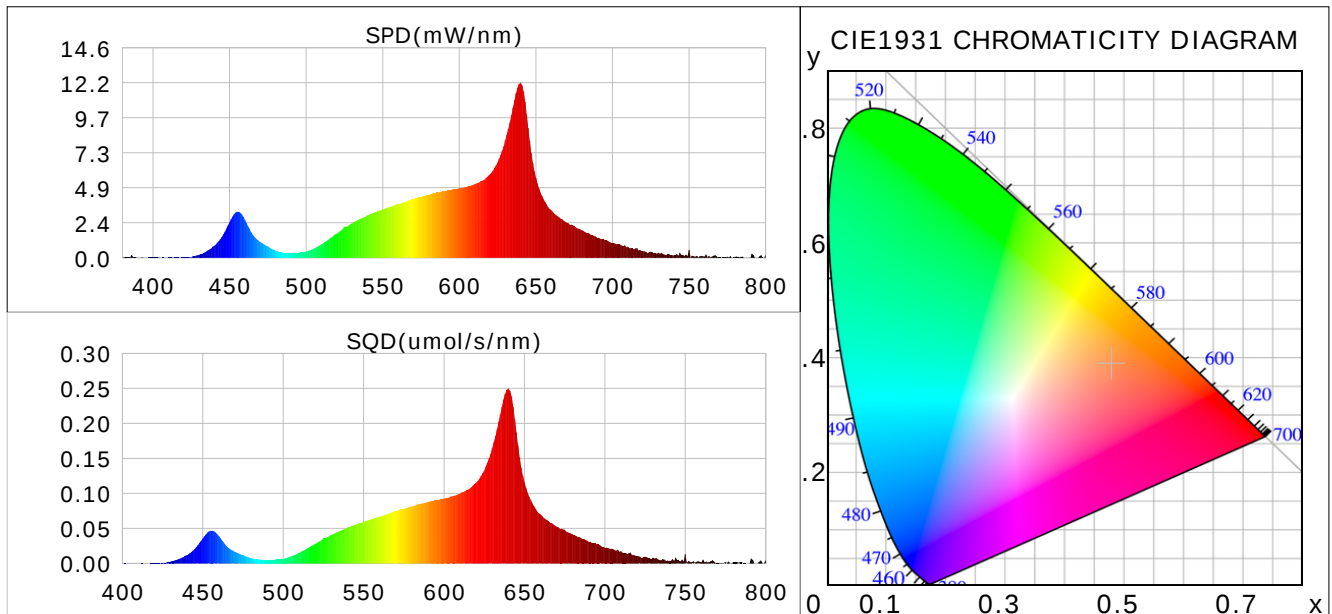
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Plant optical param data

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 CRI: Ra= 90.7



Plant Optical Param

$\mu_v(lm)$: 262.70	$Q_v(lm.s)$: 262.70
$\mu_e, \dot{E}(W/nm)$: 0.90	$Q_e(J)$: 0.90
$\mu_e(W)$: 0.88	$\mu_{fr}(W)$: 0.03
$\dot{C}_e$: 0.19	$\dot{C}_{fr}$: 0.01
$PPE(umol/s/w)$: 0.93	K_{fr} : 0.03
Erb_Ratio : 5.82	$PPF(umol/s)$: 4.37
$PF_{uv}(360-400)(umol/s)$: 0.00	$PPF(400-500)(umol/s)$: 0.32
$PPF(500-600)(umol/s)$: 1.46	$PPF(600-700)(umol/s)$: 2.59
$PF_{fr}(700-800)(umol/s)$: 0.16	$PPF.t(umol)$: 4.37
$\mu_{ch-A.t}(J)$: 0.08	$\mu_{ch-A}(W)$: 0.08
$\mu_{ch-B.t}(J)$: 0.04	$\mu_{ch-B}(W)$: 0.04
$\mu_{b.t}(J)$: 0.08	$\mu_b(W)$: 0.08
$\mu_{y.t}(J)$: 0.31	$\mu_y(W)$: 0.31
$\mu_{r.t}(J)$: 0.49	$\mu_r(W)$: 0.49

Electric Parameters

Voltage: 231.10V	Current: 0.0260A	Power: 4.71W
Power Factor: 0.7650	Frequency: 49.99Hz	