

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-E14-Kerze-Q68-4W-NW-G-dim
 Manufacturer: METOLIGHT
 Buyer: 2801
 Product Type: LED-Lampen-E14
 Product Number: 1
 Submitted Unit: 102392

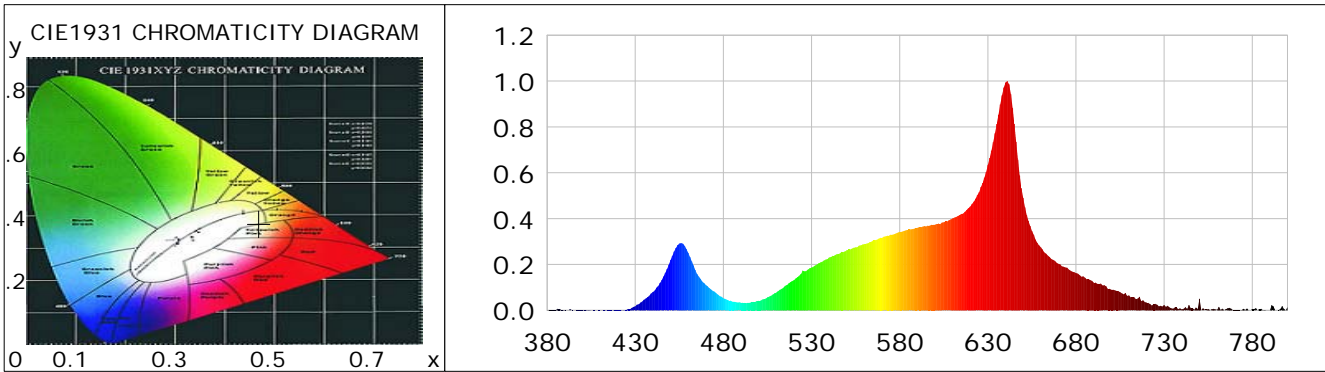
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4696$ $y=0.3770$ $u(u')=0.2852$ $v=0.3435$ $v'=0.5153$
 CCT: $T_c=2310K$ ($duv=-0.01291$) Color Ratio: $R=0.304$ $G=0.678$ $B=0.018$
 Peak Wavelength: 640.8nm Half Bandwidth: 26.0nm
 Dominant Wavelength: 591.8nm Color Purity: 0.540
 CRI: $R_a=93.5$, $avgR(1\sim14)=92.0$, $avgR(1\sim15)=92.5$ TM30: $R_f=82$, $R_g=111$
 GAI: $GAI_BB_8=182.8$, $GAI_BB_15=180.4$, $GAI_EES=65.1$

R1 =97	R2 =97	R3 =90	R4 =89	R5 =94	R6 =94	R7 =91	R8 =95
R9 =96	R10=89	R11=84	R12=82	R13=97	R14=92	R15=99	

Color Quality Scale: $Q_a=76.6$, $Q_f=67.1$, $Q_p=102.8$, $Q_g=112.8$

Q1 =84	Q2 =92	Q3 =71	Q4 =70	Q5 =80	Q6 =77	Q7 =62	Q8 =71
Q9 =92	Q10=79	Q11=74	Q12=74	Q13=78	Q14=84	Q15=90	



Photometric Parameters

Luminous Flux: 342.00 lm Efficiency: 77.03 lm/W Radiant Power: 1.217 W
 Total mains efficacy: 83.88 lm/W Energy Efficiency Class: G (EU 2019/2015)
 Pupil Flux: 369.73 Plm Pupil Lumens Per Watt: 83.27 Plm/W Pupil Factor (Kp): 1.081
 Circopic Flux: 636.13 lm

Electric Parameters

Voltage: 231.10V Current: 0.0240A Power: 4.44W
 Power Factor: 0.7860 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: 36395 (3261) CCD Integration Time: 1000.00 ms

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Type: LED-Lampen-E14
 Product Spec: LED-E14-Kerze-Q68-4W-NW-G-dim
 Product Number: 1
 Manufacturer: METOLIGHT
 Submitted Unit: 102392
 Buyer: 2801

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0009	0.0148	525	0.1734	2.8683	670	0.2033	3.3632
385	0.0025	0.0419	530	0.1868	3.0901	675	0.1862	3.0795
390	0.0019	0.0307	535	0.2093	3.4623	680	0.1628	2.6933
395	0.0002	0.0027	540	0.2304	3.8110	685	0.1430	2.3646
400	0.0013	0.0219	545	0.2460	4.0685	690	0.1209	1.9992
405	0.0003	0.0041	550	0.2620	4.3336	695	0.1086	1.7970
410	0.0008	0.0140	555	0.2744	4.5387	700	0.0903	1.4931
415	0.0018	0.0296	560	0.2897	4.7911	705	0.0793	1.3124
420	0.0028	0.0459	565	0.3053	5.0500	710	0.0652	1.0787
425	0.0028	0.0460	570	0.3167	5.2382	715	0.0521	0.8610
430	0.0179	0.2953	575	0.3302	5.4624	720	0.0341	0.5641
435	0.0461	0.7626	580	0.3424	5.6637	725	0.0283	0.4686
440	0.0797	1.3178	585	0.3528	5.8347	730	0.0237	0.3921
445	0.1324	2.1891	590	0.3599	5.9524	735	0.0070	0.1158
450	0.2195	3.6308	595	0.3663	6.0586	740	0.0044	0.0730
455	0.2915	4.8215	600	0.3736	6.1795	745	0.0102	0.1686
460	0.2511	4.1534	605	0.3839	6.3507	750	0.0509	0.8419
465	0.1587	2.6245	610	0.4013	6.6372	755	0.0063	0.1036
470	0.1105	1.8277	615	0.4205	6.9553	760	0.0030	0.0497
475	0.0810	1.3401	620	0.4524	7.4823	765	0.0051	0.0847
480	0.0525	0.8683	625	0.5159	8.5329	770	0.0011	0.0188
485	0.0389	0.6429	630	0.6348	10.4996	775	0.0067	0.1114
490	0.0334	0.5522	635	0.8132	13.4505	780	0.0050	0.0828
495	0.0333	0.5509	640	0.9940	16.4413	785	0.0065	0.1076
500	0.0413	0.6826	645	0.8137	13.4590	790	0.0002	0.0035
505	0.0567	0.9377	650	0.4910	8.1221	795	0.0018	0.0290
510	0.0779	1.2880	655	0.3461	5.7247	800	0.0152	0.2516
515	0.1069	1.7689	660	0.2755	4.5571			
520	0.1316	2.1761	665	0.2331	3.8559			

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

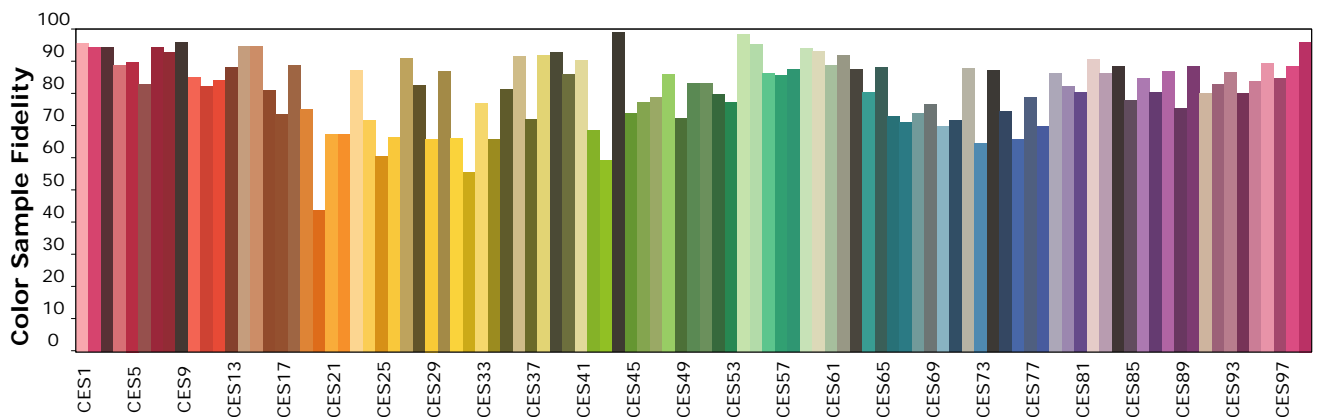
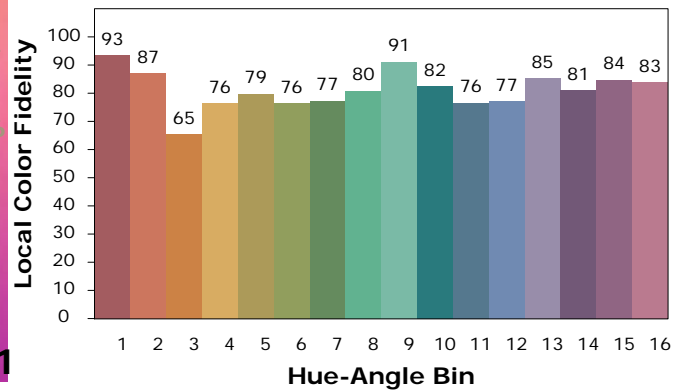
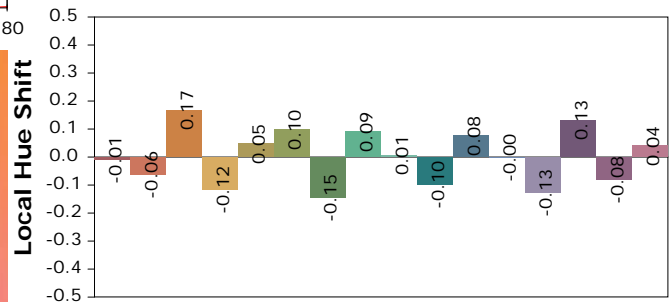
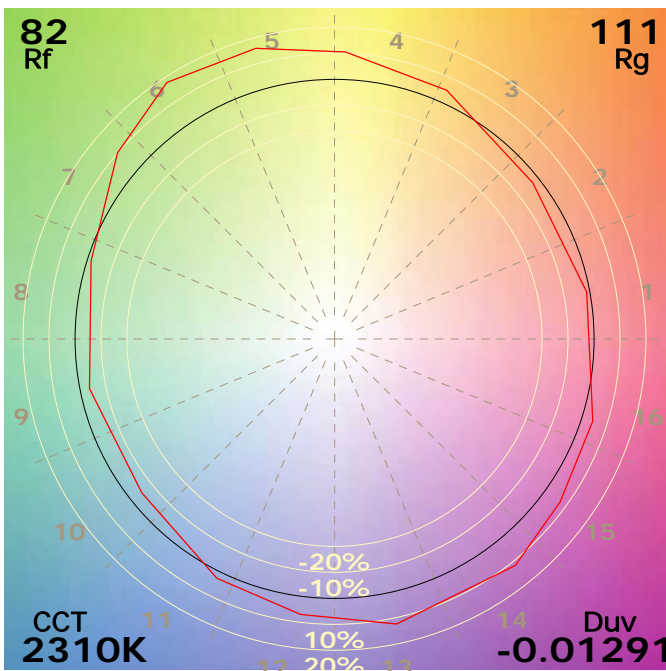
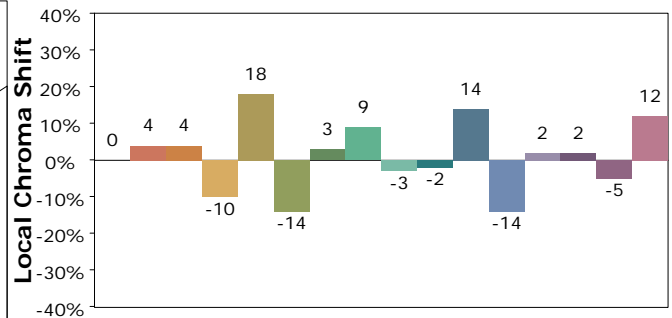
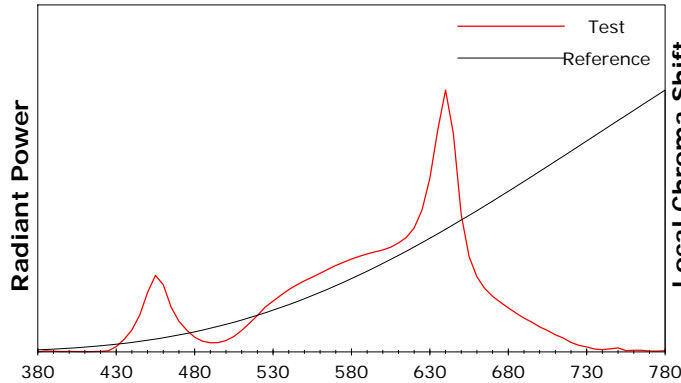
Test Device: Lisun LMS-9000B
 Test Time: 2021-08-17 09:41:56
 Inspector:

IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-E14-Kerze-Q68-4W-NW-G-dim
 Manufacturer: METOLIGHT
 Buyer: 2801

Product Type: LED-Lampen-E14
 Product Number: 1
 Submitted Unit: 102392



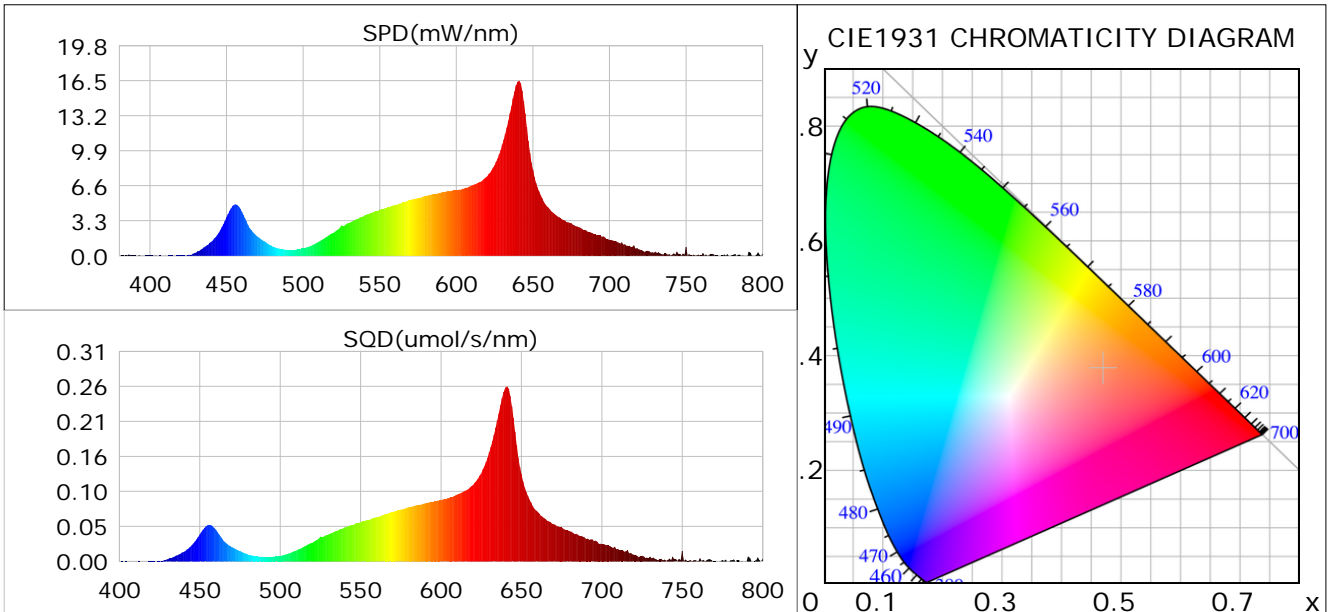
Condition: Tx:0.0°C, Ti:0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-08-17 09:41:56
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4696$ $y=0.3770$ $u(u')=0.2852$ $v=0.3435$ $v'=0.5153$
 CCT: $T_c=2310K$ ($duv=-0.01291$) Color Ratio: $R=0.304$ $G=0.678$ $B=0.018$
 Peak Wavelength: 640.8nm Half Bandwidth: 26.0nm
 Dominant Wavelength: 591.8nm Color Purity: 0.540
 CRI: $R_a=93.5$



Plant Optical Param

$ \mu_v(lm): 342.00$	$Q_v(lm.s): 342.00$
$ \mu_e, E(W/nm): 1.22$	$Q_e(J): 1.22$
$ \mu_e(W): 1.19$	$ \mu_{fr}(W): 0.03$
$ \zeta_e: 0.27$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.32$	$K_{fr}: 0.05$
$Erb_Ratio: 4.99$	$PPF(umol/s): 5.88$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 0.50$
$PPF(500-600)(umol/s): 1.88$	$PPF(600-700)(umol/s): 3.49$
$PPF_{fr}(700-800)(umol/s): 0.20$	$PPF.t(umol): 5.88$
$ \mu_{ch-A.t}(J): 0.10$	$ \mu_{ch-A}(W): 0.10$
$ \mu_{ch-B.t}(J): 0.05$	$ \mu_{ch-B}(W): 0.05$
$ \mu_b.t(J): 0.13$	$ \mu_b(W): 0.13$
$ \mu_y.t(J): 0.40$	$ \mu_y(W): 0.40$
$ \mu_r.t(J): 0.66$	$ \mu_r(W): 0.66$

Electric Parameters

Voltage: 231.10V	Current: 0.0240A	Power: 4.44W
Power Factor: 0.7860	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: 2021-08-17 09:41:56
 Inspector: