

## Lightsource Test Report

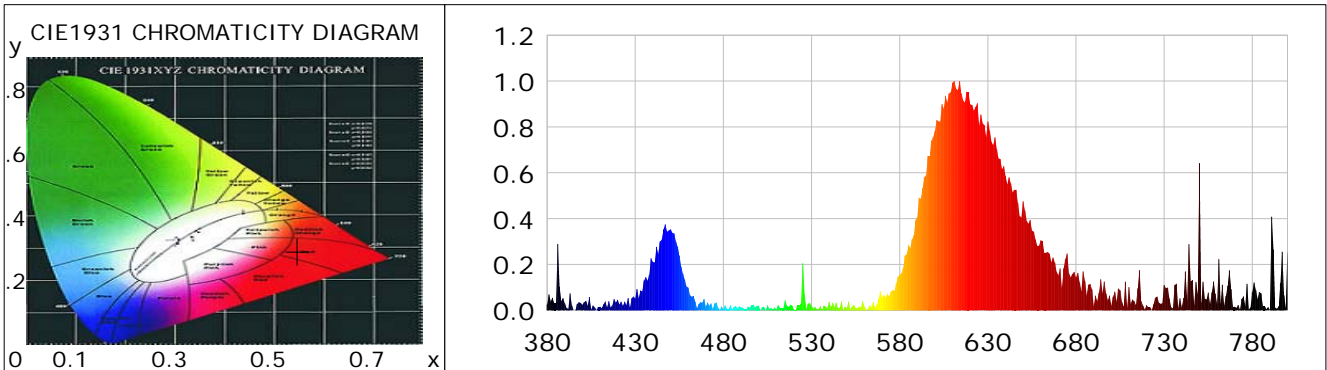
### Product Information

Product Category: LED-Lampen  
 Product Spec: LED-E27-G45-04W-PK  
 Manufacturer: METOLIGHT  
 Buyer: 4914

Product Type: LED-Lampen-E27  
 Product Number: 1  
 Submitted Unit: 100327

### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.5472$   $y=0.2904$   $u(u')=0.4061$   $v=0.3232$   $v'=0.4848$   
 CCT:  $T_c=1187K$  ( $duv=-0.03463$ ) Color Ratio:  $R=0.636$   $G=0.350$   $B=0.014$   
 Peak Wavelength: 610.7nm Half Bandwidth: 54.2nm  
 Dominant Wavelength: 699.1nm Color Purity: 0.649  
 CRI:  $R_a=39.4$ ,  $avgR(1\sim14)=39.3$ ,  $avgR(1\sim15)=38.4$  TM30:  $R_f=5$ ,  $R_g=135$   
 GAI:  $GAI\_BB\_8=1589.5$ ,  $GAI\_BB\_15=1133.6$ ,  $GAI\_EES=42.1$   
 R1 =46 R2 =98 R3 =26 R4 =15 R5 =55 R6 =63 R7 =14 R8 =0  
 R9 =0 R10=84 R11=28 R12=0 R13=63 R14=60 R15=25  
 Color Quality Scale:  $Q_a=-1.\$$ ,  $Q_f=-1.\$$ ,  $Q_p=-1.\$$ ,  $Q_g=-1.\$$   
 Q1 =1 Q2 =27 Q3 =30 Q4 =21 Q5 =20 Q6 =24 Q7 =3 Q8 =0  
 Q9 =0 Q10=0 Q11=0 Q12=0 Q13=0 Q14=0 Q15=0



### Photometric Parameters

Luminous Flux: 28.838 lm Efficiency: 57.68 lm/W Radiant Power: 0.134 W  
 Total mains efficacy: 67.83 lm/W Energy Efficiency Class: G (EU 2019/2015)  
 Pupil Flux: 18.91 Plm Pupil Lumens Per Watt: 37.82 Plm/W Pupil Factor (Kp): 0.656  
 Circopic Flux: 32.65 lm

### Electric Parameters

Voltage: 230.80V Current: 0.0150A Power: 0.50W  
 Power Factor: 0.1440 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: 2885 (3351) 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: 2021-08-09 14:31:58  
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0264	0.0474	525	0.2054	0.3689	670	0.1542	0.2770
385	0.0316	0.0567	530	0.0186	0.0334	675	0.2485	0.4463
390	0.0306	0.0550	535	0.0180	0.0323	680	0.1425	0.2560
395	0.0013	0.0024	540	0.0371	0.0666	685	0.1279	0.2297
400	0.0238	0.0427	545	0.0110	0.0198	690	0.0190	0.0342
405	0.0047	0.0085	550	0.0100	0.0180	695	0.0757	0.1359
410	0.0158	0.0284	555	0.0105	0.0189	700	0.0222	0.0398
415	0.0403	0.0724	560	0.0187	0.0335	705	0.0875	0.1572
420	0.0465	0.0835	565	0.0367	0.0660	710	0.1017	0.1828
425	0.0237	0.0426	570	0.0577	0.1037	715	0.0963	0.1729
430	0.0519	0.0932	575	0.0816	0.1466	720	0.0230	0.0413
435	0.1300	0.2335	580	0.1545	0.2776	725	0.0549	0.0986
440	0.2111	0.3793	585	0.2842	0.5105	730	0.1110	0.1993
445	0.3091	0.5552	590	0.4074	0.7318	735	0.0084	0.0151
450	0.3539	0.6356	595	0.5897	1.0593	740	0.0144	0.0259
455	0.2400	0.4311	600	0.7821	1.4048	745	0.1267	0.2277
460	0.0994	0.1786	605	0.8799	1.5804	750	0.6427	1.1544
465	0.0097	0.0175	610	0.9927	1.7831	755	0.0775	0.1392
470	0.0167	0.0299	615	0.9470	1.7011	760	0.0276	0.0496
475	0.0296	0.0532	620	0.8985	1.6139	765	0.0627	0.1127
480	0.0055	0.0098	625	0.8052	1.4463	770	0.0156	0.0280
485	0.0047	0.0085	630	0.8244	1.4808	775	0.0612	0.1098
490	0.0133	0.0240	635	0.7026	1.2620	780	0.0794	0.1425
495	0.0113	0.0202	640	0.5850	1.0508	785	0.0743	0.1335
500	0.0206	0.0369	645	0.5262	0.9451	790	0.0028	0.0050
505	0.0217	0.0390	650	0.4760	0.8549	795	0.0183	0.0329
510	0.0046	0.0082	655	0.3478	0.6247	800	0.2778	0.4990
515	0.0435	0.0782	660	0.3056	0.5490			
520	0.0033	0.0059	665	0.2468	0.4433			

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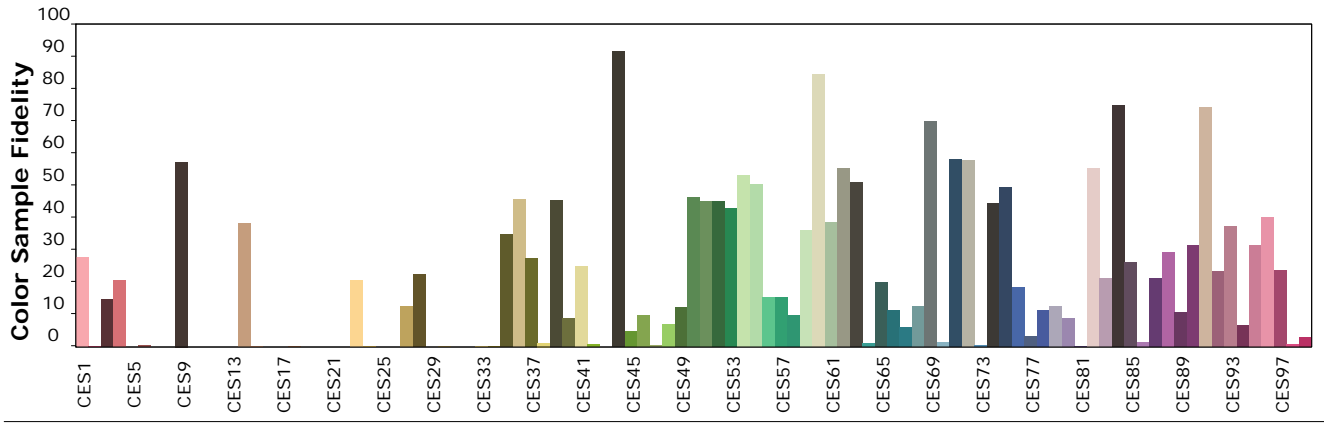
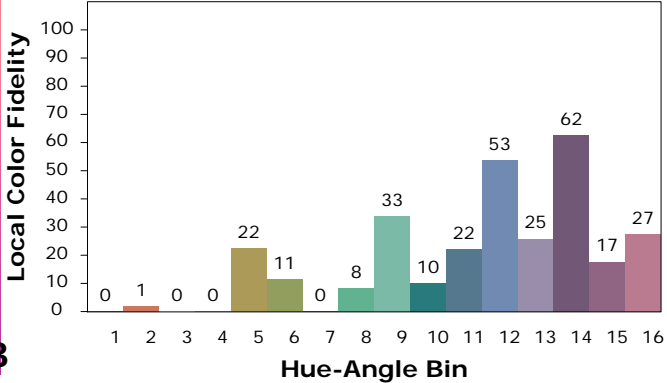
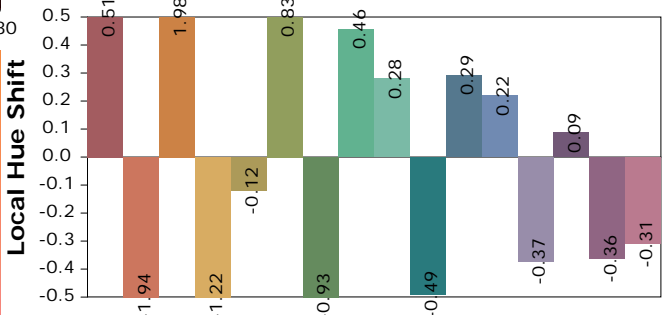
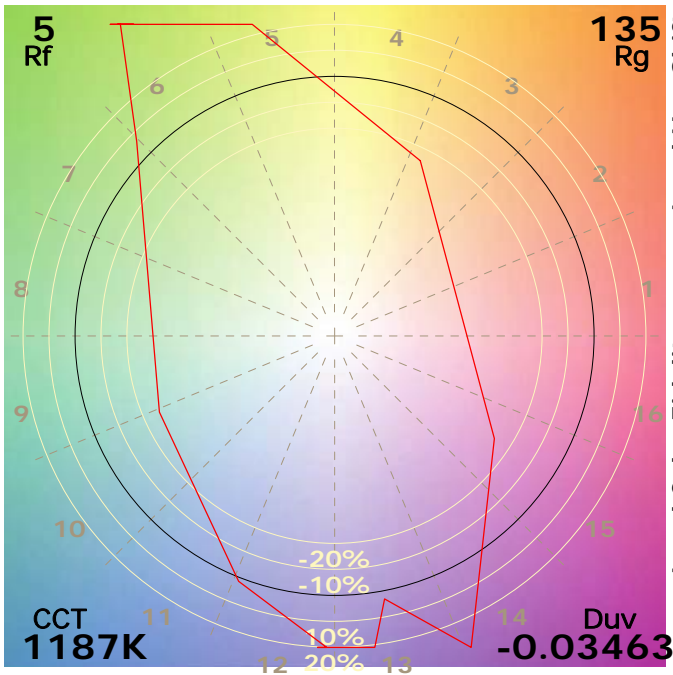
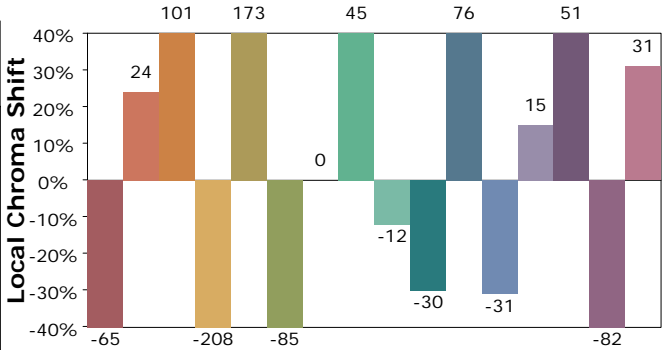
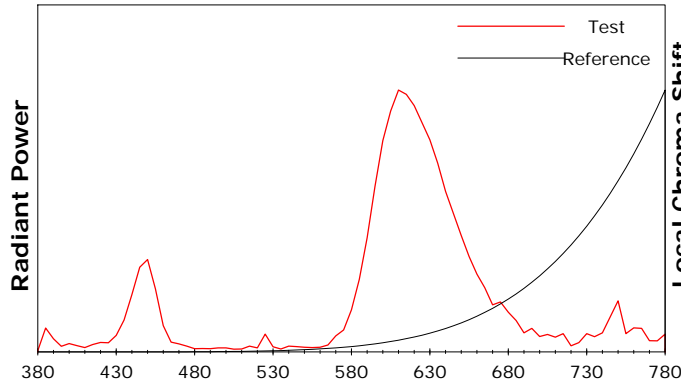
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 Inspector:

## IES TM-30-18 Color Rendition Report

### Product Information

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 Buyer: 4914

Product Type: LED-Lampen-E27  
 Product Number: 1  
 Submitted Unit: 100327



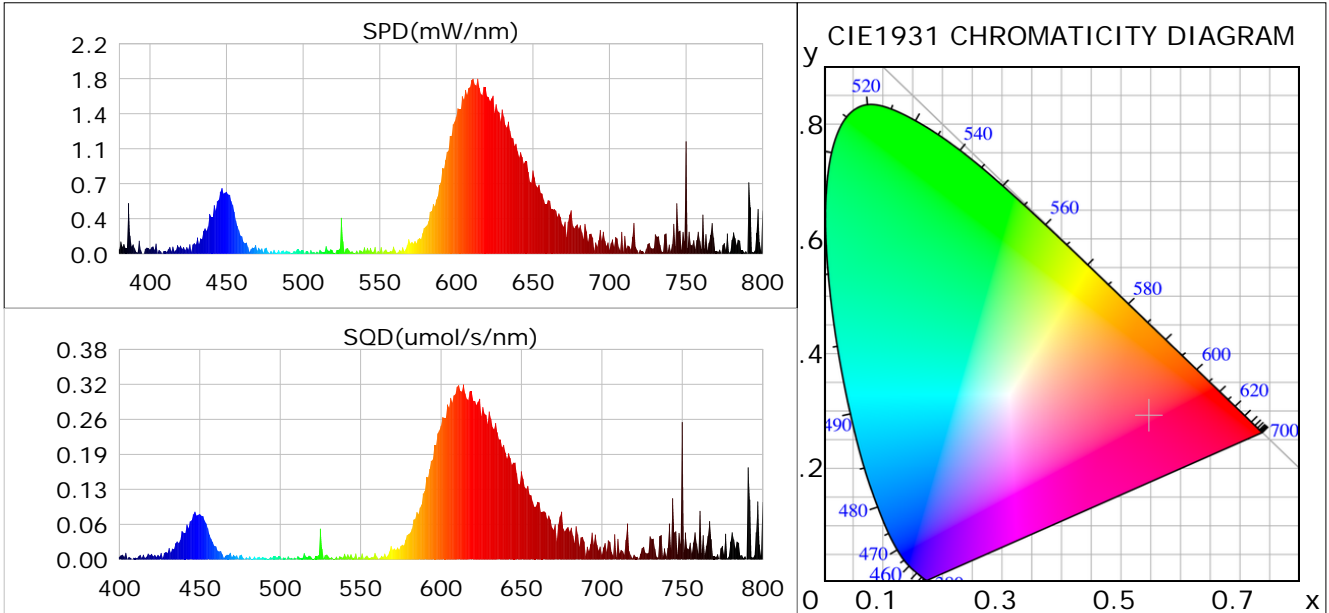
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 Test Lab:  
 Operator: CRE

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

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Chromaticity coordinates:  $x=0.5472$   $y=0.2904$   $u(u')=0.4061$   $v=0.3232$   $v'=0.4848$   
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 Peak Wavelength: 610.7nm Half Bandwidth: 54.2nm  
 Dominant Wavelength: 699.1nm Color Purity: 0.649  
 CRI:  $R_a=39.4$



### Plant Optical Param

$ \mu_v(\text{lm})$ : 28.84	$Q_v(\text{lm}\cdot\text{s})$ : 28.84
$ \mu_e,  \dot{E}(\text{W/nm})$ : 0.13	$Q_e(\text{J})$ : 0.13
$ \mu_e(\text{W})$ : 0.12	$ \mu_{fr}(\text{W})$ : 0.01
$ \dot{C}_e$ : 0.24	$ \dot{C}_{fr}$ : 0.03
$\text{PPE}(\mu\text{mol/s/w})$ : 1.23	$K_{fr}$ : 0.17
$\text{Erb\_Ratio}$ : 5.72	$\text{PPF}(\mu\text{mol/s})$ : 0.61
$\text{PF}_{uv}(360-400)(\mu\text{mol/s})$ : 0.01	$\text{PPF}(400-500)(\mu\text{mol/s})$ : 0.06
$\text{PPF}(500-600)(\mu\text{mol/s})$ : 0.10	$\text{PPF}(600-700)(\mu\text{mol/s})$ : 0.46
$\text{PPF}_{fr}(700-800)(\mu\text{mol/s})$ : 0.09	$\text{PPF.t}(\mu\text{mol})$ : 0.61
$ \mu_{ch-A.t}(\text{J})$ : 0.01	$ \mu_{ch-A}(\text{W})$ : 0.01
$ \mu_{ch-B.t}(\text{J})$ : 0.01	$ \mu_{ch-B}(\text{W})$ : 0.01
$ \mu_b.t(\text{J})$ : 0.02	$ \mu_b(\text{W})$ : 0.02
$ \mu_y.t(\text{J})$ : 0.02	$ \mu_y(\text{W})$ : 0.02
$ \mu_r.t(\text{J})$ : 0.09	$ \mu_r(\text{W})$ : 0.09

### Electric Parameters

Voltage: 230.80V	Current: 0.0150A	Power: 0.50W
Power Factor: 0.1440	Frequency: 49.99Hz	

Condition:  $T_x=0.0^\circ\text{C}$ ,  $T_i=0.0^\circ\text{C}$ , R.H.: 60%  
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