

Lightsource Test Report

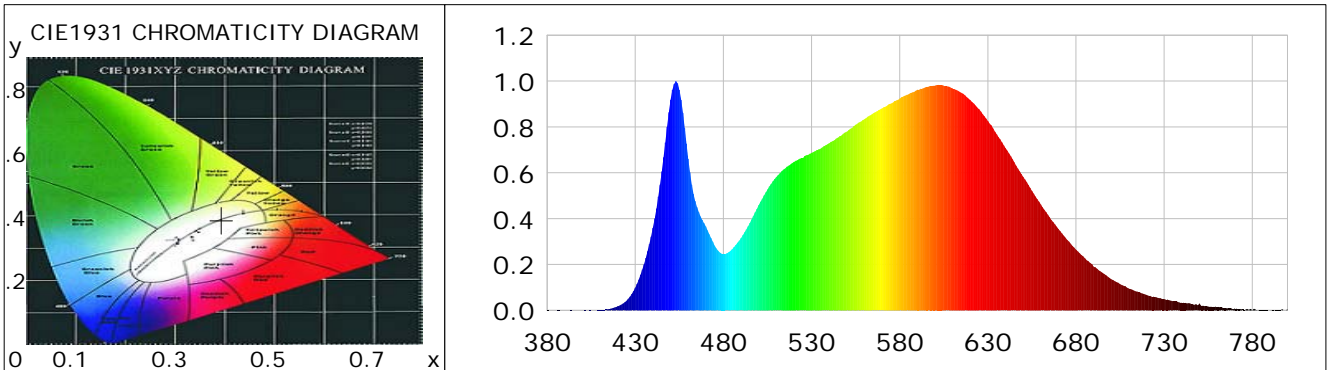
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG22-E27-28-360-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Trassenlampe
 Product Number: 1
 Submitted Unit: 104224

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3938$ $y=0.3880$ $u(u')=0.2294$ $v=0.3389$ $v'=0.5084$
 CCT: $T_c=3743K$ ($duv=0.00149$) Color Ratio: $R=0.195$ $G=0.772$ $B=0.033$
 Peak Wavelength: 453.1nm Half Bandwidth: 20.2nm
 Dominant Wavelength: 579.3nm Color Purity: 0.346
 CRI: $R_a=85.2$, $avgR(1\sim14)=79.2$, $avgR(1\sim15)=79.2$ TM30: $R_f=86$, $R_g=96$
 GAI: $GAI_BB_8=91.8$, $GAI_BB_15=98.9$, $GAI_EES=68.3$
 R1 =84 R2 =90 R3 =95 R4 =85 R5 =84 R6 =87 R7 =88 R8 =69
 R9 =21 R10=77 R11=84 R12=63 R13=85 R14=97 R15=78
 Color Quality Scale: $Q_a=85.3$, $Q_f=85.5$, $Q_p=85.0$, $Q_g=93.7$
 Q1 =84 Q2 =98 Q3 =82 Q4 =79 Q5 =84 Q6 =86 Q7 =87 Q8 =90
 Q9 =98 Q10=91 Q11=88 Q12=87 Q13=87 Q14=77 Q15=79



Photometric Parameters

Luminous Flux: 3604.3 lm Efficiency: 122.18 lm/W Radiant Power: 10.927 W
 Total mains efficacy: 122.18 lm/W Energy Efficiency Class: E (EU 2019/2015)
 Pupil Flux: 5249.70 Plm Pupil Lumens Per Watt: 177.96 Plm/W Pupil Factor (Kp): 1.457
 Circopic Flux: 10386.51 lm

Electric Parameters

Voltage: 230.70V Current: 0.1320A Power: 29.50W
 Power Factor: 0.9610 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: 44741 (2739) CCD Integration Time: 106.98 ms

Condition: Tx:24.5'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-16 11:23:41
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0010	0.0631	525	0.6633	42.2293	670	0.3556	22.6406
385	0.0007	0.0417	530	0.6865	43.7057	675	0.3076	19.5852
390	0.0007	0.0433	535	0.7049	44.8772	680	0.2649	16.8668
395	0.0002	0.0147	540	0.7292	46.4208	685	0.2275	14.4856
400	0.0004	0.0228	545	0.7539	47.9942	690	0.1901	12.1016
405	0.0007	0.0470	550	0.7796	49.6339	695	0.1634	10.4019
410	0.0019	0.1217	555	0.8092	51.5163	700	0.1356	8.6357
415	0.0062	0.3971	560	0.8341	53.1030	705	0.1141	7.2668
420	0.0176	1.1190	565	0.8597	54.7310	710	0.0955	6.0826
425	0.0415	2.6415	570	0.8814	56.1111	715	0.0814	5.1800
430	0.0990	6.3041	575	0.9026	57.4614	720	0.0675	4.2944
435	0.2008	12.7813	580	0.9236	58.7973	725	0.0580	3.6896
440	0.3597	22.9005	585	0.9418	59.9613	730	0.0490	3.1218
445	0.6064	38.6052	590	0.9620	61.2462	735	0.0403	2.5660
450	0.9181	58.4468	595	0.9741	62.0160	740	0.0329	2.0960
455	0.9622	61.2566	600	0.9802	62.4013	745	0.0292	1.8608
460	0.6614	42.1064	605	0.9799	62.3814	750	0.0295	1.8752
465	0.4497	28.6278	610	0.9680	61.6246	755	0.0171	1.0887
470	0.3659	23.2964	615	0.9489	60.4097	760	0.0141	0.8993
475	0.2824	17.9799	620	0.9175	58.4095	765	0.0099	0.6273
480	0.2458	15.6501	625	0.8773	55.8543	770	0.0080	0.5086
485	0.2668	16.9833	630	0.8257	52.5651	775	0.0041	0.2611
490	0.3155	20.0835	635	0.7682	48.9085	780	0.0018	0.1132
495	0.3810	24.2564	640	0.7073	45.0292	785	0.0023	0.1433
500	0.4591	29.2255	645	0.6460	41.1237	790	0.0000	0.0006
505	0.5277	33.5973	650	0.5823	37.0692	795	0.0019	0.1193
510	0.5816	37.0251	655	0.5212	33.1819	800	0.0058	0.3723
515	0.6187	39.3856	660	0.4626	29.4513			
520	0.6476	41.2292	665	0.4064	25.8725			

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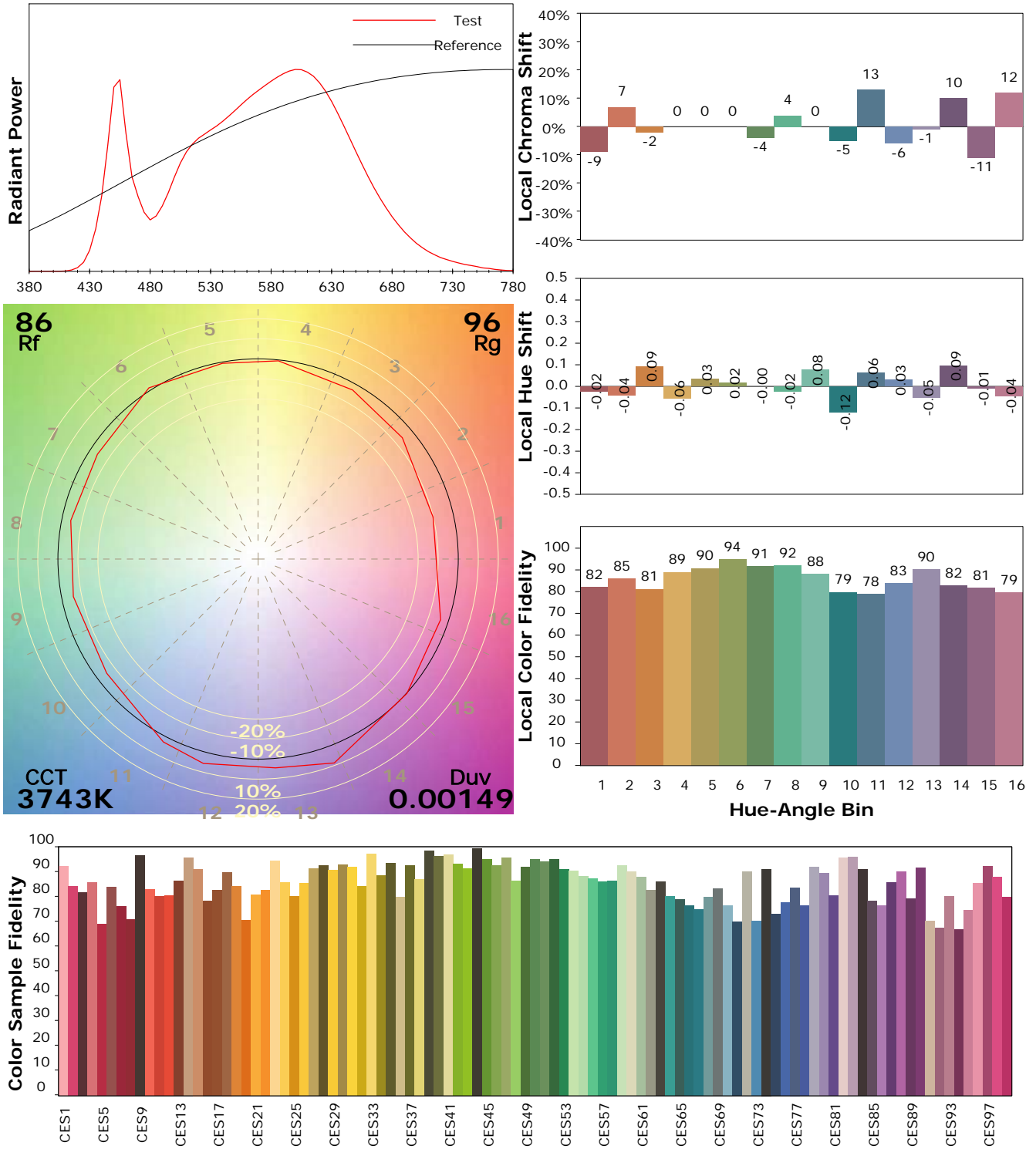
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I ES TM-30-18 Color Rendition Report

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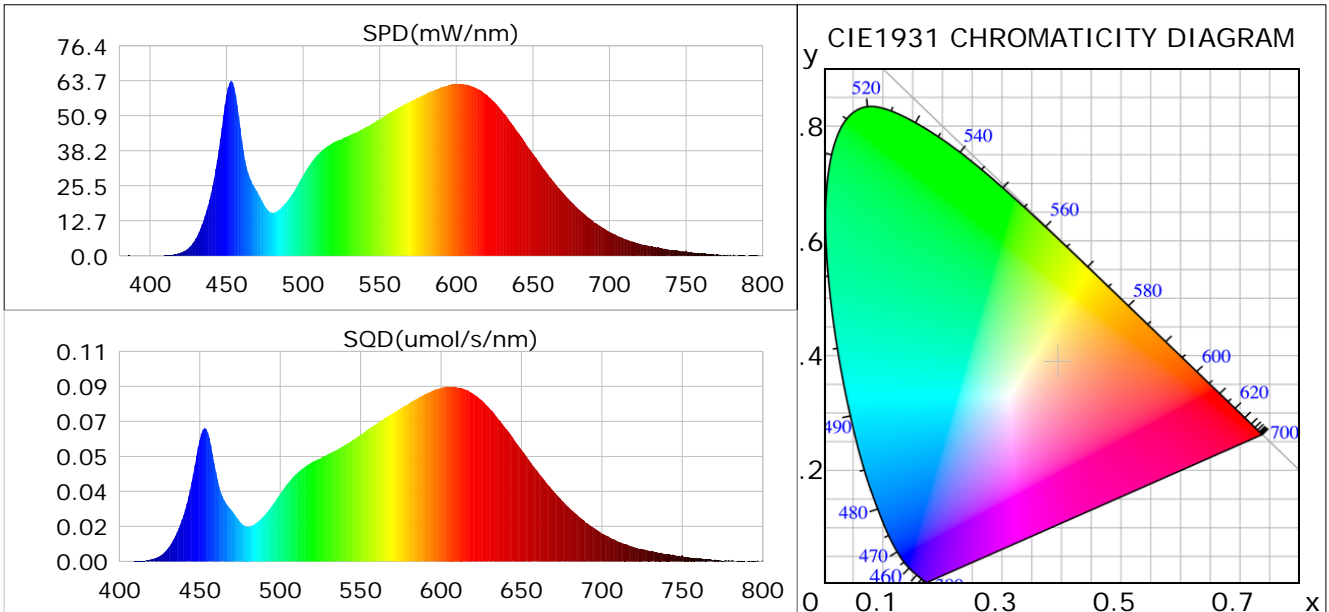
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Plant optical param data

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 CRI: $R_a=85.2$



Plant Optical Param

$ \mu_v(lm)$: 3604.30	$Q_v(lm.s)$: 3604.30
$ \mu_e, \dot{E}(W/nm)$: 10.93	$Q_e(J)$: 10.93
$ \mu_e(W)$: 10.70	$ \mu_{fr}(W)$: 0.23
$ \zeta_e$: 0.36	$ \zeta_{fr}$: 0.01
PPE(umol/s/w): 1.72	Kfr: 0.05
Erb_Ratio: 1.80	PPF(umol/s): 50.59
PFuv(360-400)(umol/s): 0.00	PPF(400-500)(umol/s): 7.94
PPF(500-600)(umol/s): 23.01	PPF(600-700)(umol/s): 19.64
PPfr(700-800)(umol/s): 1.37	PPF.t(umol): 50.59
$ \mu_{ch-A.t}(J)$: 0.85	$ \mu_{ch-A}(W)$: 0.85
$ \mu_{ch-B.t}(J)$: 0.47	$ \mu_{ch-B}(W)$: 0.47
$ \mu_b.t(J)$: 2.05	$ \mu_b(W)$: 2.05
$ \mu_y.t(J)$: 4.98	$ \mu_y(W)$: 4.98
$ \mu_r.t(J)$: 3.76	$ \mu_r(W)$: 3.76

Electric Parameters

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