

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-Plus-E27-27-360-DWM
 Manufacturer: METOLIGHT
 Buyer: 3811
 Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 101515

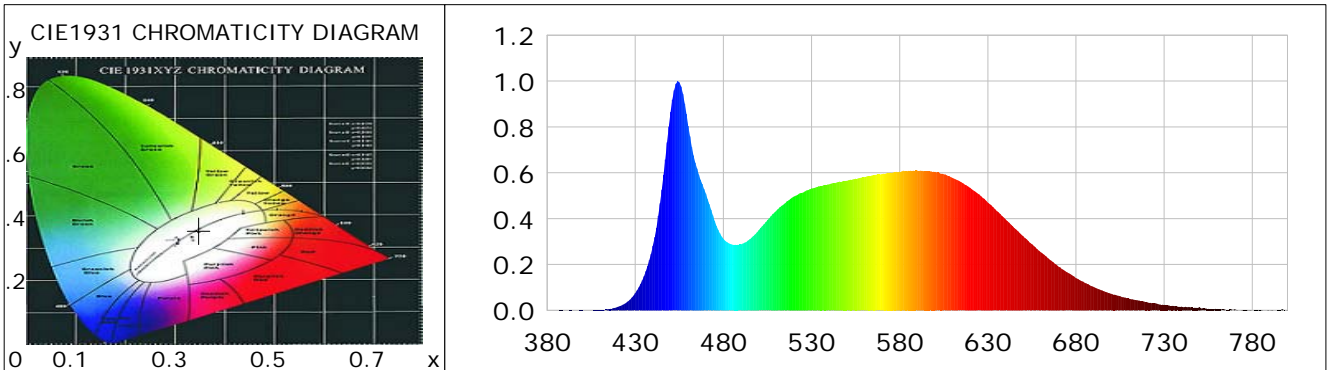
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3482$ $y=0.3554$ $u(u')=0.2121$ $v=0.3246$ $v'=0.4870$
 CCT: $T_c=4897K$ ($duv=0.00065$) Color Ratio: $R=0.166$ $G=0.785$ $B=0.049$
 Peak Wavelength: 454.2nm Half Bandwidth: 25.8nm
 Dominant Wavelength: 573.3nm Color Purity: 0.111
 CRI: $R_a = 86.2$, $avgR(1\sim14) = 80.2$, $avgR(1\sim15) = 80.3$ TM30: $R_f = 84$, $R_g = 94$
 GAI: $GAI_BB_8=91.3$, $GAI_BB_15=98.3$, $GAI_EES=82.4$

R1 =86	R2 =93	R3 =95	R4 =83	R5 =84	R6 =88	R7 =88	R8 =72
R9 =27	R10=81	R11=82	R12=58	R13=88	R14=98	R15=82	

Color Quality Scale: $Q_a = 84.2$, $Q_f = 84.3$, $Q_p = 83.5$, $Q_g = 92.3$

Q1 =83	Q2 =97	Q3 =81	Q4 =74	Q5 =79	Q6 =82	Q7 =87	Q8 =91
Q9 =98	Q10=92	Q11=88	Q12=87	Q13=87	Q14=78	Q15=81	



Photometric Parameters

Luminous Flux: 2967.1 lm Efficiency: 109.12 lm/W Radiant Power: 9.317 W
 Total mains efficacy: 128.33 lm/W Energy Efficiency Class: E (EU 2019/2015)
 Pupil Flux: 5069.54 Plm Pupil Lumens Per Watt: 186.45 Plm/W Pupil Factor (Kp): 1.709
 Circopic Flux: 11139.87 lm

Electric Parameters

Voltage: 230.90V Current: 0.1240A Power: 27.19W
 Power Factor: 0.9670 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: 48967 (2536) CCD Integration Time: 123.09 ms

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.0333	525	0.5133	38.9174	670	0.1918	14.5448
385	0.0004	0.0300	530	0.5317	40.3108	675	0.1657	12.5638
390	0.0005	0.0380	535	0.5418	41.0794	680	0.1407	10.6704
395	0.0006	0.0468	540	0.5498	41.6829	685	0.1197	9.0786
400	0.0008	0.0598	545	0.5592	42.3967	690	0.1022	7.7462
405	0.0005	0.0353	550	0.5652	42.8524	695	0.0862	6.5361
410	0.0020	0.1518	555	0.5745	43.5565	700	0.0723	5.4840
415	0.0060	0.4520	560	0.5814	44.0810	705	0.0617	4.6749
420	0.0151	1.1423	565	0.5904	44.7662	710	0.0520	3.9412
425	0.0336	2.5505	570	0.5954	45.1403	715	0.0433	3.2851
430	0.0748	5.6735	575	0.6006	45.5378	720	0.0364	2.7621
435	0.1494	11.3252	580	0.6049	45.8626	725	0.0309	2.3465
440	0.2813	21.3299	585	0.6085	46.1328	730	0.0240	1.8200
445	0.5267	39.9344	590	0.6094	46.2058	735	0.0200	1.5169
450	0.8650	65.5844	595	0.6076	46.0657	740	0.0161	1.2193
455	0.9943	75.3862	600	0.6043	45.8144	745	0.0127	0.9614
460	0.8044	60.9851	605	0.5934	44.9908	750	0.0143	1.0871
465	0.6188	46.9150	610	0.5775	43.7817	755	0.0068	0.5157
470	0.5093	38.6146	615	0.5587	42.3630	760	0.0056	0.4278
475	0.3901	29.5771	620	0.5344	40.5173	765	0.0027	0.2059
480	0.3121	23.6643	625	0.5058	38.3457	770	0.0049	0.3682
485	0.2870	21.7609	630	0.4696	35.6054	775	0.0041	0.3136
490	0.2877	21.8109	635	0.4340	32.9064	780	0.0006	0.0441
495	0.3105	23.5428	640	0.3971	30.1067	785	0.0040	0.3029
500	0.3491	26.4720	645	0.3595	27.2540	790	0.0004	0.0288
505	0.3940	29.8704	650	0.3236	24.5326	795	0.0008	0.0580
510	0.4343	32.9288	655	0.2888	21.8928	800	0.0025	0.1872
515	0.4676	35.4493	660	0.2540	19.2560			
520	0.4966	37.6523	665	0.2219	16.8271			

Condition: Tx:21.4'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

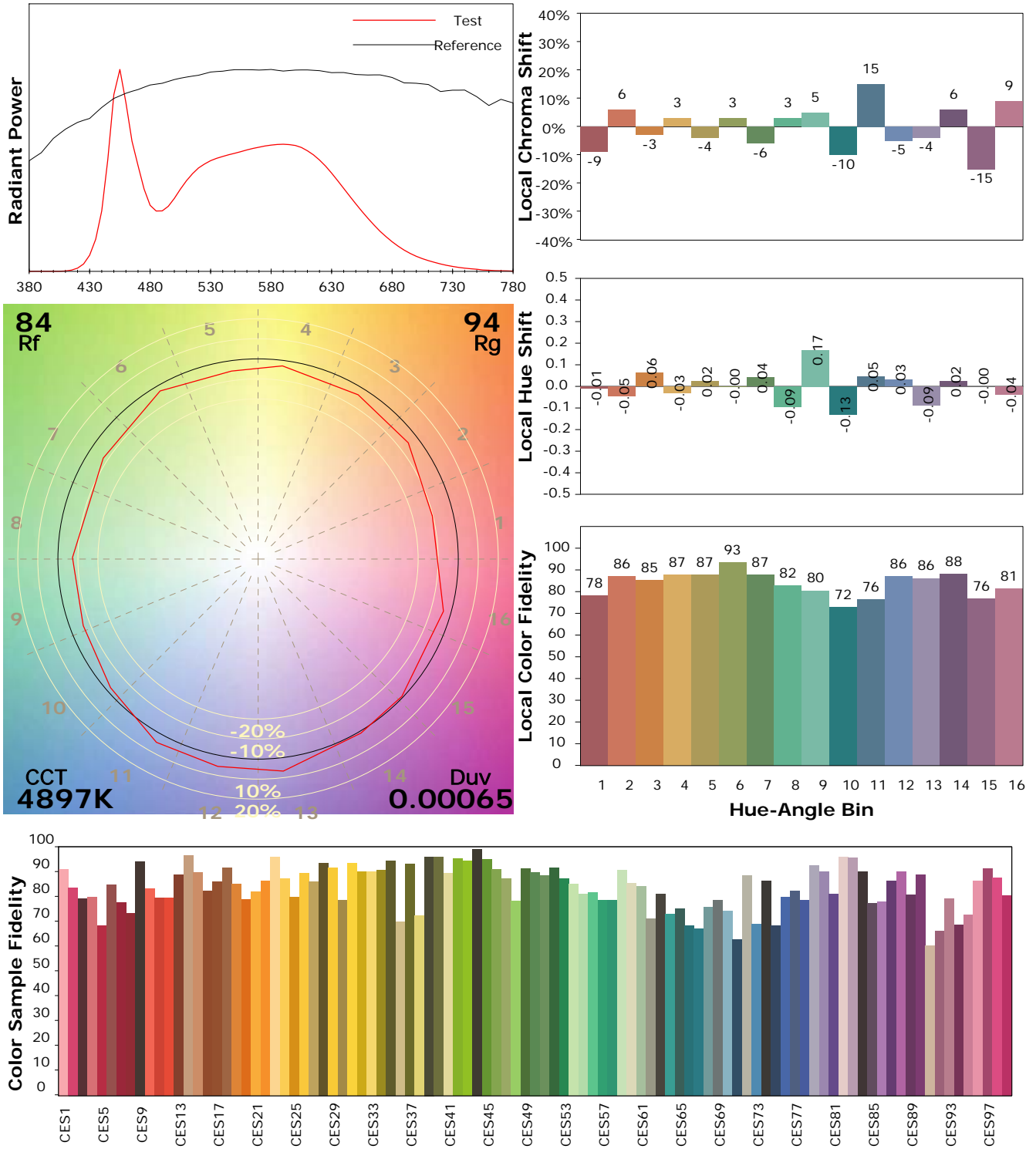
Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 12:39:47
 Inspector:

IES TM-30-18 Color Rendition Report

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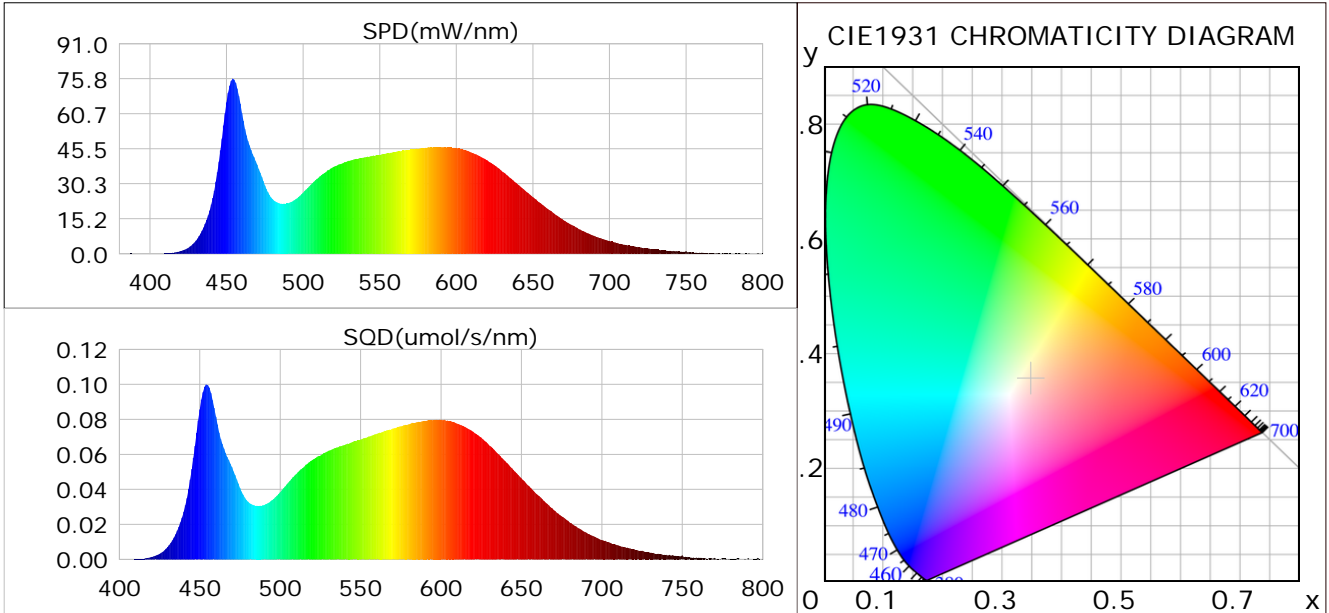
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Test Device: Lisun LMS-9000B
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Plant optical param data

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 Peak Wavelength: 454.2nm Half Bandwidth: 25.8nm
 Dominant Wavelength: 573.3nm Color Purity: 0.111
 CRI: $R_a=86.2$



Plant Optical Param

$ \mu_v(lm): 2967.10$	$Q_v(lm.s): 2967.10$
$ \mu_e, \dot{E}(W/nm): 9.32$	$Q_e(J): 9.32$
$ \mu_e(W): 9.18$	$ \mu_{fr}(W): 0.14$
$ \zeta_e: 0.34$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.56$	$K_{fr}: 0.03$
$Erb_Ratio: 0.99$	$PPF(umol/s): 42.29$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 9.79$
$PPF(500-600)(umol/s): 19.18$	$PPF(600-700)(umol/s): 13.31$
$PPF_{fr}(700-800)(umol/s): 0.83$	$PPF.t(umol): 42.29$
$ \mu_{ch-A.t}(J): 0.72$	$ \mu_{ch-A}(W): 0.72$
$ \mu_{ch-B.t}(J): 0.49$	$ \mu_{ch-B}(W): 0.49$
$ \mu_b.t(J): 2.53$	$ \mu_b(W): 2.53$
$ \mu_y.t(J): 4.17$	$ \mu_y(W): 4.17$
$ \mu_r.t(J): 2.55$	$ \mu_r(W): 2.55$

Electric Parameters

Voltage: 230.90V	Current: 0.1240A	Power: 27.19W
Power Factor: 0.9670	Frequency: 49.99Hz	

Condition: $T_x: 21.4^\circ C$, $T_i: 0.0^\circ C$, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
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