

Lightsource Test Report

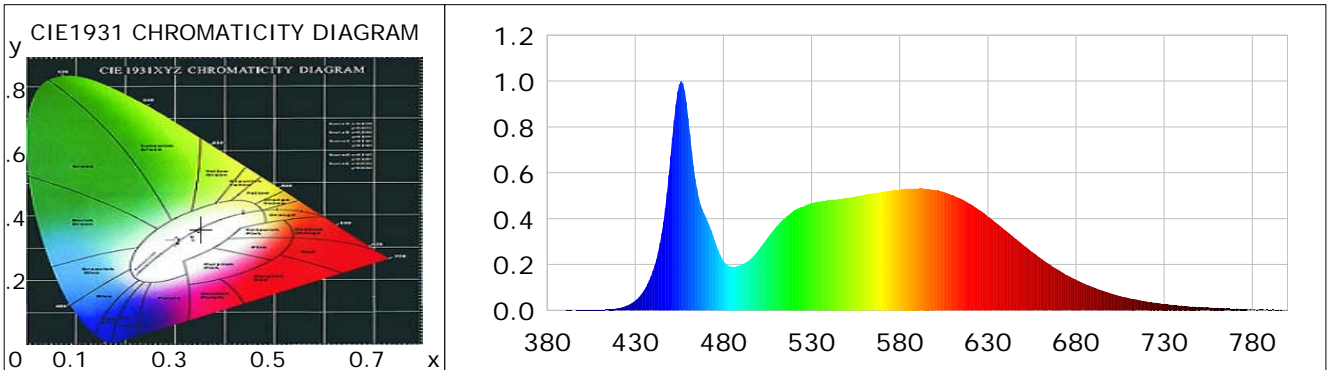
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG371-E40-45-DW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 105042

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3527$ $y=0.3596$ $u(u')=0.2134$ $v=0.3264$ $v'=0.4897$
 CCT: $T_c=4754K$ ($duv=0.00102$) Color Ratio: $R=0.167$ $G=0.788$ $B=0.045$
 Peak Wavelength: 456.1nm Half Bandwidth: 18.0nm
 Dominant Wavelength: 574.4nm Color Purity: 0.138
 CRI: $R_a=85.1$, $avgR(1\sim14)=78.5$, $avgR(1\sim15)=78.6$ TM30: $R_f=82$, $R_g=93$
 GAI: $GAI_BB_8=90.8$, $GAI_BB_15=98.9$, $GAI_EES=80.6$
 R1 =85 R2 =92 R3 =94 R4 =82 R5 =83 R6 =86 R7 =88 R8 =71
 R9 =24 R10=77 R11=81 R12=52 R13=87 R14=97 R15=80
 Color Quality Scale: $Q_a=82.9$, $Q_f=83.0$, $Q_p=82.5$, $Q_g=92.2$
 Q1 =83 Q2 =97 Q3 =79 Q4 =72 Q5 =77 Q6 =80 Q7 =86 Q8 =90
 Q9 =97 Q10=90 Q11=87 Q12=86 Q13=86 Q14=78 Q15=80



Photometric Parameters

Luminous Flux: 6588.0 lm Efficiency: 146.11 lm/W Radiant Power: 20.572 W
 Total mains efficacy: 171.82 lm/W Energy Efficiency Class: C (EU 2019/2015)
 Pupil Flux: 10980.75 Plm Pupil Lumens Per Watt: 243.53 Plm/W Pupil Factor (Kp): 1.667
 Circopic Flux: 23763.51 lm

Electric Parameters

Voltage: 230.70V Current: 0.2080A Power: 45.09W
 Power Factor: 0.9390 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: 51454 (2490) CCD Integration Time: 23.15 ms

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 12:26:52
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0011	0.2188	525	0.4509	87.8339	670	0.1767	34.4245
385	0.0014	0.2657	530	0.4672	91.0180	675	0.1530	29.7960
390	0.0004	0.0854	535	0.4741	92.3628	680	0.1337	26.0406
395	0.0004	0.0808	540	0.4801	93.5324	685	0.1152	22.4494
400	0.0013	0.2472	545	0.4851	94.5100	690	0.1001	19.4955
405	0.0013	0.2613	550	0.4903	95.5052	695	0.0859	16.7373
410	0.0027	0.5255	555	0.4968	96.7861	700	0.0734	14.3045
415	0.0049	0.9527	560	0.5038	98.1378	705	0.0631	12.2870
420	0.0093	1.8126	565	0.5109	99.5261	710	0.0531	10.3483
425	0.0201	3.9120	570	0.5167	100.6654	715	0.0455	8.8676
430	0.0425	8.2714	575	0.5227	101.8295	720	0.0386	7.5130
435	0.0869	16.9316	580	0.5269	102.6394	725	0.0338	6.5775
440	0.1720	33.4993	585	0.5301	103.2752	730	0.0279	5.4277
445	0.3370	65.6581	590	0.5311	103.4641	735	0.0235	4.5871
450	0.6717	130.8508	595	0.5294	103.1267	740	0.0213	4.1551
455	0.9869	192.2634	600	0.5244	102.1560	745	0.0166	3.2250
460	0.8387	163.3783	605	0.5169	100.6935	750	0.0152	2.9576
465	0.5304	103.3206	610	0.5029	97.9685	755	0.0134	2.6169
470	0.4060	79.0824	615	0.4858	94.6299	760	0.0114	2.2255
475	0.3057	59.5519	620	0.4642	90.4235	765	0.0080	1.5490
480	0.2157	42.0114	625	0.4382	85.3709	770	0.0067	1.3003
485	0.1902	37.0535	630	0.4090	79.6829	775	0.0055	1.0741
490	0.1983	38.6229	635	0.3798	73.9790	780	0.0031	0.5983
495	0.2213	43.1082	640	0.3488	67.9498	785	0.0045	0.8819
500	0.2635	51.3307	645	0.3163	61.6267	790	0.0029	0.5734
505	0.3159	61.5417	650	0.2852	55.5642	795	0.0031	0.5985
510	0.3652	71.1474	655	0.2552	49.7152	800	0.0042	0.8120
515	0.4025	78.4062	660	0.2275	44.3142			
520	0.4357	84.8787	665	0.2009	39.1442			

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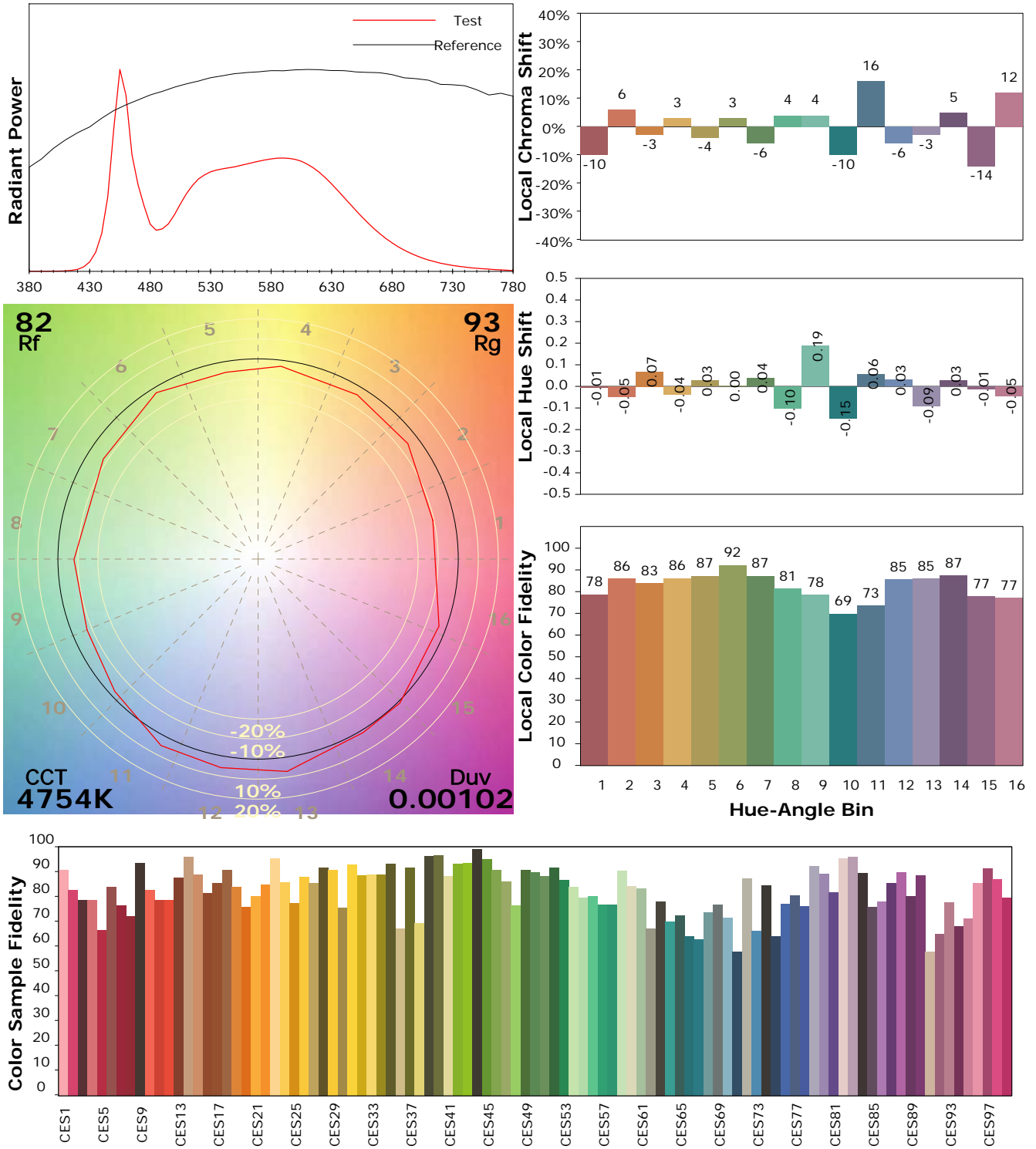
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IES TM-30-18 Color Rendition Report

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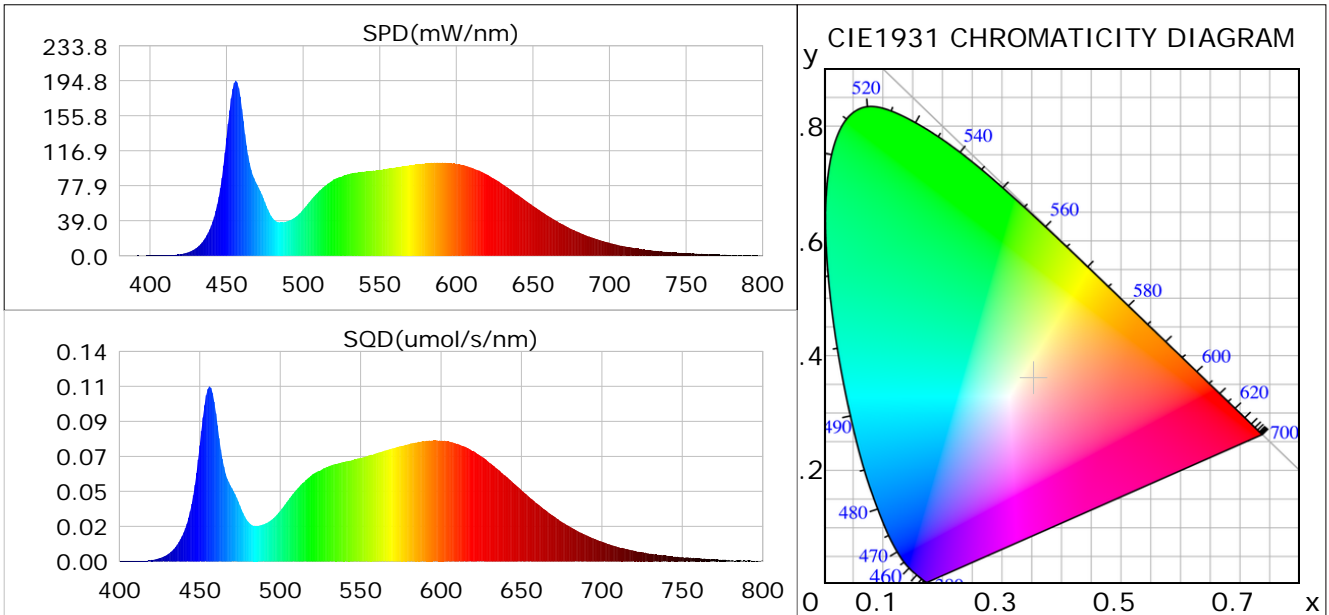
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Plant optical param data

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 Dominant Wavelength: 574.4nm Color Purity: 0.138
 CRI: $R_a=85.1$



Plant Optical Param

$ \mu_v(lm): 6588.00$	$Q_v(lm.s): 6588.00$
$ \mu_e, \dot{E}(W/nm): 20.57$	$Q_e(J): 20.57$
$ \mu_e(W): 20.17$	$ \mu_{fr}(W): 0.43$
$ \zeta_e: 0.45$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 2.07$	$K_{fr}: 0.06$
$Erb_Ratio: 1.08$	$PPF(umol/s): 93.29$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 20.32$
$PPF(500-600)(umol/s): 42.69$	$PPF(600-700)(umol/s): 30.28$
$PPF_r(700-800)(umol/s): 2.51$	$PPF.t(umol): 93.29$
$ \mu_{ch-A.t}(J): 1.54$	$ \mu_{ch-A}(W): 1.54$
$ \mu_{ch-B.t}(J): 1.07$	$ \mu_{ch-B}(W): 1.07$
$ \mu_b.t(J): 5.25$	$ \mu_b(W): 5.25$
$ \mu_y.t(J): 9.27$	$ \mu_y(W): 9.27$
$ \mu_r.t(J): 5.80$	$ \mu_r(W): 5.80$

Electric Parameters

Voltage: 230.70V	Current: 0.2080A	Power: 45.09W
Power Factor: 0.9390	Frequency: 49.99Hz	

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