

Lightsource Test Report

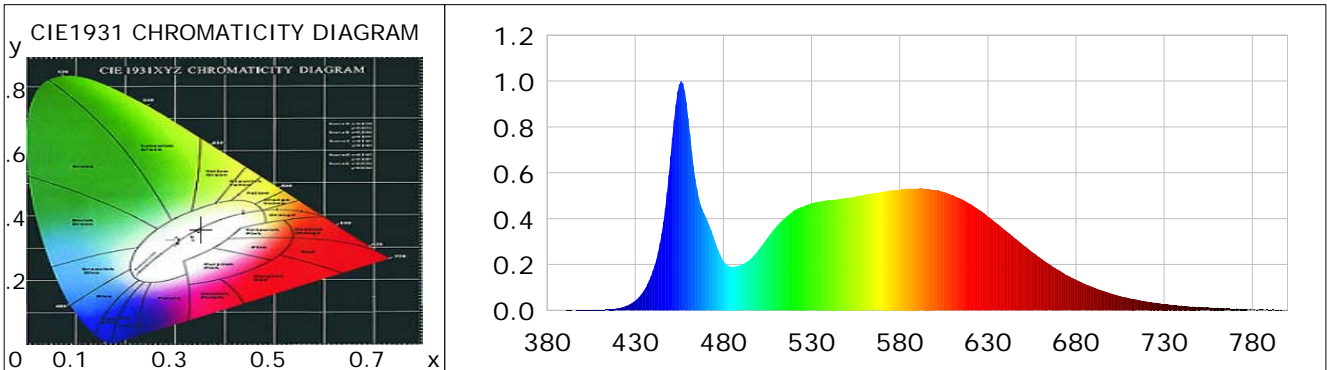
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-E40-45-360-DW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 100258

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: 5788.0 lm Efficiency: 128.37 lm/W Radiant Power: 18.074 W
 Total mains efficacy: 150.96 lm/W Energy Efficiency Class: D (EU 2019/2015)
 Pupil Flux: 9647.32 Plm Pupil Lumens Per Watt: 213.96 Plm/W Pupil Factor (Kp): 1.667
 Circopic Flux: 20877.84 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	0.1922	525	0.4509	77.1680	670	0.1767	30.2442
385	0.0014	0.2334	530	0.4672	79.9654	675	0.1530	26.1778
390	0.0004	0.0750	535	0.4741	81.1469	680	0.1337	22.8784
395	0.0004	0.0710	540	0.4801	82.1745	685	0.1152	19.7233
400	0.0013	0.2172	545	0.4851	83.0334	690	0.1001	17.1281
405	0.0013	0.2296	550	0.4903	83.9077	695	0.0859	14.7048
410	0.0027	0.4617	555	0.4968	85.0331	700	0.0734	12.5675
415	0.0049	0.8370	560	0.5038	86.2206	705	0.0631	10.7950
420	0.0093	1.5925	565	0.5109	87.4404	710	0.0531	9.0916
425	0.0201	3.4369	570	0.5167	88.4413	715	0.0455	7.7908
430	0.0425	7.2670	575	0.5227	89.4641	720	0.0386	6.6007
435	0.0869	14.8756	580	0.5269	90.1756	725	0.0338	5.7787
440	0.1720	29.4314	585	0.5301	90.7342	730	0.0279	4.7686
445	0.3370	57.6850	590	0.5311	90.9001	735	0.0235	4.0301
450	0.6717	114.9612	595	0.5294	90.6037	740	0.0213	3.6505
455	0.9869	168.9163	600	0.5244	89.7509	745	0.0166	2.8334
460	0.8387	143.5388	605	0.5169	88.4660	750	0.0152	2.5984
465	0.5304	90.7741	610	0.5029	86.0719	755	0.0134	2.2991
470	0.4060	69.4792	615	0.4858	83.1387	760	0.0114	1.9552
475	0.3057	52.3204	620	0.4642	79.4431	765	0.0080	1.3609
480	0.2157	36.9098	625	0.4382	75.0041	770	0.0067	1.1424
485	0.1902	32.5540	630	0.4090	70.0068	775	0.0055	0.9437
490	0.1983	33.9328	635	0.3798	64.9955	780	0.0031	0.5257
495	0.2213	37.8734	640	0.3488	59.6984	785	0.0045	0.7748
500	0.2635	45.0974	645	0.3163	54.1431	790	0.0029	0.5037
505	0.3159	54.0685	650	0.2852	48.8169	795	0.0031	0.5258
510	0.3652	62.5077	655	0.2552	43.6781	800	0.0042	0.7134
515	0.4025	68.8851	660	0.2275	38.9330			
520	0.4357	74.5717	665	0.2009	34.3908			

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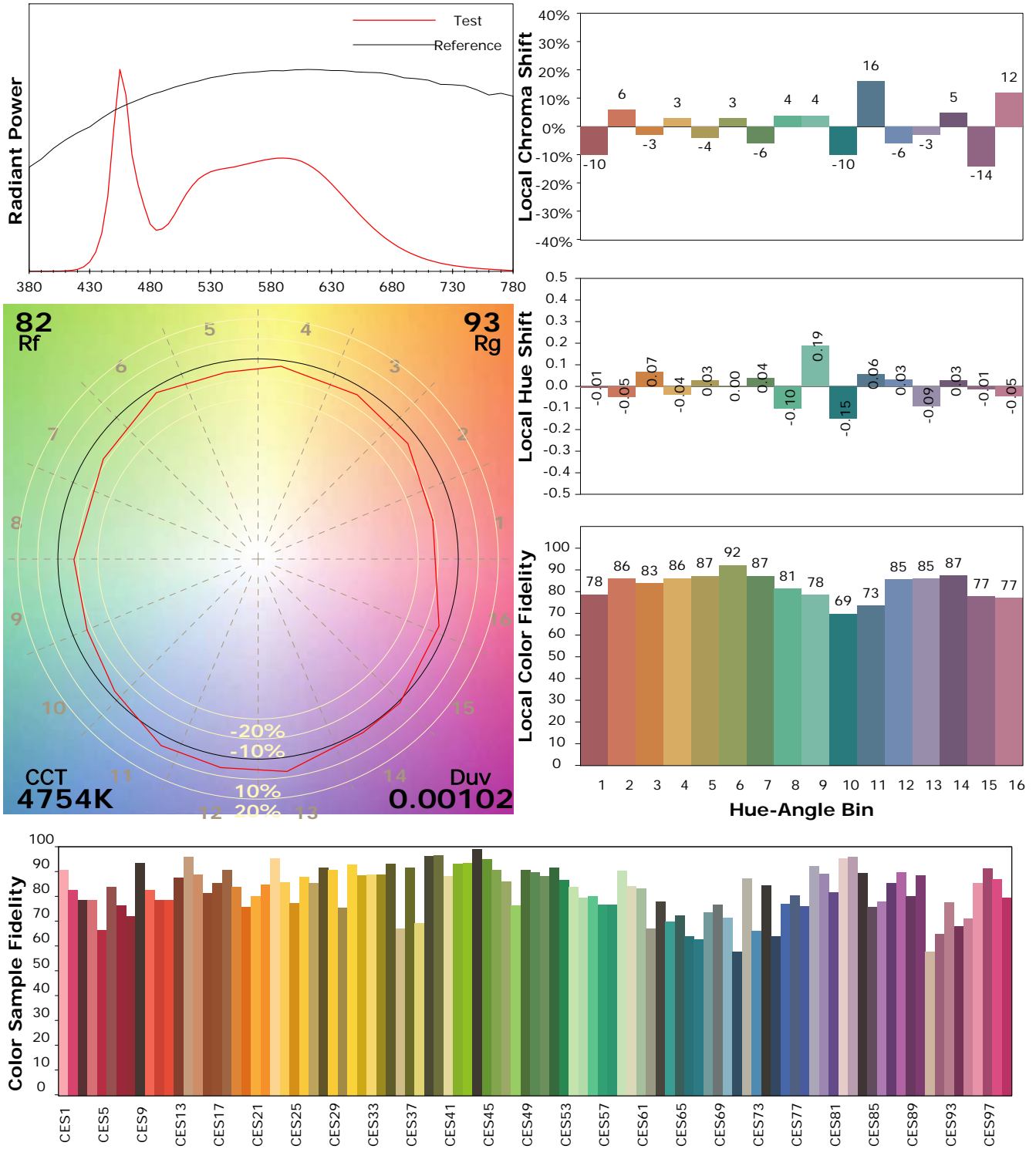
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IES TM-30-18 Color Rendition Report

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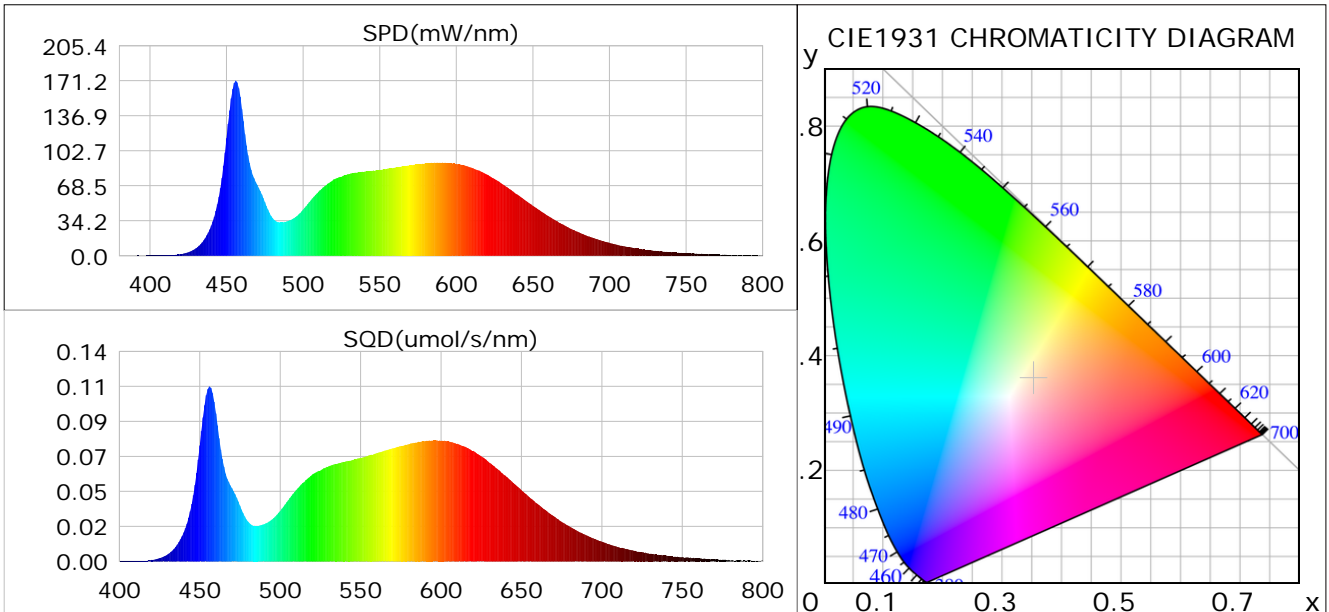
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Plant optical param data

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



Plant Optical Param

$ \mu_v(lm): 5788.00$	$Q_v(lm.s): 5788.00$
$ \mu_e, \dot{E}(W/nm): 18.07$	$Q_e(J): 18.07$
$ \mu_e(W): 17.72$	$ \mu_{fr}(W): 0.38$
$ \zeta_e: 0.39$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.82$	$K_{fr}: 0.05$
$Erb_Ratio: 1.08$	$PPF(umol/s): 81.96$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 17.85$
$PPF(500-600)(umol/s): 37.50$	$PPF(600-700)(umol/s): 26.60$
$PPF_{fr}(700-800)(umol/s): 2.21$	$PPF.t(umol): 81.96$
$ \mu_{ch-A.t}(J): 1.35$	$ \mu_{ch-A}(W): 1.35$
$ \mu_{ch-B.t}(J): 0.94$	$ \mu_{ch-B}(W): 0.94$
$ \mu_b.t(J): 4.62$	$ \mu_b(W): 4.62$
$ \mu_y.t(J): 8.14$	$ \mu_y(W): 8.14$
$ \mu_r.t(J): 5.09$	$ \mu_r(W): 5.09$

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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