

Lightsource Test Report

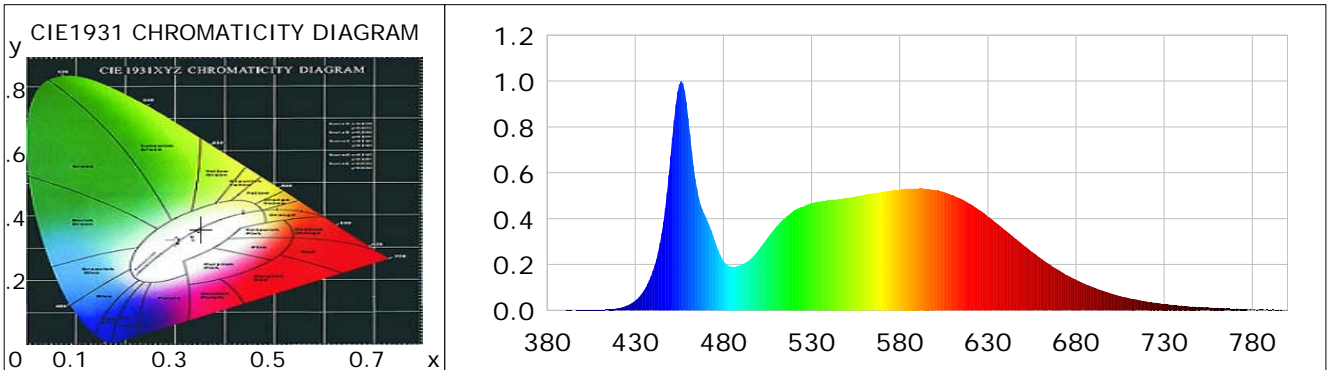
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG381-E40-30-DW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 100233

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: 4588.0 lm Efficiency: 142.97 lm/W Radiant Power: 14.327 W
 Total mains efficacy: 168.14 lm/W Energy Efficiency Class: C (EU 2019/2015)
 Pupil Flux: 7647.19 Plm Pupil Lumens Per Watt: 238.30 Plm/W Pupil Factor (Kp): 1.667
 Circopic Flux: 16549.33 lm

Electric Parameters

Voltage: 231.10V Current: 0.0999A Power: 32.09W
 Power Factor: 0.9400 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	0.1524	525	0.4509	61.1691	670	0.1767	23.9738
385	0.0014	0.1850	530	0.4672	63.3865	675	0.1530	20.7505
390	0.0004	0.0595	535	0.4741	64.3231	680	0.1337	18.1351
395	0.0004	0.0563	540	0.4801	65.1377	685	0.1152	15.6341
400	0.0013	0.1721	545	0.4851	65.8184	690	0.1001	13.5770
405	0.0013	0.1820	550	0.4903	66.5115	695	0.0859	11.6561
410	0.0027	0.3660	555	0.4968	67.4036	700	0.0734	9.9619
415	0.0049	0.6635	560	0.5038	68.3449	705	0.0631	8.5569
420	0.0093	1.2623	565	0.5109	69.3118	710	0.0531	7.2067
425	0.0201	2.7244	570	0.5167	70.1052	715	0.0455	6.1756
430	0.0425	5.7604	575	0.5227	70.9159	720	0.0386	5.2322
435	0.0869	11.7915	580	0.5269	71.4799	725	0.0338	4.5807
440	0.1720	23.3295	585	0.5301	71.9227	730	0.0279	3.7799
445	0.3370	45.7254	590	0.5311	72.0542	735	0.0235	3.1946
450	0.6717	91.1268	595	0.5294	71.8193	740	0.0213	2.8937
455	0.9869	133.8957	600	0.5244	71.1433	745	0.0166	2.2460
460	0.8387	113.7796	605	0.5169	70.1248	750	0.0152	2.0597
465	0.5304	71.9543	610	0.5029	68.2270	755	0.0134	1.8224
470	0.4060	55.0744	615	0.4858	65.9019	760	0.0114	1.5499
475	0.3057	41.4730	620	0.4642	62.9725	765	0.0080	1.0788
480	0.2157	29.2575	625	0.4382	59.4538	770	0.0067	0.9055
485	0.1902	25.8047	630	0.4090	55.4926	775	0.0055	0.7480
490	0.1983	26.8977	635	0.3798	51.5203	780	0.0031	0.4167
495	0.2213	30.0213	640	0.3488	47.3214	785	0.0045	0.6142
500	0.2635	35.7476	645	0.3163	42.9179	790	0.0029	0.3993
505	0.3159	42.8588	650	0.2852	38.6959	795	0.0031	0.4168
510	0.3652	49.5483	655	0.2552	34.6225	800	0.0042	0.5655
515	0.4025	54.6034	660	0.2275	30.8612			
520	0.4357	59.1111	665	0.2009	27.2607			

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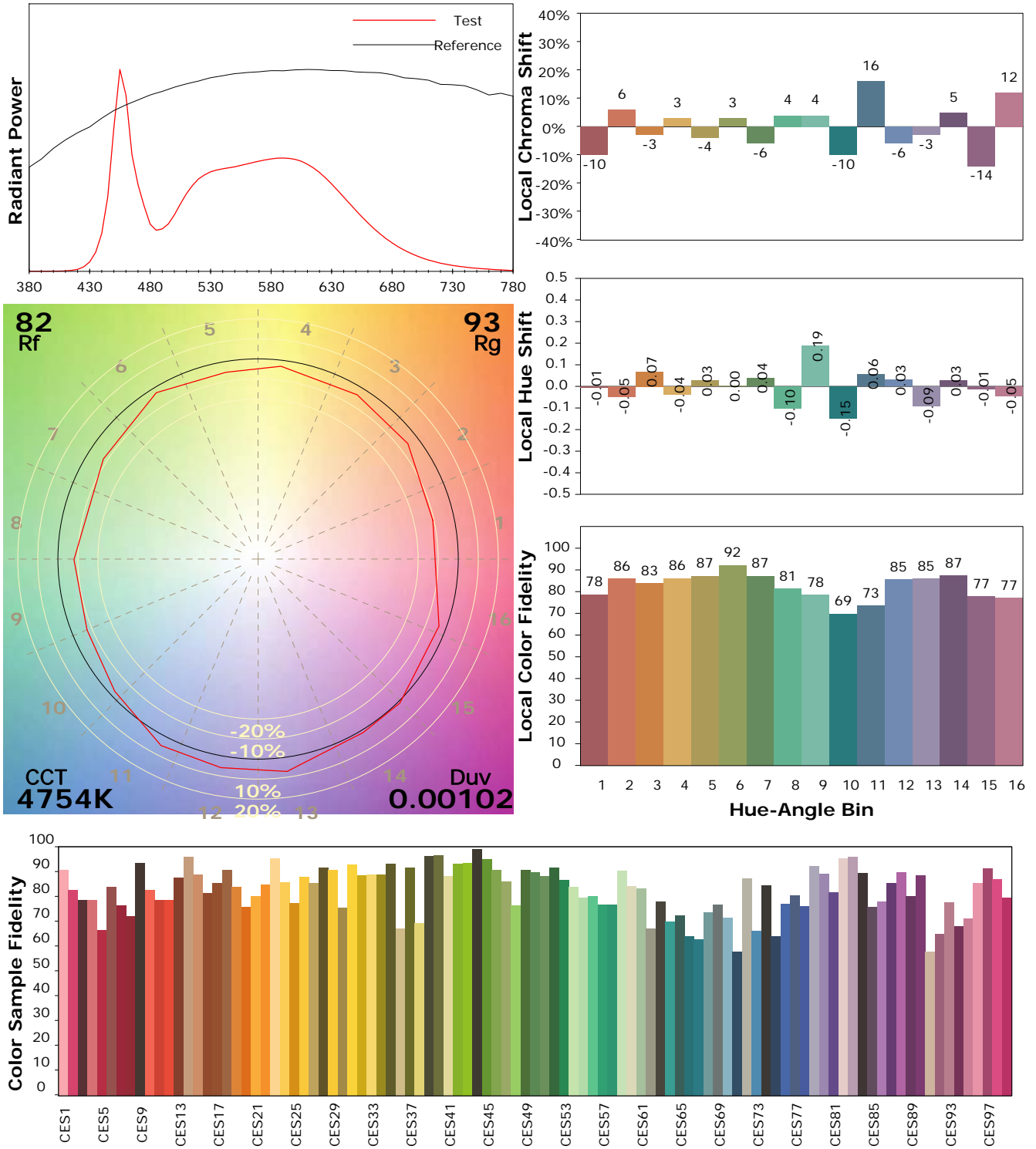
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IES TM-30-18 Color Rendition Report

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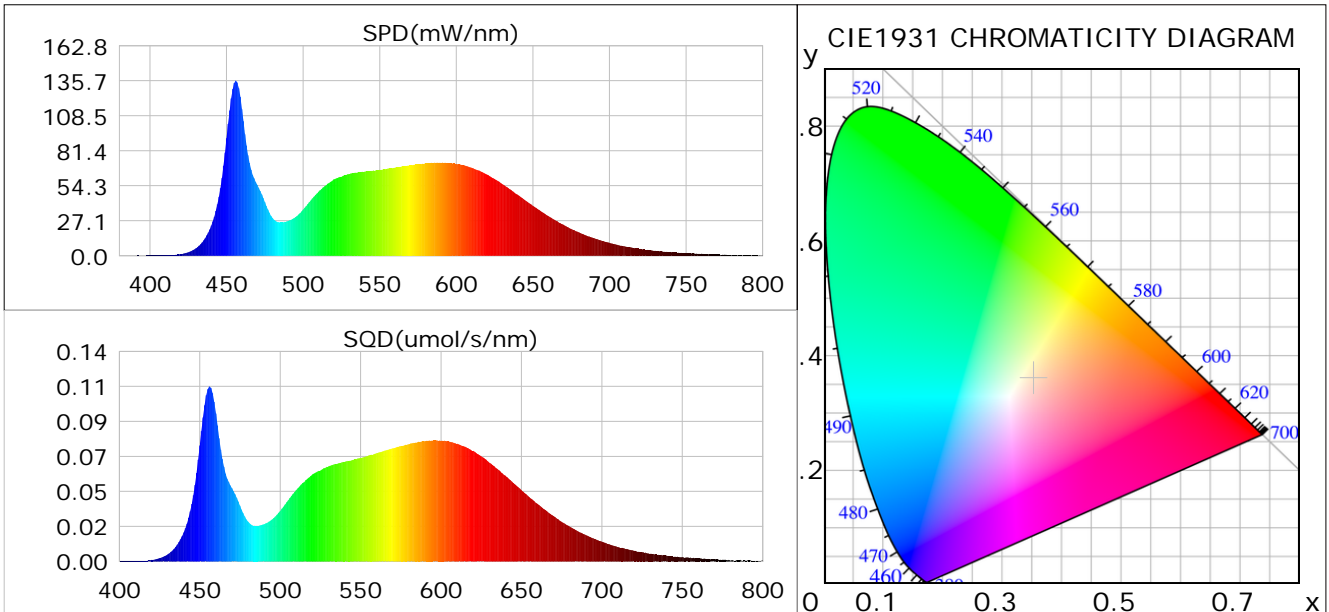
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Plant optical param data

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 CRI: $R_a=85.1$



Plant Optical Param

$ \mu_v(lm)$: 4588.00	$Q_v(lm.s)$: 4588.00
$ \mu_e, \dot{E}(W/nm)$: 14.33	$Q_e(J)$: 14.33
$ \mu_e(W)$: 14.05	$ \mu_{fr}(W)$: 0.30
$ \zeta_e$: 0.44	$ \zeta_{fr}$: 0.01
PPE(umol/s/w): 2.02	Kfr: 0.05
Erb_Ratio: 1.08	PPF(umol/s): 64.97
PFuv(360-400)(umol/s): 0.01	PPF(400-500)(umol/s): 14.15
PPF(500-600)(umol/s): 29.73	PPF(600-700)(umol/s): 21.09
PPfr(700-800)(umol/s): 1.75	PPF.t(umol): 64.97
$ \mu_{ch-A.t}(J)$: 1.07	$ \mu_{ch-A}(W)$: 1.07
$ \mu_{ch-B.t}(J)$: 0.75	$ \mu_{ch-B}(W)$: 0.75
$ \mu_b.t(J)$: 3.66	$ \mu_b(W)$: 3.66
$ \mu_y.t(J)$: 6.46	$ \mu_y(W)$: 6.46
$ \mu_r.t(J)$: 4.04	$ \mu_r(W)$: 4.04

Electric Parameters

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Power Factor: 0.9400	Frequency: 49.99Hz	

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