

Lightsource Test Report

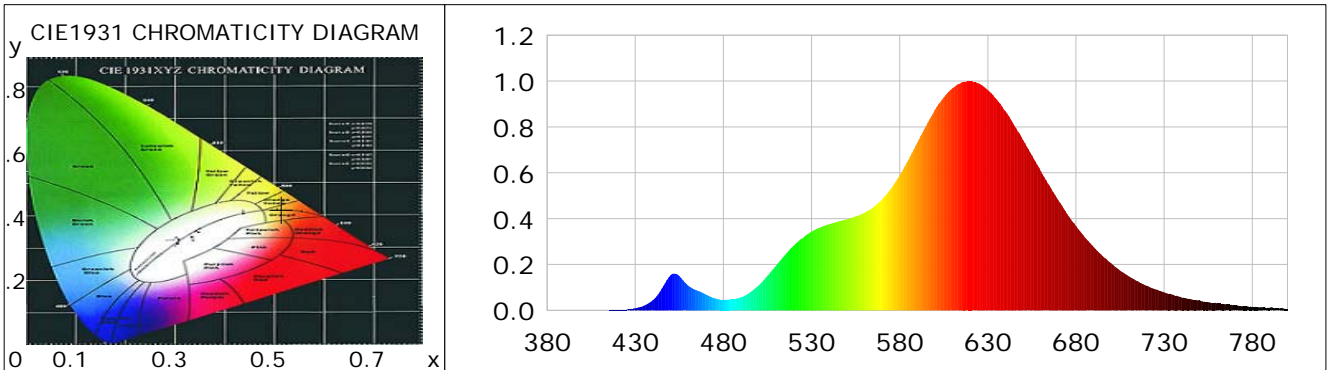
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-Plus-E40-54-360-XWM
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampe
 Product Number: 1
 Submitted Unit: 104260

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.5150$ $y=0.4211$ $u(u')=0.2933$ $v=0.3598$ $v'=0.5396$
 CCT: $T_c=2151K$ ($duv=0.00195$) Color Ratio: $R=0.321$ $G=0.669$ $B=0.009$
 Peak Wavelength: 620.1nm Half Bandwidth: 96.6nm
 Dominant Wavelength: 587.1nm Color Purity: 0.810
 CRI: $R_a=87.5$, $avgR(1\sim14)=83.3$, $avgR(1\sim15)=82.9$ TM30: $R_f=88$, $R_g=98$
 GAI: $GAI_BB_8=84.2$, $GAI_BB_15=93.5$, $GAI_EES=25.3$
 R1 =88 R2 =93 R3 =97 R4 =89 R5 =87 R6 =95 R7 =84 R8 =66
 R9 =27 R10=83 R11=92 R12=78 R13=89 R14=96 R15=79
 Color Quality Scale: $Q_a=79.9$, $Q_f=88.2$, $Q_p=86.3$, $Q_g=84.3$
 Q1 =75 Q2 =87 Q3 =83 Q4 =83 Q5 =82 Q6 =80 Q7 =81 Q8 =84
 Q9 =89 Q10=84 Q11=79 Q12=81 Q13=82 Q14=71 Q15=73



Photometric Parameters

Luminous Flux: 5988.3 lm Efficiency: 110.20 lm/W Radiant Power: 20.139 W
 Total mains efficacy: 110.20 lm/W Energy Efficiency Class: E (EU 2019/2015)
 Pupil Flux: 5625.60 Plm Pupil Lumens Per Watt: 103.53 Plm/W Pupil Factor (Kp): 0.939
 Circopic Flux: 8343.39 lm

Electric Parameters

Voltage: 230.80V Current: 0.9560A Power: 54.34W
 Power Factor: 0.9420 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: 48616 (2315) CCD Integration Time: 115.94 ms

Condition: Tx: 19.6°C, Ti: 0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 10:29:49
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.0637	525	0.3153	51.7575	670	0.4800	78.7914
385	0.0002	0.0409	530	0.3432	56.3419	675	0.4198	68.9134
390	0.0005	0.0741	535	0.3612	59.2958	680	0.3684	60.4830
395	0.0002	0.0282	540	0.3753	61.6149	685	0.3178	52.1679
400	0.0005	0.0777	545	0.3871	63.5397	690	0.2761	45.3192
405	0.0003	0.0570	550	0.3969	65.1577	695	0.2373	38.9480
410	0.0006	0.0906	555	0.4100	67.3085	700	0.2047	33.6118
415	0.0009	0.1475	560	0.4252	69.8081	705	0.1734	28.4579
420	0.0015	0.2485	565	0.4500	73.8798	710	0.1485	24.3817
425	0.0034	0.5509	570	0.4837	79.3973	715	0.1272	20.8751
430	0.0091	1.4922	575	0.5303	87.0522	720	0.1072	17.6055
435	0.0208	3.4122	580	0.5895	96.7665	725	0.0919	15.0883
440	0.0443	7.2702	585	0.6574	107.9253	730	0.0783	12.8582
445	0.0948	15.5691	590	0.7312	120.0320	735	0.0682	11.2025
450	0.1529	25.1013	595	0.8047	132.1031	740	0.0562	9.2239
455	0.1495	24.5383	600	0.8742	143.5140	745	0.0490	8.0407
460	0.1079	17.7094	605	0.9291	152.5296	750	0.0450	7.3932
465	0.0871	14.3066	610	0.9685	158.9913	755	0.0358	5.8813
470	0.0696	11.4186	615	0.9935	163.0943	760	0.0302	4.9561
475	0.0524	8.6059	620	1.0000	164.1618	765	0.0258	4.2424
480	0.0462	7.5795	625	0.9886	162.2868	770	0.0214	3.5164
485	0.0479	7.8569	630	0.9603	157.6378	775	0.0193	3.1727
490	0.0568	9.3237	635	0.9199	151.0163	780	0.0155	2.5386
495	0.0771	12.6640	640	0.8684	142.5582	785	0.0144	2.3654
500	0.1089	17.8695	645	0.8059	132.2979	790	0.0120	1.9637
505	0.1510	24.7852	650	0.7419	121.7970	795	0.0078	1.2761
510	0.1964	32.2472	655	0.6763	111.0269	800	0.0070	1.1449
515	0.2417	39.6769	660	0.6080	99.8121			
520	0.2834	46.5190	665	0.5438	89.2680			

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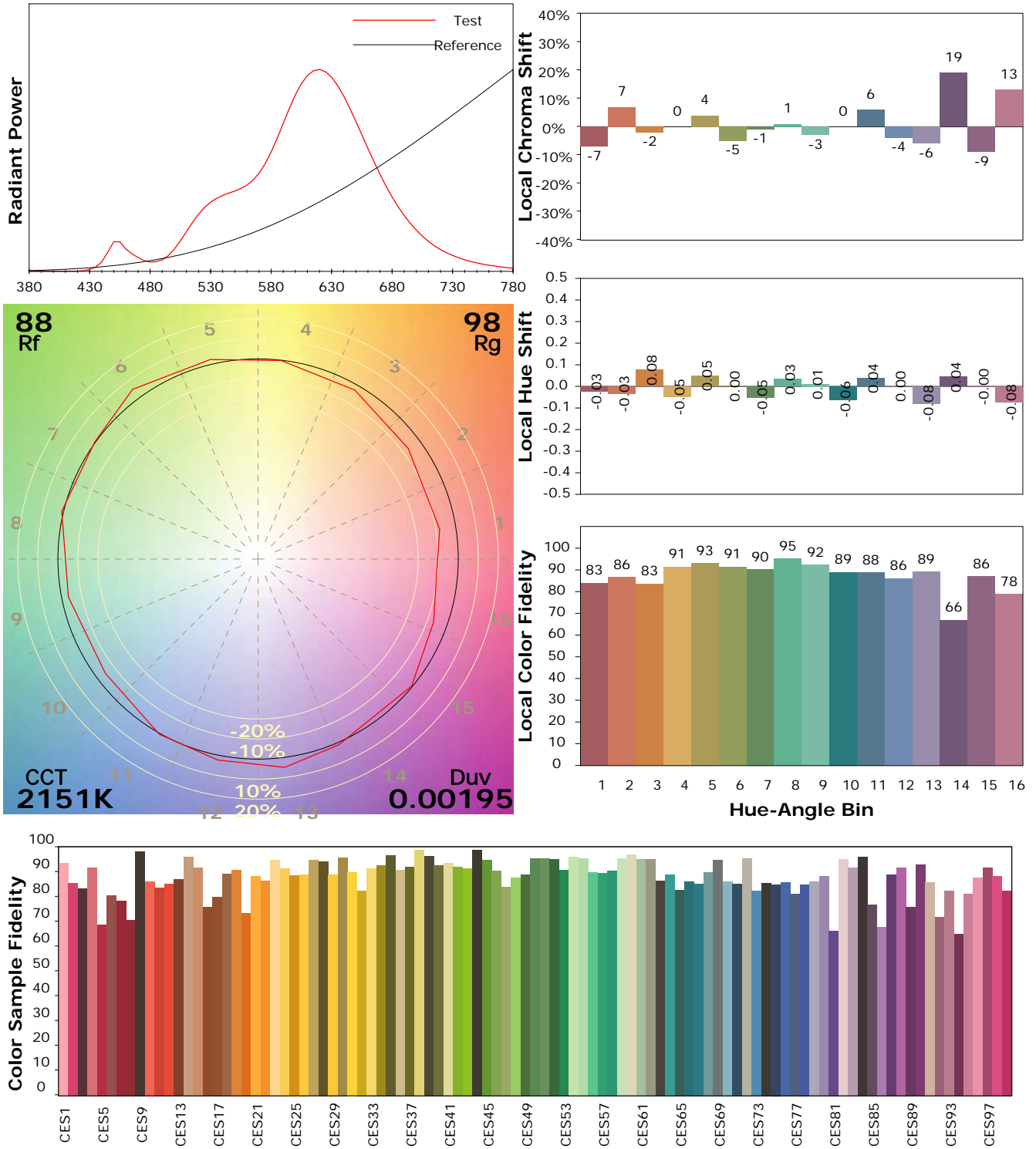
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IES TM-30-18 Color Rendition Report

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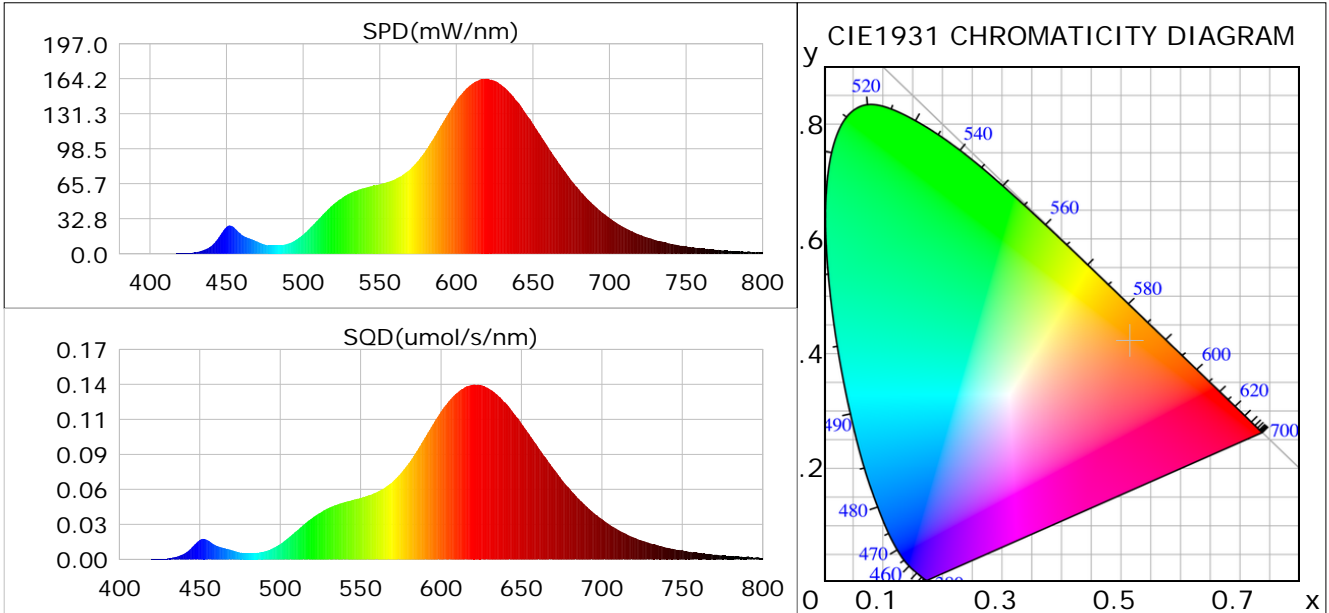
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Plant optical param data

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 CRI: $R_a=87.5$



Plant Optical Param

$ \mu_v(lm)$: 5988.30	$Q_v(lm.s)$: 5988.30
$ \mu_e, \dot{E}(W/nm)$: 20.14	$Q_e(J)$: 20.14
$ \mu_e(W)$: 19.18	$ \mu_{fr}(W)$: 1.03
$ \zeta_e$: 0.35	$ \zeta_{fr}$: 0.02
PPE(umol/s/w): 1.78	Kfr: 0.11
Erb_Ratio: 12.53	PPF(umol/s): 96.62
PFuv(360-400)(umol/s): 0.00	PPF(400-500)(umol/s): 3.46
PPF(500-600)(umol/s): 33.59	PPF(600-700)(umol/s): 59.58
PPfr(700-800)(umol/s): 6.03	PPF.t(umol): 96.62
$ \mu_{ch-A.t}(J)$: 1.67	$ \mu_{ch-A}(W)$: 1.67
$ \mu_{ch-B.t}(J)$: 0.65	$ \mu_{ch-B}(W)$: 0.65
$ \mu_b.t(J)$: 0.89	$ \mu_b(W)$: 0.89
$ \mu_y.t(J)$: 7.16	$ \mu_y(W)$: 7.16
$ \mu_r.t(J)$: 11.29	$ \mu_r(W)$: 11.29

Electric Parameters

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Power Factor: 0.9420	Frequency: 49.99Hz	

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