

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-E27-24-360-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Lampen-Strassenlampen
 Product Number: 1
 Submitted Unit: 100280

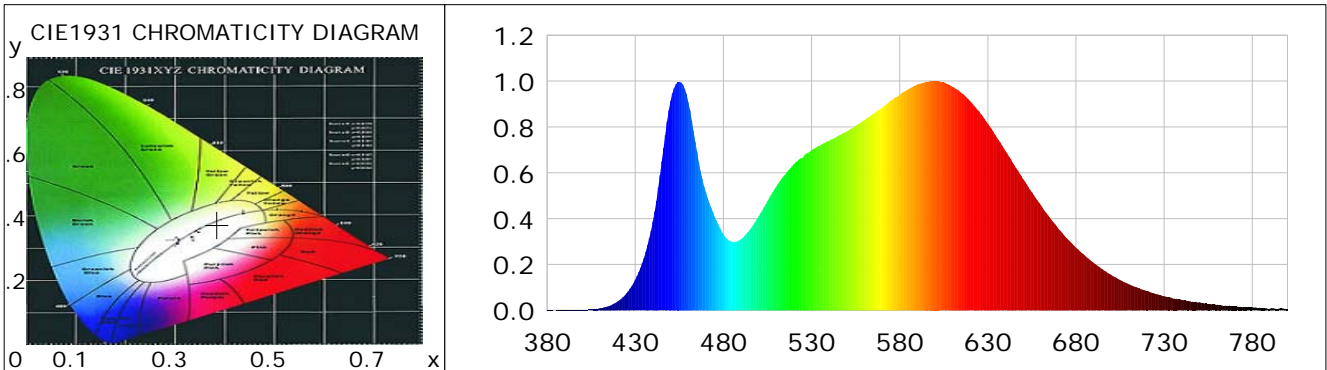
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3846$ $y=0.3736$ $u(u')=0.2291$ $v=0.3339$ $v'=0.5008$
 CCT: $T_c=3863K$ ($duv=-0.00269$) Color Ratio: $R=0.194$ $G=0.769$ $B=0.037$
 Peak Wavelength: 599.8nm Half Bandwidth: 149.5nm
 Dominant Wavelength: 581.1nm Color Purity: 0.275
 CRI: $R_a=85.6$, $avgR(1\sim14)=80.1$, $avgR(1\sim15)=80.1$ TM30: $R_f=85$, $R_g=96$
 GAI: $GAI_BB_8=97.4$, $GAI_BB_15=104.2$, $GAI_EES=74.6$

R1 =85	R2 =92	R3 =95	R4 =84	R5 =85	R6 =88	R7 =86	R8 =69
R9 =24	R10=80	R11=82	R12=65	R13=87	R14=98	R15=81	

Color Quality Scale: $Q_a=83.9$, $Q_f=83.8$, $Q_p=84.6$, $Q_g=94.5$

Q1 =84	Q2 =98	Q3 =80	Q4 =76	Q5 =81	Q6 =84	Q7 =87	Q8 =89
Q9 =98	Q10=89	Q11=86	Q12=85	Q13=85	Q14=77	Q15=80	



Photometric Parameters

Luminous Flux: 2887.3 lm Efficiency: 130.41 lm/W Radiant Power: 9.018 W
 Total mains efficacy: 153.36 lm/W Energy Efficiency Class: D (EU 2019/2015)
 Pupil Flux: 4327.03 Plm Pupil Lumens Per Watt: 195.44 Plm/W Pupil Factor (Kp): 1.499
 Circopic Flux: 8826.13 lm

Electric Parameters

Voltage: 230.10V Current: 0.9420A Power: 22.14W
 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: 46194 (2571) CCD Integration Time: 42.07 ms

Condition: $T_x=23.2^{\circ}C$, $T_i=0.0^{\circ}C$, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-16 10:30:03
 Inspector:

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-E27-24-360-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Lampen-Strassenlampen
 Product Number: 1
 Submitted Unit: 100280

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0007	0.0357	525	0.6659	33.7348	670	0.3567	18.0685
385	0.0007	0.0367	530	0.6977	35.3461	675	0.3132	15.8642
390	0.0012	0.0586	535	0.7197	36.4586	680	0.2732	13.8400
395	0.0017	0.0844	540	0.7397	37.4716	685	0.2388	12.0956
400	0.0025	0.1277	545	0.7607	38.5349	690	0.2072	10.4990
405	0.0045	0.2270	550	0.7807	39.5510	695	0.1791	9.0706
410	0.0096	0.4864	555	0.8054	40.7999	700	0.1545	7.8276
415	0.0188	0.9522	560	0.8298	42.0344	705	0.1325	6.7122
420	0.0387	1.9606	565	0.8572	43.4251	710	0.1140	5.7752
425	0.0744	3.7665	570	0.8837	44.7680	715	0.0984	4.9825
430	0.1335	6.7619	575	0.9149	46.3482	720	0.0842	4.2636
435	0.2286	11.5785	580	0.9399	47.6166	725	0.0720	3.6469
440	0.3878	19.6466	585	0.9645	48.8593	730	0.0615	3.1152
445	0.6505	32.9517	590	0.9853	49.9155	735	0.0518	2.6242
450	0.9131	46.2556	595	0.9965	50.4792	740	0.0455	2.3063
455	0.9967	50.4907	600	1.0000	50.6588	745	0.0386	1.9559
460	0.9095	46.0745	605	0.9942	50.3668	750	0.0355	1.7972
465	0.6919	35.0522	610	0.9748	49.3817	755	0.0279	1.4124
470	0.5164	26.1599	615	0.9486	48.0571	760	0.0245	1.2434
475	0.4091	20.7227	620	0.9122	46.2124	765	0.0213	1.0775
480	0.3321	16.8240	625	0.8679	43.9647	770	0.0176	0.8911
485	0.2978	15.0874	630	0.8135	41.2132	775	0.0135	0.6842
490	0.3103	15.7184	635	0.7548	38.2373	780	0.0136	0.6869
495	0.3515	17.8078	640	0.6941	35.1601	785	0.0094	0.4743
500	0.4099	20.7655	645	0.6333	32.0840	790	0.0073	0.3707
505	0.4766	24.1415	650	0.5718	28.9678	795	0.0074	0.3762
510	0.5405	27.3787	655	0.5147	26.0724	800	0.0062	0.3163
515	0.5916	29.9687	660	0.4594	23.2735			
520	0.6376	32.2991	665	0.4061	20.5712			

Condition: Tx:23.2'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

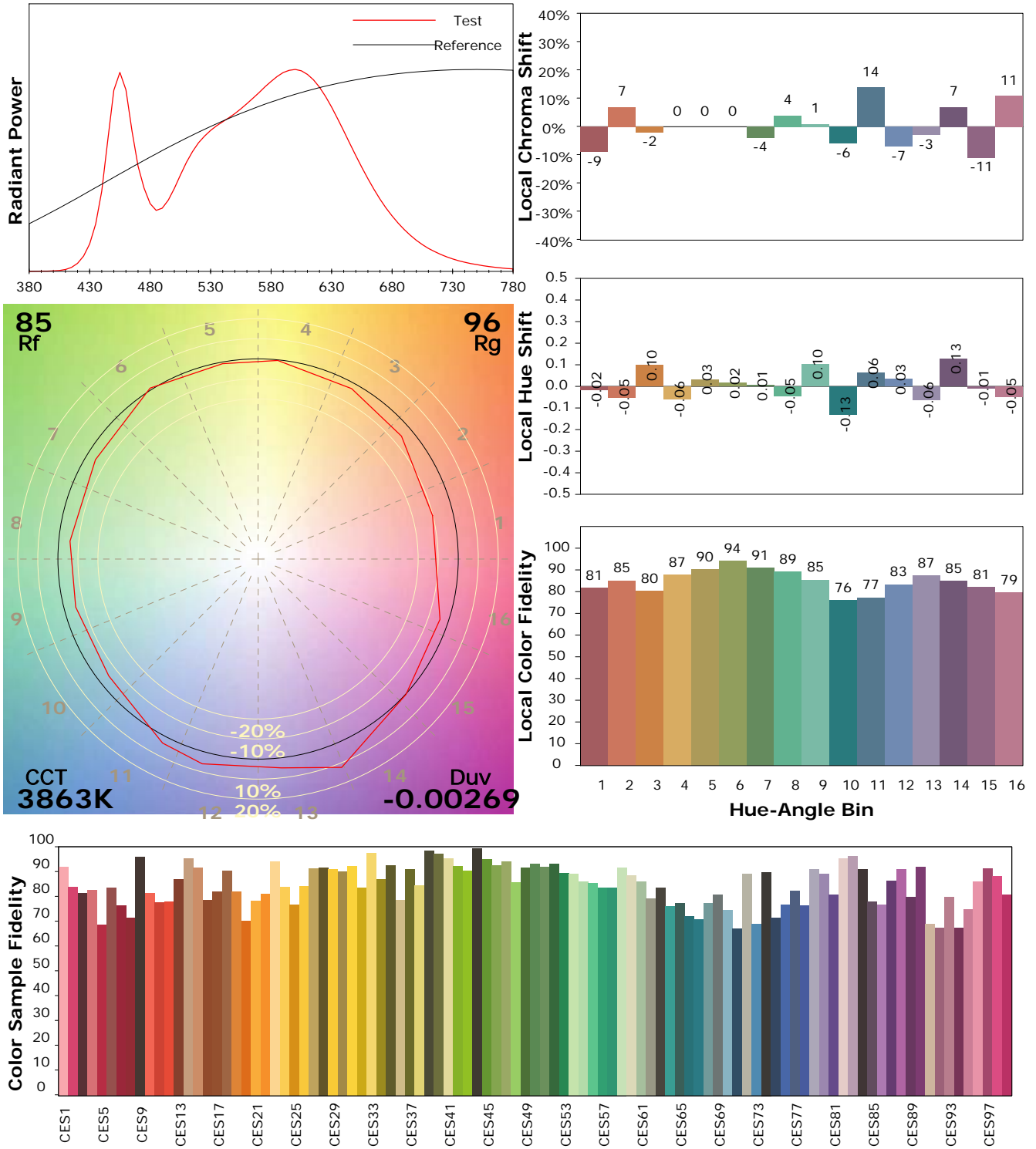
Test Device: Lisun LMS-9000B
 Test Time: 2021-02-16 10:30:03
 Inspector:

I ES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG28-E27-24-360-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Lampen-Strassenlampen
 Product Number: 1
 Submitted Unit: 100280



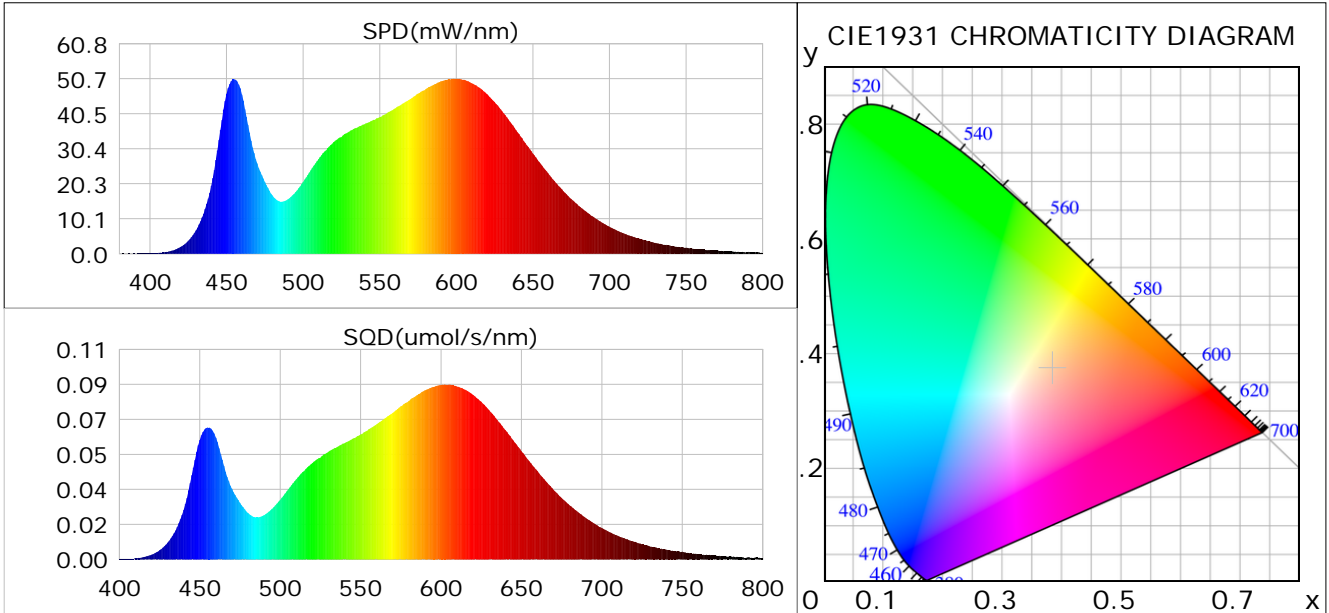
Condition: Tx:23.2°C, Ti:0.0°C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-16 10:30:03
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3846$ $y=0.3736$ $u(u')=0.2291$ $v=0.3339$ $v'=0.5008$
 CCT: $T_c=3863K$ ($duv=-0.00269$) Color Ratio: $R=0.194$ $G=0.769$ $B=0.037$
 Peak Wavelength: 599.8nm Half Bandwidth: 149.5nm
 Dominant Wavelength: 581.1nm Color Purity: 0.275
 CRI: $R_a=85.6$



Plant Optical Param

$ \mu_v(lm): 2887.30$	$Q_v(lm.s): 2887.30$
$ \mu_e, \dot{E}(W/nm): 9.02$	$Q_e(J): 9.02$
$ \mu_e(W): 8.79$	$ \mu_{fr}(W): 0.25$
$ \zeta_e: 0.40$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.87$	$K_{fr}: 0.07$
$Erb_Ratio: 1.54$	$PPF(umol/s): 41.32$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 7.35$
$PPF(500-600)(umol/s): 18.33$	$PPF(600-700)(umol/s): 15.65$
$PPF_{fr}(700-800)(umol/s): 1.45$	$PPF.t(umol): 41.32$
$ \mu_{ch-A.t}(J): 0.71$	$ \mu_{ch-A}(W): 0.71$
$ \mu_{ch-B.t}(J): 0.42$	$ \mu_{ch-B}(W): 0.42$
$ \mu_b.t(J): 1.90$	$ \mu_b(W): 1.90$
$ \mu_y.t(J): 3.96$	$ \mu_y(W): 3.96$
$ \mu_r.t(J): 2.99$	$ \mu_r(W): 2.99$

Electric Parameters

Voltage: 230.10V	Current: 0.9420A	Power: 22.14W
Power Factor: 0.9420	Frequency: 49.99Hz	

Condition: $T_x=23.2^\circ C$, $T_i=0.0^\circ C$, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-16 10:30:03
 Inspector: