

## Lightsource Test Report

### Product Information

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

Product Type: LED-Strassenlampen  
 Product Number: 1  
 Submitted Unit: 100235

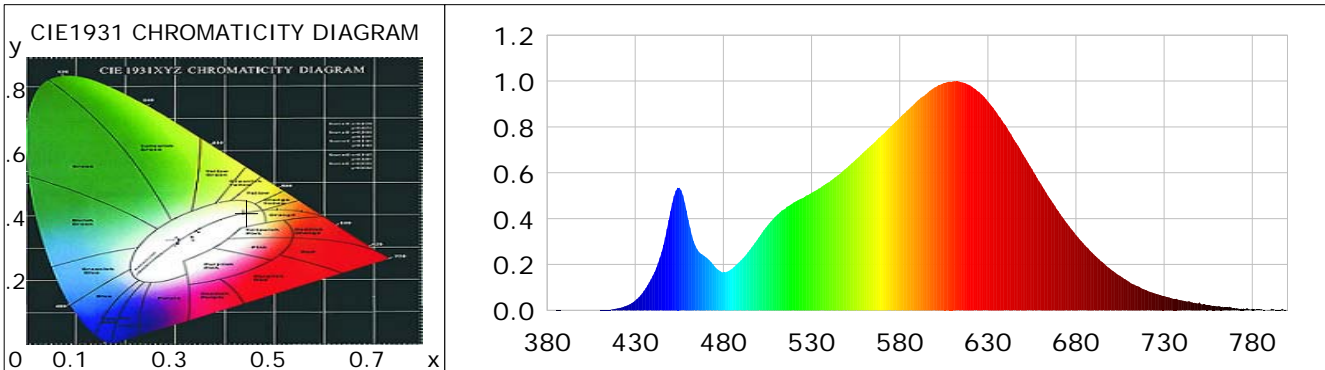
### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.4448$   $y=0.4106$   $u(u')=0.2528$   $v=0.3501$   $v'=0.5251$   
 CCT:  $T_c=2924K$  ( $duv=0.00152$ ) Color Ratio:  $R=0.238$   $G=0.738$   $B=0.024$   
 Peak Wavelength: 611.1nm Half Bandwidth: 137.2nm  
 Dominant Wavelength: 582.6nm Color Purity: 0.568  
 CRI:  $R_a=85.7$ ,  $avgR(1\sim14)=80.7$ ,  $avgR(1\sim15)=80.6$  TM30:  $R_f=87$ ,  $R_g=96$   
 GAI:  $GAI\_BB\_8=90.1$ ,  $GAI\_BB\_15=98.4$ ,  $GAI\_EES=49.8$   

R1 =84	R2 =92	R3 =98	R4 =85	R5 =84	R6 =91	R7 =86	R8 =67
R9 =24	R10=81	R11=84	R12=71	R13=86	R14=99	R15=78	

Color Quality Scale:  $Q_a=85.4$ ,  $Q_f=87.3$ ,  $Q_p=86.0$ ,  $Q_g=91.6$   

Q1 =82	Q2 =95	Q3 =85	Q4 =82	Q5 =85	Q6 =86	Q7 =86	Q8 =89
Q9 =96	Q10=92	Q11=89	Q12=88	Q13=87	Q14=77	Q15=79	



### Photometric Parameters

Luminous Flux: 4246.0 lm	Efficiency: 141.06 lm/W	Radiant Power: 13.119 W
Total mains efficacy: 165.89 lm/W	Energy Efficiency Class: C (EU 2019/2015)	
Pupil Flux: 5266.46 Plm	Pupil Lumens Per Watt: 174.97 Plm/W	Pupil Factor (Kp): 1.240
Cirtpopic Flux: 9486.34 lm		

### Electric Parameters

Voltage: 231.00V	Current: 0.1303A	Power: 30.10W
Power Factor: 0.9460	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: 44656 (2669)	CCD Integration Time: 121.44 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: 2021-02-11 12:08:37  
 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	0.0331	525	0.4899	42.2230	670	0.4334	37.3572
385	0.0008	0.0693	530	0.5129	44.2098	675	0.3784	32.6150
390	0.0007	0.0622	535	0.5345	46.0716	680	0.3287	28.3347
395	0.0001	0.0074	540	0.5598	48.2500	685	0.2838	24.4630
400	0.0004	0.0378	545	0.5894	50.7990	690	0.2445	21.0705
405	0.0000	0.0038	550	0.6216	53.5784	695	0.2097	18.0728
410	0.0009	0.0746	555	0.6567	56.6056	700	0.1767	15.2286
415	0.0032	0.2721	560	0.6929	59.7256	705	0.1502	12.9477
420	0.0087	0.7521	565	0.7281	62.7565	710	0.1252	10.7923
425	0.0200	1.7241	570	0.7656	65.9913	715	0.1056	9.1032
430	0.0427	3.6828	575	0.8026	69.1802	720	0.0874	7.5351
435	0.0854	7.3590	580	0.8403	72.4296	725	0.0737	6.3518
440	0.1513	13.0370	585	0.8761	75.5119	730	0.0626	5.3951
445	0.2557	22.0375	590	0.9140	78.7780	735	0.0506	4.3657
450	0.4325	37.2780	595	0.9433	81.3042	740	0.0433	3.7310
455	0.5343	46.0554	600	0.9727	83.8401	745	0.0363	3.1304
460	0.3959	34.1226	605	0.9914	85.4564	750	0.0349	3.0062
465	0.2672	23.0331	610	0.9981	86.0301	755	0.0225	1.9425
470	0.2321	20.0024	615	0.9951	85.7722	760	0.0173	1.4871
475	0.1917	16.5231	620	0.9808	84.5415	765	0.0125	1.0795
480	0.1654	14.2601	625	0.9525	82.1033	770	0.0082	0.7077
485	0.1821	15.6959	630	0.9106	78.4924	775	0.0079	0.6816
490	0.2183	18.8205	635	0.8618	74.2817	780	0.0067	0.5767
495	0.2632	22.6889	640	0.8076	69.6072	785	0.0052	0.4510
500	0.3173	27.3522	645	0.7422	63.9724	790	0.0017	0.1478
505	0.3698	31.8711	650	0.6792	58.5406	795	0.0021	0.1785
510	0.4130	35.6005	655	0.6166	53.1473	800	0.0037	0.3230
515	0.4432	38.1977	660	0.5522	47.5995			
520	0.4708	40.5770	665	0.4899	42.2253			

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

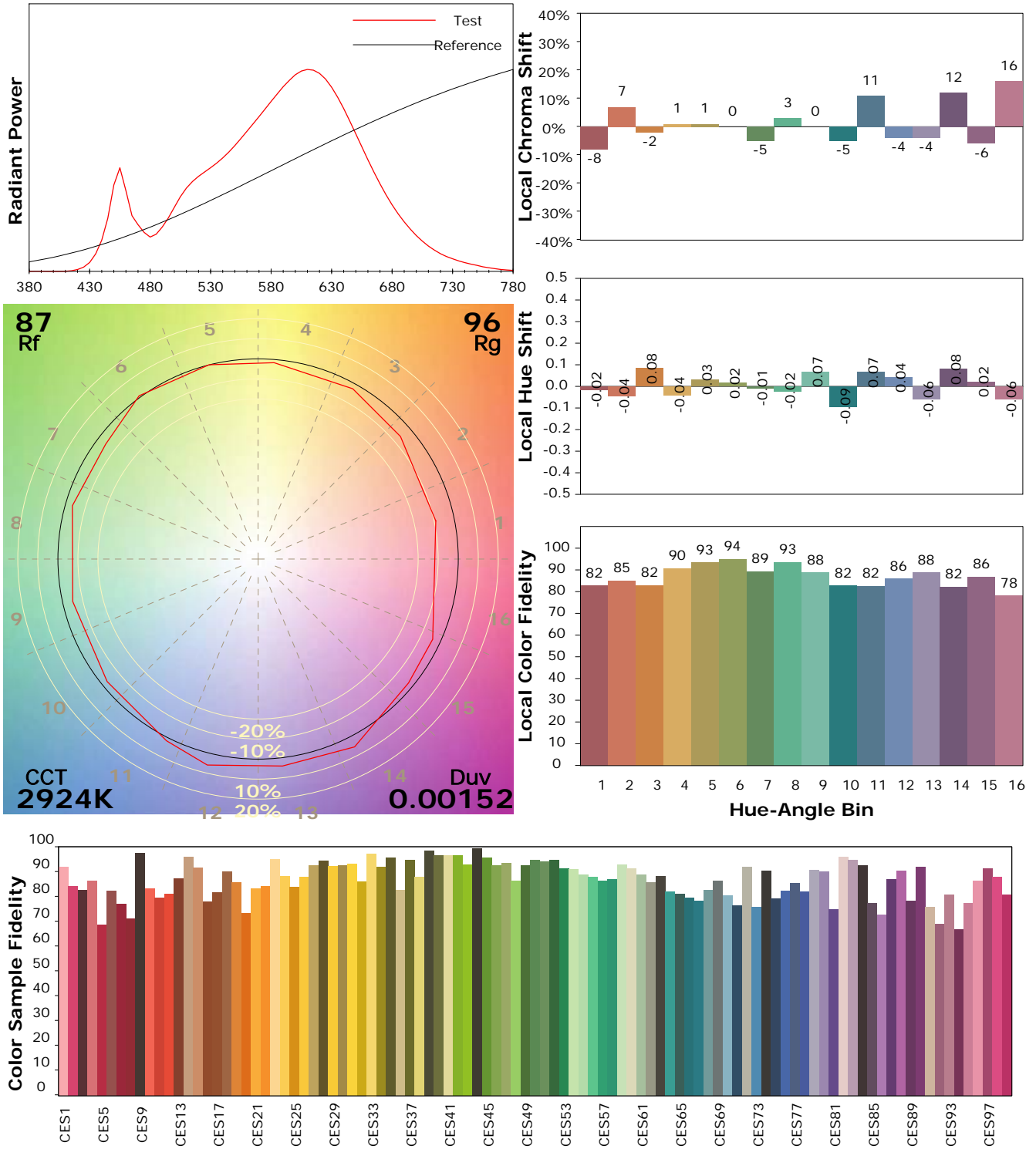
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## IES TM-30-18 Color Rendition Report

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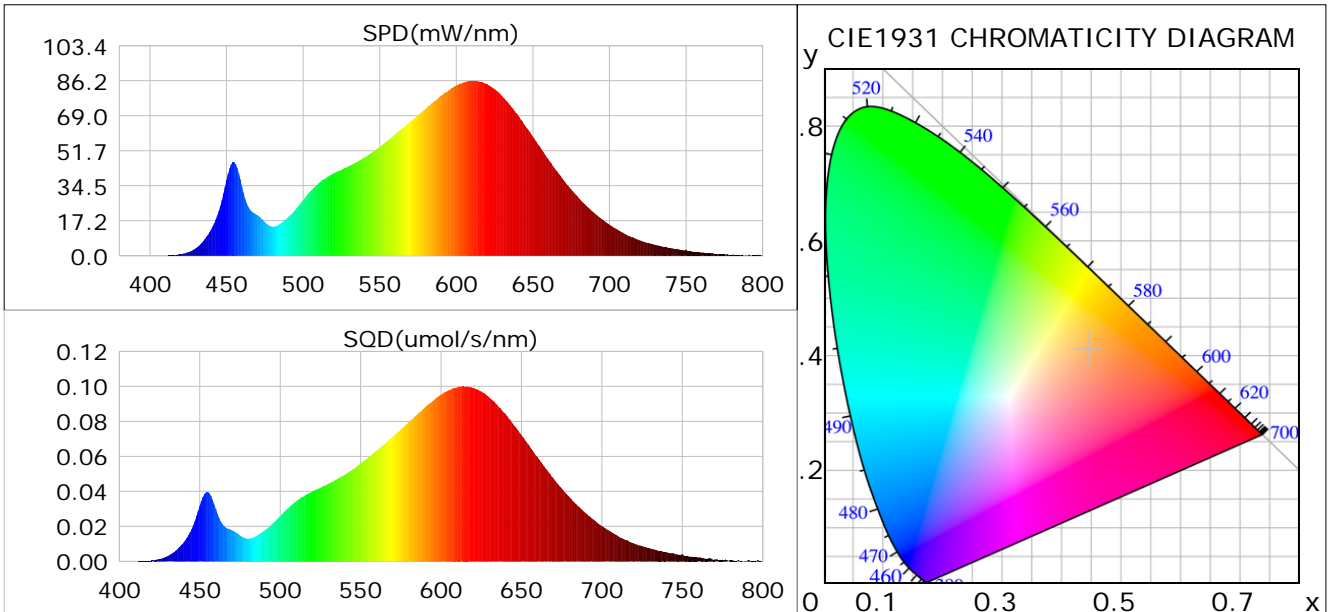
Condition: Tx:23.2°C, Ti:0.0°C, R.H.:60%  
 Test Lab:  
 Operator: CRE

Test Device: Lisun LMS-9000B  
 Test Time: 2021-02-11 12:08:37  
 Inspector:

## Plant optical param data

### CIE Colorimetric Parameters

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 Peak Wavelength: 611.1nm Half Bandwidth: 137.2nm  
 Dominant Wavelength: 582.6nm Color Purity: 0.568  
 CRI:  $R_a=85.7$



### Plant Optical Param

$ \mu_v(lm): 4246.00$	$Q_v(lm.s): 4246.00$
$ \mu_e, \dot{E}(W/nm): 13.12$	$Q_e(J): 13.12$
$ \mu_e(W): 12.73$	$ \mu_{fr}(W): 0.41$
$ \zeta_e: 0.42$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 2.06$	$K_{fr}: 0.08$
$Erb\_Ratio: 3.56$	$PPF(umol/s): 61.91$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 6.10$
$PPF(500-600)(umol/s): 26.04$	$PPF(600-700)(umol/s): 29.77$
$PPF_{fr}(700-800)(umol/s): 2.40$	$PPF.t(umol): 61.91$
$ \mu_{ch-A.t}(J): 1.02$	$ \mu_{ch-A}(W): 1.02$
$ \mu_{ch-B.t}(J): 0.49$	$ \mu_{ch-B}(W): 0.49$
$ \mu_b.t(J): 1.57$	$ \mu_b(W): 1.57$
$ \mu_y.t(J): 5.60$	$ \mu_y(W): 5.60$
$ \mu_r.t(J): 5.67$	$ \mu_r(W): 5.67$

### Electric Parameters

Voltage: 231.00V	Current: 0.1303A	Power: 30.10W
Power Factor: 0.9460	Frequency: 49.99Hz	

Condition:  $T_x: 23.2^\circ C$ ,  $T_i: 0.0^\circ C$ , R.H.: 60%  
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