

Lightsource Test Report

Product Information

Product Category: LED-PL-Röhre
 Product Spec: LED-PL-2G10-4-09W-NWM
 Manufacturer: METOLIGHT
 Buyer: 7709

Product Type: LED-PL-Röhren-2G11
 Product Number: 1
 Submitted Unit: 105008

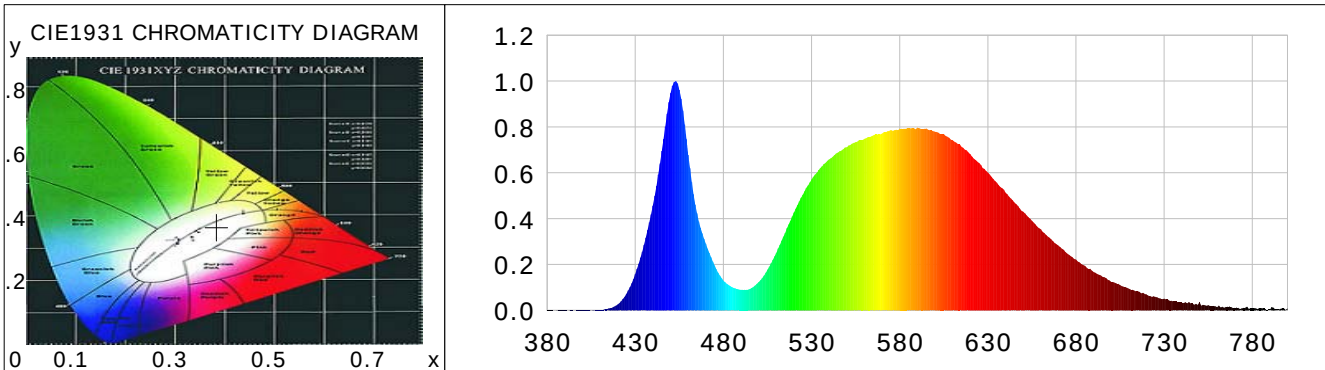
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3839$ $y=0.3668$ $u(u')=0.2315$ $v=0.3318$ $v'=0.4976$
 CCT: $T_c=3828K$ ($duv=-0.00571$) Color Ratio: $R=0.184$ $G=0.792$ $B=0.025$
 Peak Wavelength: 452.8nm Half Bandwidth: 22.1nm
 Dominant Wavelength: 583.2nm Color Purity: 0.253
 CRI: $R_a=74.9$, $avgR(1\sim14)=65.8$, $avgR(1\sim15)=66.2$ TM30: $R_f=73$, $R_g=96$
 GAI: $GAI_BB_8=100.1$, $GAI_BB_15=108.2$, $GAI_EES=76.0$

R1 = 74	R2 = 82	R3 = 83	R4 = 72	R5 = 72	R6 = 71	R7 = 83	R8 = 61
R9 = 0	R10 = 52	R11 = 64	R12 = 40	R13 = 75	R14 = 90	R15 = 73	

Color Quality Scale: $Q_a=71.6$, $Q_f=70.2$, $Q_p=75.5$, $Q_g=94.0$

Q1 = 81	Q2 = 95	Q3 = 60	Q4 = 54	Q5 = 65	Q6 = 70	Q7 = 73	Q8 = 82
Q9 = 91	Q10 = 75	Q11 = 69	Q12 = 71	Q13 = 75	Q14 = 68	Q15 = 73	



Photometric Parameters

Luminous Flux: 1013.0 lm	Efficiency: 115.24 lm/W	Radiant Power: 3.075 W
Total mains efficacy: 135.53 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 1380.17 Plm	Pupil Lumens Per Watt: 157.02 Plm/W	Pupil Factor (Kp): 1.362
Cirtpic Flux: 2633.59 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.0440A	Power: 8.79W
Power Factor: 0.8640	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: 46743 (2483)	CCD Integration Time: 355.30 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-03-05 10:10:12
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0021	0.0460	525	0.5040	11.1956	670	0.2830	6.2856
385	0.0013	0.0300	530	0.5704	12.6693	675	0.2484	5.5169
390	0.0016	0.0352	535	0.6208	13.7896	680	0.2216	4.9219
395	0.0002	0.0044	540	0.6584	14.6237	685	0.1947	4.3254
400	0.0014	0.0315	545	0.6887	15.2986	690	0.1674	3.7191
405	0.0006	0.0139	550	0.7120	15.8154	695	0.1463	3.2487
410	0.0024	0.0526	555	0.7333	16.2878	700	0.1242	2.7596
415	0.0084	0.1870	560	0.7483	16.6223	705	0.1101	2.4456
420	0.0257	0.5715	565	0.7636	16.9619	710	0.0946	2.1014
425	0.0720	1.5997	570	0.7718	17.1431	715	0.0833	1.8498
430	0.1584	3.5187	575	0.7861	17.4620	720	0.0693	1.5387
435	0.2857	6.3459	580	0.7918	17.5866	725	0.0588	1.3063
440	0.4572	10.1560	585	0.7943	17.6432	730	0.0513	1.1384
445	0.6953	15.4446	590	0.7972	17.7075	735	0.0394	0.8749
450	0.9473	21.0421	595	0.7935	17.6260	740	0.0346	0.7674
455	0.9626	21.3805	600	0.7793	17.3102	745	0.0303	0.6728
460	0.6783	15.0661	605	0.7682	17.0638	750	0.0366	0.8130
465	0.4233	9.4033	610	0.7421	16.4829	755	0.0225	0.5000
470	0.2905	6.4529	615	0.7141	15.8626	760	0.0146	0.3244
475	0.1958	4.3485	620	0.6814	15.1358	765	0.0151	0.3343
480	0.1302	2.8927	625	0.6425	14.2704	770	0.0107	0.2373
485	0.1008	2.2398	630	0.6009	13.3483	775	0.0107	0.2387
490	0.0905	2.0093	635	0.5573	12.3784	780	0.0102	0.2273
495	0.0931	2.0683	640	0.5138	11.4123	785	0.0100	0.2228
500	0.1230	2.7324	645	0.4707	10.4561	790	0.0037	0.0817
505	0.1776	3.9446	650	0.4305	9.5627	795	0.0040	0.0888
510	0.2513	5.5816	655	0.3907	8.6779	800	0.0103	0.2291
515	0.3374	7.4950	660	0.3543	7.8687			
520	0.4266	9.4748	665	0.3167	7.0355			

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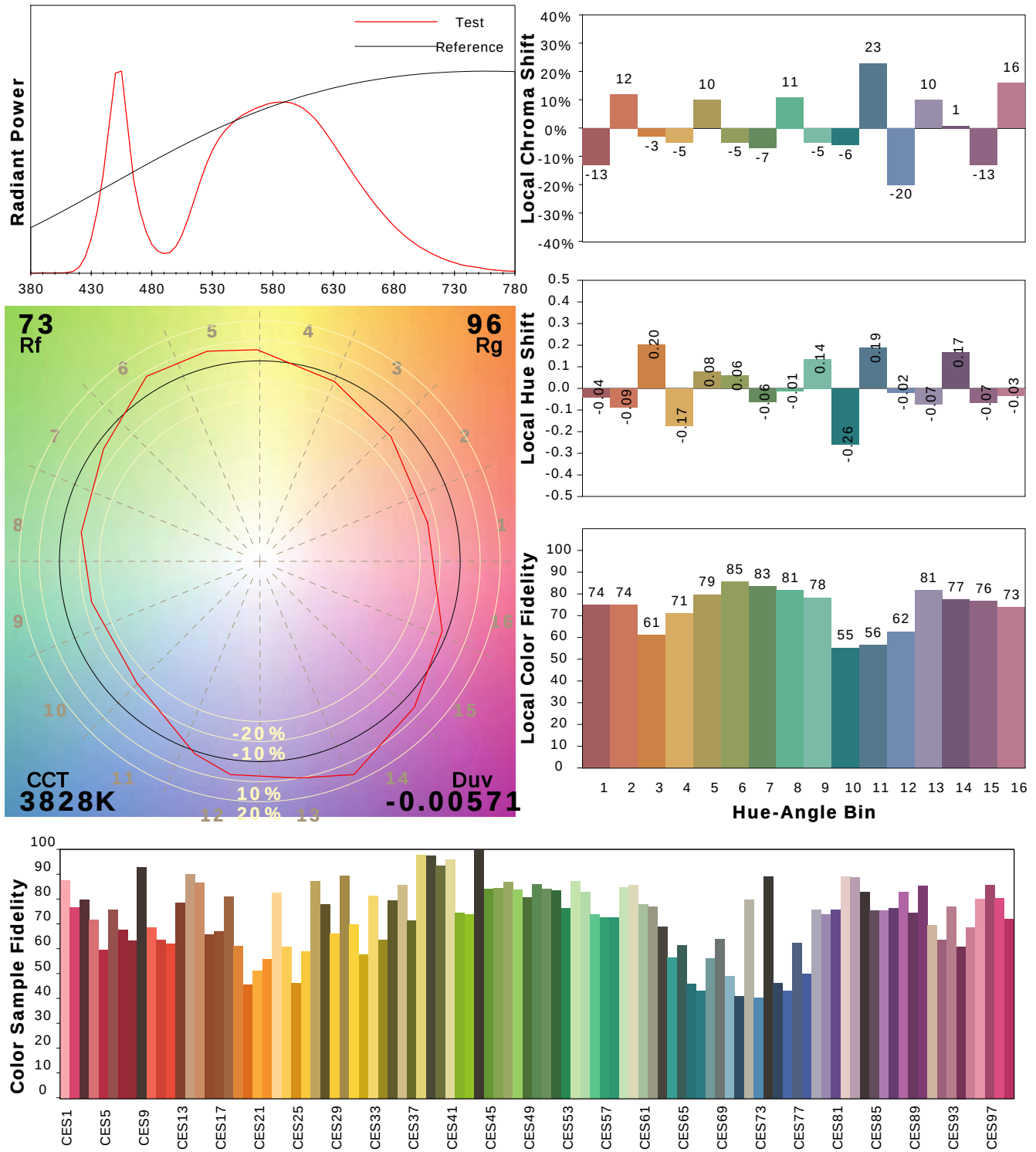
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IES TM-30-18 Color Rendition Report

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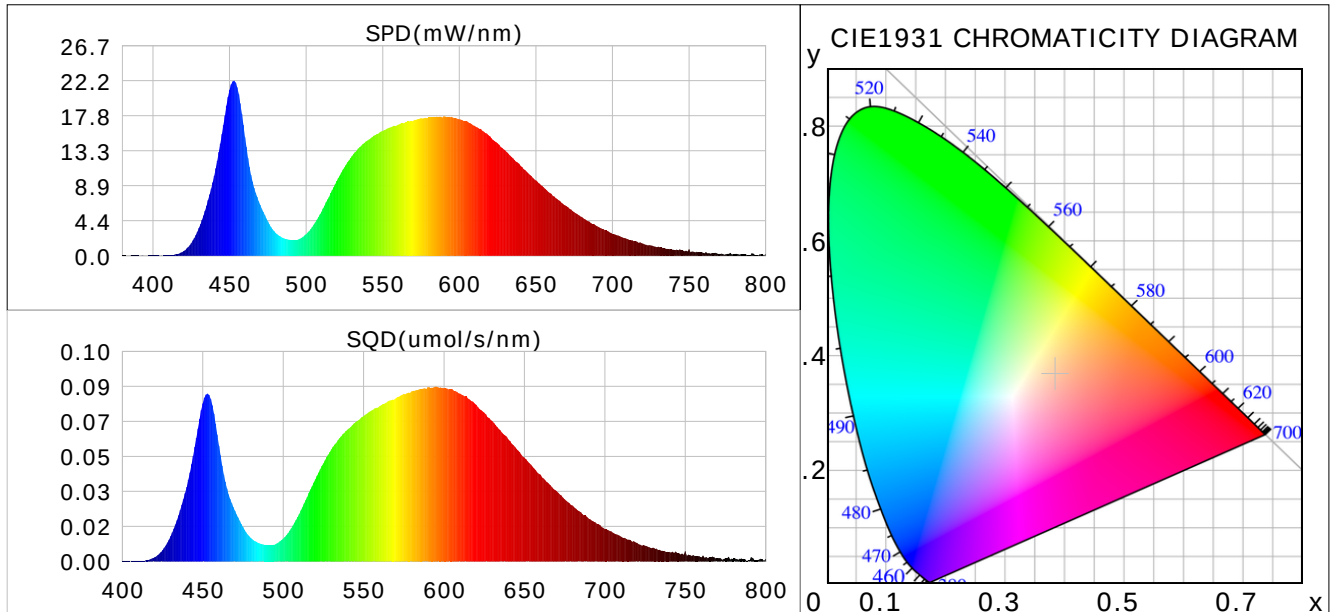
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Plant optical param data

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 CRI: Ra= 74.9



Plant Optical Param

$\mu_v(lm): 1013.00$	$Q_v(lm.s): 1013.00$
$\mu_e, \dot{E}(W/nm): 3.07$	$Q_e(J): 3.07$
$\mu_e(W): 2.99$	$\mu_{fr}(W): 0.09$
$\dot{C}_e: 0.34$	$\dot{C}_{fr}: 0.01$
$PPE(umol/s/w): 1.60$	$K_{fr}: 0.06$
$Erb_Ratio: 1.55$	$PPF(umol/s): 14.08$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 2.41$
$PPF(500-600)(umol/s): 6.46$	$PPF(600-700)(umol/s): 5.22$
$PF_{fr}(700-800)(umol/s): 0.51$	$PPF.t(umol): 14.08$
$\mu_{ch-A.t}(J): 0.26$	$\mu_{ch-A}(W): 0.26$
$\mu_{ch-B.t}(J): 0.14$	$\mu_{ch-B}(W): 0.14$
$\mu_b.t(J): 0.63$	$\mu_b(W): 0.63$
$\mu_y.t(J): 1.38$	$\mu_y(W): 1.38$
$\mu_r.t(J): 1.00$	$\mu_r(W): 1.00$

Electric Parameters

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