

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-060-8WWC-10W-24
 Manufacturer: METOLIGHT
 Buyer: 4624-20882

Product Type: LED-Röhre-Spezial
 Product Number: 1
 Submitted Unit: 101754

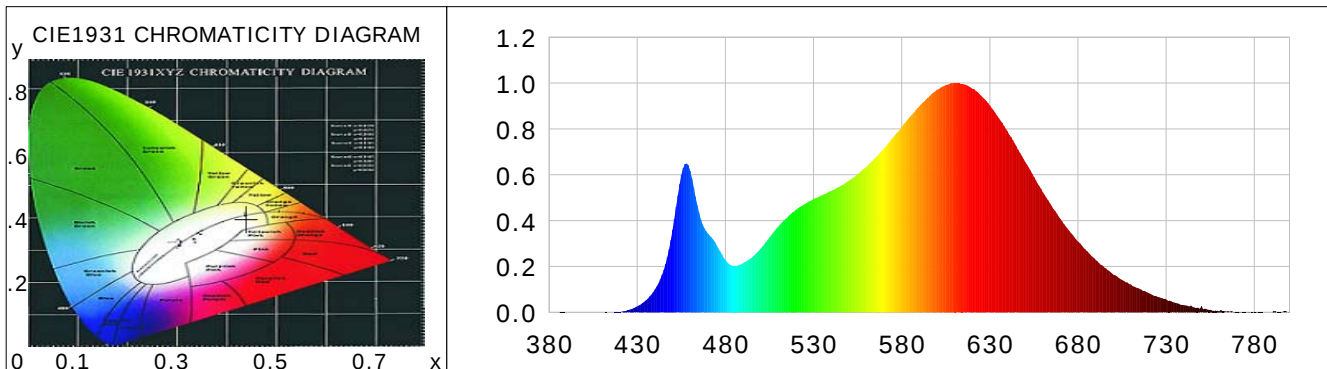
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4401$ $y=0.3981$ $u(u')=0.2552$ $v=0.3463$ $v'=0.5195$
 CCT: $T_c=2899K$ ($duv=-0.00280$) Color Ratio: $R=0.246$ $G=0.726$ $B=0.028$
 Peak Wavelength: 608.2nm Half Bandwidth: 130.5nm
 Dominant Wavelength: 584.3nm Color Purity: 0.516
 CRI: $R_a=86.7$, $avgR(1\sim14)=82.8$, $avgR(1\sim15)=82.7$ TM30: $R_f=86$, $R_g=96$
 GAI: $GAI_BB_8=102.1$, $GAI_BB_15=111.0$, $GAI_EES=55.7$

R1 =87	R2 =96	R3 =95	R4 =85	R5 =88	R6 =95	R7 =83	R8 =66
R9 =28	R10=89	R11=85	R12=75	R13=90	R14=99	R15=81	

Color Quality Scale: $Q_a=85.1$, $Q_f=86.3$, $Q_p=88.1$, $Q_g=93.7$

Q1 =82	Q2 =94	Q3 =85	Q4 =80	Q5 =84	Q6 =86	Q7 =87	Q8 =87
Q9 =96	Q10=92	Q11=89	Q12=86	Q13=86	Q14=79	Q15=80	



Photometric Parameters

Luminous Flux: 1041.3 lm	Efficiency: 115.44 lm/W	Radiant Power: 3.272 W
Total mains efficacy: 135.76 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 1329.77 Plm	Pupil Lumens Per Watt: 147.42 Plm/W	Pupil Factor (Kp): 1.277
Cirtpic Flux: 2493.96 lm		

Electric Parameters

Voltage: 24.000V	Current: 0.3760A	Power: 9.02W
Power Factor: 0.7000	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: 46764 (2367)	CCD Integration Time: 292.37 ms

Condition: Tx:18.4'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-08 11:01:22
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0013	0.0289	525	0.4723	10.3708	670	0.4079	8.9577
385	0.0004	0.0092	530	0.4941	10.8507	675	0.3565	7.8280
390	0.0004	0.0095	535	0.5111	11.2232	680	0.3092	6.7911
395	0.0000	0.0003	540	0.5295	11.6281	685	0.2681	5.8865
400	0.0004	0.0090	545	0.5491	12.0582	690	0.2286	5.0197
405	0.0002	0.0041	550	0.5741	12.6077	695	0.1946	4.2726
410	0.0008	0.0169	555	0.6030	13.2419	700	0.1652	3.6287
415	0.0008	0.0171	560	0.6351	13.9480	705	0.1412	3.1012
420	0.0027	0.0591	565	0.6740	14.8023	710	0.1215	2.6674
425	0.0089	0.1947	570	0.7155	15.7123	715	0.1021	2.2432
430	0.0260	0.5709	575	0.7630	16.7556	720	0.0839	1.8432
435	0.0530	1.1639	580	0.8081	17.7467	725	0.0690	1.5145
440	0.0993	2.1814	585	0.8553	18.7832	730	0.0561	1.2317
445	0.1848	4.0572	590	0.8986	19.7344	735	0.0419	0.9209
450	0.3597	7.8996	595	0.9374	20.5854	740	0.0317	0.6956
455	0.5997	13.1692	600	0.9715	21.3334	745	0.0231	0.5065
460	0.6166	13.5402	605	0.9918	21.7812	750	0.0265	0.5826
465	0.4356	9.5665	610	0.9990	21.9383	755	0.0114	0.2512
470	0.3446	7.5677	615	0.9953	21.8569	760	0.0046	0.1015
475	0.2929	6.4312	620	0.9766	21.4455	765	0.0051	0.1120
480	0.2279	5.0043	625	0.9451	20.7544	770	0.0014	0.0304
485	0.2018	4.4322	630	0.9025	19.8203	775	0.0028	0.0612
490	0.2141	4.7025	635	0.8481	18.6241	780	0.0025	0.0556
495	0.2384	5.2355	640	0.7896	17.3405	785	0.0011	0.0243
500	0.2782	6.1095	645	0.7247	15.9150	790	0.0002	0.0041
505	0.3273	7.1880	650	0.6569	14.4246	795	0.0009	0.0201
510	0.3746	8.2269	655	0.5909	12.9766	800	0.0034	0.0739
515	0.4125	9.0585	660	0.5243	11.5143			
520	0.4470	9.8164	665	0.4649	10.2088			

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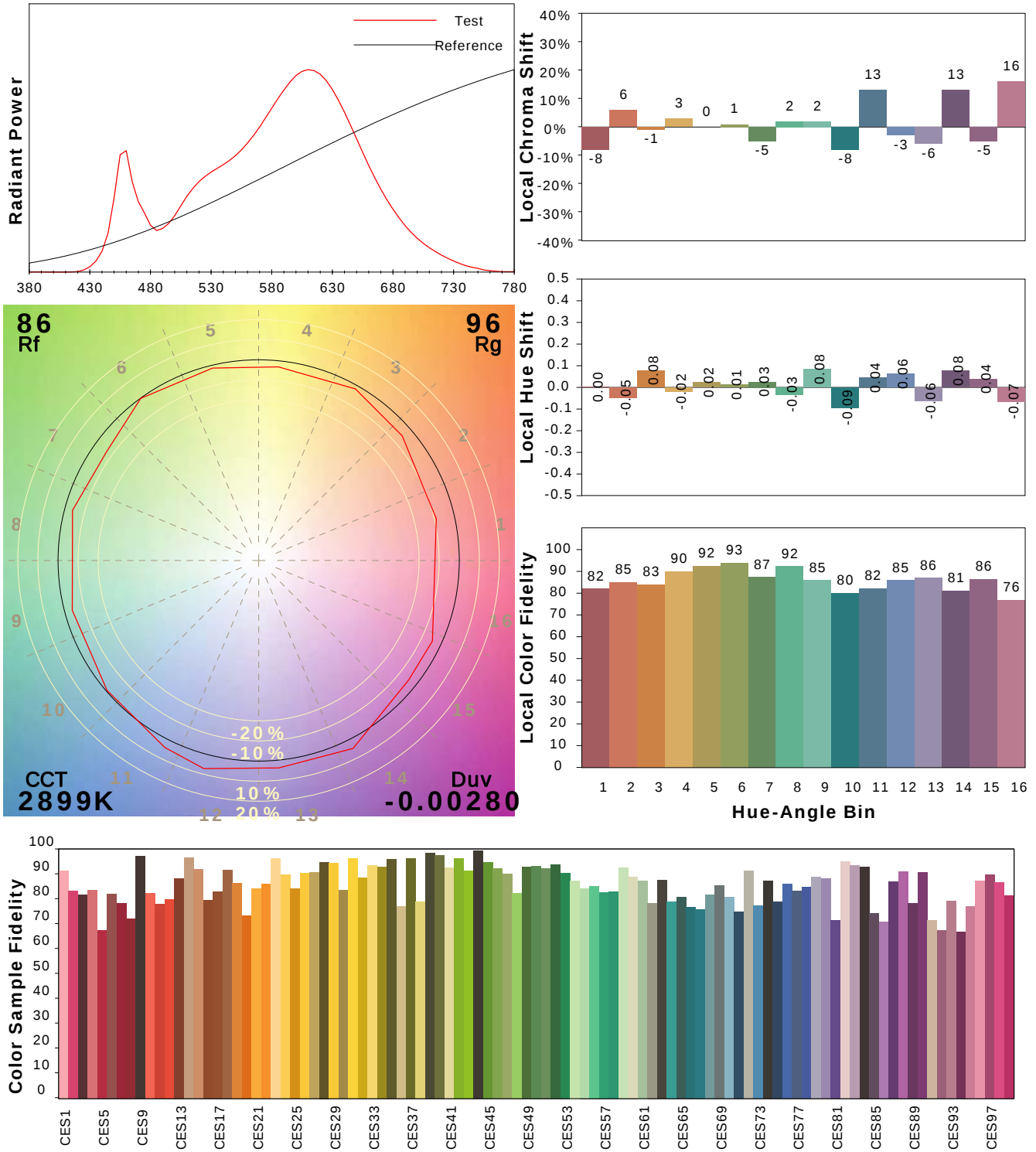
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IES TM-30-18 Color Rendition Report

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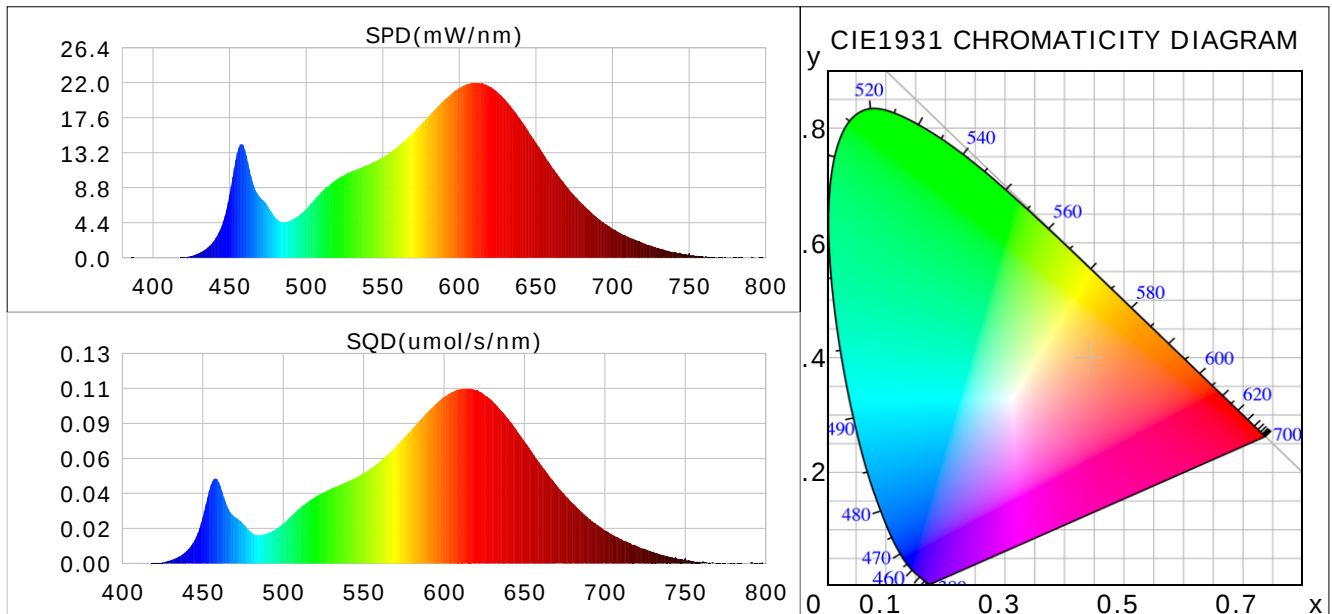
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Plant optical param data

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 CRI: Ra= 86.7



Plant Optical Param

$\mu_v(lm): 1041.30$	$Q_v(lm.s): 1041.30$
$\mu_e, \dot{E}(W/nm): 3.27$	$Q_e(J): 3.27$
$\mu_e(W): 3.19$	$\mu_{fr}(W): 0.09$
$\dot{C}_e: 0.35$	$\dot{C}_{fr}: 0.01$
$PPE(umol/s/w): 1.71$	$K_{fr}: 0.06$
$Erb_Ratio: 3.11$	$PPF(umol/s): 15.46$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 1.74$
$PPF(500-600)(umol/s): 6.30$	$PPF(600-700)(umol/s): 7.41$
$PF_{fr}(700-800)(umol/s): 0.52$	$PPF.t(umol): 15.46$
$\mu_{ch-A.t}(J): 0.25$	$\mu_{ch-A}(W): 0.25$
$\mu_{ch-B.t}(J): 0.13$	$\mu_{ch-B}(W): 0.13$
$\mu_b.t(J): 0.45$	$\mu_b(W): 0.45$
$\mu_y.t(J): 1.35$	$\mu_y(W): 1.35$
$\mu_r.t(J): 1.41$	$\mu_r(W): 1.41$

Electric Parameters

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