

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-150-8Veg-25WM
 Manufacturer: METOLIGHT
 Buyer: 7116

Product Type: LED-Röhre-Spezial
 Product Number: 1
 Submitted Unit: 105183

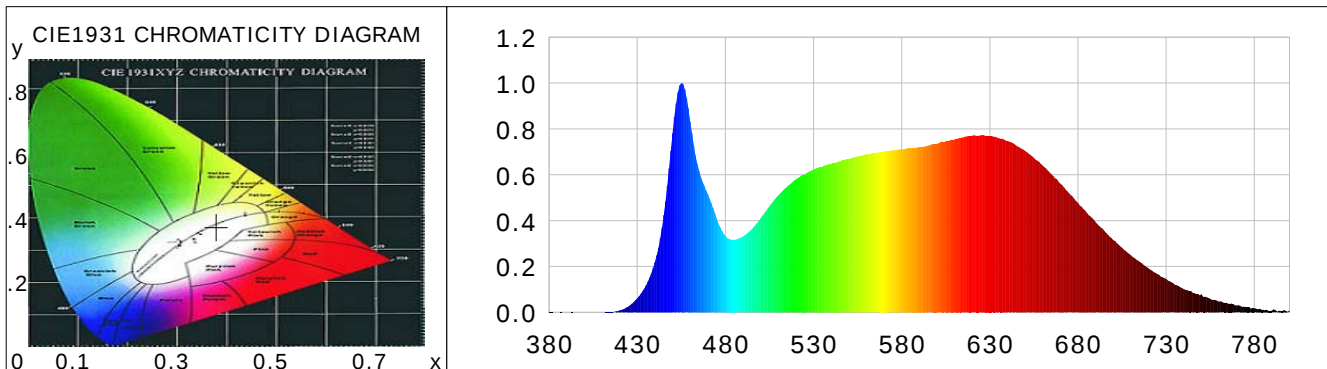
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3796$ $y=0.3733$ $u(u')=0.2259$ $v=0.3333$ $v'=0.4999$
 CCT: $T_c=3999K$ ($duv=-0.00136$) Color Ratio: $R=0.200$ $G=0.757$ $B=0.043$
 Peak Wavelength: 455.2nm Half Bandwidth: 24.6nm
 Dominant Wavelength: 579.9nm Color Purity: 0.260
 CRI: $R_a=94.6$, $avgR(1\sim14)=91.8$, $avgR(1\sim15)=92.1$ TM30: $R_f=90$, $R_g=98$
 GAI: $GAI_BB_8=100.0$, $GAI_BB_15=106.5$, $GAI_EES=78.9$

R1 =96	R2 =98	R3 =96	R4 =93	R5 =94	R6 =94	R7 =95	R8 =92
R9 =82	R10=92	R11=93	R12=68	R13=97	R14=97	R15=95	

Color Quality Scale: $Q_a=91.8$, $Q_f=91.4$, $Q_p=92.6$, $Q_g=98.8$

Q1 =92	Q2 =99	Q3 =86	Q4 =83	Q5 =88	Q6 =91	Q7 =94	Q8 =96
Q9 =98	Q10=95	Q11=94	Q12=95	Q13=96	Q14=95	Q15=94	



Photometric Parameters

Luminous Flux: 2208.4 lm	Efficiency: 89.74 lm/W	Radiant Power: 7.879 W
Total mains efficacy: 105.53 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 3500.54 Plm	Pupil Lumens Per Watt: 142.24 Plm/W	Pupil Factor (Kp): 1.585
Cirtpic Flux: 7367.63 lm		

Electric Parameters

Voltage: 230.60V	Current: 0.1160A	Power: 24.61W
Power Factor: 0.9180	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: 50679 (2642)	CCD Integration Time: 159.10 ms

Condition: Tx:22.9'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-17 10:48:00
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0010	0.0474	525	0.5998	27.6824	670	0.5617	25.9238
385	0.0004	0.0198	530	0.6221	28.7135	675	0.5189	23.9505
390	0.0009	0.0406	535	0.6351	29.3133	680	0.4779	22.0578
395	0.0002	0.0083	540	0.6479	29.9028	685	0.4337	20.0187
400	0.0003	0.0129	545	0.6592	30.4264	690	0.3927	18.1227
405	0.0002	0.0098	550	0.6700	30.9252	695	0.3539	16.3358
410	0.0006	0.0274	555	0.6803	31.3990	700	0.3154	14.5553
415	0.0020	0.0919	560	0.6896	31.8261	705	0.2818	13.0059
420	0.0084	0.3869	565	0.6954	32.0952	710	0.2490	11.4918
425	0.0255	1.1749	570	0.7013	32.3682	715	0.2200	10.1525
430	0.0610	2.8132	575	0.7082	32.6858	720	0.1918	8.8509
435	0.1179	5.4402	580	0.7100	32.7694	725	0.1669	7.7023
440	0.2189	10.1034	585	0.7149	32.9978	730	0.1464	6.7567
445	0.4250	19.6158	590	0.7213	33.2907	735	0.1204	5.5588
450	0.7805	36.0254	595	0.7273	33.5675	740	0.1013	4.6732
455	1.0000	46.1545	600	0.7354	33.9427	745	0.0853	3.9383
460	0.8325	38.4222	605	0.7469	34.4744	750	0.0785	3.6241
465	0.6186	28.5533	610	0.7538	34.7910	755	0.0598	2.7592
470	0.5164	23.8359	615	0.7633	35.2320	760	0.0462	2.1314
475	0.4094	18.8941	620	0.7706	35.5681	765	0.0390	1.8020
480	0.3327	15.3579	625	0.7723	35.6468	770	0.0298	1.3740
485	0.3175	14.6556	630	0.7682	35.4543	775	0.0243	1.1203
490	0.3308	15.2694	635	0.7596	35.0612	780	0.0180	0.8289
495	0.3624	16.7287	640	0.7468	34.4667	785	0.0117	0.5392
500	0.4101	18.9276	645	0.7273	33.5665	790	0.0080	0.3710
505	0.4642	21.4235	650	0.7043	32.5053	795	0.0057	0.2608
510	0.5098	23.5314	655	0.6736	31.0902	800	0.0091	0.4180
515	0.5480	25.2937	660	0.6401	29.5443			
520	0.5801	26.7754	665	0.6020	27.7843			

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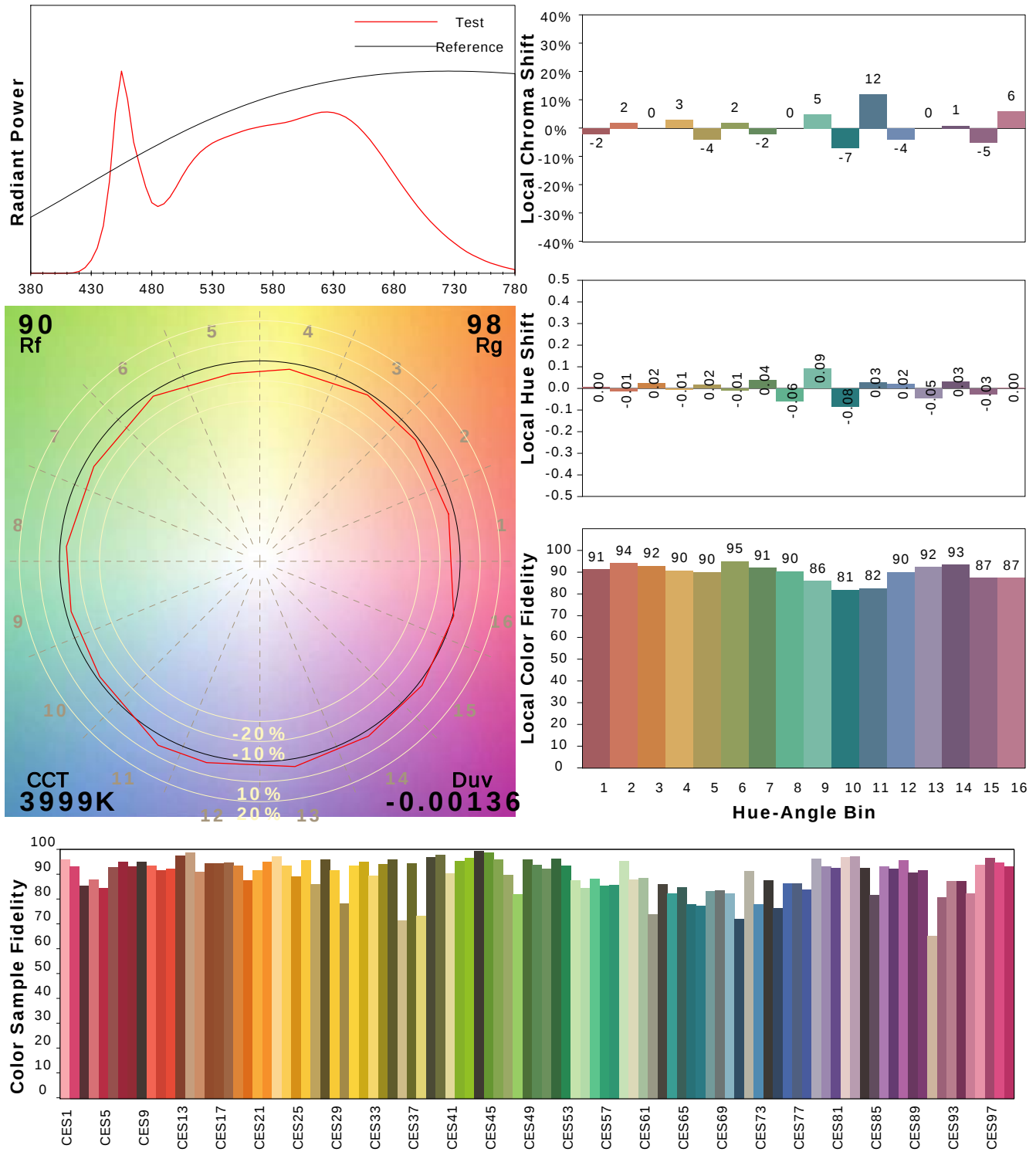
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IES TM-30-18 Color Rendition Report

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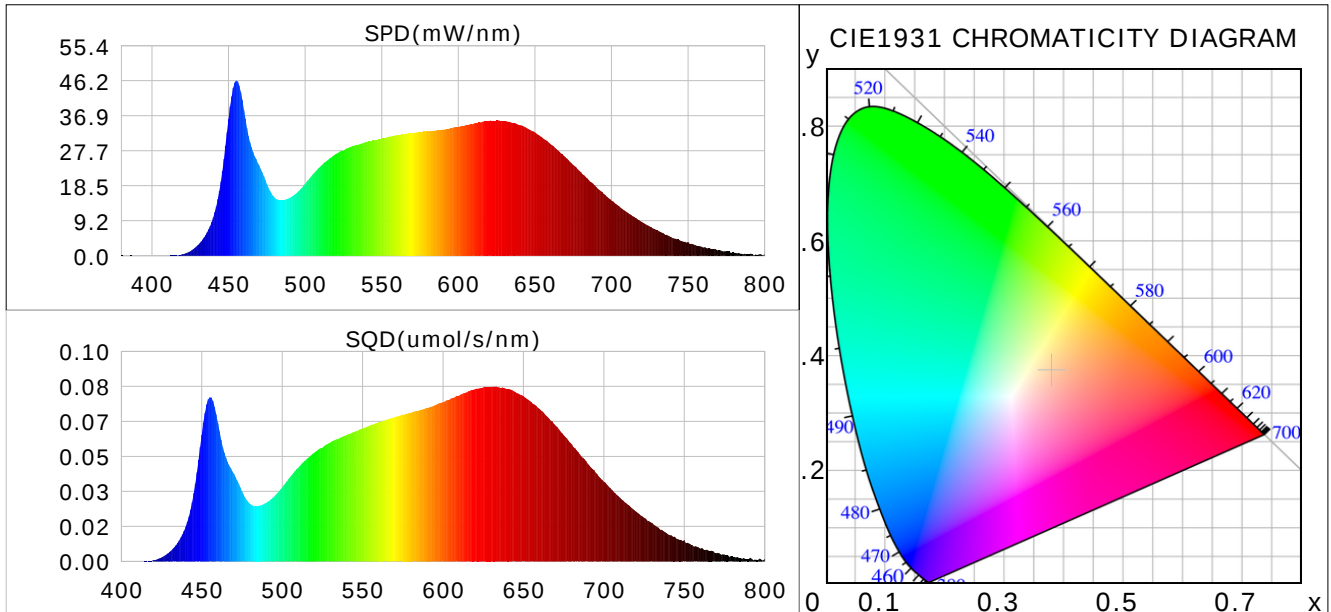
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Plant optical param data

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 CRI: Ra= 94.6



Plant Optical Param

$\int \mu_v(lm): 2208.40$	$Q_v(lm.s): 2208.40$
$\int \mu_e, \int \ddot{E}(W/nm): 7.88$	$Q_e(J): 7.88$
$\int \mu_e(W): 7.42$	$\int \mu_{fr}(W): 0.48$
$\int \dot{C}_e: 0.30$	$\int \dot{C}_{fr}: 0.02$
$PPE(umol/s/w): 1.44$	$K_{fr}: 0.11$
$Erb_Ratio: 1.92$	$PPF(umol/s): 35.44$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 5.92$
$PPF(500-600)(umol/s): 13.78$	$PPF(600-700)(umol/s): 15.74$
$PF_{fr}(700-800)(umol/s): 2.82$	$PPF.t(umol): 35.44$
$\int \mu_{ch-A.t}(J): 0.62$	$\int \mu_{ch-A}(W): 0.62$
$\int \mu_{ch-B.t}(J): 0.35$	$\int \mu_{ch-B}(W): 0.35$
$\int \mu_b.t(J): 1.52$	$\int \mu_b(W): 1.52$
$\int \mu_y.t(J): 3.00$	$\int \mu_y(W): 3.00$
$\int \mu_r.t(J): 2.96$	$\int \mu_r(W): 2.96$

Electric Parameters

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Power Factor: 0.9180	Frequency: 49.99Hz	

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