

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-060-8CWM-10W-TRF
 Manufacturer: METOLIGHT
 Buyer: 6852

Product Type: LED-Röhre-TRF
 Product Number: 1
 Submitted Unit: 102264

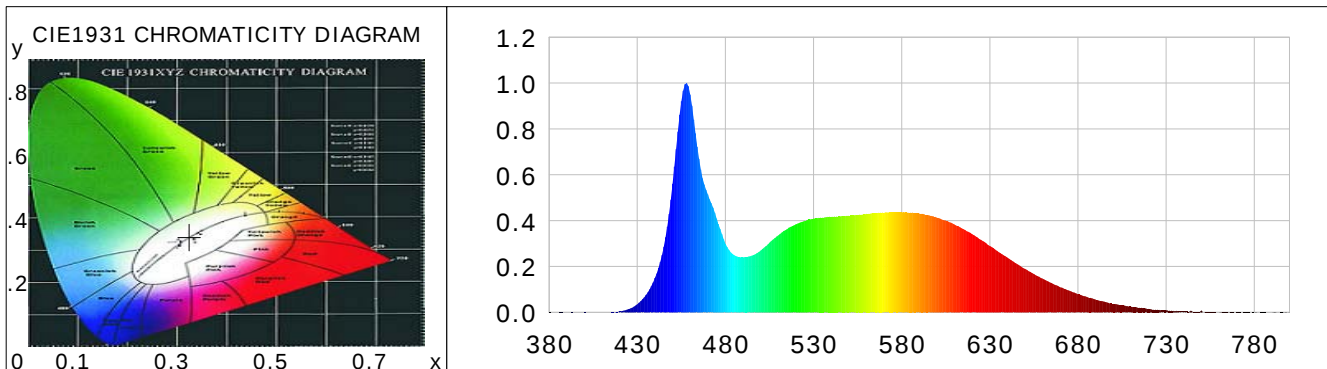
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3248$ $y=0.3418$ $u(u')=0.2014$ $v=0.3178$ $v'=0.4768$
 CCT: $T_c=5842K$ ($duv=0.00383$) Color Ratio: $R=0.146$ $G=0.793$ $B=0.061$
 Peak Wavelength: 457.8nm Half Bandwidth: 21.6nm
 Dominant Wavelength: 505.4nm Color Purity: 0.026
 CRI: $R_a=84.6$, $avgR(1\sim14)=78.5$, $avgR(1\sim15)=78.6$ TM30: $R_f=82$, $R_g=91$
 GAI: $GAI_BB_8=88.4$, $GAI_BB_15=95.1$, $GAI_EES=83.3$

R1 =85	R2 =94	R3 =94	R4 =79	R5 =83	R6 =89	R7 =84	R8 =68
R9 =17	R10=84	R11=79	R12=57	R13=89	R14=98	R15=80	

Color Quality Scale: $Q_a=81.7$, $Q_f=82.0$, $Q_p=80.2$, $Q_g=89.6$

Q1 =78	Q2 =95	Q3 =83	Q4 =72	Q5 =75	Q6 =76	Q7 =83	Q8 =89
Q9 =97	Q10=93	Q11=87	Q12=86	Q13=85	Q14=74	Q15=77	



Photometric Parameters

Luminous Flux: 1259.0 lm	Efficiency: 121.06 lm/W	Radiant Power: 3.977 W
Total mains efficacy: 142.36 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 2346.94 Plm	Pupil Lumens Per Watt: 225.67 Plm/W	Pupil Factor (Kp): 1.864
Cirtpic Flux: 5449.21 lm		

Electric Parameters

Voltage: 230.90V	Current: 0.0510A	Power: 10.40W
Power Factor: 0.8680	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: 51385 (2428)	CCD Integration Time: 165.25 ms

Condition: Tx:19.9'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-06 10:56:16
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0008	0.0336	525	0.3987	17.4885	670	0.1095	4.8047
385	0.0002	0.0103	530	0.4086	17.9235	675	0.0953	4.1786
390	0.0006	0.0270	535	0.4132	18.1217	680	0.0783	3.4361
395	0.0001	0.0042	540	0.4167	18.2789	685	0.0674	2.9558
400	0.0008	0.0351	545	0.4188	18.3701	690	0.0555	2.4344
405	0.0002	0.0088	550	0.4213	18.4769	695	0.0462	2.0246
410	0.0003	0.0152	555	0.4250	18.6409	700	0.0368	1.6136
415	0.0012	0.0539	560	0.4295	18.8389	705	0.0310	1.3601
420	0.0042	0.1842	565	0.4323	18.9599	710	0.0257	1.1283
425	0.0141	0.6163	570	0.4342	19.0448	715	0.0196	0.8589
430	0.0350	1.5341	575	0.4363	19.1374	720	0.0151	0.6616
435	0.0764	3.3515	580	0.4363	19.1359	725	0.0114	0.4984
440	0.1495	6.5553	585	0.4345	19.0566	730	0.0093	0.4069
445	0.2862	12.5554	590	0.4309	18.9019	735	0.0051	0.2223
450	0.5611	24.6095	595	0.4241	18.6007	740	0.0046	0.2024
455	0.9215	40.4171	600	0.4130	18.1160	745	0.0034	0.1479
460	0.9502	41.6798	605	0.4004	17.5644	750	0.0079	0.3474
465	0.6699	29.3817	610	0.3828	16.7885	755	0.0013	0.0578
470	0.5151	22.5930	615	0.3630	15.9234	760	0.0011	0.0470
475	0.4095	17.9608	620	0.3413	14.9713	765	0.0012	0.0543
480	0.3000	13.1598	625	0.3158	13.8526	770	0.0018	0.0783
485	0.2493	10.9362	630	0.2896	12.7043	775	0.0020	0.0862
490	0.2398	10.5168	635	0.2630	11.5354	780	0.0012	0.0530
495	0.2474	10.8504	640	0.2383	10.4534	785	0.0015	0.0640
500	0.2698	11.8326	645	0.2130	9.3416	790	0.0000	0.0002
505	0.3040	13.3362	650	0.1893	8.3011	795	0.0015	0.0644
510	0.3365	14.7574	655	0.1670	7.3256	800	0.0022	0.0947
515	0.3631	15.9244	660	0.1473	6.4588			
520	0.3842	16.8527	665	0.1279	5.6091			

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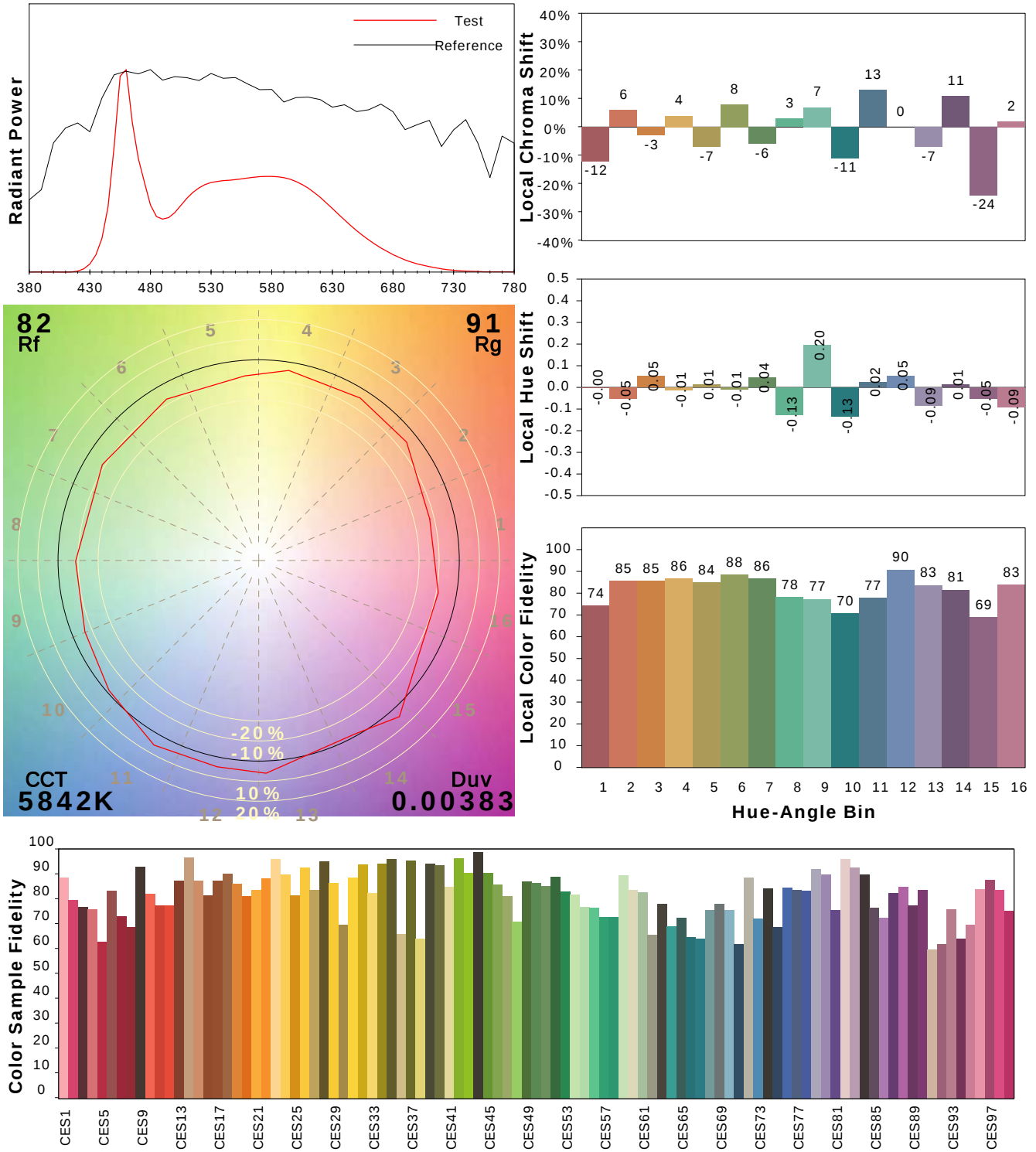
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IES TM-30-18 Color Rendition Report

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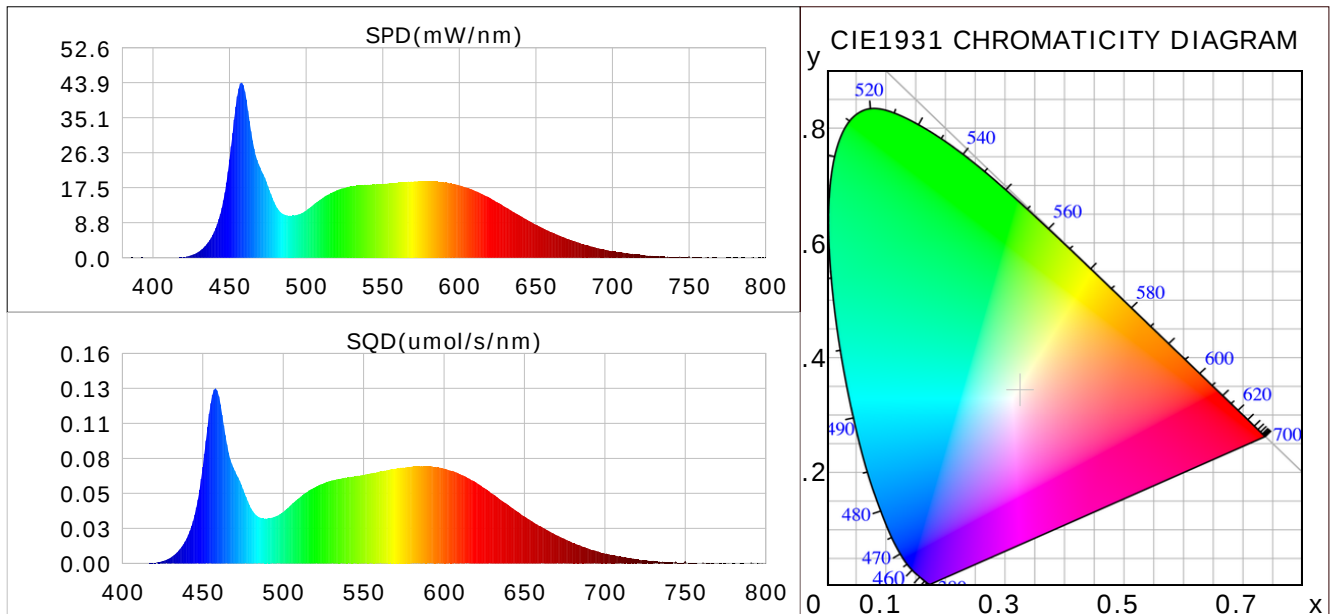
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Plant optical param data

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 CRI: Ra= 84.6



Plant Optical Param

$\mu_v(lm): 1259.00$	$Q_v(lm.s): 1259.00$
$\mu_e, \dot{E}(W/nm): 3.98$	$Q_e(J): 3.98$
$\mu_e(W): 3.94$	$\mu_{fr}(W): 0.04$
$\dot{C}_e: 0.38$	$\dot{C}_{fr}: 0.00$
$PPE(umol/s/w): 1.72$	$K_{fr}: 0.02$
$Erb_Ratio: 0.70$	$PPF(umol/s): 17.89$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 4.93$
$PPF(500-600)(umol/s): 8.22$	$PPF(600-700)(umol/s): 4.74$
$PF_{fr}(700-800)(umol/s): 0.21$	$PPF.t(umol): 17.89$
$\mu_{ch-A.t}(J): 0.29$	$\mu_{ch-A}(W): 0.29$
$\mu_{ch-B.t}(J): 0.24$	$\mu_{ch-B}(W): 0.24$
$\mu_{b.t}(J): 1.27$	$\mu_b(W): 1.27$
$\mu_{y.t}(J): 1.79$	$\mu_y(W): 1.79$
$\mu_{r.t}(J): 0.91$	$\mu_r(W): 0.91$

Electric Parameters

Voltage: 230.90V	Current: 0.0510A	Power: 10.40W
Power Factor: 0.8680	Frequency: 49.99Hz	

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