

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-090-8Meat-RBW-15WM
 Manufacturer: METOLIGHT
 Buyer: 7116

Product Type: LED-Röhre-Spezial
 Product Number: 1
 Submitted Unit: 104307

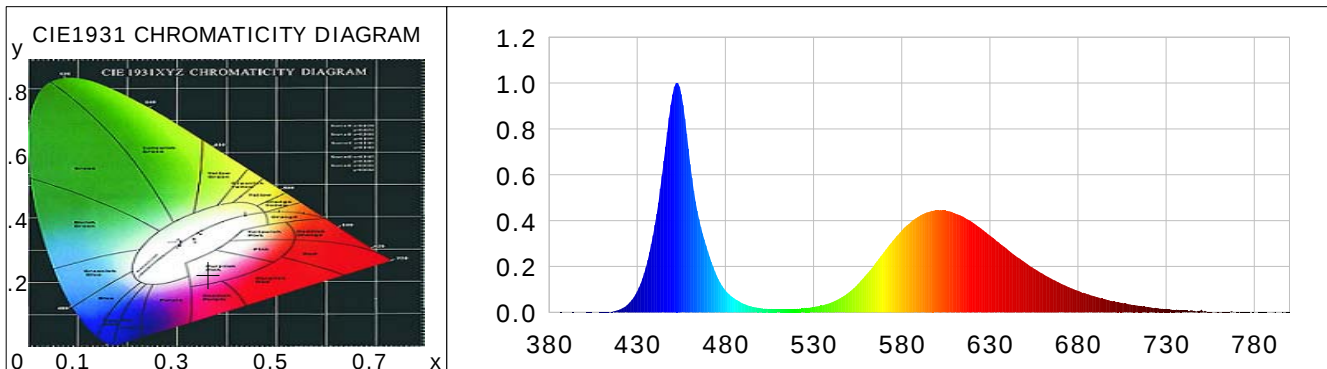
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3630$ $y=0.2230$ $u(u')=0.2933$ $v=0.2703$ $v'=0.4055$
 CCT: $T_c=2438K$ ($duv=-0.08633$) Color Ratio: $R=0.320$ $G=0.619$ $B=0.061$
 Peak Wavelength: 452.5nm Half Bandwidth: 20.3nm
 Dominant Wavelength: 0.0nm Color Purity: 0.000
 CRI: $R_a=40.2$, $avgR(1\sim14)=36.0$, $avgR(1\sim15)=39.5$ TM30: $R_f=43$, $R_g=96$
 GAI: $GAI_BB_8=252.4$, $GAI_BB_15=208.3$, $GAI_EES=101.0$

R1 = 75	R2 = 70	R3 = 18	R4 = 11	R5 = 82	R6 = 42	R7 = 13	R8 = 10
R9 = 0	R10 = 37	R11 = 0	R12 = 0	R13 = 89	R14 = 57	R15 = 89	

Color Quality Scale: $Q_a=34.4$, $Q_f=15.4$, $Q_p=76.2$, $Q_g=101.0$

Q1 = 67	Q2 = 80	Q3 = 19	Q4 = 4	Q5 = 22	Q6 = 37	Q7 = 49	Q8 = 59
Q9 = 92	Q10 = 52	Q11 = 25	Q12 = 10	Q13 = 9	Q14 = 49	Q15 = 60	



Photometric Parameters

Luminous Flux: 1134.9 lm	Efficiency: 73.93 lm/W	Radiant Power: 5.043 W
Total mains efficacy: 86.95 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 1802.55 Plm	Pupil Lumens Per Watt: 117.43 Plm/W	Pupil Factor (Kp): 1.588
Cirtpic Flux: 4564.14 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.0700A	Power: 15.35W
Power Factor: 0.9380	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: 46096 (2516)	CCD Integration Time: 100.47 ms

Condition: Tx:21.7'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-13 14:16:21
 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	0.0748	525	0.0200	1.5317	670	0.1268	9.7033
385	0.0007	0.0512	530	0.0230	1.7598	675	0.1096	8.3876
390	0.0004	0.0322	535	0.0306	2.3416	680	0.0942	7.2117
395	0.0001	0.0106	540	0.0427	3.2698	685	0.0798	6.1057
400	0.0005	0.0380	545	0.0610	4.6674	690	0.0682	5.2209
405	0.0004	0.0290	550	0.0873	6.6791	695	0.0580	4.4371
410	0.0007	0.0567	555	0.1219	9.3298	700	0.0477	3.6528
415	0.0031	0.2372	560	0.1652	12.6489	705	0.0413	3.1600
420	0.0121	0.9239	565	0.2139	16.3736	710	0.0342	2.6162
425	0.0374	2.8651	570	0.2636	20.1775	715	0.0285	2.1852
430	0.0917	7.0212	575	0.3128	23.9441	720	0.0235	1.7961
435	0.1975	15.1193	580	0.3569	27.3239	725	0.0193	1.4807
440	0.3806	29.1382	585	0.3923	30.0284	730	0.0152	1.1659
445	0.6605	50.5576	590	0.4197	32.1238	735	0.0101	0.7696
450	0.9495	72.6831	595	0.4377	33.5027	740	0.0085	0.6505
455	0.9513	72.8223	600	0.4447	34.0396	745	0.0082	0.6259
460	0.6460	49.4489	605	0.4446	34.0370	750	0.0114	0.8754
465	0.4063	31.1014	610	0.4324	33.1018	755	0.0031	0.2338
470	0.2665	20.4012	615	0.4170	31.9196	760	0.0018	0.1350
475	0.1606	12.2935	620	0.3934	30.1175	765	0.0025	0.1917
480	0.0957	7.3259	625	0.3652	27.9592	770	0.0018	0.1351
485	0.0608	4.6567	630	0.3356	25.6905	775	0.0021	0.1597
490	0.0391	2.9893	635	0.3056	23.3918	780	0.0002	0.0161
495	0.0258	1.9771	640	0.2739	20.9689	785	0.0019	0.1477
500	0.0182	1.3932	645	0.2441	18.6849	790	0.0006	0.0463
505	0.0150	1.1457	650	0.2172	16.6263	795	0.0002	0.0175
510	0.0131	1.0031	655	0.1909	14.6139	800	0.0022	0.1719
515	0.0141	1.0801	660	0.1685	12.8991			
520	0.0152	1.1671	665	0.1465	11.2130			

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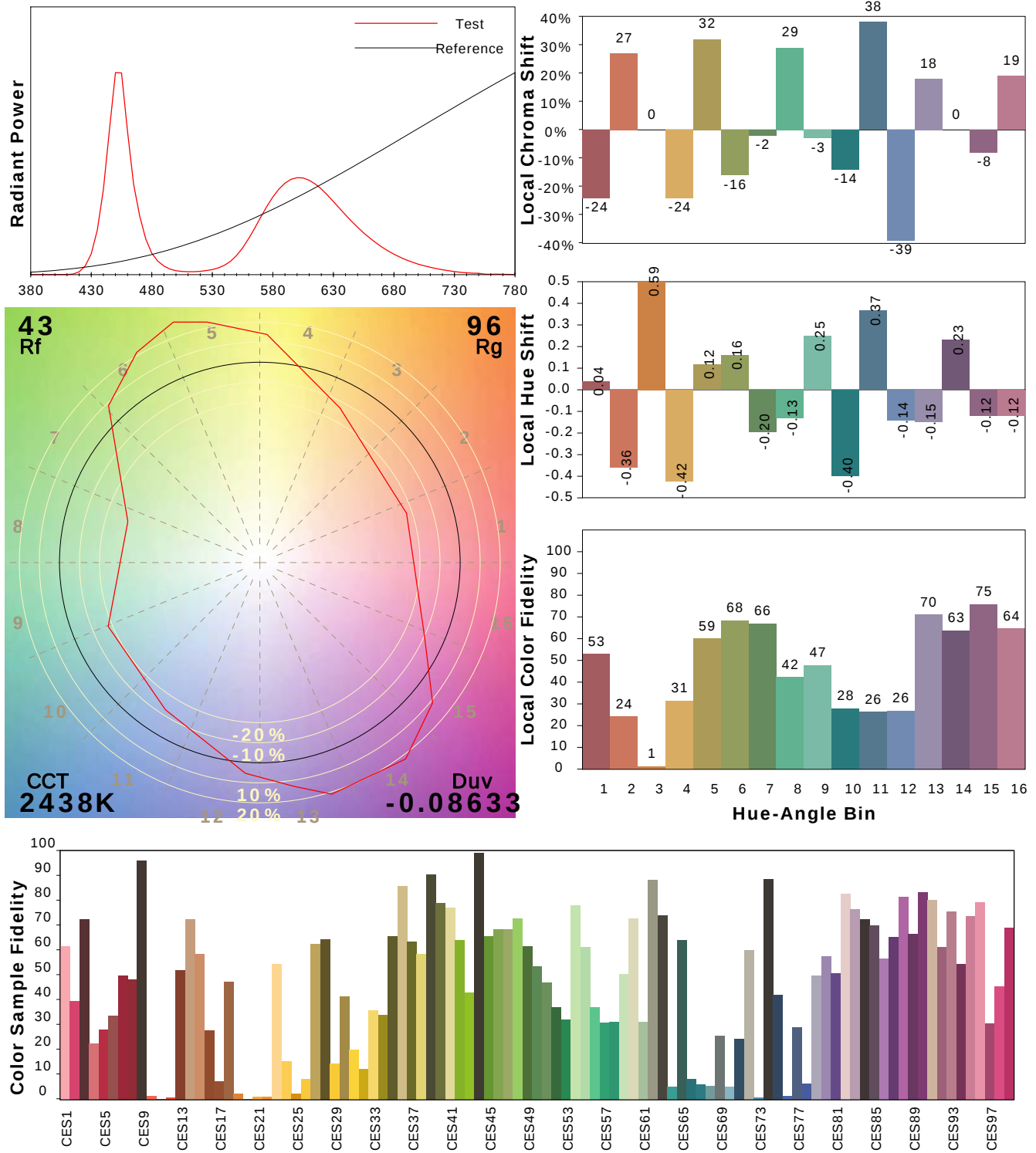
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IES TM-30-18 Color Rendition Report

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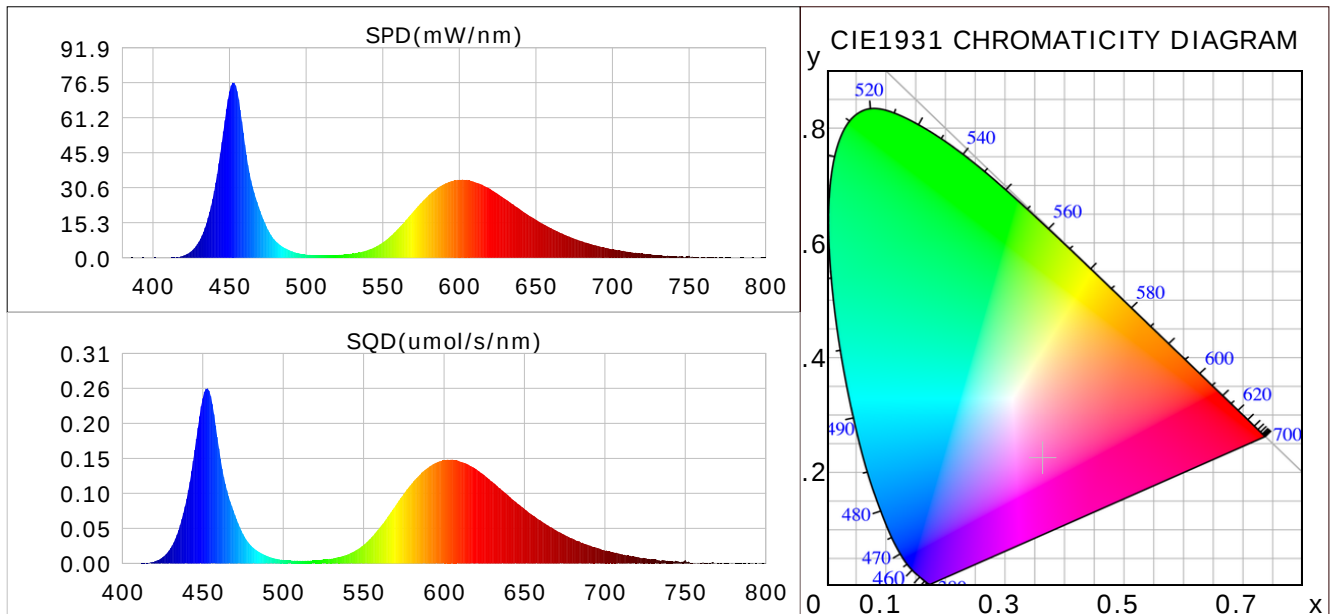
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Plant optical param data

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 CRI: Ra= 40.2



Plant Optical Param

$\mu_v(lm): 1134.90$	$Q_v(lm.s): 1134.90$
$\mu_e, \dot{E}(W/nm): 5.04$	$Q_e(J): 5.04$
$\mu_e(W): 4.96$	$\mu_{fr}(W): 0.09$
$\dot{Q}_e: 0.32$	$\dot{Q}_{fr}: 0.01$
$PPE(umol/s/w): 1.49$	$K_{fr}: 0.03$
$E_{rb_Ratio}: 0.94$	$PPF(umol/s): 22.80$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 7.26$
$PPF(500-600)(umol/s): 6.05$	$PPF(600-700)(umol/s): 9.49$
$PF_{fr}(700-800)(umol/s): 0.53$	$PPF.t(umol): 22.80$
$\mu_{ch-A.t}(J): 0.54$	$\mu_{ch-A}(W): 0.54$
$\mu_{ch-B.t}(J): 0.36$	$\mu_{ch-B}(W): 0.36$
$\mu_{b.t}(J): 1.91$	$\mu_b(W): 1.91$
$\mu_{y.t}(J): 1.26$	$\mu_y(W): 1.26$
$\mu_{r.t}(J): 1.82$	$\mu_r(W): 1.82$

Electric Parameters

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