

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-120-8DWC-20W-SCE-24
 Manufacturer: METOLIGHT
 Buyer: 4624 - 20882

Product Type: LED-Röhre-Spezial
 Product Number: 1
 Submitted Unit: 101757

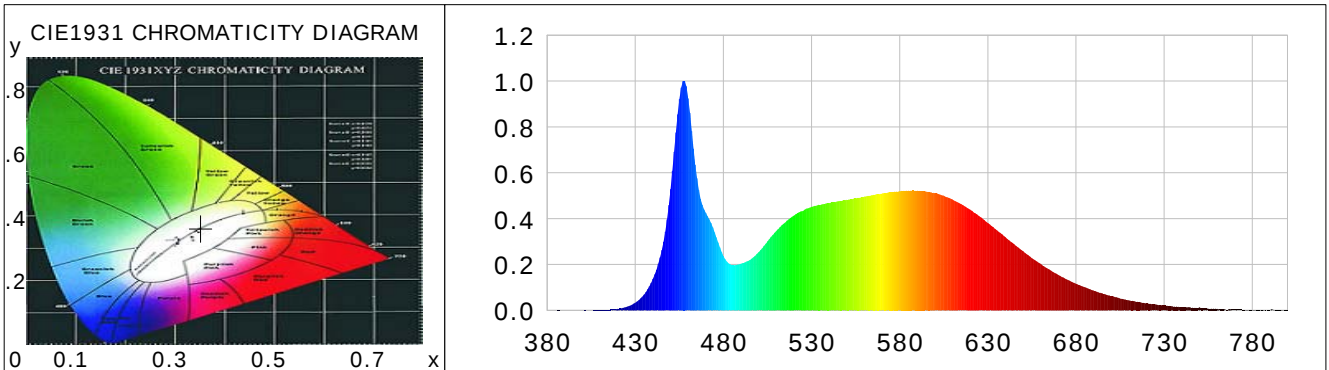
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3519$ $y=0.3624$ $u(u')=0.2118$ $v=0.3272$ $v'=0.4909$
 CCT: $T_c=4794K$ ($duv=0.00269$) Color Ratio: $R=0.163$ $G=0.791$ $B=0.046$
 Peak Wavelength: 457.5nm Half Bandwidth: 17.1nm
 Dominant Wavelength: 572.7nm Color Purity: 0.144
 CRI: $R_a=83.3$, $avgR(1\sim14)=76.3$, $avgR(1\sim15)=76.4$ TM30: $R_f=81$, $R_g=91$
 GAI: $GAI_BB_8=87.3$, $GAI_BB_15=95.9$, $GAI_EES=77.8$

R1 =82	R2 =91	R3 =95	R4 =78	R5 =80	R6 =86	R7 =86	R8 =67
R9 =14	R10=77	R11=77	R12=50	R13=86	R14=98	R15=77	

Color Quality Scale: $Q_a=81.4$, $Q_f=81.7$, $Q_p=79.9$, $Q_g=89.9$

Q1 =79	Q2 =96	Q3 =80	Q4 =70	Q5 =74	Q6 =76	Q7 =83	Q8 =89
Q9 =97	Q10=91	Q11=87	Q12=86	Q13=85	Q14=75	Q15=77	



Photometric Parameters

Luminous Flux: 1953.6 lm	Efficiency: 117.47 lm/W	Radiant Power: 5.994 W
Total mains efficacy: 138.15 lm/W	Energy Efficiency Class: D (EU 2019/2015)	
Pupil Flux: 3272.39 Plm	Pupil Lumens Per Watt: 196.78 Plm/W	Pupil Factor (Kp): 1.675
Cirtpic Flux: 7121.05 lm		

Electric Parameters

Voltage: 24.010V	Current: 0.6930A	Power: 16.63W
Power Factor: 0.7310	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: 46078 (2411)	CCD Integration Time: 79.12 ms

Condition: Tx:20.8'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2020-12-16 14:00:57
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0002	0.0134	525	0.4329	25.6864	670	0.1549	9.1936
385	0.0002	0.0105	530	0.4513	26.7784	675	0.1345	7.9834
390	0.0002	0.0127	535	0.4600	27.2965	680	0.1160	6.8860
395	0.0003	0.0190	540	0.4683	27.7900	685	0.1009	5.9851
400	0.0005	0.0280	545	0.4758	28.2371	690	0.0864	5.1267
405	0.0005	0.0311	550	0.4818	28.5909	695	0.0740	4.3888
410	0.0018	0.1046	555	0.4885	28.9892	700	0.0618	3.6676
415	0.0033	0.1947	560	0.4958	29.4183	705	0.0518	3.0733
420	0.0065	0.3848	565	0.5040	29.9085	710	0.0438	2.6017
425	0.0151	0.8960	570	0.5102	30.2728	715	0.0372	2.2061
430	0.0332	1.9682	575	0.5158	30.6058	720	0.0305	1.8098
435	0.0690	4.0923	580	0.5199	30.8502	725	0.0259	1.5354
440	0.1373	8.1480	585	0.5218	30.9665	730	0.0221	1.3105
445	0.2628	15.5942	590	0.5220	30.9734	735	0.0171	1.0124
450	0.5290	31.3885	595	0.5186	30.7733	740	0.0135	0.8017
455	0.9216	54.6874	600	0.5110	30.3233	745	0.0121	0.7206
460	0.9245	54.8587	605	0.4998	29.6604	750	0.0127	0.7522
465	0.5759	34.1757	610	0.4832	28.6715	755	0.0072	0.4283
470	0.4258	25.2680	615	0.4629	27.4711	760	0.0064	0.3824
475	0.3402	20.1866	620	0.4393	26.0666	765	0.0033	0.1978
480	0.2371	14.0717	625	0.4110	24.3896	770	0.0040	0.2377
485	0.1972	11.7013	630	0.3807	22.5917	775	0.0035	0.2053
490	0.2032	12.0561	635	0.3500	20.7689	780	0.0018	0.1080
495	0.2198	13.0456	640	0.3189	18.9265	785	0.0026	0.1568
500	0.2537	15.0545	645	0.2881	17.0956	790	0.0014	0.0849
505	0.3012	17.8709	650	0.2577	15.2908	795	0.0016	0.0927
510	0.3468	20.5822	655	0.2275	13.5029	800	0.0019	0.1126
515	0.3829	22.7193	660	0.2025	12.0155			
520	0.4139	24.5632	665	0.1779	10.5559			

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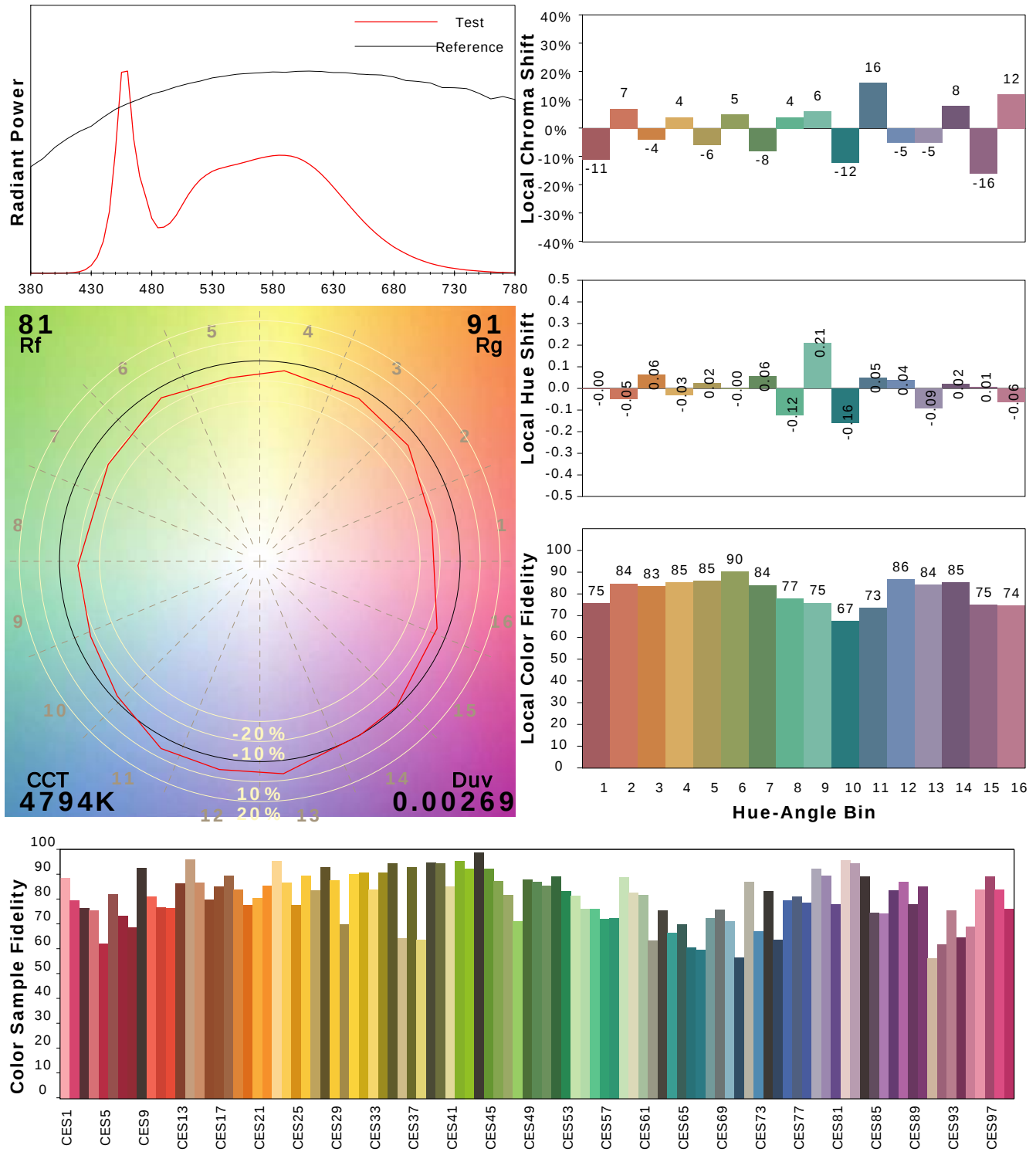
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IES TM-30-18 Color Rendition Report

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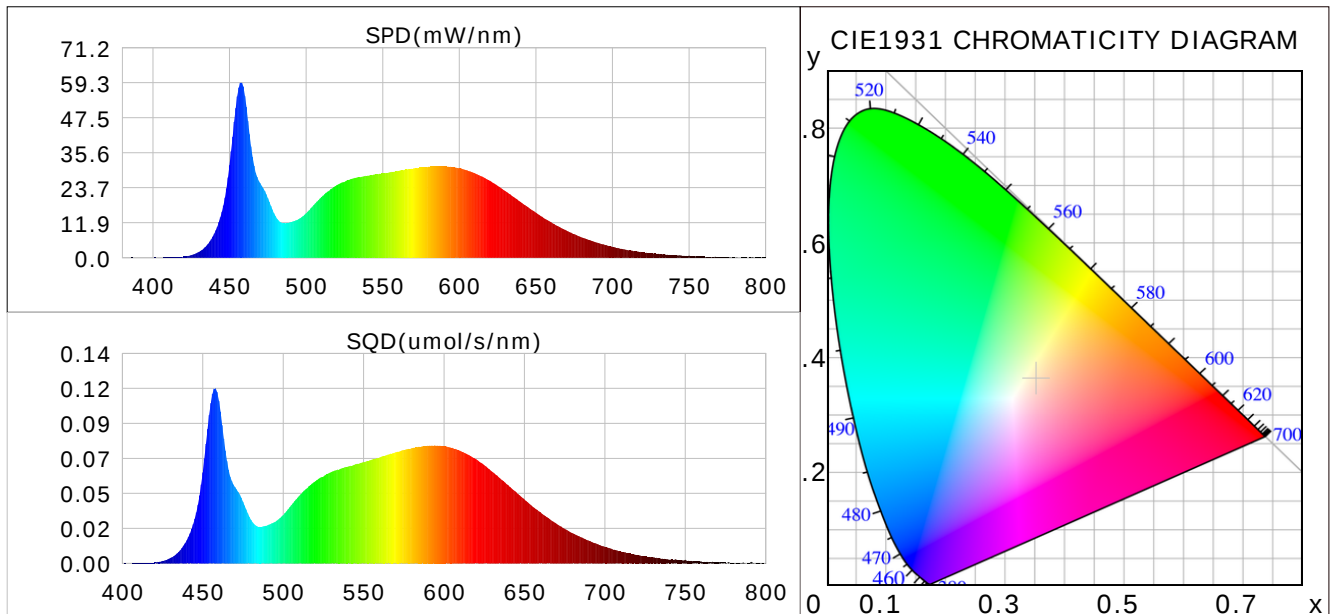
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Plant optical param data

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 CRI: Ra= 83.3



Plant Optical Param

$\mu_v(\text{lm})$: 1953.60	$Q_v(\text{lm.s})$: 1953.60
$\mu_e, \dot{E}(\text{W/nm})$: 5.99	$Q_e(\text{J})$: 5.99
$\mu_e(\text{W})$: 5.90	$\mu_{fr}(\text{W})$: 0.10
$\dot{C}_e$: 0.35	$\dot{C}_{fr}$: 0.01
$PPE(\mu\text{mol/s/w})$: 1.64	K_{fr} : 0.04
E_{rb_Ratio} : 1.03	$PPF(\mu\text{mol/s})$: 27.24
$PF_{uv}(360-400)(\mu\text{mol/s})$: 0.00	$PPF(400-500)(\mu\text{mol/s})$: 6.05
$PPF(500-600)(\mu\text{mol/s})$: 12.68	$PPF(600-700)(\mu\text{mol/s})$: 8.51
$PF_{fr}(700-800)(\mu\text{mol/s})$: 0.58	$PPF.t(\mu\text{mol})$: 27.24
$\mu_{ch-A.t}(\text{J})$: 0.43	$\mu_{ch-A}(\text{W})$: 0.43
$\mu_{ch-B.t}(\text{J})$: 0.32	$\mu_{ch-B}(\text{W})$: 0.32
$\mu_{b.t}(\text{J})$: 1.56	$\mu_b(\text{W})$: 1.56
$\mu_{y.t}(\text{J})$: 2.75	$\mu_y(\text{W})$: 2.75
$\mu_{r.t}(\text{J})$: 1.63	$\mu_r(\text{W})$: 1.63

Electric Parameters

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