

Lightsource Test Report

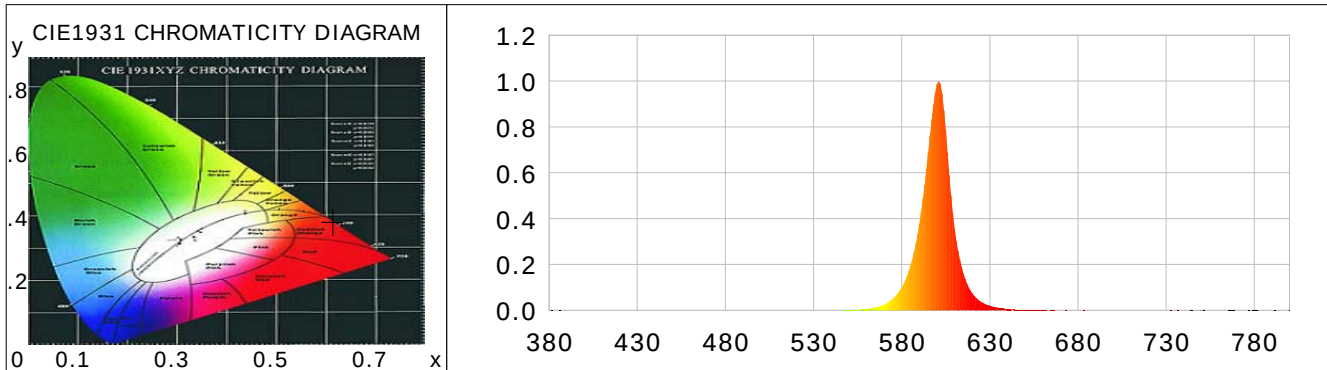
Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-UVL-560-150-T8-24W
 Manufacturer: METOLIGHT
 Buyer: 4624 - 20852

Product Type: LED-Röhre UVL
 Product Number: 1
 Submitted Unit: 102472

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.6154$ $y=0.3836$ $u(u')=0.3863$ $v=0.3612$ $v'=0.5418$
 CCT: $T_c=1312K$ ($duv=0.00202$) Color Ratio: $R=0.453$ $G=0.547$ $B=0.000$
 Peak Wavelength: 601.0nm Half Bandwidth: 15.8nm
 Dominant Wavelength: 597.6nm Color Purity: 0.998
 CRI: $R_a = 17.3$, $avgR(1\sim14) = 18.5$, $avgR(1\sim15) = 17.3$ TM30: $R_f = 4$, $R_g = 5$
 GAI: $GAI_BB_8=1.0$, $GAI_BB_15=0.9$, $GAI_EES=0.0$
 R1 = 0 R2 = 60 R3 = 14 R4 = 0 R5 = 0 R6 = 64 R7 = 0 R8 = 0
 R9 = 0 R10 = 45 R11 = 0 R12 = 30 R13 = 0 R14 = 46 R15 = 0
 Color Quality Scale: $Q_a = 0.0$, $Q_f = 0.2$, $Q_p = 0.0$, $Q_g = 0.8$
 Q1 = 12 Q2 = 18 Q3 = 0 Q4 = 0 Q5 = 0 Q6 = 0 Q7 = 5 Q8 = 20
 Q9 = 1 Q10 = 0 Q11 = 0 Q12 = 0 Q13 = 0 Q14 = 0 Q15 = 0



Photometric Parameters

Luminous Flux: 1370.4 lm Efficiency: 58.59 lm/W Radiant Power: 3.186 W
 Total mains efficacy: 68.90 lm/W Energy Efficiency Class: G (EU 2019/2015)
 Pupil Flux: 344.53 Plm Pupil Lumens Per Watt: 14.73 Plm/W Pupil Factor (Kp): 0.251
 Cirtopic Flux: 162.18 lm

Electric Parameters

Voltage: 231.20V Current: 0.1070A Power: 23.39W
 Power Factor: 0.9410 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: 45712 (2330) CCD Integration Time: 73.91 ms

Condition: Tx:19.4'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-06 15:31:36
 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	0.0332	525	0.0005	0.0843	670	0.0005	0.0890
385	0.0004	0.0630	530	0.0002	0.0375	675	0.0006	0.0988
390	0.0001	0.0170	535	0.0006	0.0956	680	0.0004	0.0712
395	0.0001	0.0160	540	0.0005	0.0775	685	0.0006	0.1045
400	0.0001	0.0169	545	0.0006	0.0985	690	0.0005	0.0802
405	0.0002	0.0387	550	0.0012	0.2013	695	0.0002	0.0391
410	0.0001	0.0103	555	0.0026	0.4233	700	0.0004	0.0596
415	0.0002	0.0244	560	0.0059	0.9616	705	0.0000	0.0012
420	0.0002	0.0281	565	0.0126	2.0351	710	0.0001	0.0165
425	0.0002	0.0278	570	0.0255	4.1227	715	0.0006	0.0957
430	0.0002	0.0270	575	0.0508	8.2283	720	0.0000	0.0066
435	0.0004	0.0572	580	0.1000	16.1983	725	0.0009	0.1439
440	0.0002	0.0253	585	0.1964	31.7953	730	0.0001	0.0141
445	0.0001	0.0156	590	0.3783	61.2549	735	0.0001	0.0179
450	0.0001	0.0161	595	0.6888	111.5301	740	0.0002	0.0306
455	0.0002	0.0403	600	0.9875	159.8863	745	0.0010	0.1587
460	0.0002	0.0337	605	0.7870	127.4270	750	0.0031	0.5067
465	0.0001	0.0174	610	0.3581	57.9810	755	0.0007	0.1096
470	0.0001	0.0144	615	0.1622	26.2678	760	0.0007	0.1108
475	0.0002	0.0344	620	0.0748	12.1074	765	0.0010	0.1614
480	0.0000	0.0062	625	0.0371	6.0048	770	0.0003	0.0528
485	0.0001	0.0084	630	0.0204	3.2954	775	0.0005	0.0735
490	0.0001	0.0243	635	0.0110	1.7742	780	0.0012	0.1925
495	0.0001	0.0194	640	0.0055	0.8900	785	0.0010	0.1625
500	0.0002	0.0254	645	0.0031	0.4951	790	0.0004	0.0582
505	0.0001	0.0212	650	0.0024	0.3952	795	0.0001	0.0143
510	0.0001	0.0108	655	0.0015	0.2352	800	0.0019	0.3084
515	0.0001	0.0200	660	0.0014	0.2220			
520	0.0001	0.0099	665	0.0009	0.1512			

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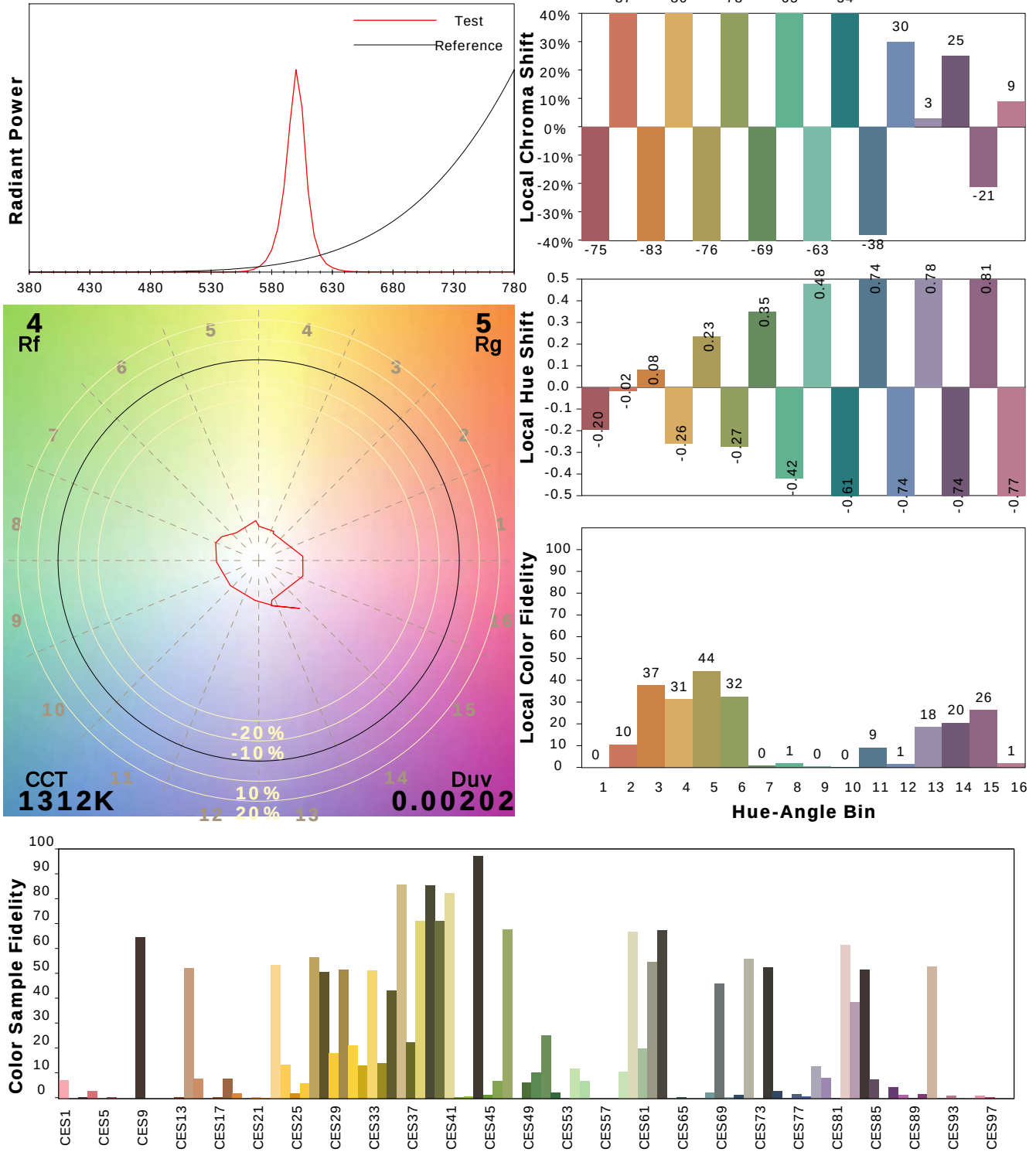
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IES TM-30-18 Color Rendition Report

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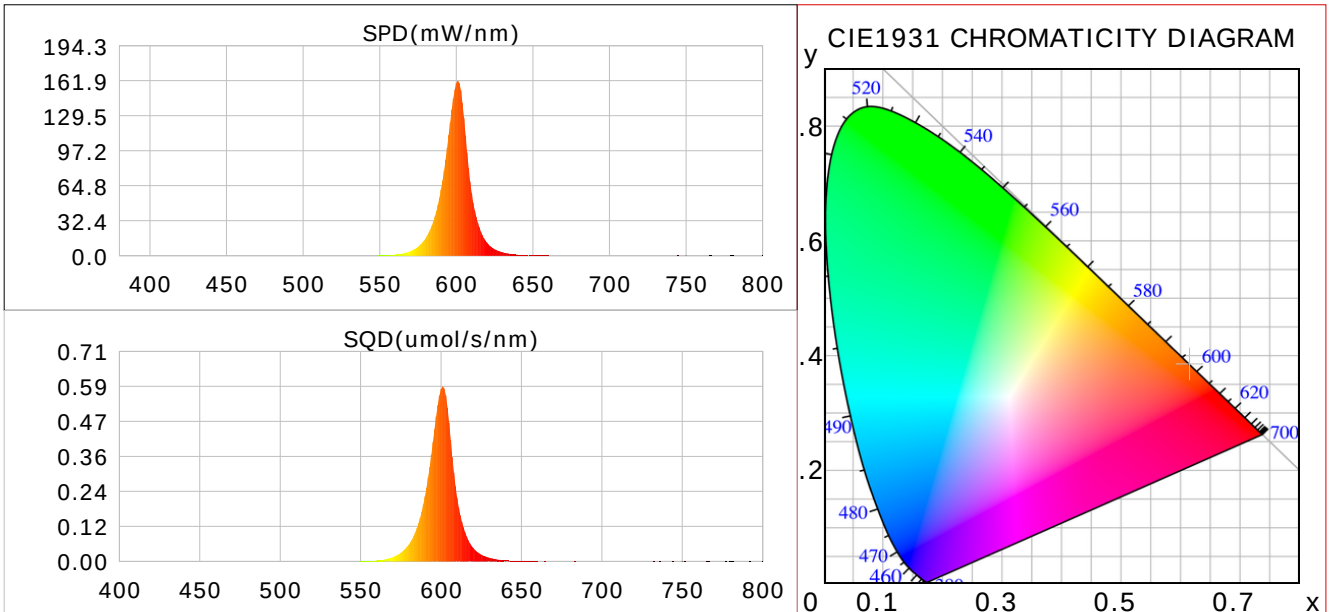
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Plant optical param data

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 CRI: Ra= 17.3



Plant Optical Param

$\mu_v(\text{lm})$: 1370.40	$Q_v(\text{lm.s})$: 1370.40
$\mu_e, \dot{E}(\text{W/nm})$: 3.19	$Q_e(\text{J})$: 3.19
$\mu_e(\text{W})$: 3.18	$\mu_{fr}(\text{W})$: 0.01
$\dot{C}_e$: 0.14	$\dot{C}_{fr}$: 0.00
$PPE(\mu\text{mol/s/w})$: 0.68	K_{fr} : 0.00
E_{rb_Ratio} : 630.01	$PPF(\mu\text{mol/s})$: 15.93
$PF_{uv}(360-400)(\mu\text{mol/s})$: 0.00	$PPF(400-500)(\mu\text{mol/s})$: 0.01
$PPF(500-600)(\mu\text{mol/s})$: 8.20	$PPF(600-700)(\mu\text{mol/s})$: 7.72
$PF_{fr}(700-800)(\mu\text{mol/s})$: 0.06	$PPF.t(\mu\text{mol})$: 15.93
$\mu_{ch-A.t}(\text{J})$: 0.19	$\mu_{ch-A}(\text{W})$: 0.19
$\mu_{ch-B.t}(\text{J})$: 0.08	$\mu_{ch-B}(\text{W})$: 0.08
$\mu_b.t(\text{J})$: 0.00	$\mu_b(\text{W})$: 0.00
$\mu_y.t(\text{J})$: 1.66	$\mu_y(\text{W})$: 1.66
$\mu_r.t(\text{J})$: 1.68	$\mu_r(\text{W})$: 1.68

Electric Parameters

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