

Lightsource Test Report

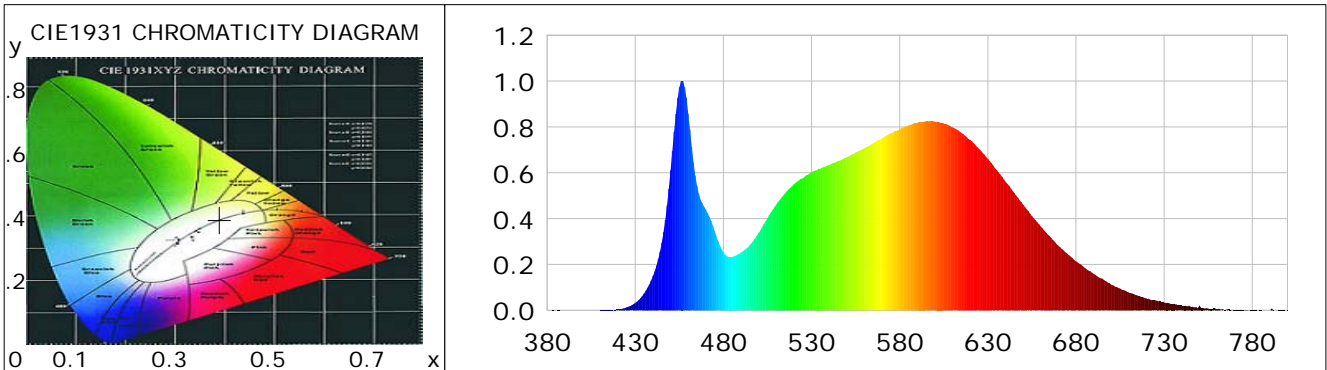
Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-085-6NWM-12W-ADC
 Manufacturer: METOLIGHT
 Buyer: 6961

Product Type: LED-Röhre-SCE
 Product Number: 1
 Submitted Unit: 105159

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3897$ $y=0.3891$ $u(u')=0.2263$ $v=0.3388$ $v'=0.5083$
 CCT: $T_c=3851K$ ($duv=0.00307$) Color Ratio: $R=0.188$ $G=0.776$ $B=0.035$
 Peak Wavelength: 456.5nm Half Bandwidth: 17.8nm
 Dominant Wavelength: 578.2nm Color Purity: 0.338
 CRI: $R_a=83.6$, $avgR(1\sim14)=76.9$, $avgR(1\sim15)=76.8$ TM30: $R_f=83$, $R_g=93$
 GAI: $GAI_BB_8=86.9$, $GAI_BB_15=96.2$, $GAI_EES=66.3$
 R1 =82 R2 =91 R3 =96 R4 =81 R5 =81 R6 =87 R7 =86 R8 =66
 R9 =14 R10=76 R11=79 R12=55 R13=85 R14=98 R15=76
 Color Quality Scale: $Q_a=83.2$, $Q_f=83.6$, $Q_p=81.7$, $Q_g=90.8$
 Q1 =81 Q2 =96 Q3 =81 Q4 =75 Q5 =79 Q6 =81 Q7 =85 Q8 =89
 Q9 =98 Q10=91 Q11=88 Q12=87 Q13=86 Q14=75 Q15=78



Photometric Parameters

Luminous Flux: 1715.8 lm Efficiency: 142.86 lm/W Radiant Power: 5.127 W
 Total mains efficacy: 168.01 lm/W Energy Efficiency Class: C (EU 2019/2015)
 Pupil Flux: 2540.20 Plm Pupil Lumens Per Watt: 211.51 Plm/W Pupil Factor (Kp): 1.480
 Circopic Flux: 5113.72 lm

Electric Parameters

Voltage: 230.70V Current: 0.0550A Power: 12.01W
 Power Factor: 0.9460 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: 45229 (2509) CCD Integration Time: 170.84 ms

Condition: $T_x:21.0^{\circ}C$, $T_i:0.0^{\circ}C$, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-22 11:40:08
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0005	0.0173	525	0.5759	20.6174	670	0.2825	10.1143
385	0.0006	0.0230	530	0.6018	21.5442	675	0.2483	8.8882
390	0.0011	0.0379	535	0.6179	22.1223	680	0.2142	7.6699
395	0.0001	0.0032	540	0.6336	22.6838	685	0.1848	6.6151
400	0.0010	0.0343	545	0.6513	23.3165	690	0.1589	5.6872
405	0.0001	0.0051	550	0.6686	23.9376	695	0.1376	4.9250
410	0.0008	0.0293	555	0.6878	24.6256	700	0.1124	4.0236
415	0.0013	0.0455	560	0.7079	25.3461	705	0.0954	3.4164
420	0.0045	0.1609	565	0.7294	26.1131	710	0.0780	2.7927
425	0.0126	0.4515	570	0.7511	26.8922	715	0.0644	2.3047
430	0.0323	1.1576	575	0.7733	27.6854	720	0.0523	1.8731
435	0.0736	2.6354	580	0.7890	28.2492	725	0.0434	1.5552
440	0.1492	5.3435	585	0.8065	28.8760	730	0.0343	1.2285
445	0.2954	10.5750	590	0.8185	29.3031	735	0.0270	0.9673
450	0.6103	21.8496	595	0.8248	29.5314	740	0.0214	0.7671
455	0.9734	34.8488	600	0.8236	29.4857	745	0.0156	0.5601
460	0.8593	30.7662	605	0.8151	29.1823	750	0.0203	0.7274
465	0.5436	19.4629	610	0.7980	28.5699	755	0.0081	0.2918
470	0.4395	15.7359	615	0.7748	27.7383	760	0.0051	0.1832
475	0.3464	12.4019	620	0.7437	26.6277	765	0.0034	0.1205
480	0.2526	9.0424	625	0.7043	25.2166	770	0.0019	0.0683
485	0.2334	8.3547	630	0.6607	23.6534	775	0.0014	0.0485
490	0.2523	9.0315	635	0.6123	21.9204	780	0.0017	0.0622
495	0.2842	10.1753	640	0.5608	20.0790	785	0.0014	0.0516
500	0.3379	12.0986	645	0.5119	18.3290	790	0.0000	0.0012
505	0.4028	14.4221	650	0.4613	16.5156	795	0.0015	0.0530
510	0.4623	16.5519	655	0.4111	14.7188	800	0.0018	0.0658
515	0.5103	18.2707	660	0.3651	13.0718			
520	0.5498	19.6837	665	0.3246	11.6213			

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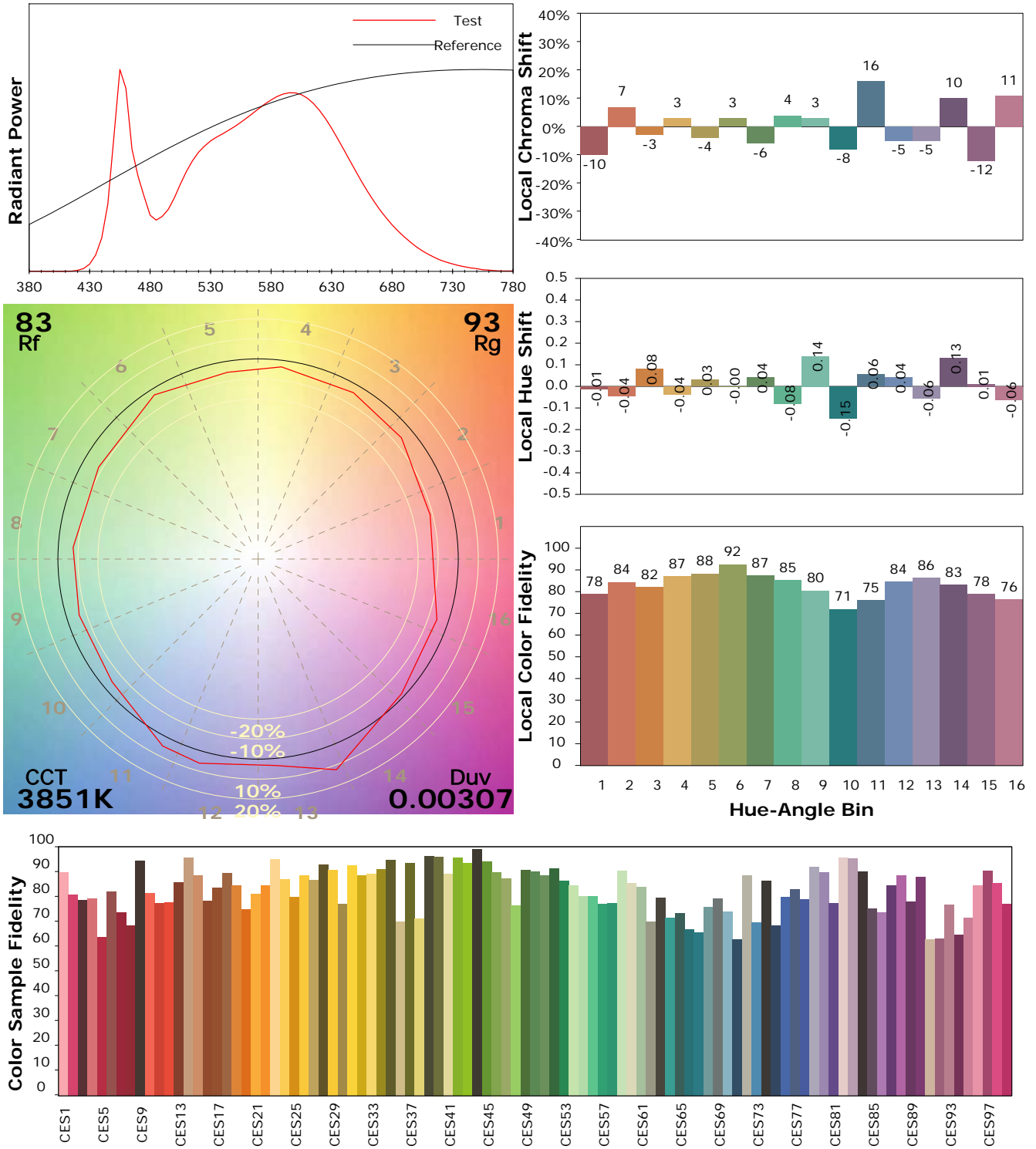
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IES TM-30-18 Color Rendition Report

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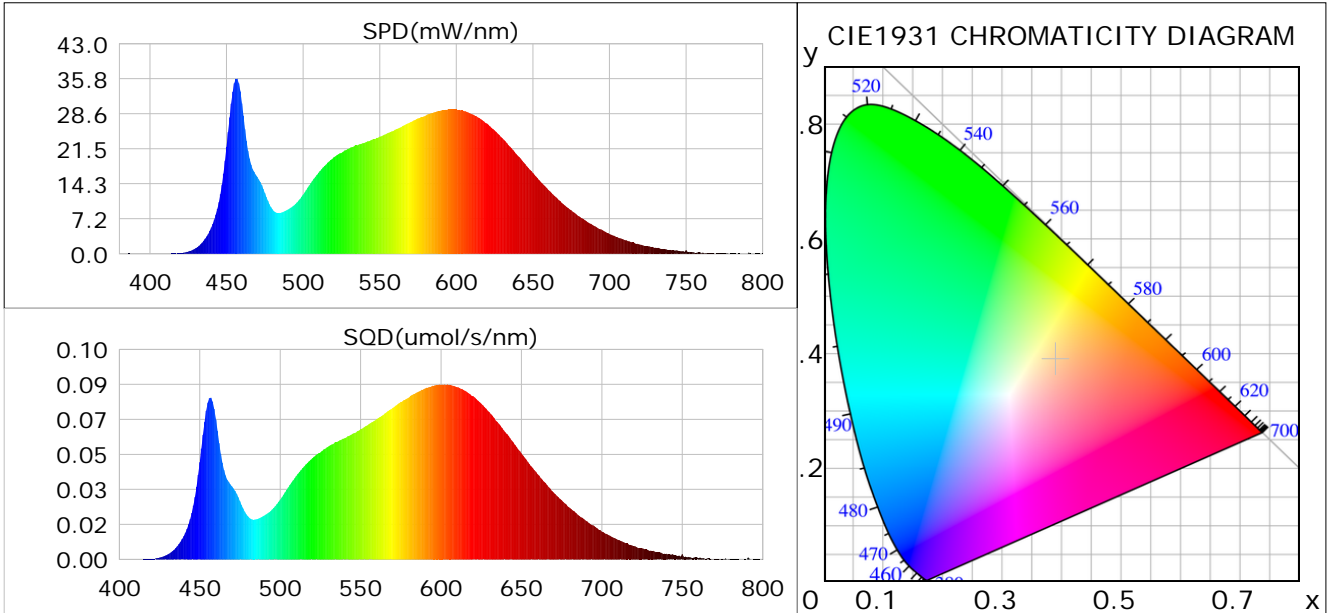
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Plant optical param data

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Plant Optical Param

$ \mu_v(lm): 1715.80$	$Q_v(lm.s): 1715.80$
$ \mu_e, \dot{E}(W/nm): 5.13$	$Q_e(J): 5.13$
$ \mu_e(W): 5.04$	$ \mu_{fr}(W): 0.10$
$ \dot{C}_e: 0.42$	$ \dot{C}_{fr}: 0.01$
$PPE(\mu mol/s/w): 1.98$	$K_{fr}: 0.05$
$Erb_Ratio: 1.68$	$PPF(\mu mol/s): 23.76$
$PF_{uv}(360-400)(\mu mol/s): 0.00$	$PPF(400-500)(\mu mol/s): 3.87$
$PPF(500-600)(\mu mol/s): 10.98$	$PPF(600-700)(\mu mol/s): 8.91$
$PPF_{fr}(700-800)(\mu mol/s): 0.56$	$PPF.t(\mu mol): 23.76$
$ \mu_{ch-A.t}(J): 0.37$	$ \mu_{ch-A}(W): 0.37$
$ \mu_{ch-B.t}(J): 0.23$	$ \mu_{ch-B}(W): 0.23$
$ \mu_b.t(J): 1.00$	$ \mu_b(W): 1.00$
$ \mu_y.t(J): 2.38$	$ \mu_y(W): 2.38$
$ \mu_r.t(J): 1.71$	$ \mu_r(W): 1.71$

Electric Parameters

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