

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-150-8NWM-25W-SCE-RM-160
 Manufacturer: METOLIGHT
 Buyer: 6961-20840
 Product Type: SCE
 Product Number: 1
 Submitted Unit: 102596

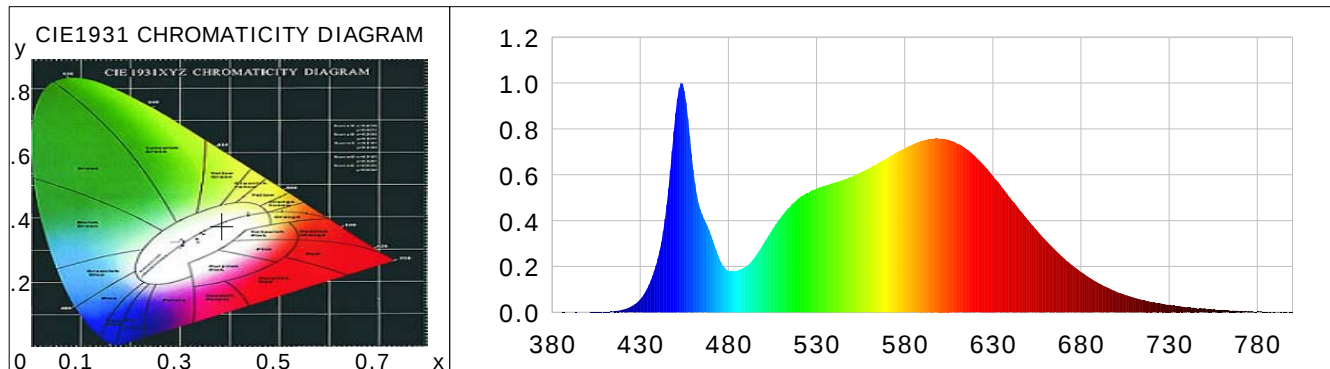
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3848$ $y=0.3763$ $u(u')=0.2282$ $v=0.3347$ $v'=0.5020$
 CCT: $T_c=3880K$ ($duv=-0.00146$) Color Ratio: $R=0.191$ $G=0.776$ $B=0.033$
 Peak Wavelength: 453.4nm Half Bandwidth: 16.9nm
 Dominant Wavelength: 580.3nm Color Purity: 0.284
 CRI: $R_a=83.7$, $avgR(1\sim14)=77.2$, $avgR(1\sim15)=77.2$ TM30: $R_f=83$, $R_g=96$
 GAI: $GAI_BB_8=95.4$, $GAI_BB_15=103.3$, $GAI_EES=73.3$

R1 =83	R2 =90	R3 =94	R4 =83	R5 =82	R6 =86	R7 =86	R8 =66
R9 =14	R10=75	R11=81	R12=58	R13=85	R14=97	R15=78	

Color Quality Scale: $Q_a=82.4$, $Q_f=82.2$, $Q_p=83.1$, $Q_g=94.0$

Q1 =83	Q2 =98	Q3 =77	Q4 =74	Q5 =80	Q6 =83	Q7 =85	Q8 =88
Q9 =97	Q10=88	Q11=85	Q12=84	Q13=84	Q14=74	Q15=77	



Photometric Parameters

Luminous Flux: 4058.0 lm Efficiency: 155.00 lm/W Radiant Power: 12.259 W
 Total mains efficacy: 182.28 lm/W Energy Efficiency Class: C (EU 2019/2015)
 Pupil Flux: 6005.34 Plm Pupil Lumens Per Watt: 229.39 Plm/W Pupil Factor (Kp): 1.480
 Cirtopic Flux: 12083.07 lm

Electric Parameters

Voltage: 230.70V Current: 0.1180A Power: 26.18W
 Power Factor: 0.9570 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: 46258 (2429) CCD Integration Time: 72.18 ms

Condition: Tx:20.9'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2020-11-16 13:33:55
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0012	0.1103	525	0.5193	48.8843	670	0.2387	22.4746
385	0.0007	0.0620	530	0.5399	50.8236	675	0.2053	19.3226
390	0.0005	0.0488	535	0.5533	52.0907	680	0.1764	16.6045
395	0.0004	0.0397	540	0.5647	53.1625	685	0.1497	14.0914
400	0.0007	0.0645	545	0.5772	54.3323	690	0.1268	11.9366
405	0.0011	0.1042	550	0.5922	55.7483	695	0.1080	10.1651
410	0.0022	0.2071	555	0.6104	57.4610	700	0.0901	8.4835
415	0.0053	0.4982	560	0.6295	59.2570	705	0.0757	7.1303
420	0.0117	1.0984	565	0.6516	61.3420	710	0.0646	6.0798
425	0.0263	2.4803	570	0.6726	63.3139	715	0.0545	5.1301
430	0.0569	5.3573	575	0.6963	65.5514	720	0.0460	4.3284
435	0.1201	11.3091	580	0.7150	67.3062	725	0.0394	3.7119
440	0.2358	22.1962	585	0.7333	69.0272	730	0.0330	3.1091
445	0.4709	44.3303	590	0.7470	70.3177	735	0.0274	2.5776
450	0.8678	81.6956	595	0.7568	71.2470	740	0.0223	2.0980
455	0.9655	90.8908	600	0.7575	71.3093	745	0.0193	1.8203
460	0.6222	58.5694	605	0.7526	70.8456	750	0.0184	1.7311
465	0.4290	40.3847	610	0.7343	69.1263	755	0.0124	1.1681
470	0.3386	31.8773	615	0.7124	67.0601	760	0.0101	0.9505
475	0.2318	21.8192	620	0.6804	64.0462	765	0.0075	0.7024
480	0.1816	17.0955	625	0.6408	60.3227	770	0.0052	0.4914
485	0.1827	17.1943	630	0.5953	56.0363	775	0.0056	0.5284
490	0.1999	18.8143	635	0.5471	51.5004	780	0.0039	0.3635
495	0.2402	22.6107	640	0.4976	46.8404	785	0.0034	0.3182
500	0.3006	28.3020	645	0.4488	42.2446	790	0.0031	0.2933
505	0.3619	34.0715	650	0.4018	37.8215	795	0.0024	0.2215
510	0.4171	39.2605	655	0.3575	33.6570	800	0.0016	0.1491
515	0.4605	43.3544	660	0.3147	29.6285			
520	0.4978	46.8576	665	0.2749	25.8816			

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IES TM-30-18 Color Rendition Report

Product Information

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Product Type: SCE

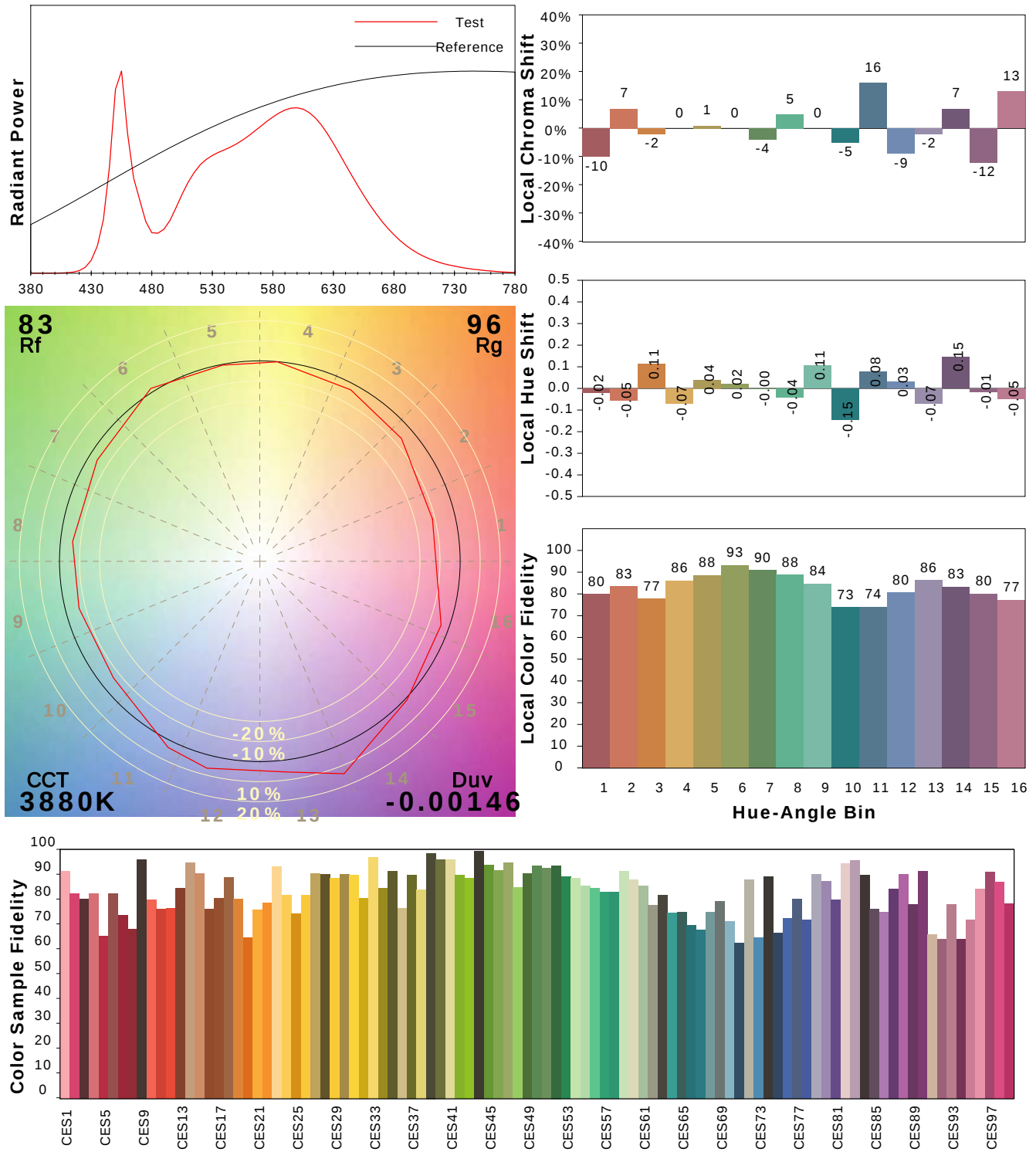
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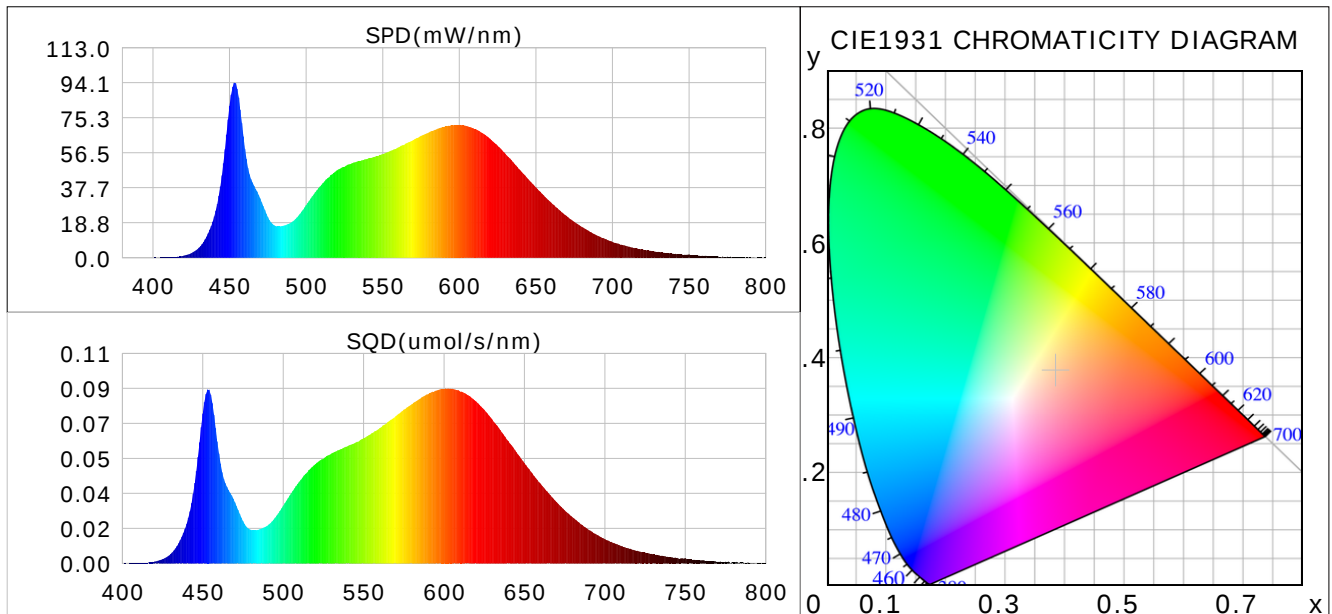
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Plant optical param data

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 Dominant Wavelength: 580.3nm Color Purity: 0.284
 CRI: Ra= 83.7



Plant Optical Param

$\mu_v(lm): 4058.00$	$Q_v(lm.s): 4058.00$
$\mu_e, \dot{E}(W/nm): 12.26$	$Q_e(J): 12.26$
$\mu_e(W): 12.03$	$\mu_{fr}(W): 0.24$
$\dot{C}_e: 0.46$	$\dot{C}_{fr}: 0.01$
$PPE(umol/s/w): 2.16$	$K_{fr}: 0.05$
$Erb_Ratio: 1.55$	$PPF(umol/s): 56.52$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 9.73$
$PPF(500-600)(umol/s): 26.00$	$PPF(600-700)(umol/s): 20.79$
$PF_{fr}(700-800)(umol/s): 1.39$	$PPF.t(umol): 56.52$
$\mu_{ch-A.t}(J): 0.94$	$\mu_{ch-A}(W): 0.94$
$\mu_{ch-B.t}(J): 0.57$	$\mu_{ch-B}(W): 0.57$
$\mu_b.t(J): 2.52$	$\mu_b(W): 2.52$
$\mu_y.t(J): 5.62$	$\mu_y(W): 5.62$
$\mu_r.t(J): 3.99$	$\mu_r(W): 3.99$

Electric Parameters

Voltage: 230.70V	Current: 0.1180A	Power: 26.18W
Power Factor: 0.9570	Frequency: 49.99Hz	

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