

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-060-8Meat-P-10WM
 Manufacturer: METOLIGHT
 Buyer: 7116

Product Type: LEDtube-Meat
 Product Number: 1
 Submitted Unit: 103864

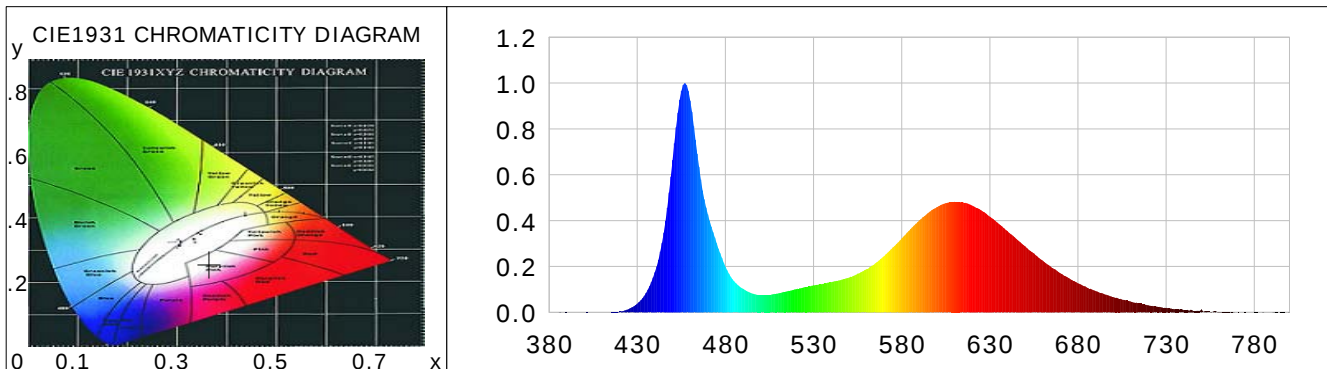
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3648$ $y=0.2560$ $u(u')=0.2732$ $v=0.2875$ $v'=0.4313$
 CCT: $T_c=3016K$ ($duv=-0.06418$) Color Ratio: $R=0.305$ $G=0.625$ $B=0.070$
 Peak Wavelength: 457.0nm Half Bandwidth: 20.2nm
 Dominant Wavelength: 0.0nm Color Purity: 0.000
 CRI: $R_a=61.3$, $avgR(1\sim14)=57.7$, $avgR(1\sim15)=59.2$ TM30: $R_f=78$, $R_g=104$
 GAI: $GAI_BB_8=203.7$, $GAI_BB_15=185.5$, $GAI_EES=117.8$

R1 =84	R2 =61	R3 =46	R4 =72	R5 =77	R6 =37	R7 =49	R8 =65
R9 =77	R10=23	R11=70	R12=0	R13=73	R14=74	R15=80	

Color Quality Scale: $Q_a=70.7$, $Q_f=62.5$, $Q_p=89.2$, $Q_g=109.5$

Q1 =90	Q2 =95	Q3 =64	Q4 =57	Q5 =70	Q6 =82	Q7 =81	Q8 =81
Q9 =95	Q10=78	Q11=64	Q12=54	Q13=52	Q14=72	Q15=81	



Photometric Parameters

Luminous Flux: 815.60 lm	Efficiency: 74.96 lm/W	Radiant Power: 3.461 W
Total mains efficacy: 88.16 lm/W	Energy Efficiency Class: F (EU 2019/2015)	
Pupil Flux: 1415.12 Plm	Pupil Lumens Per Watt: 130.07 Plm/W	Pupil Factor (Kp): 1.735
Cirtpic Flux: 3563.30 lm		

Electric Parameters

Voltage: 231.10V	Current: 0.0500A	Power: 10.88W
Power Factor: 0.9350	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: 47049 (2319)	CCD Integration Time: 156.91 ms

Condition: Tx:18.9'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-06 09:59:48
 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	0.0456	525	0.1099	4.9906	670	0.1708	7.7590
385	0.0006	0.0273	530	0.1177	5.3432	675	0.1485	6.7437
390	0.0008	0.0363	535	0.1238	5.6208	680	0.1269	5.7623
395	0.0001	0.0033	540	0.1317	5.9816	685	0.1088	4.9433
400	0.0007	0.0298	545	0.1402	6.3693	690	0.0931	4.2268
405	0.0001	0.0057	550	0.1513	6.8692	695	0.0786	3.5716
410	0.0003	0.0156	555	0.1683	7.6455	700	0.0668	3.0338
415	0.0014	0.0621	560	0.1881	8.5439	705	0.0562	2.5523
420	0.0037	0.1678	565	0.2142	9.7258	710	0.0472	2.1427
425	0.0134	0.6104	570	0.2457	11.1584	715	0.0392	1.7784
430	0.0381	1.7290	575	0.2835	12.8769	720	0.0304	1.3803
435	0.0847	3.8464	580	0.3228	14.6596	725	0.0247	1.1218
440	0.1746	7.9306	585	0.3633	16.4986	730	0.0199	0.9044
445	0.3483	15.8175	590	0.4014	18.2294	735	0.0140	0.6338
450	0.6645	30.1768	595	0.4337	19.6946	740	0.0103	0.4659
455	0.9661	43.8738	600	0.4588	20.8346	745	0.0081	0.3689
460	0.9242	41.9728	605	0.4765	21.6420	750	0.0132	0.5996
465	0.6351	28.8442	610	0.4820	21.8890	755	0.0040	0.1801
470	0.4272	19.4034	615	0.4793	21.7687	760	0.0018	0.0798
475	0.3017	13.7002	620	0.4660	21.1647	765	0.0015	0.0677
480	0.2000	9.0816	625	0.4449	20.2059	770	0.0005	0.0242
485	0.1350	6.1304	630	0.4173	18.9531	775	0.0019	0.0840
490	0.1027	4.6645	635	0.3864	17.5482	780	0.0013	0.0585
495	0.0828	3.7604	640	0.3545	16.1005	785	0.0022	0.0994
500	0.0750	3.4055	645	0.3208	14.5707	790	0.0001	0.0043
505	0.0760	3.4528	650	0.2880	13.0800	795	0.0010	0.0467
510	0.0830	3.7708	655	0.2570	11.6705	800	0.0023	0.1037
515	0.0917	4.1668	660	0.2258	10.2545			
520	0.1006	4.5691	665	0.1958	8.8930			

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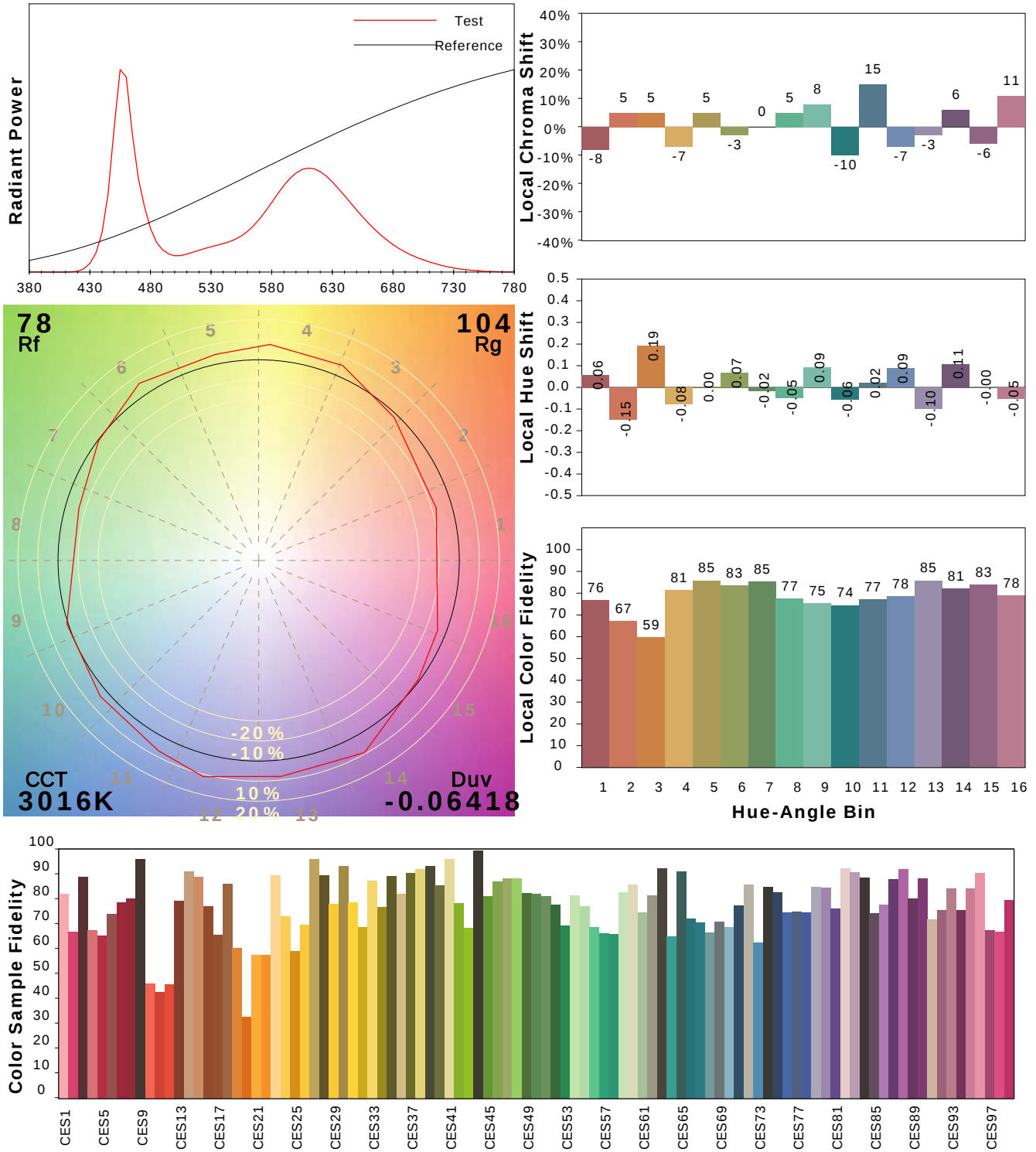
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IES TM-30-18 Color Rendition Report

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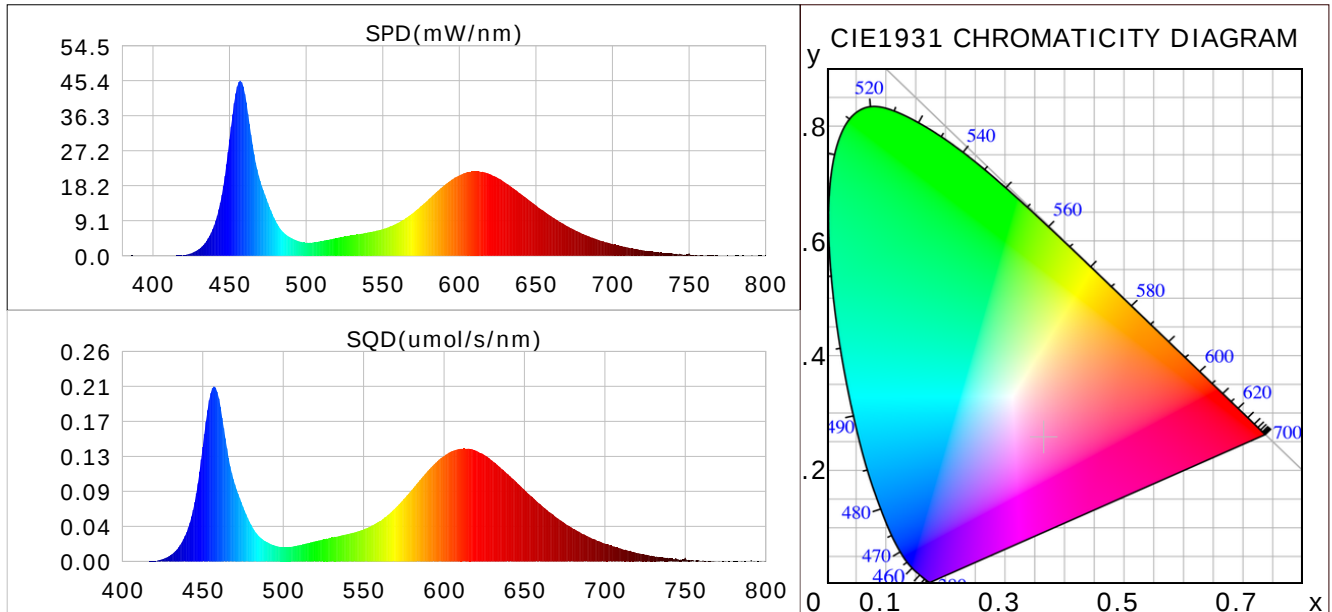
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Plant optical param data

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 CRI: Ra= 61.3



Plant Optical Param

$\mu_v(lm): 815.60$	$Q_v(lm.s): 815.60$
$\mu_e, \dot{E}(W/nm): 3.46$	$Q_e(J): 3.46$
$\mu_e(W): 3.39$	$\mu_{fr}(W): 0.07$
$\dot{Q}_e: 0.31$	$\dot{Q}_{fr}: 0.01$
$PPE(umol/s/w): 1.45$	$K_{fr}: 0.04$
$E_{rb_Ratio}: 1.12$	$PPF(umol/s): 15.79$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 4.50$
$PPF(500-600)(umol/s): 4.35$	$PPF(600-700)(umol/s): 6.94$
$PF_{fr}(700-800)(umol/s): 0.41$	$PPF.t(umol): 15.79$
$\mu_{ch-A.t}(J): 0.32$	$\mu_{ch-A}(W): 0.32$
$\mu_{ch-B.t}(J): 0.24$	$\mu_{ch-B}(W): 0.24$
$\mu_{b.t}(J): 1.17$	$\mu_b(W): 1.17$
$\mu_{y.t}(J): 0.92$	$\mu_y(W): 0.92$
$\mu_{r.t}(J): 1.33$	$\mu_r(W): 1.33$

Electric Parameters

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Power Factor: 0.9350	Frequency: 49.99Hz	