

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-120-10NWM-18W-RAD-A
 Manufacturer: METOLIGHT
 Buyer: 6299

Product Type: LED-Röhre-PIR
 Product Number: 1
 Submitted Unit: 104603

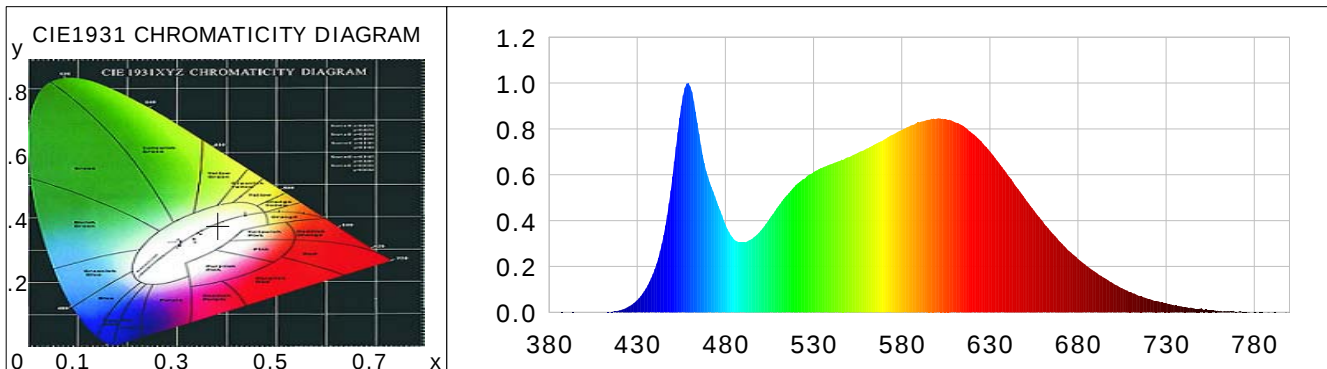
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3825$ $y=0.3770$ $u(u')=0.2264$ $v=0.3347$ $v'=0.5020$
 CCT: $T_c=3945K$ ($duv=-0.00048$) Color Ratio: $R=0.192$ $G=0.766$ $B=0.042$
 Peak Wavelength: 458.6nm Half Bandwidth: 25.9nm
 Dominant Wavelength: 579.5nm Color Purity: 0.280
 CRI: $R_a=86.5$, $avgR(1\sim14)=81.3$, $avgR(1\sim15)=81.4$ TM30: $R_f=84$, $R_g=93$
 GAI: $GAI_BB_8=92.4$, $GAI_BB_15=100.6$, $GAI_EES=72.1$

R1 =87	R2 =95	R3 =96	R4 =82	R5 =85	R6 =91	R7 =85	R8 =70
R9 =29	R10=85	R11=81	R12=63	R13=89	R14=99	R15=82	

Color Quality Scale: $Q_a=84.7$, $Q_f=85.0$, $Q_p=83.7$, $Q_g=92.3$

Q1 =82	Q2 =96	Q3 =84	Q4 =76	Q5 =79	Q6 =81	Q7 =87	Q8 =90
Q9 =98	Q10=93	Q11=89	Q12=88	Q13=87	Q14=79	Q15=81	



Photometric Parameters

Luminous Flux: 1695.1 lm	Efficiency: 94.17 lm/W	Radiant Power: 5.254 W
Total mains efficacy: 110.75 lm/W	Energy Efficiency Class: E (EU 2019/2015)	
Pupil Flux: 2616.29 Plm	Pupil Lumens Per Watt: 145.35 Plm/W	Pupil Factor (Kp): 1.543
Cirtpic Flux: 5468.33 lm		

Electric Parameters

Voltage: 230.80V	Current: 0.0830A	Power: 18.00W
Power Factor: 0.9330	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: 45003 (2138)	CCD Integration Time: 176.19 ms

Condition: Tx:16.4'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-25 13:45:48
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0004	0.0152	525	0.5830	20.1022	670	0.3065	10.5684
385	0.0008	0.0262	530	0.6110	21.0683	675	0.2670	9.2069
390	0.0007	0.0240	535	0.6307	21.7480	680	0.2328	8.0266
395	0.0002	0.0077	540	0.6465	22.2935	685	0.2013	6.9422
400	0.0005	0.0185	545	0.6608	22.7872	690	0.1746	6.0214
405	0.0001	0.0037	550	0.6766	23.3306	695	0.1500	5.1717
410	0.0004	0.0130	555	0.6948	23.9569	700	0.1260	4.3441
415	0.0025	0.0873	560	0.7138	24.6136	705	0.1053	3.6316
420	0.0090	0.3120	565	0.7341	25.3150	710	0.0881	3.0388
425	0.0248	0.8541	570	0.7533	25.9742	715	0.0714	2.4624
430	0.0532	1.8353	575	0.7754	26.7386	720	0.0577	1.9902
435	0.1047	3.6096	580	0.7954	27.4278	725	0.0493	1.7017
440	0.1887	6.5067	585	0.8143	28.0806	730	0.0406	1.4012
445	0.3378	11.6496	590	0.8292	28.5938	735	0.0295	1.0177
450	0.5922	20.4204	595	0.8400	28.9666	740	0.0237	0.8184
455	0.9007	31.0601	600	0.8448	29.1313	745	0.0190	0.6543
460	0.9857	33.9878	605	0.8428	29.0622	750	0.0181	0.6233
465	0.7789	26.8587	610	0.8299	28.6172	755	0.0103	0.3558
470	0.5929	20.4440	615	0.8129	28.0308	760	0.0050	0.1730
475	0.4850	16.7236	620	0.7810	26.9300	765	0.0059	0.2034
480	0.3834	13.2215	625	0.7465	25.7428	770	0.0016	0.0561
485	0.3175	10.9486	630	0.7019	24.2036	775	0.0018	0.0608
490	0.3053	10.5275	635	0.6528	22.5093	780	0.0023	0.0807
495	0.3201	11.0374	640	0.5997	20.6791	785	0.0012	0.0417
500	0.3566	12.2949	645	0.5476	18.8815	790	0.0002	0.0072
505	0.4082	14.0753	650	0.4954	17.0821	795	0.0003	0.0098
510	0.4632	15.9724	655	0.4444	15.3255	800	0.0024	0.0832
515	0.5116	17.6429	660	0.3970	13.6910			
520	0.5557	19.1628	665	0.3488	12.0289			

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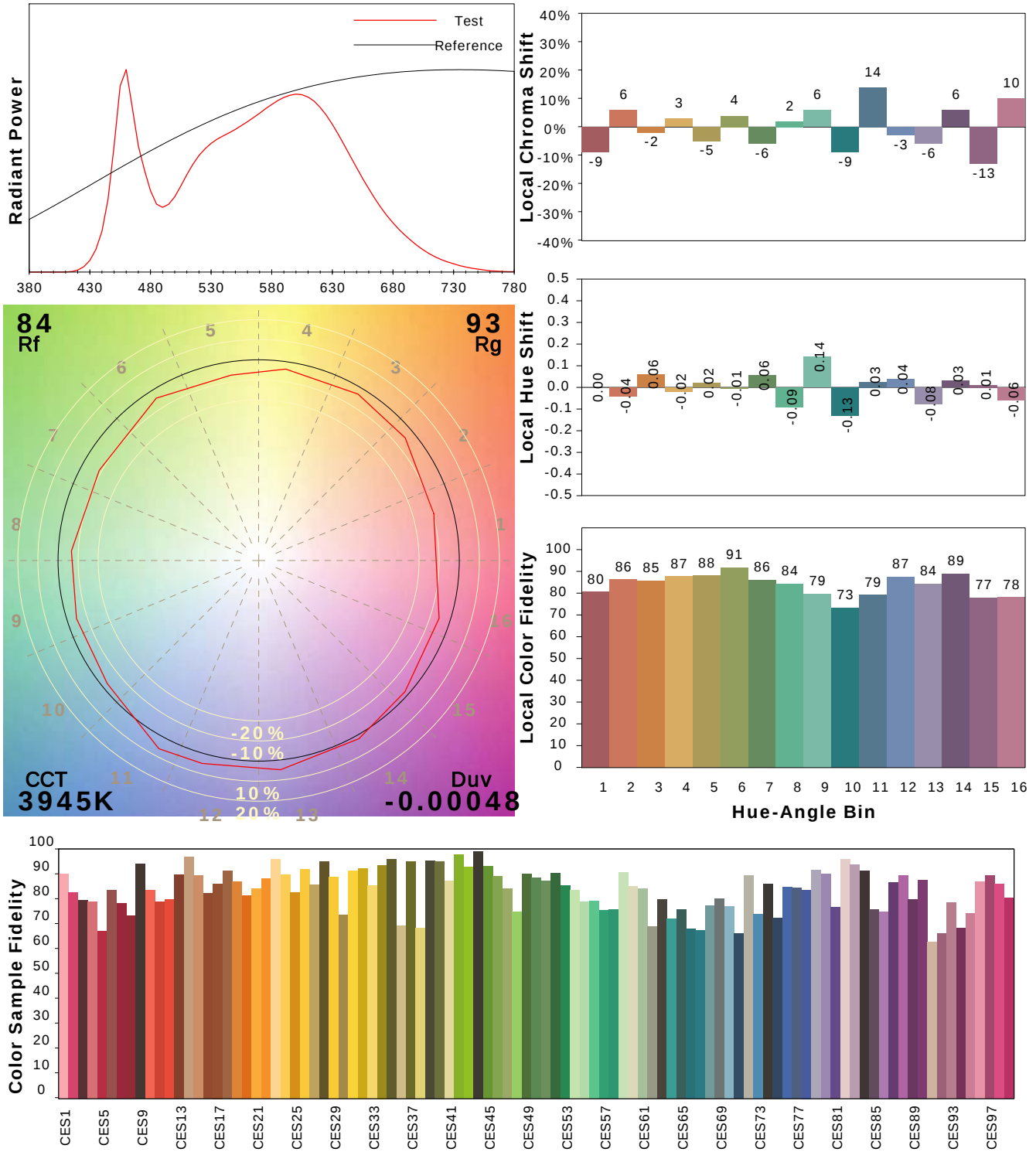
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IES TM-30-18 Color Rendition Report

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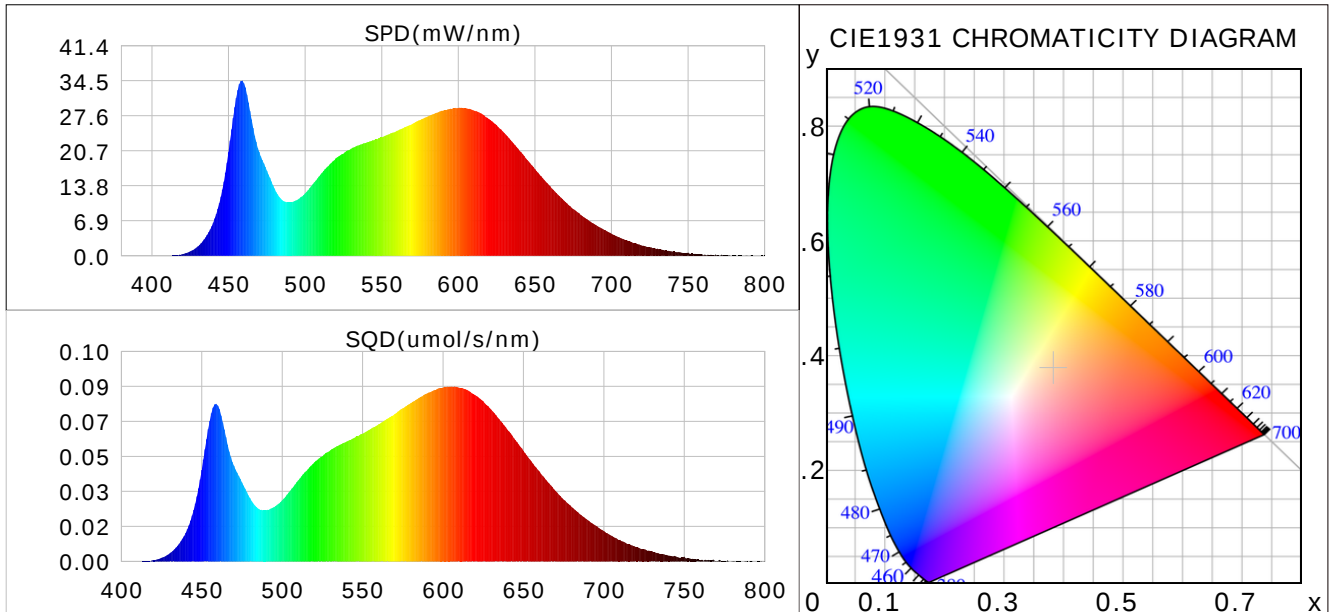
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Plant optical param data

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 Dominant Wavelength: 579.5nm Color Purity: 0.280
 CRI: Ra= 86.5



Plant Optical Param

$\mu_v(lm)$: 1695.10	$Q_v(lm.s)$: 1695.10
$\mu_e, \dot{E}(W/nm)$: 5.25	$Q_e(J)$: 5.25
$\mu_e(W)$: 5.16	$\mu_{fr}(W)$: 0.10
$\dot{C}_e$: 0.29	$\dot{C}_{fr}$: 0.01
$PPE(umol/s/w)$: 1.35	K_{fr} : 0.03
Erb_Ratio : 1.51	$PPF(umol/s)$: 24.25
$PF_{uv}(360-400)(umol/s)$: 0.00	$PPF(400-500)(umol/s)$: 4.42
$PPF(500-600)(umol/s)$: 10.70	$PPF(600-700)(umol/s)$: 9.13
$PF_{fr}(700-800)(umol/s)$: 0.60	$PPF.t(umol)$: 24.25
$\mu_{ch-A.t}(J)$: 0.39	$\mu_{ch-A}(W)$: 0.39
$\mu_{ch-B.t}(J)$: 0.25	$\mu_{ch-B}(W)$: 0.25
$\mu_{b.t}(J)$: 1.14	$\mu_b(W)$: 1.14
$\mu_{y.t}(J)$: 2.31	$\mu_y(W)$: 2.31
$\mu_{r.t}(J)$: 1.74	$\mu_r(W)$: 1.74

Electric Parameters

Voltage: 230.80V	Current: 0.0830A	Power: 18.00W
Power Factor: 0.9330	Frequency: 49.99Hz	

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