

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-120-10CWM-18W-RAD-A
 Manufacturer: METOLIGHT
 Buyer: 6420

Product Type: LED-Röhre-PIR
 Product Number: 1
 Submitted Unit: 103899

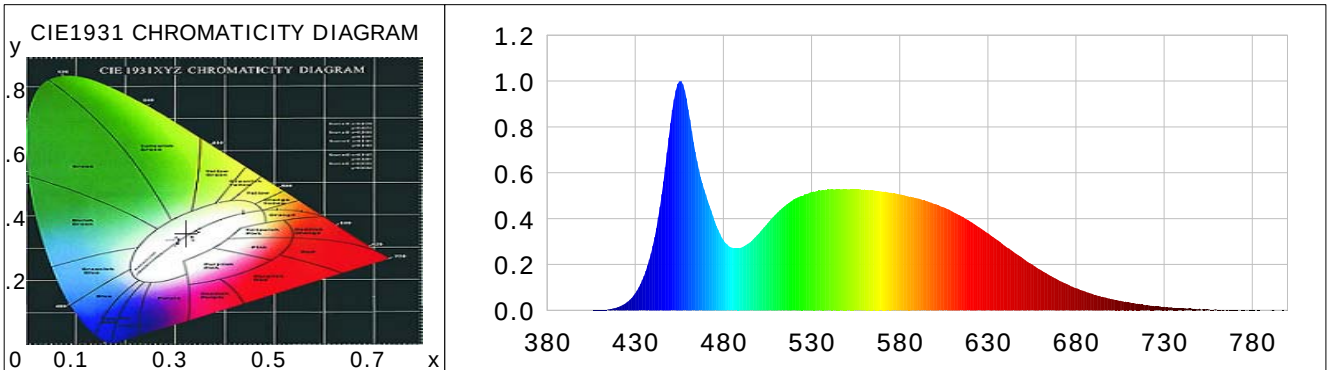
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3224$ $y=0.3475$ $u(u')=0.1977$ $v=0.3195$ $v'=0.4793$
 CCT: $T_c=5938K$ ($duv=0.00777$) Color Ratio: $R=0.139$ $G=0.806$ $B=0.055$
 Peak Wavelength: 455.6nm Half Bandwidth: 25.3nm
 Dominant Wavelength: 509.9nm Color Purity: 0.034
 CRI: $R_a=83.2$, $avgR(1\sim14)=75.8$, $avgR(1\sim15)=75.8$ TM30: $R_f=82$, $R_g=92$
 GAI: $GAI_BB_8=86.7$, $GAI_BB_15=93.3$, $GAI_EES=82.1$

R1 =81	R2 =89	R3 =94	R4 =80	R5 =80	R6 =84	R7 =88	R8 =69
R9 =9	R10=74	R11=78	R12=55	R13=84	R14=97	R15=76	

Color Quality Scale: $Q_a=81.9$, $Q_f=82.3$, $Q_p=80.5$, $Q_g=89.8$

Q1 =81	Q2 =97	Q3 =81	Q4 =73	Q5 =77	Q6 =78	Q7 =83	Q8 =89
Q9 =97	Q10=90	Q11=86	Q12=85	Q13=85	Q14=73	Q15=77	



Photometric Parameters

Luminous Flux: 1800.1 lm	Efficiency: 100.34 lm/W	Radiant Power: 5.620 W
Total mains efficacy: 118.00 lm/W	Energy Efficiency Class: E (EU 2019/2015)	
Pupil Flux: 3314.23 Plm	Pupil Lumens Per Watt: 184.74 Plm/W	Pupil Factor (Kp): 1.841
Cirtpic Flux: 7529.54 lm		

Electric Parameters

Voltage: 230.40V	Current: 0.0830A	Power: 17.94W
Power Factor: 0.9370	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: 46628 (2094)	CCD Integration Time: 121.35 ms

Condition: Tx:16.0'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-25 13:39:53
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0006	0.0331	525	0.4985	26.0867	670	0.1321	6.9117
385	0.0010	0.0504	530	0.5168	27.0450	675	0.1139	5.9626
390	0.0003	0.0164	535	0.5228	27.3573	680	0.0966	5.0555
395	0.0002	0.0095	540	0.5271	27.5856	685	0.0827	4.3256
400	0.0002	0.0123	545	0.5288	27.6726	690	0.0689	3.6081
405	0.0003	0.0170	550	0.5288	27.6728	695	0.0591	3.0949
410	0.0010	0.0506	555	0.5283	27.6449	700	0.0496	2.5973
415	0.0042	0.2212	560	0.5271	27.5863	705	0.0420	2.1956
420	0.0135	0.7088	565	0.5237	27.4051	710	0.0350	1.8327
425	0.0342	1.7877	570	0.5174	27.0792	715	0.0289	1.5100
430	0.0745	3.8967	575	0.5136	26.8754	720	0.0217	1.1344
435	0.1499	7.8469	580	0.5056	26.4613	725	0.0177	0.9283
440	0.2815	14.7300	585	0.4962	25.9673	730	0.0159	0.8307
445	0.5061	26.4868	590	0.4886	25.5696	735	0.0110	0.5760
450	0.8162	42.7133	595	0.4771	24.9678	740	0.0094	0.4935
455	0.9984	52.2503	600	0.4638	24.2723	745	0.0084	0.4416
460	0.8762	45.8543	605	0.4494	23.5207	750	0.0076	0.3992
465	0.6510	34.0689	610	0.4301	22.5061	755	0.0042	0.2221
470	0.5051	26.4348	615	0.4104	21.4795	760	0.0029	0.1534
475	0.3891	20.3603	620	0.3875	20.2813	765	0.0009	0.0461
480	0.3071	16.0735	625	0.3620	18.9456	770	0.0026	0.1376
485	0.2734	14.3072	630	0.3361	17.5909	775	0.0012	0.0616
490	0.2736	14.3201	635	0.3084	16.1409	780	0.0018	0.0961
495	0.2959	15.4850	640	0.2792	14.6125	785	0.0002	0.0117
500	0.3339	17.4757	645	0.2520	13.1902	790	0.0004	0.0234
505	0.3791	19.8371	650	0.2260	11.8292	795	0.0006	0.0297
510	0.4214	22.0551	655	0.2004	10.4855	800	0.0034	0.1771
515	0.4559	23.8573	660	0.1760	9.2116			
520	0.4849	25.3735	665	0.1529	8.0001			

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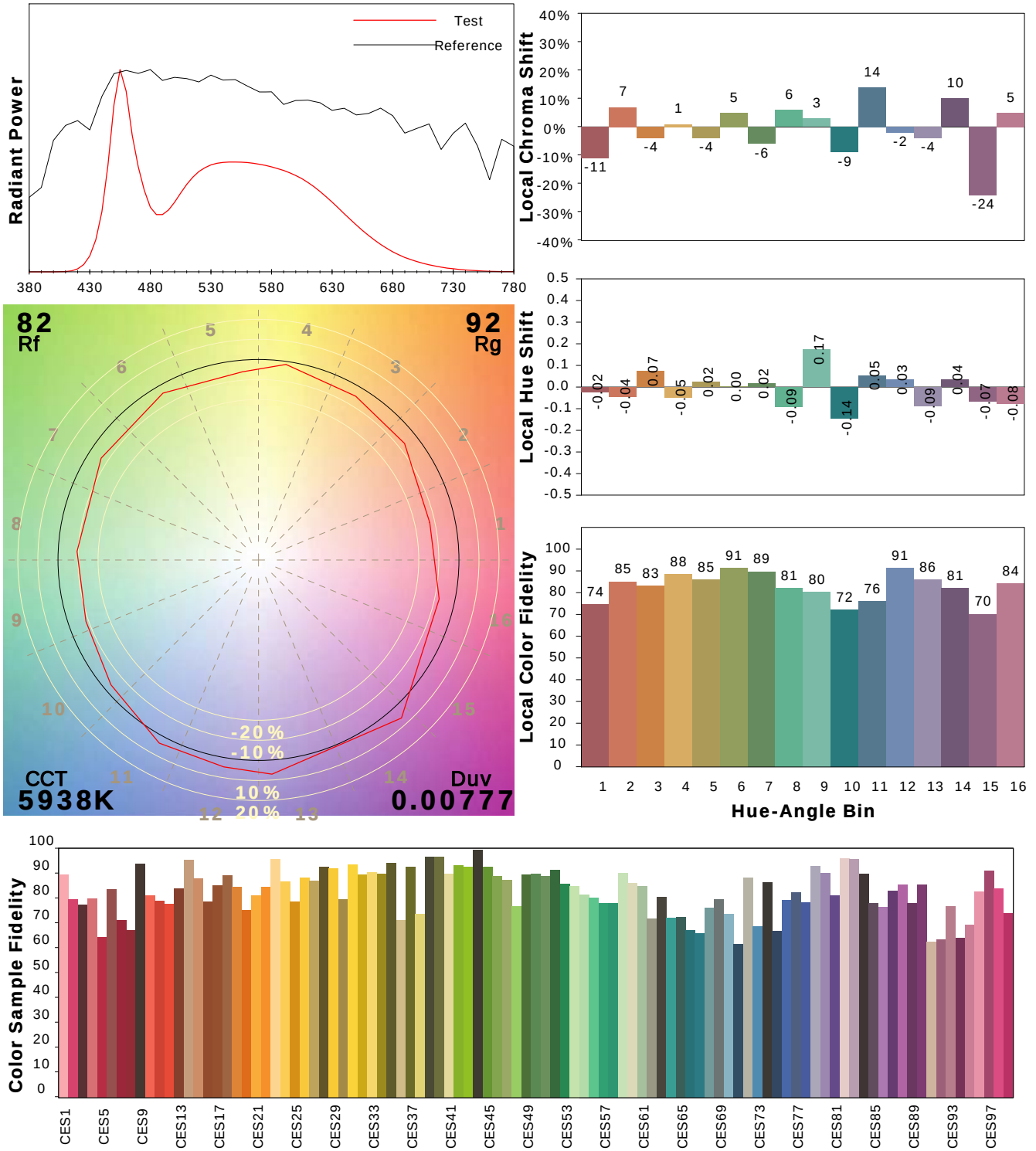
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IES TM-30-18 Color Rendition Report

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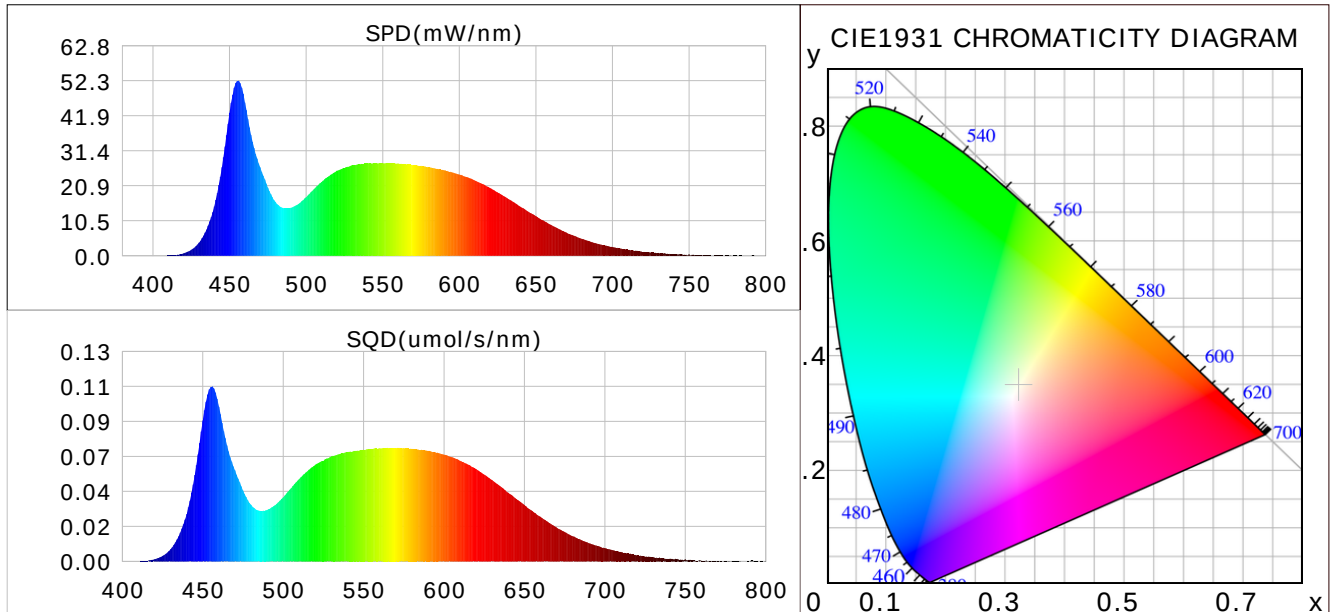
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Plant optical param data

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 CRI: Ra= 83.2



Plant Optical Param

$\mu_v(lm): 1800.10$	$Q_v(lm.s): 1800.10$
$\mu_e, \dot{E}(W/nm): 5.62$	$Q_e(J): 5.62$
$\mu_e(W): 5.56$	$\mu_{fr}(W): 0.06$
$\dot{C}_e: 0.31$	$\dot{C}_{fr}: 0.00$
$PPE(umol/s/w): 1.41$	$K_{fr}: 0.02$
$Erb_Ratio: 0.71$	$PPF(umol/s): 25.21$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 6.74$
$PPF(500-600)(umol/s): 11.90$	$PPF(600-700)(umol/s): 6.58$
$PF_{fr}(700-800)(umol/s): 0.36$	$PPF.t(umol): 25.21$
$\mu_{ch-A.t}(J): 0.43$	$\mu_{ch-A}(W): 0.43$
$\mu_{ch-B.t}(J): 0.32$	$\mu_{ch-B}(W): 0.32$
$\mu_b.t(J): 1.74$	$\mu_b(W): 1.74$
$\mu_y.t(J): 2.60$	$\mu_y(W): 2.60$
$\mu_r.t(J): 1.26$	$\mu_r(W): 1.26$

Electric Parameters

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Power Factor: 0.9370	Frequency: 49.99Hz	

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