

Lightsource Test Report

Product Information

Product Category: LED-Röhre
 Product Spec: LEDtube-470-090-T8-14W
 Manufacturer: METOLIGHT

Product Type: LED-Röhre-UVL
 Product Number: 1
 Submitted Unit: 101500

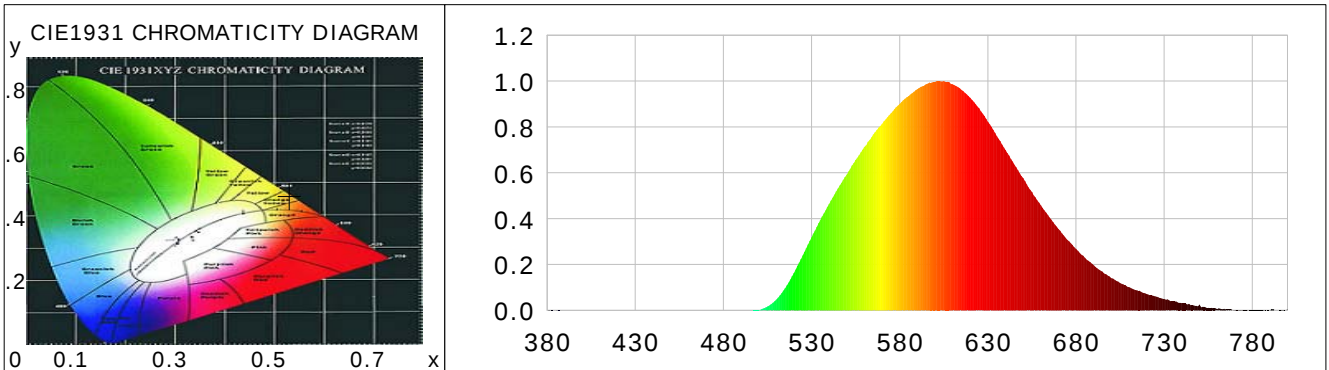
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.5311$ $y=0.4645$ $u(u')=0.2828$ $v=0.3710$ $v'=0.5565$
 CCT: $T_c=2276K$ ($duv=0.01461$) Color Ratio: $R=0.256$ $G=0.744$ $B=0.000$
 Peak Wavelength: 601.3nm Half Bandwidth: 113.6nm
 Dominant Wavelength: 583.2nm Color Purity: 0.989
 CRI: $R_a=53.0$, $avgR(1\sim14)=42.9$, $avgR(1\sim15)=43.2$ TM30: $R_f=19$, $R_g=10$
 GAI: $GAI_BB_8=1.0$, $GAI_BB_15=1.1$, $GAI_EES=0.4$

R1 =54	R2 =65	R3 =65	R4 =42	R5 =48	R6 =49	R7 =67	R8 =34
R9 =0	R10=22	R11=21	R12=0	R13=54	R14=80	R15=47	

Color Quality Scale: $Q_a=0.4$, $Q_f=0.8$, $Q_p=0.0$, $Q_g=5.7$

Q1 =46	Q2 =7	Q3 =0	Q4 =3	Q5 =23	Q6 =50	Q7 =35	Q8 =2
Q9 =0	Q10=0	Q11=0	Q12=0	Q13=0	Q14=2	Q15=50	



Photometric Parameters

Luminous Flux: 1385.8 lm	Efficiency: 102.58 lm/W	Radiant Power: 3.724 W
Total mains efficacy: 111.71 lm/W	Energy Efficiency Class: E (EU 2019/2015)	
Pupil Flux: 999.95 Plm	Pupil Lumens Per Watt: 74.02 Plm/W	Pupil Factor (Kp): 0.722
Cirtpic Flux: 1047.94 lm		

Electric Parameters

Voltage: 230.70V	Current: 0.0590A	Power: 13.51W
Power Factor: 0.9320	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: 46715 (2466)	CCD Integration Time: 207.04 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-25 14:07:27
 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	0.0194	525	0.2401	7.6399	670	0.3555	11.3129
385	0.0013	0.0398	530	0.3179	10.1152	675	0.3085	9.8159
390	0.0002	0.0071	535	0.3941	12.5416	680	0.2685	8.5456
395	0.0002	0.0049	540	0.4645	14.7819	685	0.2295	7.3019
400	0.0002	0.0048	545	0.5317	16.9204	690	0.1975	6.2838
405	0.0000	0.0008	550	0.5926	18.8580	695	0.1687	5.3696
410	0.0001	0.0042	555	0.6557	20.8666	700	0.1407	4.4777
415	0.0004	0.0137	560	0.7132	22.6938	705	0.1190	3.7872
420	0.0006	0.0200	565	0.7675	24.4230	710	0.1012	3.2219
425	0.0001	0.0018	570	0.8139	25.8987	715	0.0861	2.7390
430	0.0002	0.0065	575	0.8595	27.3503	720	0.0719	2.2876
435	0.0005	0.0163	580	0.9009	28.6685	725	0.0612	1.9490
440	0.0003	0.0101	585	0.9346	29.7400	730	0.0503	1.5991
445	0.0001	0.0044	590	0.9649	30.7049	735	0.0395	1.2567
450	0.0004	0.0135	595	0.9866	31.3960	740	0.0314	1.0006
455	0.0004	0.0130	600	0.9968	31.7203	745	0.0230	0.7320
460	0.0004	0.0134	605	0.9998	31.8160	750	0.0245	0.7801
465	0.0000	0.0007	610	0.9861	31.3780	755	0.0111	0.3534
470	0.0002	0.0063	615	0.9620	30.6134	760	0.0063	0.1993
475	0.0003	0.0097	620	0.9274	29.5117	765	0.0048	0.1516
480	0.0001	0.0030	625	0.8811	28.0396	770	0.0028	0.0881
485	0.0000	0.0004	630	0.8221	26.1604	775	0.0018	0.0576
490	0.0002	0.0079	635	0.7604	24.1988	780	0.0009	0.0285
495	0.0005	0.0144	640	0.6994	22.2552	785	0.0025	0.0784
500	0.0025	0.0795	645	0.6361	20.2406	790	0.0002	0.0050
505	0.0171	0.5440	650	0.5767	18.3531	795	0.0009	0.0277
510	0.0471	1.4972	655	0.5165	16.4367	800	0.0052	0.1641
515	0.0969	3.0844	660	0.4589	14.6045			
520	0.1630	5.1883	665	0.4053	12.8988			

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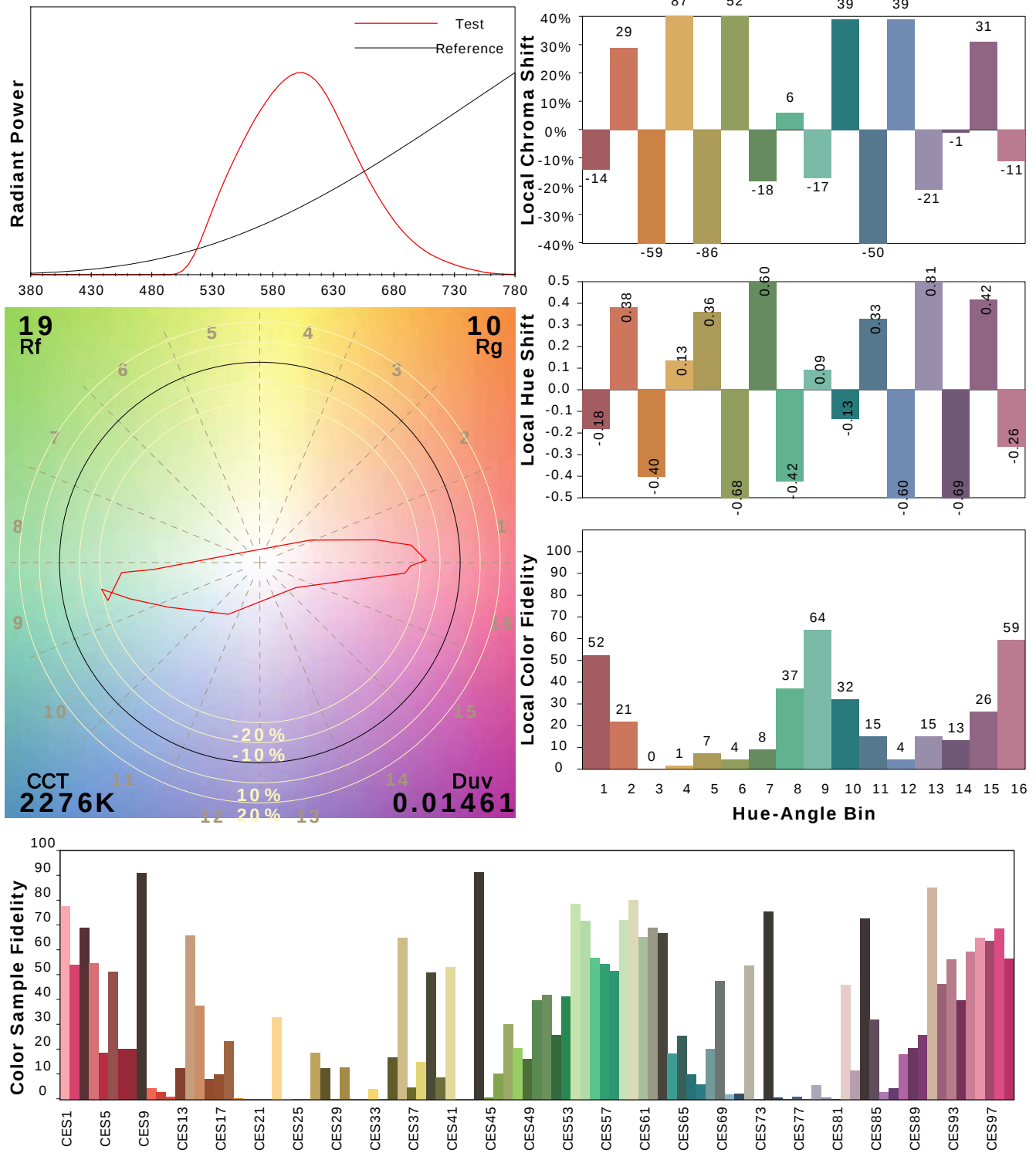
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IES TM-30-18 Color Rendition Report

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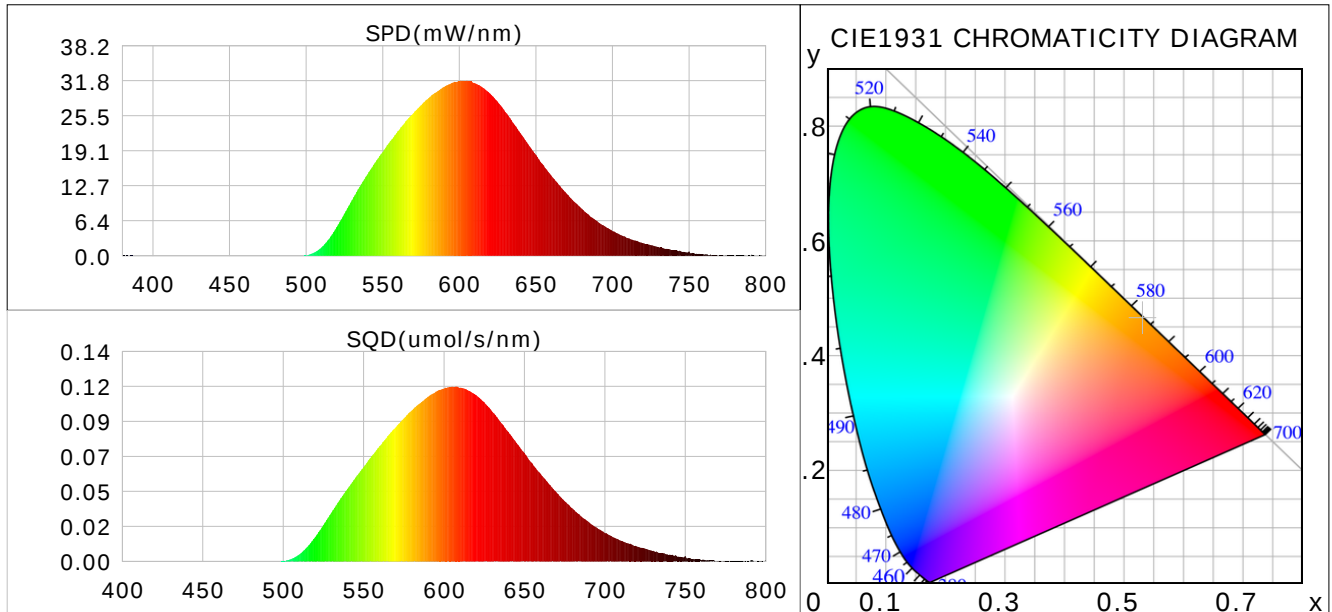
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Plant optical param data

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 CRI: Ra= 53.0



Plant Optical Param

$\mu_v(\text{lm})$: 1385.80	$Q_v(\text{lm.s})$: 1385.80
$\mu_e, \dot{E}(\text{W/nm})$: 3.72	$Q_e(\text{J})$: 3.72
$\mu_e(\text{W})$: 3.61	$\mu_{fr}(\text{W})$: 0.12
$\dot{C}_e$: 0.27	$\dot{C}_{fr}$: 0.01
$PPE(\mu\text{mol/s/w})$: 1.35	K_{fr} : 0.05
E_{rb_Ratio} : 1767.33	$PPF(\mu\text{mol/s})$: 18.21
$PF_{uv}(360-400)(\mu\text{mol/s})$: 0.00	$PPF(400-500)(\mu\text{mol/s})$: 0.00
$PPF(500-600)(\mu\text{mol/s})$: 8.35	$PPF(600-700)(\mu\text{mol/s})$: 9.85
$PF_{fr}(700-800)(\mu\text{mol/s})$: 0.67	$PPF.t(\mu\text{mol})$: 18.21
$\mu_{ch-A.t}(\text{J})$: 0.28	$\mu_{ch-A}(W)$: 0.28
$\mu_{ch-B.t}(\text{J})$: 0.10	$\mu_{ch-B}(W)$: 0.10
$\mu_{b.t}(\text{J})$: 0.00	$\mu_b(W)$: 0.00
$\mu_{y.t}(\text{J})$: 1.76	$\mu_y(W)$: 1.76
$\mu_{r.t}(\text{J})$: 1.88	$\mu_r(W)$: 1.88

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