

Lightsource Test Report

Product Information

Product Category: LED-Röhre Product Type: LED-Röhre-SCE
 Product Spec: LEDtube-150-8CWM-25W-SCE-RM-160 Product Number: 1
 Manufacturer: METOLIGHT Submitted Unit: 102595
 Buyer: 6961

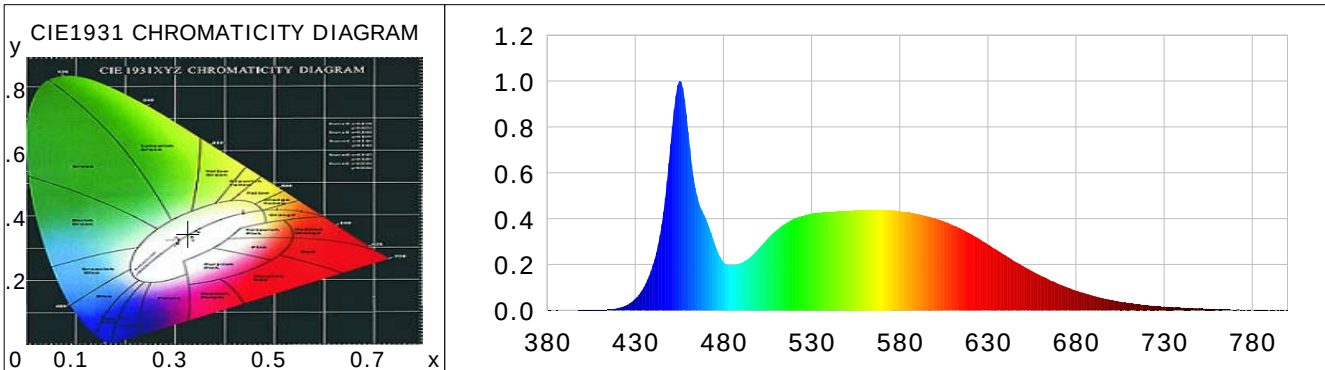
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3260$ $y=0.3453$ $u(u')=0.2008$ $v=0.3192$ $v'=0.4787$
 CCT: $T_c=5784K$ ($duv=0.00509$) Color Ratio: $R=0.143$ $G=0.804$ $B=0.053$
 Peak Wavelength: 455.4nm Half Bandwidth: 17.9nm
 Dominant Wavelength: 515.1nm Color Purity: 0.025
 CRI: $R_a=83.5$, $avgR(1\sim14)=76.3$, $avgR(1\sim15)=76.3$ TM30: $R_f=82$, $R_g=93$
 GAI: $GAI_BB_8=88.9$, $GAI_BB_15=95.7$, $GAI_EES=83.4$

R1 =82	R2 =90	R3 =93	R4 =81	R5 =81	R6 =84	R7 =88	R8 =69
R9 =12	R10=74	R11=80	R12=53	R13=85	R14=97	R15=77	

Color Quality Scale: $Q_a=81.4$, $Q_f=81.6$, $Q_p=80.8$, $Q_g=90.8$

Q1 =82	Q2 =98	Q3 =78	Q4 =71	Q5 =76	Q6 =79	Q7 =85	Q8 =89
Q9 =97	Q10=89	Q11=85	Q12=84	Q13=84	Q14=73	Q15=77	



Photometric Parameters

Luminous Flux: 3965.0 lm Efficiency: 153.74 lm/W Radiant Power: 12.432 W
 Total mains efficacy: 180.80 lm/W Energy Efficiency Class: C (EU 2019/2015)
 Pupil Flux: 7193.83 Plm Pupil Lumens Per Watt: 278.94 Plm/W Pupil Factor (K_p): 1.814
 Cirtopic Flux: 16254.22 lm

Electric Parameters

Voltage: 230.60V Current: 0.1160A Power: 25.79W
 Power Factor: 0.9580 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: 46038 (2649) CCD Integration Time: 46.32 ms

Condition: Tx:23.9'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-17 13:47:25
 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	0.0590	525	0.4100	56.5515	670	0.1157	15.9579
385	0.0007	0.0984	530	0.4211	58.0859	675	0.1003	13.8399
390	0.0006	0.0812	535	0.4254	58.6758	680	0.0864	11.9118
395	0.0006	0.0851	540	0.4294	59.2215	685	0.0741	10.2194
400	0.0009	0.1303	545	0.4318	59.5501	690	0.0623	8.5887
405	0.0012	0.1600	550	0.4341	59.8765	695	0.0531	7.3236
410	0.0020	0.2741	555	0.4370	60.2734	700	0.0442	6.0953
415	0.0043	0.5906	560	0.4378	60.3890	705	0.0367	5.0605
420	0.0096	1.3259	565	0.4396	60.6380	710	0.0331	4.5616
425	0.0219	3.0214	570	0.4385	60.4853	715	0.0272	3.7465
430	0.0503	6.9410	575	0.4370	60.2798	720	0.0226	3.1199
435	0.1017	14.0264	580	0.4328	59.6922	725	0.0199	2.7479
440	0.1973	27.2191	585	0.4275	58.9630	730	0.0174	2.4028
445	0.3758	51.8364	590	0.4203	57.9741	735	0.0143	1.9714
450	0.7236	99.8021	595	0.4118	56.8013	740	0.0101	1.3894
455	1.0000	137.9272	600	0.4024	55.5066	745	0.0091	1.2586
460	0.7801	107.5909	605	0.3885	53.5786	750	0.0108	1.4898
465	0.5005	69.0372	610	0.3720	51.3049	755	0.0069	0.9475
470	0.4004	55.2316	615	0.3548	48.9317	760	0.0045	0.6165
475	0.2925	40.3399	620	0.3345	46.1339	765	0.0043	0.5979
480	0.2107	29.0643	625	0.3121	43.0437	770	0.0021	0.2962
485	0.1963	27.0774	630	0.2874	39.6453	775	0.0041	0.5616
490	0.2063	28.4504	635	0.2639	36.4053	780	0.0007	0.0906
495	0.2294	31.6349	640	0.2396	33.0514	785	0.0027	0.3728
500	0.2693	37.1451	645	0.2142	29.5462	790	0.0032	0.4421
505	0.3125	43.0976	650	0.1928	26.5935	795	0.0011	0.1501
510	0.3490	48.1310	655	0.1714	23.6385	800	0.0017	0.2324
515	0.3766	51.9425	660	0.1509	20.8099			
520	0.4003	55.2062	665	0.1325	18.2767			

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IES TM-30-18 Color Rendition Report

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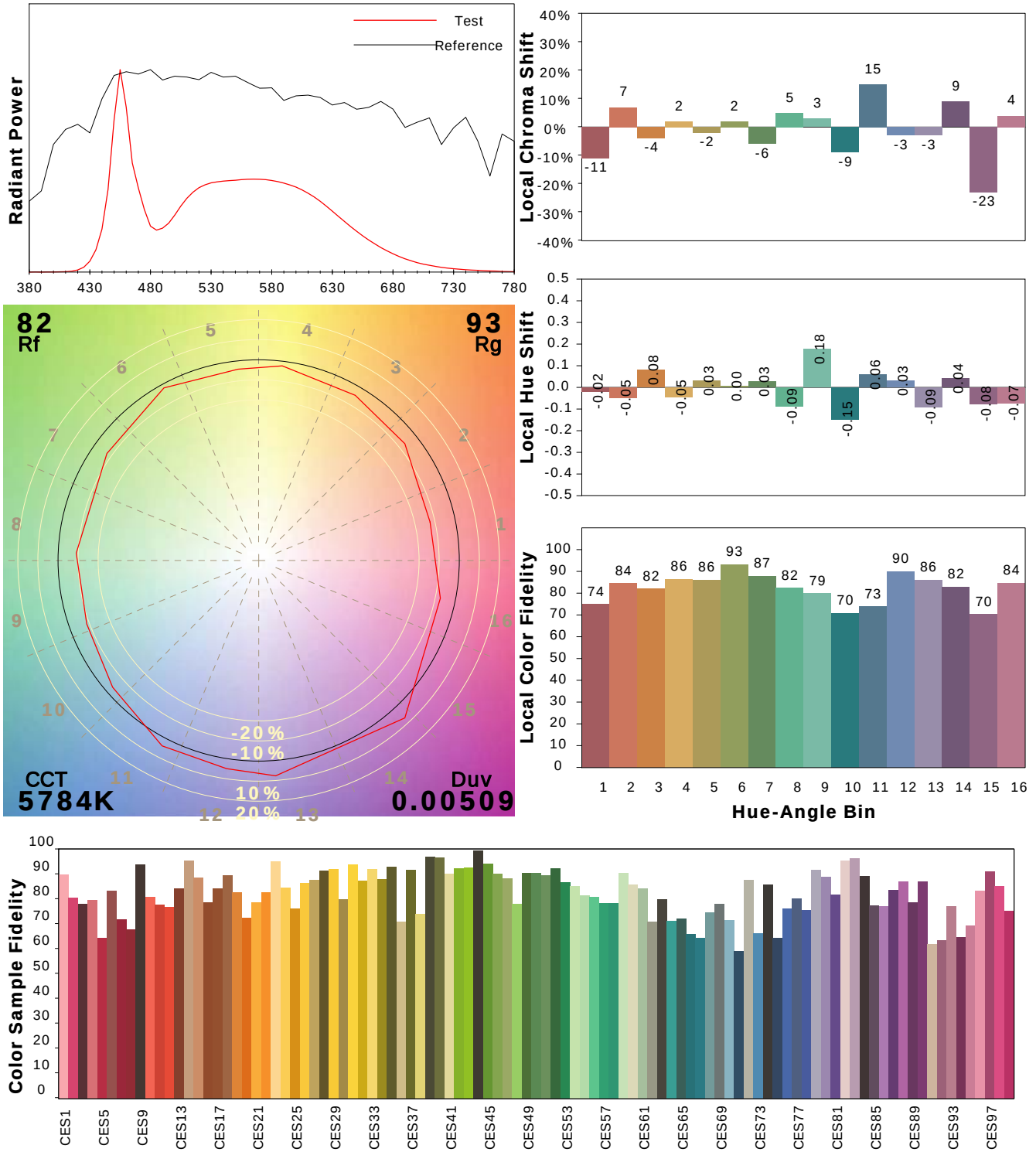
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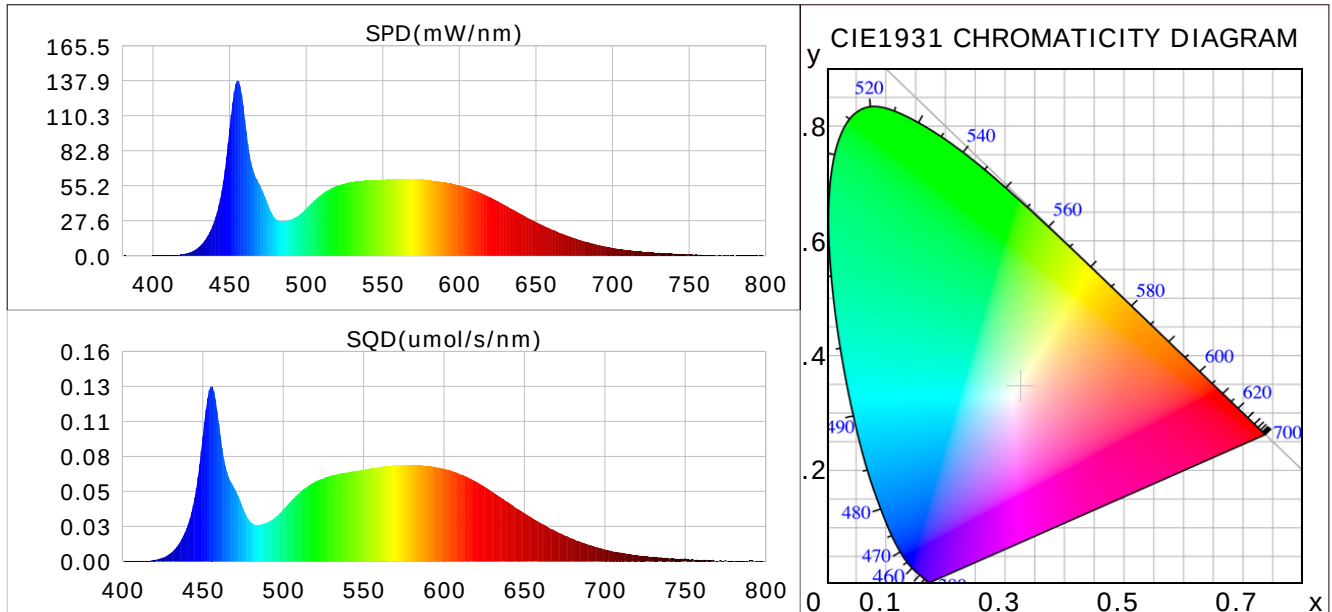
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Plant optical param data

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 Dominant Wavelength: 515.1nm Color Purity: 0.025
 CRI: Ra= 83.5



Plant Optical Param

$\mu_v(lm): 3965.00$	$Q_v(lm.s): 3965.00$
$\mu_e, \dot{E}(W/nm): 12.43$	$Q_e(J): 12.43$
$\mu_e(W): 12.27$	$\mu_{fr}(W): 0.18$
$\dot{Q}_e: 0.48$	$\dot{Q}_{fr}: 0.01$
$PPE(umol/s/w): 2.16$	$K_{fr}: 0.04$
$Erb_Ratio: 0.75$	$PPF(umol/s): 55.74$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 14.56$
$PPF(500-600)(umol/s): 26.19$	$PPF(600-700)(umol/s): 14.99$
$PF_{fr}(700-800)(umol/s): 1.04$	$PPF.t(umol): 55.74$
$\mu_{ch-A.t}(J): 0.93$	$\mu_{ch-A}(W): 0.93$
$\mu_{ch-B.t}(J): 0.70$	$\mu_{ch-B}(W): 0.70$
$\mu_b.t(J): 3.77$	$\mu_b(W): 3.77$
$\mu_y.t(J): 5.71$	$\mu_y(W): 5.71$
$\mu_r.t(J): 2.88$	$\mu_r(W): 2.88$

Electric Parameters

Voltage: 230.60V	Current: 0.1160A	Power: 25.79W
Power Factor: 0.9580	Frequency: 49.99Hz	

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