

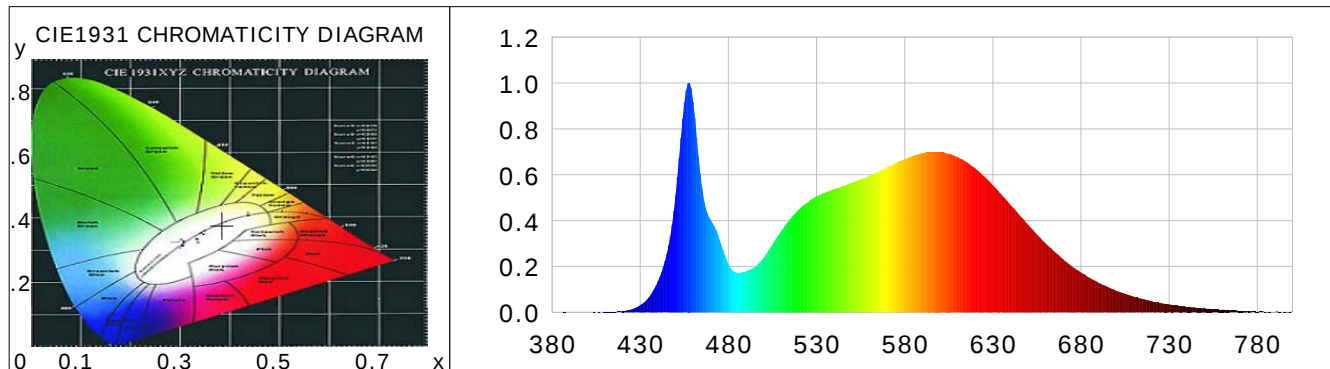
Lightsource Test Report

Product Information

Product Category: LED-Röhre Product Type: LED-Röhre-SCE
 Product Spec: Ledtube-120-8DWM-20W-SCE-RM-175 Product Number: 1
 Manufacturer: METOLIGHT Submitted Unit: 102920
 Buyer: 6961

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3850$ $y=0.3782$ $u(u')=0.2275$ $v=0.3353$ $v'=0.5029$
 CCT: $T_c=3889K$ ($duv=-0.00063$) Color Ratio: $R=0.189$ $G=0.775$ $B=0.036$
 Peak Wavelength: 457.5nm Half Bandwidth: 16.1nm
 Dominant Wavelength: 579.8nm Color Purity: 0.290
 CRI: $R_a=83.2$, $avgR(1\sim14)=76.5$, $avgR(1\sim15)=76.6$ TM30: $R_f=81$, $R_g=93$
 GAI: $GAI_BB_8=92.3$, $GAI_BB_15=101.7$, $GAI_EES=71.1$
 R1 =83 R2 =91 R3 =95 R4 =80 R5 =81 R6 =86 R7 =85 R8 =66
 R9 =16 R10=76 R11=77 R12=54 R13=85 R14=97 R15=78
 Color Quality Scale: $Q_a=81.4$, $Q_f=81.5$, $Q_p=81.2$, $Q_g=92.1$
 Q1 =81 Q2 =97 Q3 =77 Q4 =70 Q5 =76 Q6 =79 Q7 =84 Q8 =88
 Q9 =97 Q10=89 Q11=85 Q12=84 Q13=84 Q14=75 Q15=78



Photometric Parameters

Luminous Flux: 3069.1 lm Efficiency: 167.89 lm/W Radiant Power: 9.299 W
 Total mains efficacy: 197.44 lm/W Energy Efficiency Class: B (EU 2019/2015)
 Pupil Flux: 4562.77 Plm Pupil Lumens Per Watt: 249.60 Plm/W Pupil Factor (Kp): 1.487
 Cirtopic Flux: 9285.67 lm

Electric Parameters

Voltage: 230.60V Current: 0.0860A Power: 18.28W
 Power Factor: 0.9150 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: 45590 (2321) CCD Integration Time: 84.51 ms

Condition: Tx:19.2'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-01-22 11:05:39
 Inspector:

Lightsource Test Report

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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	0.0283	525	0.4787	36.5367	670	0.2314	17.6612
385	0.0003	0.0261	530	0.5062	38.6342	675	0.1993	15.2134
390	0.0004	0.0305	535	0.5224	39.8773	680	0.1739	13.2714
395	0.0003	0.0258	540	0.5375	41.0241	685	0.1505	11.4849
400	0.0007	0.0570	545	0.5517	42.1079	690	0.1291	9.8565
405	0.0006	0.0425	550	0.5643	43.0717	695	0.1114	8.5060
410	0.0014	0.1097	555	0.5811	44.3517	700	0.0947	7.2299
415	0.0024	0.1807	560	0.5964	45.5213	705	0.0812	6.1963
420	0.0057	0.4334	565	0.6148	46.9284	710	0.0684	5.2188
425	0.0132	1.0097	570	0.6334	48.3431	715	0.0580	4.4249
430	0.0315	2.4062	575	0.6514	49.7212	720	0.0485	3.7044
435	0.0662	5.0521	580	0.6686	51.0339	725	0.0417	3.1801
440	0.1351	10.3140	585	0.6835	52.1732	730	0.0355	2.7061
445	0.2553	19.4902	590	0.6945	53.0132	735	0.0294	2.2454
450	0.5110	39.0004	595	0.6998	53.4170	740	0.0236	1.8005
455	0.9147	69.8193	600	0.6983	53.2963	745	0.0201	1.5360
460	0.9178	70.0520	605	0.6918	52.8052	750	0.0196	1.4934
465	0.5446	41.5708	610	0.6772	51.6872	755	0.0134	1.0245
470	0.4019	30.6778	615	0.6558	50.0585	760	0.0116	0.8831
475	0.3167	24.1736	620	0.6277	47.9093	765	0.0084	0.6441
480	0.2105	16.0674	625	0.5929	45.2519	770	0.0065	0.4949
485	0.1728	13.1895	630	0.5546	42.3285	775	0.0054	0.4106
490	0.1790	13.6592	635	0.5128	39.1376	780	0.0031	0.2334
495	0.1983	15.1339	640	0.4683	35.7466	785	0.0029	0.2211
500	0.2374	18.1234	645	0.4249	32.4311	790	0.0011	0.0822
505	0.2962	22.6054	650	0.3819	29.1490	795	0.0017	0.1304
510	0.3555	27.1313	655	0.3394	25.9085	800	0.0043	0.3309
515	0.4057	30.9658	660	0.3008	22.9560			
520	0.4487	34.2469	665	0.2641	20.1591			

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IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-Röhre

Product Type: LED-Röhre-SCE

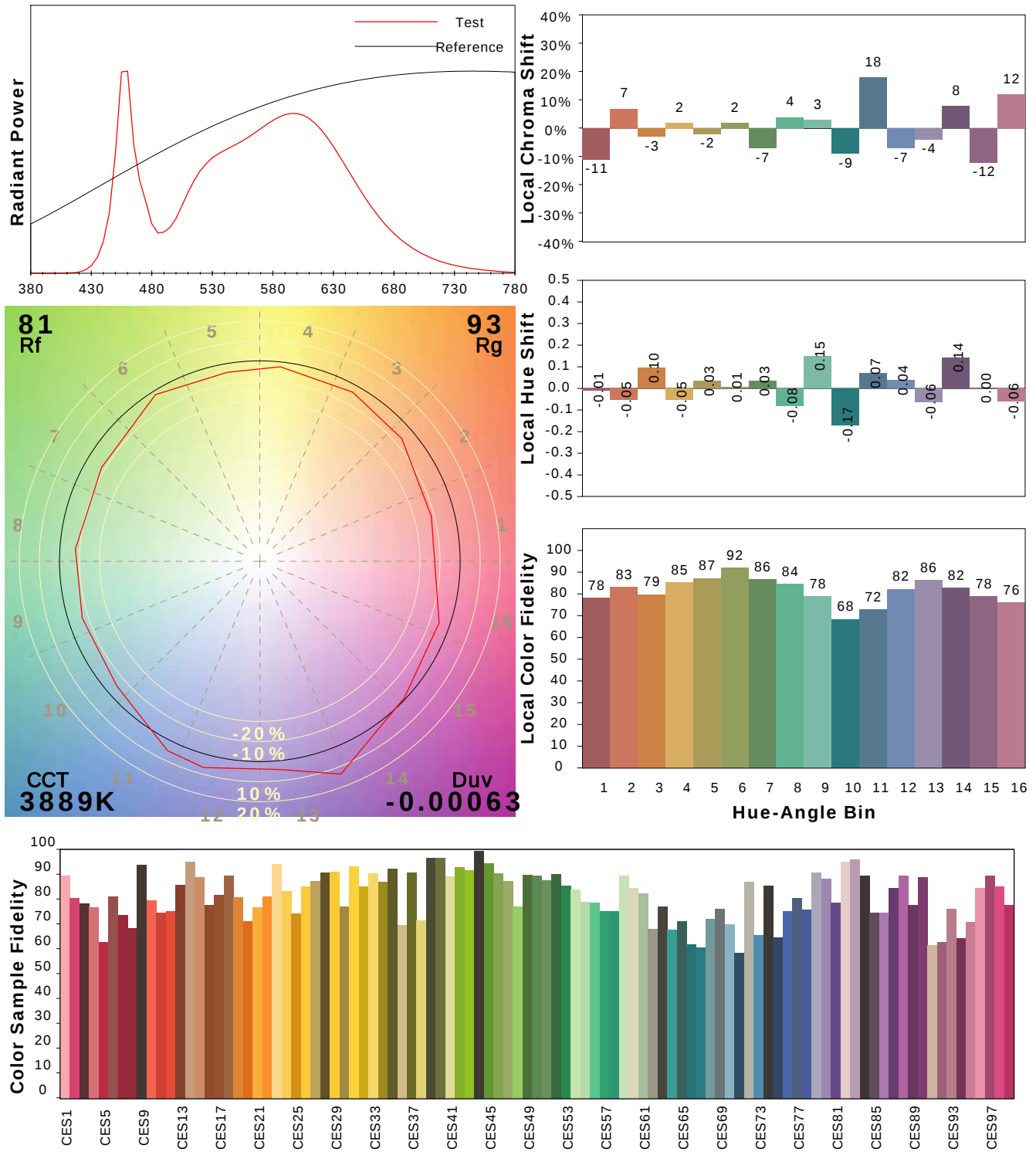
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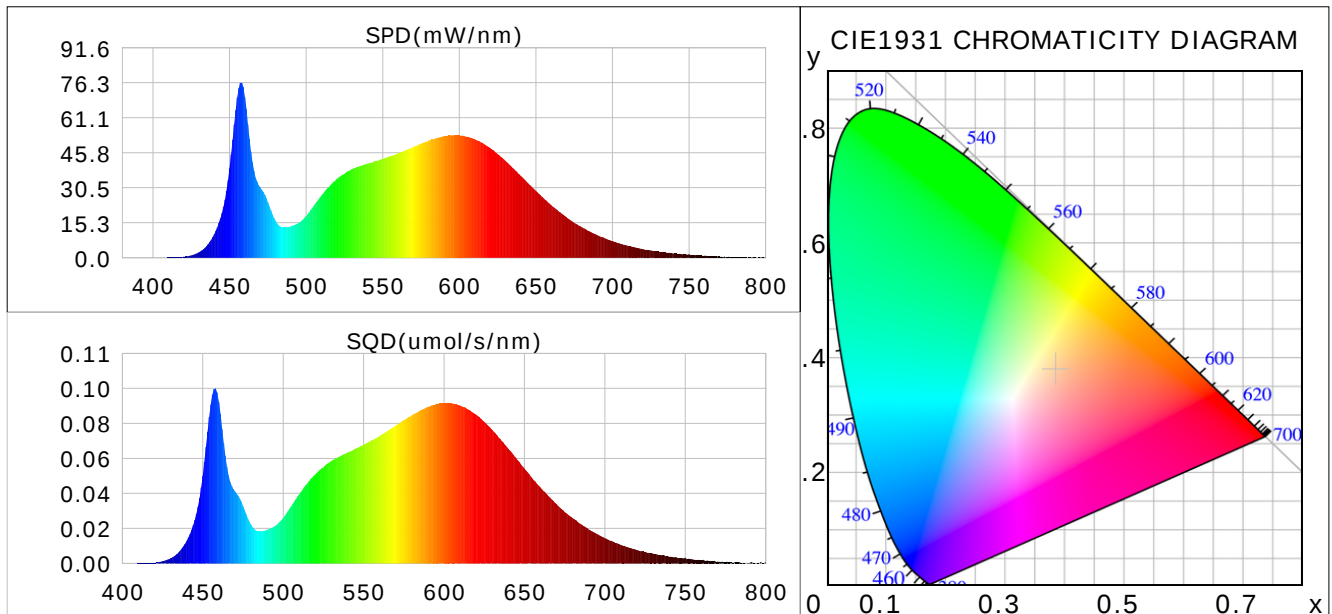
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Plant optical param data

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 Dominant Wavelength: 579.8nm Color Purity: 0.290
 CRI: Ra= 83.2



Plant Optical Param

$\mu_v(lm): 3069.10$	$Q_v(lm.s): 3069.10$
$\mu_e, \dot{E}(W/nm): 9.30$	$Q_e(J): 9.30$
$\mu_e(W): 9.10$	$\mu_{fr}(W): 0.21$
$\dot{C}_e: 0.50$	$\dot{C}_{fr}: 0.01$
$PPE(umol/s/w): 2.34$	$K_{fr}: 0.07$
$Erb_Ratio: 1.56$	$PPF(umol/s): 42.84$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 7.42$
$PPF(500-600)(umol/s): 19.54$	$PPF(600-700)(umol/s): 15.87$
$PF_{fr}(700-800)(umol/s): 1.20$	$PPF.t(umol): 42.84$
$\mu_{ch-A.t}(J): 0.68$	$\mu_{ch-A}(W): 0.68$
$\mu_{ch-B.t}(J): 0.44$	$\mu_{ch-B}(W): 0.44$
$\mu_{b.t}(J): 1.92$	$\mu_b(W): 1.92$
$\mu_{y.t}(J): 4.22$	$\mu_y(W): 4.22$
$\mu_{r.t}(J): 3.04$	$\mu_r(W): 3.04$

Electric Parameters

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Power Factor: 0.9150	Frequency: 49.99Hz	

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