

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-E27-G45-3W-WWM-3790
 Manufacturer: METOLIGHT
 Buyer: 3790

Product Type: LED-Lampen-E27
 Product Number: 1
 Submitted Unit: 100328

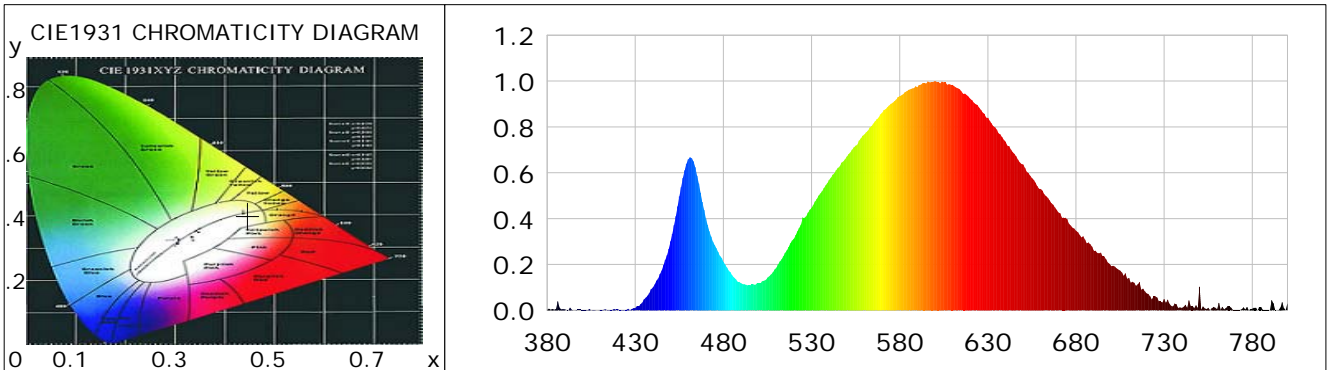
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.4468$ $y=0.4019$ $u(u')=0.2579$ $v=0.3480$ $v'=0.5220$
 CCT: $T_c=2823K$ ($duv=-0.00206$) Color Ratio: $R=0.230$ $G=0.748$ $B=0.022$
 Peak Wavelength: 600.0nm Half Bandwidth: 128.8nm
 Dominant Wavelength: 584.3nm Color Purity: 0.548
 CRI: $R_a = 74.5$, $avgR(1\sim14) = 66.9$, $avgR(1\sim15) = 67.0$ TM30: $R_f = 75$, $R_g = 91$
 GAI: $GAI_BB_8=95.4$, $GAI_BB_15=107.5$, $GAI_EES=49.9$

R1 =72	R2 =86	R3 =94	R4 =65	R5 =69	R6 =79	R7 =79	R8 =51
R9 =0	R10=65	R11=55	R12=50	R13=75	R14=97	R15=68	

Color Quality Scale: $Q_a = 72.8$, $Q_f = 74.0$, $Q_p = 75.9$, $Q_g = 88.7$

Q1 =77	Q2 =95	Q3 =71	Q4 =59	Q5 =65	Q6 =67	Q7 =70	Q8 =77
Q9 =95	Q10=82	Q11=75	Q12=73	Q13=75	Q14=68	Q15=71	



Photometric Parameters

Luminous Flux: 216.65 lm Efficiency: 73.94 lm/W Radiant Power: 0.657 W
 Total mains efficacy: 73.94 lm/W Energy Efficiency Class: G (EU 2019/2015)
 Pupil Flux: 247.25 Plm Pupil Lumens Per Watt: 84.38 Plm/W Pupil Factor (Kp): 1.141
 Circopic Flux: 433.85 lm

Electric Parameters

Voltage: 230.90V Current: 0.0280A Power: 2.93W
 Power Factor: 0.4500 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: 24380 (3212) CCD Integration Time: 1000.00 ms

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

Test Device: Lisun LMS-9000B
 Test Time: 2021-04-28 15:23:00
 Inspector:

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WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0024	0.0107	525	0.4053	1.7895	670	0.4278	1.8890
385	0.0056	0.0247	530	0.4472	1.9749	675	0.3973	1.7543
390	0.0043	0.0188	535	0.5103	2.2532	680	0.3471	1.5325
395	0.0007	0.0030	540	0.5692	2.5134	685	0.3088	1.3638
400	0.0034	0.0151	545	0.6218	2.7456	690	0.2615	1.1549
405	0.0005	0.0020	550	0.6702	2.9595	695	0.2358	1.0411
410	0.0021	0.0093	555	0.7178	3.1696	700	0.1934	0.8538
415	0.0039	0.0170	560	0.7679	3.3906	705	0.1736	0.7665
420	0.0048	0.0210	565	0.8142	3.5952	710	0.1414	0.6242
425	0.0021	0.0094	570	0.8617	3.8048	715	0.1131	0.4995
430	0.0105	0.0464	575	0.9010	3.9785	720	0.0746	0.3295
435	0.0477	0.2105	580	0.9346	4.1271	725	0.0609	0.2688
440	0.0996	0.4399	585	0.9615	4.2455	730	0.0494	0.2181
445	0.1743	0.7697	590	0.9737	4.2996	735	0.0169	0.0746
450	0.3014	1.3311	595	0.9893	4.3684	740	0.0109	0.0479
455	0.4971	2.1952	600	1.0000	4.4157	745	0.0190	0.0837
460	0.6589	2.9094	605	0.9942	4.3899	750	0.1029	0.4542
465	0.5877	2.5950	610	0.9833	4.3419	755	0.0108	0.0475
470	0.4008	1.7698	615	0.9555	4.2192	760	0.0053	0.0236
475	0.2849	1.2580	620	0.9231	4.0763	765	0.0101	0.0446
480	0.2120	0.9362	625	0.8842	3.9043	770	0.0022	0.0098
485	0.1523	0.6725	630	0.8398	3.7083	775	0.0129	0.0569
490	0.1186	0.5238	635	0.7885	3.4816	780	0.0073	0.0324
495	0.1083	0.4781	640	0.7355	3.2479	785	0.0139	0.0613
500	0.1176	0.5191	645	0.6828	3.0151	790	0.0004	0.0018
505	0.1430	0.6314	650	0.6361	2.8090	795	0.0034	0.0152
510	0.1861	0.8219	655	0.5769	2.5473	800	0.0331	0.1461
515	0.2511	1.1089	660	0.5297	2.3391			
520	0.3121	1.3782	665	0.4796	2.1177			

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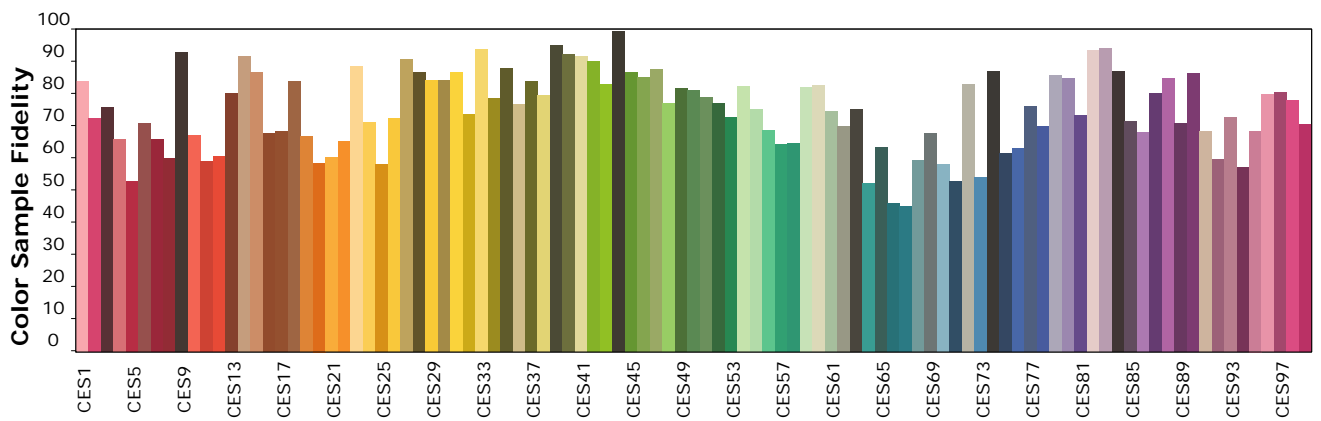
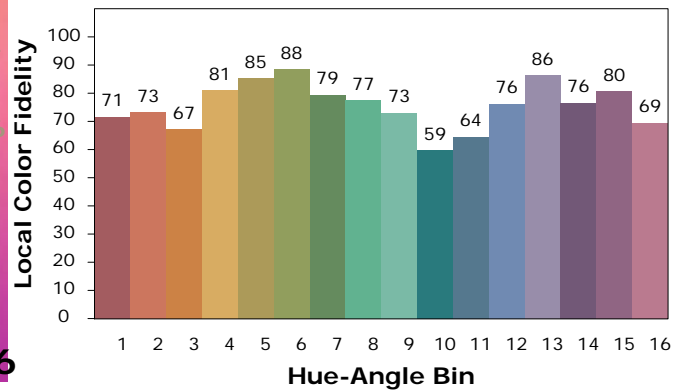
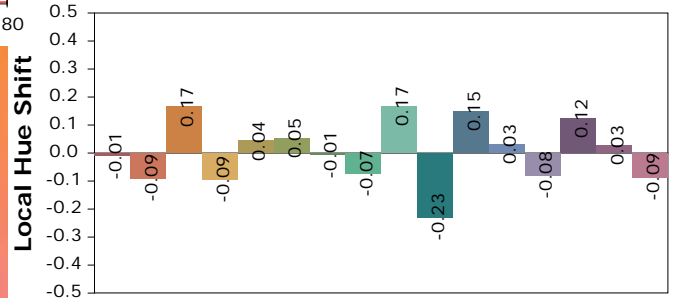
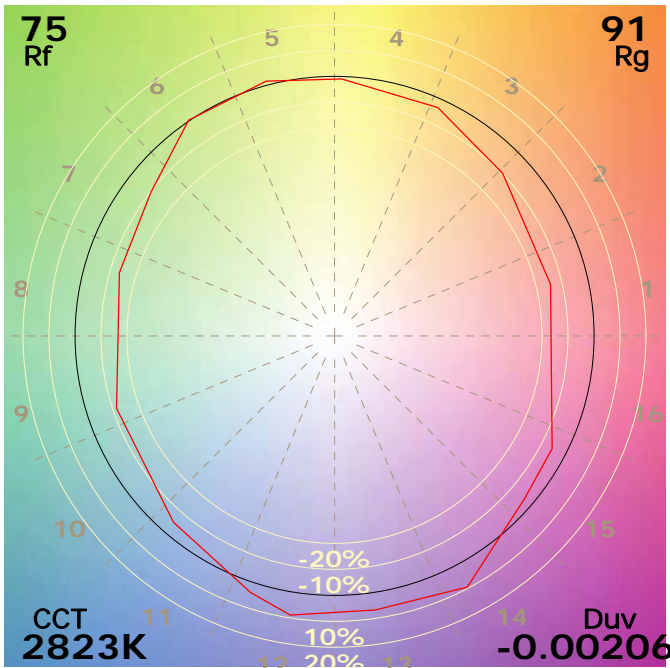
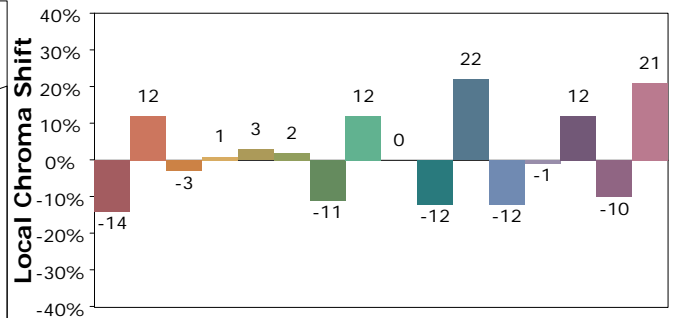
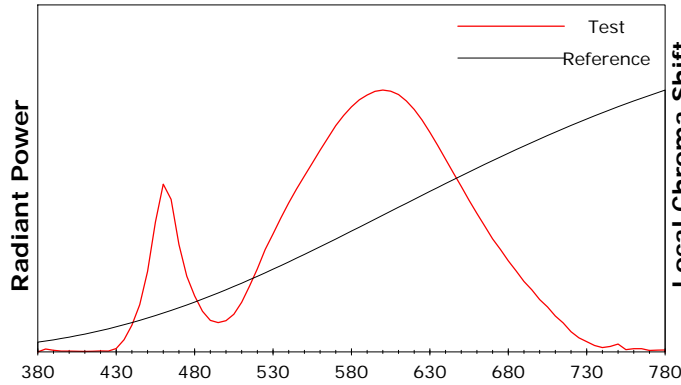
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 Test Time: 2021-04-28 15:23:00
 Inspector:

IES TM-30-18 Color Rendition Report

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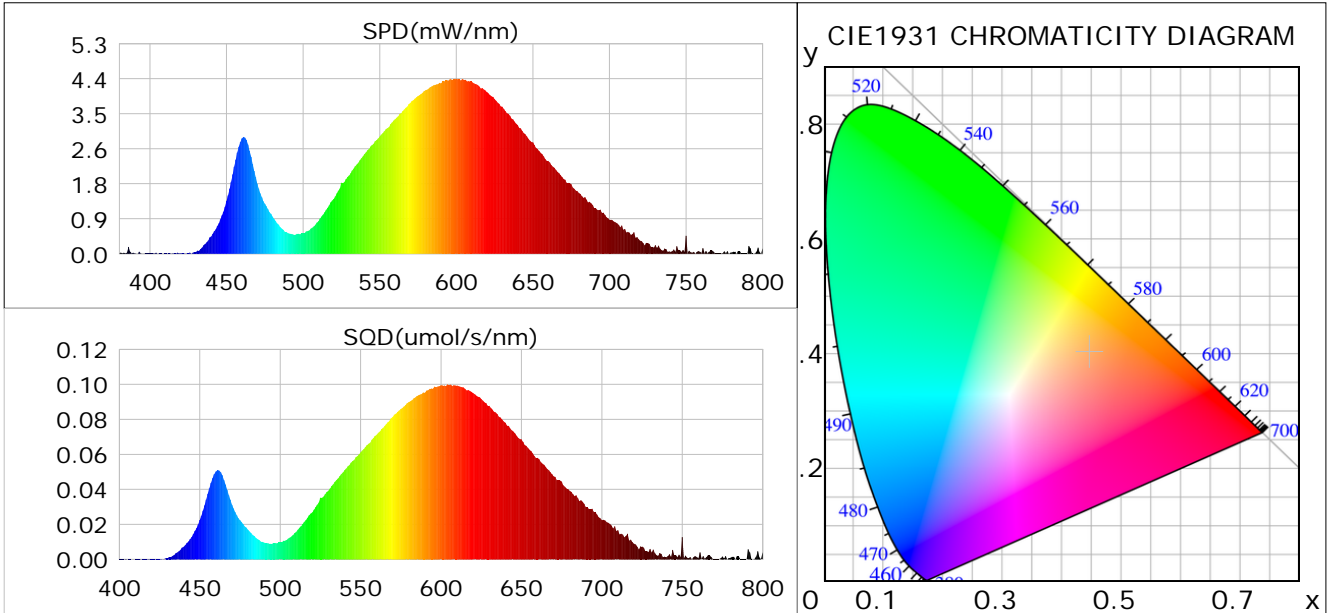
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Plant optical param data

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 Peak Wavelength: 600.0nm Half Bandwidth: 128.8nm
 Dominant Wavelength: 584.3nm Color Purity: 0.548
 CRI: $R_a=74.5$



Plant Optical Param

$ \mu_v(lm): 216.65$	$Q_v(lm.s): 216.65$
$ \mu_e, \dot{E}(W/nm): 0.66$	$Q_e(J): 0.66$
$ \mu_e(W): 0.64$	$ \mu_{fr}(W): 0.02$
$ \zeta_e: 0.22$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 1.06$	$K_{fr}: 0.04$
$Erb_Ratio: 3.33$	$PPF(umol/s): 3.11$
$PF_{uv}(360-400)(umol/s): 0.00$	$PPF(400-500)(umol/s): 0.32$
$PPF(500-600)(umol/s): 1.32$	$PPF(600-700)(umol/s): 1.47$
$PPF_{fr}(700-800)(umol/s): 0.11$	$PPF.t(umol): 3.11$
$ \mu_{ch-A.t}(J): 0.05$	$ \mu_{ch-A}(W): 0.05$
$ \mu_{ch-B.t}(J): 0.03$	$ \mu_{ch-B}(W): 0.03$
$ \mu_b.t(J): 0.08$	$ \mu_b(W): 0.08$
$ \mu_y.t(J): 0.28$	$ \mu_y(W): 0.28$
$ \mu_r.t(J): 0.28$	$ \mu_r(W): 0.28$

Electric Parameters

Voltage: 230.90V	Current: 0.0280A	Power: 2.93W
Power Factor: 0.4500	Frequency: 49.99Hz	

Condition: $T_x:0.0^\circ C$, $T_i:0.0^\circ C$, R.H.: 60%
 Test Lab:
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