

Lightsource Test Report

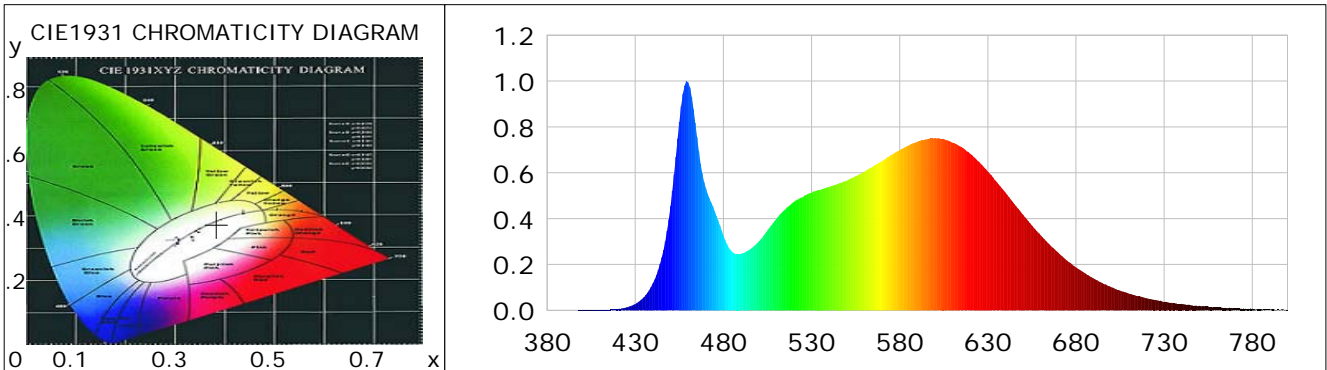
Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG39-E40-63-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 105237

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3838$ $y=0.3745$ $u(u')=0.2282$ $v=0.3340$ $v'=0.5011$
 CCT: $T_c=3893K$ ($duv=-0.00204$) Color Ratio: $R=0.195$ $G=0.763$ $B=0.042$
 Peak Wavelength: 459.3nm Half Bandwidth: 20.8nm
 Dominant Wavelength: 580.6nm Color Purity: 0.276
 CRI: $R_a=85.9$, $avgR(1\sim14)=80.9$, $avgR(1\sim15)=81.0$ TM30: $R_f=82$, $R_g=93$
 GAI: $GAI_BB_8=93.7$, $GAI_BB_15=102.4$, $GAI_EES=72.3$
 R1 =87 R2 =96 R3 =95 R4 =81 R5 =85 R6 =92 R7 =83 R8 =68
 R9 =26 R10=88 R11=81 R12=62 R13=90 R14=99 R15=82
 Color Quality Scale: $Q_a=83.9$, $Q_f=84.1$, $Q_p=83.0$, $Q_g=92.0$
 Q1 =81 Q2 =95 Q3 =84 Q4 =75 Q5 =78 Q6 =80 Q7 =86 Q8 =90
 Q9 =98 Q10=93 Q11=89 Q12=87 Q13=86 Q14=78 Q15=80



Photometric Parameters

Luminous Flux: 9383.2 lm Efficiency: 148.00 lm/W Radiant Power: 29.112 W
 Total mains efficacy: 148.00 lm/W Energy Efficiency Class: D (EU 2019/2015)
 Pupil Flux: 14474.09 Plm Pupil Lumens Per Watt: 228.30 Plm/W Pupil Factor (Kp): 1.543
 Circopic Flux: 30436.95 lm

Electric Parameters

Voltage: 230.90V Current: 0.2860A Power: 63.40W
 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: 47252 (2299) CCD Integration Time: 31.45 ms

Condition: $T_x=20.1^{\circ}C$, $T_i=0.0^{\circ}C$, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 10:35:52
 Inspector:

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG39-E40-63-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 105237

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0001	0.0253	525	0.4930	109.3015	670	0.2516	55.7859
385	0.0004	0.0874	530	0.5130	113.7375	675	0.2165	48.0072
390	0.0005	0.1214	535	0.5249	116.3591	680	0.1874	41.5420
395	0.0007	0.1505	540	0.5383	119.3438	685	0.1625	36.0242
400	0.0007	0.1612	545	0.5518	122.3385	690	0.1395	30.9368
405	0.0011	0.2390	550	0.5661	125.4973	695	0.1185	26.2721
410	0.0021	0.4593	555	0.5862	129.9507	700	0.1010	22.3824
415	0.0030	0.6621	560	0.6050	134.1295	705	0.0862	19.1107
420	0.0060	1.3208	565	0.6293	139.5241	710	0.0732	16.2380
425	0.0129	2.8681	570	0.6511	144.3426	715	0.0619	13.7238
430	0.0278	6.1608	575	0.6772	150.1289	720	0.0525	11.6362
435	0.0579	12.8384	580	0.6993	155.0318	725	0.0455	10.0872
440	0.1174	26.0265	585	0.7184	159.2757	730	0.0373	8.2786
445	0.2313	51.2714	590	0.7353	163.0097	735	0.0314	6.9661
450	0.4551	100.8966	595	0.7462	165.4391	740	0.0280	6.2151
455	0.8222	182.2733	600	0.7517	166.6541	745	0.0230	5.1003
460	0.9940	220.3641	605	0.7476	165.7332	750	0.0196	4.3412
465	0.7556	167.5078	610	0.7315	162.1699	755	0.0170	3.7703
470	0.5329	118.1325	615	0.7133	158.1366	760	0.0131	2.9139
475	0.4333	96.0539	620	0.6831	151.4417	765	0.0111	2.4592
480	0.3261	72.2966	625	0.6477	143.6042	770	0.0087	1.9243
485	0.2543	56.3674	630	0.6048	134.0805	775	0.0083	1.8427
490	0.2465	54.6454	635	0.5600	124.1473	780	0.0073	1.6141
495	0.2658	58.9296	640	0.5133	113.7906	785	0.0058	1.2808
500	0.2997	66.4418	645	0.4638	102.8185	790	0.0035	0.7770
505	0.3486	77.2940	650	0.4161	92.2543	795	0.0042	0.9219
510	0.3993	88.5240	655	0.3704	82.1269	800	0.0028	0.6206
515	0.4398	97.5086	660	0.3273	72.5663			
520	0.4738	105.0506	665	0.2874	63.7169			

Condition: Tx:20.1'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

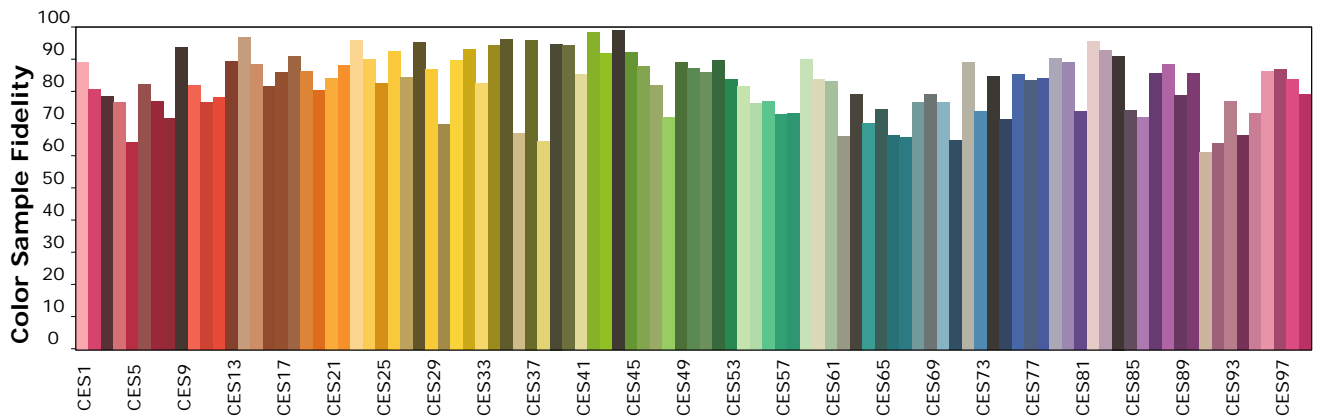
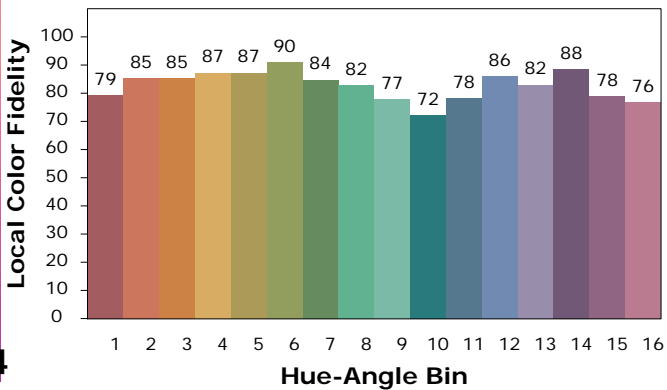
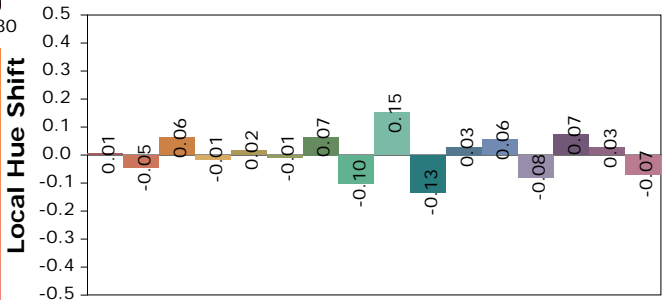
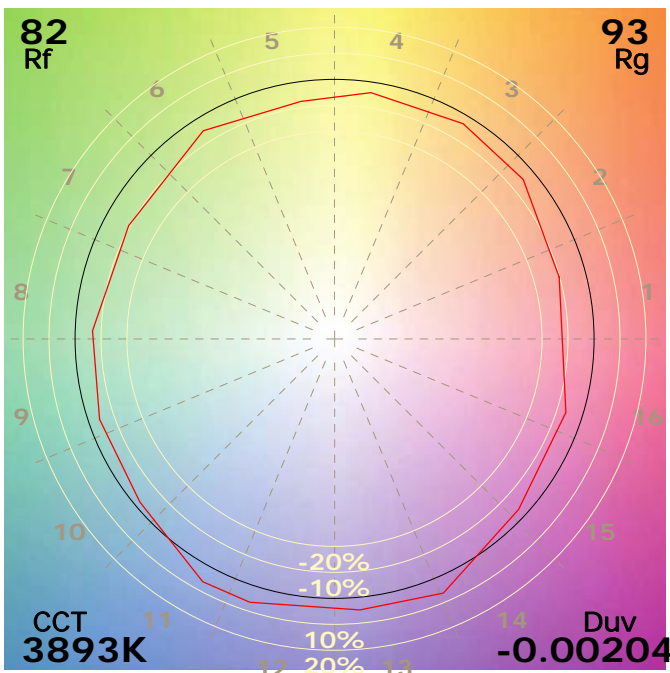
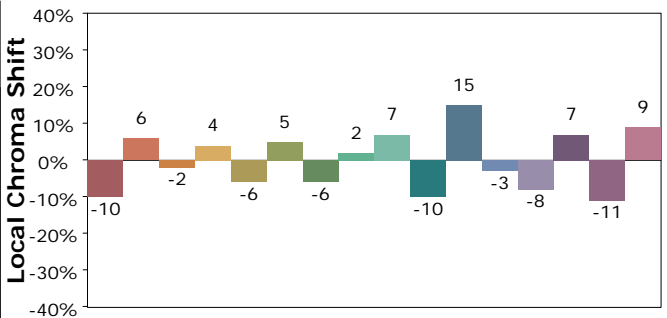
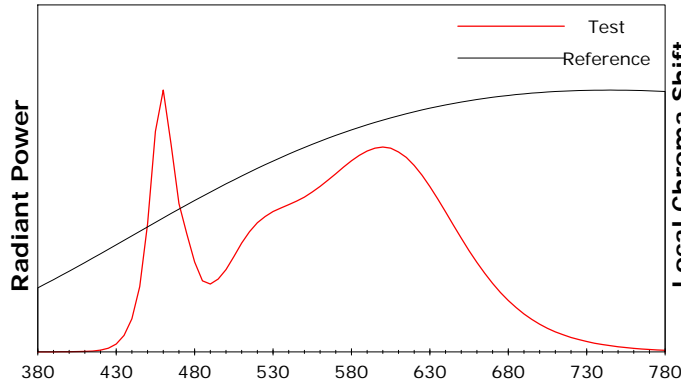
Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 10:35:52
 Inspector:

IES TM-30-18 Color Rendition Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG39-E40-63-NW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 105237



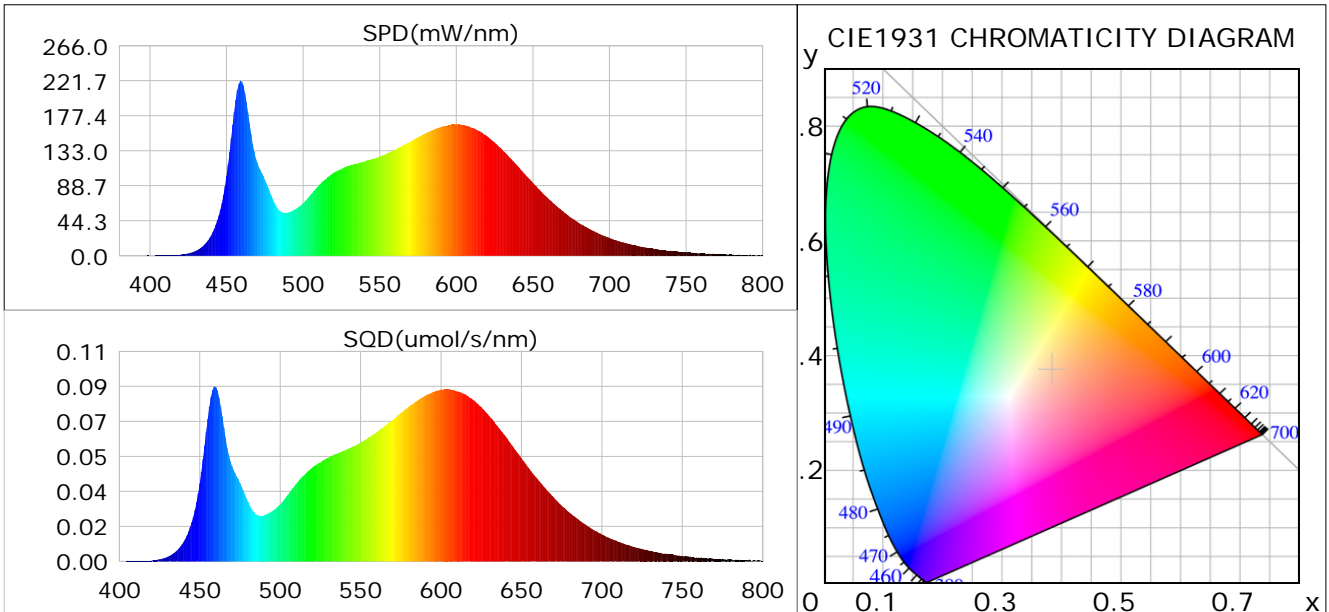
Condition: Tx:20.1°C, Ti:0.0°C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 10:35:52
 Inspector:

Plant optical param data

CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3838$ $y=0.3745$ $u(u')=0.2282$ $v=0.3340$ $v'=0.5011$
 CCT: $T_c=3893K$ ($duv=-0.00204$) Color Ratio: $R=0.195$ $G=0.763$ $B=0.042$
 Peak Wavelength: 459.3nm Half Bandwidth: 20.8nm
 Dominant Wavelength: 580.6nm Color Purity: 0.276
 CRI: $R_a=85.9$



Plant Optical Param

$ \mu_v(lm): 9383.20$	$Q_v(lm.s): 9383.20$
$ \mu_e, \dot{E}(W/nm): 29.11$	$Q_e(J): 29.11$
$ \mu_e(W): 28.49$	$ \mu_{fr}(W): 0.66$
$ \zeta_e: 0.45$	$ \zeta_{fr}: 0.01$
$PPE(umol/s/w): 2.11$	$K_{fr}: 0.06$
$Erb_Ratio: 1.49$	$PPF(umol/s): 133.96$
$PF_{uv}(360-400)(umol/s): 0.01$	$PPF(400-500)(umol/s): 24.71$
$PPF(500-600)(umol/s): 59.17$	$PPF(600-700)(umol/s): 50.07$
$PPF_{fr}(700-800)(umol/s): 3.88$	$PPF.t(umol): 133.96$
$ \mu_{ch-A.t}(J): 2.12$	$ \mu_{ch-A}(W): 2.12$
$ \mu_{ch-B.t}(J): 1.43$	$ \mu_{ch-B}(W): 1.43$
$ \mu_b.t(J): 6.34$	$ \mu_b(W): 6.34$
$ \mu_y.t(J): 12.79$	$ \mu_y(W): 12.79$
$ \mu_r.t(J): 9.59$	$ \mu_r(W): 9.59$

Electric Parameters

Voltage: 230.90V	Current: 0.2860A	Power: 63.40W
Power Factor: 0.9580	Frequency: 49.99Hz	

Condition: $T_x: 20.1^\circ C$, $T_i: 0.0^\circ C$, R.H.: 60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 10:35:52
 Inspector: