

Lightsource Test Report

Product Information

Product Category: LED-Lampen
 Product Spec: LED-SLG35-E40-110-DW
 Manufacturer: METOLIGHT
 Buyer: 3811

Product Type: LED-Strassenlampen
 Product Number: 1
 Submitted Unit: 103788

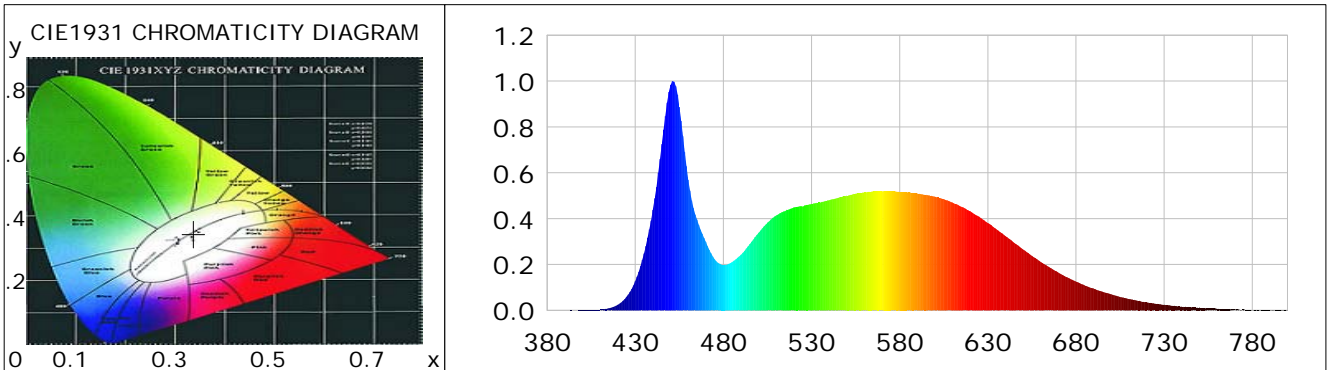
CIE Colorimetric Parameters

Chromaticity coordinates: $x=0.3373$ $y=0.3451$ $u(u')=0.2086$ $v=0.3202$ $v'=0.4803$
 CCT: $T_c=5298K$ ($duv=-0.00003$) Color Ratio: $R=0.157$ $G=0.797$ $B=0.047$
 Peak Wavelength: 451.4nm Half Bandwidth: 20.3nm
 Dominant Wavelength: 566.1nm Color Purity: 0.048
 CRI: $R_a=85.2$, $avgR(1\sim14)=79.1$, $avgR(1\sim15)=79.3$ TM30: $R_f=84$, $R_g=98$
 GAI: $GAI_BB_8=96.6$, $GAI_BB_15=101.4$, $GAI_EES=87.4$

| | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|
| R1 =85 | R2 =89 | R3 =91 | R4 =86 | R5 =85 | R6 =84 | R7 =88 | R8 =74 |
| R9 =24 | R10=73 | R11=86 | R12=63 | R13=86 | R14=95 | R15=81 | |

Color Quality Scale: $Q_a=82.8$, $Q_f=82.3$, $Q_p=84.4$, $Q_g=95.2$

| | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|
| Q1 =87 | Q2 =97 | Q3 =76 | Q4 =74 | Q5 =82 | Q6 =85 | Q7 =88 | Q8 =91 |
| Q9 =96 | Q10=86 | Q11=82 | Q12=82 | Q13=83 | Q14=76 | Q15=80 | |



Photometric Parameters

| | | |
|-----------------------------------|---|--------------------------|
| Luminous Flux: 13492 lm | Efficiency: 124.44 lm/W | Radiant Power: 43.080 W |
| Total mains efficacy: 124.44 lm/W | Energy Efficiency Class: E (EU 2019/2015) | |
| Pupil Flux: 23373.54 Plm | Pupil Lumens Per Watt: 215.58 Plm/W | Pupil Factor (Kp): 1.732 |
| Cirtopic Flux: 51155.50 lm | | |

Electric Parameters

| | | |
|----------------------|--------------------|----------------|
| Voltage: 230.20V | Current: 0.4710A | Power: 108.42W |
| Power Factor: 0.9570 | 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: 55424 (2001) | CCD Integration Time: 90.28 ms |

Condition: Tx:14.2'C, Ti:0.0'C, R.H.:60%
 Test Lab:
 Operator: CRE

Test Device: Lisun LMS-9000B
 Test Time: 2021-02-12 09:45:16
 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 | 0.1617 | 525 | 0.4527 | 180.8494 | 670 | 0.1650 | 65.9086 |
| 385 | 0.0007 | 0.2930 | 530 | 0.4641 | 185.4070 | 675 | 0.1440 | 57.5233 |
| 390 | 0.0006 | 0.2397 | 535 | 0.4703 | 187.8956 | 680 | 0.1263 | 50.4602 |
| 395 | 0.0005 | 0.1869 | 540 | 0.4803 | 191.8946 | 685 | 0.1085 | 43.3655 |
| 400 | 0.0013 | 0.5354 | 545 | 0.4904 | 195.9350 | 690 | 0.0953 | 38.0672 |
| 405 | 0.0019 | 0.7438 | 550 | 0.5002 | 199.8207 | 695 | 0.0816 | 32.6096 |
| 410 | 0.0035 | 1.3983 | 555 | 0.5088 | 203.2821 | 700 | 0.0701 | 27.9933 |
| 415 | 0.0091 | 3.6426 | 560 | 0.5149 | 205.7175 | 705 | 0.0586 | 23.4040 |
| 420 | 0.0242 | 9.6496 | 565 | 0.5195 | 207.5219 | 710 | 0.0498 | 19.8994 |
| 425 | 0.0588 | 23.5080 | 570 | 0.5193 | 207.4433 | 715 | 0.0416 | 16.6169 |
| 430 | 0.1274 | 50.8838 | 575 | 0.5196 | 207.5866 | 720 | 0.0354 | 14.1230 |
| 435 | 0.2481 | 99.1146 | 580 | 0.5165 | 206.3630 | 725 | 0.0293 | 11.6858 |
| 440 | 0.4387 | 175.2789 | 585 | 0.5143 | 205.4491 | 730 | 0.0246 | 9.8443 |
| 445 | 0.7249 | 289.5947 | 590 | 0.5098 | 203.6780 | 735 | 0.0197 | 7.8517 |
| 450 | 0.9832 | 392.8040 | 595 | 0.5038 | 201.2867 | 740 | 0.0162 | 6.4849 |
| 455 | 0.8870 | 354.3713 | 600 | 0.4963 | 198.2709 | 745 | 0.0141 | 5.6281 |
| 460 | 0.5703 | 227.8278 | 605 | 0.4854 | 193.9369 | 750 | 0.0125 | 4.9990 |
| 465 | 0.3959 | 158.1576 | 610 | 0.4698 | 187.7000 | 755 | 0.0088 | 3.5061 |
| 470 | 0.2991 | 119.4757 | 615 | 0.4521 | 180.5954 | 760 | 0.0070 | 2.7866 |
| 475 | 0.2232 | 89.1542 | 620 | 0.4322 | 172.6686 | 765 | 0.0055 | 2.2077 |
| 480 | 0.1978 | 79.0381 | 625 | 0.4088 | 163.3052 | 770 | 0.0040 | 1.5981 |
| 485 | 0.2113 | 84.4116 | 630 | 0.3808 | 152.1443 | 775 | 0.0042 | 1.6781 |
| 490 | 0.2428 | 97.0048 | 635 | 0.3531 | 141.0609 | 780 | 0.0010 | 0.3991 |
| 495 | 0.2897 | 115.7370 | 640 | 0.3238 | 129.3578 | 785 | 0.0013 | 0.5353 |
| 500 | 0.3390 | 135.4115 | 645 | 0.2944 | 117.5946 | 790 | 0.0009 | 0.3450 |
| 505 | 0.3829 | 152.9579 | 650 | 0.2657 | 106.1483 | 795 | 0.0011 | 0.4348 |
| 510 | 0.4145 | 165.5862 | 655 | 0.2380 | 95.0686 | 800 | 0.0037 | 1.4712 |
| 515 | 0.4333 | 173.0999 | 660 | 0.2115 | 84.4995 | | | |
| 520 | 0.4490 | 179.3644 | 665 | 0.1876 | 74.9294 | | | |

Condition: Tx: 14.2°C, Ti: 0.0°C, R.H.: 60%
 Test Lab:
 Operator: CRE

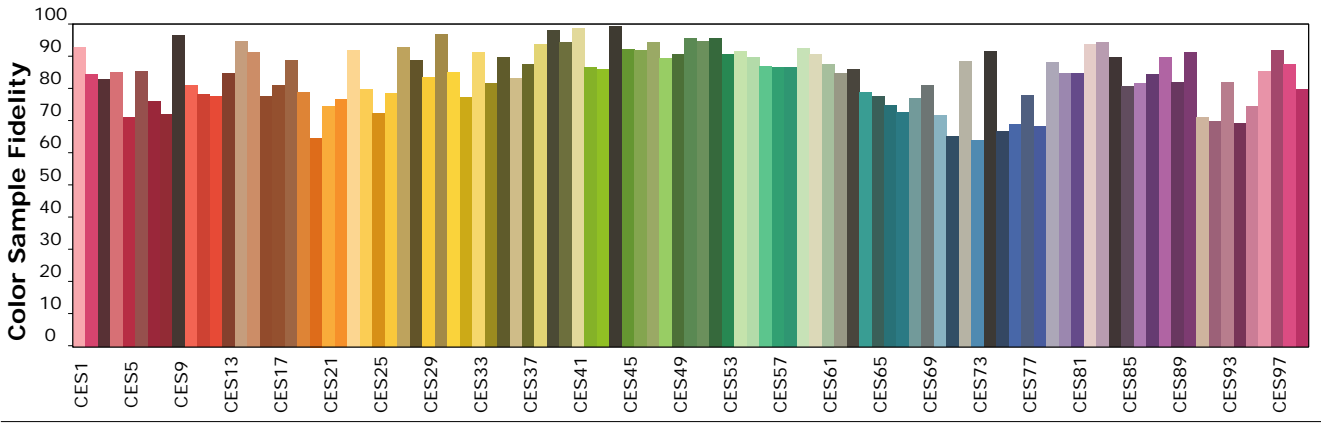
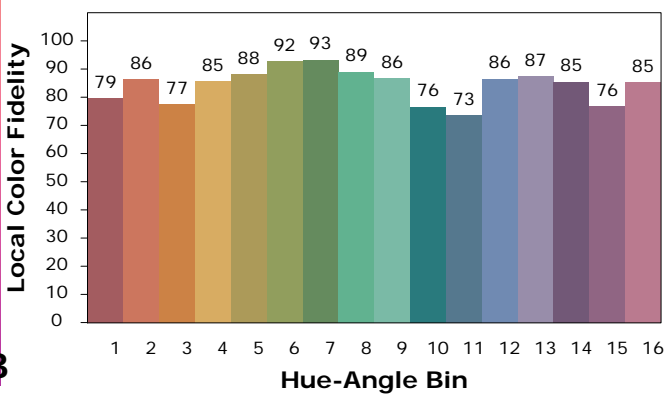
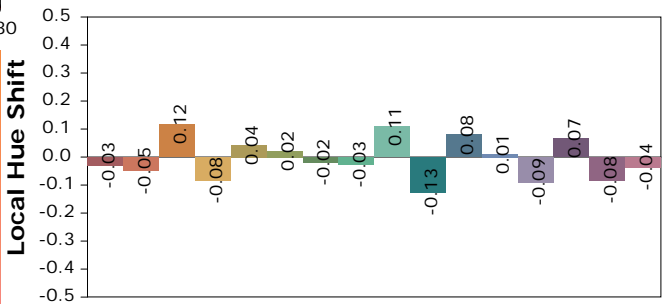
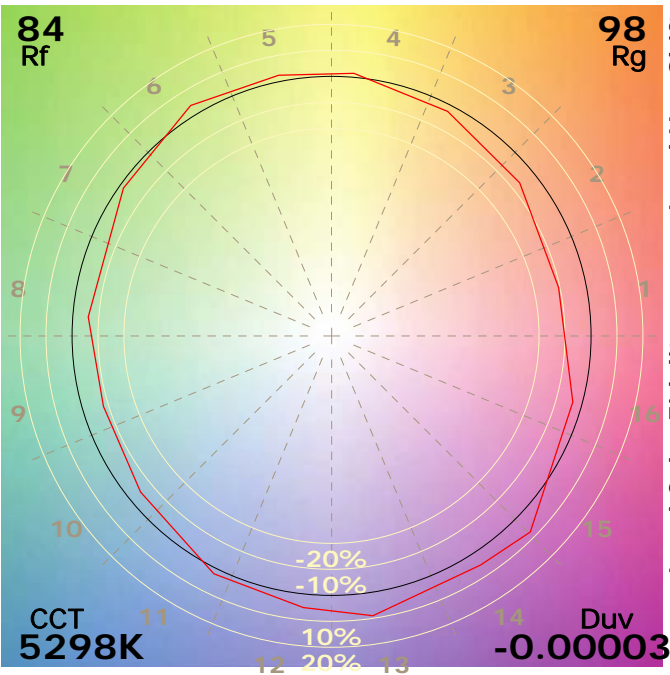
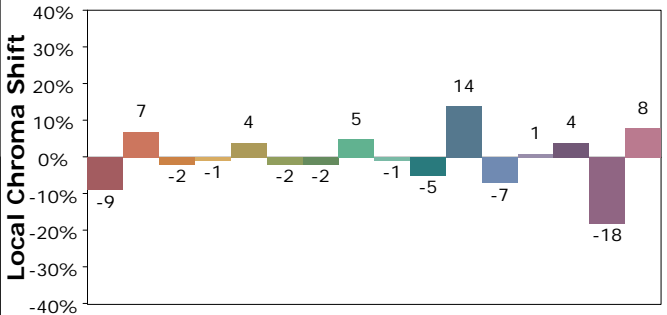
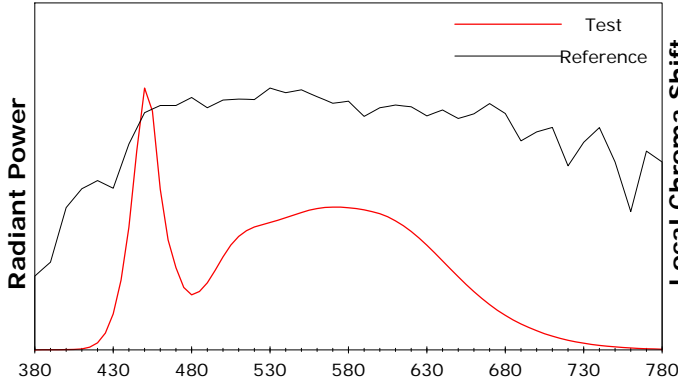
Test Device: Lisun LMS-9000B
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 Inspector:

IES TM-30-18 Color Rendition Report

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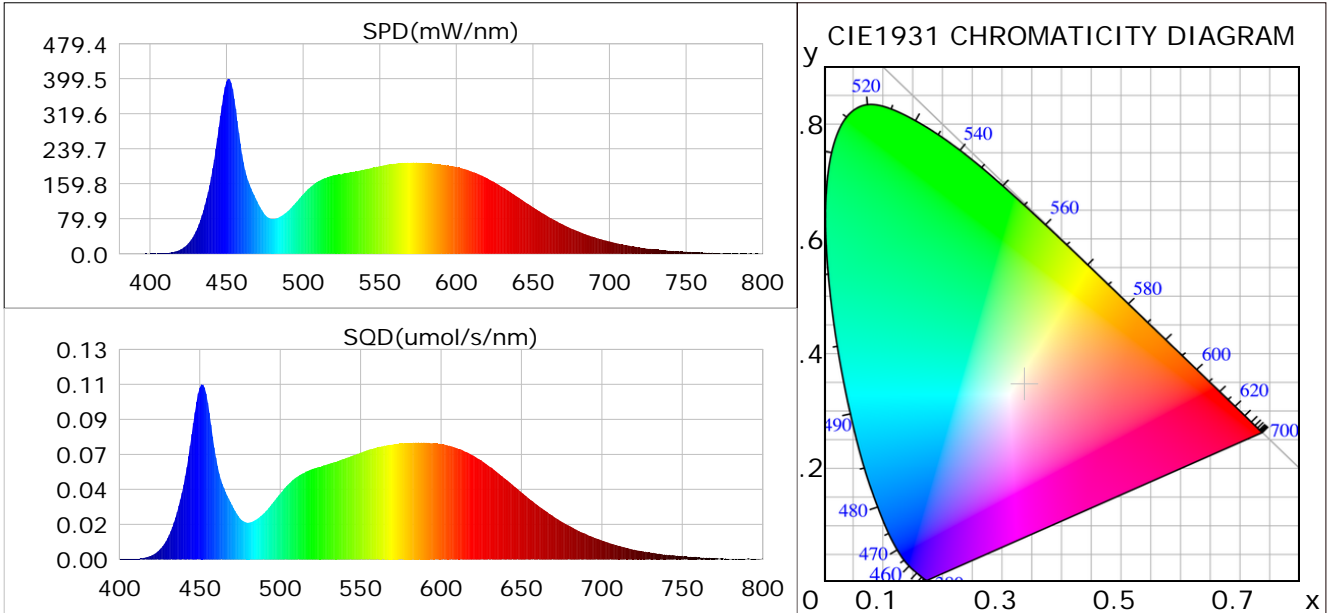
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Test Device: Lisun LMS-9000B
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Plant optical param data

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 Peak Wavelength: 451.4nm Half Bandwidth: 20.3nm
 Dominant Wavelength: 566.1nm Color Purity: 0.048
 CRI: $R_a=85.2$



Plant Optical Param

| | |
|-----------------------------------|-------------------------------|
| $ \mu_v(lm): 13492.00$ | $Q_v(lm.s): 13492.00$ |
| $ \mu_e, \dot{E}(W/nm): 43.08$ | $Q_e(J): 43.08$ |
| $ \mu_e(W): 42.36$ | $ \mu_{fr}(W): 0.76$ |
| $ \zeta_e: 0.39$ | $ \zeta_{fr}: 0.01$ |
| $PPE(umol/s/w): 1.79$ | $K_{fr}: 0.04$ |
| $Erb_Ratio: 0.89$ | $PPF(umol/s): 193.71$ |
| $PF_{uv}(360-400)(umol/s): 0.02$ | $PPF(400-500)(umol/s): 47.04$ |
| $PPF(500-600)(umol/s): 88.65$ | $PPF(600-700)(umol/s): 58.02$ |
| $PPF_{fr}(700-800)(umol/s): 4.44$ | $PPF.t(umol): 193.71$ |
| $ \mu_{ch-A.t}(J): 3.60$ | $ \mu_{ch-A}(W): 3.60$ |
| $ \mu_{ch-B.t}(J): 2.25$ | $ \mu_{ch-B}(W): 2.25$ |
| $ \mu_b.t(J): 12.26$ | $ \mu_b(W): 12.26$ |
| $ \mu_y.t(J): 19.32$ | $ \mu_y(W): 19.32$ |
| $ \mu_r.t(J): 11.11$ | $ \mu_r(W): 11.11$ |

Electric Parameters

| | | |
|----------------------|--------------------|----------------|
| Voltage: 230.20V | Current: 0.4710A | Power: 108.42W |
| Power Factor: 0.9570 | Frequency: 49.99Hz | |

Condition: $T_x: 14.2^\circ C$, $T_i: 0.0^\circ C$, R.H.: 60%
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