

## Lightsource Test Report

### Product Information

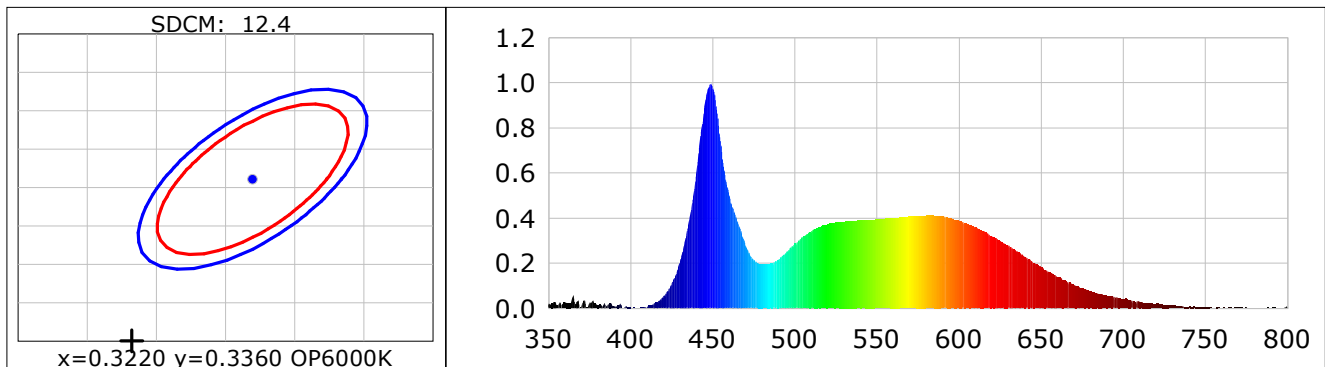
Product Type: 5050+2835 72D 12V IP65 5M  
 Product Number: 1

Product Spec: RGB+WW+CW-CW

### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.3133$   $y=0.3121$   $u(u')=0.2048$   $v=0.3060$   $v'=0.4590$   
 CCT:  $T_c=6618K$  ( $duv=-0.00608$ ) Color Ratio:  $R=0.147$   $G=0.798$   $B=0.055$   
 Peak Wavelength: 448.9nm Half Bandwidth: 21.9nm  
 Dominant Wavelength: 475.8nm Color Purity: 0.088  
 Central Wave: 449.2nm Gravity Wave: 449.0nm  
 CRI:  $R_a=87.1$  TM30:  $R_f=83$ ,  $R_g=100$   
 GAI:  $GAI\_BB\_8=100.2$ ,  $GAI\_BB\_15=103.1$ ,  $GAI\_EES=98.2$

R1 =89	R2 =89	R3 =87	R4 =90	R5 =89	R6 =84	R7 =89	R8 =80
R9 =36	R10=73	R11=91	R12=66	R13=89	R14=93	R15=87	
Color Quality Scale: $Q_a=82.1$ , $Q_f=80.7$ , $Q_p=85.5$ , $Q_g=97.3$							
Q1 =89	Q2 =95	Q3 =74	Q4 =71	Q5 =82	Q6 =88	Q7 =90	Q8 =94
Q9 =92	Q10=82	Q11=78	Q12=78	Q13=81	Q14=77	Q15=82	



### Photometric Parameters

Luminous Flux: 1324.7 lm Efficiency: 91.14 lm/W Radiant Power: 4.485 W  
 Total mains efficacy: 91.14 lm/W Energy Efficiency Class: F (EU 2019/2015)

### Electric Parameters

Voltage: 230.27V Current: 0.0826A Power: 14.53W  
 Power Factor: 0.7646 Frequency: 50.00Hz DF: 0.8663

### Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min ALC.: 1.0000 Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 45026 (3415) CCD Integration Time: 386.82 ms

## Lightsource Test Report

### Product Information

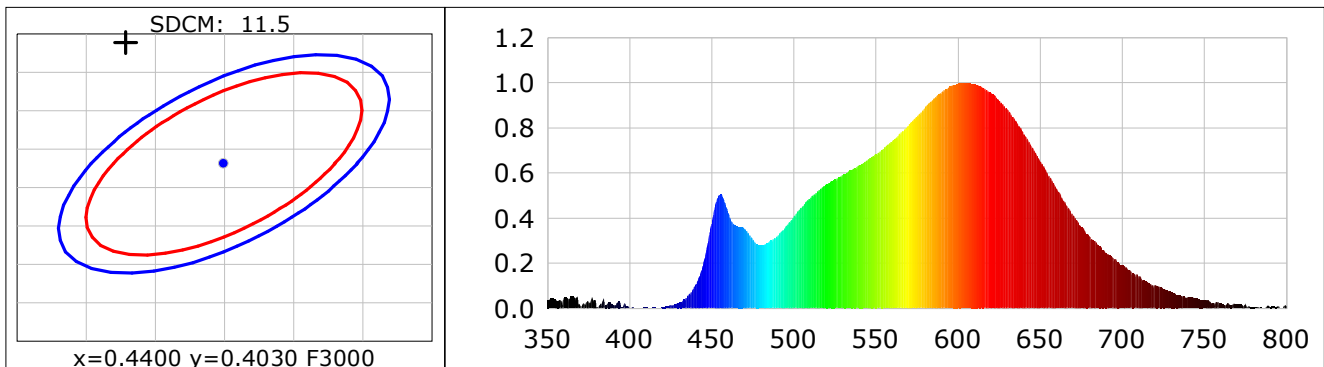
Product Type: 5050+2835 72D 12V IP65 5M  
Product Number: 2

Product Spec: RGB+WW+CW-WW

### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.4329$   $y=0.4188$   $u(u')=0.2419$   $v=0.3509$   $v'=0.5264$   
 CCT:  $T_c=3185K$  ( $duv=0.00641$ ) Color Ratio:  $R=0.219$   $G=0.751$   $B=0.030$   
 Peak Wavelength: 601.8nm Half Bandwidth: 151.5nm  
 Dominant Wavelength: 599.0nm Color Purity: 0.557  
 Central Wave: 587.0nm Gravity Wave: 602.0nm  
 CRI:  $R_a=85.7$  TM30:  $R_f=85$ ,  $R_g=91$   
 GAI:  $GAI\_BB\_8=76.1$ ,  $GAI\_BB\_15=85.4$ ,  $GAI\_EES=47.4$

R1 =84	R2 =92	R3 =98	R4 =83	R5 =84	R6 =92	R7 =86	R8 =67
R9 =22	R10=82	R11=83	R12=68	R13=86	R14=99	R15=77	
Color Quality Scale: $Q_a=85.2$ , $Q_f=87.0$ , $Q_p=84.2$ , $Q_g=86.7$							
Q1 =80	Q2 =92	Q3 =90	Q4 =85	Q5 =84	Q6 =83	Q7 =85	Q8 =89
Q9 =90	Q10=87	Q11=90	Q12=90	Q13=88	Q14=77	Q15=79	



### Photometric Parameters

Luminous Flux: 1390.2 lm Efficiency: 93.00 lm/W Radiant Power: 4.242 W  
 Total mains efficacy: 93.00 lm/W Energy Efficiency Class: F (EU 2019/2015)

### Electric Parameters

Voltage: 230.28V Current: 0.0849A Power: 14.95W  
 Power Factor: 0.7649 Frequency: 50.00Hz DF: 0.8701

### Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min ALC.: 1.0000 Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 42845 (3886) CCD Integration Time: 701.82 ms

## Lightsource Test Report

### Product Information

Product Type: 5050+2835 72D 12V IP65 5M  
 Product Number: 3

Product Spec: RGB+WW+CW-RGB

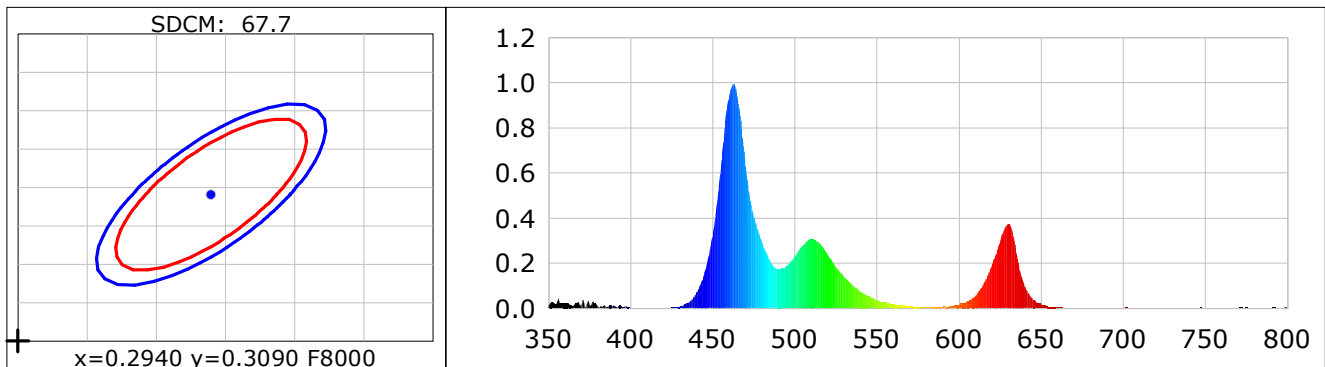
### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.2051$   $y=0.1883$   $u(u')=0.1692$   $v=0.2330$   $v'(v')=0.3495$   
 CCT:  $T_c=100000K$  ( $duv=-0.03491$ ) Color Ratio:  $R=0.203$   $G=0.585$   $B=0.211$   
 Peak Wavelength: 462.8nm Half Bandwidth: 19.3nm  
 Dominant Wavelength: 474.4nm Color Purity: 0.578  
 Central Wave: 462.9nm Gravity Wave: 463.0nm  
 CRI:  $R_a=38.4$  TM30:  $R_f=44$ ,  $R_g=97$   
 GAI:  $GAI\_BB\_8=124.8$ ,  $GAI\_BB\_15=127.9$ ,  $GAI\_EES=135.8$

R1 =34	R2 =30	R3 =26	R4 =70	R5 =55	R6 =28	R7 =47	R8 =18
R9 =-201	R10=-81	R11=72	R12=33	R13=24	R14=57	R15=12	

Color Quality Scale:  $Q_a=42.3$ ,  $Q_f=33.3$ ,  $Q_p=64.1$ ,  $Q_g=121.3$

Q1 =57	Q2 =58	Q3 =53	Q4 =42	Q5 =74	Q6 =89	Q7 =75	Q8 =70
Q9 =45	Q10=18	Q11=4	Q12=8	Q13=35	Q14=71	Q15=54	



### Photometric Parameters

Luminous Flux: 347.93 lm Efficiency: 19.15 lm/W Radiant Power: 1.992 W  
 Total mains efficacy: 19.15 lm/W Energy Efficiency Class: G (EU 2019/2015)

### Electric Parameters

Voltage: 230.26V Current: 0.1003A Power: 18.17W  
 Power Factor: 0.7872 Frequency: 50.00Hz DF: 0.8915

### Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min ALC.: 1.0000 Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 45866 (3403) CCD Integration Time: 376.83 ms

## Lightsource Test Report

### Product Information

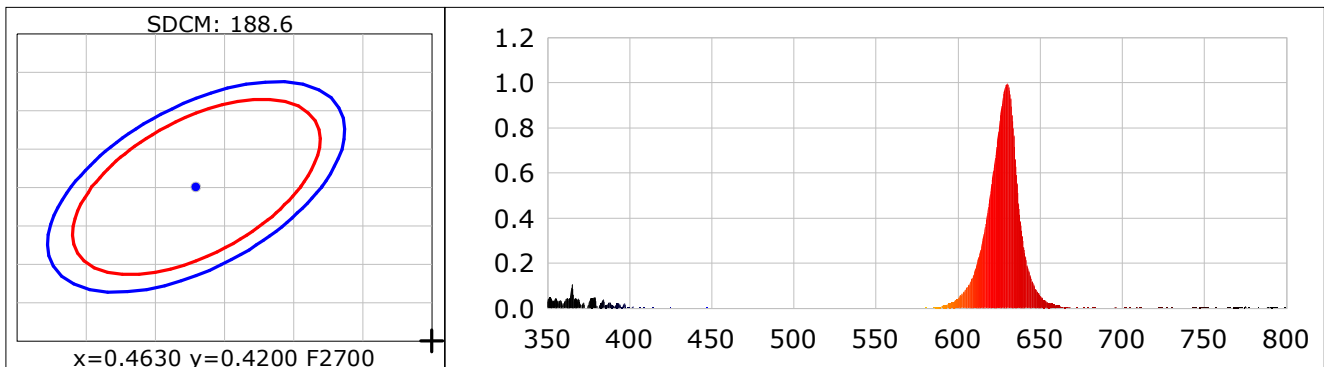
Product Type: 5050+2835 72D 12V IP65 5M  
Product Number: 4

Product Spec: RGB+WW+CW-R

### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.6885$   $y=0.3052$   $u(u')=0.5211$   $v=0.3465$   $v'=0.5197$   
 CCT:  $T_c=1000K$  ( $duv=-0.07343$ ) Color Ratio:  $R=0.958$   $G=0.041$   $B=0.001$   
 Peak Wavelength: 629.9nm Half Bandwidth: 17.1nm  
 Dominant Wavelength: 621.9nm Color Purity: 0.982  
 Central Wave: 628.1nm Gravity Wave: 630.0nm  
 CRI:  $R_a=18.5$  TM30:  $R_f=4$ ,  $R_g=-1$   
 GAI:  $GAI\_BB\_8=63.0$ ,  $GAI\_BB\_15=62.8$ ,  $GAI\_EES=0.5$

R1 =11	R2 =80	R3 =34	R4 =-14	R5 =13	R6 =93	R7 =1	R8 =-69
R9 =-217	R10=75	R11=2	R12=71	R13=34	R14=63	R15=-31	
Color Quality Scale: $Q_a=-1.5$ , $Q_f=-1.5$ , $Q_p=-1.5$ , $Q_g=-1.5$							
Q1 =6	Q2 =12	Q3 =18	Q4 =14	Q5 =12	Q6 =10	Q7 =7	Q8 =0
Q9 =0	Q10=0	Q11=0	Q12=0	Q13=0	Q14=0	Q15=0	



### Photometric Parameters

Luminous Flux: 93.846 lm Efficiency: 9.89 lm/W Radiant Power: 0.464 W  
 Total mains efficacy: 9.89 lm/W Energy Efficiency Class: G (EU 2019/2015)

### Electric Parameters

Voltage: 230.37V Current: 0.0593A Power: 9.49W  
 Power Factor: 0.6943 Frequency: 50.00Hz DF: 0.8063

### Test Information

Scan Range: 350~800:1nm Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min ALC.: 1.0000 Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 45030 (4418) CCD Integration Time: 1119.46 ms

## Lightsource Test Report

### Product Information

Product Type: 5050+2835 72D 12V IP65 5M      Product Spec: RGB+WW+CW-G  
 Product Number: 5

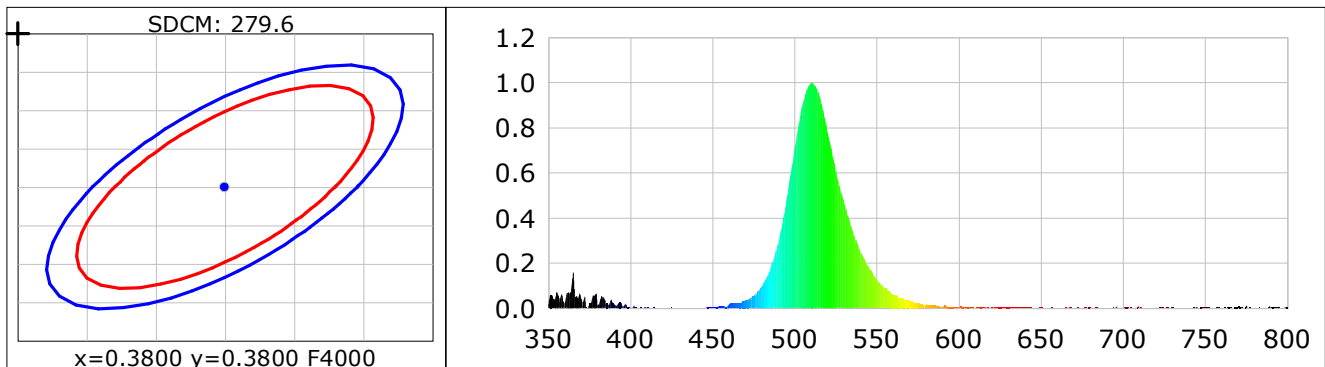
### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.1215$   $y=0.6610$      $u(u')=0.0455$   $v=0.3710$   $v'=0.5566$   
 CCT:  $T_c=9218K$  ( $duv=0.16431$ )      Color Ratio:  $R=0.004$   $G=0.925$   $B=0.071$   
 Peak Wavelength: 510.5nm      Half Bandwidth: 33.4nm  
 Dominant Wavelength: 513.8nm      Color Purity: 0.701  
 Central Wave: 512.2nm      Gravity Wave: 511.0nm  
 CRI:  $R_a=-18.3$       TM30:  $R_f= 2$ ,  $R_g= 11$   
 GAI:  $GAI\_BB\_8=1.7$ ,  $GAI\_BB\_15=2.6$ ,  $GAI\_EES=1.8$

R1 =-31	R2 =-3	R3 =-17	R4 =-56	R5 =-6	R6 =-13	R7 =2	R8 =-22
R9 =-334	R10=-97	R11=-81	R12=-25	R13=-38	R14=40	R15=-26	

Color Quality Scale:  $Q_a= 0.8$ ,  $Q_f= 1.5$ ,  $Q_p= 0.1$ ,  $Q_g= 7.8$

Q1 =3	Q2 =6	Q3 =22	Q4 =39	Q5 =24	Q6 =1	Q7 =0	Q8 =0
Q9 =0	Q10=0	Q11=1	Q12=0	Q13=0	Q14=0	Q15=1	



### Photometric Parameters

Luminous Flux: 220.75 lm      Efficiency: 36.35 lm/W      Radiant Power: 0.577 W  
 Total mains efficacy: 36.35 lm/W      Energy Efficiency Class: G (EU 2019/2015)

### Electric Parameters

Voltage: 230.40V      Current: 0.0450A      Power: 6.07W  
 Power Factor: 0.5853      Frequency: 50.00Hz      DF: 0.6928

### Test Information

Scan Range: 350~800:1nm      Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min    ALC.: 1.0000      Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 48956 (4531)      CCD Integration Time: 1119.46 ms

## Lightsource Test Report

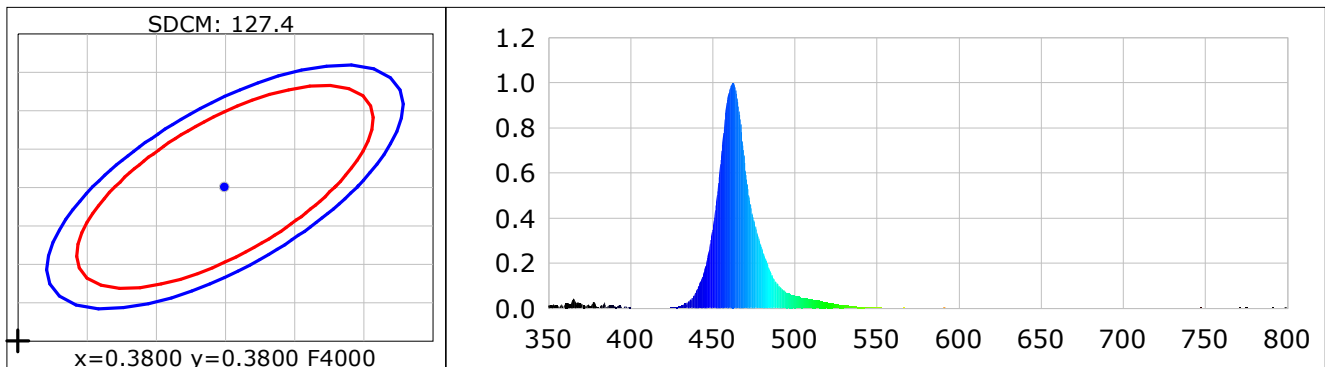
### Product Information

Product Type: 5050+2835 72D 12V IP65 5M      Product Spec: RGB+WW+CW-B  
 Product Number: 6

### CIE Colorimetric Parameters

Chromaticity coordinates:  $x=0.1376$   $y=0.0642$      $u(u')=0.1575$   $v=0.1102$   $v'=0.1654$   
 CCT:  $T_c=100000K$  ( $duv=-0.15741$ )      Color Ratio:  $R=0.007$   $G=0.291$   $B=0.702$   
 Peak Wavelength: 462.5nm      Half Bandwidth: 19.6nm  
 Dominant Wavelength: 468.4nm      Color Purity: 0.953  
 Central Wave: 462.4nm      Gravity Wave: 463.0nm  
 CRI:  $R_a=-38.4$       TM30:  $R_f= 1$ ,  $R_g= 37$   
 GAI:  $GAI\_BB\_8=5.5$ ,  $GAI\_BB\_15=6.9$ ,  $GAI\_EES=6.0$

R1 =-7	R2 =-18	R3 =-110	R4 =-81	R5 =8	R6 =-33	R7 =-34	R8 =-32
R9 =-262	R10=-164	R11=-115	R12=-68	R13=-16	R14=-16	R15=10	
Color Quality Scale: $Q_a= 18.9$ , $Q_f= 22.9$ , $Q_p= 6.8$ , $Q_g= 31.6$							
Q1 =59	Q2 =46	Q3 =24	Q4 =28	Q5 =45	Q6 =63	Q7 =87	Q8 =63
Q9 =11	Q10=2	Q11=1	Q12=1	Q13=3	Q14=5	Q15=41	



### Photometric Parameters

Luminous Flux: 84.853 lm      Efficiency: 12.20 lm/W      Radiant Power: 1.155 W  
 Total mains efficacy: 12.20 lm/W      Energy Efficiency Class: G (EU 2019/2015)

### Electric Parameters

Voltage: 230.40V      Current: 0.0484A      Power: 6.95W  
 Power Factor: 0.6231      Frequency: 50.00Hz      DF: 0.7314

### Test Information

Scan Range: 350~800:1nm      Photometric Method: sphere-photometer (spec\_rev)  
 Stabilization Time: 0 Min    ALC.: 1.0000      Photometric Condition: Sphere diameter: 1.75m, 4π  
 Max of Signal: 45432 (3381)      CCD Integration Time: 331.71 ms