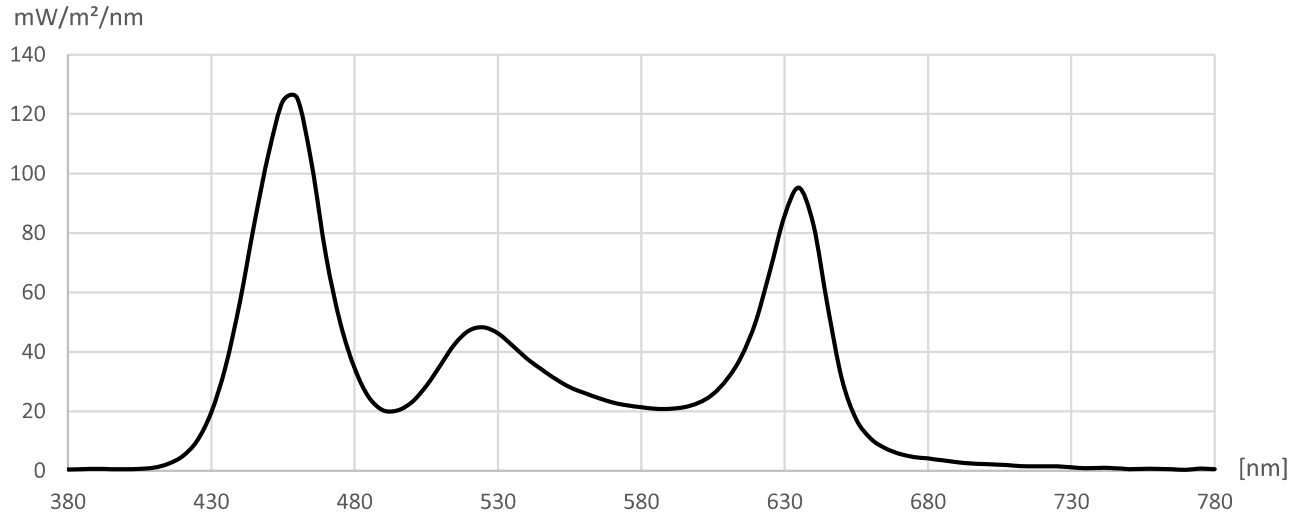
Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / all

Measurement file: 406531_1m_all.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:44:43



R1 = 35,4	Ra = 53,2	
R2 = 69,2	Re = 36,2	
R3 = 72,9	GAI = 151,7	
R4 = 44,1		
R5 = 49,8		
R6 = 69,6		
R7 = 73,5		
R8 = 10,9		
R9 = #####		
R10 = 47,1		
R11 = 33,9		
R12 = 62,8		
R13 = 42,1		
R14 = 78,8		
R15 = 12,1		

Illuminance	2517,3 lx
Ee	10,932 W/m²
LER	230,3 lm/W
correlated color temperature (CCT)	12083 K
Duv	-0,0293
Saturation	30,5 %
Dominant wavelength	#NV
Peak wavelength	458 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x	0,2904
y	0,2490
CIE1976	
u'	0,2148
v'	0,4144
CIE1960	
u	0,2148
v	0,2763
TM30	
Rf	68,5
Rg	116,8

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,38	440	56,89	500	23,15	560	26,16	620	50,47	680	4,12	740	1,00
385	0,55	445	83,17	505	28,58	565	24,50	625	67,51	685	3,48	745	0,87
390	0,63	450	106,95	510	35,68	570	22,98	630	85,78	690	2,88	750	0,55
395	0,56	455	124,40	515	42,63	575	21,97	635	95,19	695	2,47	755	0,60
400	0,51	460	125,38	520	47,21	580	21,36	640	82,92	700	2,19	760	0,67
405	0,61	465	103,38	525	48,23	585	20,84	645	55,18	705	2,06	765	0,51
410	1,01	470	72,29	530	46,25	590	20,82	650	30,97	710	1,68	770	0,34
415	2,36	475	49,62	535	42,11	595	21,40	655	17,28	715	1,50	775	0,71
420	4,90	480	34,35	540	37,86	600	22,84	660	10,89	720	1,51	780	0,53
425	10,08	485	24,75	545	34,24	605	25,77	665	7,57	725	1,43		
430	19,59	490	20,34	550	30,92	610	30,89	670	5,71	730	1,12		
435	35,03	495	20,31	555	28,11	615	38,64	675	4,64	735	0,85		

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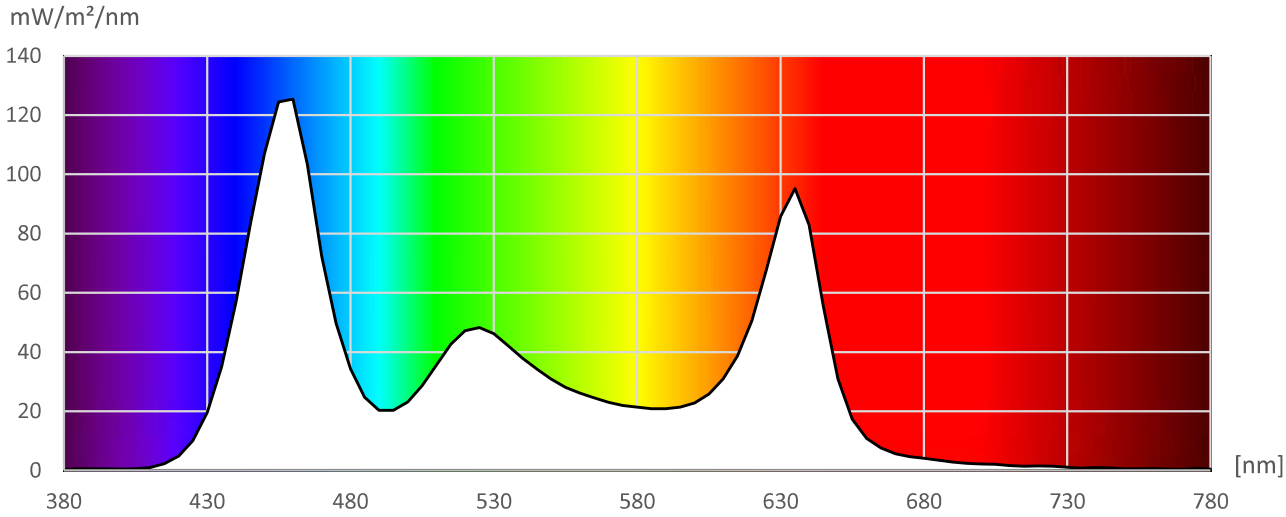
Sebastian Laske

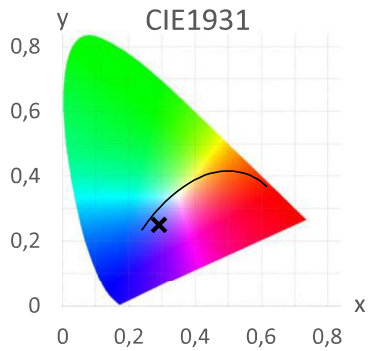
First, last name of inspector

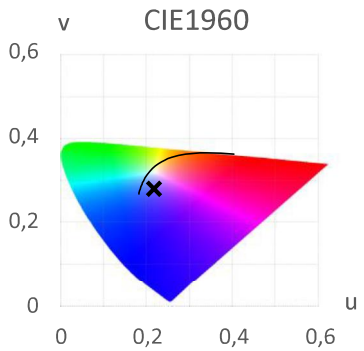
Burgebrach, 11.07.2018

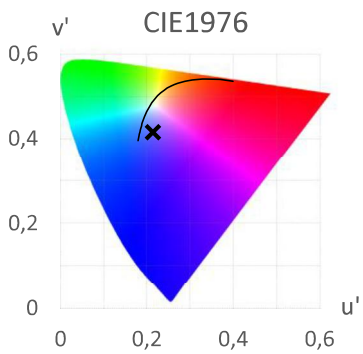
Measurement protocol

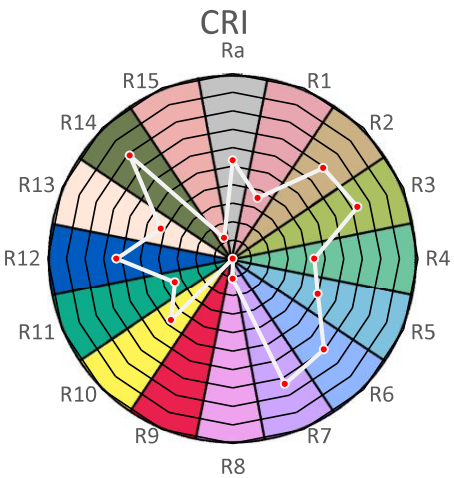
Test object:	Stairville	Measurement file:	406531_1m_all.CS
	Mini Stage Par 7x4W RGBW	Date of measurement:	11.07.2018
	Item 406531 / @ 1 m / all	Time of measurement:	09:44:43

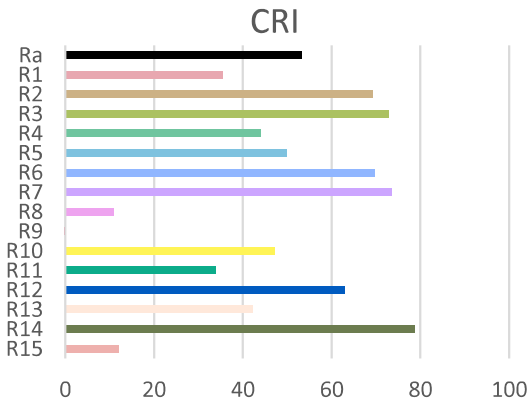












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Sebastian Laske

First, last name of inspector

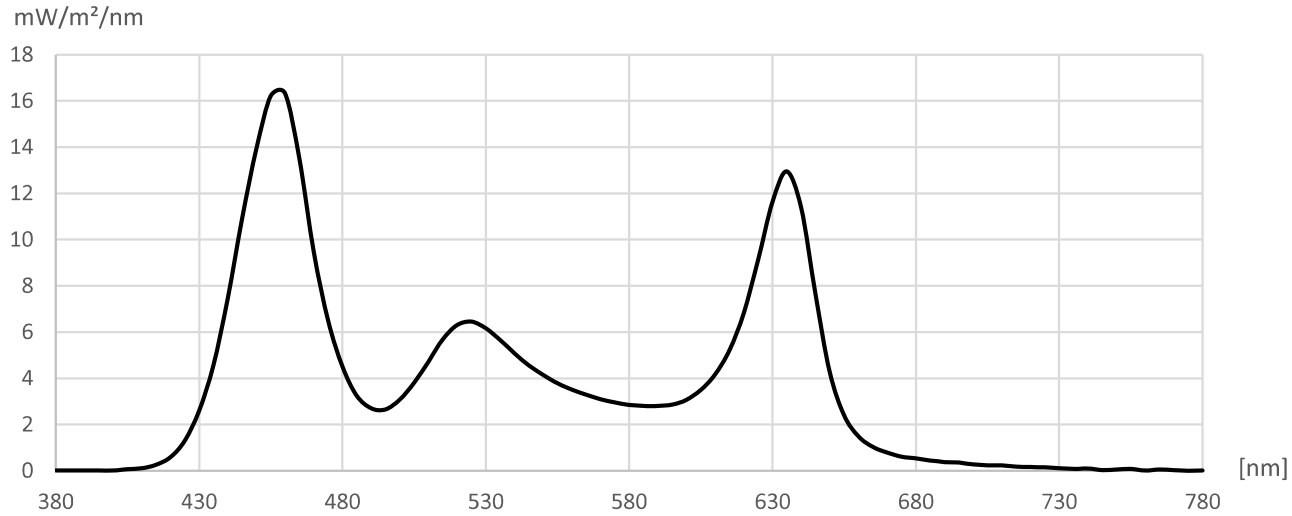
Burgebrach, 11.07.2018

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / all

Measurement file: 406531_3m_all.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:45:12



R1 = 35,0	Ra = 52,6	
R2 = 69,1	Re = 35,7	
R3 = 72,7	GAI = 151,7	
R4 = 43,2		
R5 = 49,0		
R6 = 69,3		
R7 = 73,0		
R8 = 9,6		
R9 = #####		
R10 = 46,9		
R11 = 32,8		
R12 = 63,0		
R13 = 41,8		
R14 = 78,6		
R15 = 11,5		

Illuminance	337,4 lx
Ee	1,451 W/m²
LER	232,6 lm/W
correlated color temperature (CCT)	11059 K
Duv	-0,0297
Saturation	29,2 %
Dominant wavelength	#NV
Peak wavelength	458 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,2935
y = 0,2519
CIE1976
u' = 0,2160
v' = 0,4171
CIE1960
u = 0,2160
v = 0,2781
TM30
Rf = 68,7
Rg = 117,2

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,02	440	7,47	500	3,08	560	3,51	620	6,83	680	0,54	740	0,10
385	0,01	445	10,93	505	3,81	565	3,29	625	9,10	685	0,45	745	0,03
390	0,01	450	13,97	510	4,73	570	3,10	630	11,62	690	0,38	750	0,05
395	0,01	455	16,22	515	5,68	575	2,95	635	12,95	695	0,35	755	0,08
400	0,01	460	16,32	520	6,30	580	2,85	640	11,37	700	0,28	760	0,01
405	0,07	465	13,49	525	6,45	585	2,80	645	7,61	705	0,24	765	0,05
410	0,11	470	9,45	530	6,16	590	2,81	650	4,28	710	0,23	770	0,03
415	0,26	475	6,48	535	5,65	595	2,86	655	2,40	715	0,18	775	0,00
420	0,59	480	4,49	540	5,09	600	3,07	660	1,48	720	0,16	780	0,01
425	1,32	485	3,25	545	4,56	605	3,49	665	1,03	725	0,15		
430	2,58	490	2,70	550	4,15	610	4,17	670	0,79	730	0,12		
435	4,57	495	2,66	555	3,78	615	5,23	675	0,61	735	0,07		

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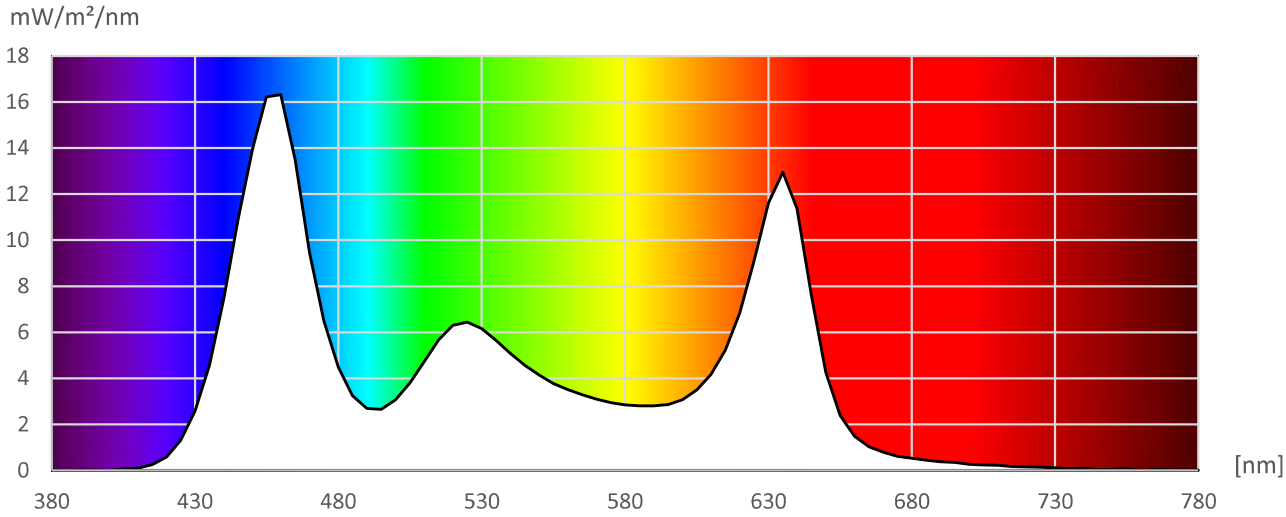
Sebastian Laske

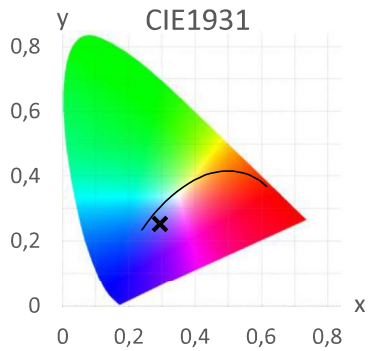
First, last name of inspector

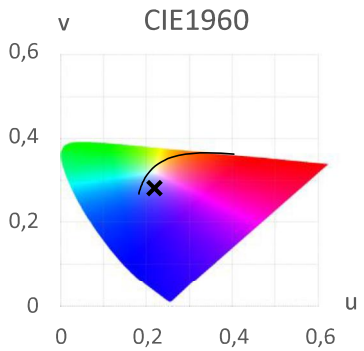
Burgebrach, 11.07.2018

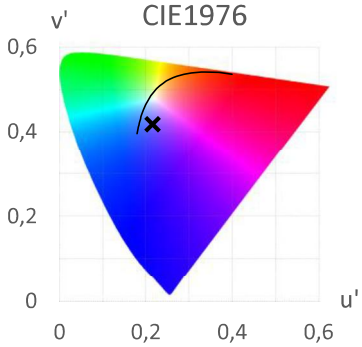
Measurement protocol

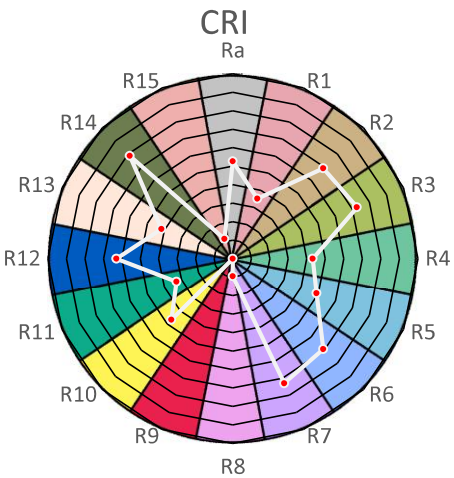
Test object:	Stairville	Measurement file:	406531_3m_all.CS
	Mini Stage Par 7x4W RGBW	Date of measurement:	11.07.2018
	Item 406531 / @ 3 m / all	Time of measurement:	09:45:12

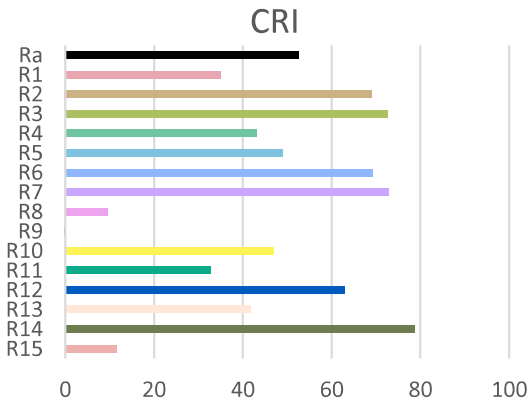












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Sebastian Laske

First, last name of inspector

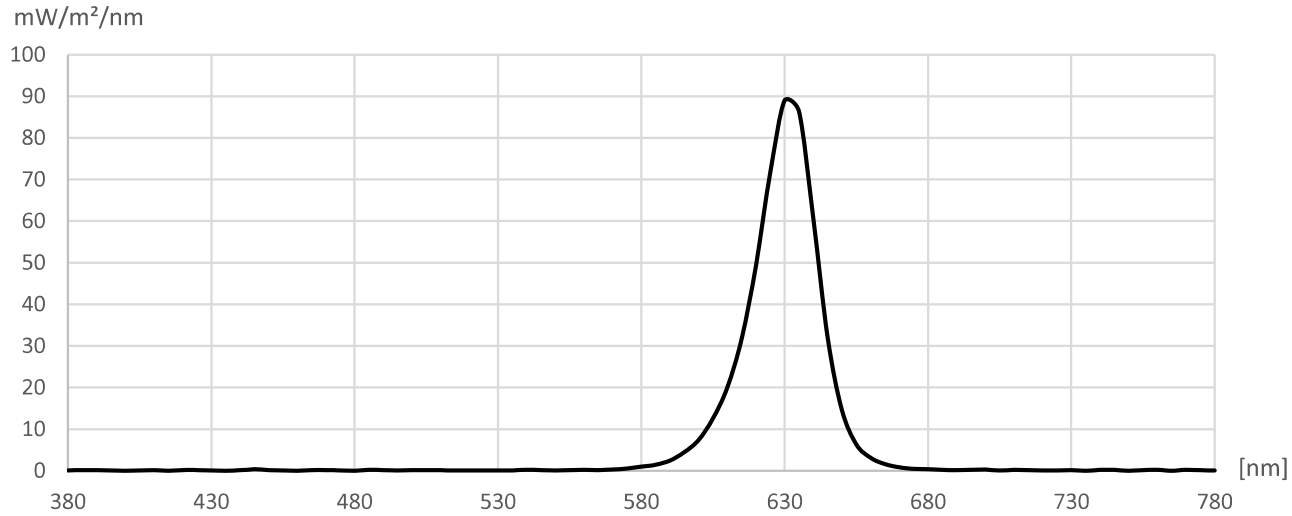
Burgebrach, 11.07.2018

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / red

Measurement file: 406531_1m_r.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:45:28



R1 = -	Ra = -	
R2 = -	Re = -	
R3 = -	GAI = -	
R4 = -		
R5 = -		
R6 = -		
R7 = -		
R8 = -		
R9 = -		
R10 = -		
R11 = -		
R12 = -		
R13 = -		
R14 = -		
R15 = -		

Illuminance	502,24 lx
Ee	2,525 W/m²
LER	198,9 lm/W
correlated color temperature (CCT)	< 1600 K
Duv	-
Saturation	98,3 %
Dominant wavelength	625 nm
Peak wavelength	632 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,6867
y = 0,3079

CIE1976
u' = 0,5161
v' = 0,5208

CIE1960
u = 0,5161
v = 0,3472

TM30
Rf = -
Rg = -

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,08	440	0,12	500	0,13	560	0,20	620	49,44	680	0,40	740	0,20
385	0,16	445	0,34	505	0,14	565	0,17	625	71,53	685	0,20	745	0,19
390	0,15	450	0,17	510	0,11	570	0,27	630	88,95	690	0,12	750	0,00
395	0,07	455	0,06	515	0,08	575	0,55	635	86,36	695	0,22	755	0,16
400	0,01	460	0,02	520	0,03	580	0,96	640	60,59	700	0,26	760	0,21
405	0,08	465	0,11	525	0,09	585	1,42	645	31,89	705	0,05	765	0,02
410	0,15	470	0,18	530	0,09	590	2,46	650	14,69	710	0,19	770	0,20
415	0,02	475	0,09	535	0,09	595	4,42	655	6,39	715	0,13	775	0,12
420	0,16	480	0,02	540	0,21	600	7,39	660	3,12	720	0,08	780	0,07
425	0,16	485	0,18	545	0,18	605	12,55	665	1,59	725	0,05		
430	0,06	490	0,17	550	0,03	610	20,02	670	0,82	730	0,14		
435	0,01	495	0,09	555	0,13	615	31,77	675	0,43	735	0,01		

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Sebastian Laske

First, last name of inspector

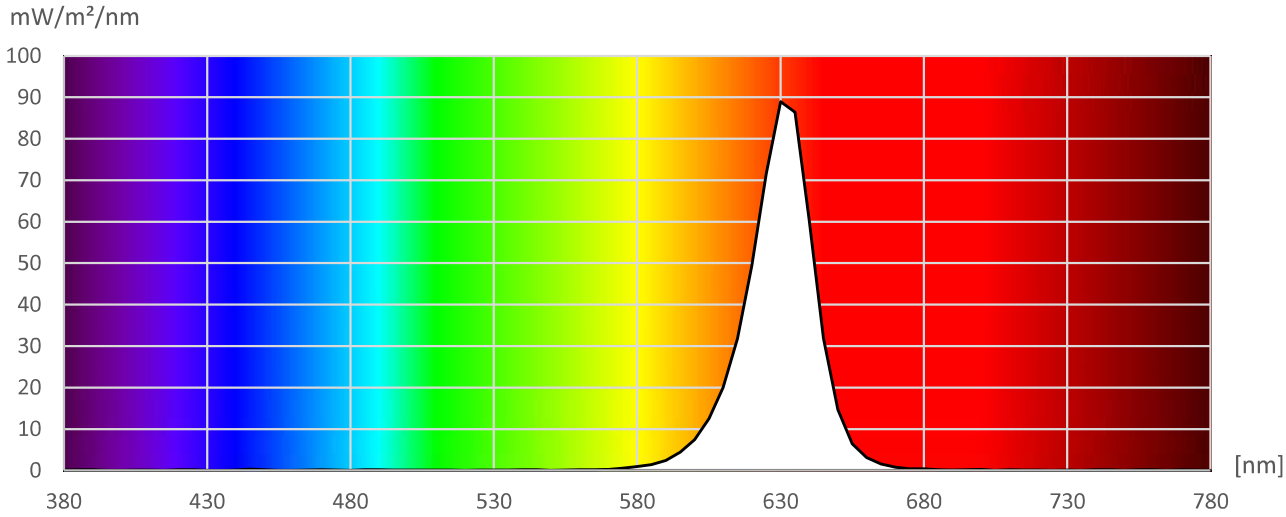
Burgebrach, 11.07.2018

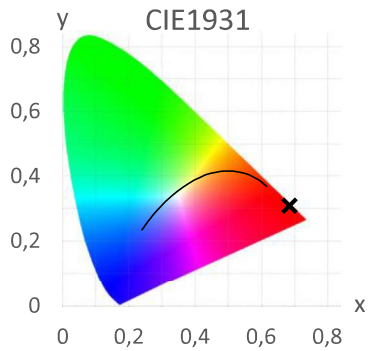
Measurement protocol

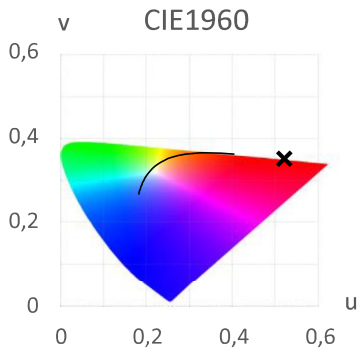
th•mann

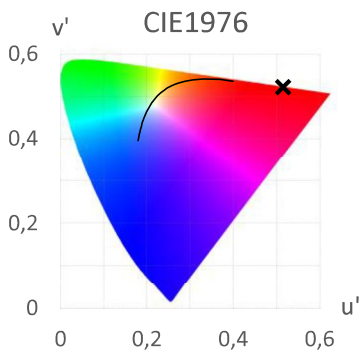
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / red

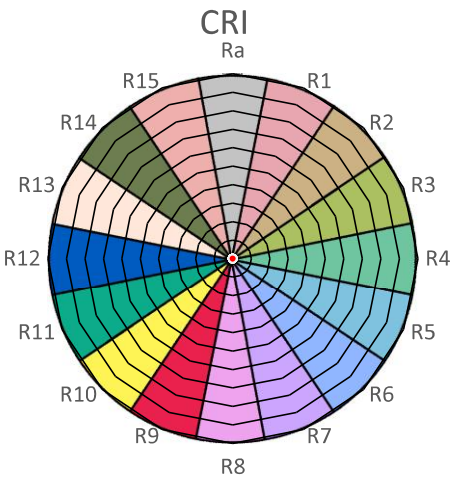
Measurement file: 406531_1m_r.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:45:28

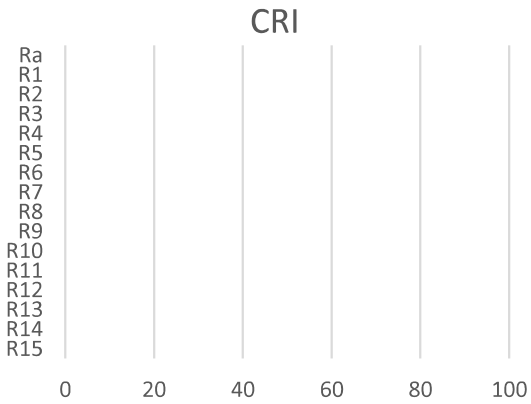












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Burgebrach, 11.07.2018

Sebastian Laske

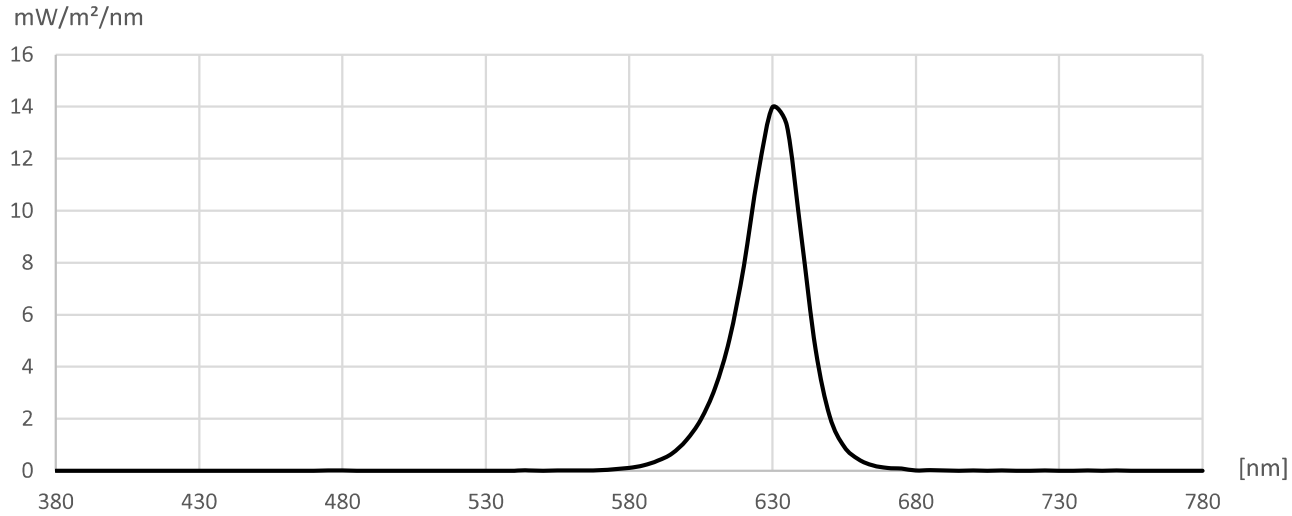
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / red

Measurement file: 406531_3m_r.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:45:52



R1 = -	Ra = -	
R2 = -	Re = -	
R3 = -	GAI = -	
R4 = -		
R5 = -		
R6 = -		
R7 = -		
R8 = -		
R9 = -		
R10 = -		
R11 = -		
R12 = -		
R13 = -		
R14 = -		
R15 = -		

Illuminance	77,65 lx
Ee	0,386 W/m²
LER	201,4 lm/W
correlated color temperature (CCT)	< 1600 K
Duv	-
Saturation	99,7 %
Dominant wavelength	625 nm
Peak wavelength	630 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x =	0,6915
y =	0,3080
CIE1976	
u' =	0,5206
v' =	0,5218
CIE1960	
u =	0,5206
v =	0,3478
TM30	
Rf =	-
Rg =	-

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,00	440	0,00	500	0,00	560	0,01	620	7,88	680	0,01	740	0,01
385	0,00	445	0,00	505	0,00	565	0,01	625	11,40	685	0,02	745	0,00
390	0,00	450	0,00	510	0,00	570	0,02	630	13,98	690	0,01	750	0,01
395	0,00	455	0,00	515	0,00	575	0,06	635	13,27	695	0,00	755	0,00
400	0,00	460	0,00	520	0,00	580	0,11	640	9,06	700	0,01	760	0,00
405	0,00	465	0,00	525	0,00	585	0,21	645	4,67	705	0,00	765	0,00
410	0,00	470	0,00	530	0,00	590	0,38	650	2,10	710	0,01	770	0,00
415	0,00	475	0,01	535	0,00	595	0,66	655	0,93	715	0,00	775	0,00
420	0,00	480	0,01	540	0,00	600	1,18	660	0,44	720	0,00	780	0,00
425	0,00	485	0,00	545	0,02	605	1,97	665	0,20	725	0,01		
430	0,00	490	0,00	550	0,00	610	3,19	670	0,11	730	0,00		
435	0,00	495	0,00	555	0,01	615	5,07	675	0,08	735	0,00		

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Sebastian Laske

First, last name of inspector

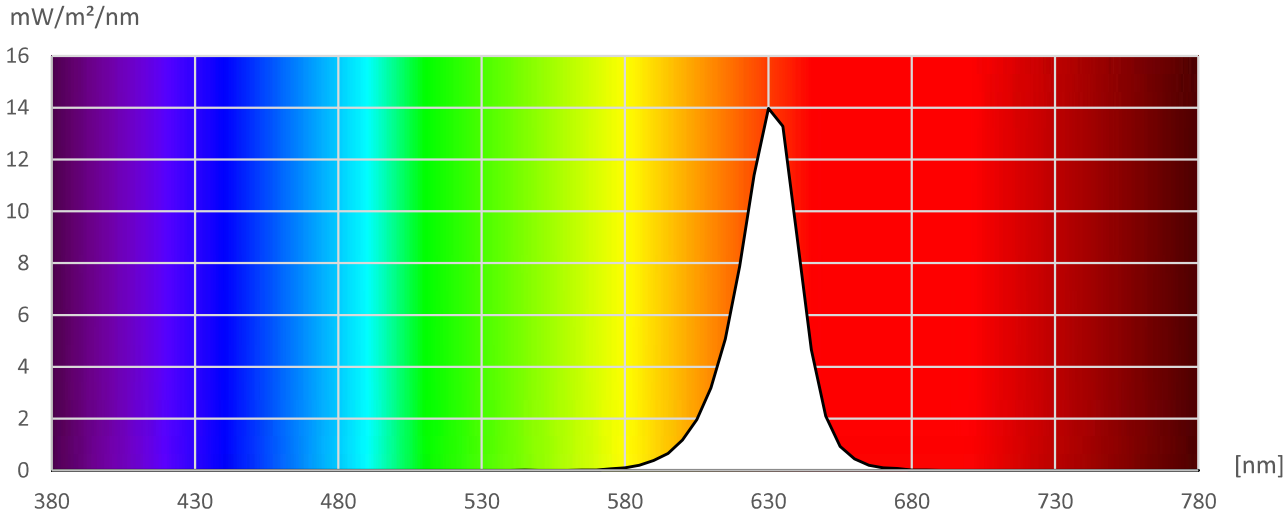
Burgebrach, 11.07.2018

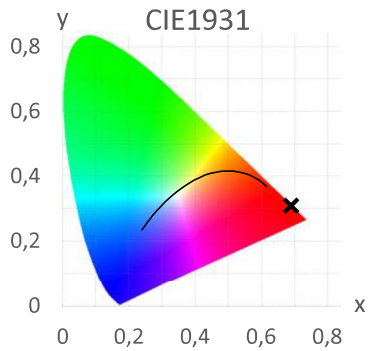
Measurement protocol

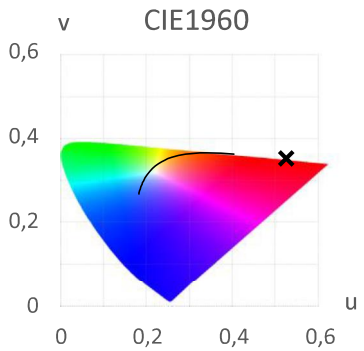
th•mann

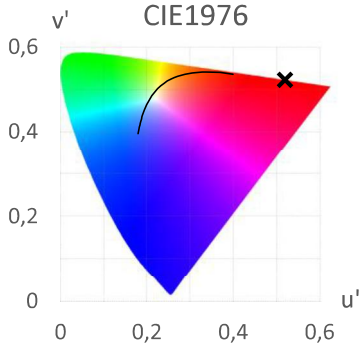
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / red

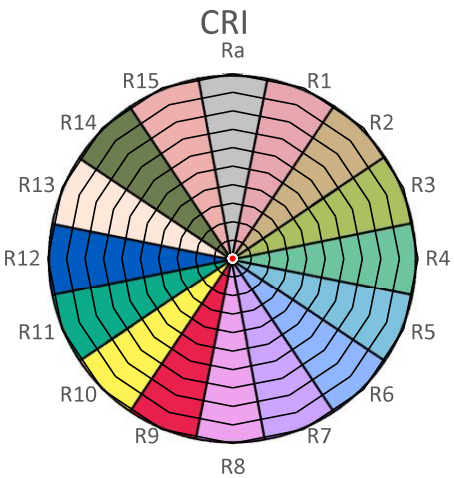
Measurement file: 406531_3m_r.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:45:52

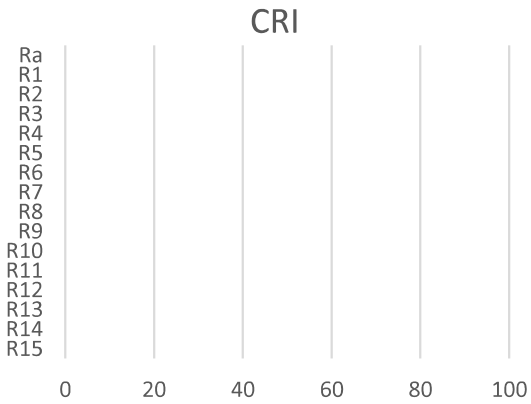












Thomann GmbH
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Burgebrach, 11.07.2018

Sebastian Laske

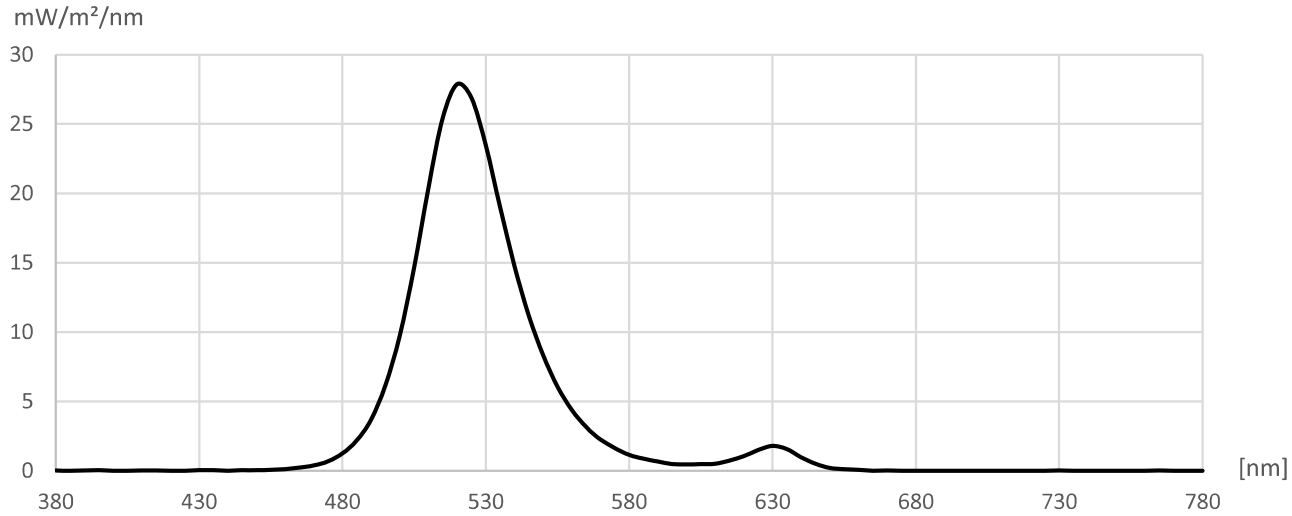
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / green

Measurement file: 406531_1m_g.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:46:18



R1	= -21,7	Ra	= -13,9	Illuminance	591,94 lx	CIE1931	
R2	= -0,3	Re	= -39,1	Ee	1,237 W/m²	x	= 0,1929
R3	= -10,8	GAI	= 1,7	LER	478,4 lm/W	y	= 0,7010
R4	= -52,8						
R5	= -0,6			correlated color temperature (CCT)	7557 K	CIE1976	
R6	= -6,7			Duv	0,1483	u'	= 0,0700
R7	= 0,2					v'	= 0,5722
R8	= -18,0			Saturation	75,5 %		
R9	= #####					CIE1960	
R10	= -88,2			Dominant wavelength	527 nm	u	= 0,0700
R11	= -79,7			Peak wavelength	519 nm	v	= 0,3815
R12	= -20,1						
R13	= -28,8			Flicker frequency	% < 2.5 Hz	TM30	
R14	= 45,5			Percent Flicker	< 2.5 %	Rf	= 3,5
R15	= -26,5			Flicker index	% < 2.5	Rg	= 16,3

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,01	440	0,00	500	9,76	560	4,38	620	1,06	680	0,00	740	0,00
385	0,00	445	0,04	505	14,70	565	3,14	625	1,48	685	0,00	745	0,00
390	0,02	450	0,03	510	20,45	570	2,26	630	1,79	690	0,00	750	0,00
395	0,04	455	0,06	515	25,43	575	1,64	635	1,56	695	0,00	755	0,01
400	0,00	460	0,12	520	27,87	580	1,14	640	0,97	700	0,00	760	0,00
405	0,00	465	0,24	525	26,88	585	0,87	645	0,49	705	0,00	765	0,01
410	0,02	470	0,38	530	23,45	590	0,66	650	0,20	710	0,00	770	0,00
415	0,02	475	0,68	535	18,95	595	0,49	655	0,11	715	0,00	775	0,00
420	0,00	480	1,25	540	14,79	600	0,45	660	0,06	720	0,00	780	0,00
425	0,00	485	2,17	545	11,20	605	0,47	665	0,00	725	0,00		
430	0,05	490	3,68	550	8,33	610	0,51	670	0,01	730	0,02		
435	0,04	495	6,17	555	6,06	615	0,74	675	0,00	735	0,00		

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First, last name of inspector

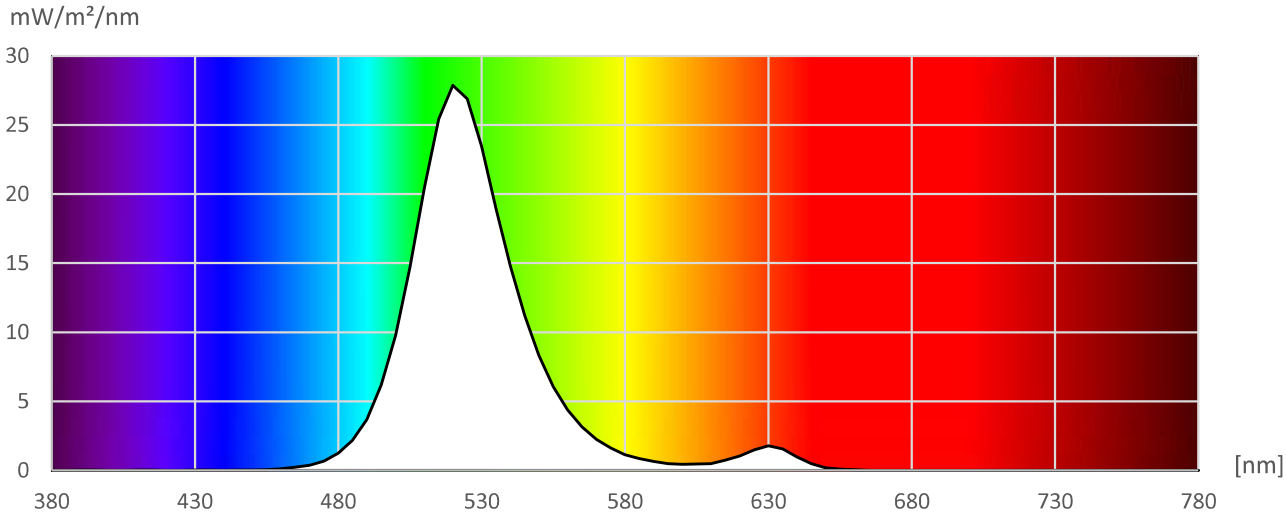
Burgebrach, 11.07.2018

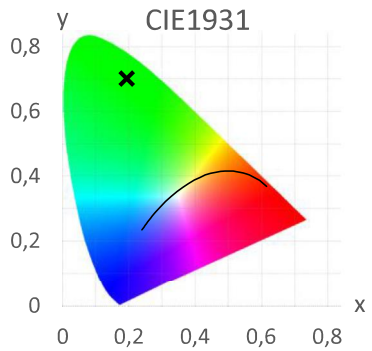
Measurement protocol

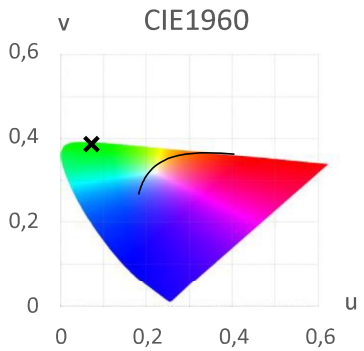
th•mann

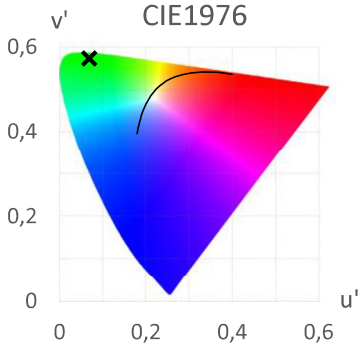
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / green

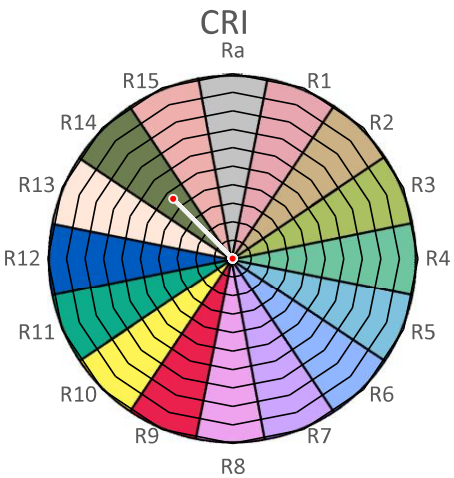
Measurement file: 406531_1m_g.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:46:18

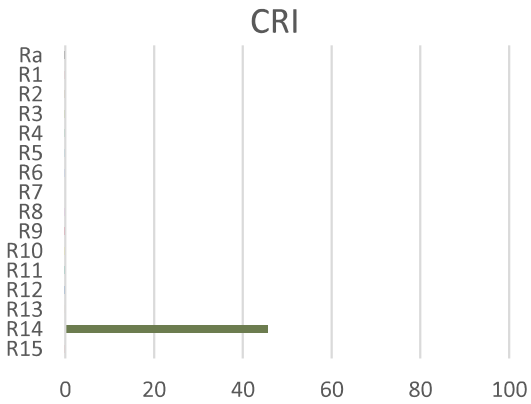












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Sebastian Laske

First, last name of inspector

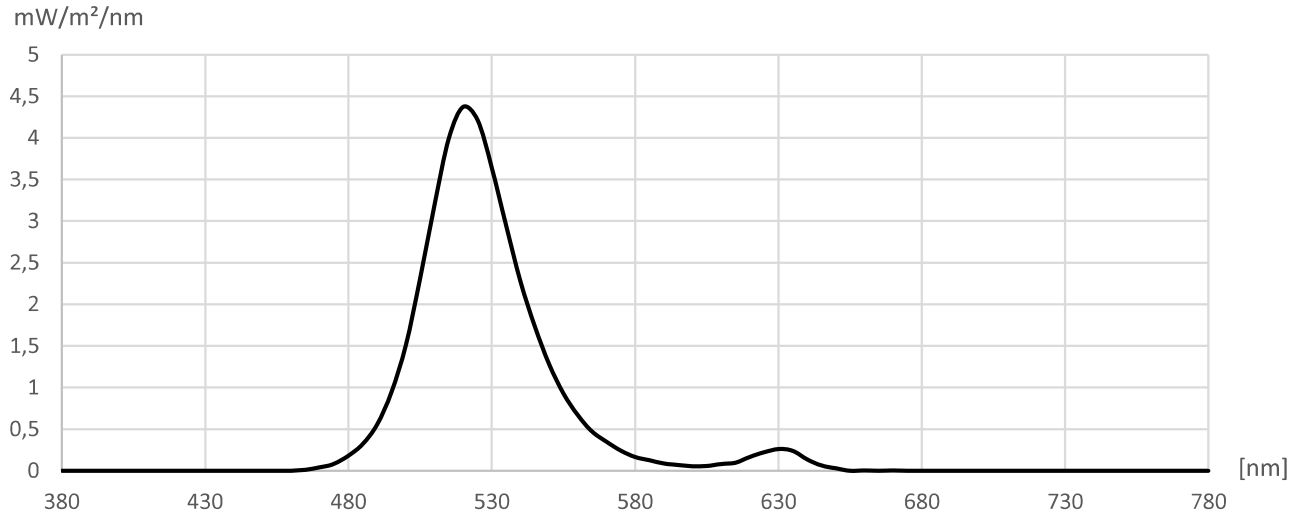
Burgebrach, 11.07.2018

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / green

Measurement file: 406531_3m_g.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:46:35



R1 = -23,3	Ra = -17,7	
R2 = -3,6	Re = -43,0	
R3 = -17,1	GAI = 1,3	
R4 = -57,9		
R5 = -1,8		
R6 = -9,9		
R7 = -5,9		
R8 = -21,8		
R9 = #####		
R10 = -94,8		
R11 = -85,5		
R12 = -23,8		
R13 = -30,9		
R14 = 42,5		
R15 = -28,1		

Illuminance	91,66 lx
Ee	0,191 W/m²
LER	480,9 lm/W
correlated color temperature (CCT)	7574 K
Duv	0,15
Saturation	77 %
Dominant wavelength	527 nm
Peak wavelength	522 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x = 0,1900	
y = 0,7078	
CIE1976	
u' = 0,0684	
v' = 0,5732	
CIE1960	
u = 0,0684	
v = 0,3821	
TM30	
Rf = 2,3	
Rg = 13,6	

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,00	440	0,00	500	1,51	560	0,67	620	0,17	680	0,00	740	0,00
385	0,00	445	0,00	505	2,30	565	0,47	625	0,22	685	0,00	745	0,00
390	0,00	450	0,00	510	3,19	570	0,35	630	0,26	690	0,00	750	0,00
395	0,00	455	0,00	515	3,99	575	0,24	635	0,24	695	0,00	755	0,00
400	0,00	460	0,00	520	4,37	580	0,16	640	0,14	700	0,00	760	0,00
405	0,00	465	0,01	525	4,21	585	0,13	645	0,06	705	0,00	765	0,00
410	0,00	470	0,04	530	3,65	590	0,09	650	0,03	710	0,00	770	0,00
415	0,00	475	0,08	535	2,95	595	0,07	655	0,00	715	0,00	775	0,00
420	0,00	480	0,18	540	2,28	600	0,05	660	0,00	720	0,00	780	0,00
425	0,00	485	0,32	545	1,73	605	0,06	665	0,00	725	0,00		
430	0,00	490	0,56	550	1,28	610	0,08	670	0,00	730	0,00		
435	0,00	495	0,95	555	0,93	615	0,10	675	0,00	735	0,00		

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Sebastian Laske

First, last name of inspector

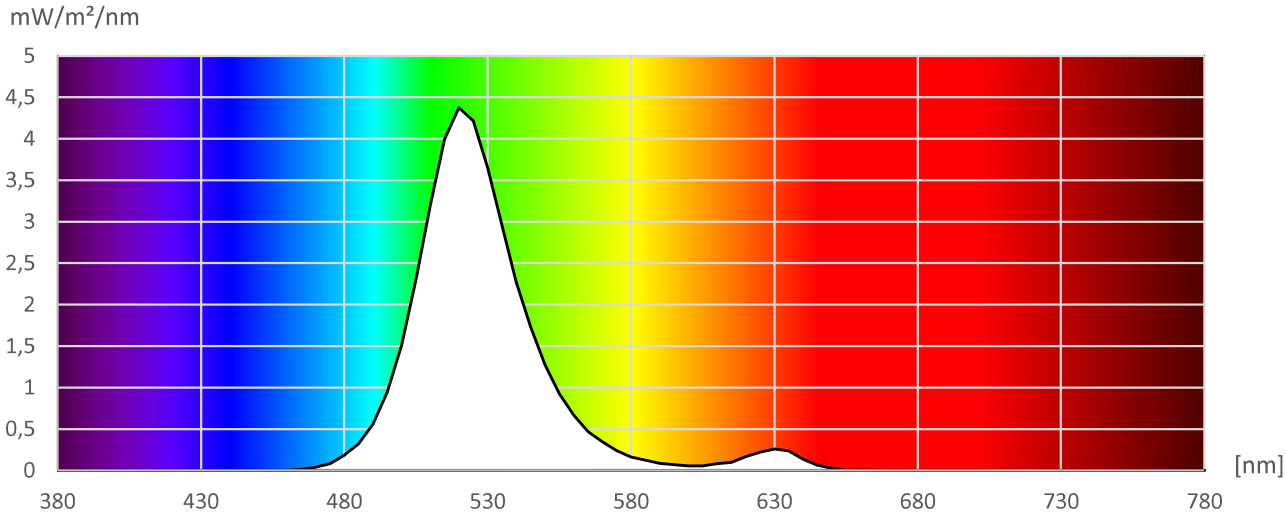
Burgebrach, 11.07.2018

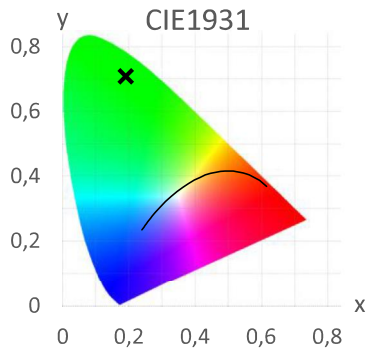
Measurement protocol

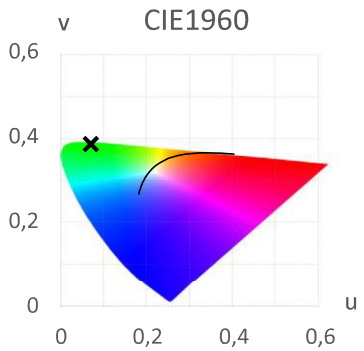
th•mann

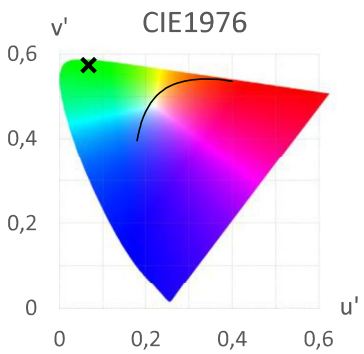
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / green

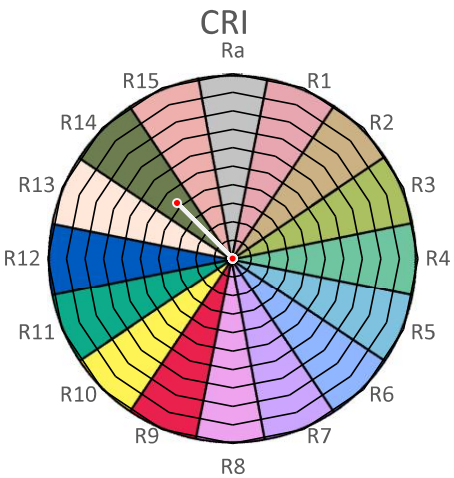
Measurement file: 406531_3m_g.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:46:35

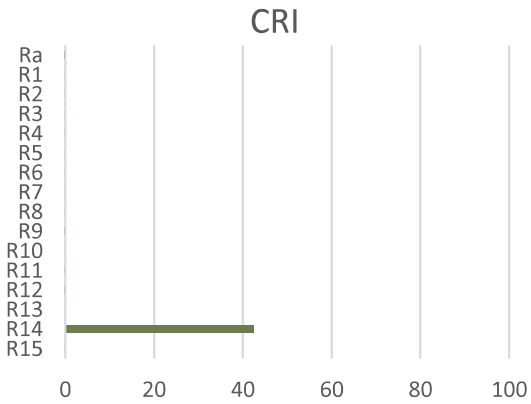












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Sebastian Laske

First, last name of inspector

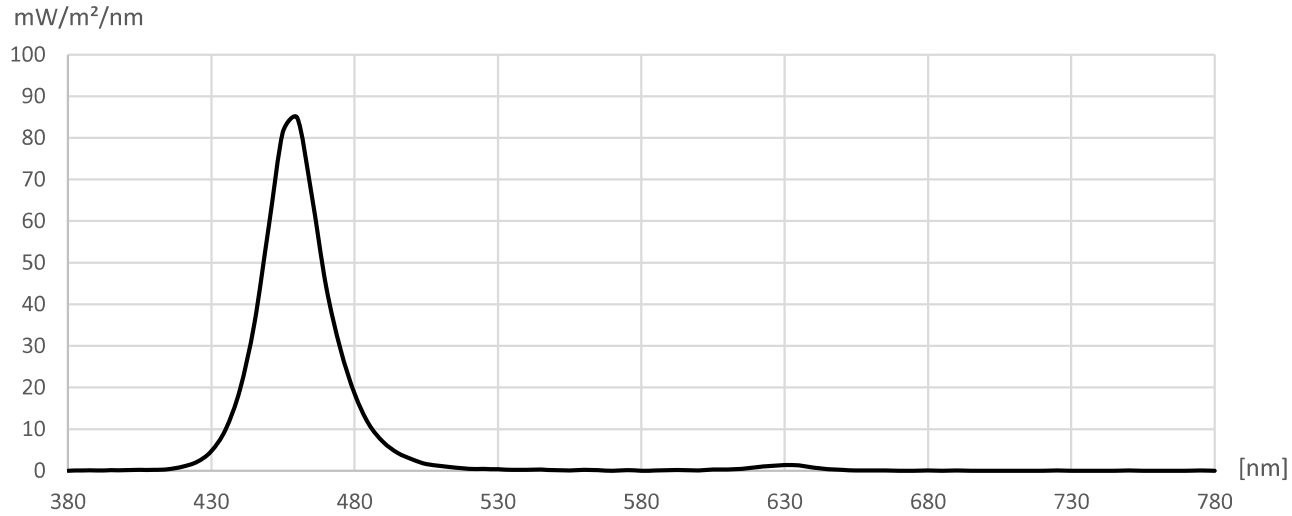
Burgebrach, 11.07.2018

Measurement protocol

thomann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / blue

Measurement file: 406531_1m_b.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:47:01



R1	=	-	Ra	=	-	Illuminance	135,2 lx	CIE1931
R2	=	-	Re	=	-	Ee	2,482 W/m²	x = 0,1477
R3	=	-	GAI	=	-	LER	54,5 lm/W	y = 0,0438
R4	=	-						
R5	=	-				correlated color temperature (CCT)	> 50000 K	CIE1976
R6	=	-				Duv	-	u' = 0,1828
R7	=	-						v' = 0,1221
R8	=	-				Saturation	96,7 %	
R9	=	-						CIE1960
R10	=	-				Dominant wavelength	454 nm	u = 0,1828
R11	=	-				Peak wavelength	458 nm	v = 0,0814
R12	=	-						
R13	=	-				Flicker frequency	% < 2.5 Hz	TM30
R14	=	-				Percent Flicker	< 2.5 %	Rf = -
R15	=	-				Flicker index	% < 2.5	Rg = -

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,02	440	19,53	500	2,73	560	0,19	620	0,85	680	0,06	740	0,00
385	0,10	445	35,35	505	1,60	565	0,11	625	1,11	685	0,00	745	0,00
390	0,08	450	58,64	510	1,13	570	0,00	630	1,35	690	0,04	750	0,10
395	0,10	455	81,37	515	0,76	575	0,12	635	1,28	695	0,01	755	0,00
400	0,11	460	84,82	520	0,45	580	0,02	640	0,74	700	0,01	760	0,00
405	0,24	465	66,43	525	0,42	585	0,04	645	0,41	705	0,01	765	0,02
410	0,19	470	44,48	530	0,36	590	0,17	650	0,21	710	0,00	770	0,00
415	0,35	475	29,29	535	0,21	595	0,15	655	0,06	715	0,01	775	0,03
420	0,99	480	18,42	540	0,24	600	0,10	660	0,06	720	0,00	780	0,00
425	2,13	485	11,23	545	0,26	605	0,29	665	0,07	725	0,04		
430	4,68	490	6,87	550	0,14	610	0,33	670	0,00	730	0,01		
435	9,93	495	4,28	555	0,08	615	0,44	675	0,01	735	0,01		

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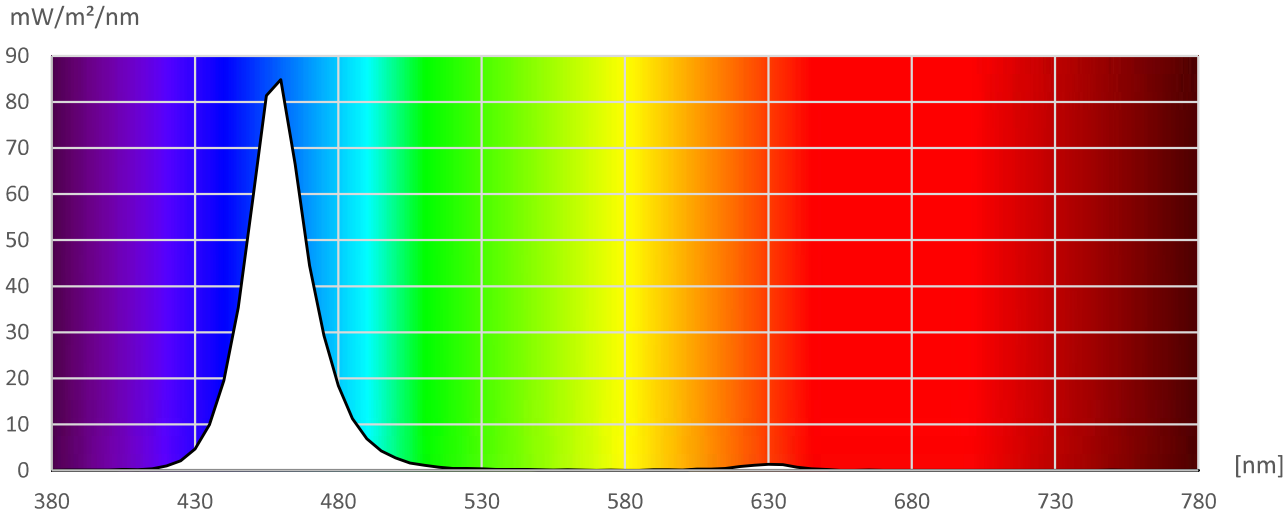
Burgebrach, 11.07.2018

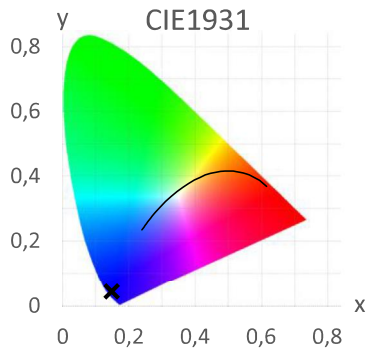
Sebastian Laske

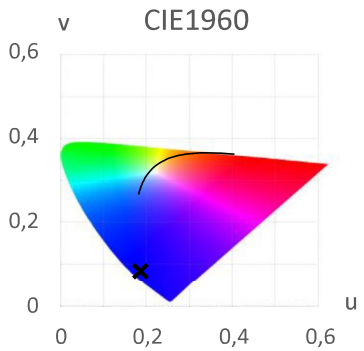
First, last name of inspector

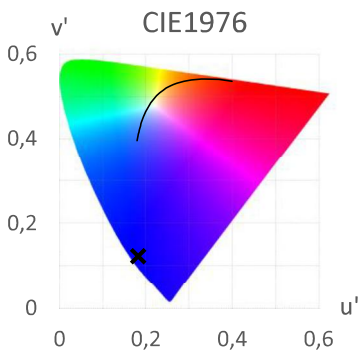
Measurement protocol

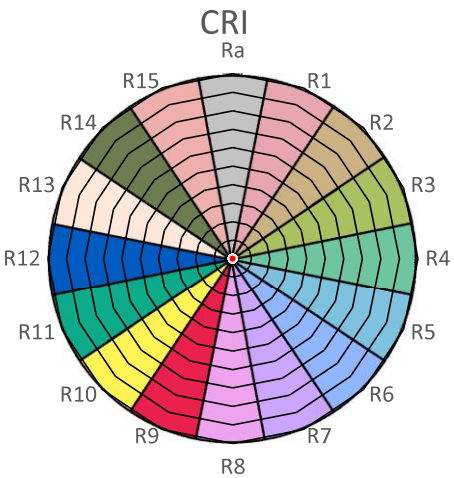
Test object:	Stairville Mini Stage Par 7x4W RGBW Item 406531 / @ 1 m / blue	Measurement file: Date of measurement: Time of measurement:	406531_1m_b.CSV 11.07.2018 09:47:01

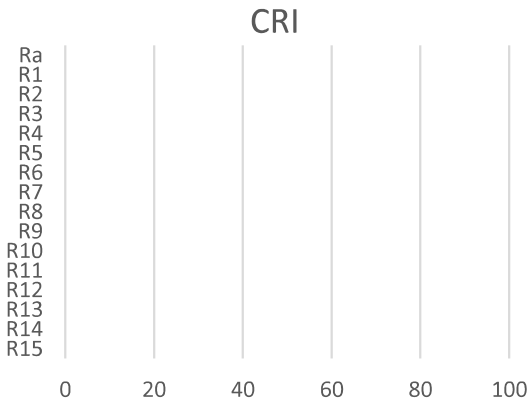












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Burgebrach, 11.07.2018

Sebastian Laske

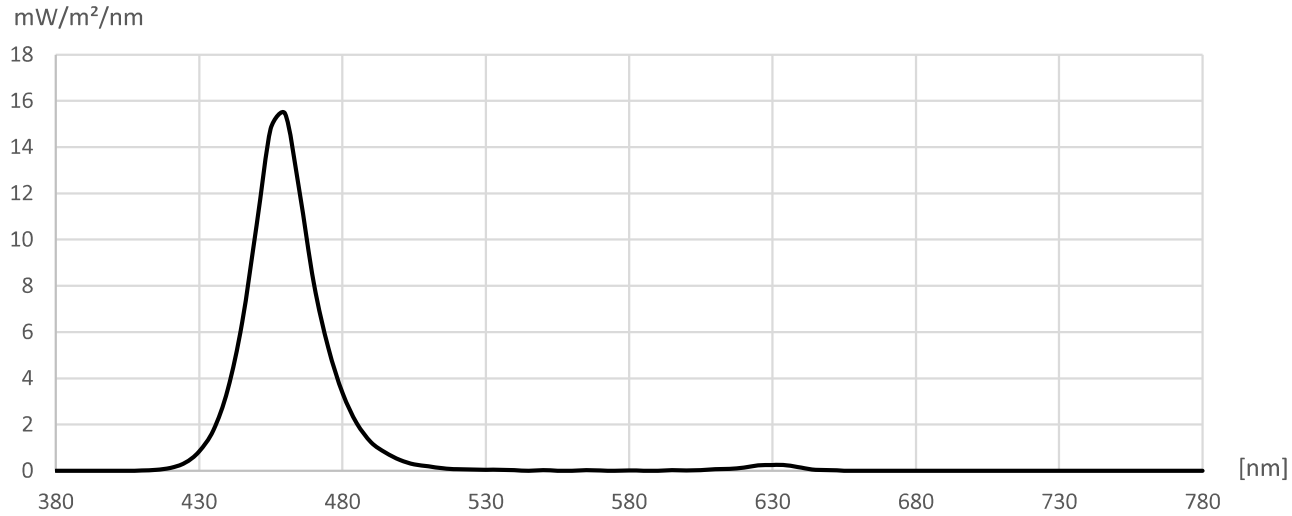
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / blue

Measurement file: 406531_3m_b.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:47:21



R1 = -	Ra = -	
R2 = -	Re = -	
R3 = -	GAI = -	
R4 = -		
R5 = -		
R6 = -		
R7 = -		
R8 = -		
R9 = -		
R10 = -		
R11 = -		
R12 = -		
R13 = -		
R14 = -		
R15 = -		

Illuminance	23,72 lx
Ee	0,447 W/m²
LER	53,0 lm/W
correlated color temperature (CCT)	> 50000 K
Duv	-
Saturation	97,1 %
Dominant wavelength	454 nm
Peak wavelength	458 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x =	0,1472
y =	0,0425
CIE1976	
u' =	0,1831
v' =	0,1189
CIE1960	
u =	0,1831
v =	0,0793
TM30	
Rf =	-
Rg =	-

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,00	440	3,52	500	0,46	560	0,00	620	0,14	680	0,00	740	0,00
385	0,00	445	6,42	505	0,28	565	0,02	625	0,23	685	0,00	745	0,00
390	0,00	450	10,62	510	0,19	570	0,01	630	0,25	690	0,00	750	0,00
395	0,00	455	14,80	515	0,10	575	0,00	635	0,24	695	0,00	755	0,00
400	0,00	460	15,45	520	0,06	580	0,01	640	0,13	700	0,00	760	0,00
405	0,00	465	12,09	525	0,06	585	0,00	645	0,04	705	0,00	765	0,00
410	0,01	470	8,11	530	0,04	590	0,00	650	0,03	710	0,00	770	0,00
415	0,04	475	5,33	535	0,04	595	0,02	655	0,00	715	0,00	775	0,00
420	0,12	480	3,36	540	0,02	600	0,01	660	0,00	720	0,00	780	0,00
425	0,34	485	2,06	545	0,00	605	0,03	665	0,00	725	0,00		
430	0,83	490	1,23	550	0,03	610	0,07	670	0,00	730	0,00		
435	1,76	495	0,79	555	0,00	615	0,08	675	0,00	735	0,00		

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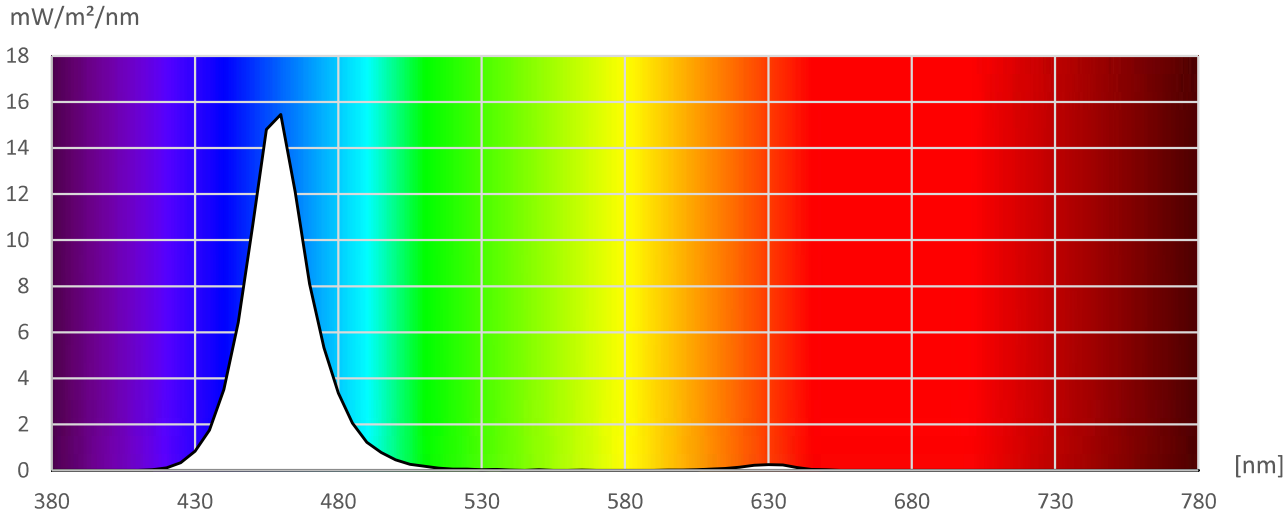
Sebastian Laske

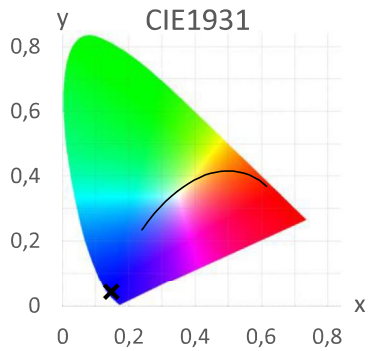
First, last name of inspector

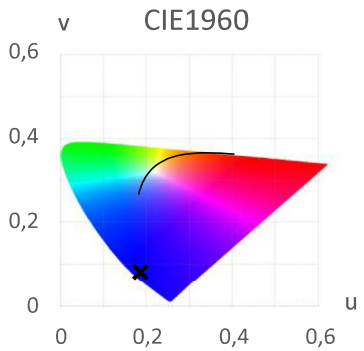
Burgebrach, 11.07.2018

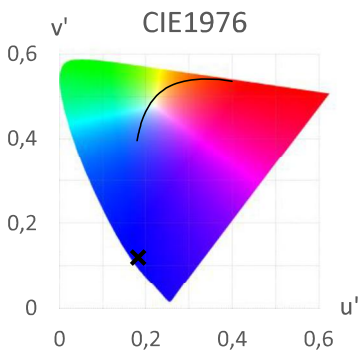
Measurement protocol

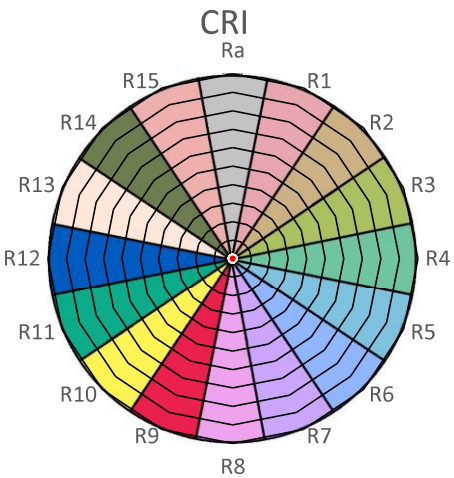
Test object:	Stairville Mini Stage Par 7x4W RGBW Item 406531 / @ 3 m / blue	Measurement file: Date of measurement: Time of measurement:	406531_3m_b.CSV 11.07.2018 09:47:21

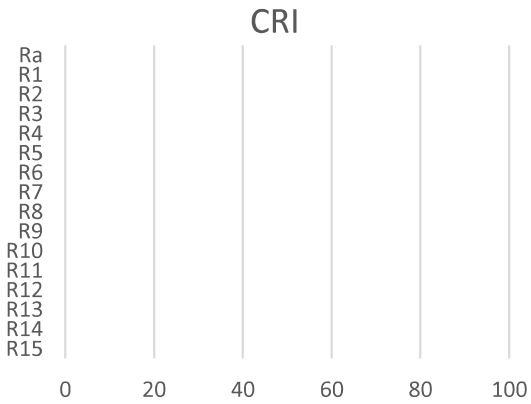












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Burgebrach, 11.07.2018

Sebastian Laske

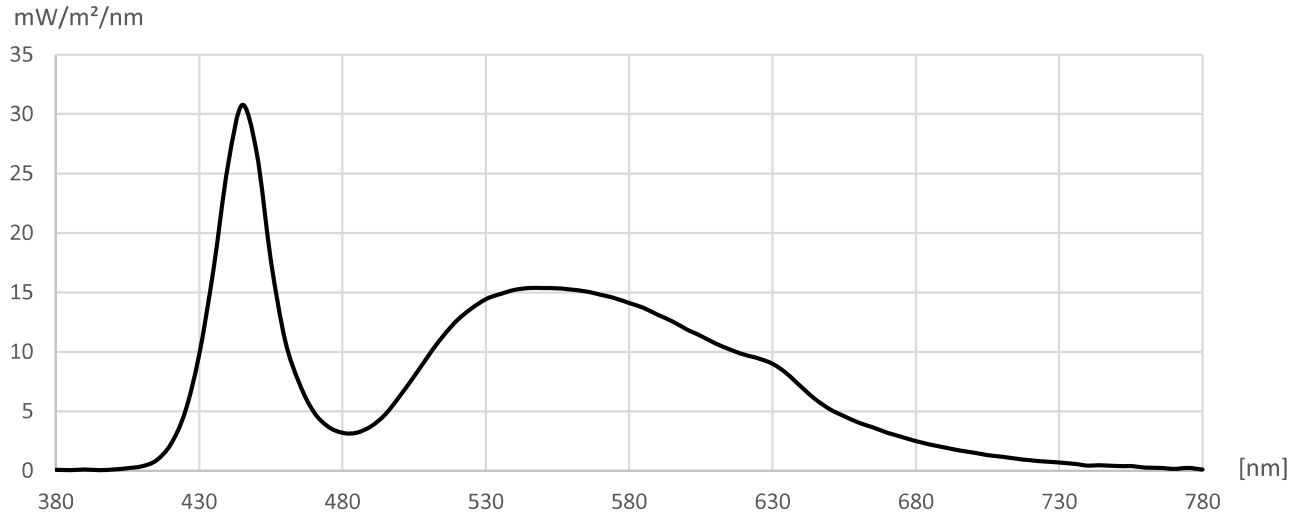
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / cw

Measurement file: 406531_1m_cw.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:47:42



R1 = 73,6	Ra = 73,4	
R2 = 75,5	Re = 64,5	
R3 = 75,0	GAI = 89,2	
R4 = 75,5		
R5 = 74,4		
R6 = 67,0		
R7 = 79,7		
R8 = 66,5		
R9 = -7,5		
R10 = 40,4		
R11 = 74,9		
R12 = 45,6		
R13 = 72,7		
R14 = 85,7		
R15 = 69,3		

Illuminance	924,44 lx
Ee	2,898 W/m²
LER	318,9 lm/W
correlated color temperature (CCT)	6111 K
Duv	0,001
Saturation	4,7 %
Dominant wavelength	487 nm
Peak wavelength	445 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x	0,3199
y	0,3316
CIE1976	
u'	0,2018
v'	0,4707
CIE1960	
u	0,2018
v	0,3138
TM30	
Rf	69,5
Rg	97,2

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,08	440	25,61	500	6,28	560	15,22	620	9,77	680	2,50	740	0,44
385	0,06	445	30,76	505	7,96	565	15,08	625	9,46	685	2,21	745	0,46
390	0,11	450	26,81	510	9,69	570	14,81	630	9,00	690	1,95	750	0,39
395	0,05	455	17,78	515	11,29	575	14,52	635	8,18	695	1,71	755	0,39
400	0,09	460	11,00	520	12,65	580	14,11	640	7,05	700	1,53	760	0,26
405	0,21	465	7,33	525	13,65	585	13,69	645	5,99	705	1,32	765	0,25
410	0,36	470	4,94	530	14,43	590	13,12	650	5,19	710	1,18	770	0,15
415	0,87	475	3,70	535	14,87	595	12,58	655	4,60	715	1,02	775	0,24
420	2,20	480	3,18	540	15,21	600	11,90	660	4,05	720	0,87	780	0,09
425	4,91	485	3,20	545	15,37	605	11,35	665	3,64	725	0,78		
430	9,70	490	3,73	550	15,36	610	10,73	670	3,20	730	0,68		
435	16,89	495	4,75	555	15,35	615	10,22	675	2,85	735	0,59		

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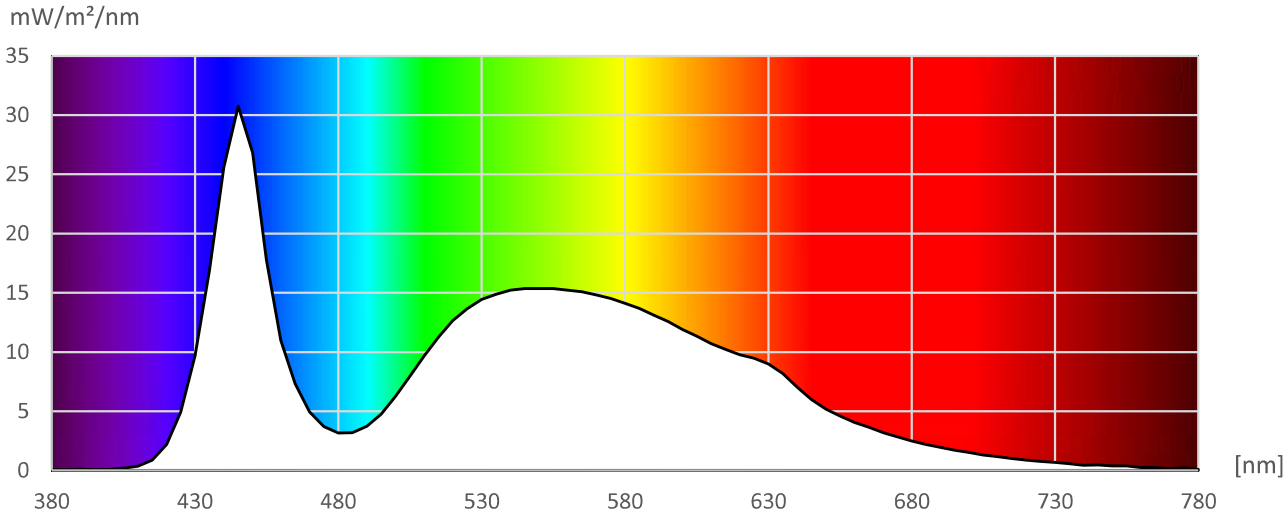
Burgebrach, 11.07.2018

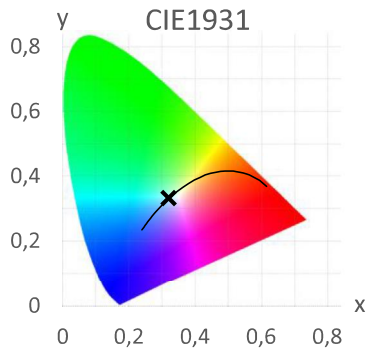
Measurement protocol

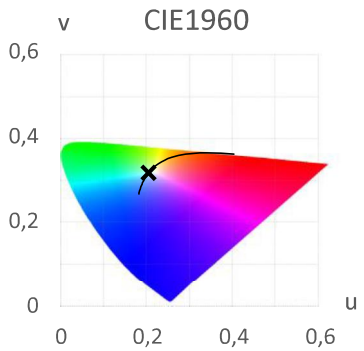
th•mann

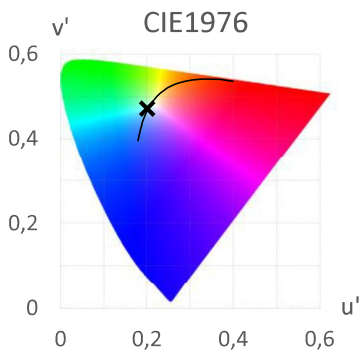
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 1 m / cw

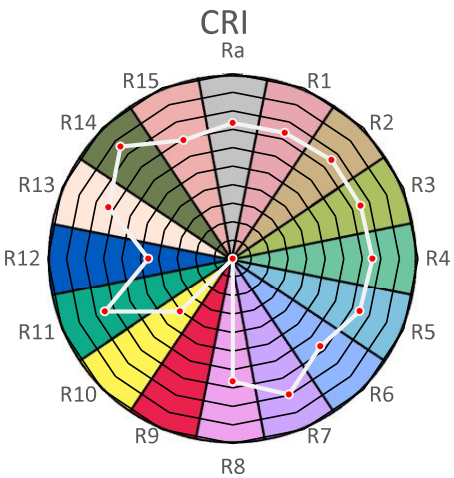
Measurement file: 406531_1m_cw.CS
Date of measurement: 11.07.2018
Time of measurement: 09:47:42

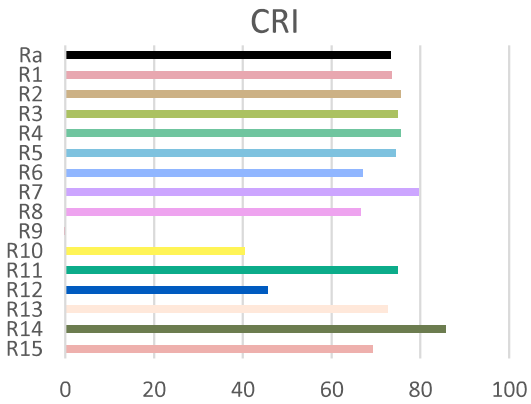












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Sebastian Laske

First, last name of inspector

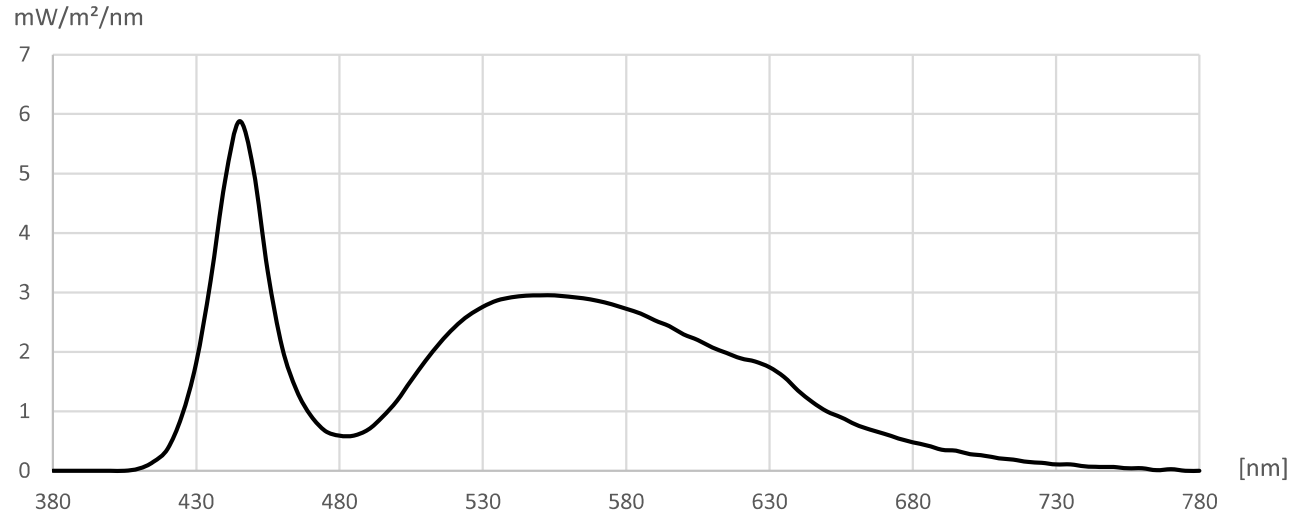
Burgebrach, 11.07.2018

Measurement protocol

th•mann

Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / cw

Measurement file: 406531_3m_cw.CSV
Date of measurement: 11.07.2018
Time of measurement: 09:48:04



R1 = 73,3	Ra = 73,1	
R2 = 75,4	Re = 64,2	
R3 = 75,1	GAI = 88,6	
R4 = 75,2		
R5 = 74,0		
R6 = 66,8		
R7 = 79,6		
R8 = 65,8		
R9 = -9,0		
R10 = 40,1		
R11 = 74,5		
R12 = 45,1		
R13 = 72,4		
R14 = 85,8		
R15 = 68,8		

Illuminance	177,64 lx
Ee	0,552 W/m²
LER	322,1 lm/W
correlated color temperature (CCT)	6006 K
Duv	0,0011
Saturation	3,9 %
Dominant wavelength	489 nm
Peak wavelength	445 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931	
x	0,3218
y	0,3337
CIE1976	
u'	0,2024
v'	0,4721
CIE1960	
u	0,2024
v	0,3148
TM30	
Rf	69,3
Rg	97,2

[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm	[nm]	mW/m²/nm
380	0,00	440	4,86	500	1,18	560	2,93	620	1,89	680	0,48	740	0,07
385	0,00	445	5,88	505	1,52	565	2,90	625	1,84	685	0,43	745	0,07
390	0,00	450	5,07	510	1,85	570	2,86	630	1,74	690	0,36	750	0,06
395	0,00	455	3,35	515	2,15	575	2,80	635	1,58	695	0,34	755	0,04
400	0,00	460	2,07	520	2,41	580	2,72	640	1,35	700	0,28	760	0,04
405	0,00	465	1,35	525	2,61	585	2,64	645	1,15	705	0,25	765	0,01
410	0,04	470	0,93	530	2,76	590	2,53	650	1,00	710	0,21	770	0,03
415	0,15	475	0,67	535	2,86	595	2,43	655	0,90	715	0,19	775	0,00
420	0,37	480	0,59	540	2,92	600	2,30	660	0,78	720	0,15	780	0,00
425	0,92	485	0,59	545	2,95	605	2,20	665	0,69	725	0,13		
430	1,81	490	0,69	550	2,95	610	2,08	670	0,62	730	0,10		
435	3,19	495	0,91	555	2,95	615	1,98	675	0,54	735	0,11		

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Burgebrach, 11.07.2018

Measurement protocol

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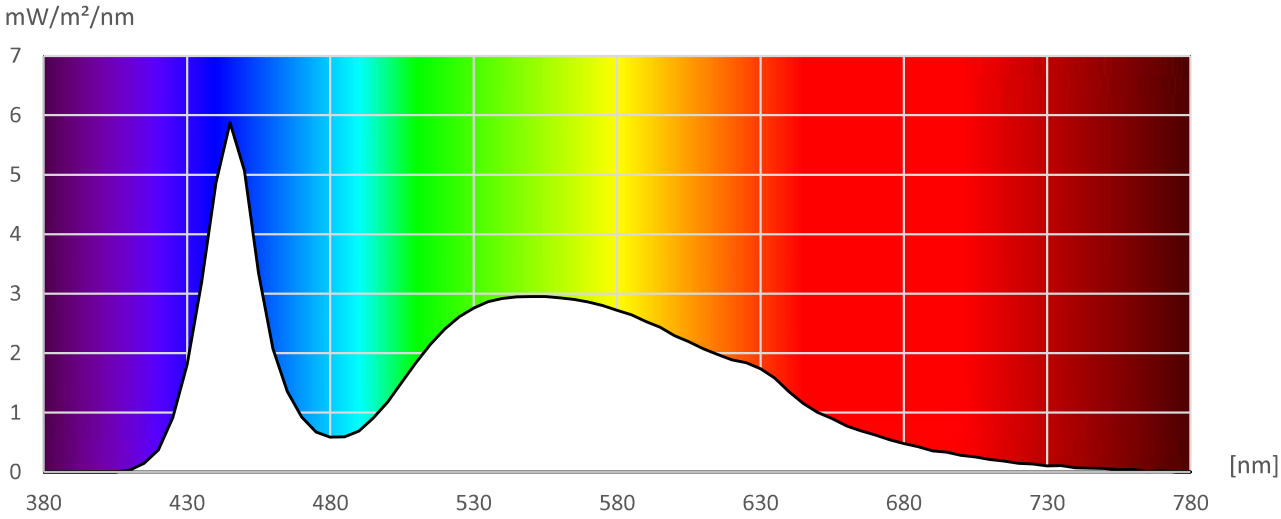
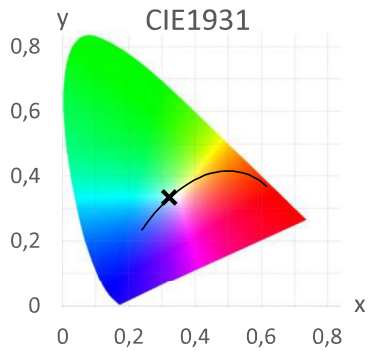
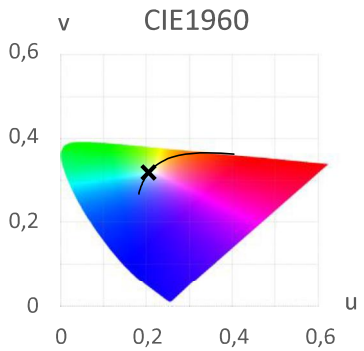
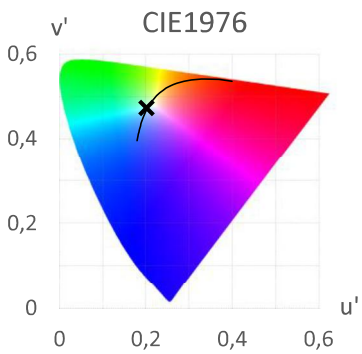
Test object: Stairville
Mini Stage Par 7x4W RGBW
Item 406531 / @ 3 m / cw

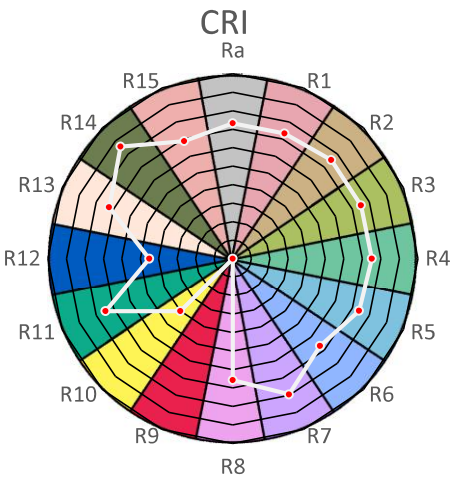
Measurement file: 406531_3m_cw.CS
Date of measurement: 11.07.2018
Time of measurement: 09:48:04

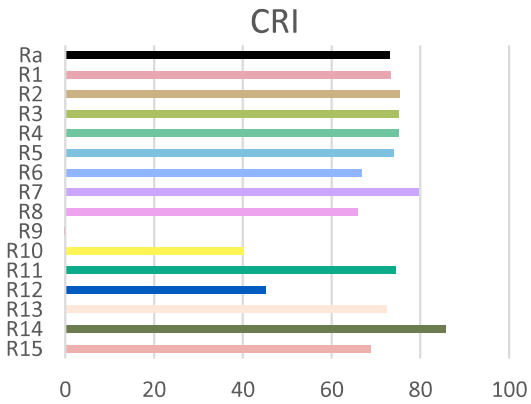












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Burgebrach, 11.07.2018

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