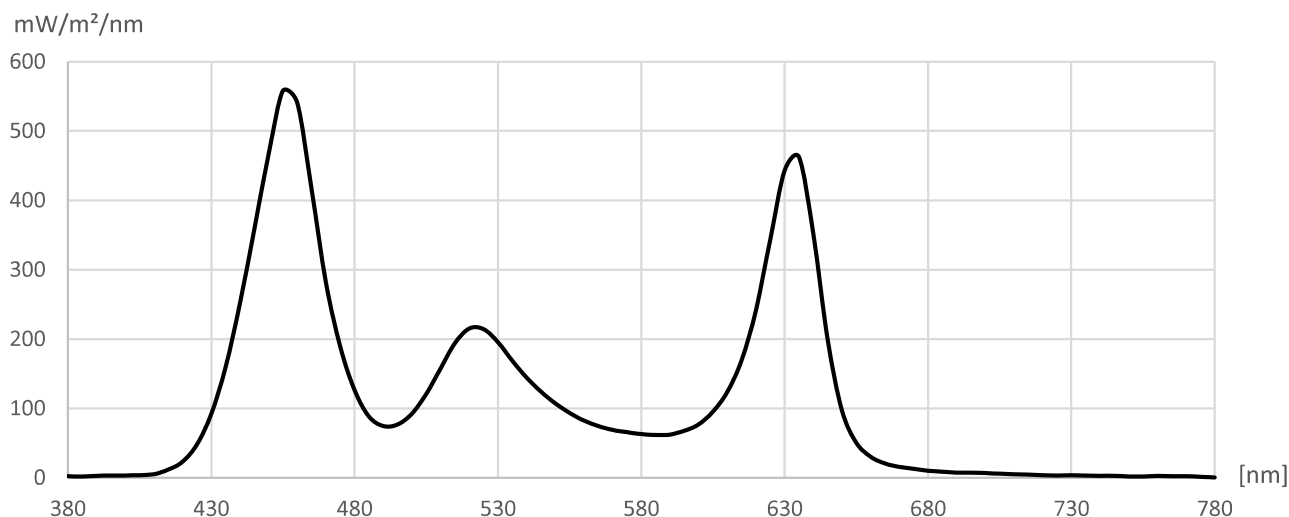


Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / all

Measurement file: 288501_1m_all.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:11:16



R1 = 12,4	Ra = 36,7	Illuminance	9839,73 lx	CIE1931
R2 = 58,5	Re = 14,7	Ee	44,891 W/m ²	x = 0,2878
R3 = 65,9	GAI = 167,5	LER	219,2 lm/W	y = 0,2359
R4 = 19,4				
R5 = 31,2		correlated color temperature (CCT)	15587 K	CIE1976
R6 = 58,5		Duv	-0,0359	u' = 0,2191
R7 = 64,2				v' = 0,4040
R8 = -16,9		Saturation	37,3 %	
R9 = #####				CIE1960
R10 = 23,5		Dominant wavelength	#NV	u = 0,2191
R11 = 2,6		Peak wavelength	456 nm	v = 0,2693
R12 = 57,0				
R13 = 21,4		Flicker frequency	% < 2.5 Hz	TM30
R14 = 73,1		Percent Flicker	< 2.5 %	Rf = 60,4
R15 = -15,2		Flicker index	% < 2.5	Rg = 122,6

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	2,11	440	251,58	500	92,67	560	82,21	620	242,22	680	10,27	740	2,60
385	1,76	445	358,25	505	121,30	565	74,57	625	342,80	685	8,81	745	2,79
390	2,86	450	467,77	510	157,86	570	68,89	630	442,93	690	7,42	750	1,83
395	3,00	455	557,70	515	193,91	575	65,65	635	462,31	695	7,23	755	1,76
400	3,32	460	540,82	520	215,22	580	62,89	640	351,37	700	6,63	760	2,53
405	3,81	465	415,84	525	214,24	585	61,64	645	198,52	705	5,78	765	2,18
410	5,21	470	281,17	530	195,40	590	62,28	650	97,79	710	5,02	770	2,17
415	11,74	475	188,54	535	168,44	595	67,74	655	50,61	715	4,33	775	1,40
420	23,25	480	125,65	540	144,64	600	76,77	660	30,18	720	3,68	780	0,44
425	48,22	485	88,58	545	124,18	605	95,35	665	20,48	725	3,18		
430	91,67	490	74,66	550	107,16	610	123,84	670	15,77	730	3,65		
435	159,18	495	76,68	555	93,40	615	169,91	675	12,81	735	3,15		

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Burgebrach, 05.02.2018

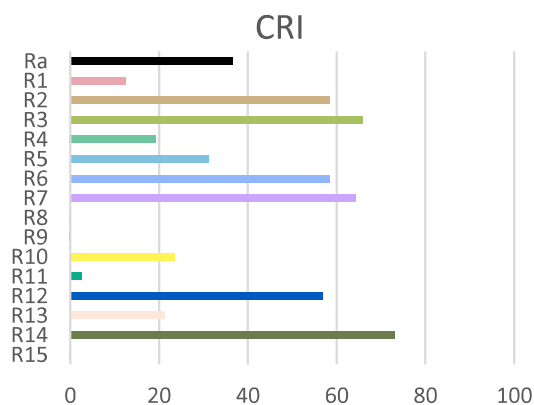
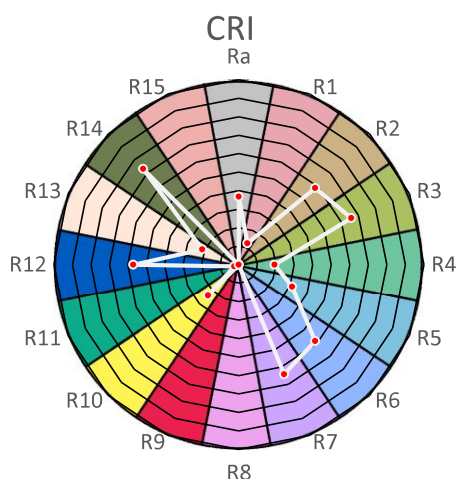
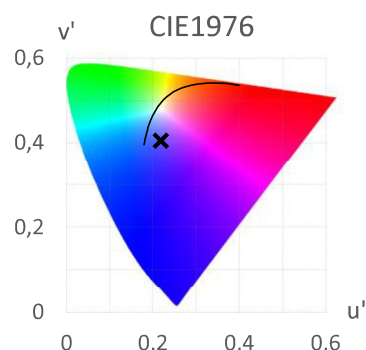
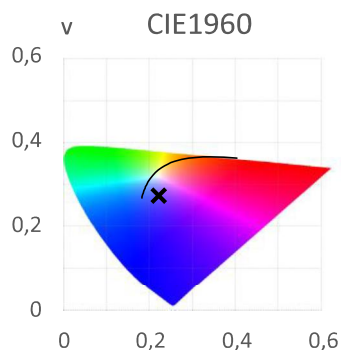
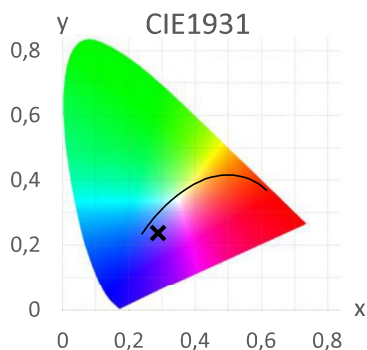
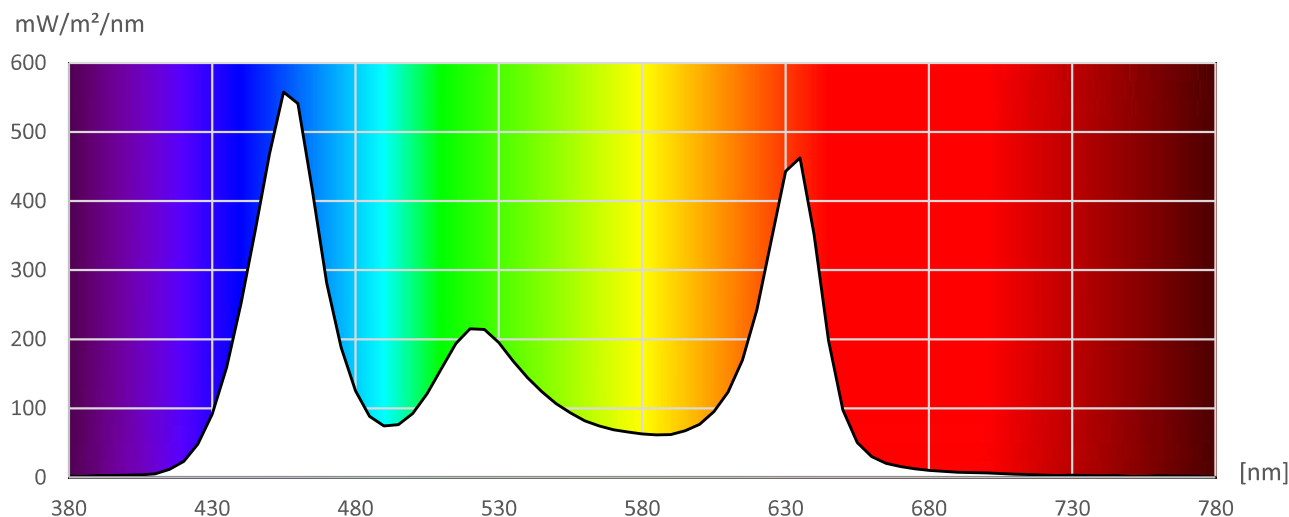
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / all

Measurement file: 288501_1m_all.CS
Date of measurement: 05.02.2018
Time of measurement: 17:11:16



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Burgebrach, 05.02.2018

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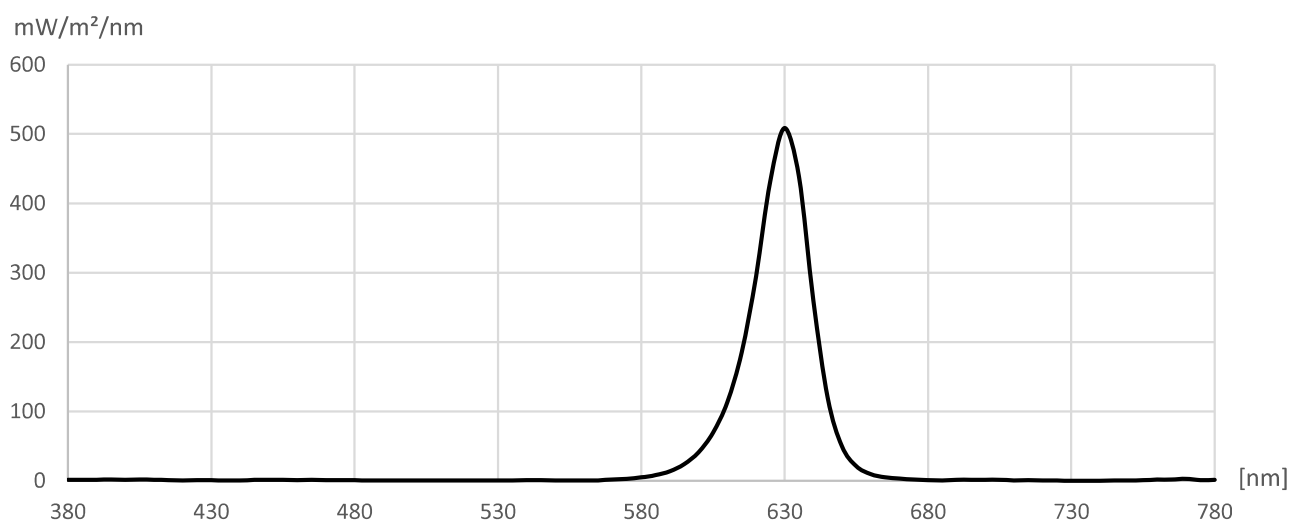
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / red

Measurement file: 288501_1m_red.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:07:23



R1 = -	Ra = -	Illuminance	2750,57 lx	CIE1931
R2 = -	Re = -	Ee	13,282 W/m ²	x = 0,6846
R3 = -	GAI = -	LER	207,1 lm/W	y = 0,3079
R4 = -				
R5 = -		correlated color temperature (CCT)	< 1600 K	CIE1976
R6 = -		Duv	-	u' = 0,5142
R7 = -				v' = 0,5204
R8 = -		Saturation	97,8 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	625 nm	u = 0,5142
R11 = -		Peak wavelength	630 nm	v = 0,3469
R12 = -				
R13 = -		Flicker frequency	% < 2.5 Hz	TM30
R14 = -		Percent Flicker	< 2.5 %	Rf = -
R15 = -		Flicker index	% < 2.5	Rg = -

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	1,50	440	0,48	500	0,19	560	0,52	620	294,66	680	1,03	740	0,00
385	1,41	445	1,23	505	0,40	565	0,56	625	431,10	685	0,44	745	0,28
390	1,53	450	1,47	510	0,57	570	1,91	630	508,49	690	1,40	750	0,29
395	1,66	455	1,41	515	0,48	575	2,58	635	438,41	695	1,30	755	0,82
400	1,53	460	0,87	520	0,36	580	4,76	640	260,00	700	1,40	760	1,62
405	1,69	465	1,31	525	0,48	585	8,02	645	119,25	705	1,50	765	1,55
410	1,49	470	0,74	530	0,24	590	13,66	650	49,90	710	0,59	770	2,92
415	1,01	475	0,64	535	0,33	595	23,93	655	20,95	715	0,96	775	0,81
420	0,52	480	0,62	540	0,77	600	40,99	660	9,64	720	0,42	780	1,30
425	1,03	485	0,52	545	0,89	605	69,24	665	5,06	725	0,22		
430	0,64	490	0,50	550	0,39	610	113,28	670	3,18	730	0,00		
435	0,58	495	0,40	555	0,57	615	185,36	675	1,54	735	0,01		

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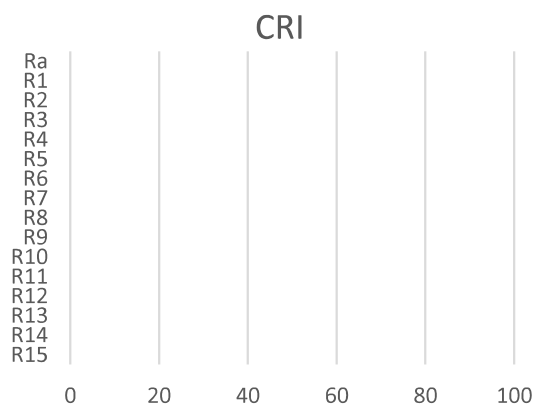
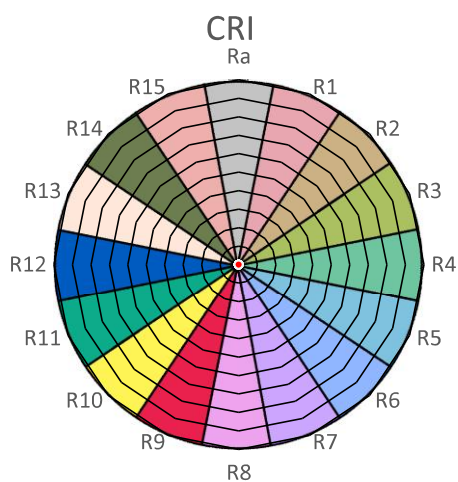
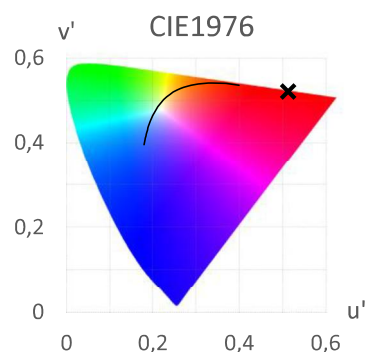
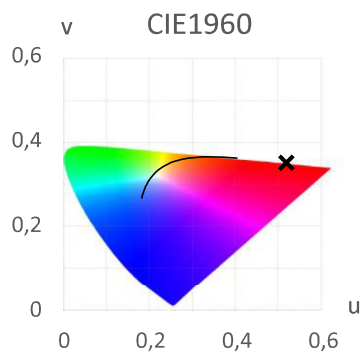
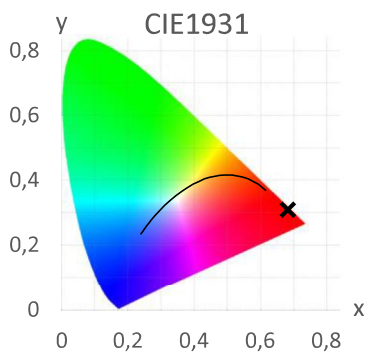
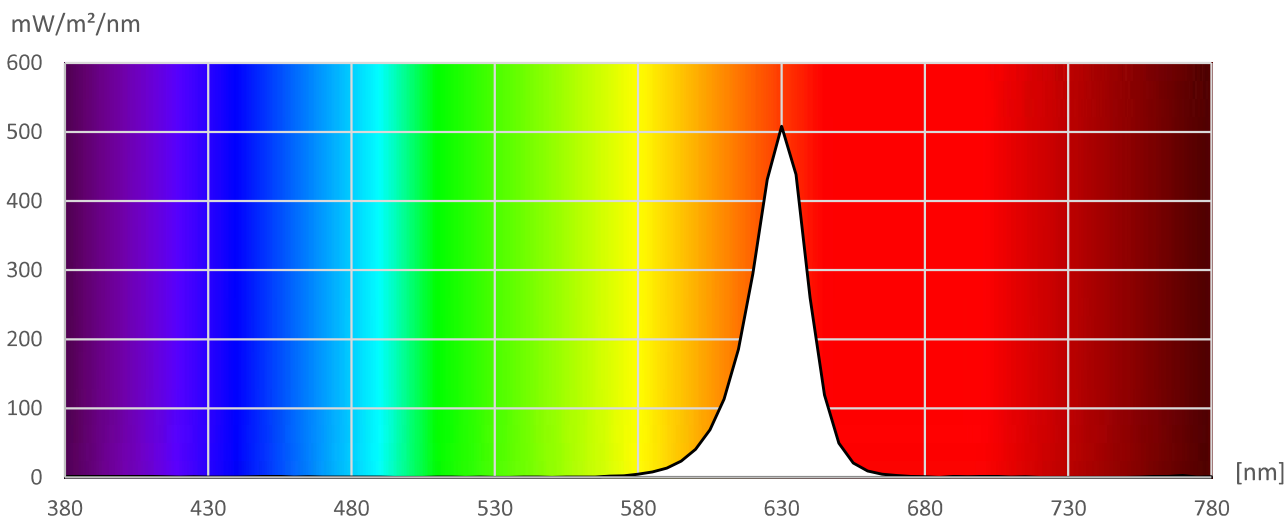
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / red

Measurement file: 288501_1m_red.C
Date of measurement: 05.02.2018
Time of measurement: 17:07:23



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Burgebrach, 05.02.2018

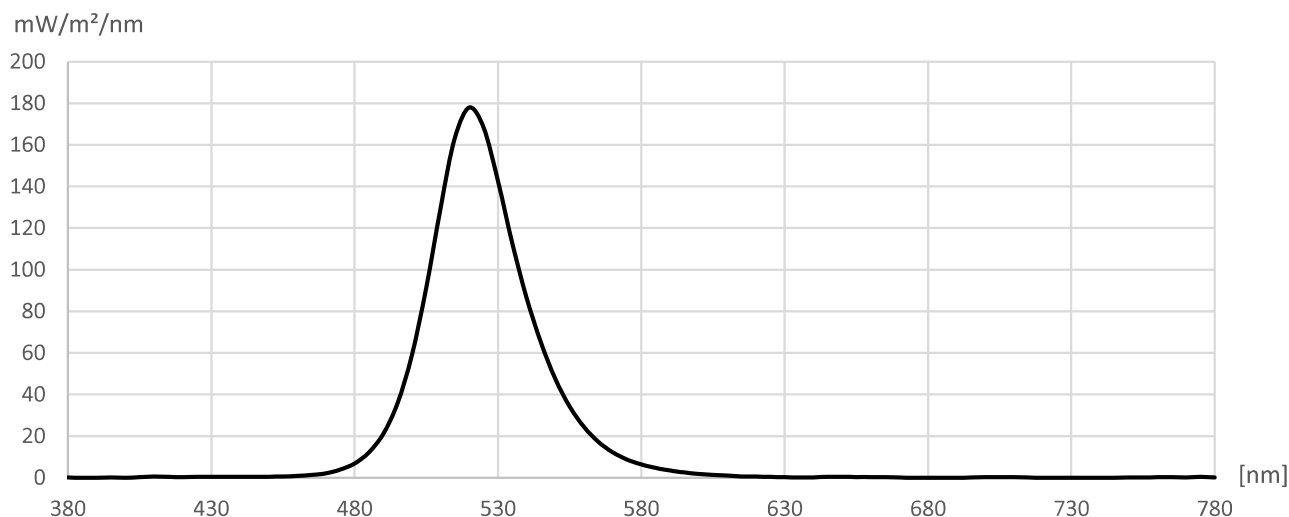
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / green

Measurement file: 288501_1m_green.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:07:47



R1 = -34,9	Ra = -21,0
R2 = -5,1	Re = -51,8
R3 = -14,7	GAI = 0,8
R4 = -60,4	
R5 = -9,1	
R6 = -12,4	
R7 = -1,0	
R8 = -30,1	
R9 = #####	
R10 = -98,1	
R11 = -89,4	
R12 = -27,5	
R13 = -39,6	
R14 = 42,9	
R15 = -38,5	

Illuminance	3530,68 lx
Ee	7,293 W/m²
LER	484,1 lm/W
correlated color temperature (CCT)	7865 K
Duv	0,1573
Saturation	76,4 %
Dominant wavelength	523 nm
Peak wavelength	519 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,1694
y = 0,7176
CIE1976
u' = 0,0601
v' = 0,5729
CIE1960
u = 0,0601
v = 0,3820
TM30
Rf = 1,1
Rg = 10,0

[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	0,05	440	0,40	500	59,16	560	24,34	620	0,52	680	0,00	740	0,00
385	0,01	445	0,48	505	91,71	565	17,35	625	0,39	685	0,00	745	0,00
390	0,00	450	0,49	510	130,08	570	12,28	630	0,21	690	0,00	750	0,13
395	0,09	455	0,59	515	163,46	575	8,76	635	0,15	695	0,07	755	0,08
400	0,00	460	0,85	520	177,95	580	6,37	640	0,20	700	0,31	760	0,23
405	0,26	465	1,30	525	168,28	585	4,68	645	0,46	705	0,32	765	0,24
410	0,56	470	2,13	530	142,56	590	3,43	650	0,42	710	0,26	770	0,13
415	0,37	475	3,90	535	112,45	595	2,54	655	0,35	715	0,07	775	0,39
420	0,23	480	6,95	540	86,66	600	1,84	660	0,35	720	0,00	780	0,06
425	0,39	485	12,16	545	65,03	605	1,36	665	0,28	725	0,02		
430	0,39	490	21,07	550	47,53	610	1,05	670	0,09	730	0,00		
435	0,45	495	35,89	555	34,25	615	0,66	675	0,00	735	0,00		

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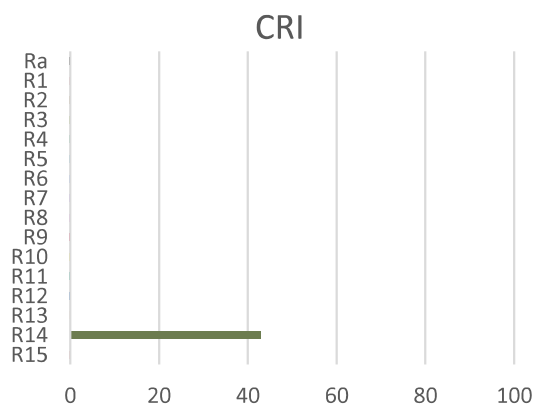
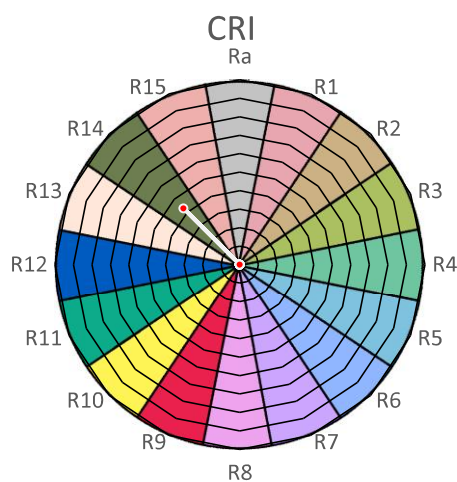
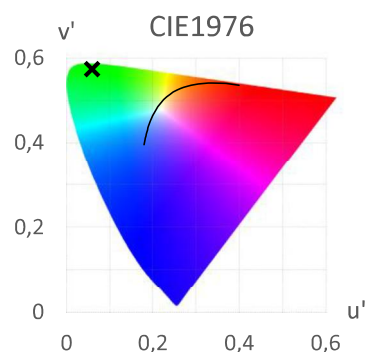
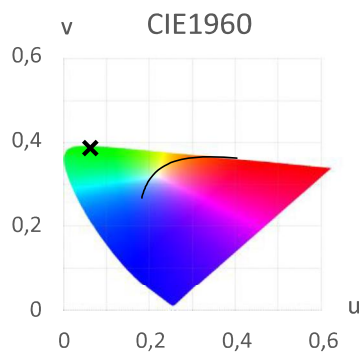
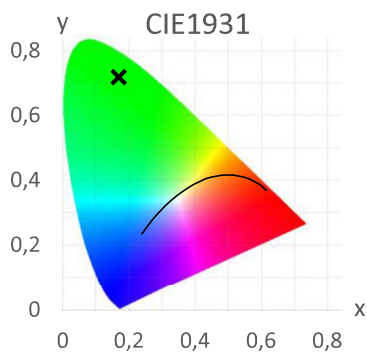
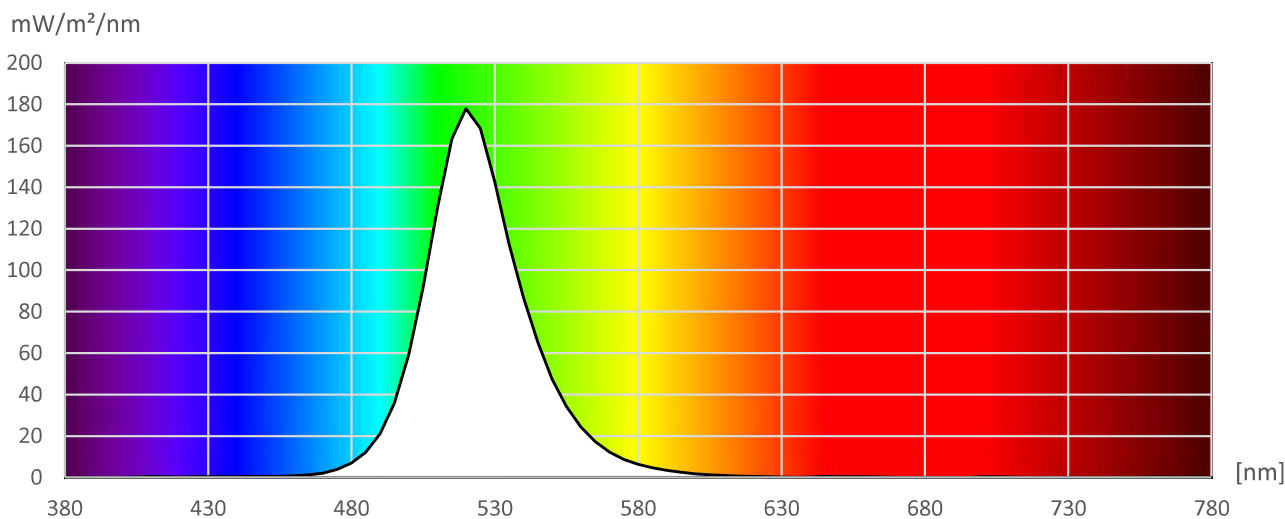
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / green

Measurement file: 288501_1m_green
Date of measurement: 05.02.2018
Time of measurement: 17:07:47



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Burgebrach, 05.02.2018

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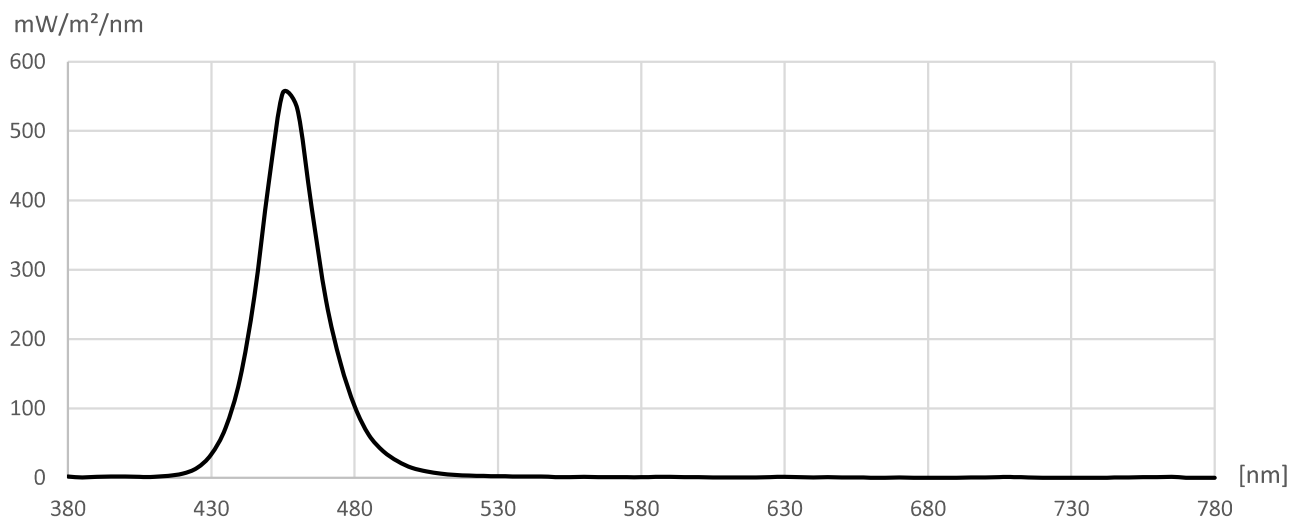
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / blue

Measurement file: 288501_1m_blue.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:08:07



R1 = -	Ra = -	Illuminance	796,5 lx	CIE1931
R2 = -	Re = -	Ee	15,816 W/m ²	x = 0,1460
R3 = -	GAI = -	LER	50,4 lm/W	y = 0,0397
R4 = -				
R5 = -		correlated color temperature (CCT)	> 50000 K	CIE1976
R6 = -		Duv	-	u' = 0,1834
R7 = -				v' = 0,1123
R8 = -		Saturation	97,7 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	453 nm	u = 0,1834
R11 = -		Peak wavelength	456 nm	v = 0,0749
R12 = -				
R13 = -		Flicker frequency	% < 2.5 Hz	TM30
R14 = -		Percent Flicker	< 2.5 %	Rf = -
R15 = -		Flicker index	% < 2.5	Rg = -

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	1,56	440	142,28	500	14,22	560	1,11	620	0,29	680	0,02	740	0,00
385	0,46	445	261,22	505	9,30	565	0,81	625	1,01	685	0,00	745	0,20
390	1,38	450	425,07	510	6,03	570	0,65	630	1,12	690	0,00	750	0,31
395	1,54	455	555,13	515	4,09	575	0,89	635	0,88	695	0,31	755	0,84
400	1,91	460	532,68	520	2,93	580	0,62	640	0,57	700	0,28	760	0,76
405	1,11	465	390,18	525	2,52	585	1,13	645	0,73	705	0,97	765	1,24
410	1,34	470	256,29	530	2,11	590	1,24	650	0,41	710	1,04	770	0,12
415	2,86	475	166,08	535	1,92	595	0,99	655	0,38	715	0,56	775	0,00
420	5,79	480	102,74	540	1,63	600	0,86	660	0,14	720	0,00	780	0,00
425	14,14	485	61,79	545	1,71	605	0,46	665	0,04	725	0,00		
430	33,70	490	38,32	550	0,95	610	0,48	670	0,19	730	0,00		
435	71,96	495	23,66	555	0,65	615	0,37	675	0,00	735	0,00		

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Burgebrach, 05.02.2018

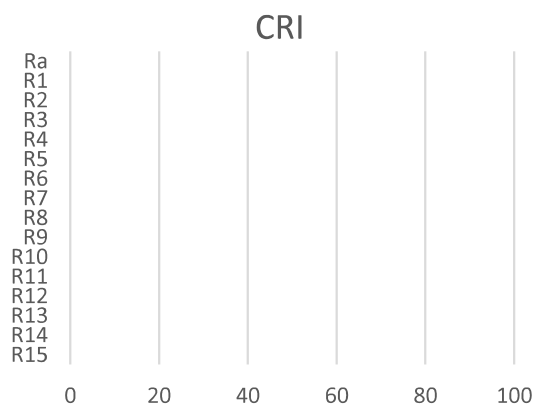
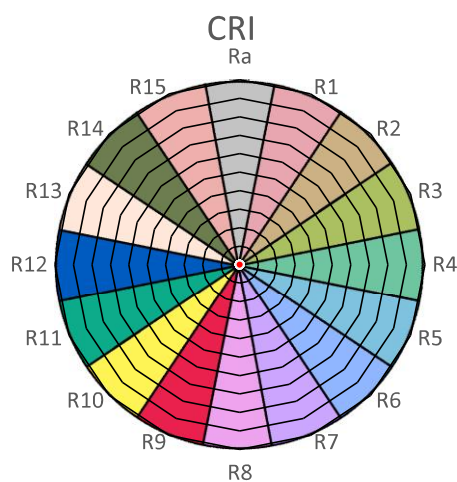
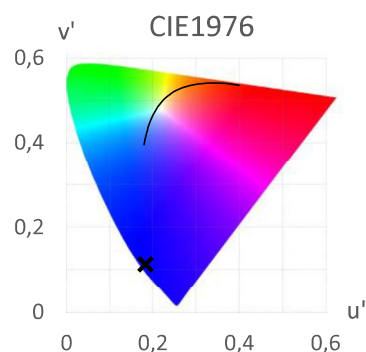
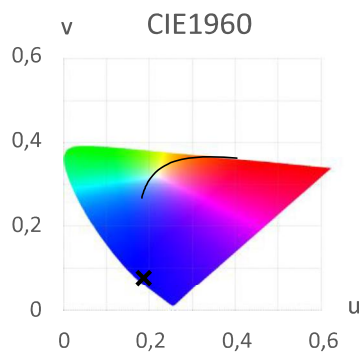
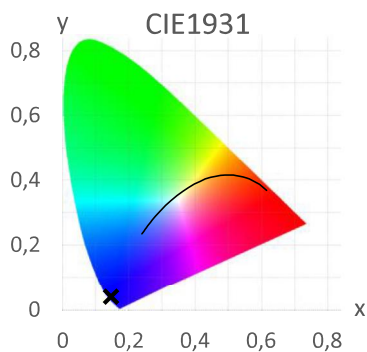
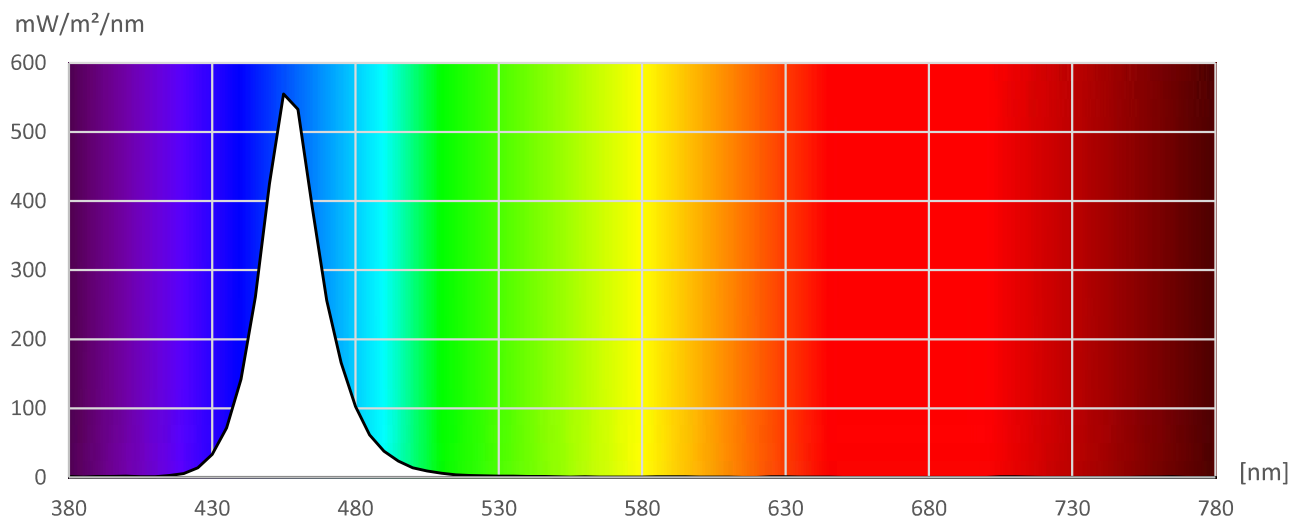
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / blue

Measurement file: 288501_1m_blue.c
Date of measurement: 05.02.2018
Time of measurement: 17:08:07



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Burgebrach, 05.02.2018

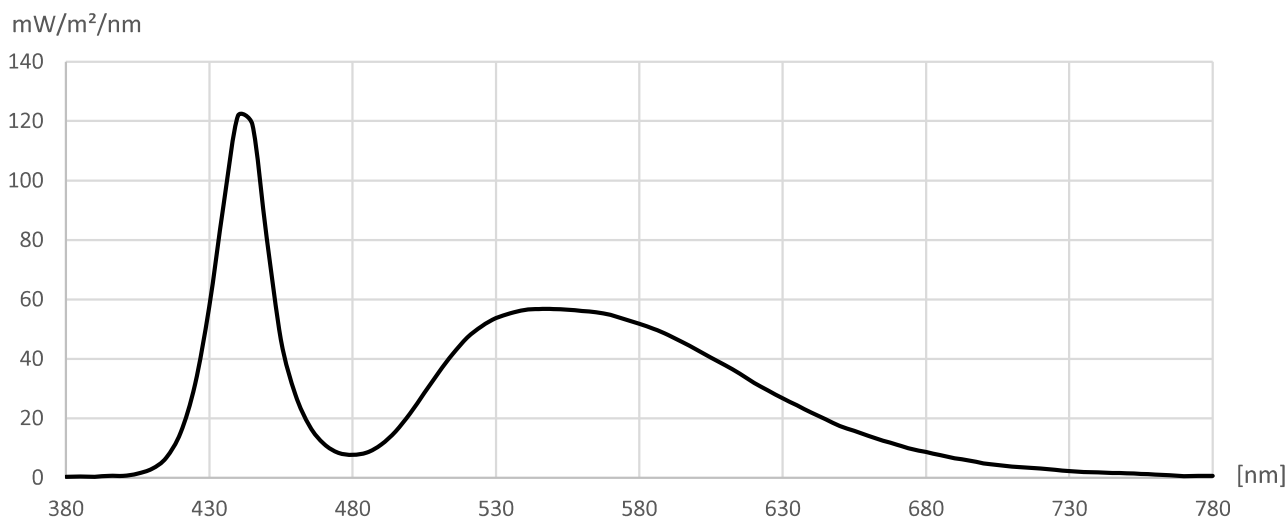
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / white

Measurement file: 288501_1m_white.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:08:27



R1 = 69,2	Ra = 68,4	Illuminance	3354,03 lx	CIE1931
R2 = 70,1	Re = 58,4	Ee	10,586 W/m ²	x = 0,3144
R3 = 69,8	GAI = 89,0	LER	316,8 lm/W	y = 0,3262
R4 = 70,8				
R5 = 70,9		correlated color temperature (CCT)	6432 K	CIE1976
R6 = 61,6		Duv	0,0009	u' = 0,2001
R7 = 74,0				v' = 0,4671
R8 = 60,8		Saturation	7 %	
R9 = -27,7				CIE1960
R10 = 28,6		Dominant wavelength	484 nm	u = 0,2001
R11 = 72,3		Peak wavelength	442 nm	v = 0,3114
R12 = 42,4				
R13 = 67,4		Flicker frequency	% < 2.5 Hz	TM30
R14 = 82,8		Percent Flicker	< 2.5 %	Rf = 63,5
R15 = 62,7		Flicker index	% < 2.5	Rg = 96,3

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	0,34	440	121,77	500	21,63	560	56,12	620	31,96	680	8,64	740	1,78
385	0,37	445	118,87	505	28,53	565	55,66	625	29,31	685	7,59	745	1,64
390	0,35	450	80,57	510	35,43	570	54,76	630	26,70	690	6,59	750	1,50
395	0,64	455	46,56	515	41,72	575	53,25	635	24,36	695	5,83	755	1,30
400	0,63	460	28,19	520	47,14	580	51,78	640	21,92	700	4,84	760	1,07
405	1,39	465	17,36	525	50,99	585	50,13	645	19,61	705	4,30	765	0,83
410	2,99	470	11,35	530	53,71	590	48,02	650	17,42	710	3,77	770	0,55
415	6,80	475	8,41	535	55,30	595	45,63	655	15,79	715	3,46	775	0,63
420	15,26	480	7,67	540	56,44	600	43,13	660	14,09	720	3,08	780	0,68
425	31,50	485	8,48	545	56,78	605	40,38	665	12,49	725	2,63		
430	57,44	490	11,11	550	56,76	610	37,81	670	11,06	730	2,21		
435	91,80	495	15,61	555	56,52	615	35,02	675	9,60	735	1,94		

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Burgebrach, 05.02.2018

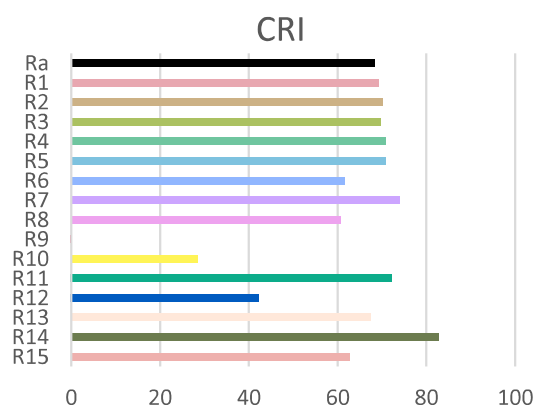
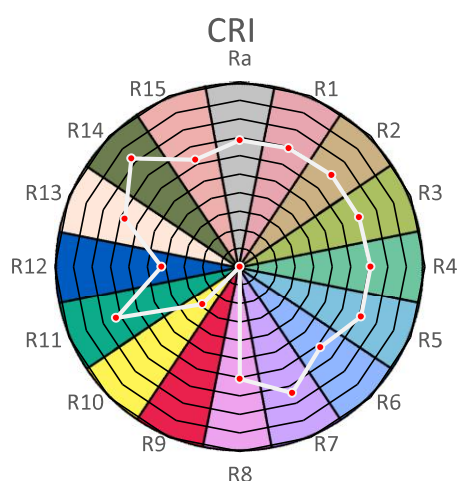
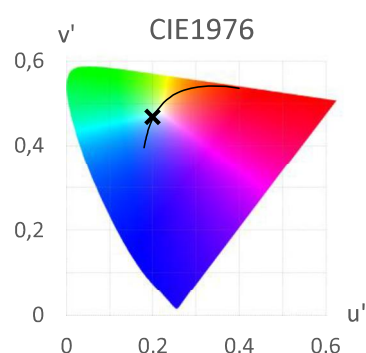
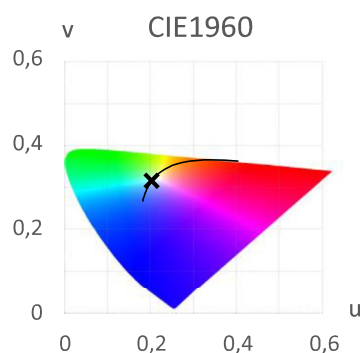
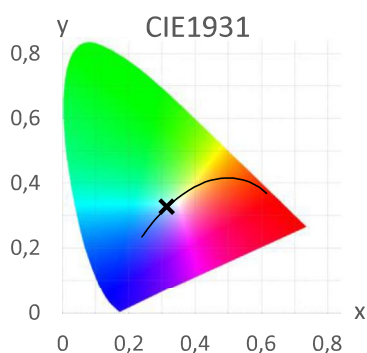
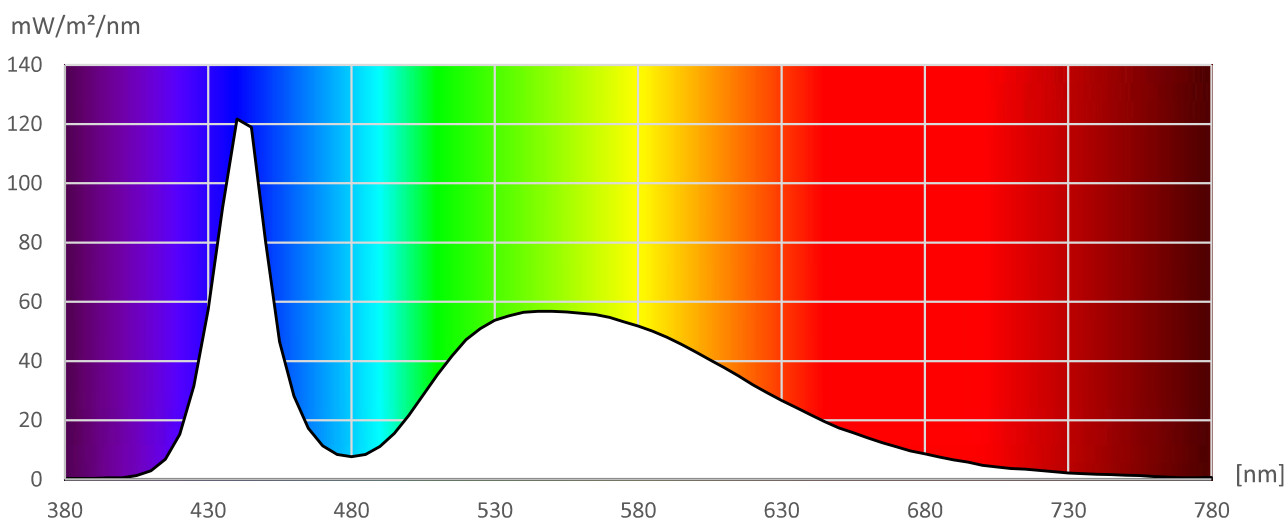
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 1 m / white

Measurement file: 288501_1m_white
Date of measurement: 05.02.2018
Time of measurement: 17:08:27



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Burgebrach, 05.02.2018

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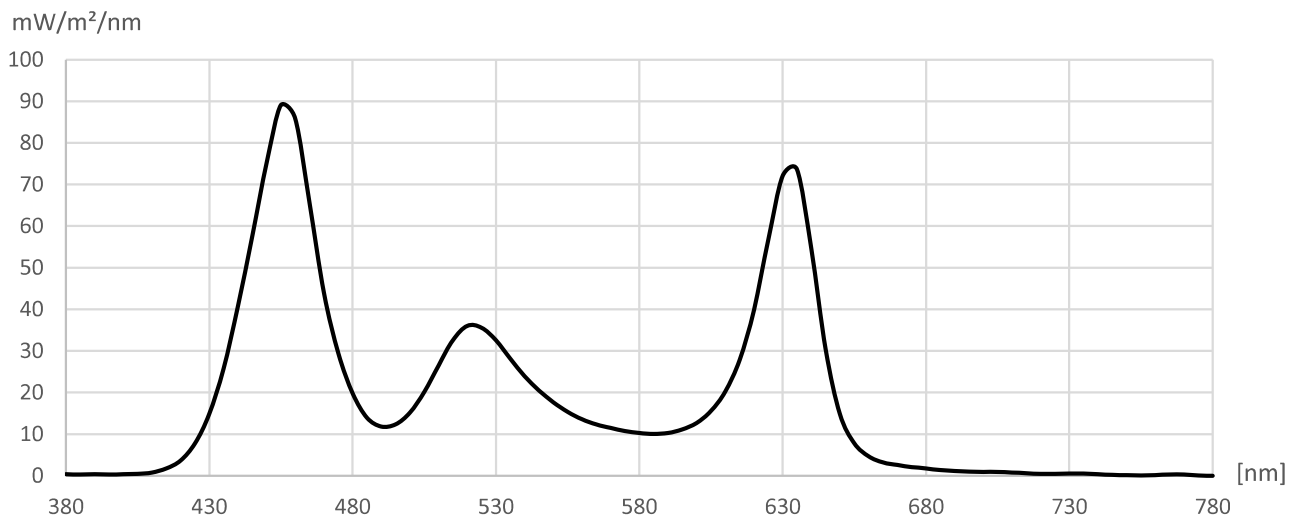
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / all

Measurement file: 288501_3m_all.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:10:59



R1 = 15,7 Ra = 38,8
R2 = 61,1 Re = 17,9
R3 = 66,0 GAI = 165,6
R4 = 21,6
R5 = 33,9
R6 = 60,6
R7 = 64,9
R8 = -13,1
R9 = #####
R10 = 28,5
R11 = 4,9
R12 = 59,3
R13 = 24,7
R14 = 73,5
R15 = -10,6

Illuminance 1615,53 lx
Ee 7,231 W/m²
LER 223,4 lm/W

correlated color temperature (CCT) 14177 K
Duv -0,0338

Saturation 33,4 %

Dominant wavelength #NV
Peak wavelength 456 nm

Flicker frequency % < 2.5 Hz
Percent Flicker < 2.5 %
Flicker index % < 2.5

CIE1931
x = 0,2887
y = 0,2400

CIE1976
u' = 0,2178
v' = 0,4073

CIE1960
u = 0,2178
v = 0,2716

TM30
Rf = 61,7
Rg = 122,6

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	0,33	440	40,76	500	15,17	560	13,55	620	39,89	680	1,74	740	0,34
385	0,32	445	57,64	505	20,17	565	12,34	625	56,56	685	1,36	745	0,21
390	0,36	450	75,29	510	26,56	570	11,48	630	72,00	690	1,17	750	0,13
395	0,27	455	89,03	515	32,56	575	10,76	635	73,61	695	0,98	755	0,10
400	0,35	460	85,87	520	36,00	580	10,26	640	54,52	700	0,94	760	0,14
405	0,48	465	65,45	525	35,56	585	10,07	645	30,24	705	0,93	765	0,33
410	0,75	470	43,88	530	32,52	590	10,29	650	14,87	710	0,79	770	0,27
415	1,74	475	29,42	535	28,10	595	11,12	655	7,80	715	0,60	775	0,06
420	3,69	480	19,74	540	23,96	600	12,68	660	4,65	720	0,45	780	0,00
425	7,80	485	13,99	545	20,51	605	15,57	665	3,20	725	0,45		
430	14,81	490	11,82	550	17,67	610	20,25	670	2,56	730	0,53		
435	25,72	495	12,35	555	15,33	615	27,88	675	2,10	735	0,52		

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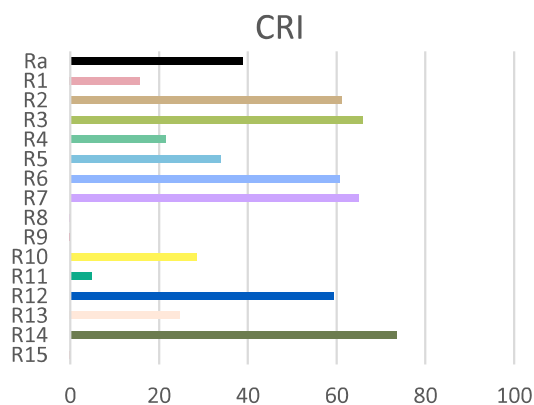
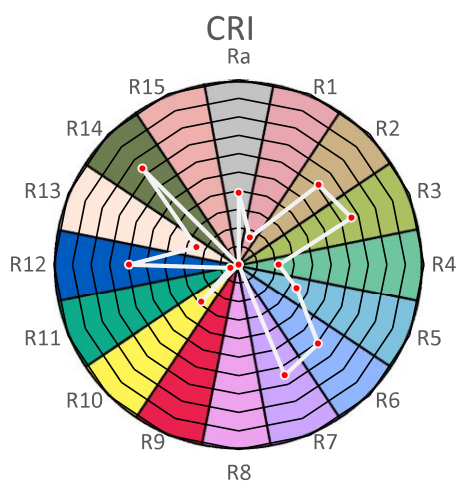
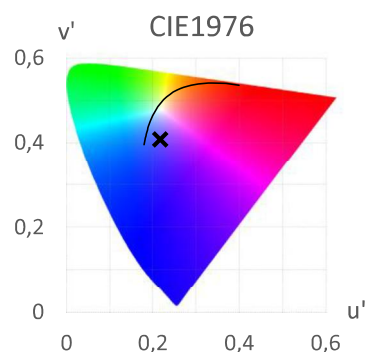
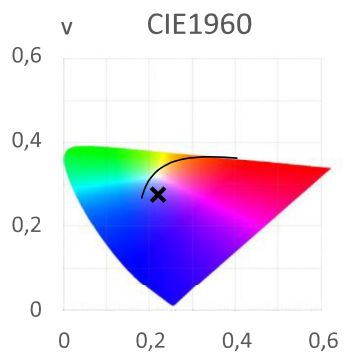
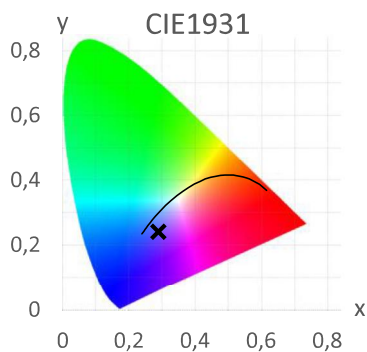
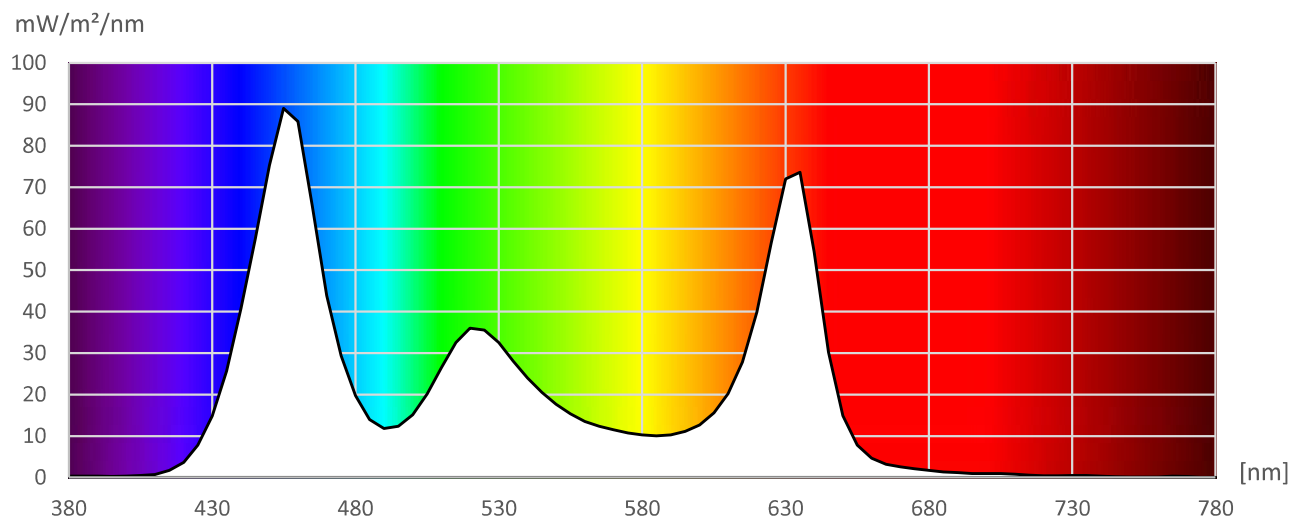
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / all

Measurement file: 288501_3m_all.CS
Date of measurement: 05.02.2018
Time of measurement: 17:10:59



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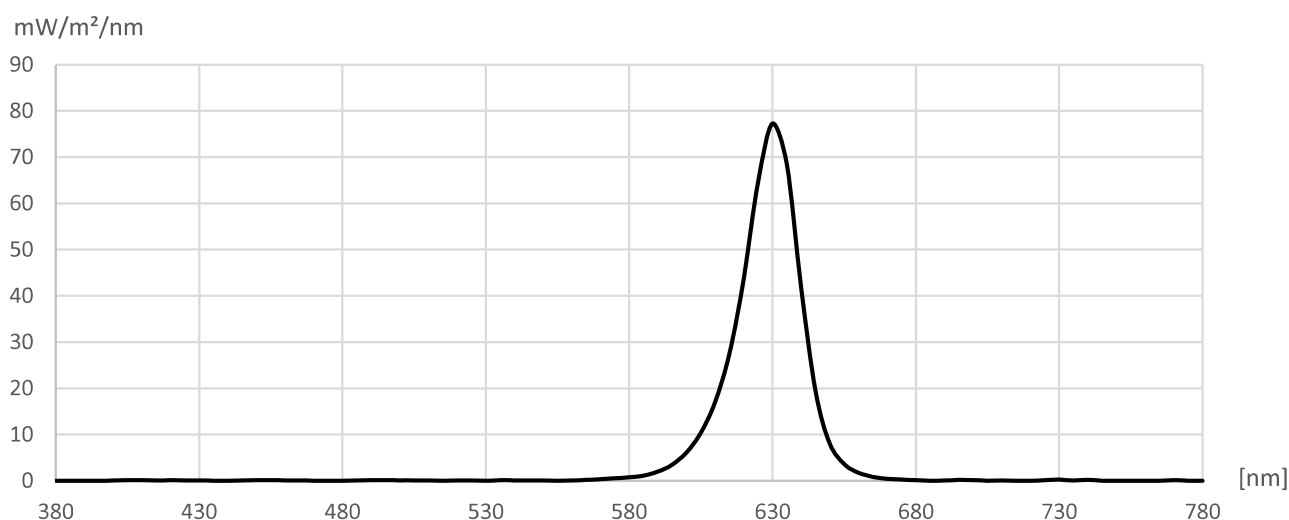
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / red

Measurement file: 288501_3m_red.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:10:21



R1 = -	Ra = -	Illuminance	416,54 lx	CIE1931
R2 = -	Re = -	Ee	2,015 W/m²	x = 0,6878
R3 = -	GAI = -	LER	206,8 lm/W	y = 0,3087
R4 = -				
R5 = -		correlated color temperature (CCT)	< 1600 K	CIE1976
R6 = -		Duv	-	u' = 0,5163
R7 = -				v' = 0,5214
R8 = -		Saturation	99,1 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	624 nm	u = 0,5163
R11 = -		Peak wavelength	630 nm	v = 0,3476
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	0,00	440	0,00	500	0,09	560	0,05	620	43,91	680	0,11	740	0,22
385	0,00	445	0,06	505	0,09	565	0,18	625	64,57	685	0,01	745	0,00
390	0,00	450	0,11	510	0,04	570	0,33	630	77,25	690	0,02	750	0,00
395	0,00	455	0,14	515	0,00	575	0,52	635	68,51	695	0,17	755	0,00
400	0,03	460	0,08	520	0,05	580	0,73	640	41,69	700	0,13	760	0,00
405	0,12	465	0,05	525	0,05	585	1,11	645	19,32	705	0,02	765	0,00
410	0,15	470	0,02	530	0,00	590	1,96	650	8,04	710	0,04	770	0,10
415	0,07	475	0,00	535	0,10	595	3,46	655	3,63	715	0,00	775	0,02
420	0,09	480	0,00	540	0,09	600	6,09	660	1,75	720	0,00	780	0,00
425	0,08	485	0,05	545	0,07	605	10,37	665	0,85	725	0,11		
430	0,07	490	0,15	550	0,04	610	17,06	670	0,44	730	0,24		
435	0,01	495	0,11	555	0,02	615	27,60	675	0,25	735	0,04		

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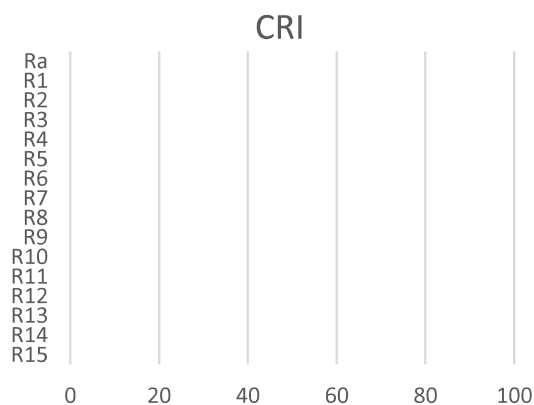
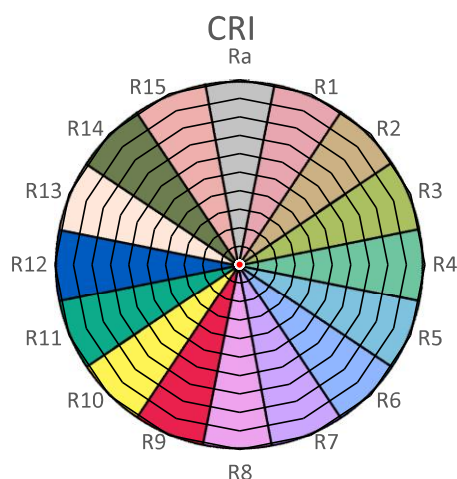
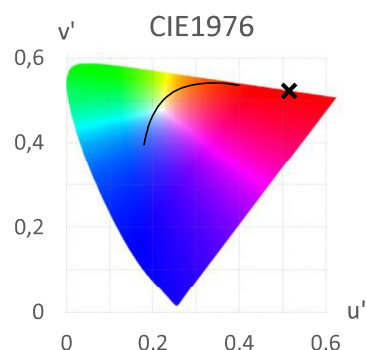
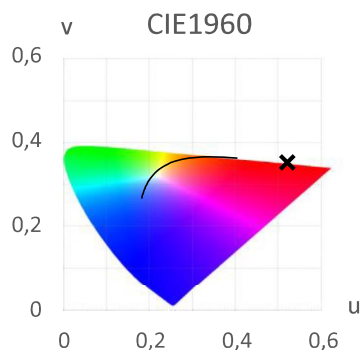
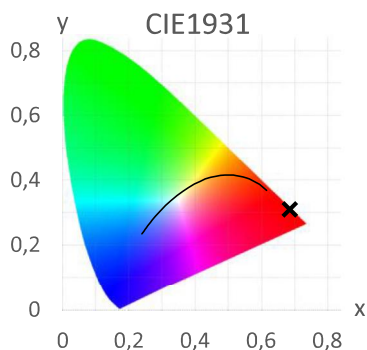
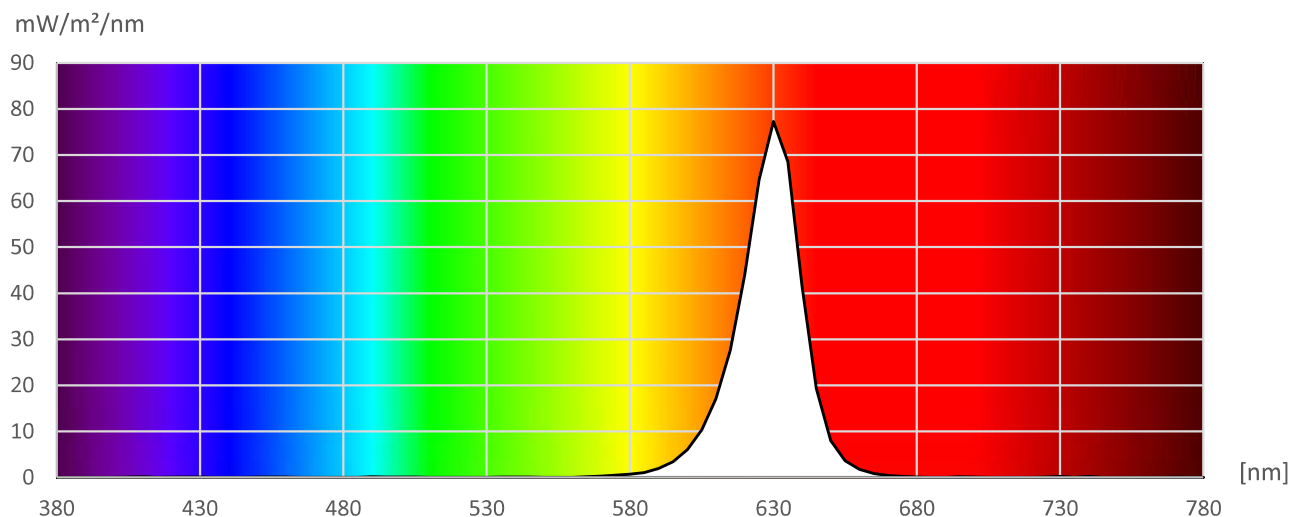
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / red

Measurement file: 288501_3m_red.C
Date of measurement: 05.02.2018
Time of measurement: 17:10:21



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Burgebrach, 05.02.2018

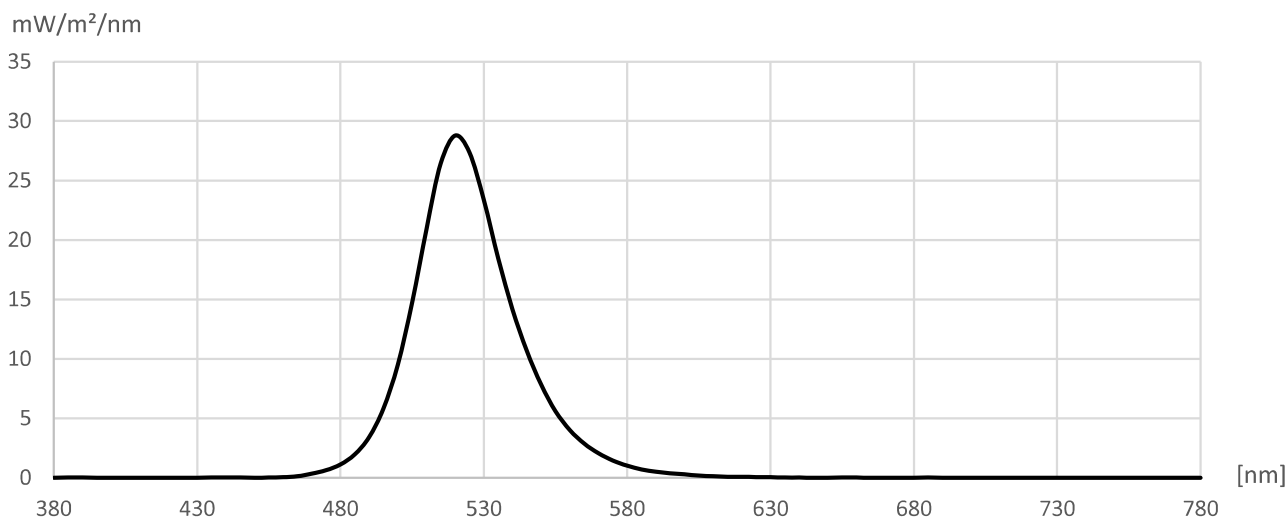
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / green

Measurement file: 288501_3m_green.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:09:57



R1 = -35,7	Ra = -24,1
R2 = -7,5	Re = -54,7
R3 = -19,6	GAI = 0,6
R4 = -65,1	
R5 = -9,8	
R6 = -14,4	
R7 = -7,2	
R8 = -33,8	
R9 = #####	
R10 = #####	
R11 = -94,2	
R12 = -29,0	
R13 = -40,8	
R14 = 40,6	
R15 = -39,7	

Illuminance	574,73 lx
Ee	1,177 W/m ²
LER	488,3 lm/W
correlated color temperature (CCT)	7844 K
Duv	0,1579
Saturation	78,1 %
Dominant wavelength	524 nm
Peak wavelength	519 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,1692
y = 0,7225
CIE1976
u' = 0,0597
v' = 0,5738
CIE1960
u = 0,0597
v = 0,3826
TM30
Rf = 0,7
Rg = 8,0

[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm	[nm]	mW/m ² /nm
380	0,00	440	0,01	500	9,51	560	4,01	620	0,07	680	0,00	740	0,00
385	0,02	445	0,02	505	14,77	565	2,88	625	0,06	685	0,01	745	0,00
390	0,01	450	0,00	510	20,95	570	2,07	630	0,04	690	0,00	750	0,01
395	0,00	455	0,01	515	26,46	575	1,45	635	0,01	695	0,00	755	0,00
400	0,00	460	0,04	520	28,79	580	1,01	640	0,01	700	0,00	760	0,00
405	0,00	465	0,12	525	27,36	585	0,70	645	0,00	705	0,00	765	0,00
410	0,00	470	0,34	530	23,36	590	0,50	650	0,00	710	0,00	770	0,00
415	0,00	475	0,63	535	18,44	595	0,38	655	0,02	715	0,00	775	0,00
420	0,00	480	1,12	540	14,18	600	0,28	660	0,01	720	0,00	780	0,00
425	0,00	485	1,96	545	10,69	605	0,19	665	0,00	725	0,00		
430	0,01	490	3,40	550	7,83	610	0,12	670	0,00	730	0,00		
435	0,02	495	5,82	555	5,60	615	0,08	675	0,00	735	0,00		

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Burgebrach, 05.02.2018

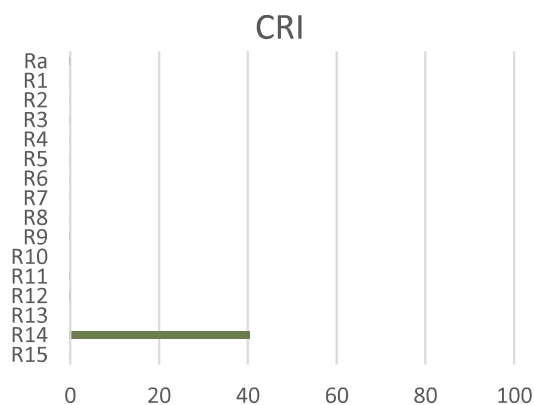
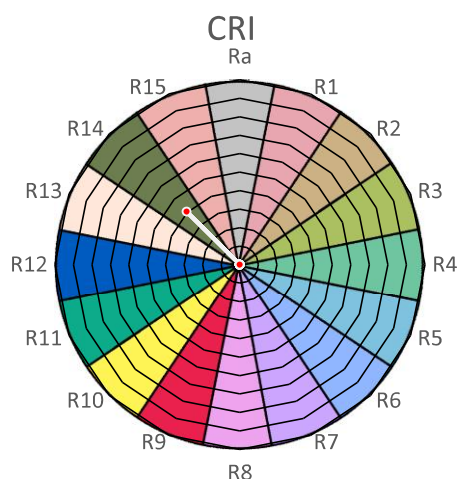
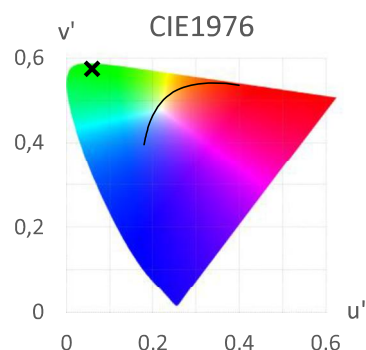
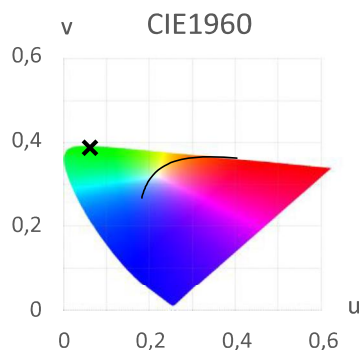
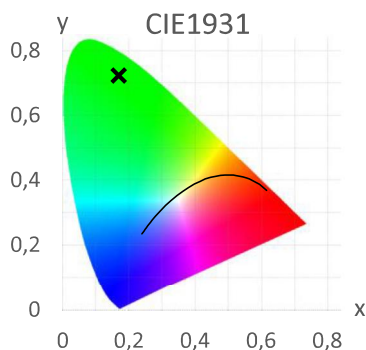
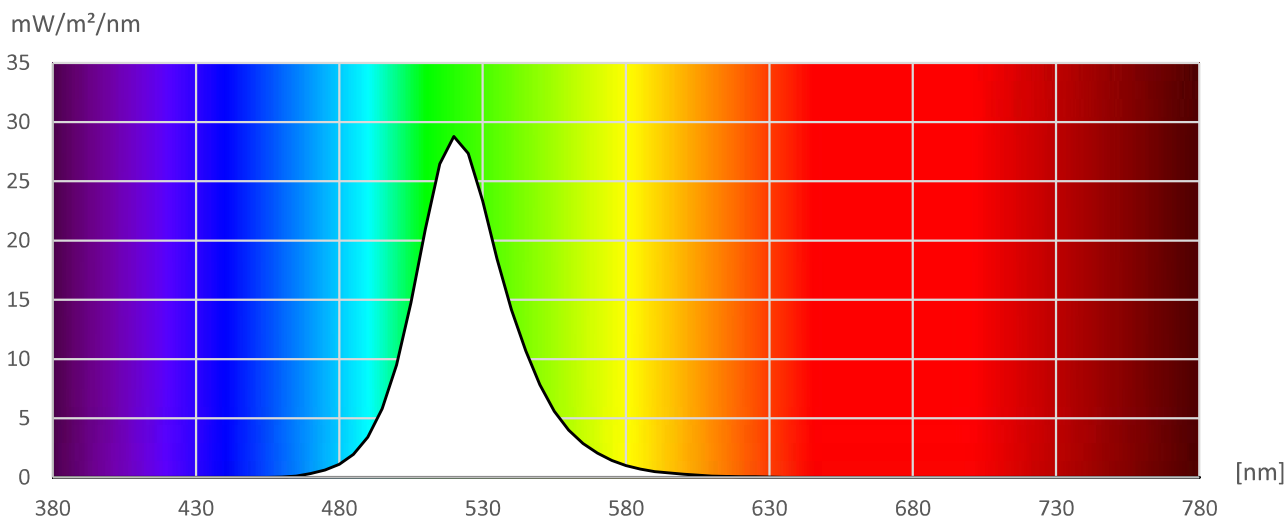
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / green

Measurement file: 288501_3m_green
Date of measurement: 05.02.2018
Time of measurement: 17:09:57



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Burgebrach, 05.02.2018

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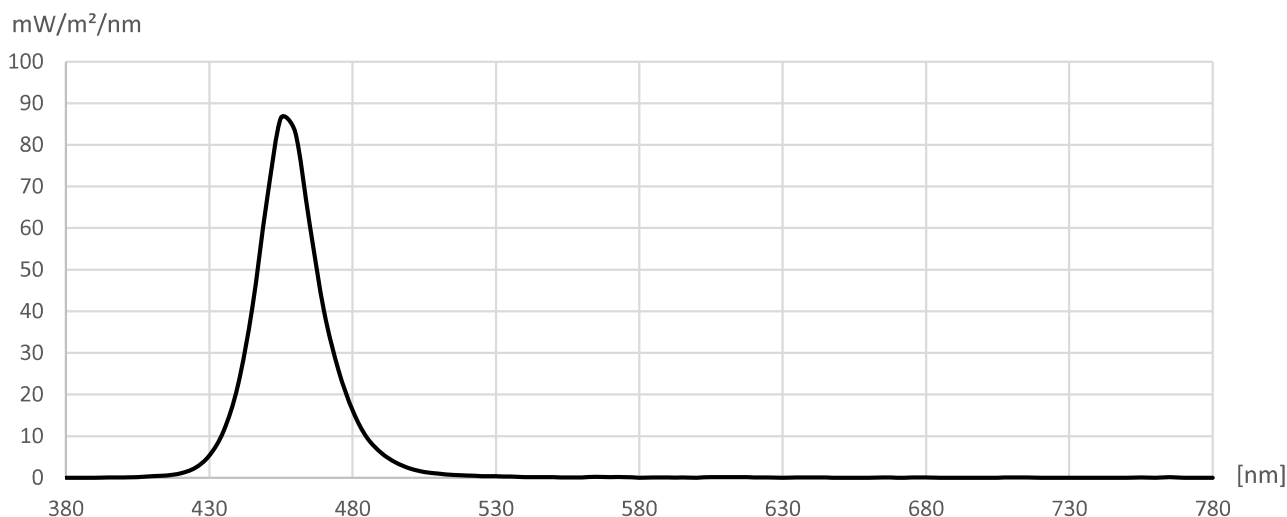
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / blue

Measurement file: 288501_3m_blue.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:09:32



R1 = -	Ra = -	Illuminance	122,8 lx	CIE1931
R2 = -	Re = -	Ee	2,461 W/m²	x = 0,1455
R3 = -	GAI = -	LER	49,9 lm/W	y = 0,0393
R4 = -				
R5 = -		correlated color temperature (CCT)	> 50000 K	CIE1976
R6 = -		Duv	-	u' = 0,1830
R7 = -				v' = 0,1111
R8 = -		Saturation	97,9 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	453 nm	u = 0,1830
R11 = -		Peak wavelength	456 nm	v = 0,0741
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	0,00	440	22,22	500	2,25	560	0,08	620	0,09	680	0,05	740	0,00
385	0,00	445	40,91	505	1,40	565	0,22	625	0,06	685	0,00	745	0,00
390	0,02	450	66,43	510	0,98	570	0,17	630	0,02	690	0,00	750	0,01
395	0,03	455	86,45	515	0,70	575	0,17	635	0,04	695	0,00	755	0,06
400	0,05	460	83,10	520	0,54	580	0,02	640	0,08	700	0,00	760	0,00
405	0,17	465	61,02	525	0,40	585	0,07	645	0,03	705	0,02	765	0,10
410	0,35	470	40,10	530	0,34	590	0,03	650	0,00	710	0,06	770	0,00
415	0,53	475	25,98	535	0,27	595	0,03	655	0,00	715	0,07	775	0,00
420	1,09	480	16,08	540	0,17	600	0,02	660	0,02	720	0,01	780	0,00
425	2,34	485	9,69	545	0,16	605	0,13	665	0,03	725	0,00		
430	5,29	490	5,99	550	0,10	610	0,15	670	0,02	730	0,00		
435	11,22	495	3,70	555	0,09	615	0,15	675	0,03	735	0,00		

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Burgebrach, 05.02.2018

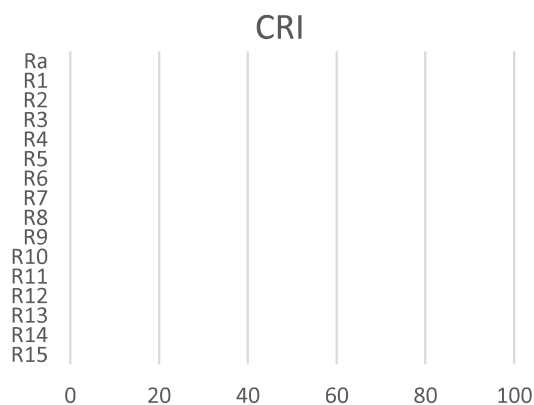
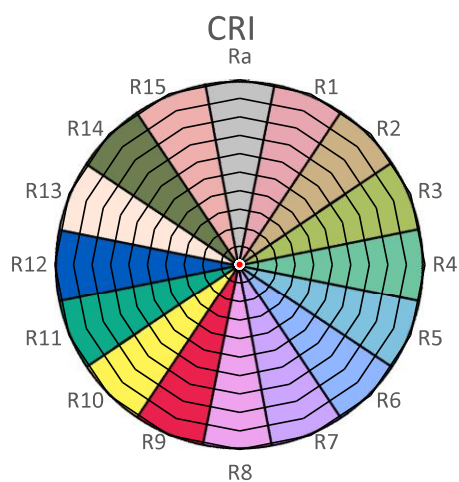
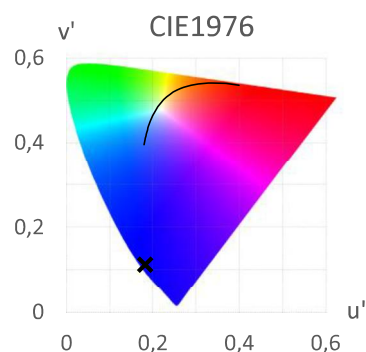
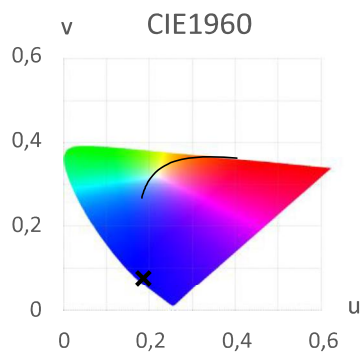
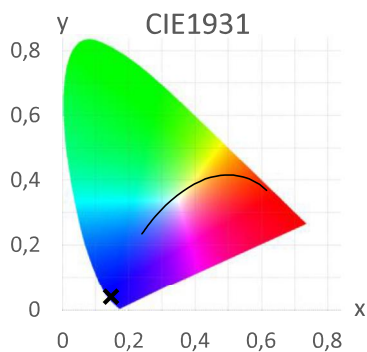
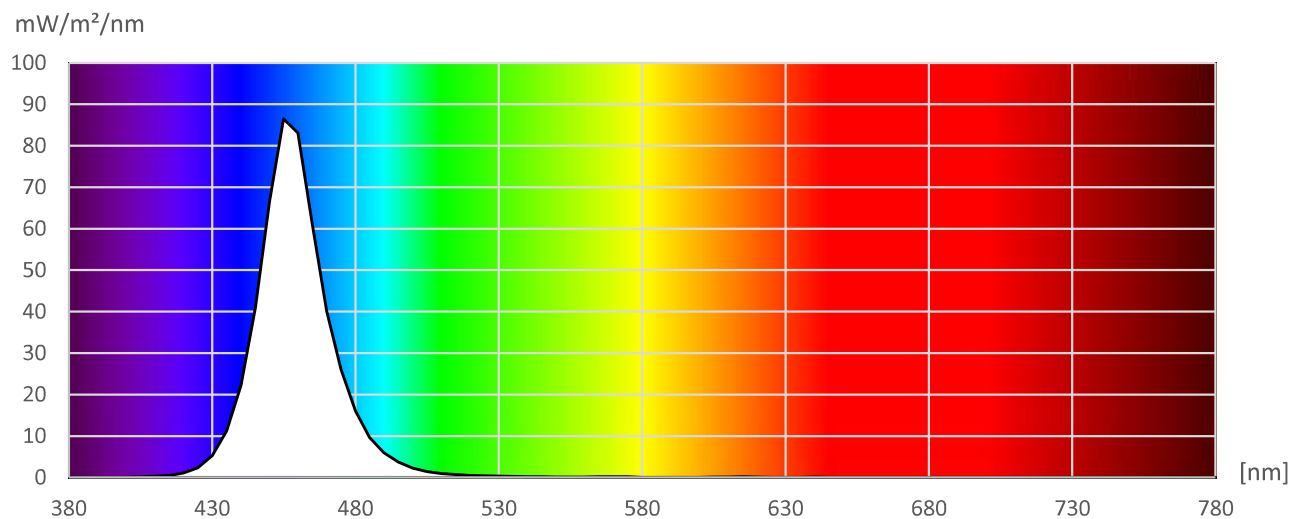
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / blue

Measurement file: 288501_3m_blue.c
Date of measurement: 05.02.2018
Time of measurement: 17:09:32



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Burgebrach, 05.02.2018

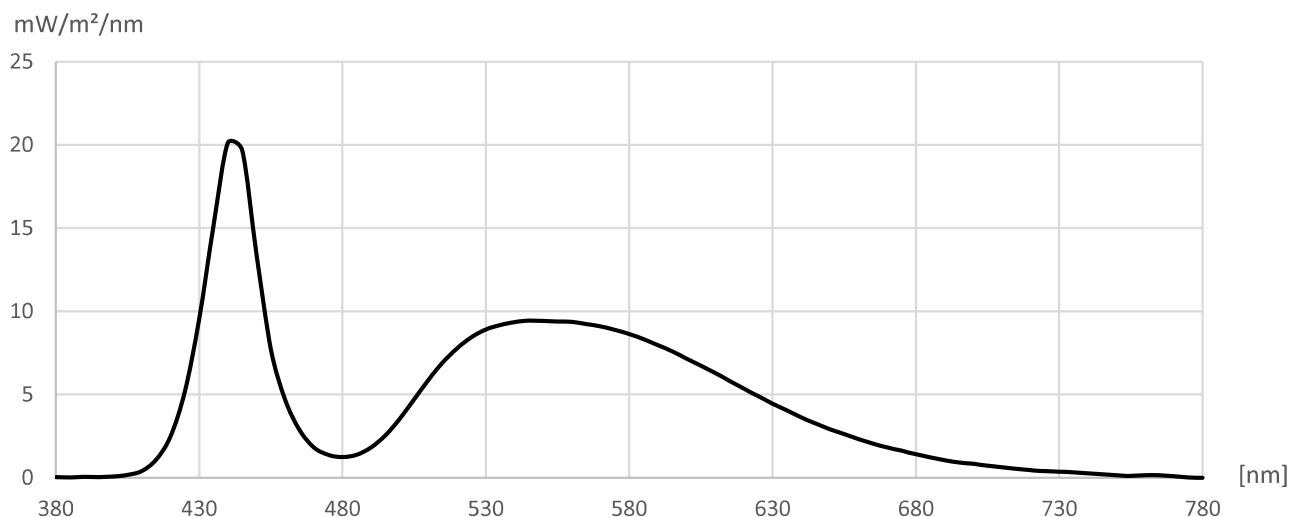
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / white

Measurement file: 288501_3m_white.CSV
Date of measurement: 05.02.2018
Time of measurement: 17:09:08



R1 = 69,2	Ra = 68,3	Illuminance	557 lx	CIE1931
R2 = 70,1	Re = 58,3	Ee	1,750 W/m²	x = 0,3150
R3 = 69,8	GAI = 88,9	LER	318,3 lm/W	y = 0,3267
R4 = 70,7				
R5 = 70,8		correlated color temperature (CCT)	6396 K	CIE1976
R6 = 61,6		Duv	0,0009	u' = 0,2003
R7 = 74,0				v' = 0,4674
R8 = 60,7		Saturation	6,8 %	
R9 = -27,8				CIE1960
R10 = 28,6		Dominant wavelength	484 nm	u = 0,2003
R11 = 72,2		Peak wavelength	442 nm	v = 0,3116
R12 = 42,1				
R13 = 67,4		Flicker frequency	% < 2.5 Hz	TM30
R14 = 82,8		Percent Flicker	< 2.5 %	Rf = 63,5
R15 = 62,6		Flicker index	% < 2.5	Rg = 96,3

[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	0,04	440	20,11	500	3,54	560	9,36	620	5,35	680	1,41	740	0,26
385	0,02	445	19,67	505	4,72	565	9,24	625	4,90	685	1,23	745	0,21
390	0,05	450	13,38	510	5,89	570	9,09	630	4,46	690	1,05	750	0,14
395	0,04	455	7,78	515	6,92	575	8,88	635	4,05	695	0,93	755	0,10
400	0,08	460	4,71	520	7,78	580	8,63	640	3,63	700	0,83	760	0,16
405	0,16	465	2,88	525	8,44	585	8,32	645	3,27	705	0,72	765	0,14
410	0,40	470	1,83	530	8,91	590	7,97	650	2,92	710	0,63	770	0,10
415	1,08	475	1,37	535	9,17	595	7,60	655	2,62	715	0,54	775	0,02
420	2,48	480	1,24	540	9,35	600	7,16	660	2,32	720	0,45	780	0,00
425	5,21	485	1,38	545	9,43	605	6,73	665	2,06	725	0,39		
430	9,47	490	1,81	550	9,42	610	6,30	670	1,81	730	0,37		
435	15,11	495	2,55	555	9,39	615	5,82	675	1,62	735	0,32		

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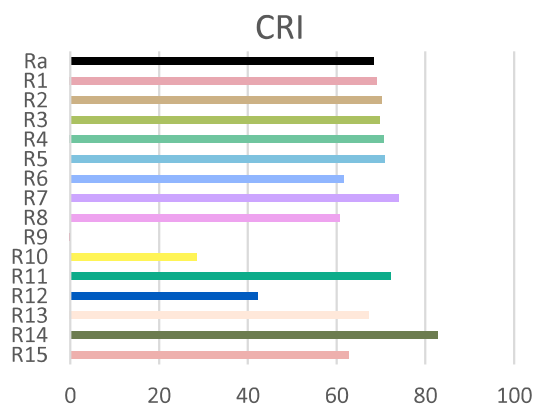
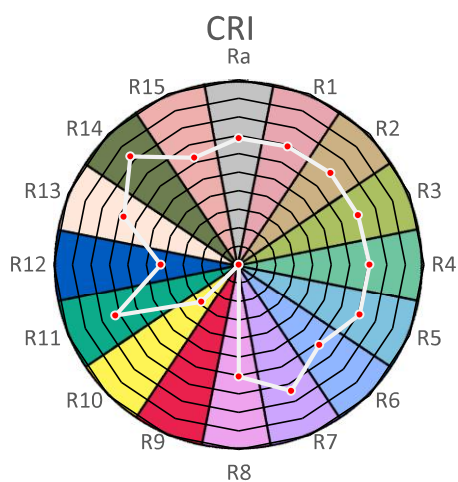
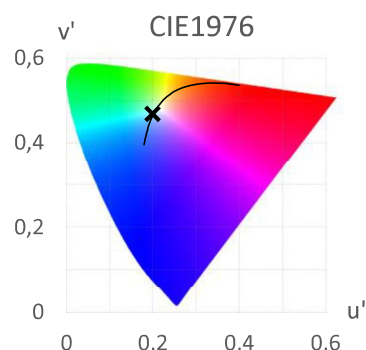
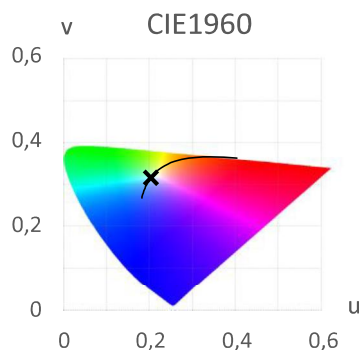
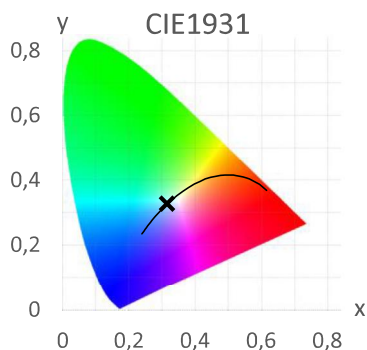
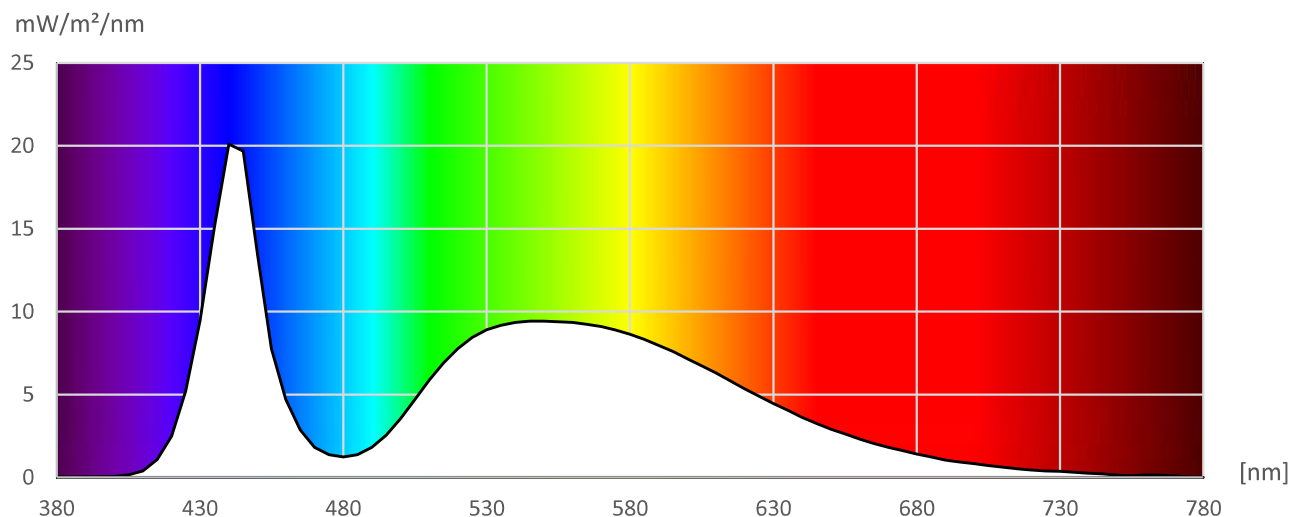
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
HL-x18 WCL RGBW Flood 18x8W
Item 288501 / @ 3 m / white

Measurement file: 288501_3m_white
Date of measurement: 05.02.2018
Time of measurement: 17:09:08



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First, last name of inspector