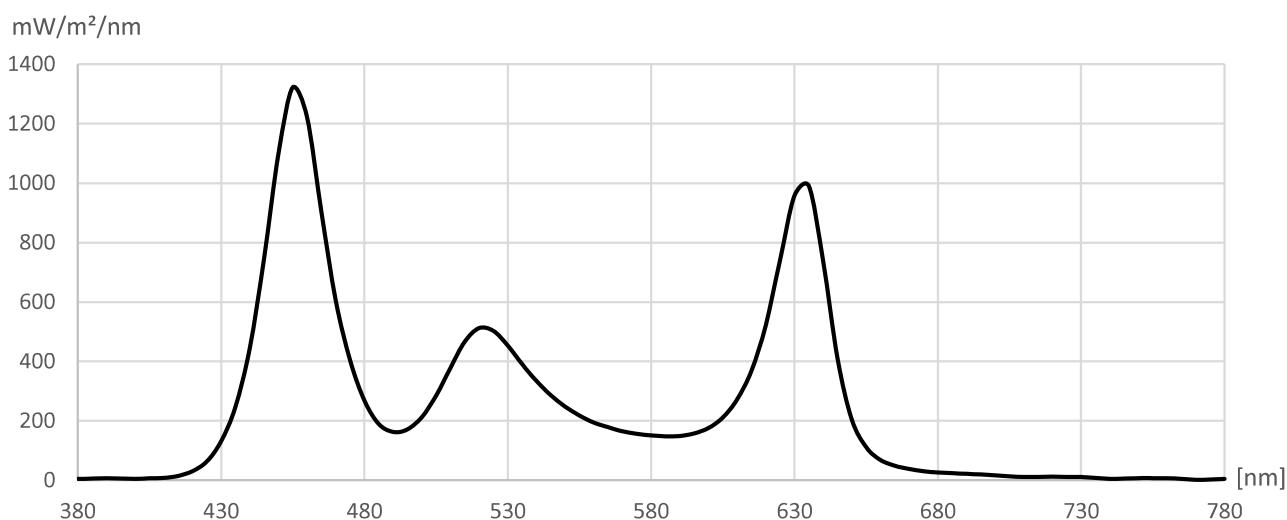


Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / all

Measurement file: 1m_all.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:28:49



R1 = 22,3	Ra = 43,8
R2 = 64,1	Re = 23,9
R3 = 69,5	GAI = 160,6
R4 = 29,3	
R5 = 39,6	
R6 = 63,6	
R7 = 67,3	
R8 = -5,6	
R9 = #####	
R10 = 33,6	
R11 = 13,5	
R12 = 60,0	
R13 = 30,6	
R14 = 76,0	
R15 = -2,3	

Illuminance	22499,8 lx
Ee	98,828 W/m ²
LER	227,7 lm/W
correlated color temperature (CCT)	13236 K
Duv	-0,0296
Saturation	55,8 %
Dominant wavelength	#NV
Peak wavelength	456 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,2878
y = 0,2456
CIE1976
u' = 0,2143
v' = 0,4115
CIE1960
u = 0,2143
v = 0,2743
TM30
Rf = 63,4
Rg = 120,1

[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	4,59	440	444,74	500	212,44	560	194,06	620	523,09	680	26,32	740	5,19
385	5,24	445	748,42	505	285,63	565	178,57	625	740,03	685	23,80	745	5,35
390	6,51	450	1100,92	510	378,64	570	164,86	630	957,19	690	21,64	750	7,06
395	5,96	455	1321,35	515	465,73	575	156,10	635	990,20	695	19,31	755	7,31
400	4,78	460	1221,38	520	511,66	580	150,81	640	736,69	700	16,19	760	6,85
405	6,72	465	902,25	525	502,33	585	147,96	645	409,08	705	13,41	765	4,68
410	7,94	470	603,87	530	452,52	590	149,19	650	205,73	710	11,19	770	1,89
415	14,58	475	402,97	535	390,21	595	157,12	655	111,66	715	11,00	775	2,38
420	30,65	480	267,23	540	334,47	600	175,67	660	68,47	720	11,68	780	5,16
425	63,43	485	189,99	545	286,25	605	210,61	665	48,64	725	10,82		
430	130,65	490	162,46	550	247,84	610	272,28	670	37,80	730	10,97		
435	246,64	495	171,29	555	217,91	615	368,90	675	30,45	735	7,98		

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Burgebrach, 11.02.2019

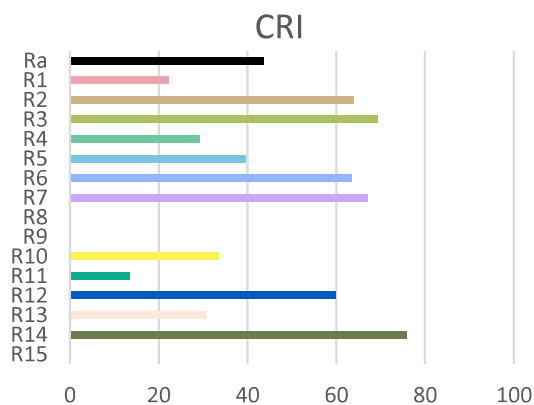
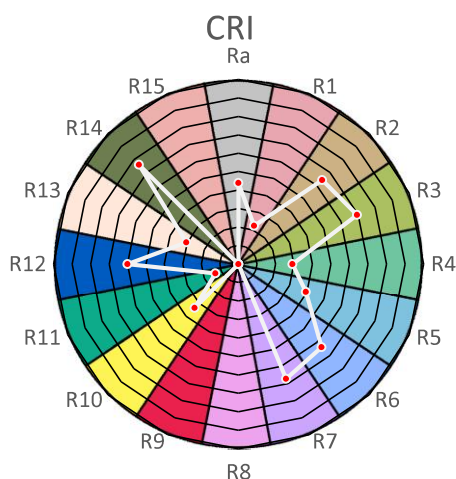
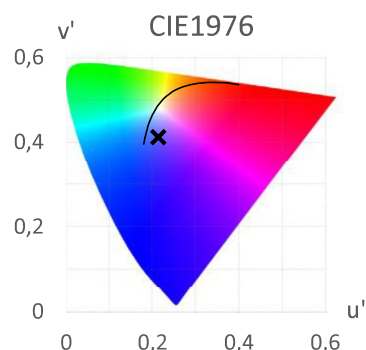
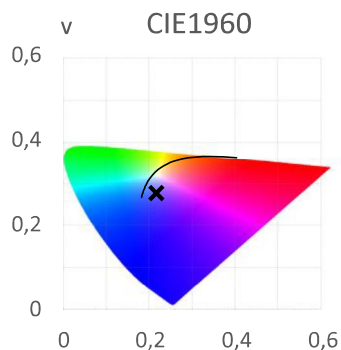
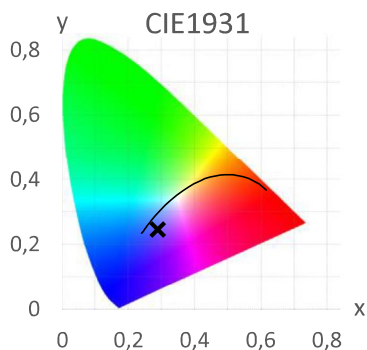
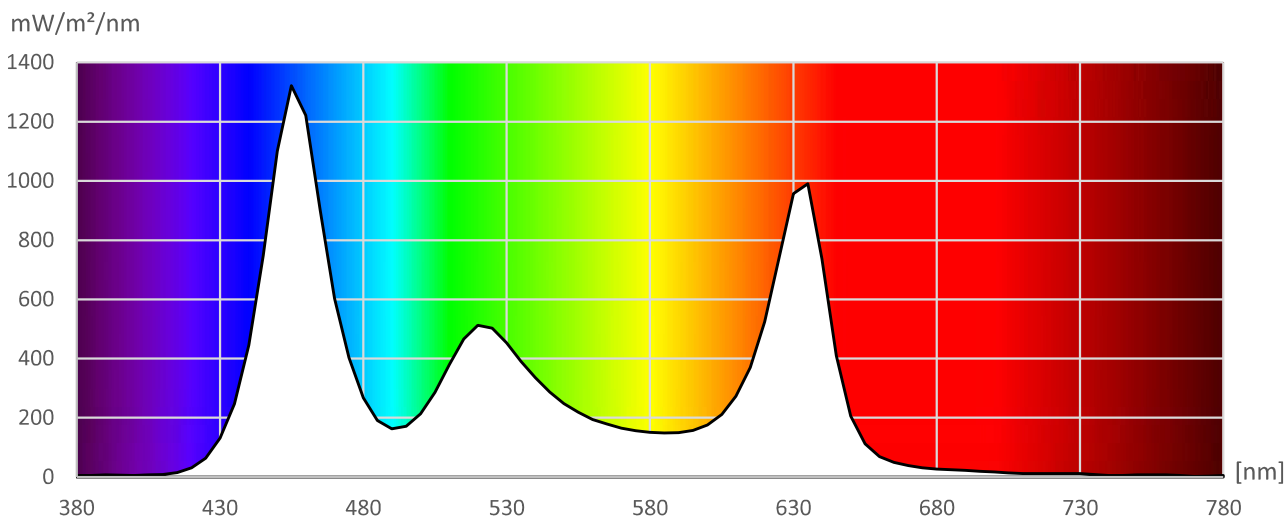
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / all

Measurement file: 1m_all.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:28:49



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Burgebrach, 11.02.2019

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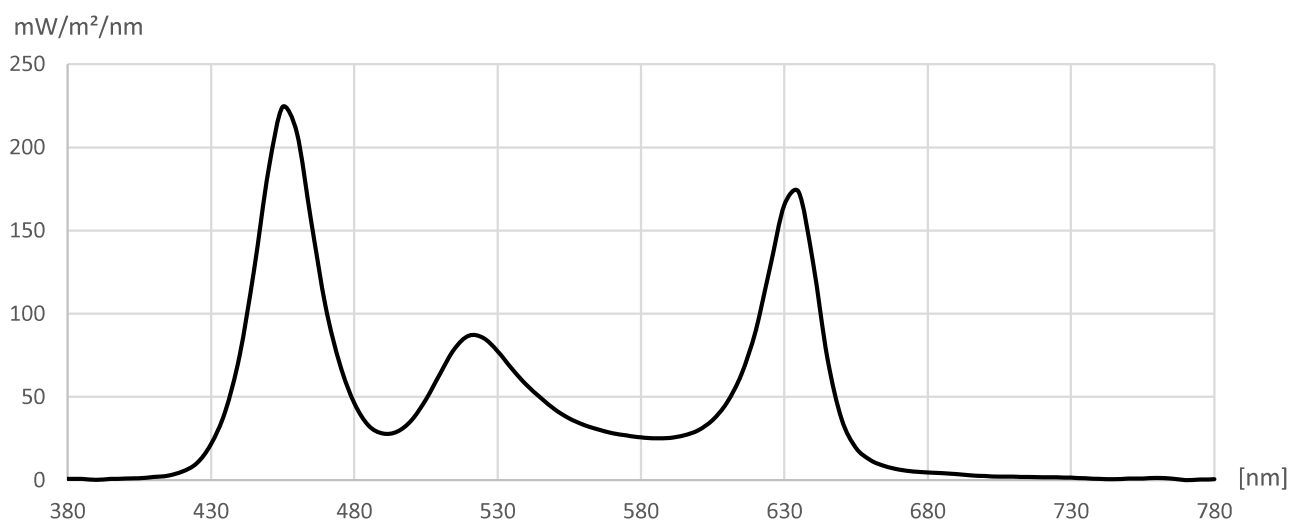
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / all

Measurement file: 3m_all.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:29:02



R1 = 21,0	Ra = 42,7
R2 = 63,3	Re = 22,7
R3 = 69,3	GAI = 161,0
R4 = 28,2	
R5 = 38,3	
R6 = 62,7	
R7 = 66,6	
R8 = -7,7	
R9 = #####	
R10 = 32,0	
R11 = 12,3	
R12 = 59,3	
R13 = 29,4	
R14 = 75,8	
R15 = -4,0	

Illuminance	3860,05 lx
Ee	16,950 W/m ²
LER	227,7 lm/W
correlated color temperature (CCT)	12687 K
Duv	-0,0303
Saturation	31,4 %
Dominant wavelength	#NV
Peak wavelength	456 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,2894
y = 0,2464
CIE1976
u' = 0,2153
v' = 0,4124
CIE1960
u = 0,2153
v = 0,2749
TM30
Rf = 63,1
Rg = 120,3

[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	0,78	440	75,01	500	36,10	560	33,27	620	89,92	680	4,68	740	0,76
385	0,75	445	126,18	505	48,69	565	30,61	625	127,30	685	4,34	745	0,65
390	0,33	450	186,01	510	64,37	570	28,25	630	165,40	690	3,71	750	0,93
395	0,81	455	224,24	515	79,05	575	26,89	635	173,30	695	2,91	755	1,10
400	0,96	460	208,69	520	86,92	580	25,71	640	130,75	700	2,49	760	1,31
405	1,29	465	155,23	525	85,44	585	25,27	645	73,26	705	2,19	765	1,09
410	1,91	470	104,17	530	77,53	590	25,46	650	36,94	710	2,09	770	0,14
415	2,80	475	69,30	535	66,82	595	26,90	655	19,53	715	1,96	775	0,41
420	5,25	480	46,21	540	57,41	600	29,96	660	12,14	720	1,83	780	0,55
425	10,24	485	32,89	545	49,63	605	36,17	665	8,47	725	1,71		
430	21,51	490	28,04	550	42,45	610	46,72	670	6,44	730	1,58		
435	41,36	495	29,28	555	37,19	615	63,65	675	5,34	735	1,12		

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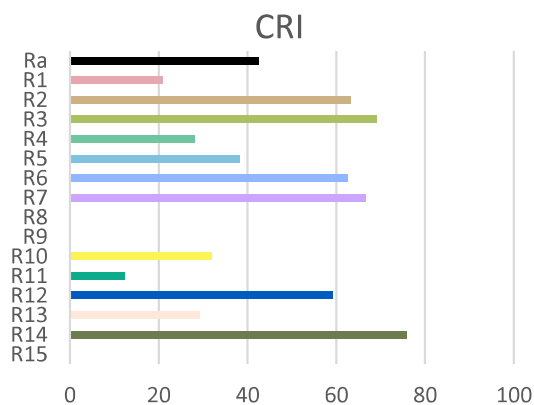
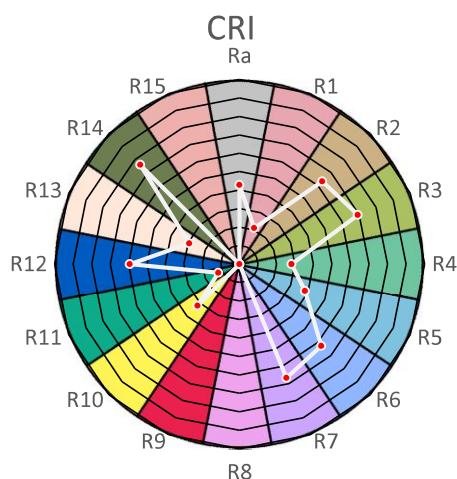
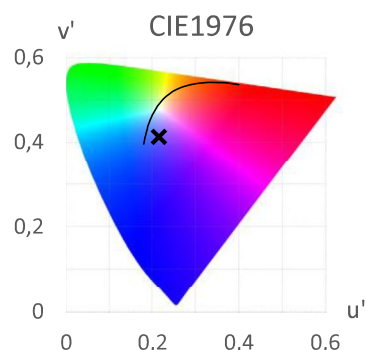
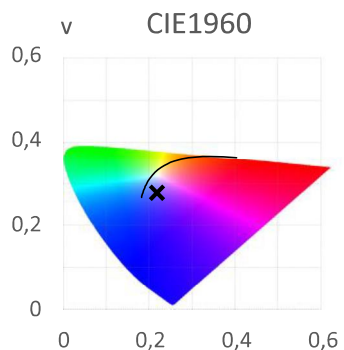
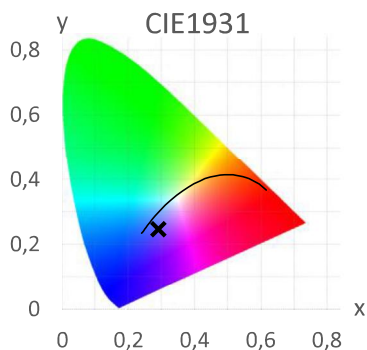
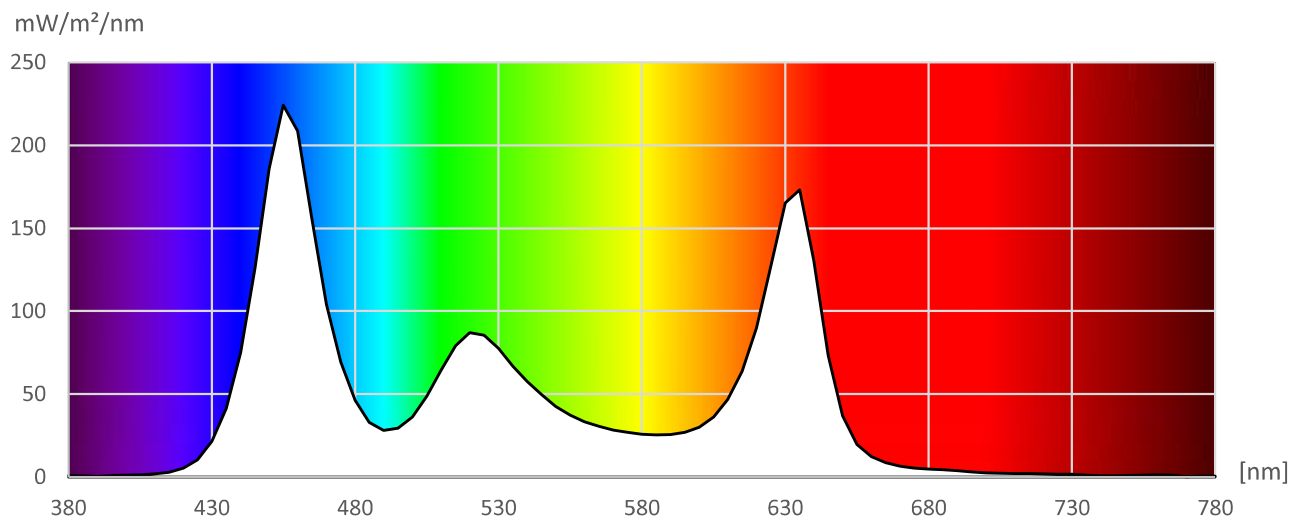
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / all

Measurement file: 3m_all.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:29:02



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Burgebrach, 11.02.2019

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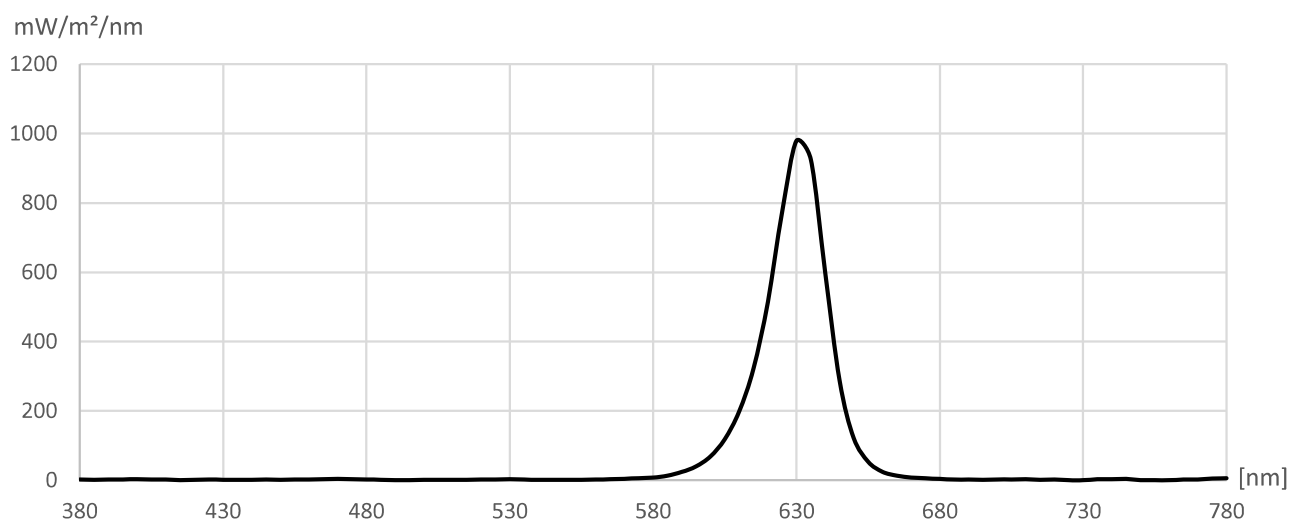
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / red

Measurement file: 1m_red.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:29:55



R1 = -	Ra = -	Illuminance	5187,53 lx	CIE1931
R2 = -	Re = -	Ee	26,095 W/m ²	x = 0,6851
R3 = -	GAI = -	LER	198,8 lm/W	y = 0,3068
R4 = -				
R5 = -		correlated color temperature (CCT)	< 1600 K	CIE1976
R6 = -		Duv	-	u' = 0,5159
R7 = -				v' = 0,5198
R8 = -		Saturation	97,5 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	626 nm	u = 0,5159
R11 = -		Peak wavelength	632 nm	v = 0,3466
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	2,07	440	1,01	500	0,85	560	2,12	620	514,59	680	3,72	740	3,12
385	1,46	445	2,22	505	0,94	565	2,90	625	771,83	685	1,85	745	3,54
390	2,11	450	1,59	510	0,83	570	4,21	630	978,50	690	2,44	750	0,72
395	2,60	455	2,01	515	1,30	575	5,97	635	925,81	695	1,46	755	0,59
400	2,75	460	1,90	520	2,07	580	7,47	640	599,47	700	2,55	760	0,00
405	1,88	465	3,18	525	2,01	585	12,91	645	287,53	705	2,10	765	2,06
410	2,17	470	3,67	530	2,78	590	23,83	650	121,95	710	2,93	770	2,38
415	0,26	475	2,91	535	1,78	595	39,86	655	53,37	715	0,92	775	4,73
420	1,12	480	2,24	540	0,97	600	68,59	660	24,61	720	2,22	780	5,51
425	1,79	485	1,68	545	1,28	605	118,50	665	13,41	725	0,00		
430	1,55	490	0,54	550	1,14	610	198,05	670	7,99	730	0,06		
435	0,89	495	0,69	555	1,22	615	322,55	675	5,86	735	2,77		

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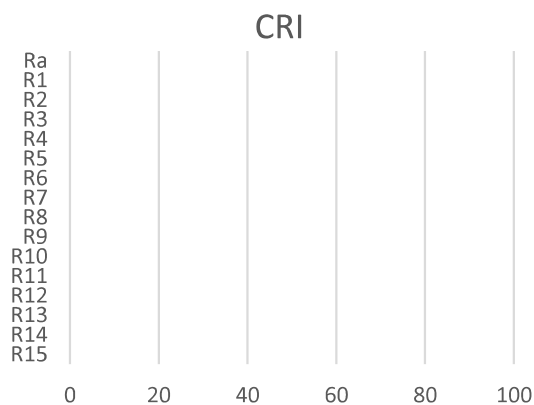
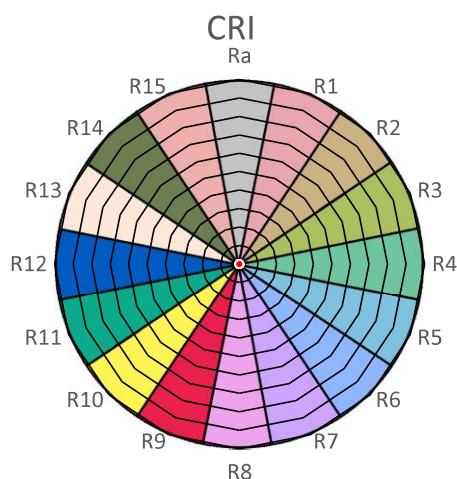
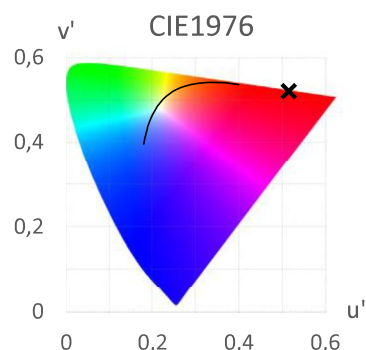
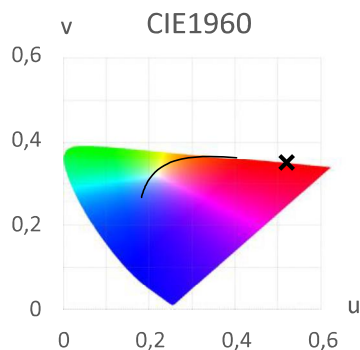
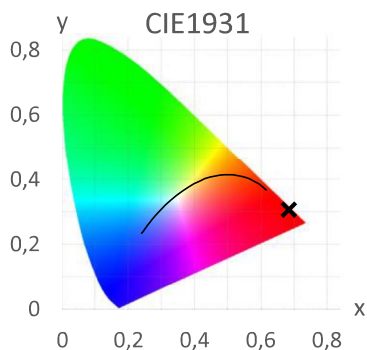
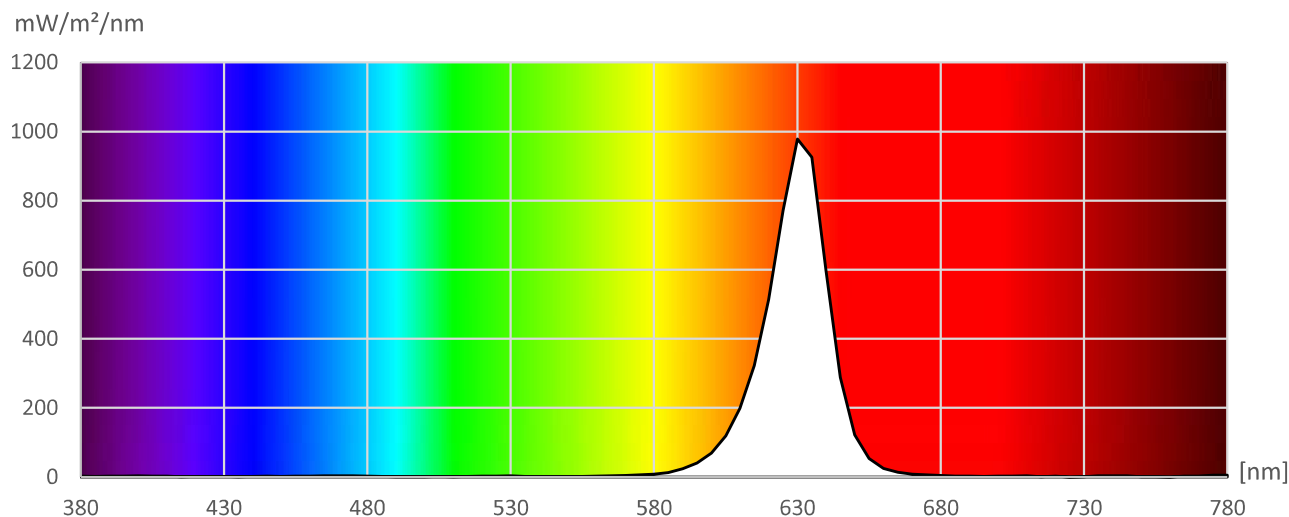
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / red

Measurement file: 1m_red.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:29:55



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Burgebrach, 11.02.2019

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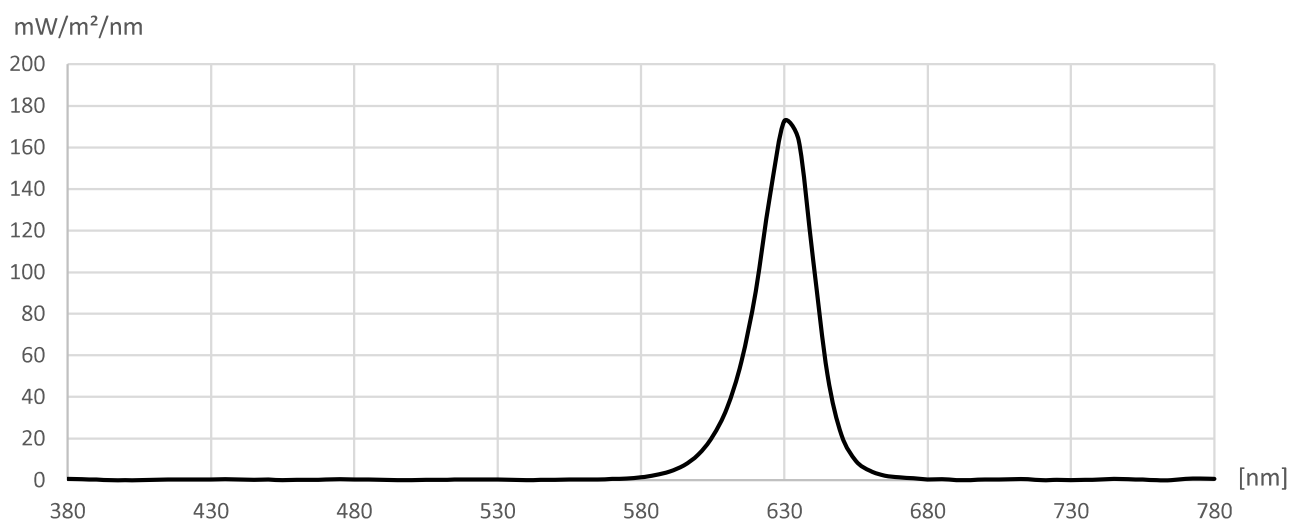
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / red

Measurement file: 3m_red.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:03



R1 = -	Ra = -	Illuminance	915,21 lx	CIE1931
R2 = -	Re = -	Ee	4,599 W/m ²	x = 0,6861
R3 = -	GAI = -	LER	199,0 lm/W	y = 0,3069
R4 = -				
R5 = -		correlated color temperature (CCT)	< 1600 K	CIE1976
R6 = -		Duv	-	u' = 0,5168
R7 = -				v' = 0,5201
R8 = -		Saturation	97,8 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	626 nm	u = 0,5168
R11 = -		Peak wavelength	630 nm	v = 0,3467
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	0,70	440	0,35	500	0,05	560	0,42	620	90,79	680	0,43	740	0,34
385	0,45	445	0,23	505	0,24	565	0,36	625	136,36	685	0,51	745	0,65
390	0,30	450	0,30	510	0,24	570	0,59	630	172,69	690	0,11	750	0,46
395	0,00	455	0,02	515	0,28	575	0,85	635	163,53	695	0,12	755	0,29
400	0,00	460	0,22	520	0,40	580	1,36	640	106,32	700	0,35	760	0,00
405	0,00	465	0,22	525	0,37	585	2,47	645	50,86	705	0,36	765	0,07
410	0,22	470	0,30	530	0,34	590	4,18	650	21,71	710	0,52	770	0,67
415	0,34	475	0,46	535	0,19	595	7,16	655	9,31	715	0,51	775	0,76
420	0,29	480	0,33	540	0,05	600	12,30	660	4,46	720	0,00	780	0,62
425	0,37	485	0,37	545	0,13	605	21,06	665	2,25	725	0,20		
430	0,40	490	0,20	550	0,27	610	34,78	670	1,39	730	0,00		
435	0,46	495	0,00	555	0,30	615	57,04	675	1,02	735	0,18		

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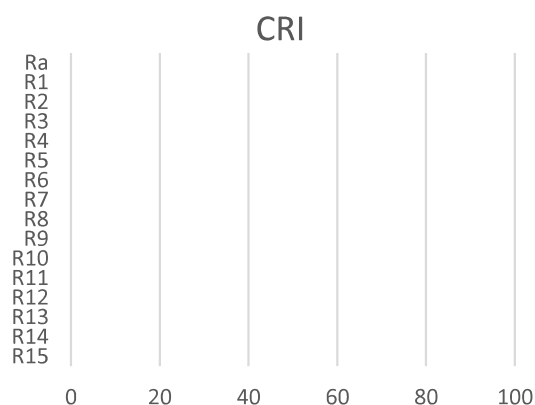
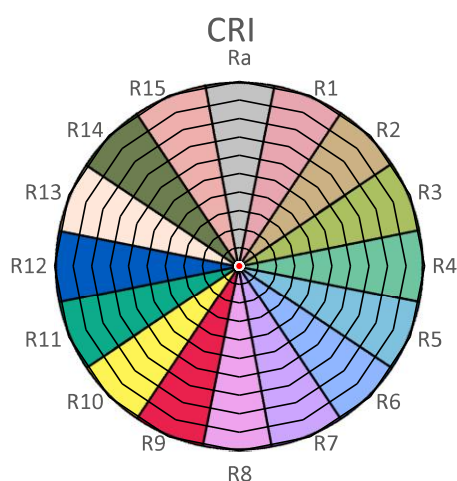
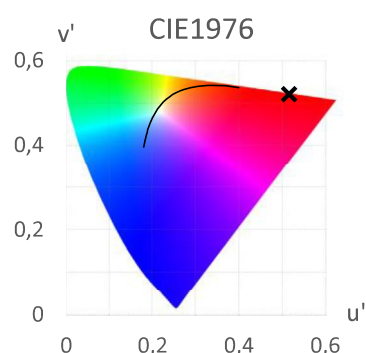
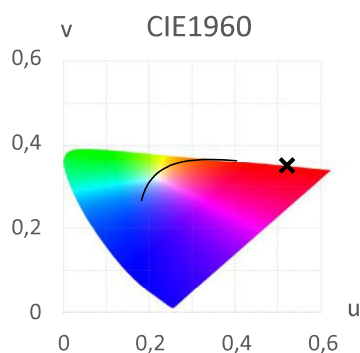
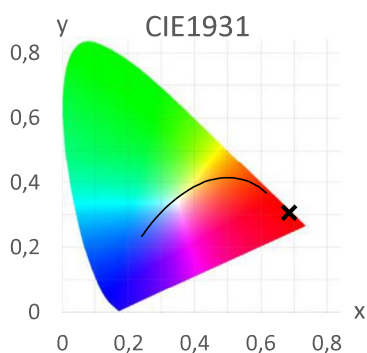
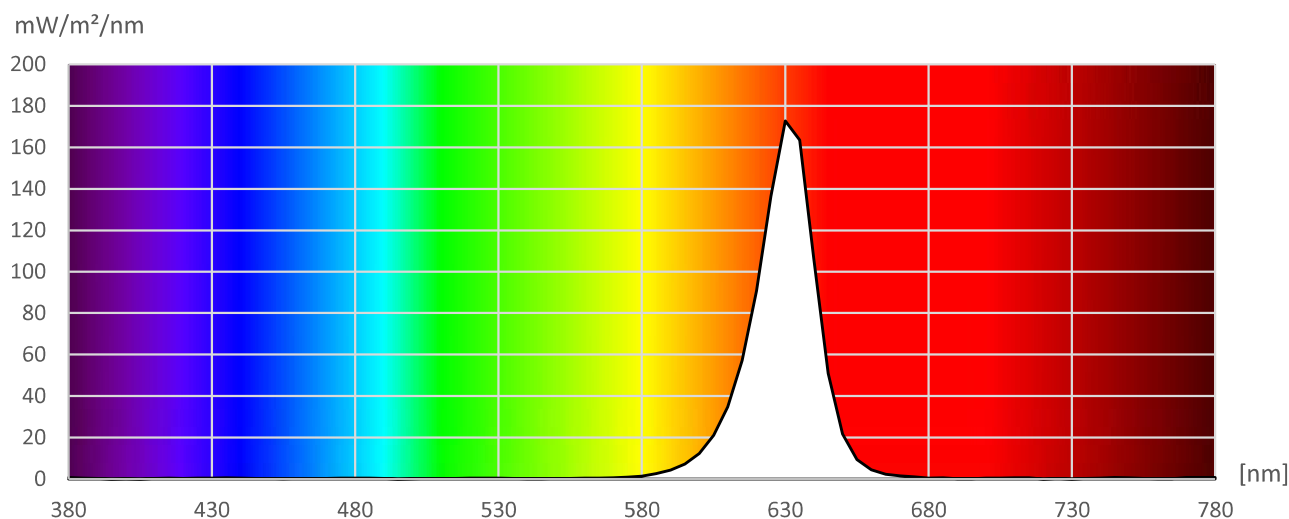
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / red

Measurement file: 3m_red.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:03



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Burgebrach, 11.02.2019

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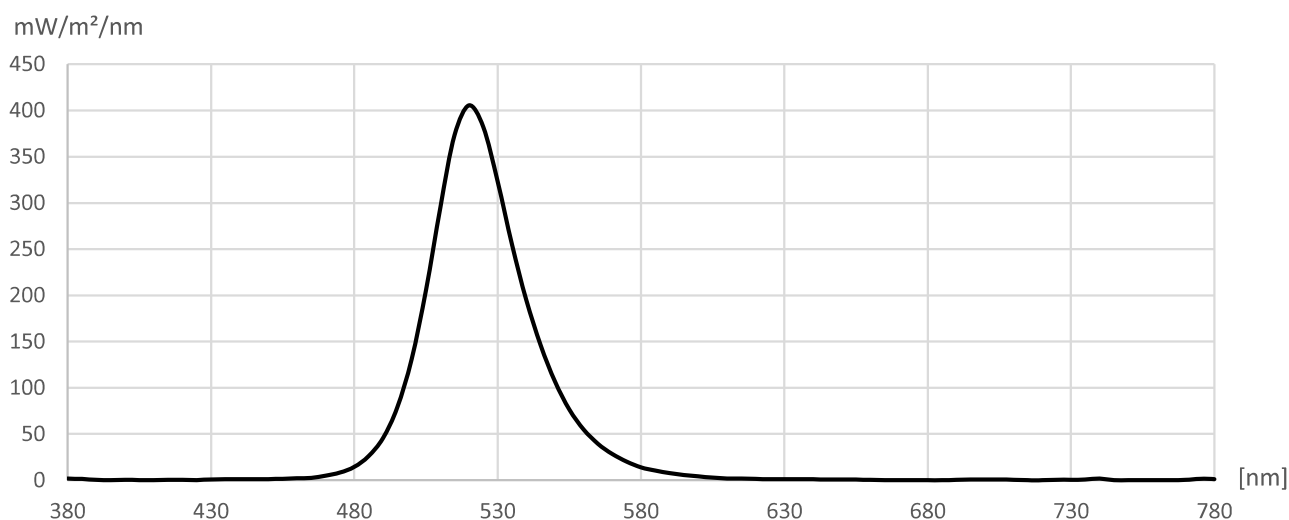
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / green

Measurement file: 1m_gr.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:15



R1 = -34,8	Ra = -21,2	Illuminance	7988,41 lx	CIE1931
R2 = -5,4	Re = -51,9	Ee	16,508 W/m ²	x = 0,1696
R3 = -15,4	GAI = 0,8	LER	483,9 lm/W	y = 0,7187
R4 = -60,5				
R5 = -9,0		correlated color temperature (CCT)	7858 K	CIE1976
R6 = -12,7		Duv	0,1573	u' = 0,0601
R7 = -1,4				v' = 0,5732
R8 = -30,1		Saturation	77,4 %	
R9 = #####				CIE1960
R10 = -99,0		Dominant wavelength	524 nm	u = 0,0601
R11 = -89,6		Peak wavelength	519 nm	v = 0,3821
R12 = -27,9				
R13 = -39,6		Flicker frequency	% < 2.5 Hz	TM30
R14 = 42,5		Percent Flicker	< 2.5 %	Rf = 1,1
R15 = -38,5		Flicker index	% < 2.5	Rg = 10,0

[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	1,78	440	1,19	500	131,04	560	54,79	620	1,33	680	0,00	740	1,80
385	1,32	445	1,20	505	206,05	565	39,50	625	1,25	685	0,00	745	0,00
390	0,42	450	1,31	510	295,46	570	28,41	630	1,07	690	0,39	750	0,02
395	0,26	455	1,57	515	373,21	575	20,27	635	0,99	695	0,74	755	0,00
400	0,49	460	2,18	520	405,43	580	13,94	640	1,01	700	0,93	760	0,15
405	0,25	465	2,62	525	381,98	585	10,53	645	0,78	705	0,72	765	0,00
410	0,20	470	4,91	530	322,91	590	7,72	650	0,76	710	0,58	770	0,35
415	0,38	475	8,25	535	254,30	595	5,71	655	0,68	715	0,00	775	1,59
420	0,39	480	14,47	540	195,35	600	4,23	660	0,35	720	0,00	780	1,32
425	0,27	485	25,98	545	146,27	605	2,74	665	0,27	725	0,59		
430	0,79	490	45,41	550	106,74	610	2,00	670	0,16	730	0,56		
435	1,09	495	78,83	555	76,35	615	1,85	675	0,00	735	0,83		

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Burgebrach, 11.02.2019

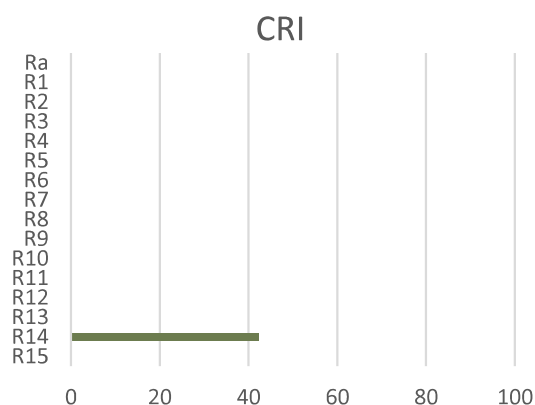
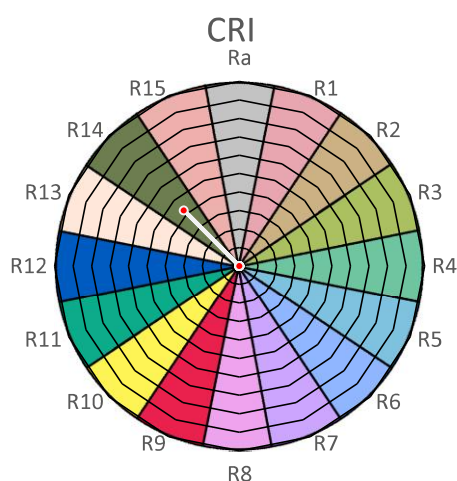
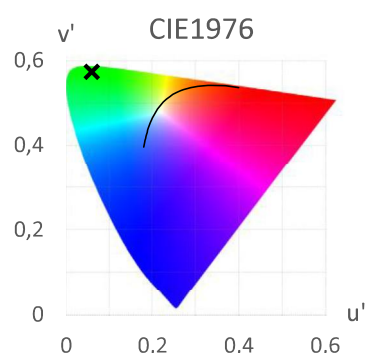
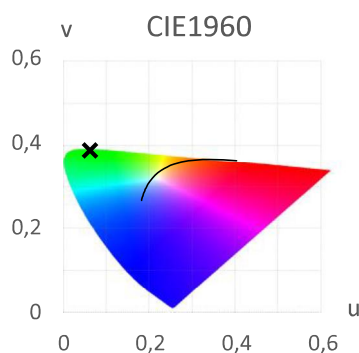
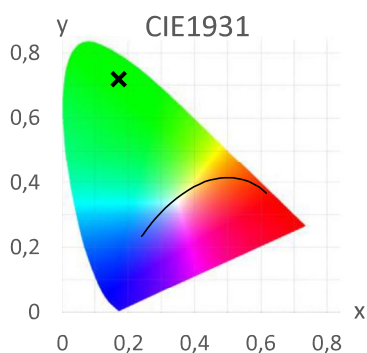
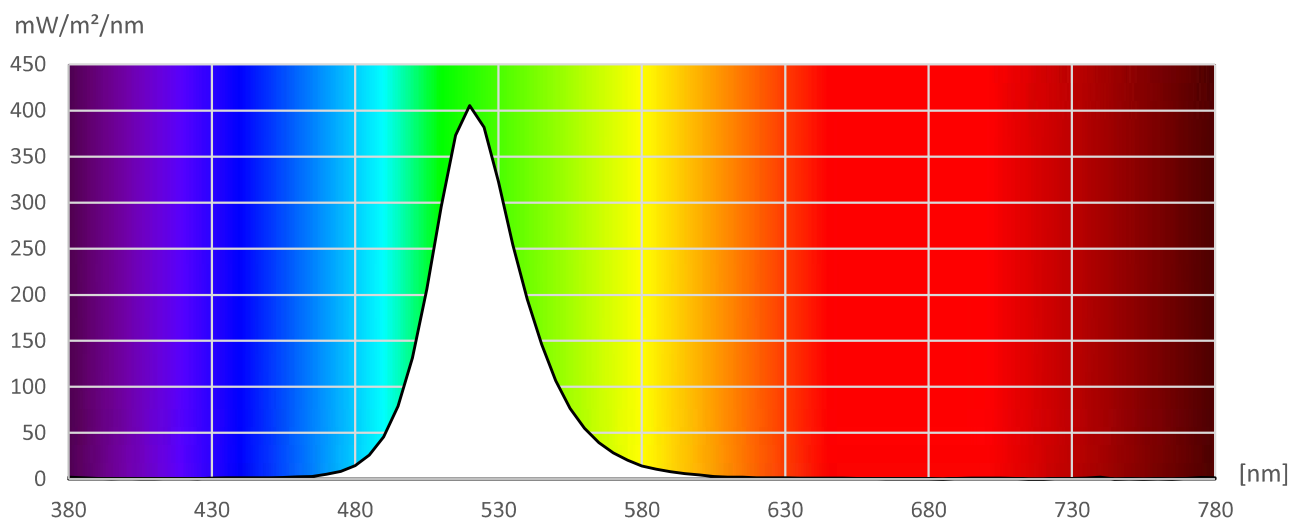
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / green

Measurement file: 1m_gr.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:15



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Burgebrach, 11.02.2019

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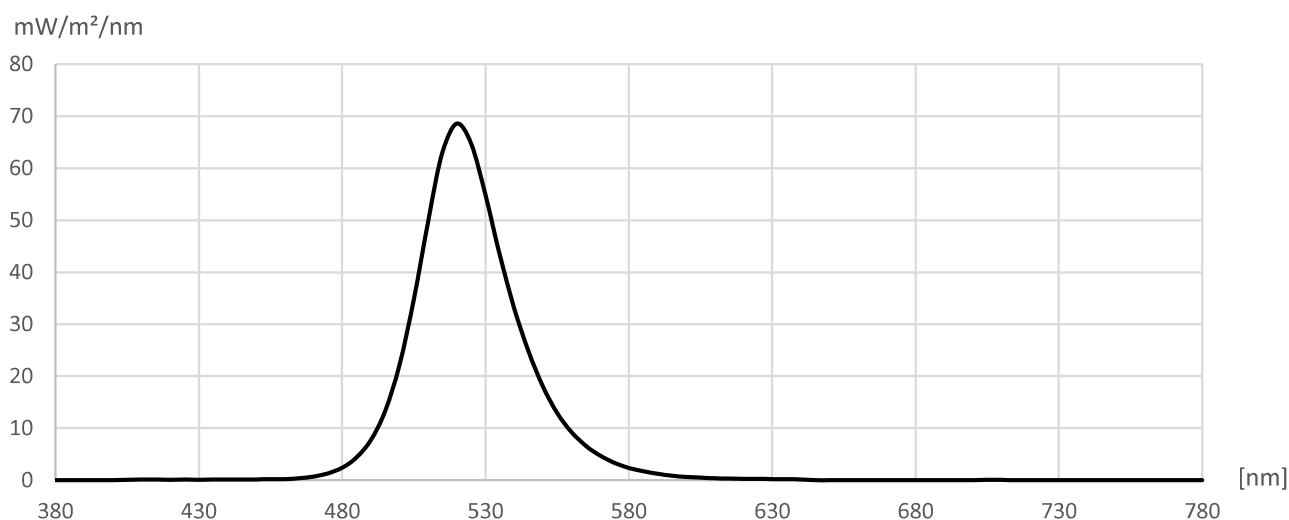
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / green

Measurement file: 3m_gr.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:25



R1 = -35,0	Ra = -22,2
R2 = -6,3	Re = -52,9
R3 = -17,3	GAI = 0,8
R4 = -61,9	
R5 = -9,2	
R6 = -13,6	
R7 = -3,2	
R8 = -31,0	
R9 = #####	
R10 = #####	
R11 = -91,2	
R12 = -29,0	
R13 = -40,1	
R14 = 41,7	
R15 = -38,7	

Illuminance	1351,62 lx
Ee	2,778 W/m ²
LER	486,6 lm/W
correlated color temperature (CCT)	7854 K
Duv	0,1576
Saturation	77,7 %
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 = 0,7205
CIE1976
u' = 0,0599
v' = 0,5735
CIE1960
u = 0,0599
v = 0,3823
TM30
Rf = 1,0
Rg = 9,4

[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	0,01	440	0,14	500	22,17	560	9,23	620	0,29	680	0,00	740	0,00
385	0,00	445	0,15	505	34,86	565	6,62	625	0,28	685	0,00	745	0,00
390	0,00	450	0,17	510	49,89	570	4,74	630	0,23	690	0,00	750	0,04
395	0,00	455	0,21	515	63,07	575	3,35	635	0,19	695	0,00	755	0,03
400	0,02	460	0,22	520	68,57	580	2,36	640	0,15	700	0,00	760	0,03
405	0,07	465	0,37	525	64,71	585	1,72	645	0,01	705	0,06	765	0,00
410	0,13	470	0,71	530	54,81	590	1,23	650	0,00	710	0,06	770	0,00
415	0,14	475	1,33	535	43,18	595	0,89	655	0,01	715	0,02	775	0,00
420	0,08	480	2,43	540	33,16	600	0,63	660	0,01	720	0,00	780	0,02
425	0,13	485	4,37	545	24,83	605	0,50	665	0,00	725	0,00		
430	0,09	490	7,69	550	18,06	610	0,39	670	0,00	730	0,00		
435	0,16	495	13,30	555	12,94	615	0,31	675	0,00	735	0,00		

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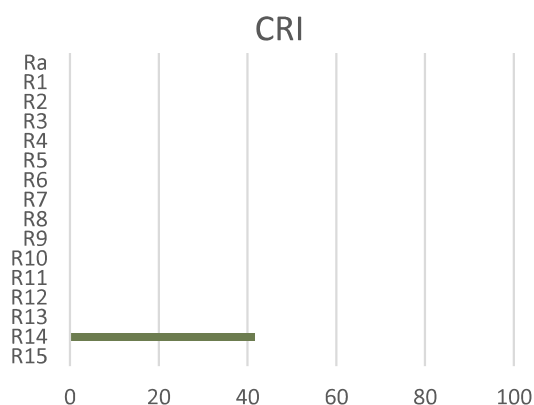
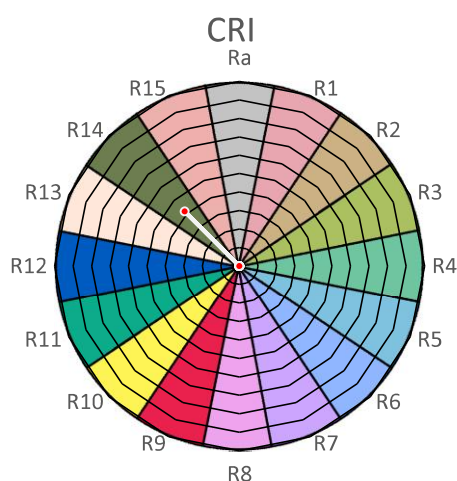
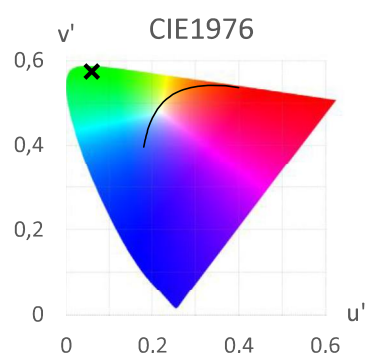
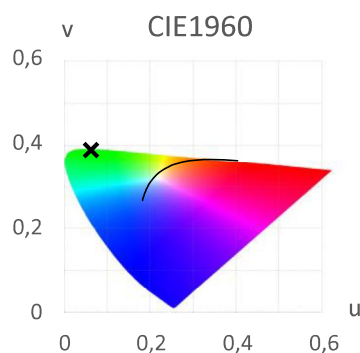
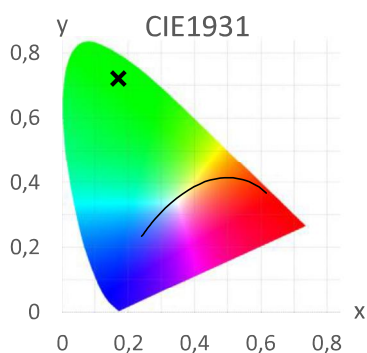
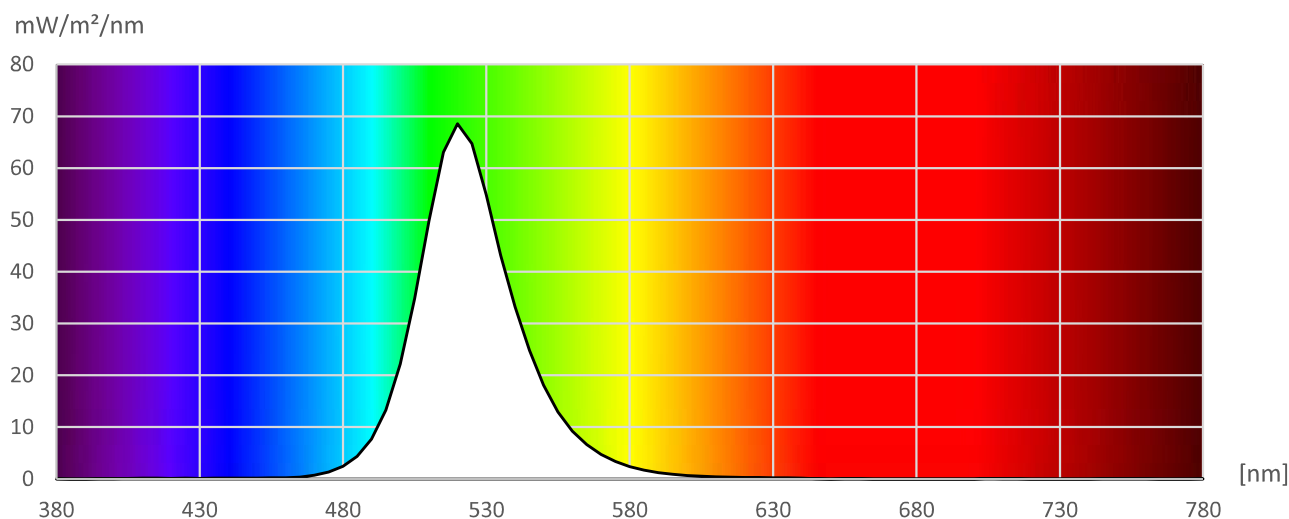
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / green

Measurement file: 3m_gr.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:30:25



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Burgebrach, 11.02.2019

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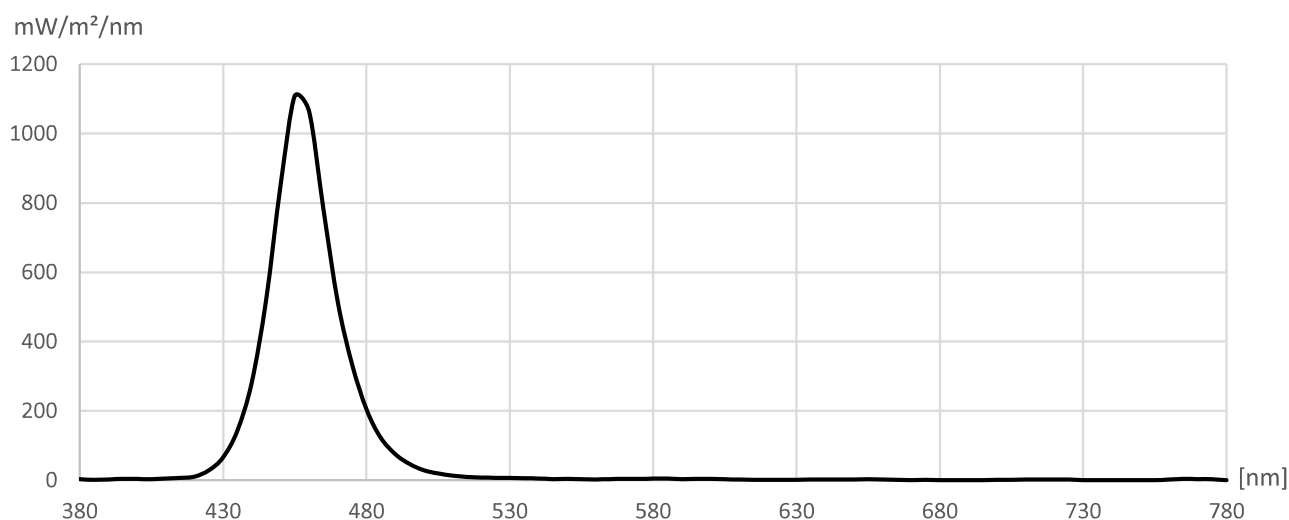
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / blue

Measurement file: 1m_bl.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:19



R1 = -	Ra = -	Illuminance	1702,49 lx	CIE1931
R2 = -	Re = -	Ee	31,911 W/m ²	x = 0,1474
R3 = -	GAI = -	LER	53,4 lm/W	y = 0,0423
R4 = -				
R5 = -		correlated color temperature (CCT)	> 50000 K	CIE1976
R6 = -		Duv	-	u' = 0,1836
R7 = -				v' = 0,1185
R8 = -		Saturation	96,9 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	453 nm	u = 0,1836
R11 = -		Peak wavelength	456 nm	v = 0,0790
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	2,80	440	282,51	500	29,22	560	2,59	620	1,55	680	0,00	740	0,00
385	1,10	445	521,12	505	19,22	565	3,46	625	1,44	685	0,12	745	0,03
390	2,60	450	850,52	510	13,46	570	3,85	630	1,27	690	0,00	750	0,00
395	3,99	455	1107,73	515	9,62	575	4,21	635	1,96	695	0,04	755	0,42
400	3,54	460	1064,39	520	7,96	580	4,48	640	2,09	700	0,95	760	1,84
405	3,44	465	781,68	525	7,01	585	4,58	645	1,98	705	1,10	765	4,01
410	4,94	470	514,05	530	6,52	590	3,48	650	2,25	710	2,35	770	3,51
415	7,09	475	333,20	535	6,00	595	3,97	655	2,72	715	1,86	775	2,99
420	10,39	480	203,52	540	5,24	600	3,96	660	2,31	720	2,27	780	0,00
425	28,98	485	122,56	545	3,36	605	2,80	665	1,33	725	2,09		
430	65,85	490	75,70	550	3,93	610	2,14	670	0,70	730	0,30		
435	143,60	495	46,99	555	3,23	615	1,23	675	0,97	735	0,00		

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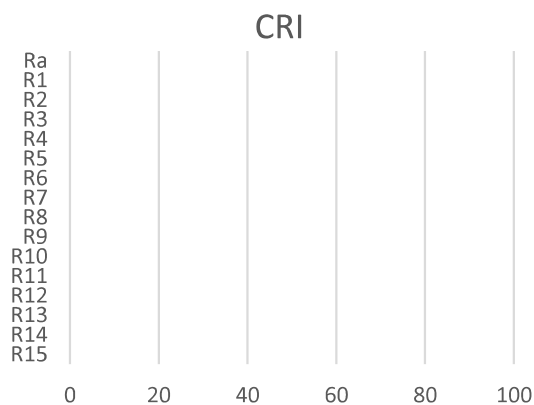
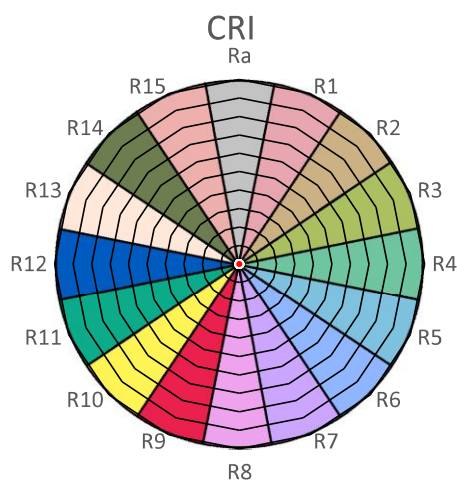
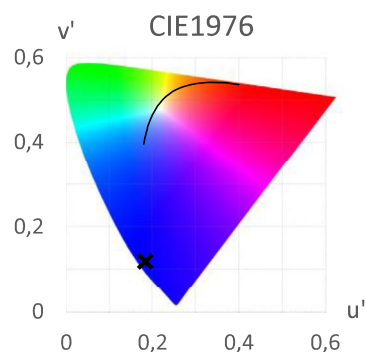
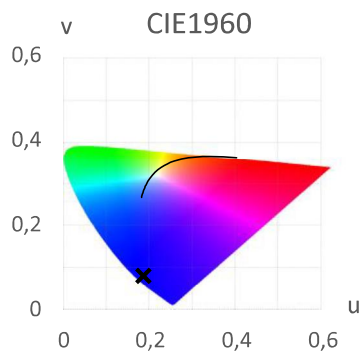
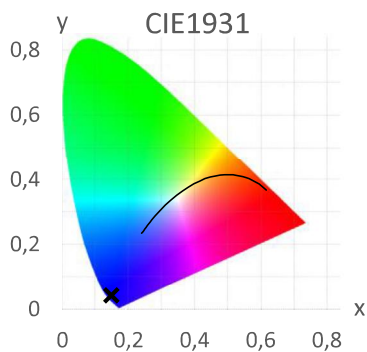
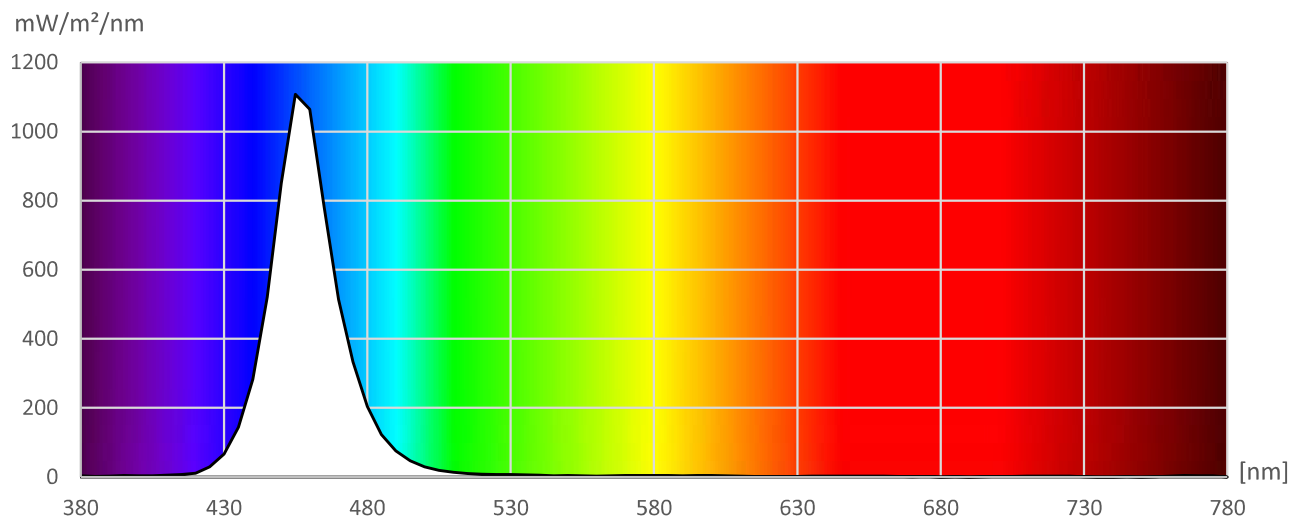
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / blue

Measurement file: 1m_bl.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:19



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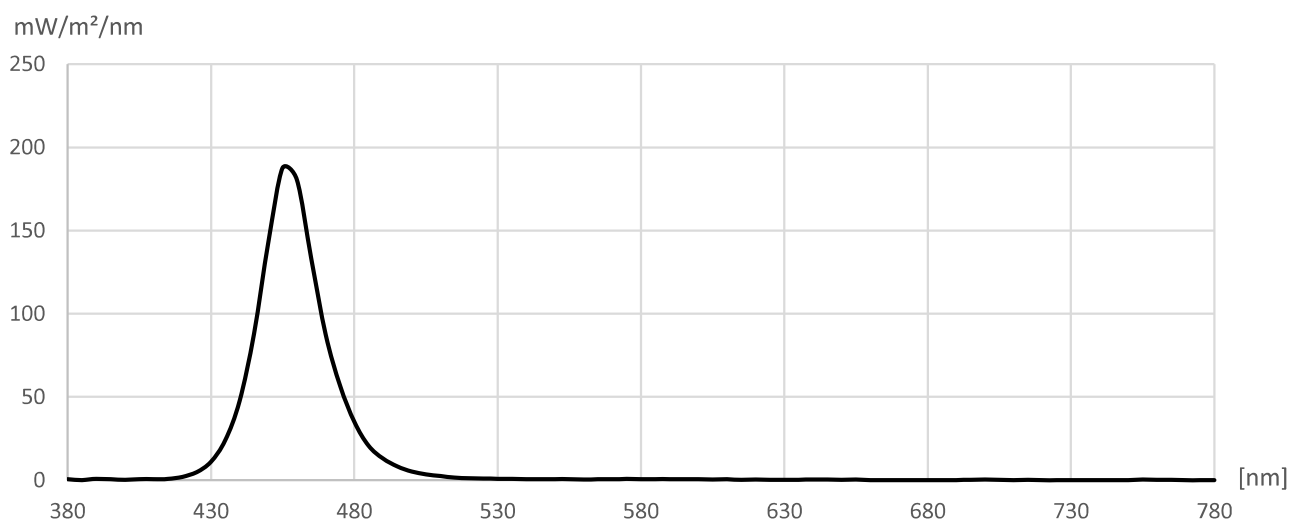
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / blue

Measurement file: 3m_bl.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:28



R1 = -	Ra = -	Illuminance	288,59 lx	CIE1931
R2 = -	Re = -	Ee	5,401 W/m ²	x = 0,1474
R3 = -	GAI = -	LER	53,4 lm/W	y = 0,0423
R4 = -				
R5 = -		correlated color temperature (CCT)	> 50000 K	CIE1976
R6 = -		Duv	-	u' = 0,1835
R7 = -				v' = 0,1185
R8 = -		Saturation	96,9 %	
R9 = -				CIE1960
R10 = -		Dominant wavelength	453 nm	u = 0,1835
R11 = -		Peak wavelength	456 nm	v = 0,0790
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	0,56	440	47,74	500	5,20	560	0,50	620	0,40	680	0,00	740	0,00
385	0,13	445	87,92	505	3,55	565	0,56	625	0,29	685	0,00	745	0,00
390	0,85	450	143,28	510	2,48	570	0,59	630	0,32	690	0,15	750	0,06
395	0,57	455	187,56	515	1,53	575	0,74	635	0,34	695	0,28	755	0,46
400	0,32	460	180,60	520	1,18	580	0,71	640	0,41	700	0,40	760	0,20
405	0,71	465	133,17	525	1,11	585	0,69	645	0,46	705	0,29	765	0,25
410	0,61	470	87,59	530	0,89	590	0,73	650	0,25	710	0,13	770	0,00
415	0,77	475	56,83	535	0,88	595	0,63	655	0,35	715	0,22	775	0,00
420	2,01	480	34,93	540	0,67	600	0,64	660	0,12	720	0,00	780	0,00
425	4,94	485	20,80	545	0,60	605	0,39	665	0,01	725	0,00		
430	11,09	490	13,03	550	0,60	610	0,57	670	0,07	730	0,00		
435	23,97	495	8,31	555	0,72	615	0,19	675	0,04	735	0,00		

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Burgebrach, 11.02.2019

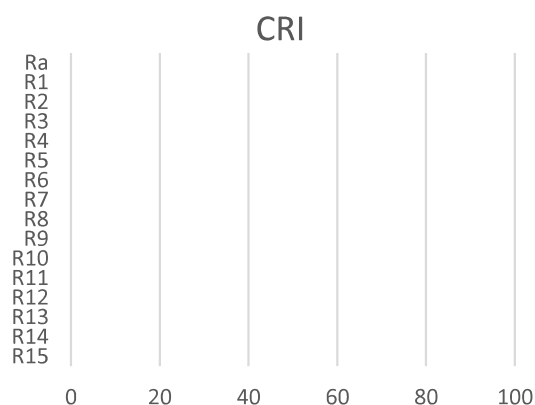
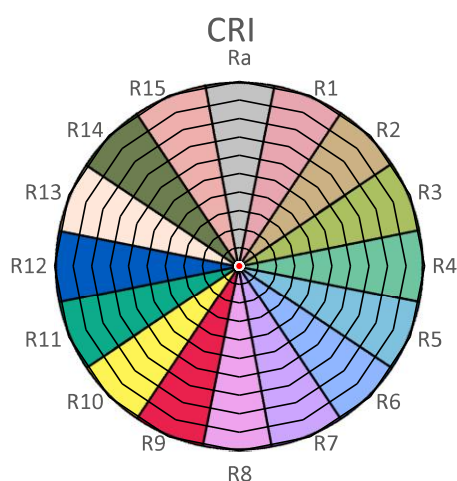
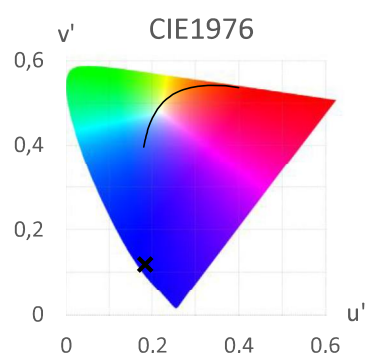
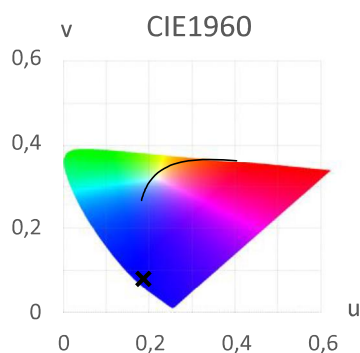
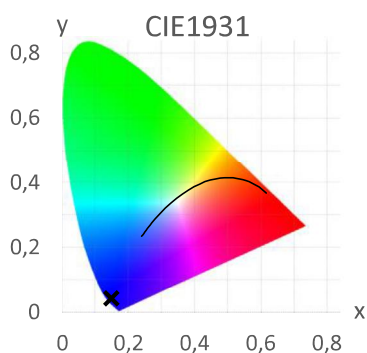
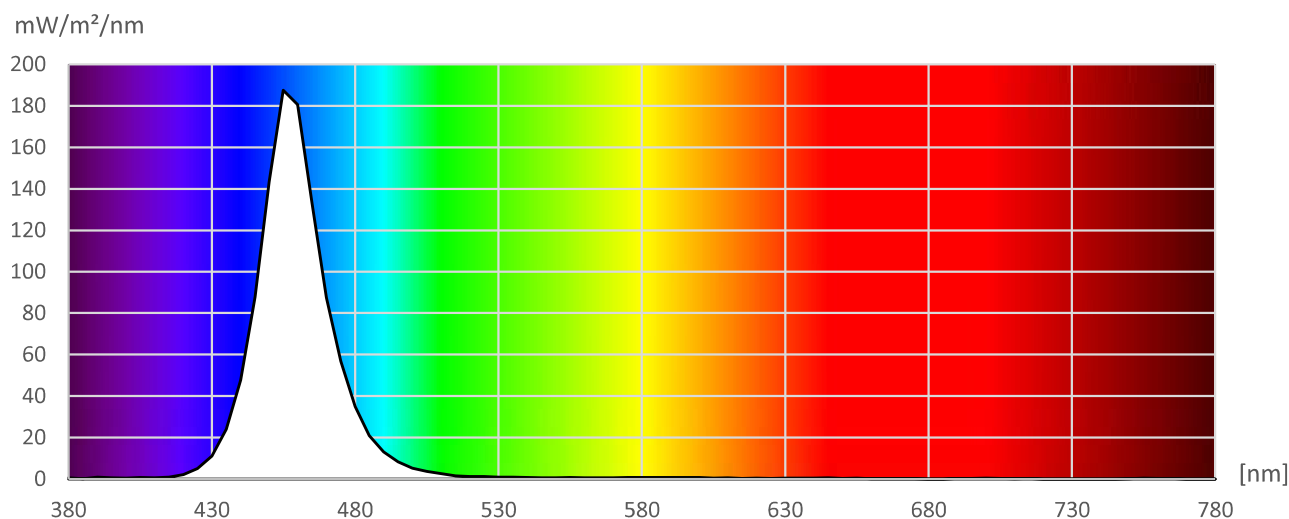
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / blue

Measurement file: 3m_bl.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:28



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Burgebrach, 11.02.2019

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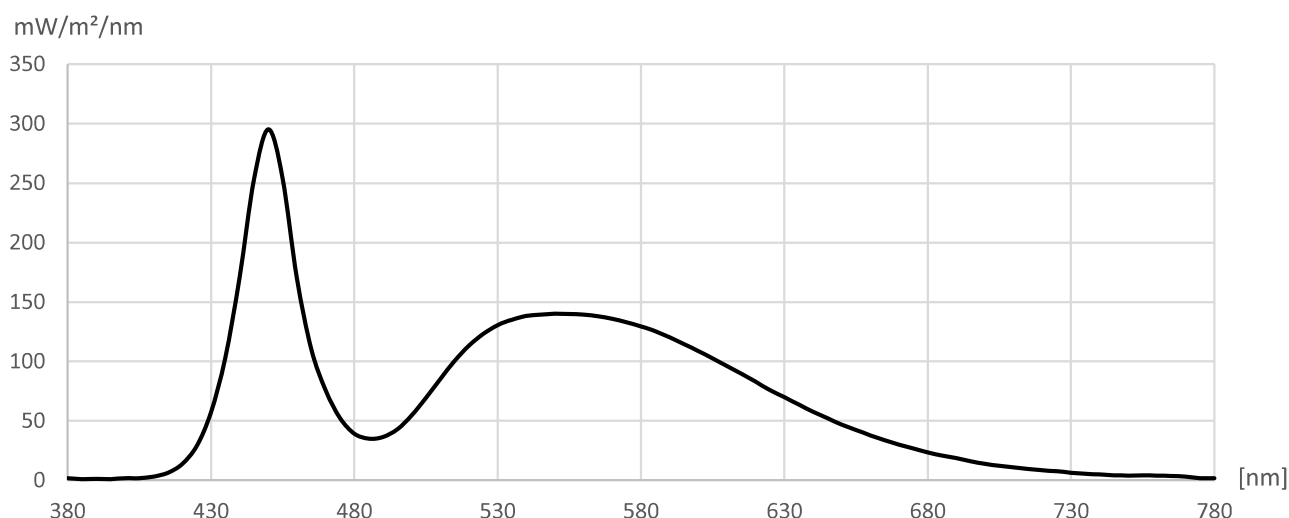
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / white

Measurement file: 1m_wh.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:41



R1 = 73,7	Ra = 74,8	Illuminance	8412,88 lx	CIE1931
R2 = 78,2	Re = 65,3	Ee	26,799 W/m²	x = 0,3111
R3 = 78,2	GAI = 88,5	LER	313,9 lm/W	y = 0,3229
R4 = 76,1				
R5 = 74,1		correlated color temperature (CCT)	6644 K	CIE1976
R6 = 68,8		Duv	0,0009	u' = 0,1990
R7 = 83,4		Saturation	8,4 %	v' = 0,4648
R8 = 65,9				
R9 = -12,0				CIE1960
R10 = 45,3		Dominant wavelength	482 nm	u = 0,1990
R11 = 72,9		Peak wavelength	449 nm	v = 0,3099
R12 = 42,2				
R13 = 74,3		Flicker frequency	% < 2.5 Hz	TM30
R14 = 87,6		Percent Flicker	< 2.5 %	Rf = 71,0
R15 = 70,3		Flicker index	% < 2.5	Rg = 94,3

[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	1,59	440	170,64	500	54,54	560	139,35	620	82,80	680	23,47	740	4,84
385	1,02	445	253,26	505	69,55	565	138,04	625	75,99	685	20,79	745	4,20
390	1,07	450	295,13	510	85,23	570	135,85	630	69,89	690	18,54	750	3,96
395	1,00	455	254,28	515	100,31	575	132,85	635	63,71	695	16,03	755	4,00
400	1,74	460	169,98	520	113,21	580	129,43	640	57,68	700	13,73	760	3,93
405	1,70	465	110,41	525	123,05	585	125,28	645	52,21	705	12,23	765	3,60
410	3,18	470	75,69	530	130,54	590	120,11	650	46,93	710	10,79	770	3,02
415	6,40	475	52,34	535	135,09	595	114,68	655	42,34	715	9,54	775	1,81
420	13,79	480	39,17	540	138,13	600	108,70	660	37,85	720	8,33	780	1,69
425	28,90	485	34,97	545	139,36	605	102,52	665	33,70	725	7,55		
430	56,90	490	36,30	550	139,99	610	96,04	670	29,98	730	6,35		
435	102,79	495	42,86	555	139,82	615	89,58	675	26,59	735	5,42		

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Burgebrach, 11.02.2019

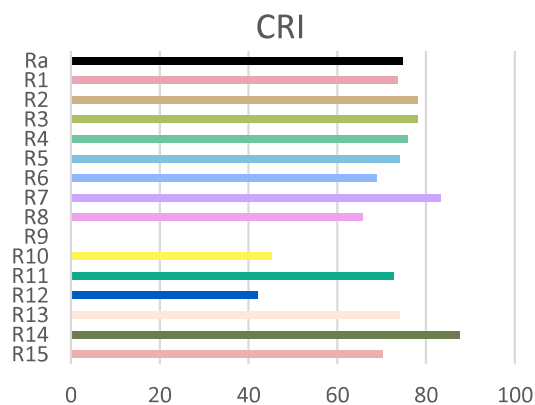
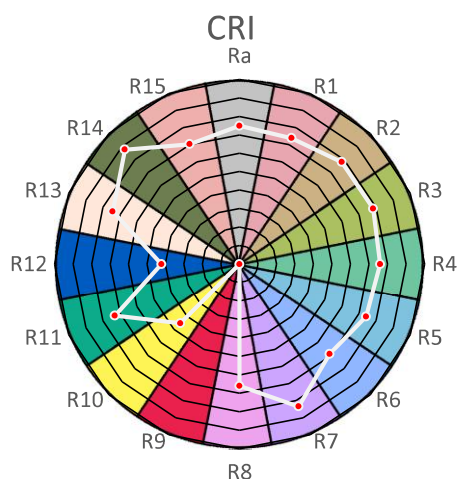
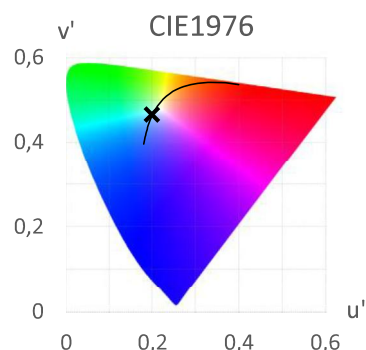
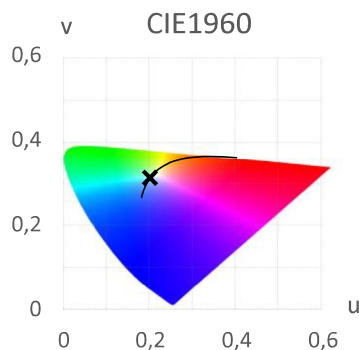
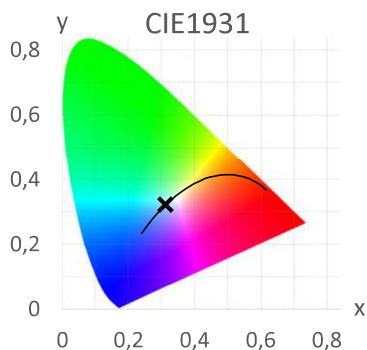
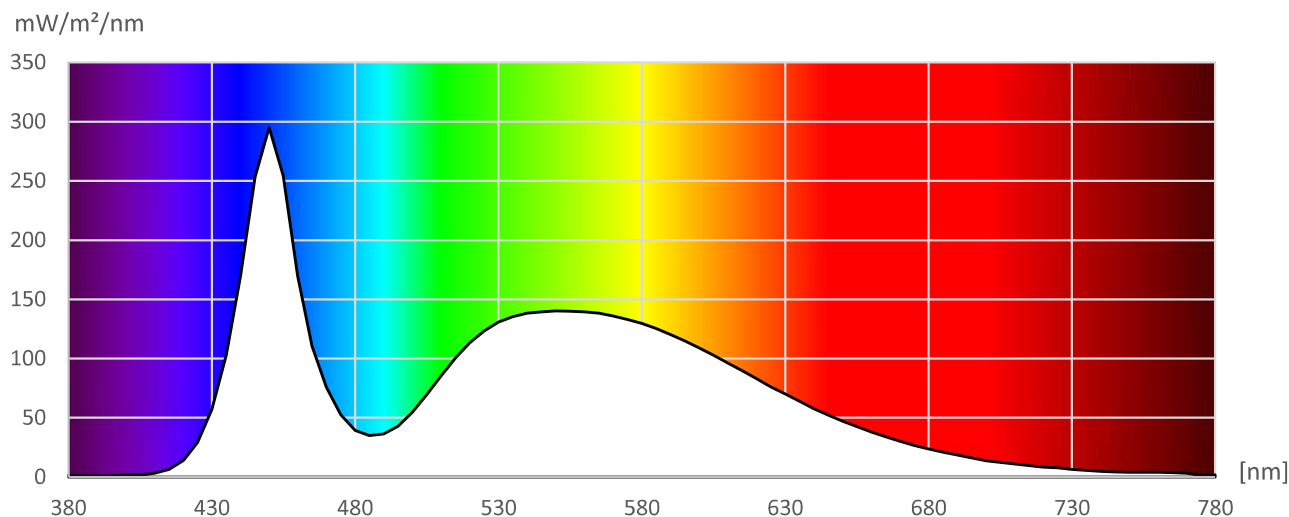
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 1 m / white

Measurement file: 1m_wh.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:41



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Burgebrach, 11.02.2019

Sebastian Laske

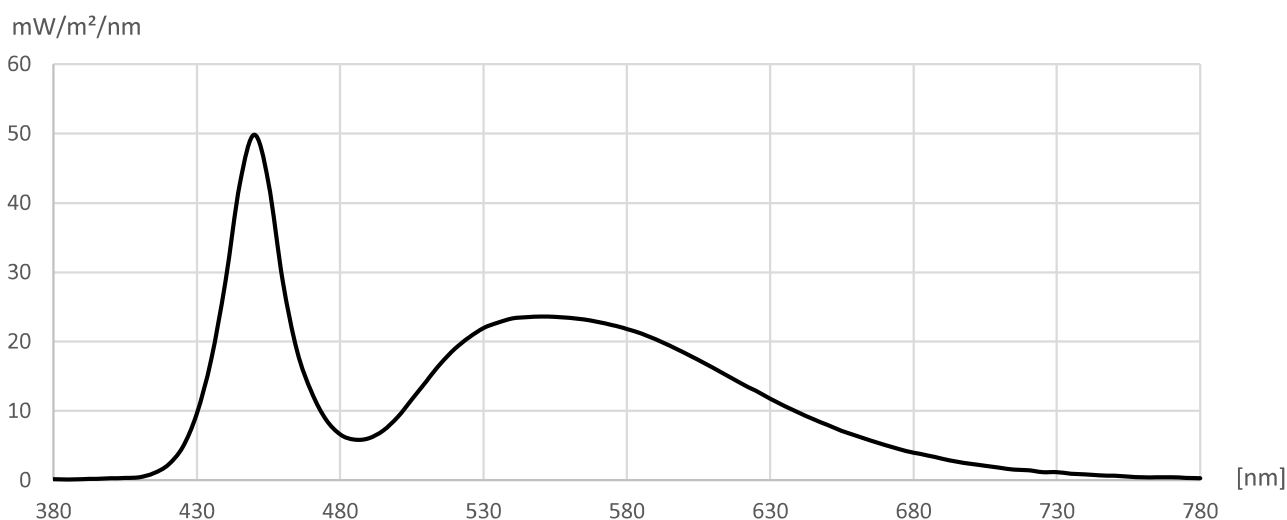
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / white

Measurement file: 3m_wh.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:51



R1 = 73,9	Ra = 74,9	Illuminance	1416,42 lx	CIE1931
R2 = 78,3	Re = 65,3	Ee	4,510 W/m ²	x = 0,3113
R3 = 78,1	GAI = 88,6	LER	314,1 lm/W	y = 0,3226
R4 = 76,2				
R5 = 74,2		correlated color temperature (CCT)	6634 K	CIE1976
R6 = 68,8		Duv	0,0006	u' = 0,1993
R7 = 83,4		Saturation	8,4 %	v' = 0,4647
R8 = 66,0				
R9 = -11,7				CIE1960
R10 = 45,3		Dominant wavelength	482 nm	u = 0,1993
R11 = 72,9		Peak wavelength	449 nm	v = 0,3098
R12 = 42,1				
R13 = 74,4		Flicker frequency	% < 2.5 Hz	TM30
R14 = 87,6		Percent Flicker	< 2.5 %	Rf = 70,9
R15 = 70,5		Flicker index	% < 2.5	Rg = 94,3

[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	0,14	440	28,69	500	9,09	560	23,40	620	13,93	680	3,98	740	0,84
385	0,12	445	42,79	505	11,65	565	23,17	625	12,89	685	3,58	745	0,71
390	0,16	450	49,82	510	14,26	570	22,81	630	11,78	690	3,11	750	0,64
395	0,21	455	42,98	515	16,79	575	22,38	635	10,71	695	2,67	755	0,53
400	0,27	460	28,72	520	18,93	580	21,83	640	9,72	700	2,36	760	0,41
405	0,32	465	18,61	525	20,63	585	21,15	645	8,80	705	2,08	765	0,42
410	0,44	470	12,71	530	21,95	590	20,32	650	7,97	710	1,80	770	0,44
415	1,02	475	8,76	535	22,73	595	19,41	655	7,12	715	1,54	775	0,34
420	2,24	480	6,60	540	23,33	600	18,39	660	6,41	720	1,44	780	0,30
425	4,78	485	5,85	545	23,51	605	17,33	665	5,72	725	1,15		
430	9,56	490	6,05	550	23,59	610	16,23	670	5,09	730	1,16		
435	17,33	495	7,14	555	23,56	615	15,08	675	4,50	735	0,96		

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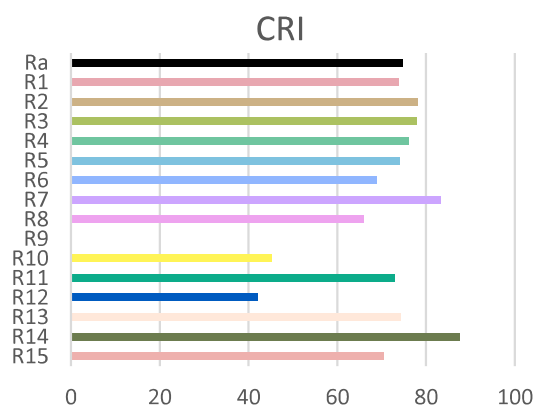
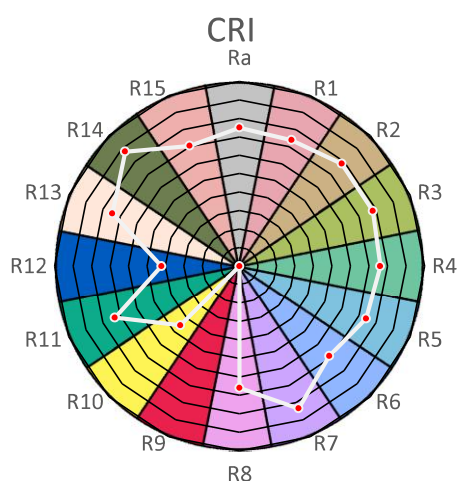
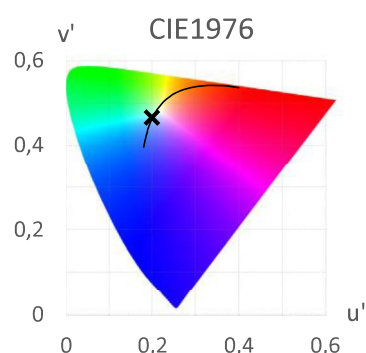
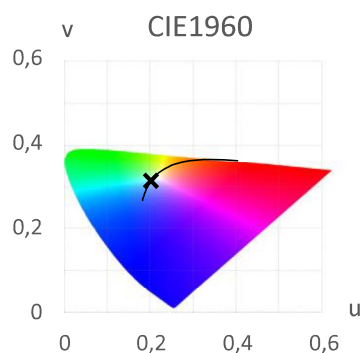
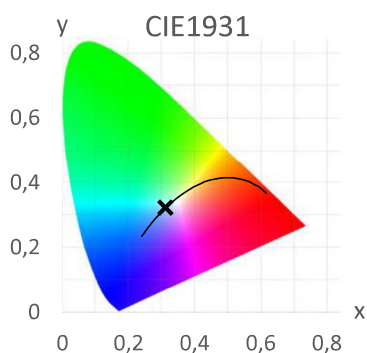
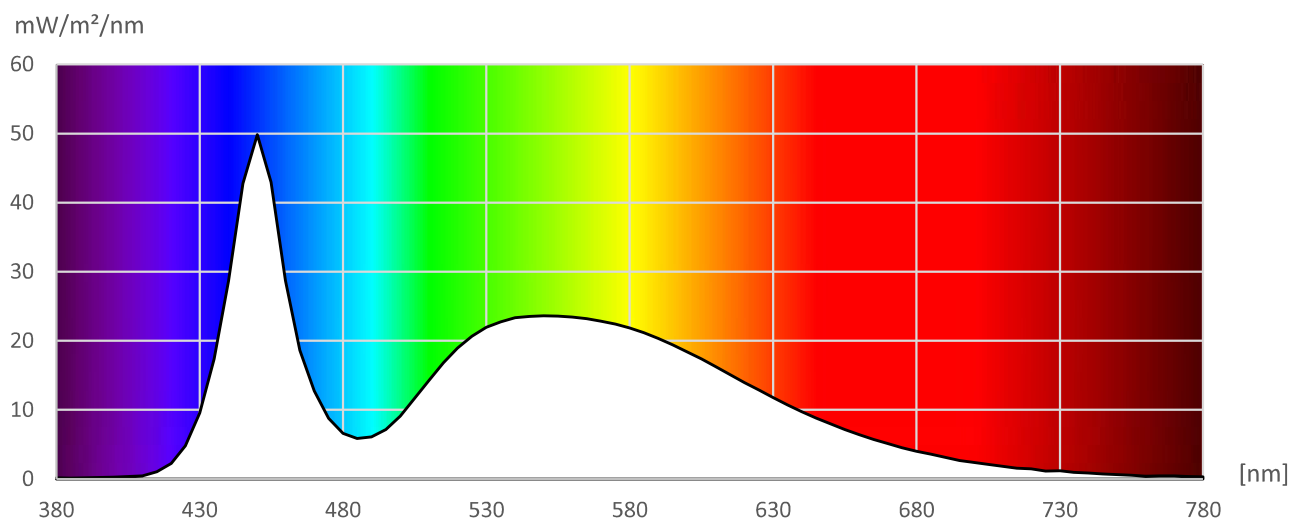
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
xBrick Quad 16x8W RGBW
Item 385641 / @ 3 m / white

Measurement file: 3m_wh.CSV
Date of measurement: 06.02.2019
Time of measurement: 16:31:51



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First, last name of inspector