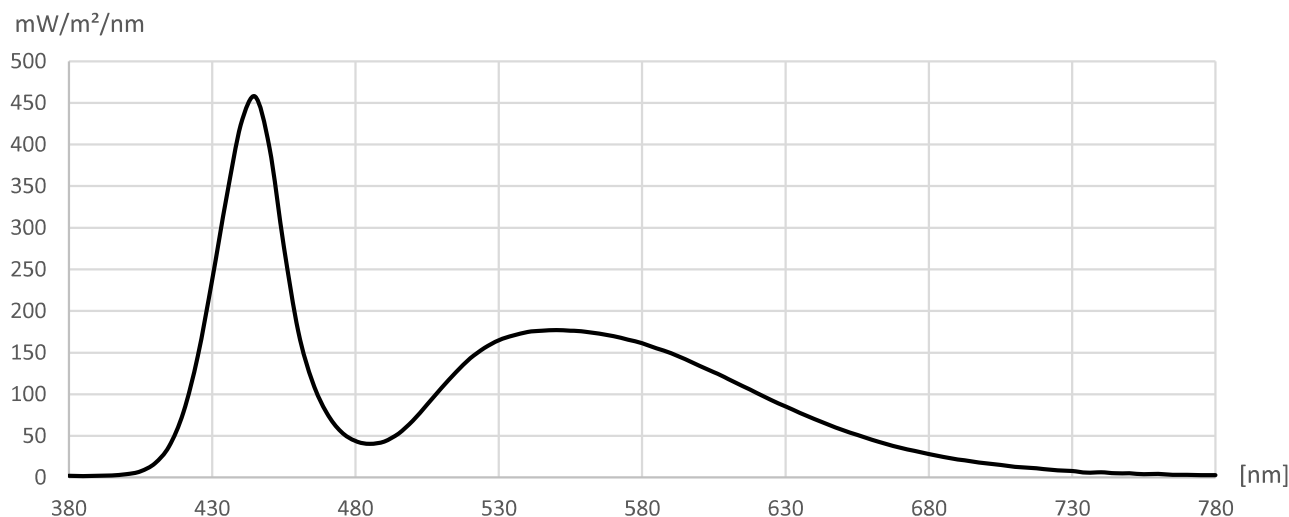


Measurement protocol

th.mann

Test object: Stairville
MH-x20 Micro LED Spot
Item 299888 / @ 1 m

Measurement file: 299888_1m.CSV
Date of measurement: 13.12.2017
Time of measurement: 17:39:05



R1 = 79,8	Ra = 73,8	Illuminance	10555,42 lx	CIE1931
R2 = 73,7	Re = 66,6	Ee	37,555 W/m ²	x = 0,2913
R3 = 63,8	GAI = 100,7	LER	281,1 lm/W	y = 0,2815
R4 = 78,2				
R5 = 80,1		correlated color temperature (CCT)	9177 K	CIE1976
R6 = 64,2		Duv	-0,0105	u' = 0,2011
R7 = 76,6				v' = 0,4371
R8 = 73,9		Saturation	19,8 %	
R9 = 13,7				CIE1960
R10 = 32,5		Dominant wavelength	468 nm	u = 0,2011
R11 = 81,7		Peak wavelength	445 nm	v = 0,2914
R12 = 47,1				
R13 = 75,8		Flicker frequency	% < 2.5 Hz	TM30
R14 = 78,9		Percent Flicker	< 2.5 %	Rf = -
R15 = 78,5		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	1,94	440	423,54	500	68,08	560	175,13	620	101,50	680	28,12	740	6,25
385	1,71	445	457,82	505	87,53	565	172,67	625	92,91	685	24,72	745	5,04
390	2,17	450	396,21	510	107,64	570	169,95	630	85,15	690	21,77	750	4,94
395	2,48	455	277,41	515	126,36	575	165,74	635	77,74	695	19,48	755	3,93
400	3,97	460	175,49	520	143,19	580	161,15	640	70,29	700	16,80	760	4,17
405	7,39	465	114,45	525	155,49	585	155,27	645	63,46	705	15,06	765	3,19
410	16,83	470	77,54	530	164,89	590	149,39	650	56,80	710	12,94	770	3,08
415	37,28	475	54,89	535	170,59	595	142,04	655	51,26	715	11,66	775	2,82
420	78,46	480	43,70	540	174,78	600	134,03	660	45,51	720	10,16	780	2,78
425	145,97	485	40,39	545	176,48	605	126,56	665	40,44	725	8,61		
430	237,60	490	43,18	550	177,13	610	118,52	670	35,60	730	7,75		
435	337,27	495	52,83	555	176,49	615	109,87	675	31,89	735	5,75		

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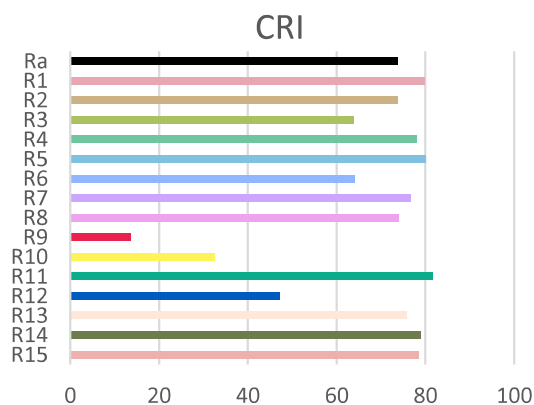
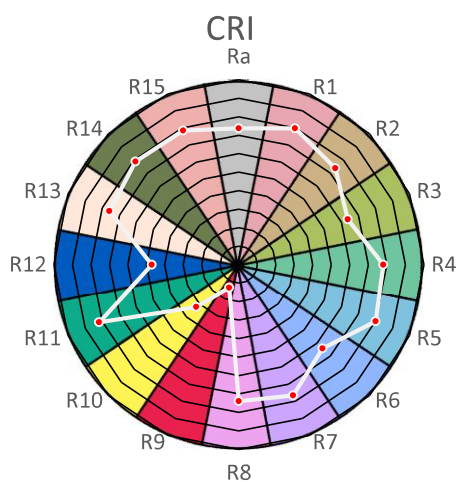
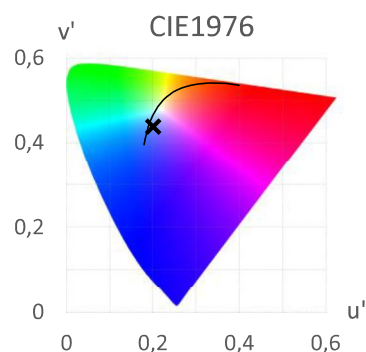
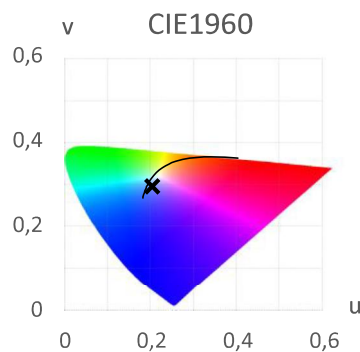
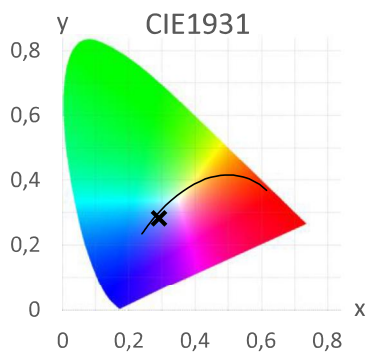
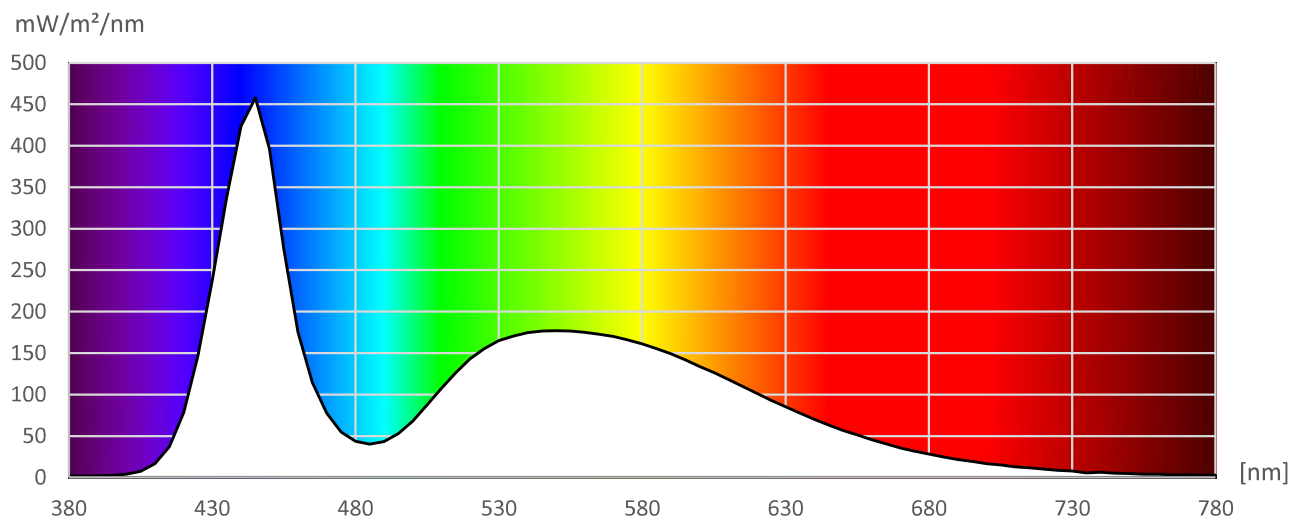
First, last name of inspector

Measurement protocol

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Test object: Stairville
MH-x20 Micro LED Spot
Item 299888 / @ 1 m

Measurement file: 299888_1m.CSV
Date of measurement: 13.12.2017
Time of measurement: 17:39:05



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Burgebrach, 14.12.2017

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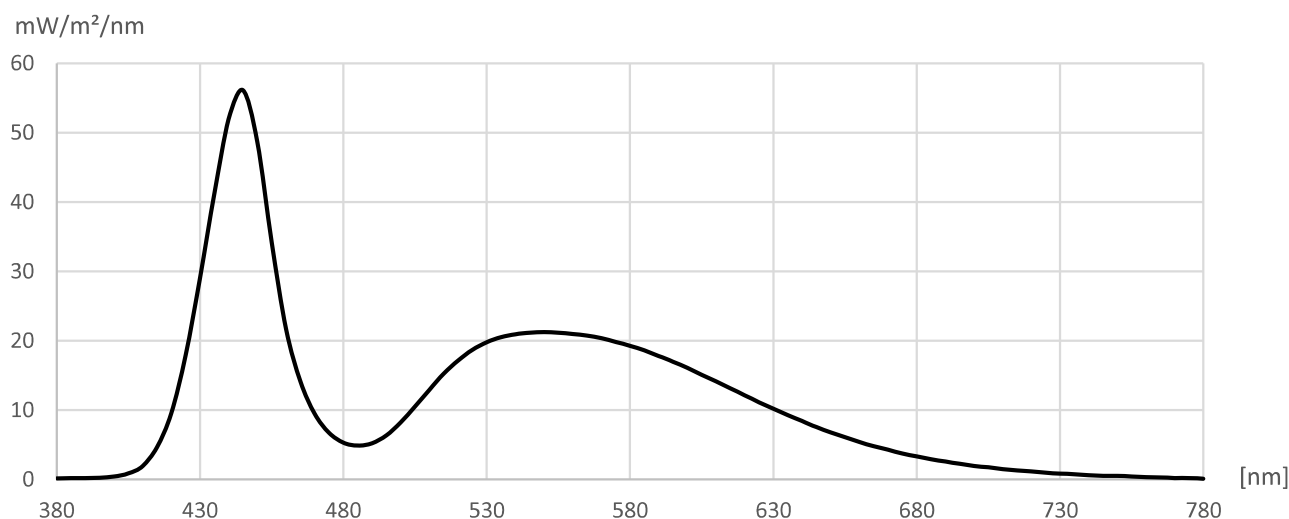
First, last name of inspector

Measurement protocol

th.mann

Test object: Stairville
MH-x20 Micro LED Spot
Item 299888 / @ 3 m

Measurement file: 299888_3m.CSV
Date of measurement: 13.12.2017
Time of measurement: 17:39:53



R1 = 80,3	Ra = 73,9
R2 = 73,7	Re = 66,8
R3 = 63,1	GAI = 101,3
R4 = 78,4	
R5 = 80,5	
R6 = 64,1	
R7 = 76,6	
R8 = 74,5	
R9 = 15,9	
R10 = 32,2	
R11 = 82,2	
R12 = 47,0	
R13 = 76,1	
R14 = 78,5	
R15 = 79,3	

Illuminance	1266,18 lx
Ee	4,532 W/m ²
LER	279,4 lm/W
correlated color temperature (CCT)	9545 K
Duv	-0,011
Saturation	20,7 %
Dominant wavelength	467 nm
Peak wavelength	445 nm
Flicker frequency	% < 2.5 Hz
Percent Flicker	< 2.5 %
Flicker index	% < 2.5

CIE1931
x = 0,2895
y = 0,2784
CIE1976
u' = 0,2010
v' = 0,4349
CIE1960
u = 0,2010
v = 0,2899
TM30
Rf = -
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	0,14	440	51,93	500	8,20	560	20,98	620	12,15	680	3,34	740	0,62
385	0,19	445	56,12	505	10,53	565	20,73	625	11,14	685	2,91	745	0,54
390	0,19	450	48,68	510	12,93	570	20,37	630	10,19	690	2,57	750	0,52
395	0,27	455	34,20	515	15,27	575	19,83	635	9,28	695	2,26	755	0,44
400	0,44	460	21,68	520	17,15	580	19,28	640	8,42	700	1,96	760	0,32
405	0,87	465	14,12	525	18,69	585	18,60	645	7,55	705	1,75	765	0,30
410	1,94	470	9,49	530	19,78	590	17,82	650	6,78	710	1,51	770	0,21
415	4,62	475	6,73	535	20,52	595	16,98	655	6,09	715	1,30	775	0,22
420	9,53	480	5,31	540	20,95	600	16,08	660	5,39	720	1,18	780	0,13
425	17,91	485	4,87	545	21,16	605	15,09	665	4,81	725	0,96		
430	29,09	490	5,24	550	21,24	610	14,16	670	4,29	730	0,86		
435	41,30	495	6,36	555	21,14	615	13,14	675	3,73	735	0,76		

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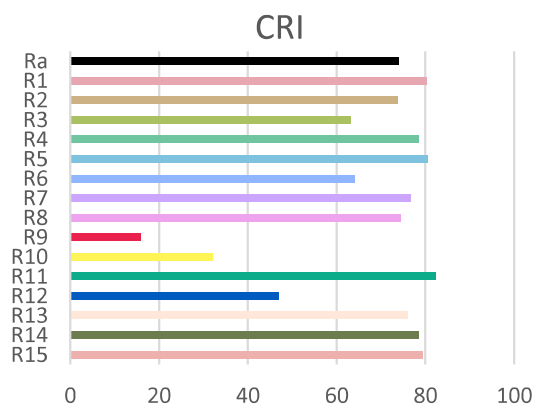
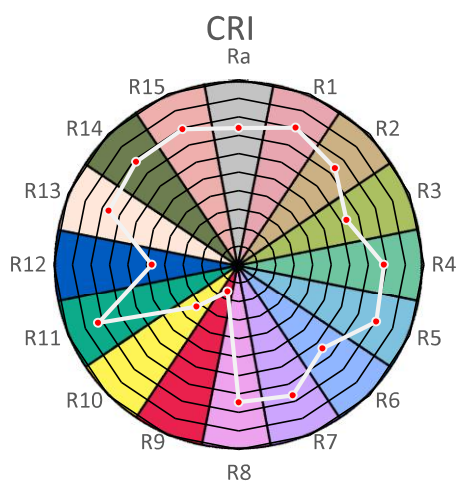
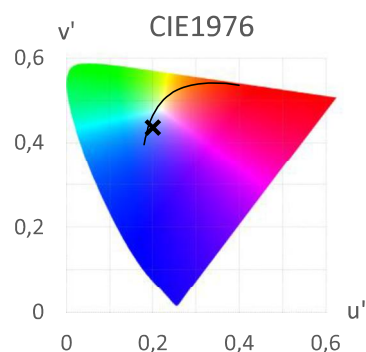
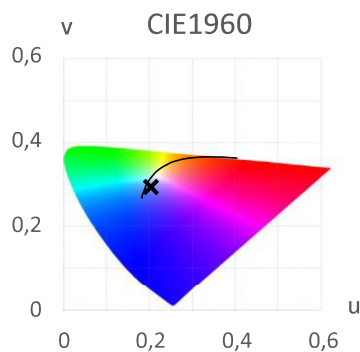
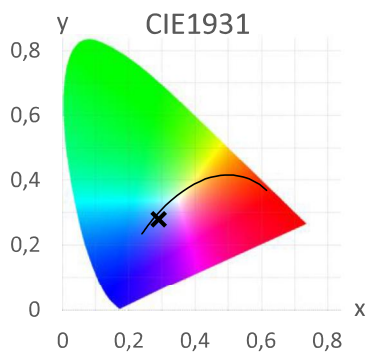
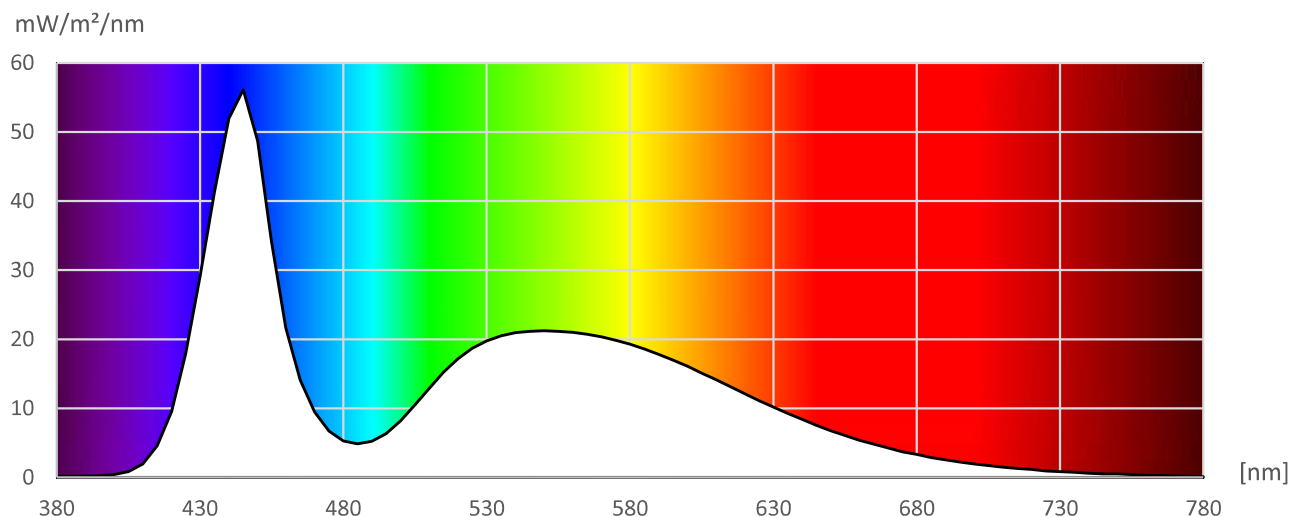
First, last name of inspector

Measurement protocol

th•mann

Test object: Stairville
MH-x20 Micro LED Spot
Item 299888 / @ 3 m

Measurement file: 299888_3m.CSV
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