

Light efficiency:



Light quality:



Color temperature:



**Output: 13875 lm**  
**Peak: 86589 cd**  
**Power: 1148.1 W**  
**PF: 1.0**



Tracking number: [n/a](#)

Product name:

**VL5LED WASH ZOOM=128 (0094) 1#**

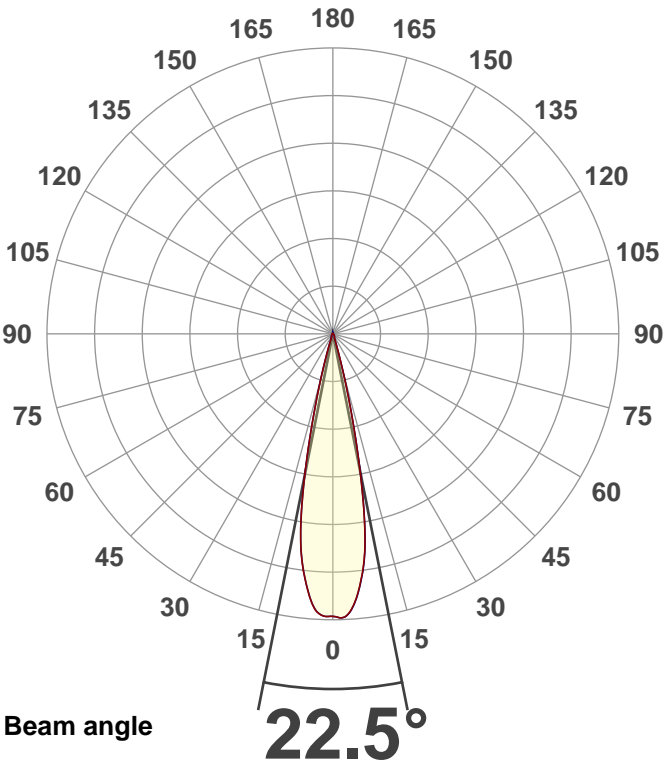
Item number:

**VL5LED WASH ZOOM=128 (0094) 1#**

Date and time:

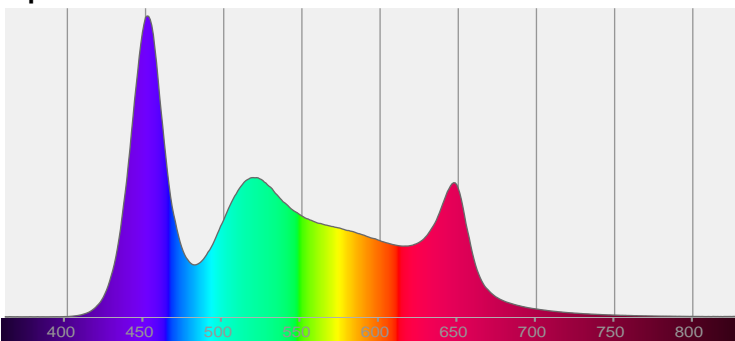
**2020/1/19 8:54:00**

Description:

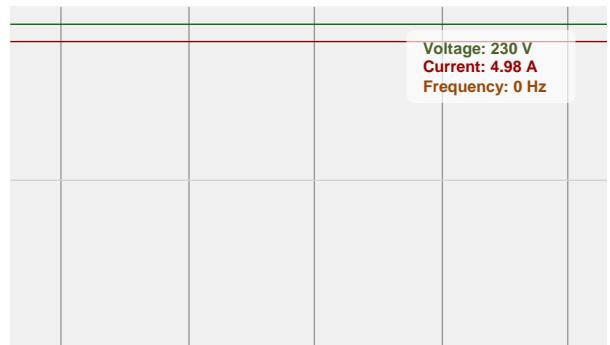


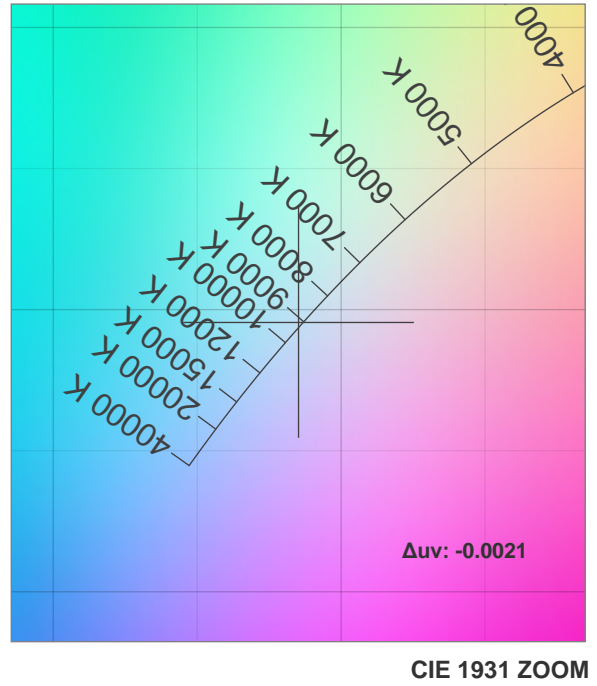
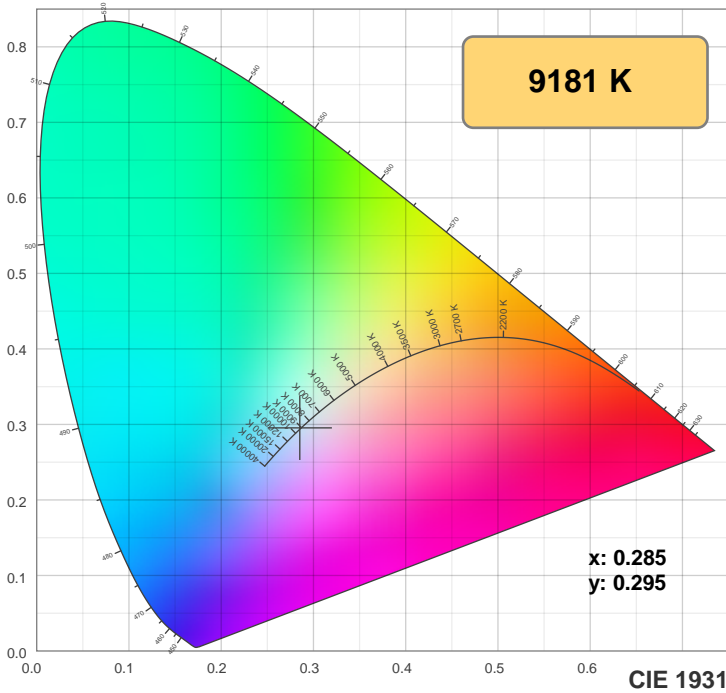
CIE 1931  
 x: 0.285  
 y: 0.295

Spectra

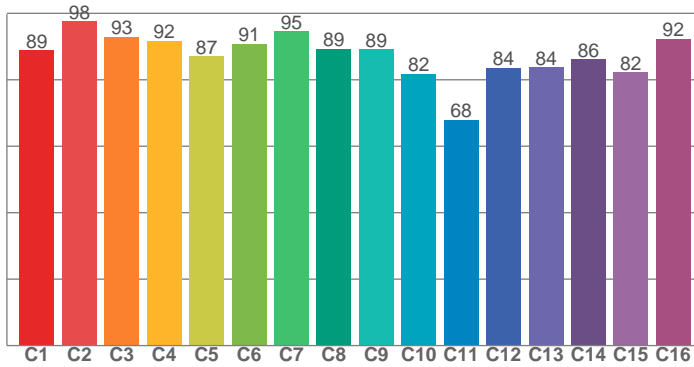


Power

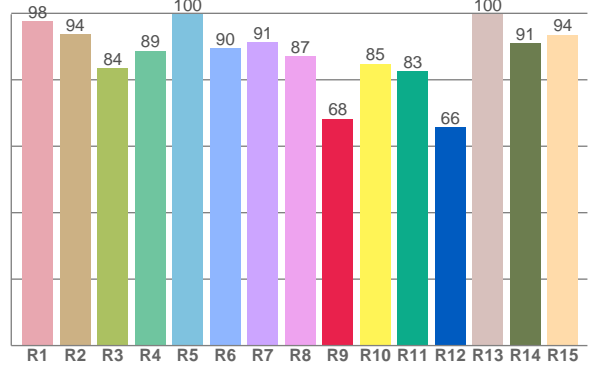




**TM30: 87.9**



**CRI: 91.4 (R1-R8)**



**CRI R values, only R1-R8 are used to calculate final CRI value**

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
97.7	93.8	83.6	88.7	99.8	89.6	91.2	87.1	68.2	84.8	82.6	65.6	99.7	90.9	93.6

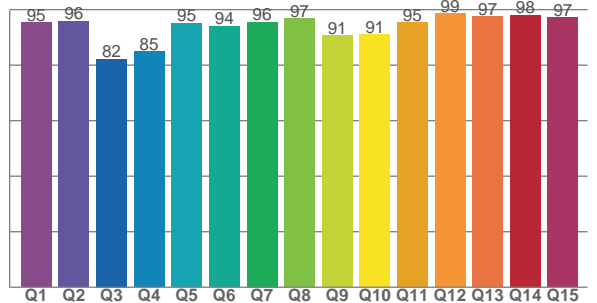
**TM30 C values, 16 binned values out of total of 99 C values**

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.8	97.5	92.8	91.7	87.0	90.8	94.5	89.3	89.2	81.7	68.0	83.7	83.8	86.1	82.3	92.3

**CQS Q values**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
95.3	95.8	82.2	84.8	95.1	94.0	95.5	96.7	90.6	91.1	95.4	98.6	97.5	98.1	97.1

**CQS: 92.3**



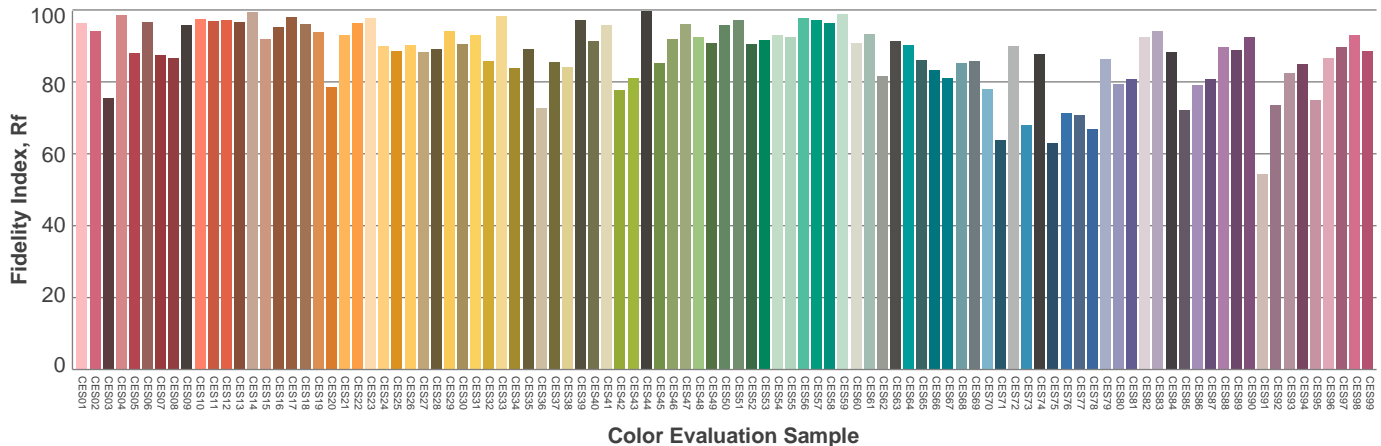
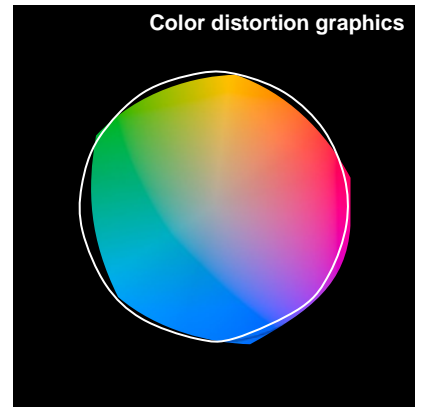
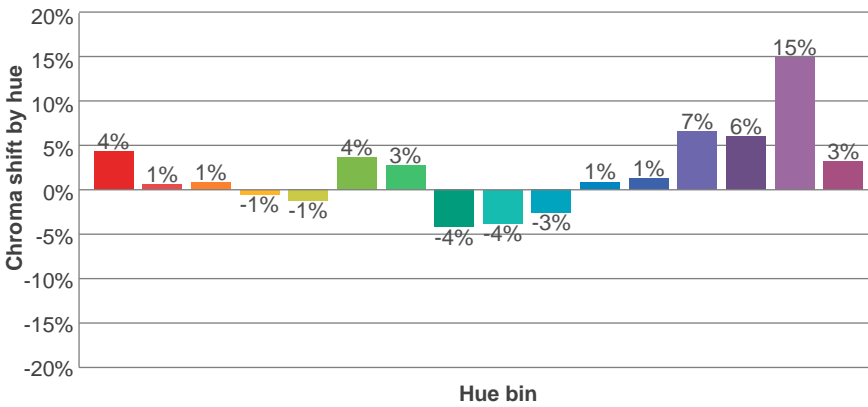
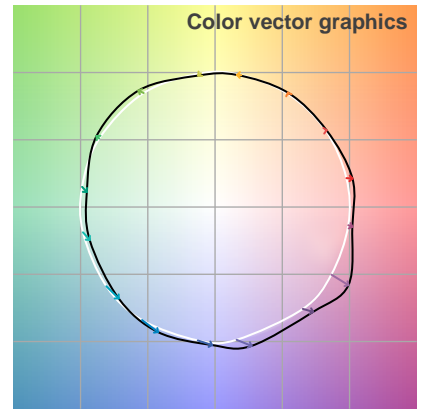
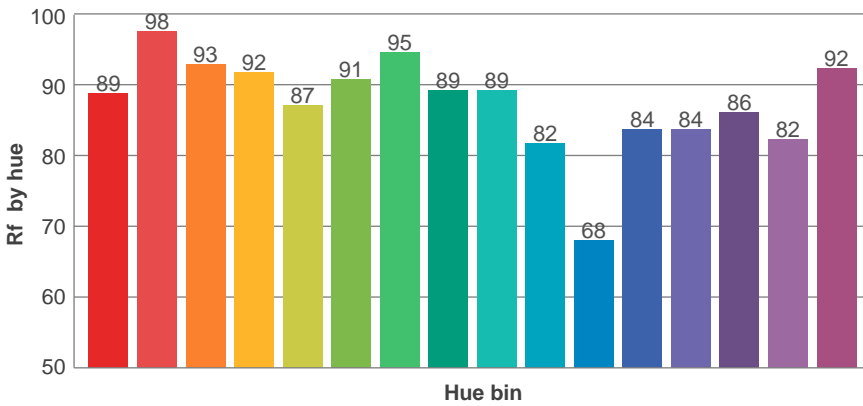
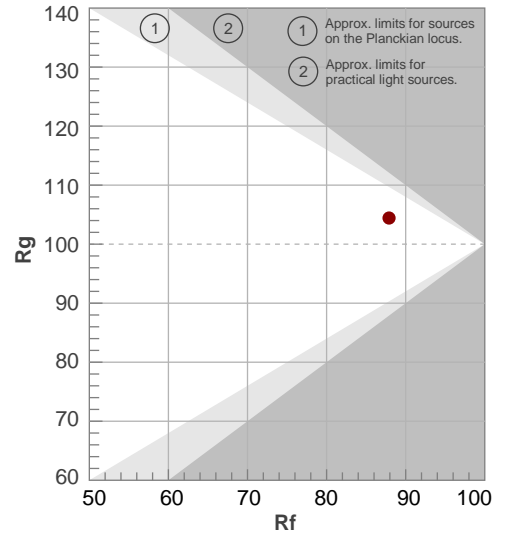
**Color parameters**

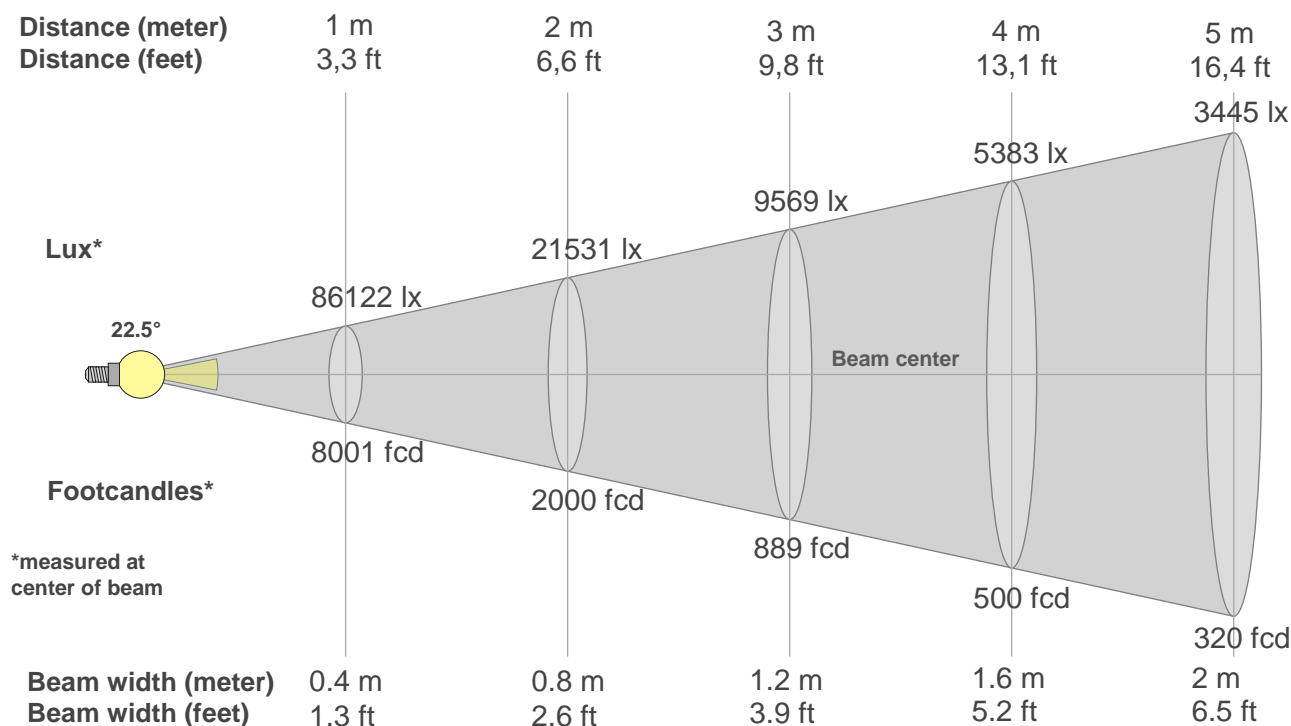
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
9181 K	91.4	68.2	87.9	104.4	92.3	0.285	0.295	0.191	0.297	-0.0021

**Rf 87.9**  
Fidelity index Rf

**Rg 104.4**  
Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	4%	-1%
2	98	1%	0%
3	93	1%	1%
4	92	-1%	3%
5	87	-1%	2%
6	91	4%	2%
7	95	3%	0%
8	89	-4%	3%
9	89	-4%	7%
10	82	-3%	13%
11	68	1%	15%
12	84	1%	11%
13	84	7%	10%
14	86	6%	5%
15	82	15%	1%
16	92	3%	-1%





**Beam intensities from 1-20m**

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
86122lx	21531lx	9569lx	5383lx	3445lx	2392lx	1758lx	1346lx	1063lx	861lx	712lx	598lx	510lx	439lx	383lx	336lx	298lx	266lx	239lx	215lx
8001fcd	2000.3fcd	889fcd	500.1fcd	320fcd	222.3fcd	163.3fcd	125fcd	98.8fcd	80fcd	66.1fcd	55.6fcd	47.3fcd	40.8fcd	35.6fcd	31.3fcd	27.7fcd	24.7fcd	22.2fcd	20fcd

**Intensities in 0° c-plane**

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
86.1K	86.4K	86.4K	85.6K	83.7K	80.9K	77.5K	73.4K	68.7K	62.3K	54.1K	44.7K	35.1K	26.2K	18.7K	12.5K	7.9K	4.9K	3.2K	2.1K
100%	100%	100%	99%	97%	94%	90%	85%	80%	72%	63%	52%	41%	30%	22%	14%	9%	6%	4%	2%

**Intensities in 90° c-plane**

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
86.1K	86.3K	86.4K	85.6K	83.8K	81.1K	77.7K	73.6K	68.9K	62.6K	54.4K	45.0K	35.3K	26.3K	18.7K	12.5K	7.8K	4.9K	3.2K	2.1K
100%	100%	100%	99%	97%	94%	90%	85%	80%	73%	63%	52%	41%	31%	22%	15%	9%	6%	4%	2%

**Intensities in 180° c-plane**

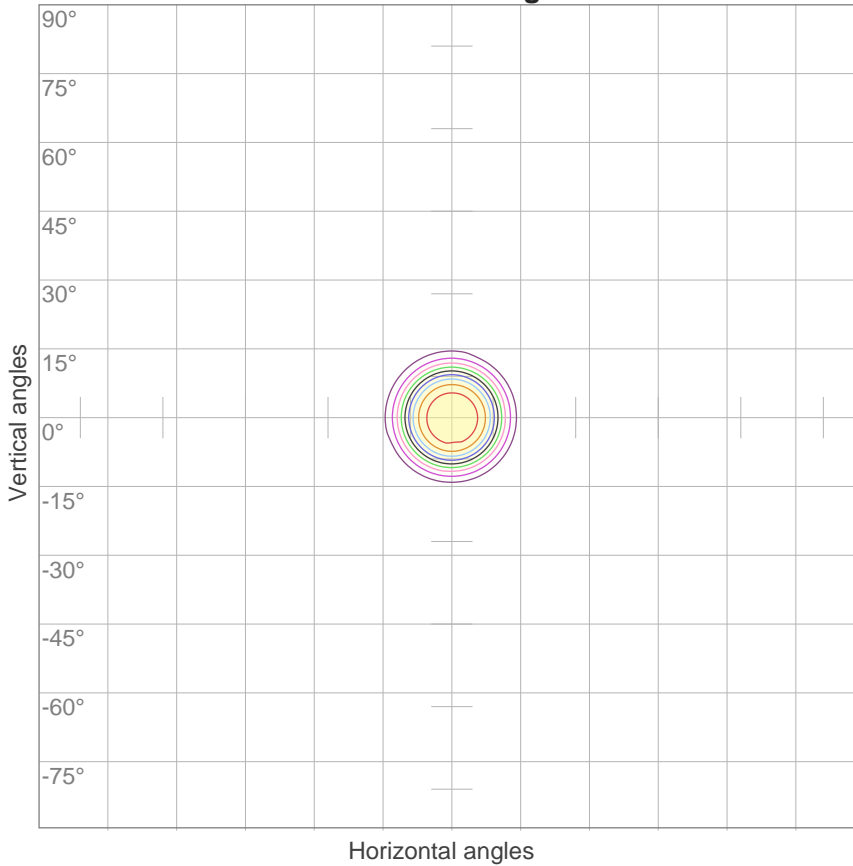
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
86.1K	86.1K	85.9K	85.1K	83.4K	80.5K	77.0K	73.0K	68.5K	62.6K	55.1K	46.3K	36.9K	28.0K	20.3K	14.1K	9.3K	5.8K	3.7K	2.4K
100%	100%	100%	99%	97%	94%	89%	85%	79%	73%	64%	54%	43%	33%	24%	16%	11%	7%	4%	3%

**Intensities in 270° c-plane**

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
86.1K	86.1K	85.9K	85.0K	83.2K	80.4K	76.8K	72.9K	68.3K	62.4K	54.8K	45.9K	36.6K	27.8K	20.2K	14.1K	9.2K	5.8K	3.7K	2.4K
100%	100%	100%	99%	97%	93%	89%	85%	79%	72%	64%	53%	43%	32%	23%	16%	11%	7%	4%	3%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
<b>22.5°</b>	<b>31.9°</b>	<b>38.2°</b>	<b>94.4%</b>	<b>91.0%</b>

**ISO candela diagram**



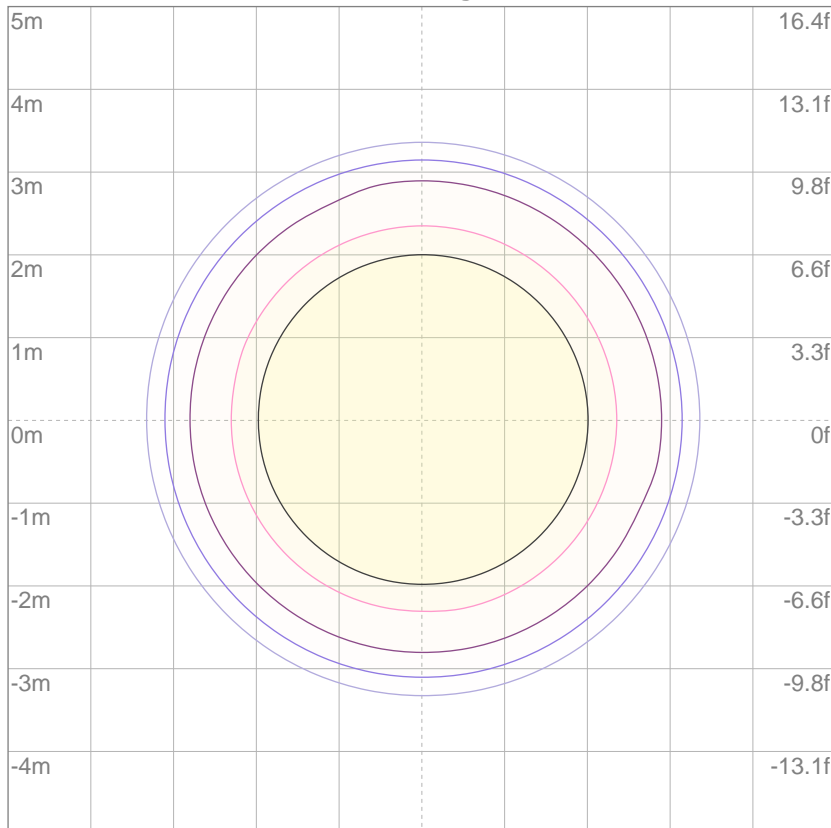
10%	8612 cd
20%	17224 cd
30%	25837 cd
40%	34449 cd
50%	43061 cd
60%	51673 cd
70%	60286 cd
80%	68898 cd
90%	77510 cd

Conditions:

Number of c-planes: 4

Candela at center: 86122 cd

**ISO lux diagram**



3%	25.8 lx
5%	43.1 lx
10%	86.1 lx
30%	258 lx
50%	431 lx

Conditions:

Number of c-planes: 4

Lux at center: 861 lx

*Lux distribution on a surface when lamp is mounted at 10 meters from the surface.*

**Glare Evaluation According to UGR**

p Ceiling	70	70	50	50	30	70	70	50	50	30
p Walls	50	30	50	30	30	50	30	50	30	30
p Floor	20	20	20	20	20	20	20	20	20	20
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 13875 lm total luminous flux										

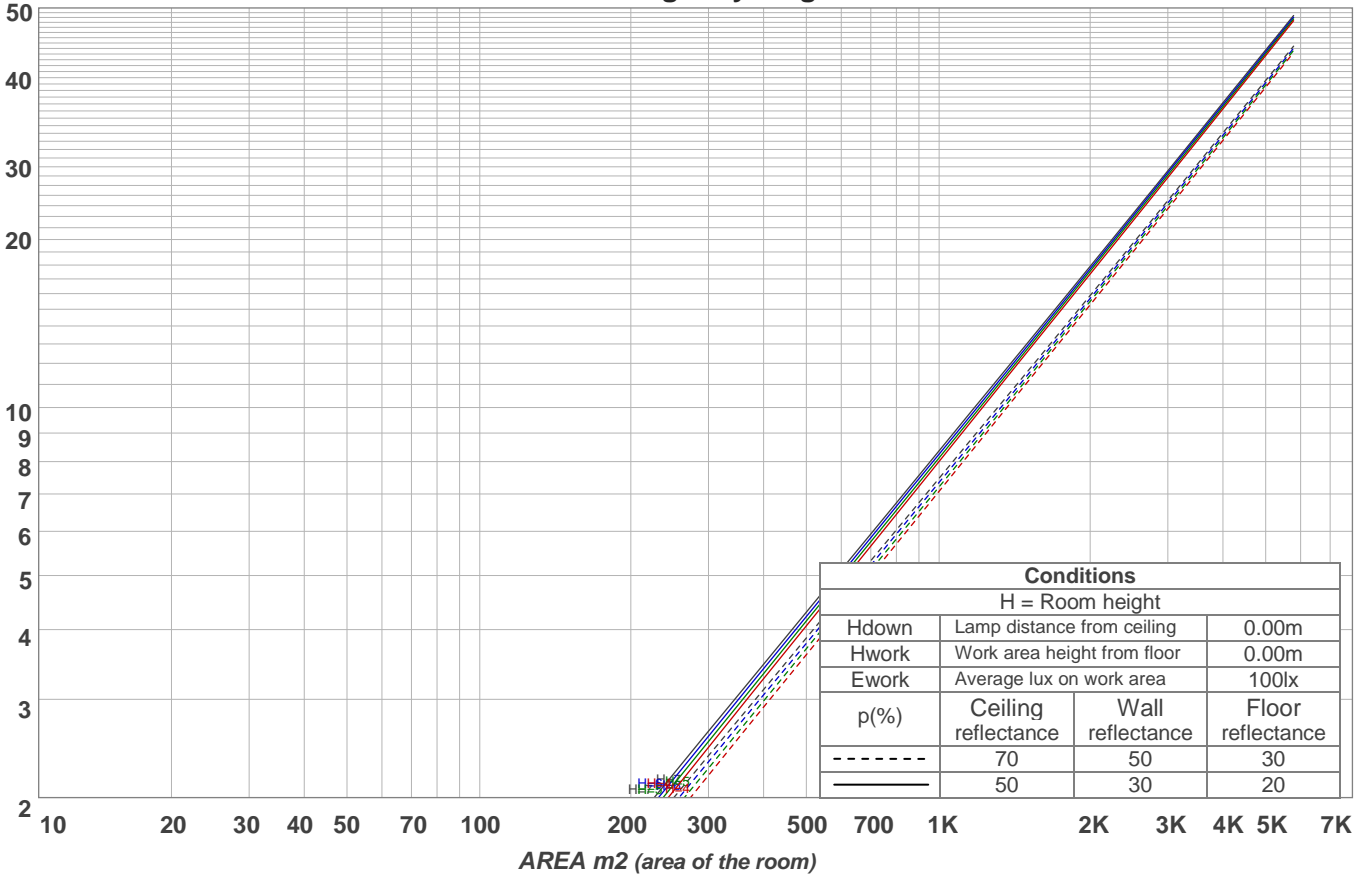
UGR error. Make sure you have installed the LDT editor from Dialux.

**Coefficients of Utilization**

Ceiling reflectance	80				70				50			30			10			0			
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																				
	Room Values are expressed as percentage of Lumens delivered to the task surface																				
<b>0</b>	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97	97	97	
<b>1</b>	114	112	110	108	111	109	107	106	105	103	102	100	99	98	97	96	95	93	93	93	
<b>2</b>	110	106	103	100	108	104	101	99	101	98	96	97	96	94	94	93	92	90	90	90	
<b>3</b>	106	102	98	95	104	100	97	94	97	94	92	94	92	90	92	90	89	87	87	87	
<b>4</b>	103	98	94	91	101	97	93	90	94	91	89	92	89	87	90	88	86	85	85	85	
<b>5</b>	100	95	90	87	99	94	90	87	92	88	86	90	87	85	88	86	84	83	83	83	
<b>6</b>	98	92	88	85	96	91	87	84	89	86	83	88	85	83	86	84	82	81	81	81	
<b>7</b>	95	89	85	82	94	88	85	82	87	84	81	86	83	81	85	82	80	79	79	79	
<b>8</b>	93	87	83	80	92	86	83	80	85	82	80	84	81	79	83	80	79	78	78	78	
<b>9</b>	91	85	81	78	90	84	81	78	83	80	78	82	80	78	82	79	77	76	76	76	
<b>10</b>	89	83	79	77	89	83	79	77	82	79	76	81	78	76	80	78	76	75	75	75	

LAMPS (number of lamps)

**Luminaire budgetary diagram**



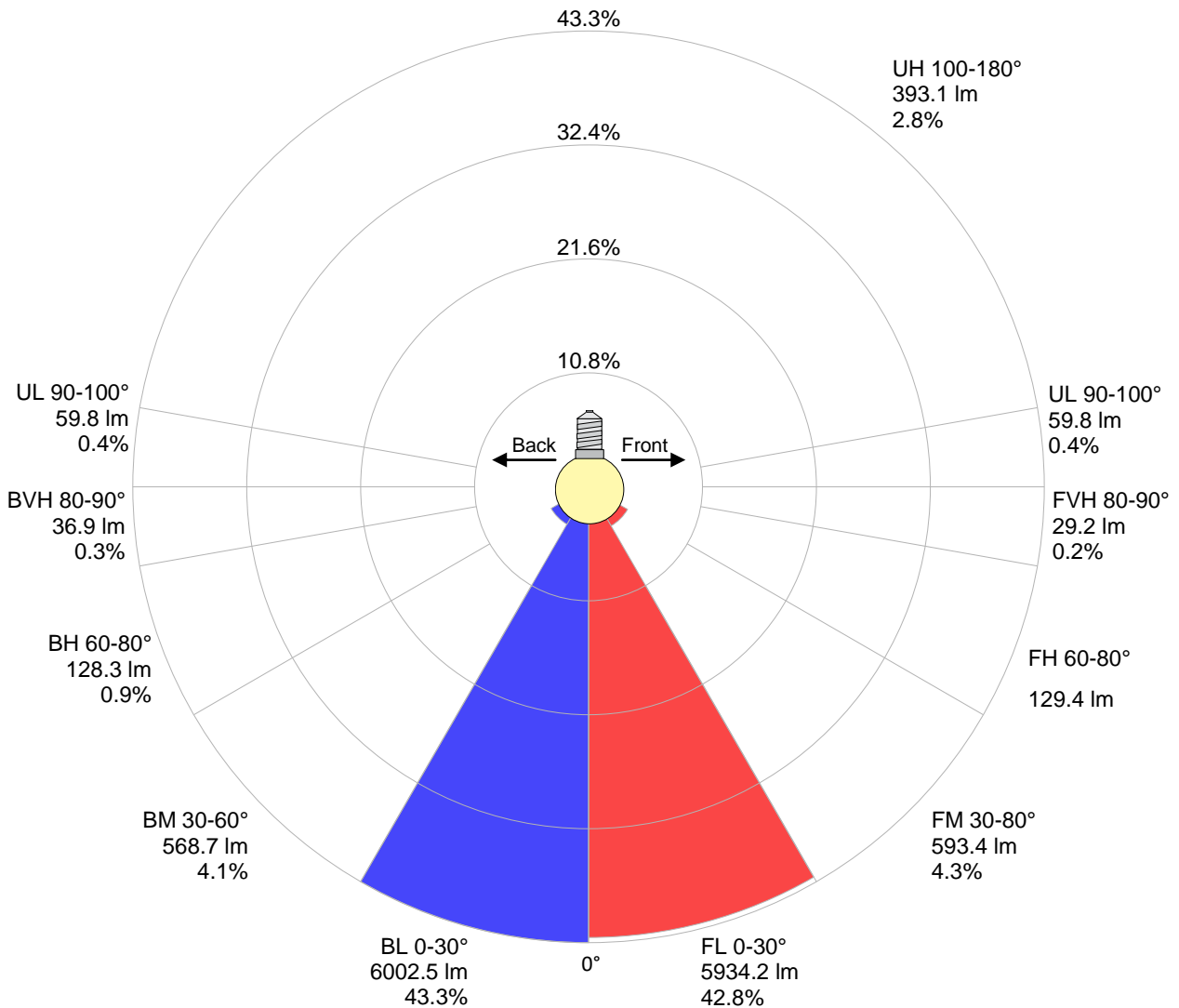
**Zonal Lumen Summary**

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
6930 lm	4485 lm	520 lm	486 lm	396 lm	281 lm	169 lm	88.7 lm	66.2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
59.9 lm	49.0 lm	50.7 lm	58.5 lm	67.0 lm	67.7 lm	56.1 lm	34.4 lm	9.94 lm

LCS table

BUG rating:	B5 U3 G1	
<b>Forward light</b>	Lumens	Lumens %
Low(0-30):	5934.2	42.8%
Medium(30-60):	593.4	4.3%
High(60-80):	129.4	0.9%
Very high(80-90):	29.2	0.2%
<b>Back light</b>		
Low(0-30):	6002.5	43.3%
Medium(30-60):	568.7	4.1%
High(60-80):	128.3	0.9%
Very high(80-90):	36.9	0.3%
<b>Uplight</b>		
Low(90-100):	59.8	0.4%
High(100-180):	393.1	2.8%

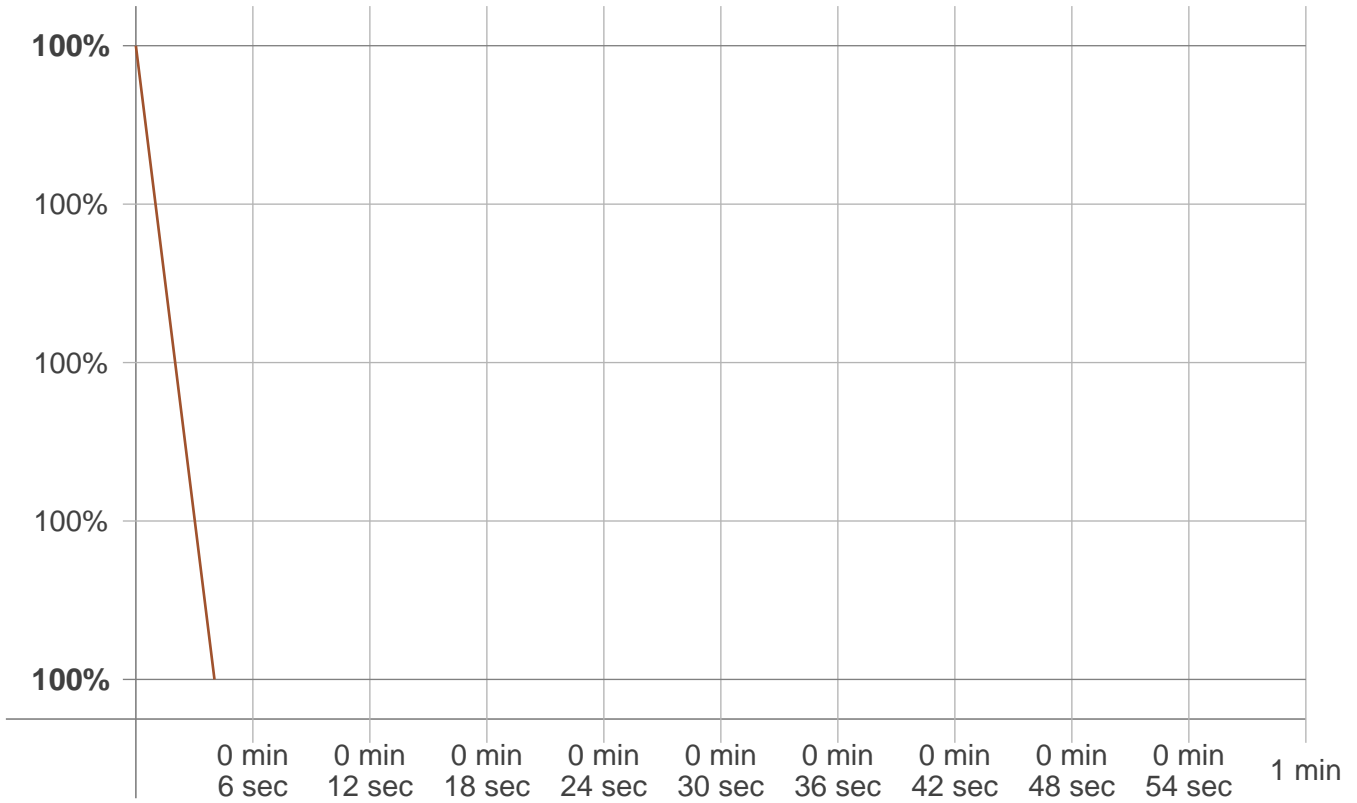
LCS graph





**Stabilization**

**Warmup curve**



**Warmup result**

<b>Warmup time:</b>	<b>Not completed</b>
<b>Warmup variation</b>	<b>0.0%</b>

**Warmup conditions**

<b>Stable period:</b>	<b>15 min</b>
<b>Stable change max:</b>	<b>2.0%</b>
<b>Minimum time:</b>	<b>15 min</b>

**Color temperature change**

<b>CCT start</b>	<b>CCT change</b>	<b>CCT end</b>
9182 K	-1 K	9181 K

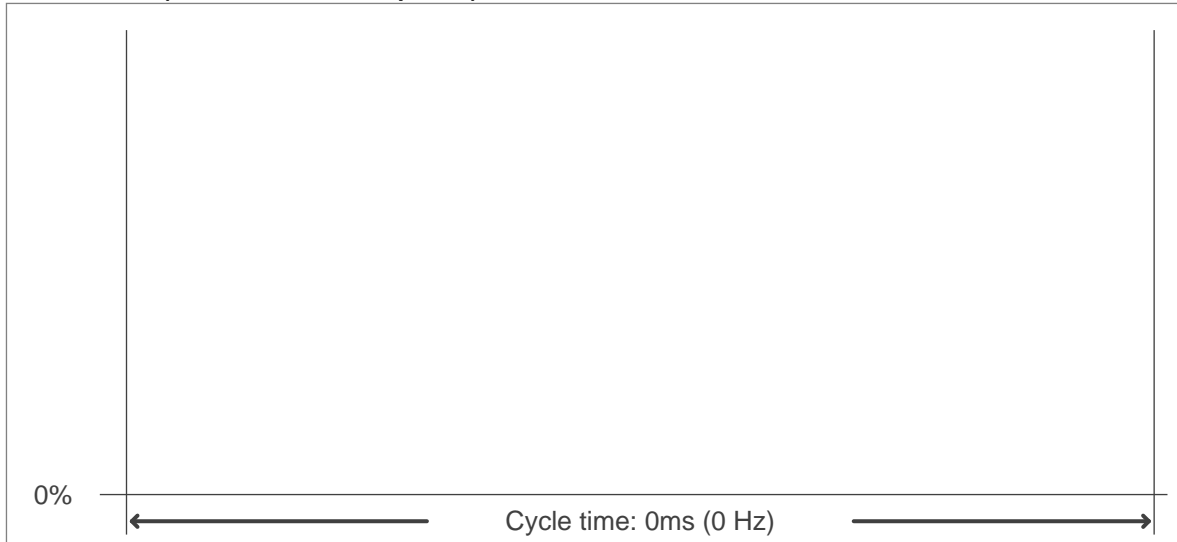
**Output change**

<b>Output start</b>	<b>Output change</b>	<b>Output end</b>
13875 lm	lm	13875 lm

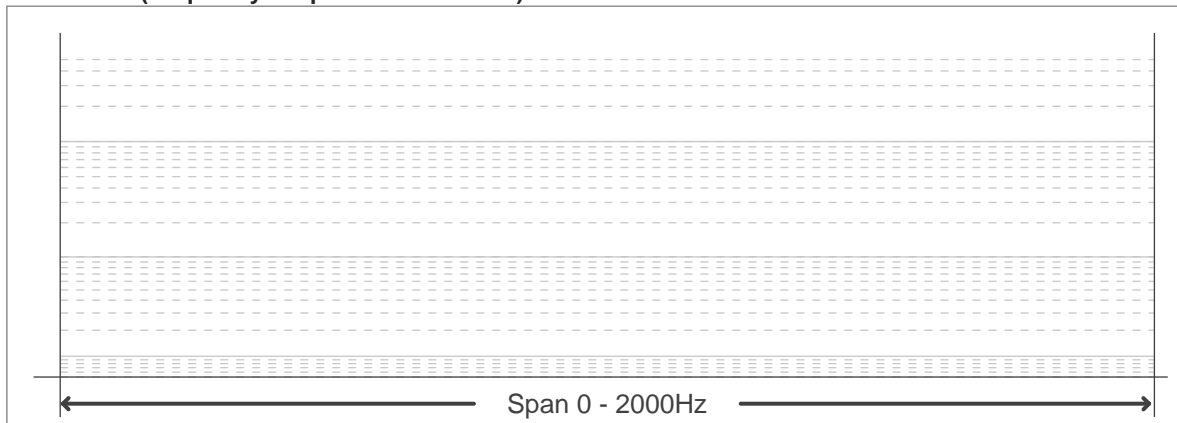
**Flicker curve (complete sampled flicker signal)**



**Flicker frame (frame of one flicker period)**



**Flicker FFT (frequency scope of flicker curve)**



**Flicker results:**

<b>Flicker frequency:</b>	<b>n/a Hz</b>
<b>Flicker index:</b>	<b>n/a</b>
<b>Flicker percentage:</b>	<b>n/a %</b>
<b>SVM: (Visual flicker)</b>	<b>n/a</b>

**Flicker conditions:**

<b>Sample rate:</b>	<b>0 samples/second</b>
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