

Light efficiency:



Output: 31243 lm

Light quality:



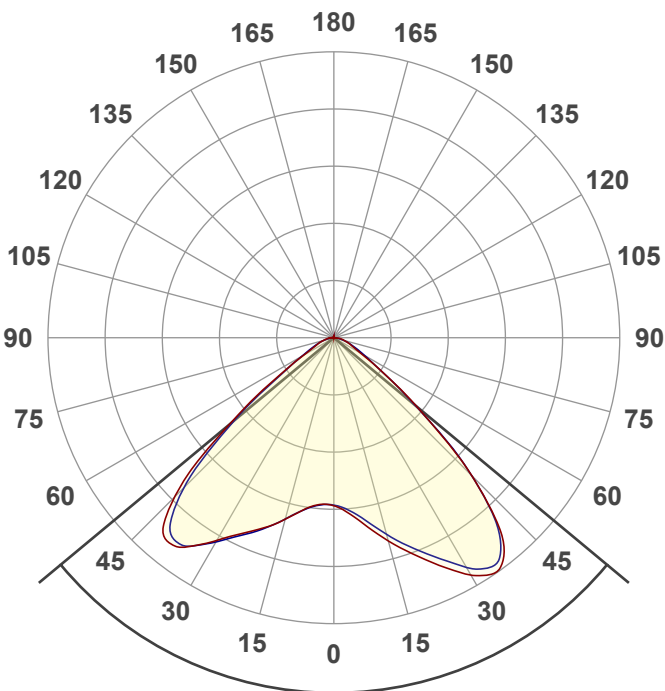
Peak: 15165 cd

Color temperature:



Power: 211.5 W

PF: 1.0



Product name:
FY-HB-900C-200WNC-L50K504D623

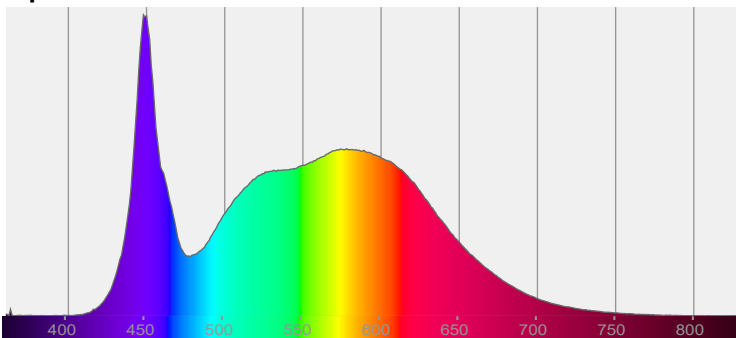
Date and time:
4/12/2023 3:48:12 PM

Beam angle **100.5°**

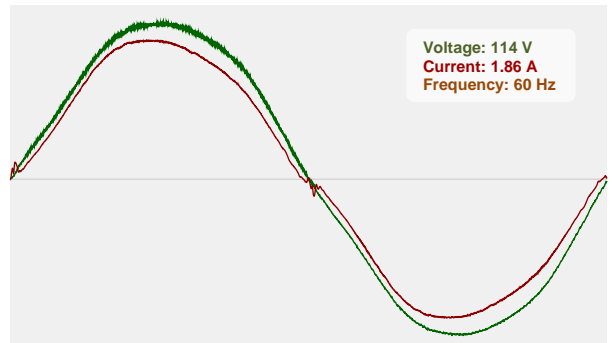


CIE 1931
x: 0.344
y: 0.353

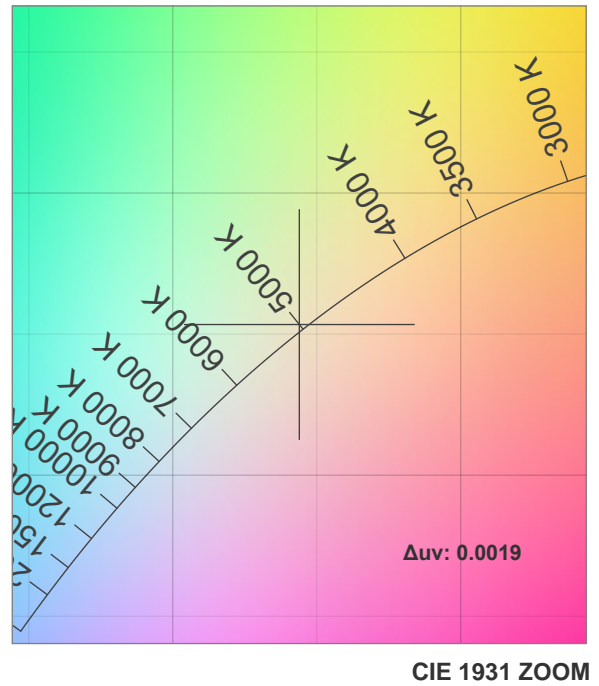
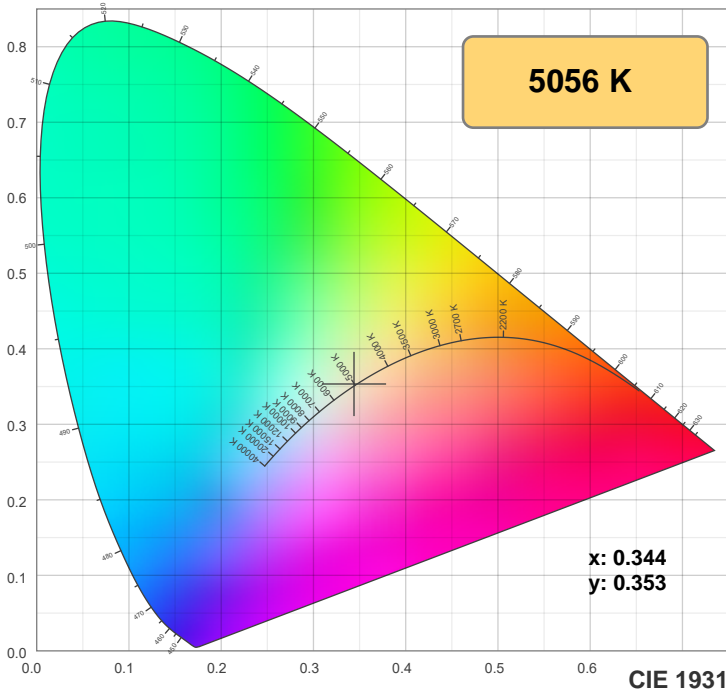
Spectra



Power

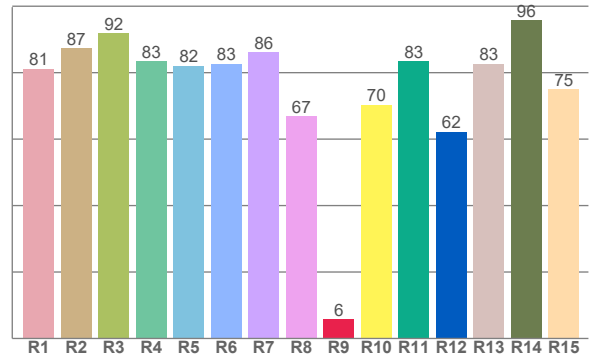
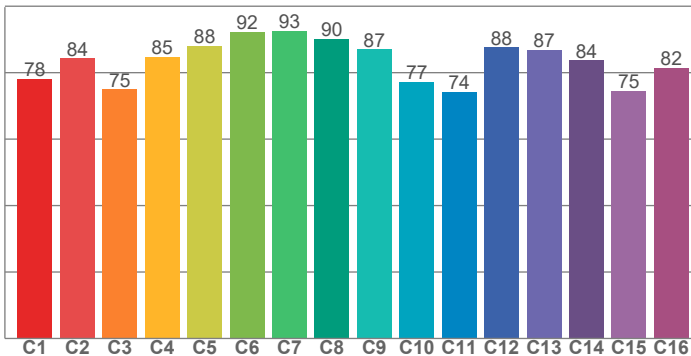


Color Specifications



TM30: 83.2

CRI: 82.7 (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
81.2	87.4	91.9	83.4	82.1	82.6	86.2	67.0	5.8	70.4	83.4	62.3	82.7	95.7	74.9

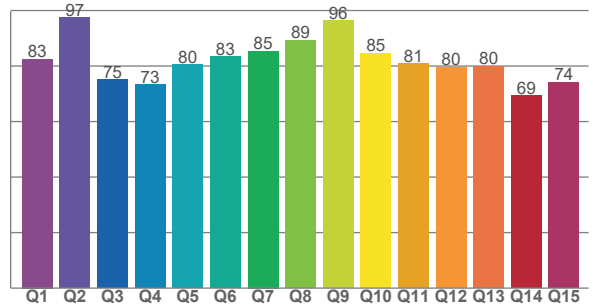
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78.2	84.3	75.0	84.7	88.1	92.3	92.6	90.1	87.1	77.1	74.2	87.6	86.8	83.7	74.6	81.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.5	97.4	75.2	73.3	80.5	83.3	85.4	89.3	96.3	84.6	80.9	79.6	79.9	69.3	74.2

CQS: 80.6



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 division from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5056 K	82.7	5.8	83.2	97.1	80.6	0.344	0.353	0.210	0.324	0.0019

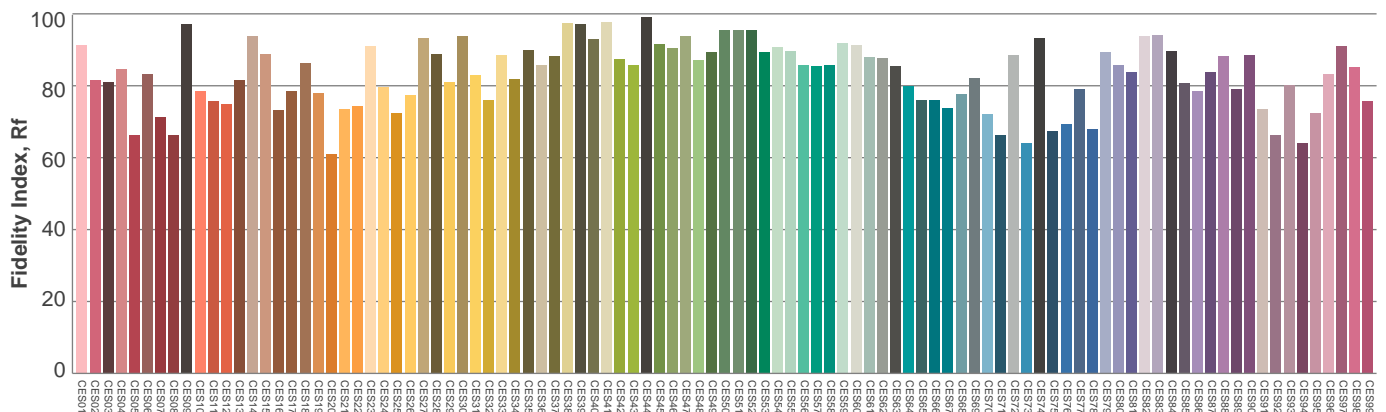
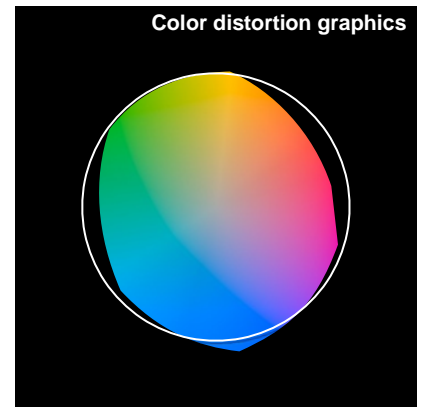
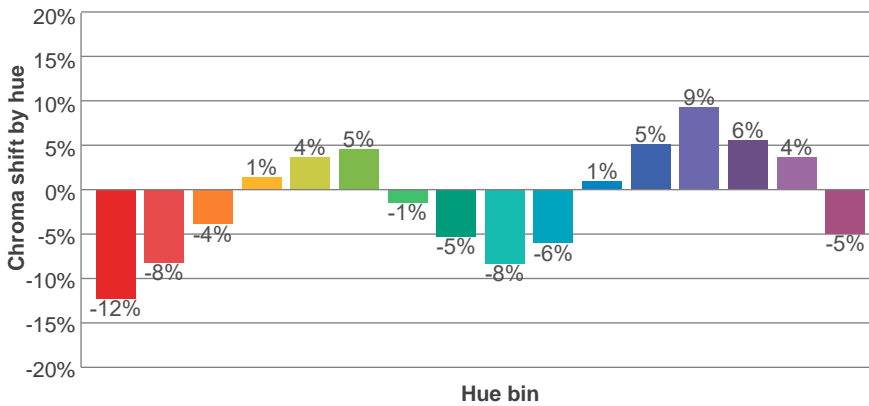
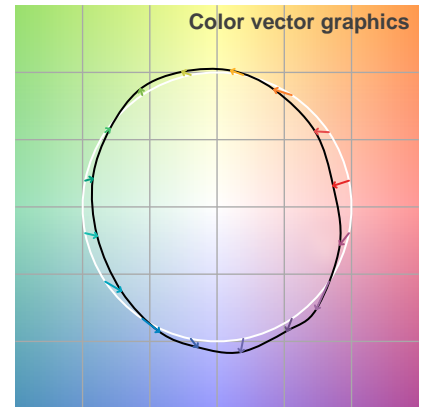
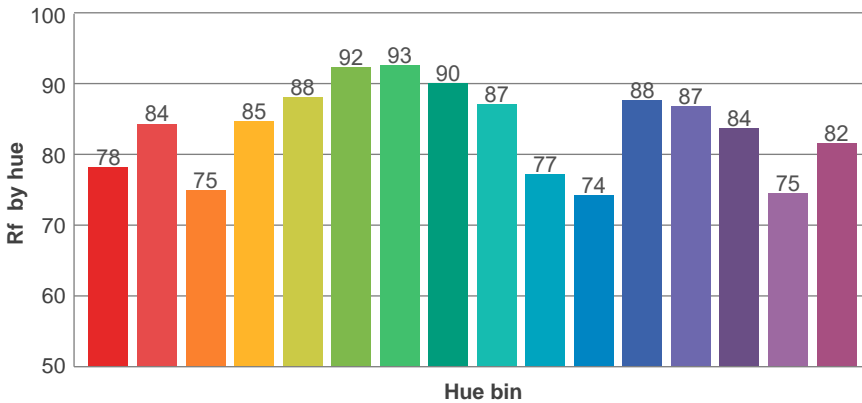
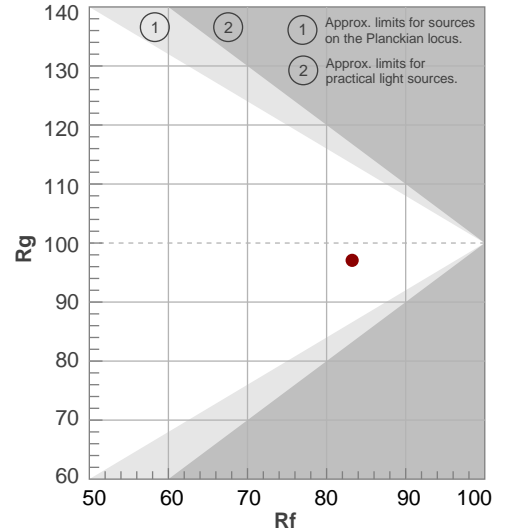


TM30 Report

Rf 83.2
Fidelity index Rf

Rg 97.1
Gammut index Rg

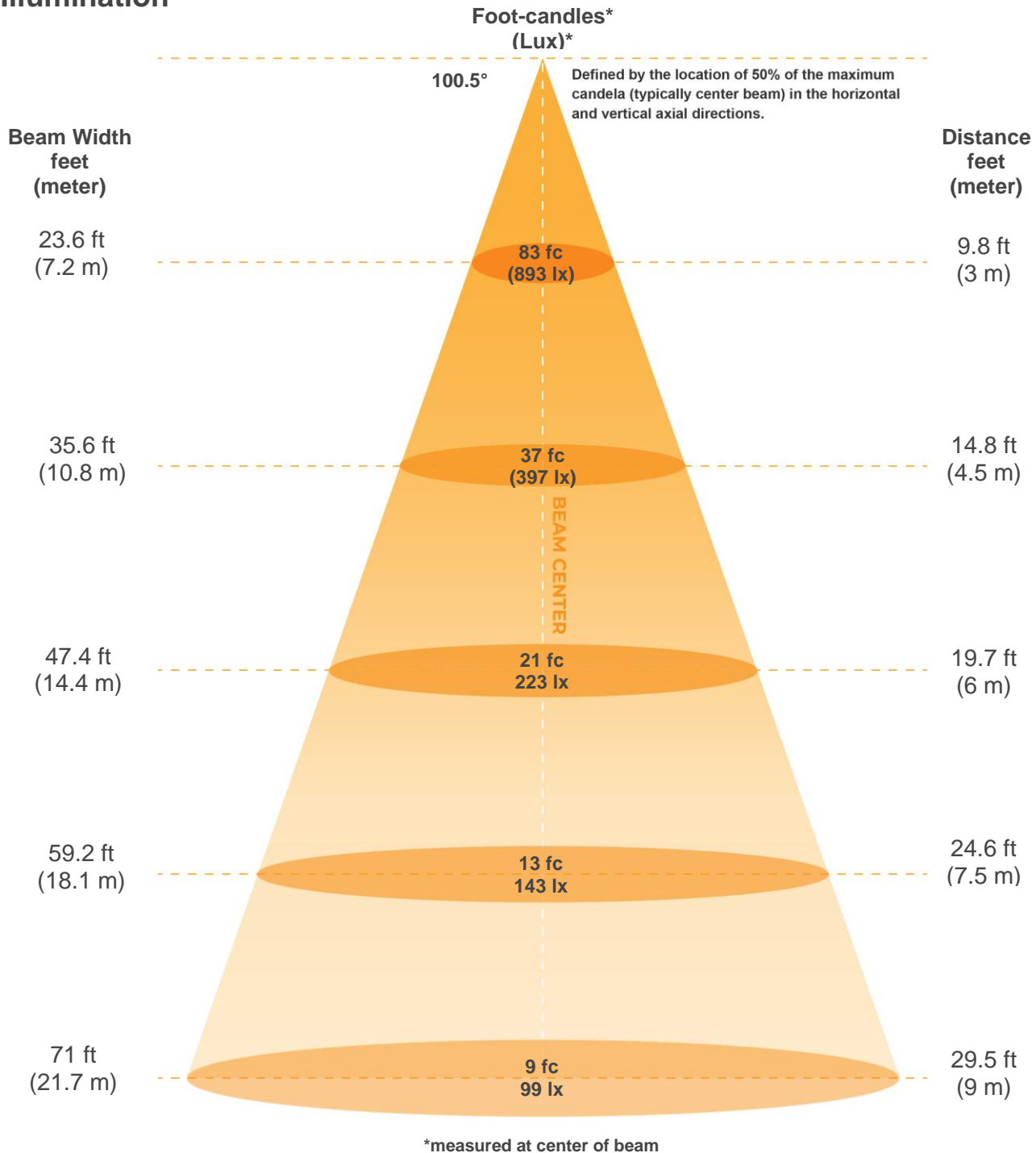
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	-1%
2	84	-8%	6%
3	75	-4%	13%
4	85	1%	10%
5	88	4%	6%
6	92	5%	-1%
7	93	-1%	-4%
8	90	-5%	-3%
9	87	-8%	4%
10	77	-6%	12%
11	74	1%	16%
12	88	5%	6%
13	87	9%	-4%
14	84	6%	-8%
15	75	4%	-22%
16	82	-5%	-10%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

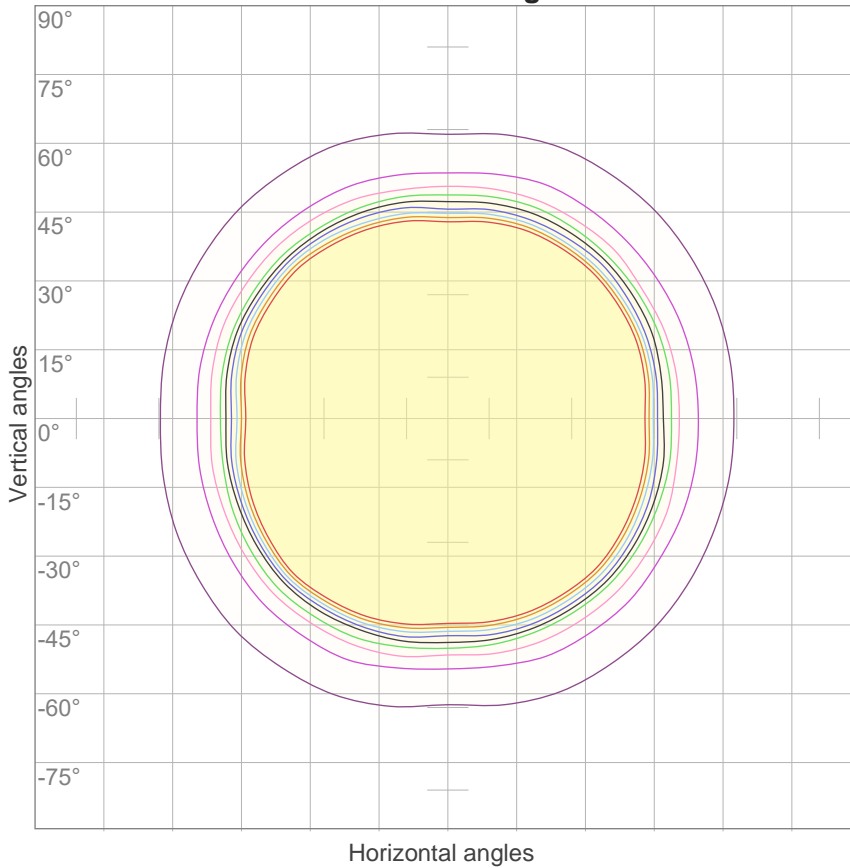
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
8034lx	2009lx	893lx	502lx	321lx	223lx	164lx	126lx	99lx	80lx	66lx	56lx	48lx	41lx	36lx	31lx	28lx	25lx	22lx	20lx
746.4fcd	186.6fcd	82.9fcd	46.7fcd	29.9fcd	20.7fcd	15.2fcd	11.7fcd	9.2fcd	7.5fcd	6.2fcd	5.2fcd	4.4fcd	3.8fcd	3.3fcd	2.9fcd	2.6fcd	2.3fcd	2.1fcd	1.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
100.5°	126.1°	158.5°	93.3%	69.7%



ISO Diagrams

ISO candela diagram



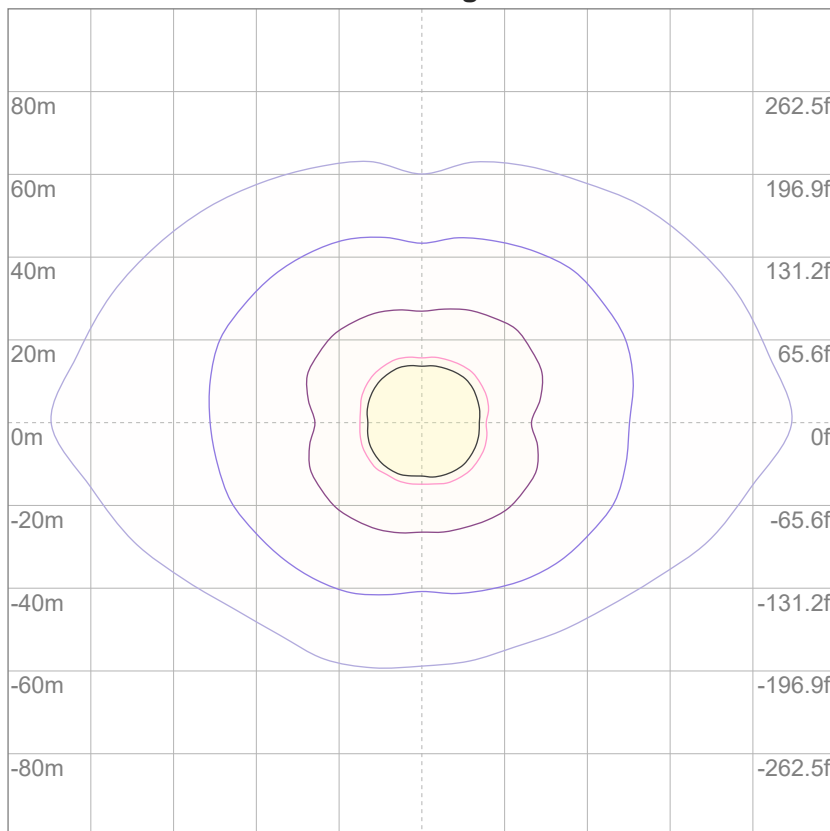
10%	803 cd
20%	1607 cd
30%	2410 cd
40%	3214 cd
50%	4017 cd
60%	4821 cd
70%	5624 cd
80%	6427 cd
90%	7231 cd

Conditions:

Number of c-planes: 16

Candela at center: 8034 cd

ISO lux diagram



3%	2.41 lx
5%	4.02 lx
10%	8.03 lx
30%	24.1 lx
50%	40.2 lx

Conditions:

Number of c-planes: 16

Lux at center: 80.3 lx

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

Mounting height: 10 meters (33 feet) **UGR**



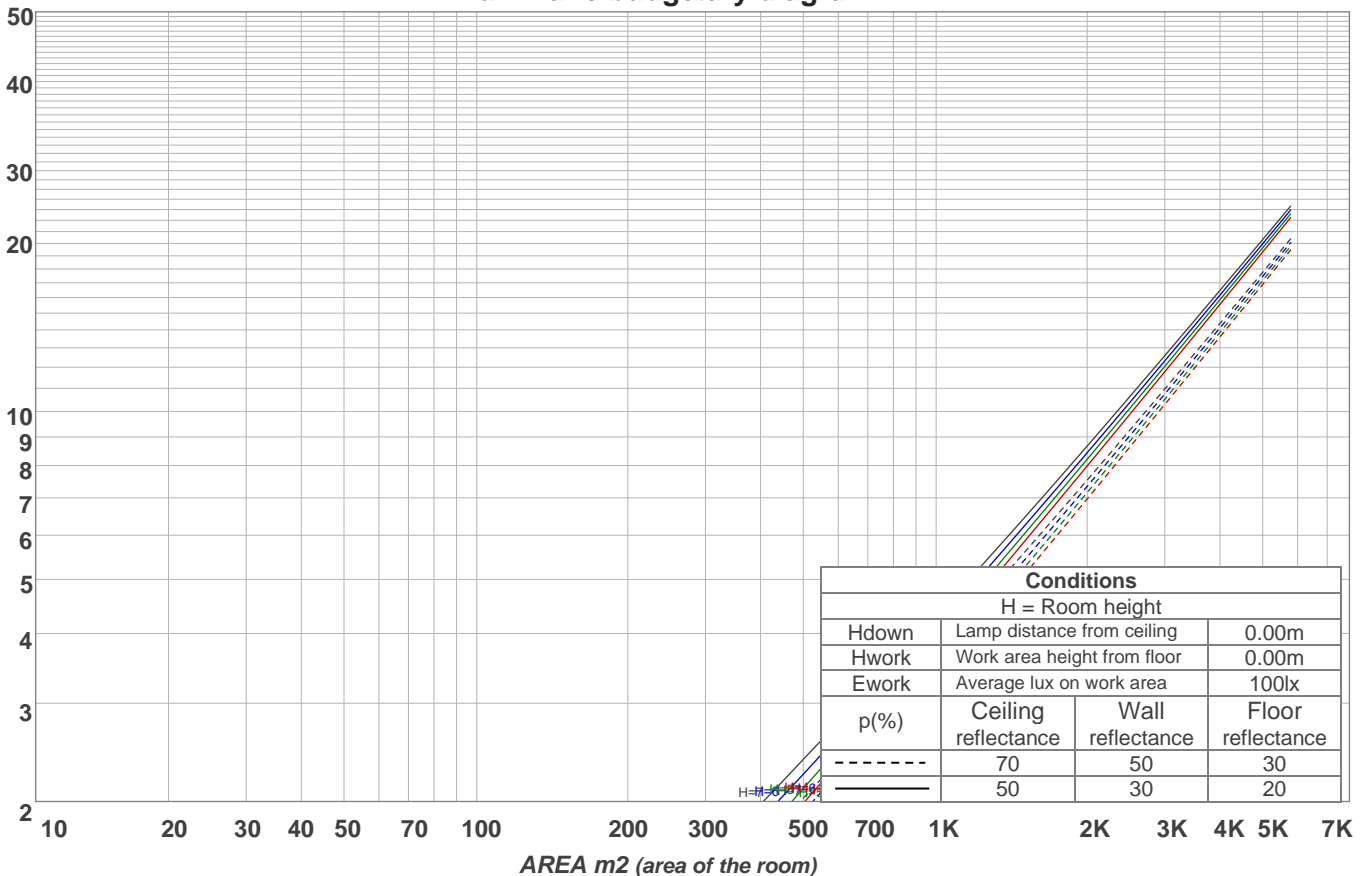
Light Planning

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
RCR	(RCR: Room Cavity Ratio)																				
	Room Values are expressed as percentage of Lumens delivered to the task surface																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	111	107	103	100	108	105	102	99	100	98	96	97	94	93	93	91	90	88			
2	102	95	90	85	100	94	88	84	90	86	82	87	83	80	84	81	78	76			
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	75	71	68	66			
4	87	76	68	62	85	75	68	62	72	66	61	70	65	60	68	63	59	57			
5	80	68	60	54	78	67	60	54	65	58	53	63	57	53	61	56	52	50			
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44			
7	68	56	48	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39			
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	41	36	34			
9	59	46	38	33	58	46	38	33	45	38	33	43	37	33	42	37	32	31			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	27			

LAMPS (number of lamps)

Luminaire budgetary diagram



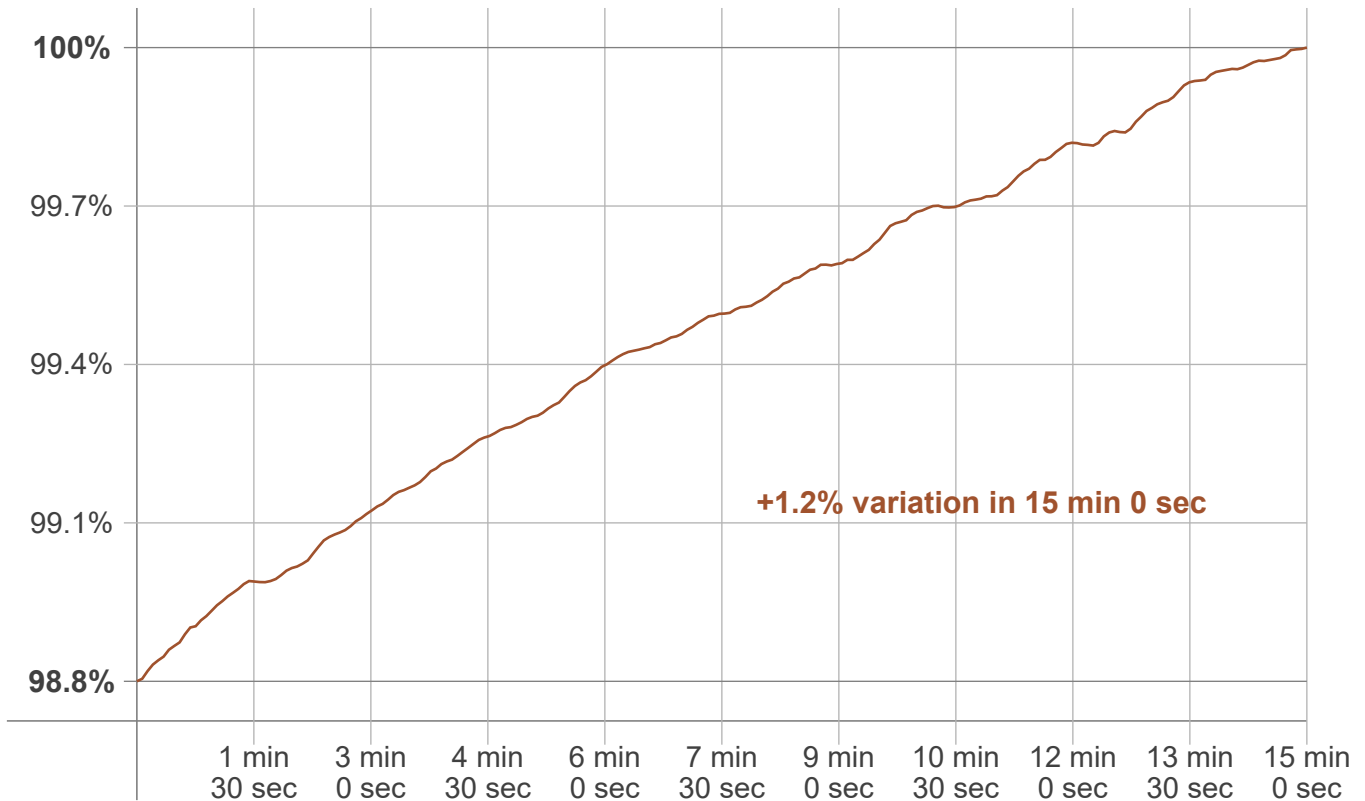
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
795 lm	2706 lm	5244 lm	8353 lm	8518 lm	3530 lm	1239 lm	603 lm	155 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
7.33 lm	8.65 lm	12.3 lm	15.1 lm	16.4 lm	15.3 lm	12.6 lm	8.59 lm	3.03 lm



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 0 sec
Warmup variation	+1.2%

Warmup conditions

Stable period:	15 min
Stable change max:	2.0%
Minimum time:	15 min

Color temperature change

CCT start	CCT change	CCT end
5019 K	+37 K	5056 K

Output change

Output start	Output change	Output end
30877 lm	+365 lm	31243 lm

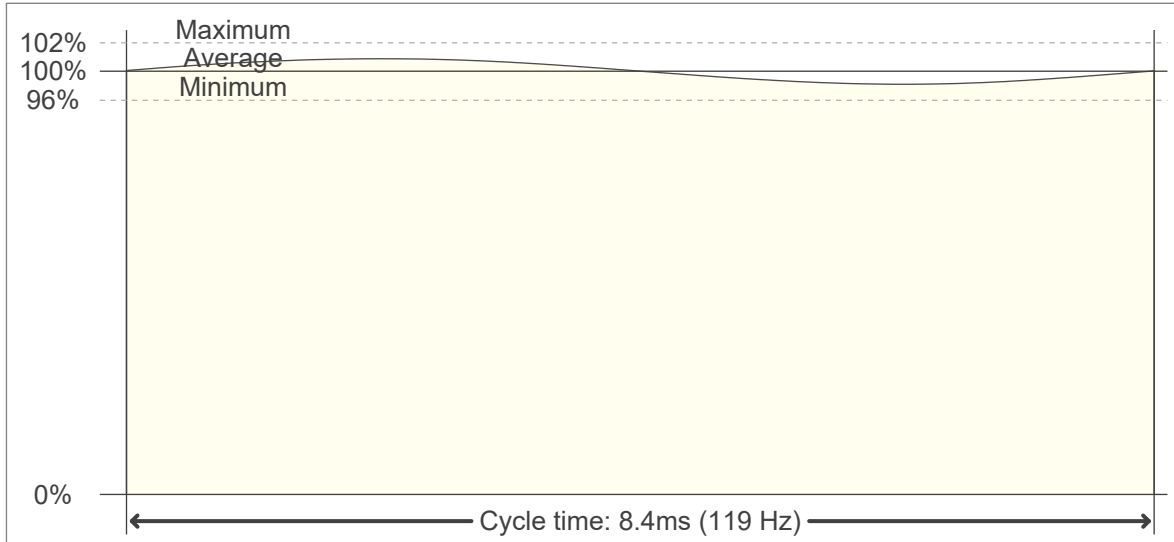


Flicker Specifications

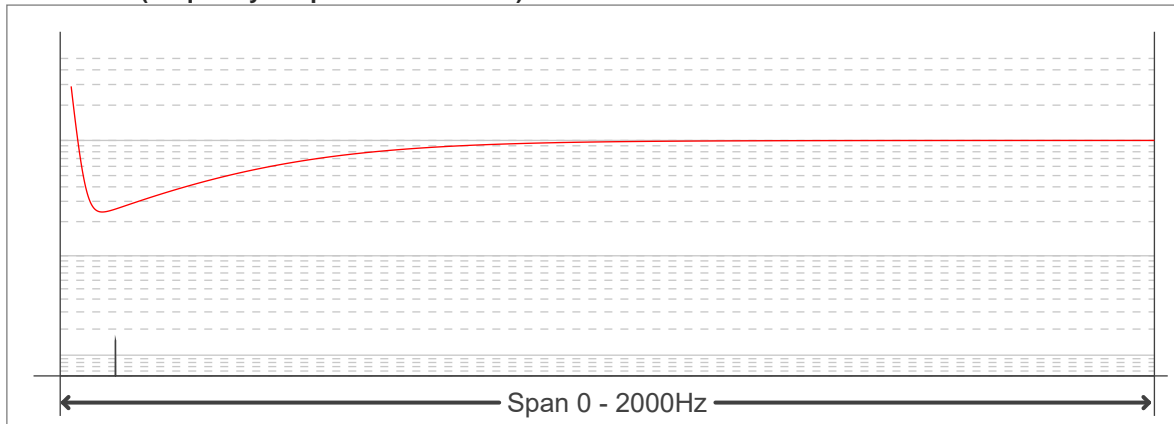
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.05 Hz
Flicker index:	0.01
Flicker percentage:	3.29 %
SVM: (Visual flicker)	0.11

Flicker conditions:

Sample rate:	20000 samples/second
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