

PHOTOMETRIC TEST REPORT

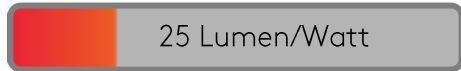
NARA PENDANT POLISHED
CHROME (WITH SHADE 4)

astro

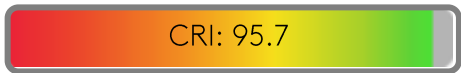
NARA PENDANT POLISHED CHROME

astro

LIGHT EFFICIENCY:



LIGHT QUALITY:



COLOR TEMPERATURE:



OUTPUT: 186 lm
PEAK: 63.3 cd
POWER: 7.5 W
PF: 0.94



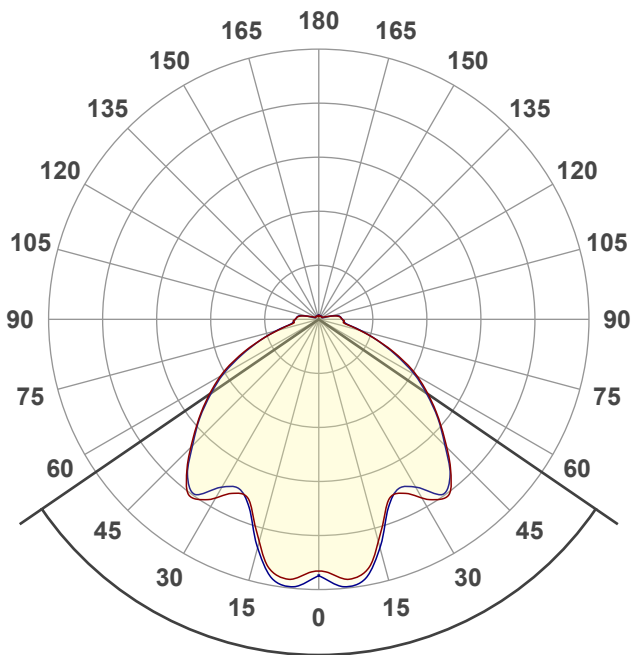
Tracking number: [n/a](#)

Product name:
Nara Pendant Polished Chrome (with
Shade 4)

Item number:
1464xxx

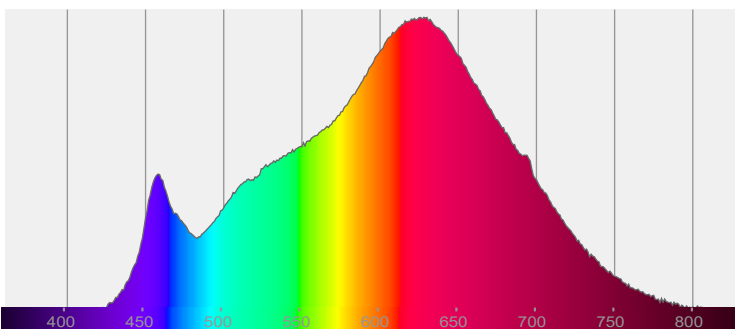
Date and time:
04/04/2023 11:04:26 AM

Description:

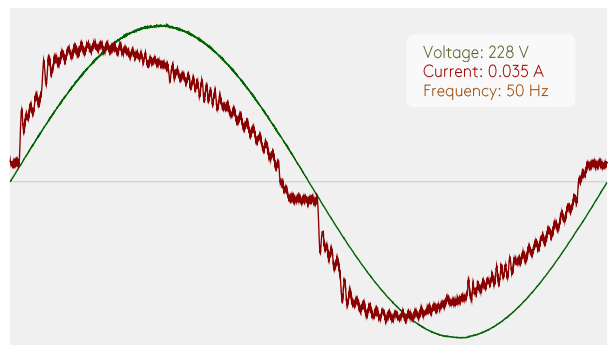


CIE 1931
x: 0.441
y: 0.399

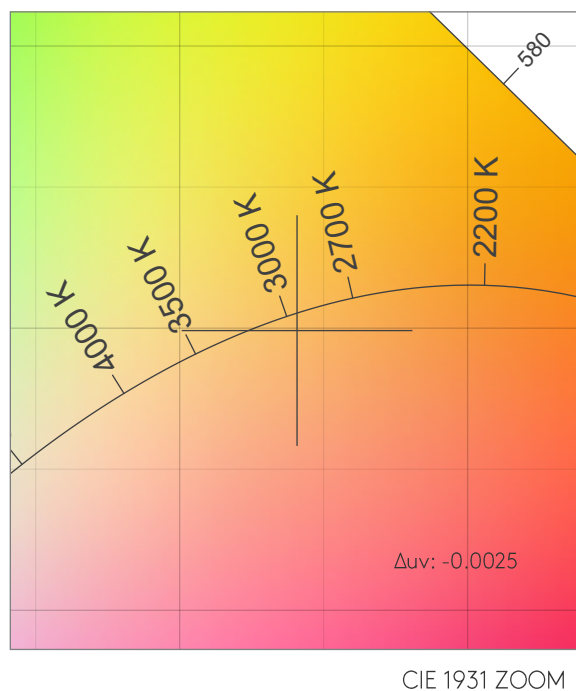
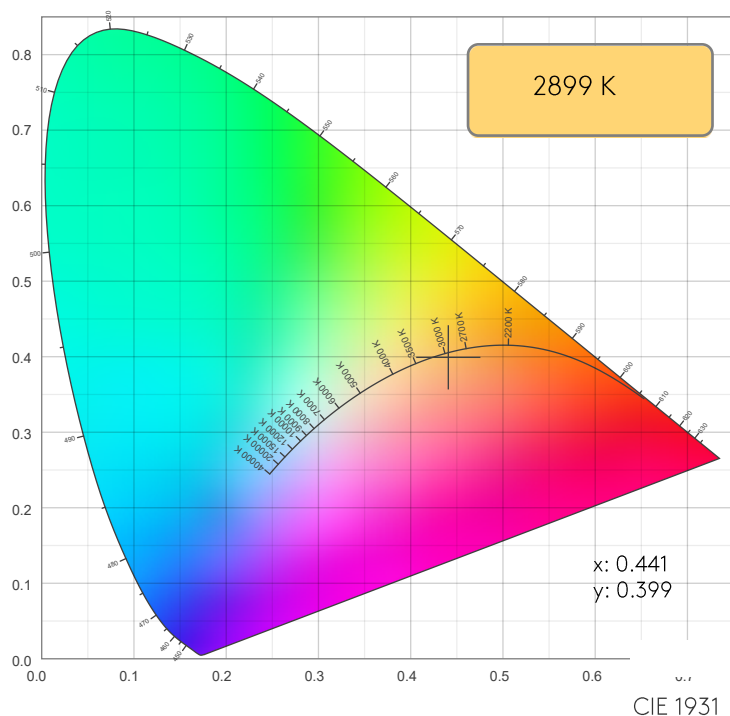
SPECTRA



POWER

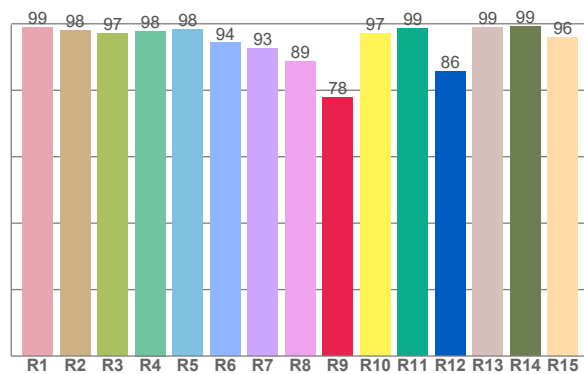
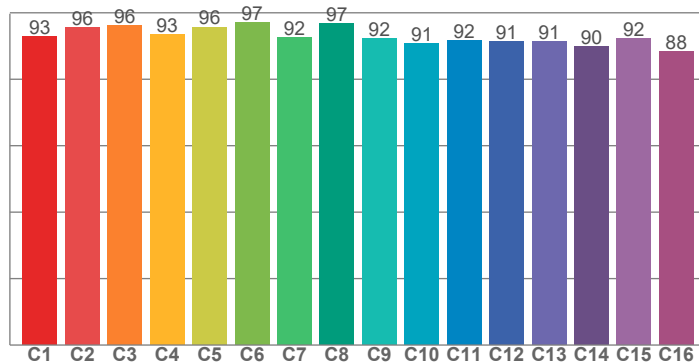


COLOR DETAILS



TM30: 93.1

CRI: 95.7 (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
98.8	98.0	97.2	97.8	98.2	94.2	92.6	88.7	77.8	97.1	98.5	85.6	99.0	99.3	95.8

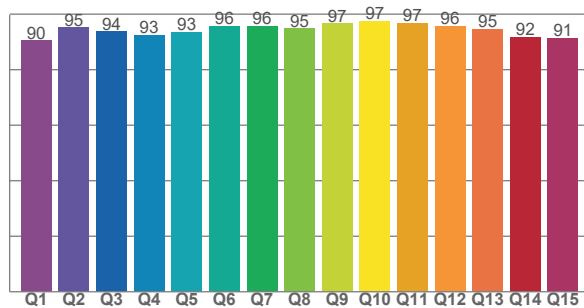
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.9	95.5	96.3	93.4	95.7	97.0	92.4	96.7	92.3	90.6	91.8	91.4	91.4	89.9	92.3	88.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90.5	95.1	93.8	92.5	93.5	95.7	95.7	94.8	96.7	97.5	96.7	95.6	94.6	91.8	91.4

CQS: 93.9



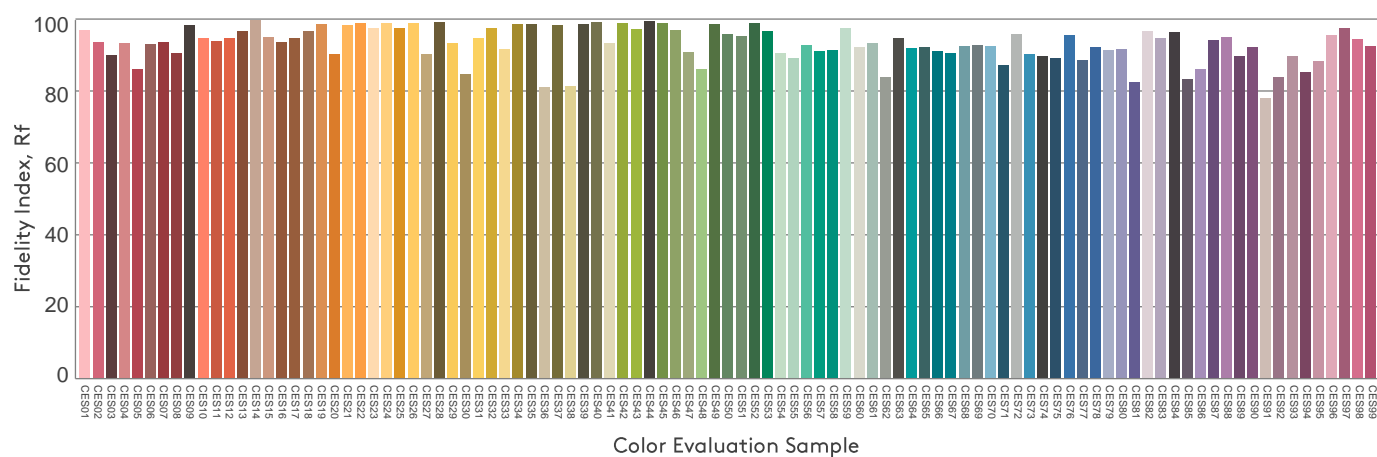
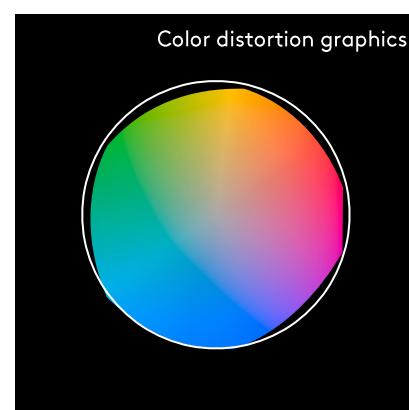
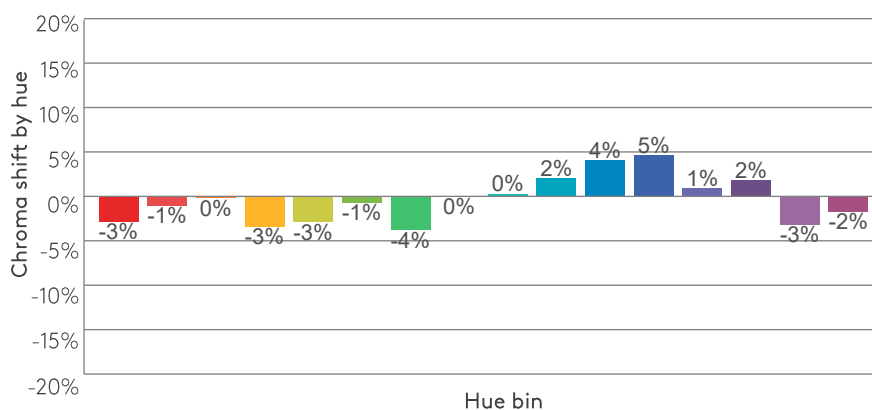
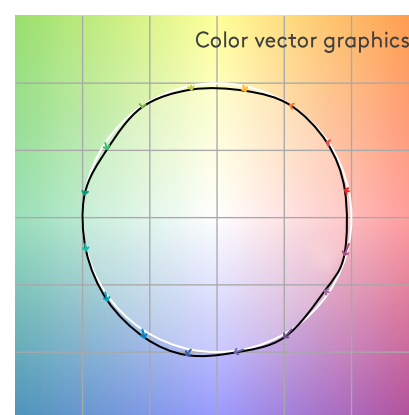
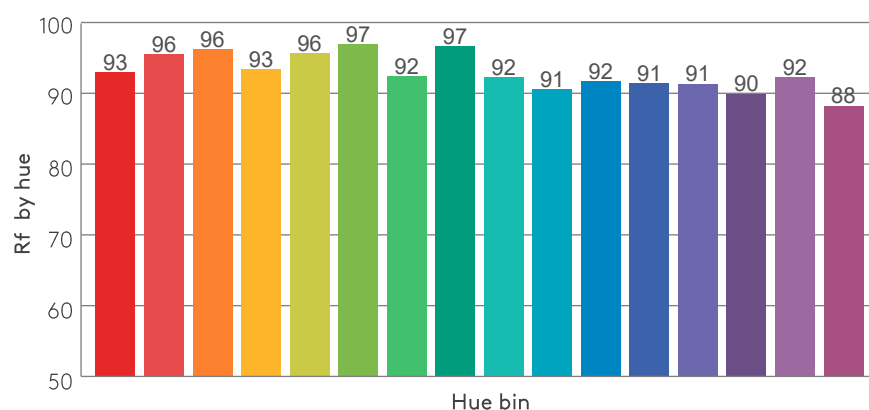
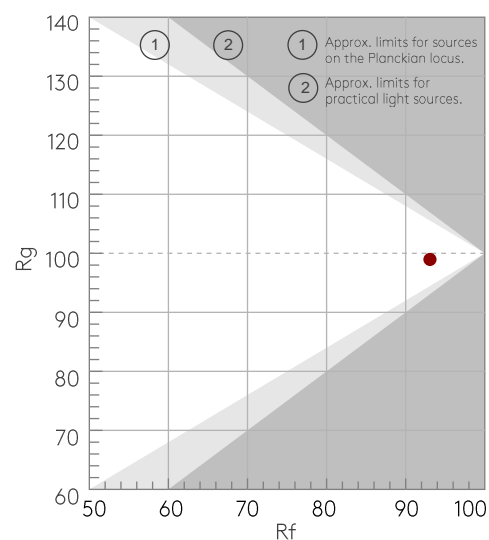
COLOR PARAMETERS

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
2899 K	95.7	77.8	93.1	99.0	93.9	0.441	0.399	0.255	0.347	-0.0025

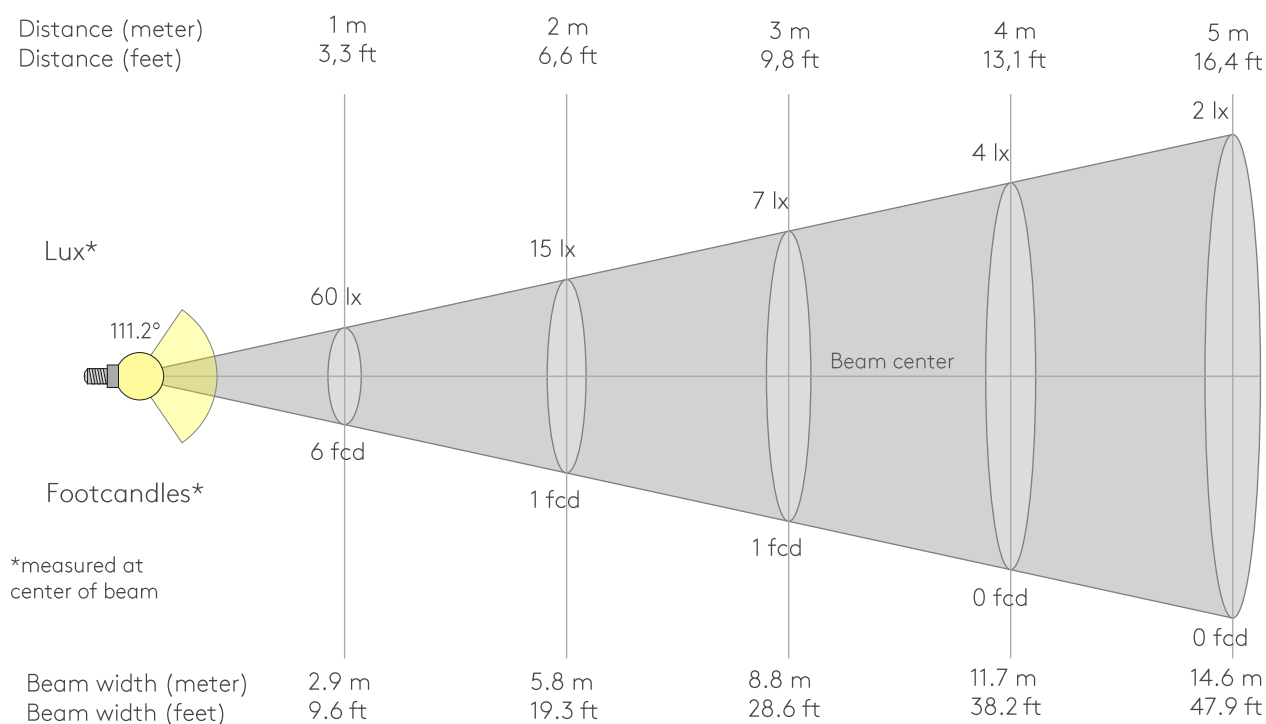
Rf 93.1
Fidelity index Rf

Rg 99.0
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	2%
2	96	-1%	1%
3	96	0%	1%
4	93	-3%	-2%
5	96	-3%	0%
6	97	-1%	1%
7	92	-4%	3%
8	97	0%	2%
9	92	0%	5%
10	91	2%	6%
11	92	4%	5%
12	91	5%	-2%
13	91	1%	-7%
14	90	2%	-8%
15	92	-3%	-1%
16	88	-2%	-9%



BEAM DETAILS



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
60lx	15lx	7lx	4lx	2lx	2lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
5.6fcd	1.4fcd	0.6fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
60.1	61.0	60.2	54.2	47.4	45.7	48.6	51.0	48.3	42.7	37.1	31.9	26.7	21.0	15.2	10.2	6.9	6.0	5.6	5.1
100%	102%	100%	90%	79%	76%	81%	85%	80%	71%	62%	53%	44%	35%	25%	17%	11%	10%	9%	9%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
60.1	63.1	62.1	55.7	47.8	44.3	45.8	50.3	48.0	42.1	36.8	31.3	26.1	20.3	14.9	10.4	6.9	6.0	5.5	5.2
100%	105%	103%	93%	80%	74%	76%	84%	80%	70%	61%	52%	44%	34%	25%	17%	12%	10%	9%	9%

Intensities in 180° c-plane

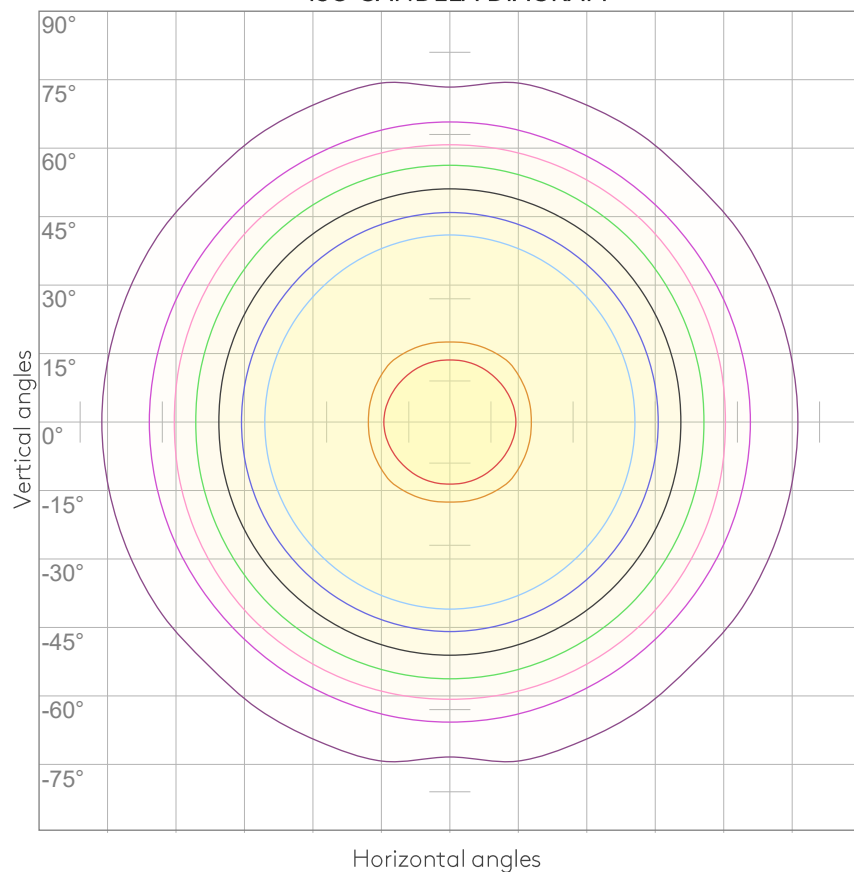
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
60.1	61.0	60.2	54.2	47.4	45.7	48.6	51.0	48.3	42.7	37.1	31.9	26.7	21.0	15.2	10.2	6.9	6.0	5.6	5.1
100%	102%	100%	90%	79%	76%	81%	85%	80%	71%	62%	53%	44%	35%	25%	17%	11%	10%	9%	9%

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
60.1	63.1	62.1	55.7	47.8	44.3	45.8	50.3	48.0	42.1	36.8	31.3	26.1	20.3	14.9	10.4	6.9	6.0	5.5	5.2
100%	105%	103%	93%	80%	74%	76%	84%	80%	70%	61%	52%	44%	34%	25%	17%	12%	10%	9%	9%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111.2°	164.5°	222.2°	72.7%	48.9%

ISO CANDELA DIAGRAM



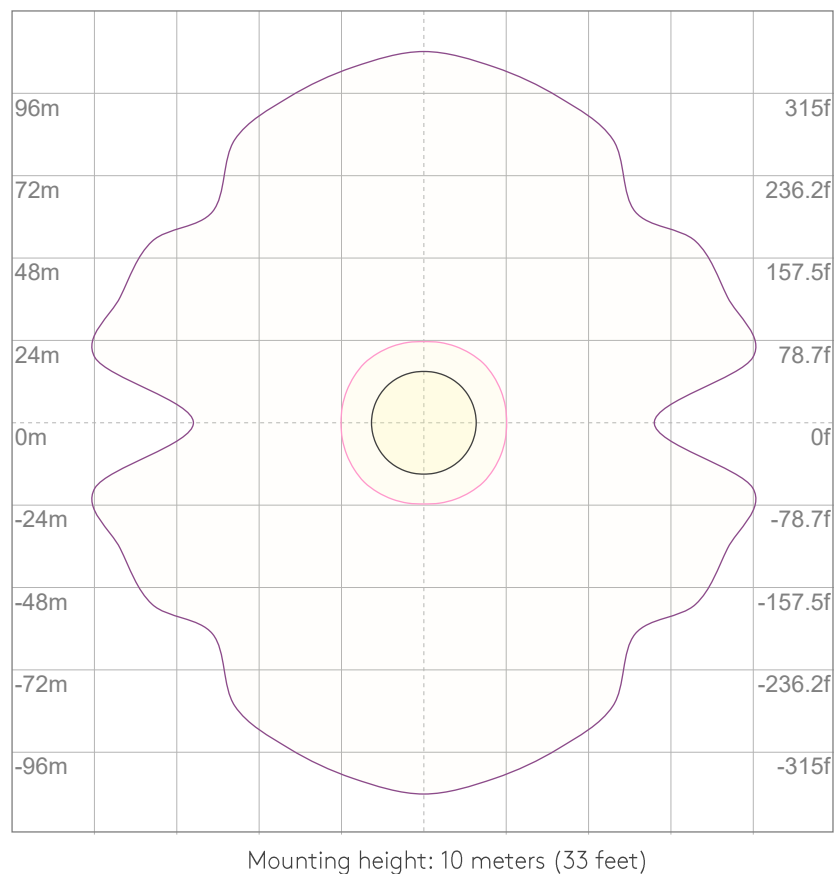
10%	6 cd
20%	12 cd
30%	18 cd
40%	24 cd
50%	30 cd
60%	36 cd
70%	42 cd
80%	48 cd
90%	54 cd

Conditions:

Number of c-planes: 8

Candela at center: 60 cd

ISO LUX DIAGRAM



3%	18.0m lx
5%	30.0m lx
10%	60.1m lx
30%	0.180 lx
50%	{LUX_10M50} lx

Conditions:

Number of c-planes: 8

Lux at center: 0.601 lx

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

UGR

GLARE EVALUATION ACCORDING TO UGR

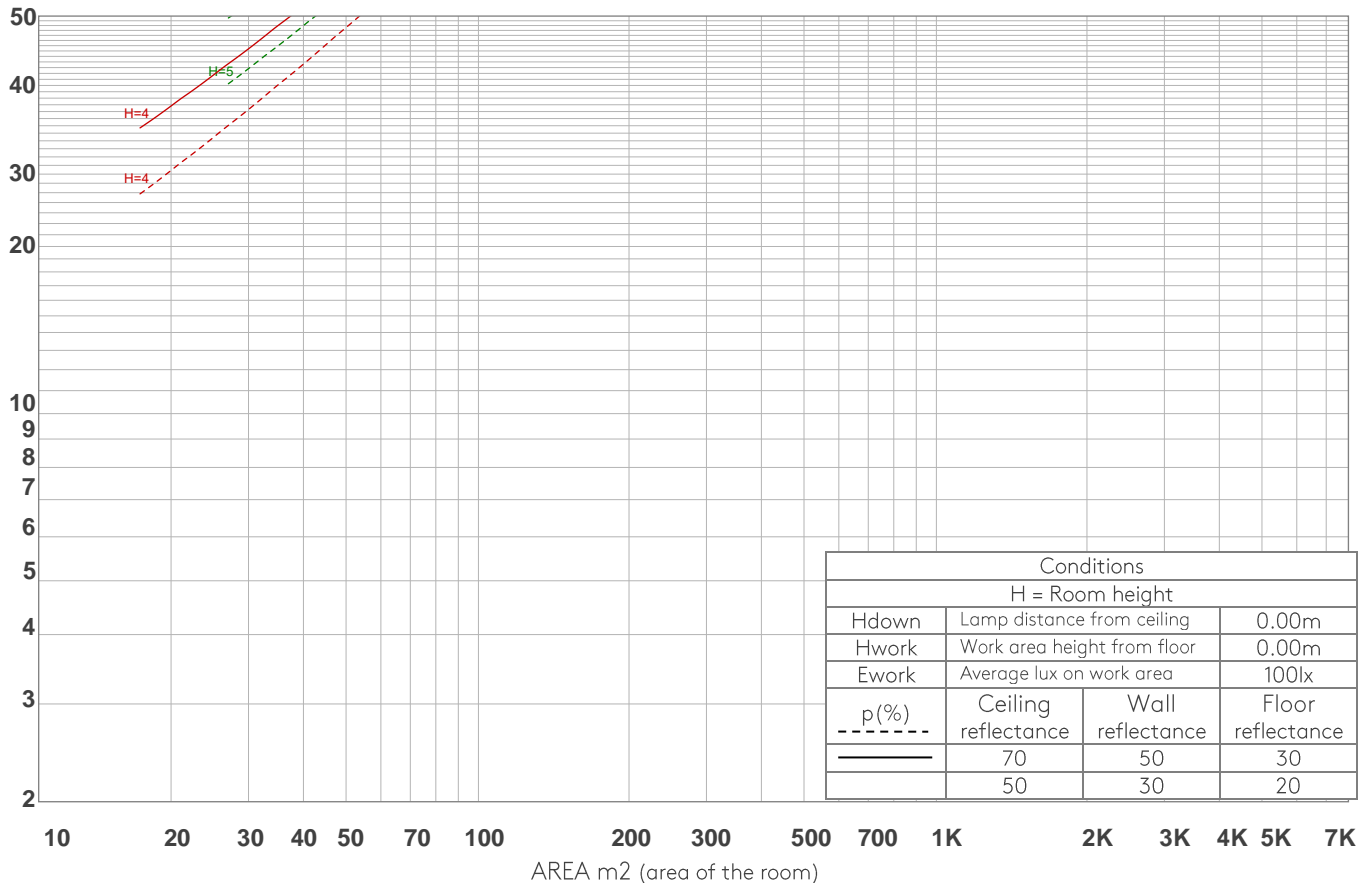
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	13.1	14.2	13.4	14.7	15.0	13.0	14.2	13.3	14.6	14.9
	3H	13.9	15.1	14.4	15.5	15.8	13.8	15.0	14.3	15.4	15.7
	4H	14.1	15.3	14.6	15.7	16.0	14.1	15.2	14.5	15.6	16.0
	6H	14.3	15.3	14.7	15.7	16.2	14.3	15.3	14.7	15.7	16.2
	8H	14.4	15.4	14.8	15.8	16.3	14.3	15.3	14.7	15.7	16.2
	12H	14.4	15.4	14.9	15.8	16.4	14.3	15.3	14.8	15.7	16.3
4H	2H	13.4	14.6	13.9	15.0	15.4	13.4	14.5	13.9	14.9	15.3
	3H	14.5	15.5	15.0	15.9	16.5	14.4	15.4	14.9	15.8	16.4
	4H	14.8	15.7	15.3	16.2	16.8	14.7	15.7	15.2	16.1	16.7
	6H	15.0	15.8	15.6	16.3	16.8	14.9	15.8	15.5	16.2	16.7
	8H	15.1	15.8	15.7	16.3	16.8	15.0	15.8	15.6	16.3	16.8
	12H	15.2	15.8	15.7	16.3	16.9	15.1	15.7	15.7	16.3	16.9
8H	4H	14.8	15.6	15.4	16.1	16.6	14.8	15.5	15.4	16.0	16.5
	6H	15.2	15.7	15.8	16.3	17.0	15.1	15.7	15.7	16.3	16.9
	8H	15.3	15.8	16.0	16.5	17.2	15.3	15.8	15.9	16.4	17.2
	12H	15.5	15.9	16.2	16.6	17.3	15.5	15.9	16.1	16.5	17.2
12H	4H	14.8	15.5	15.4	16.0	16.6	14.8	15.4	15.4	15.9	16.5
	6H	15.2	15.7	15.8	16.3	17.1	15.2	15.7	15.8	16.3	17.0
	8H	15.4	15.8	16.1	16.4	17.1	15.3	15.8	16.0	16.4	17.1
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.2 / -0.2					0.2 / -0.2				
S = 1.5H		0.3 / -0.6					0.3 / -0.6				
S = 2.0H		0.9 / -1.2					0.9 / -1.2				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 186 lm total luminous flux											

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	0
RCR	(RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	117	117	117	117	114	114	114	114	107	107	107	101	101	101	96	96	96	93
1	107	102	97	93	103	99	95	91	93	90	87	88	85	83	83	81	79	77
2	97	88	81	76	94	86	80	74	81	76	71	77	73	69	73	69	66	64
3	88	77	69	63	85	75	68	62	71	65	60	68	62	58	64	60	56	53
4	81	68	60	53	78	67	58	52	63	56	51	60	54	49	57	52	48	45
5	74	61	52	45	71	60	51	45	57	49	44	54	48	43	51	46	41	39
6	68	55	46	39	66	53	45	39	51	44	38	49	42	37	46	41	36	34
7	63	50	41	35	61	48	40	34	46	39	33	44	38	33	42	37	32	30
8	59	45	37	31	57	44	36	30	42	35	30	40	34	29	39	33	29	27
9	55	41	33	27	53	40	33	27	39	32	27	37	31	26	36	30	26	24
10	51	38	30	25	50	37	30	25	36	29	24	34	28	24	33	27	23	22

LAMPS (number of lamps)

LUMINAIRE BUDGETARY DIAGRAM

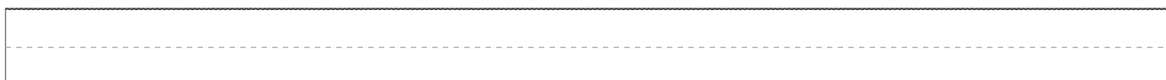


ZONAL LUMEN SUMMARY

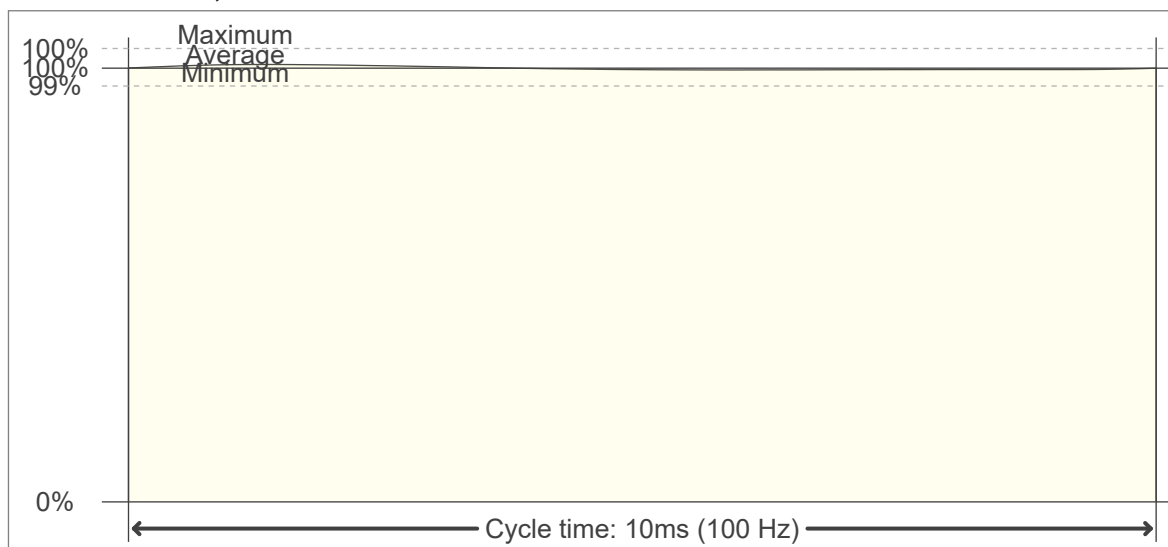
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
5.87 lm	15.3 lm	21.4 lm	31.7 lm	32.7 lm	28.3 lm	20.7 lm	10.9 lm	6.49 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
5.59 lm	3.17 lm	1.14 lm	0.795 lm	0.716 lm	0.565 lm	0.388 lm	0.260 lm	0.086 lm

FLICKER

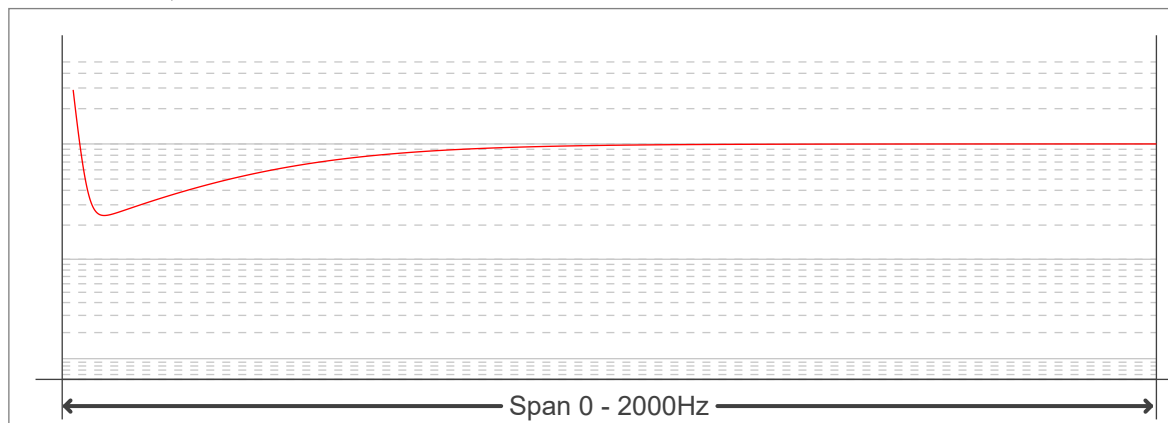
FLICKER CURVE (COMPLETE SAMPLED)



FLICKER FRAME (FRAME OF ONE FLICKER)



FLICKER FFT (FREQUENCY SCOPE OF FLICKER)



FLICKER RESULTS:

Flicker frequency:	100 Hz
Flicker index:	0
Flicker percentage:	0.72 %
SVM: (Visual flicker)	0.02

FLICKER CONDITIONS:

Sample rate:	20000 samples/second
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