

# PHOTOMETRIC TEST REPORT

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NARA PENDANT POLISHED  
CHROME

astro

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LIGHT EFFICIENCY:



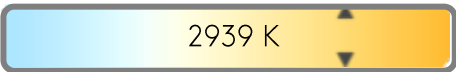
OUTPUT: 324 lm

LIGHT QUALITY:



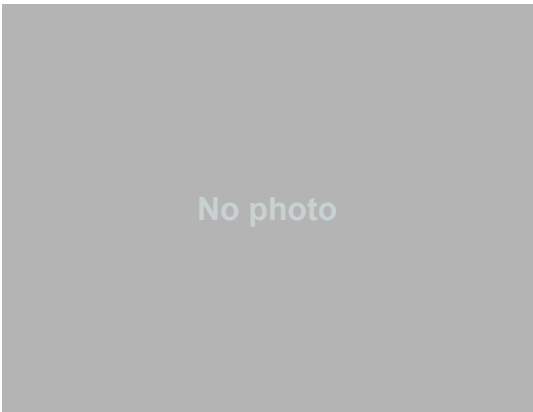
PEAK: 105 cd

COLOR TEMPERATURE:



POWER: 7.6 W

PF: 0.94



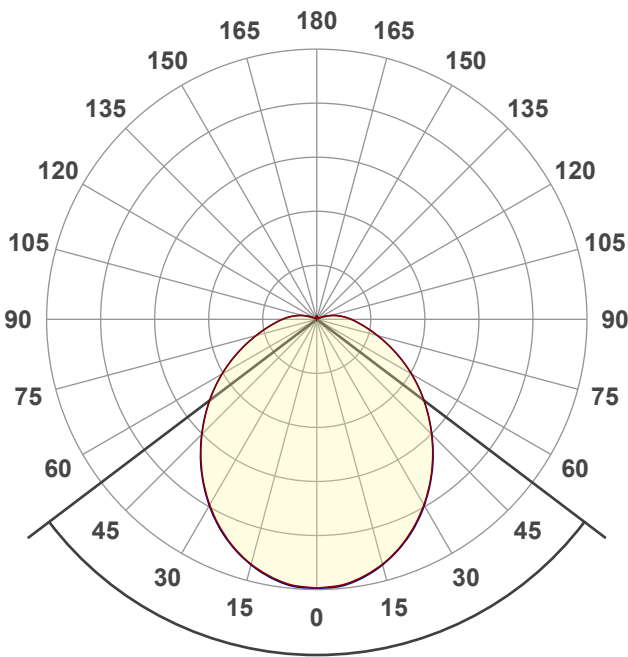
Tracking number: [n/a](#)

Product name:  
Nara Pendant Polished Chrome

Item number:  
1464xxx

Date and time:  
03/04/2023 3:52:09 PM

Description:

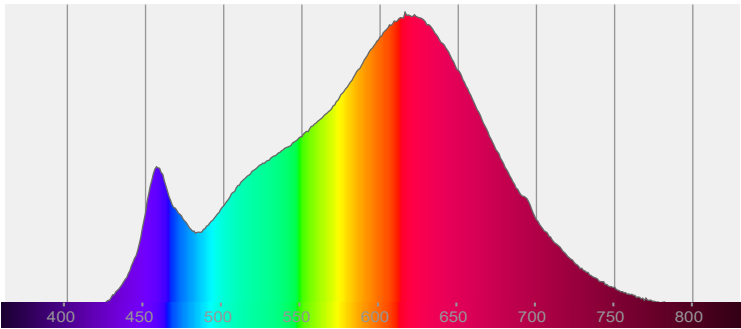


105.8°

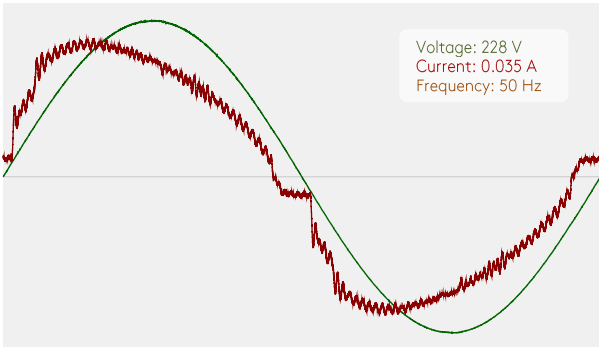


CIE 1931  
x: 0.439  
y: 0.401

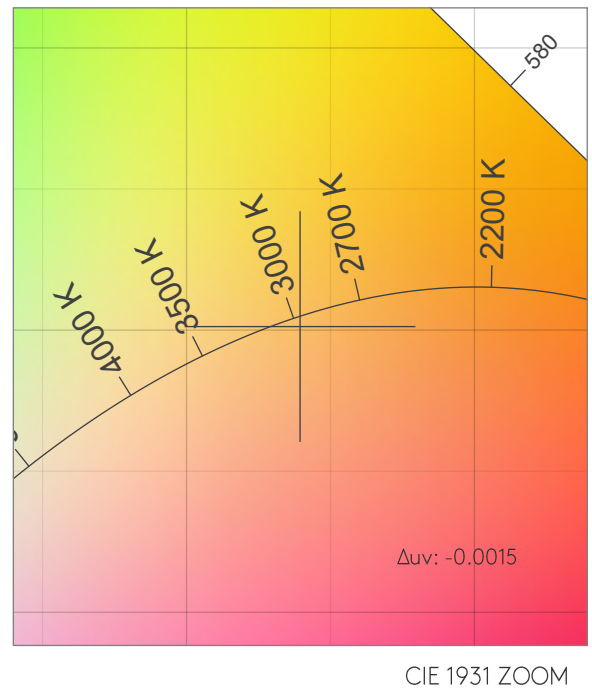
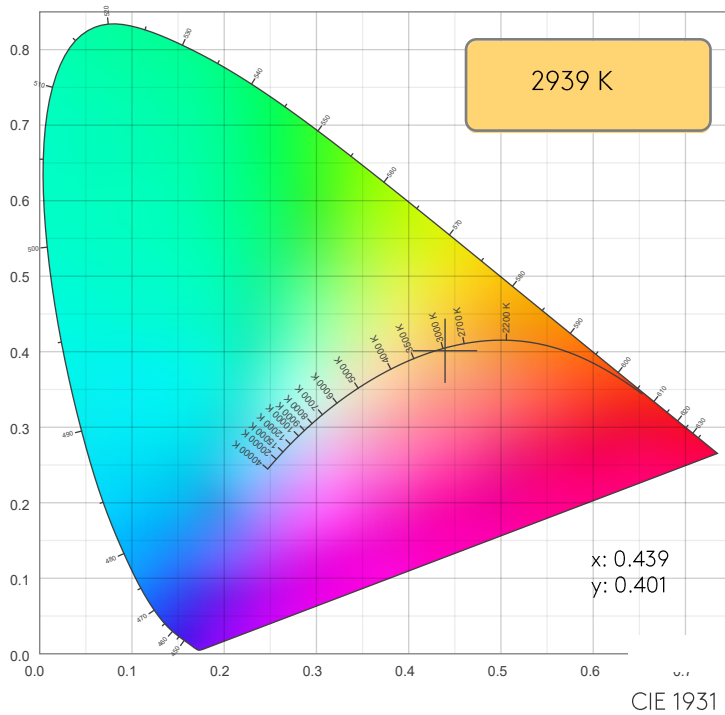
SPECTRA



POWER

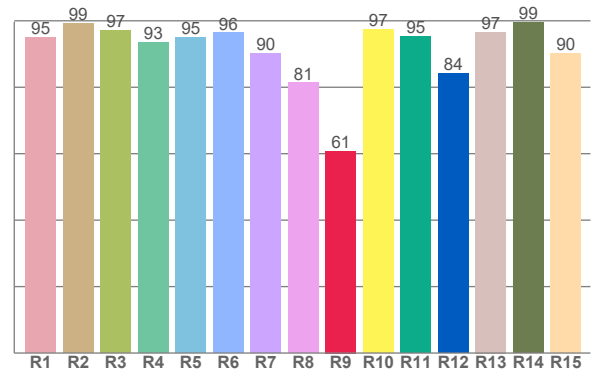
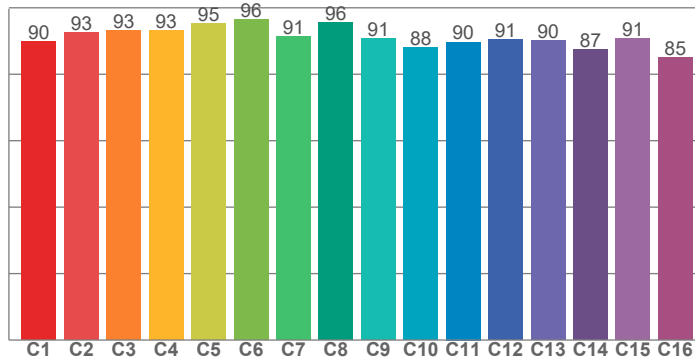


## COLOR DETAILS



TM30: 91.3

CRI: 93.4 (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
95.0	99.2	97.1	93.4	94.9	96.3	90.1	81.3	60.8	97.3	95.2	84.1	96.6	99.4	90.3

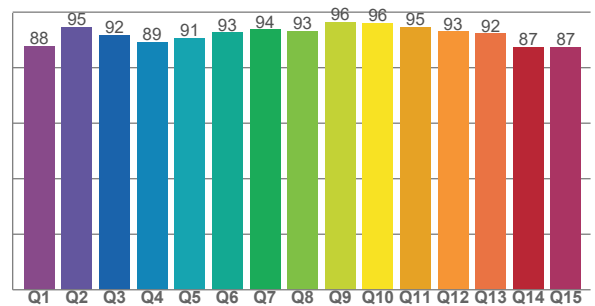
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.8	92.6	93.2	93.2	95.3	96.3	91.4	95.6	90.8	88.1	89.7	90.5	90.1	87.4	90.8	85.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.7	94.7	91.7	89.2	90.7	92.7	93.8	93.1	96.5	96.1	94.5	93.1	92.3	87.4	87.5

CQS: 91.4



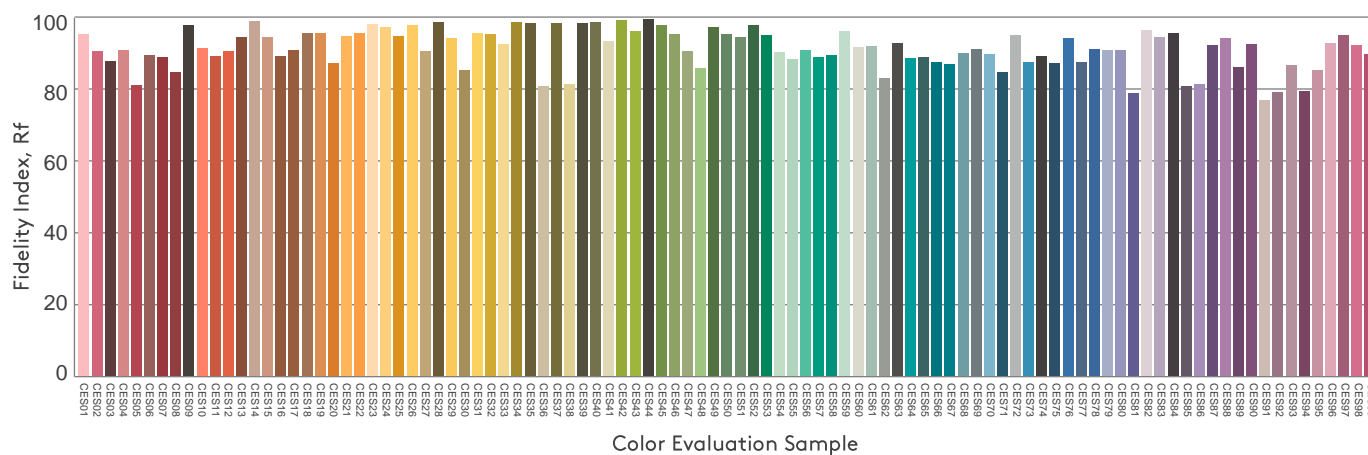
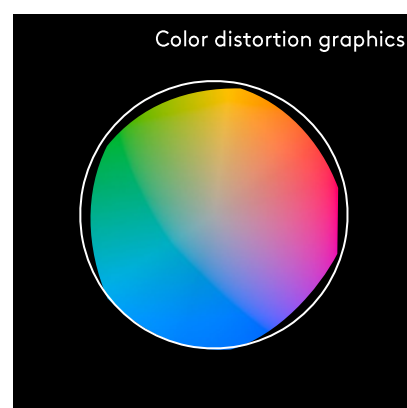
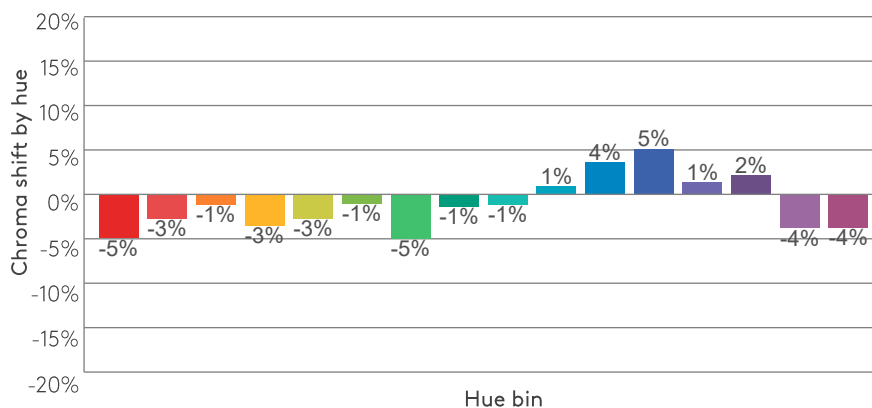
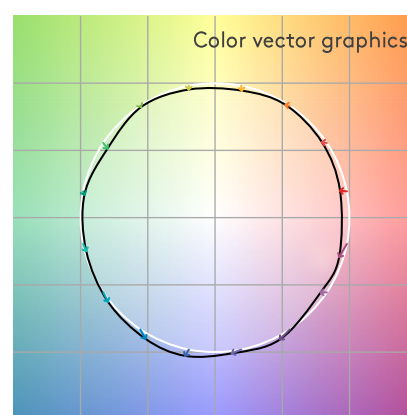
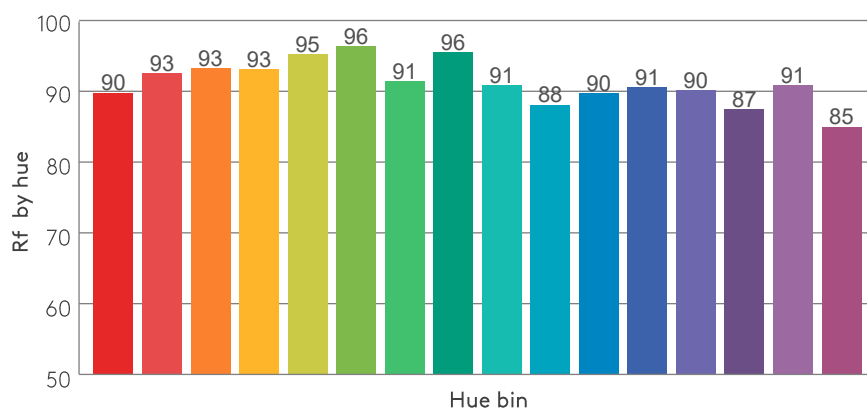
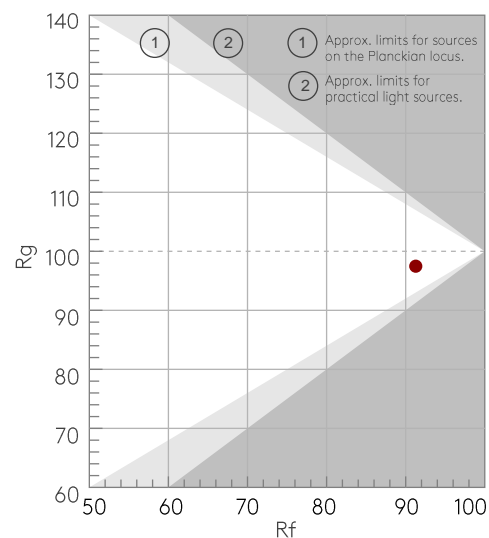
## COLOR PARAMETERS

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
2939 K	93.4	60.8	91.3	97.5	91.4	0.439	0.401	0.253	0.347	-0.0015

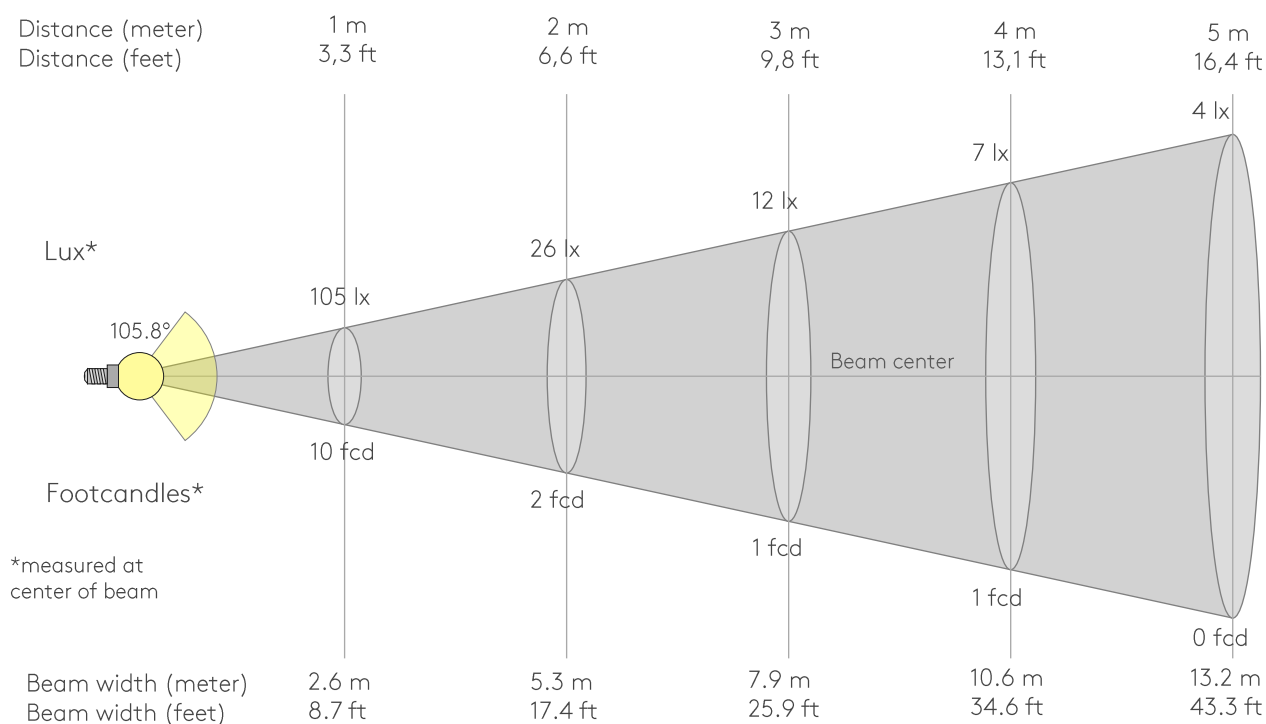
Rf 91.3  
Fidelity index Rf

Rg 97.5  
Gammut index Rg

Hue Bin	Rf	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	2%
2	93	-3%	2%
3	93	-1%	3%
4	93	-3%	-1%
5	95	-3%	1%
6	96	-1%	0%
7	91	-5%	2%
8	96	-1%	2%
9	91	-1%	6%
10	88	1%	8%
11	90	4%	7%
12	91	5%	-2%
13	90	1%	-7%
14	87	2%	-10%
15	91	-4%	-3%
16	85	-4%	-11%



## 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
105lx	26lx	12lx	7lx	4lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx
9.8fcd	2.4fcd	1.1fcd	0.6fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
105	103	97	87	76	64	51	39	28	19	14	9	4	1	1	1	1	1	1	1
100%	98%	92%	83%	72%	60%	49%	37%	27%	18%	13%	8%	4%	1%	1%	1%	1%	1%	1%	1%

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
105	103	97	88	76	64	51	39	28	19	13	9	4	1	1	1	1	1	1	1
100%	98%	92%	83%	73%	61%	49%	37%	26%	18%	13%	8%	4%	1%	1%	1%	1%	1%	1%	1%

Intensities in 180° c-plane

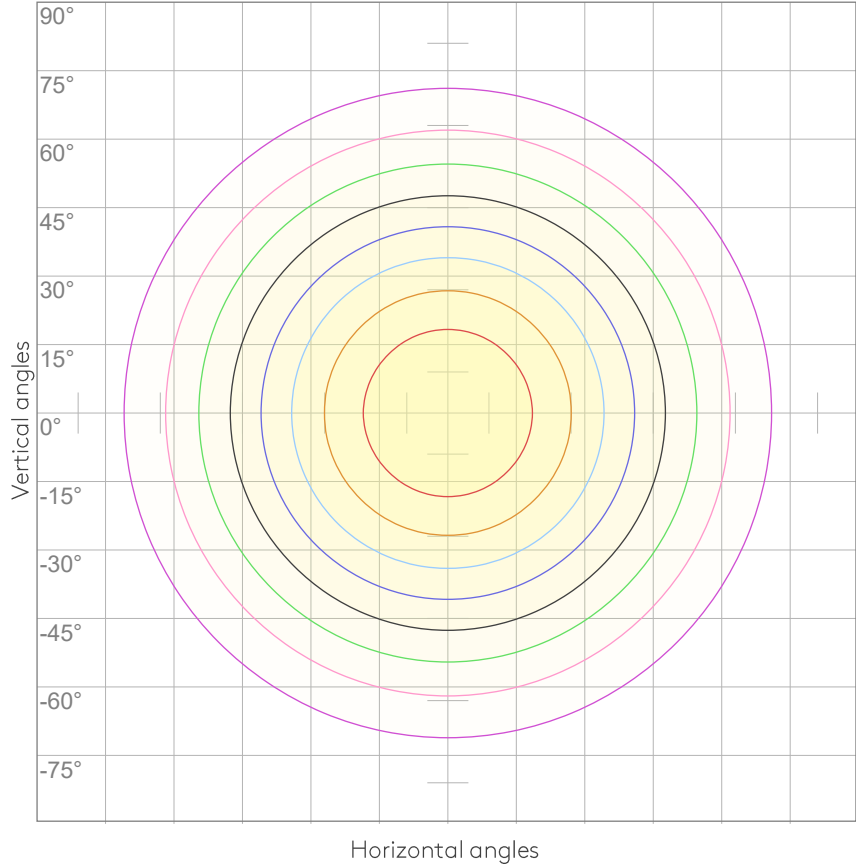
0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
105	103	97	87	76	64	51	39	28	19	14	9	4	1	1	1	1	1	1	1
100%	98%	92%	83%	72%	60%	49%	37%	27%	18%	13%	8%	4%	1%	1%	1%	1%	1%	1%	1%

Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
105	103	97	88	76	64	51	39	28	19	13	9	4	1	1	1	1	1	1	1
100%	98%	92%	83%	73%	61%	49%	37%	26%	18%	13%	8%	4%	1%	1%	1%	1%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
105.8°	191.1°	224.4°	68.4%	47.2%

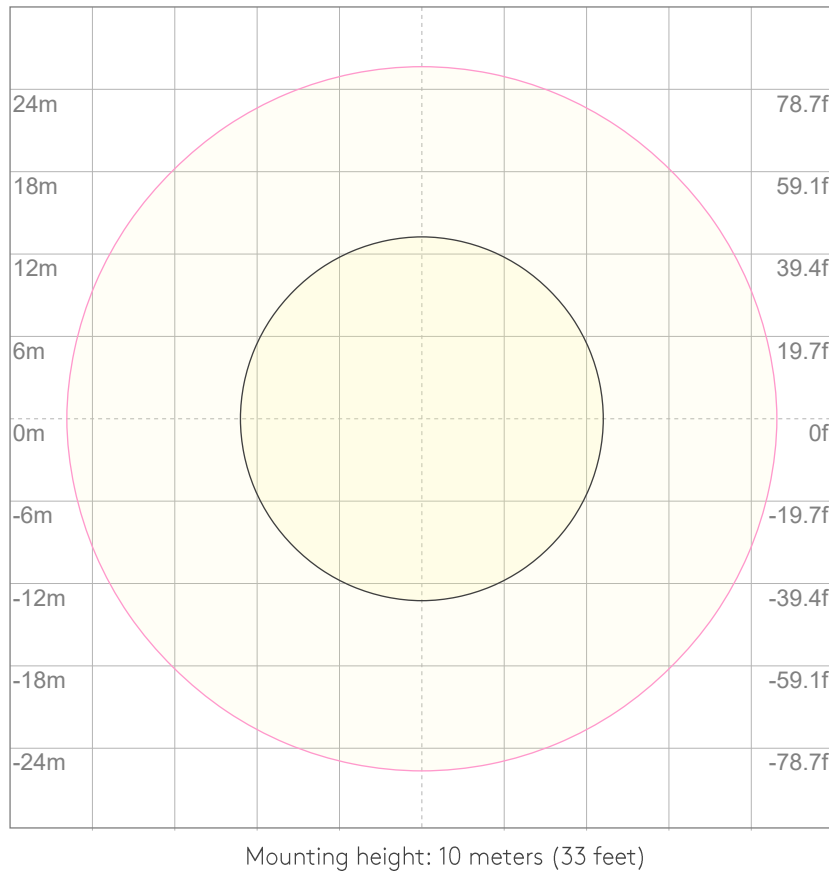
ISO CANDELA DIAGRAM



10%	11 cd
20%	21 cd
30%	32 cd
40%	42 cd
50%	53 cd
60%	63 cd
70%	74 cd
80%	84 cd
90%	95 cd

Conditions:  
Number of c-planes: 8  
Candela at center: 105 cd

ISO LUX DIAGRAM



3%	31.6m lx
5%	52.6m lx
10%	0.105 lx
30%	0.316 lx
50%	{LUX_10M50} lx

Conditions:  
Number of c-planes: 8  
Lux at center: 1.05 lx

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

## UGR

## GLARE EVALUATION ACCORDING TO UGR

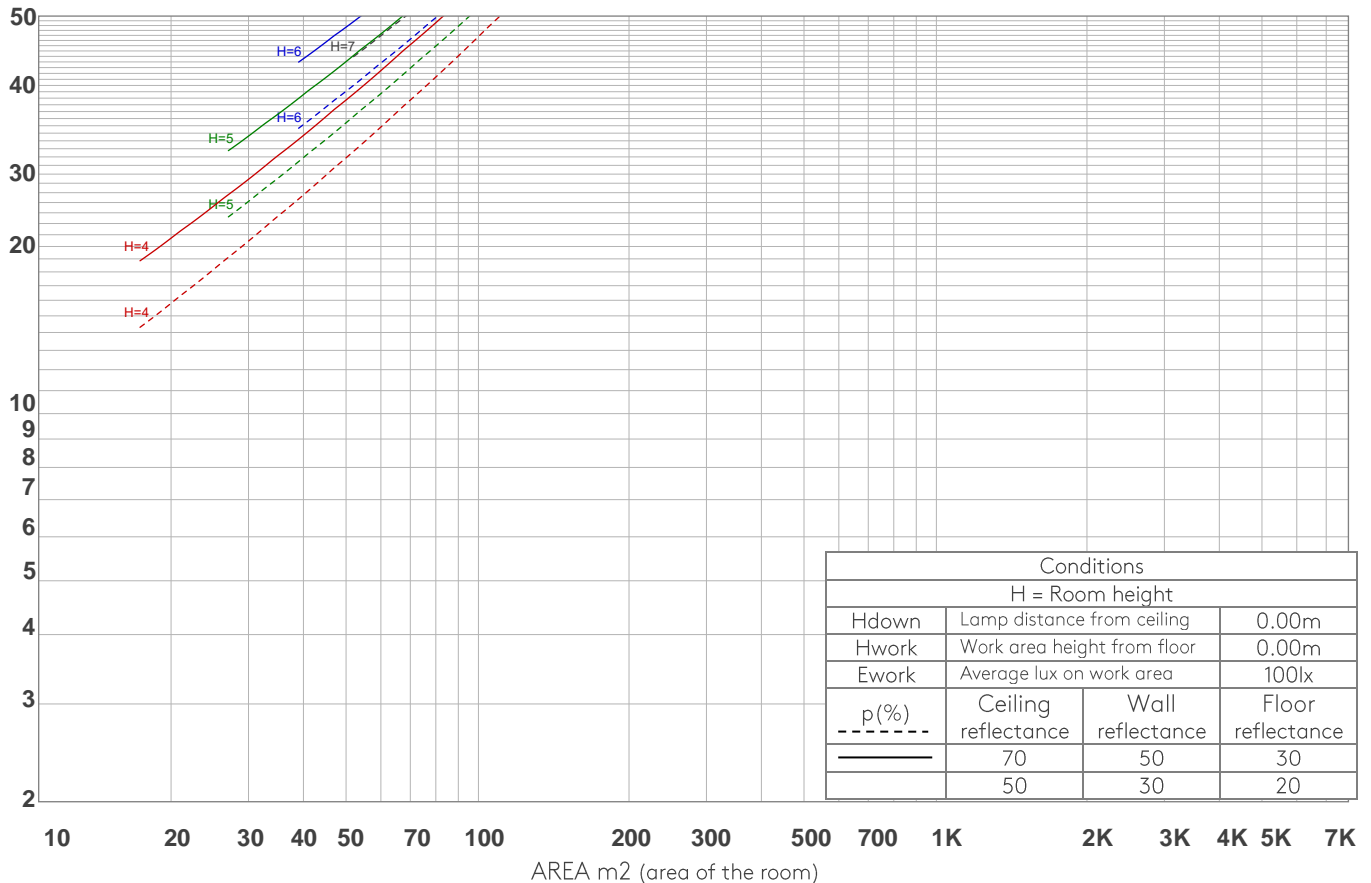
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	17.1	18.3	17.5	18.7	19.1	17.1	18.3	17.5	18.7	19.1
	3H	18.1	19.3	18.6	19.7	20.1	18.1	19.3	18.6	19.7	20.1
	4H	18.5	19.7	19.0	20.1	20.5	18.5	19.7	19.0	20.1	20.5
	6H	19.0	20.0	19.4	20.4	20.9	19.0	20.0	19.4	20.4	20.9
	8H	19.1	20.2	19.6	20.6	21.1	19.1	20.2	19.6	20.6	21.1
	12H	19.3	20.3	19.8	20.7	21.3	19.3	20.3	19.7	20.7	21.3
4H	2H	17.5	18.6	18.0	19.0	19.4	17.5	18.6	18.0	19.0	19.4
	3H	18.8	19.8	19.2	20.2	20.8	18.8	19.8	19.2	20.2	20.8
	4H	19.3	20.3	19.8	20.7	21.4	19.3	20.3	19.8	20.7	21.4
	6H	19.8	20.7	20.4	21.2	21.7	19.8	20.7	20.4	21.2	21.7
	8H	20.0	20.8	20.6	21.3	21.8	20.0	20.8	20.6	21.3	21.8
	12H	20.3	20.9	20.8	21.5	22.1	20.3	20.9	20.8	21.5	22.1
8H	4H	19.5	20.3	20.1	20.8	21.3	19.5	20.3	20.1	20.8	21.3
	6H	20.2	20.8	20.8	21.4	22.1	20.2	20.8	20.8	21.4	22.1
	8H	20.6	21.1	21.2	21.7	22.5	20.6	21.1	21.2	21.7	22.5
	12H	20.9	21.4	21.6	22.0	22.7	20.9	21.3	21.5	22.0	22.7
12H	4H	19.5	20.2	20.1	20.7	21.3	19.5	20.2	20.1	20.7	21.3
	6H	20.3	20.8	20.9	21.5	22.2	20.3	20.8	20.9	21.5	22.2
	8H	20.7	21.1	21.3	21.8	22.5	20.7	21.1	21.3	21.7	22.5
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.1 / -0.2					0.1 / -0.2				
S = 1.5H		0.2 / -0.4					0.2 / -0.4				
S = 2.0H		0.6 / -0.7					0.6 / -0.7				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 324 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	106	100	95	91	102	97	93	89	91	88	85	86	83	81	82	79	77	74
2	96	87	79	73	92	84	77	72	79	74	69	75	70	66	71	67	64	61
3	87	76	67	61	84	74	66	59	70	63	58	66	60	56	63	58	54	51
4	80	67	58	51	77	65	57	50	62	55	49	59	53	48	56	51	46	44
5	73	60	51	44	71	58	50	43	56	48	42	53	46	41	50	45	40	38
6	68	54	45	38	65	53	44	38	50	43	37	48	41	36	46	40	35	33
7	63	49	40	34	61	48	39	34	46	38	33	44	37	32	42	36	31	29
8	58	45	36	30	56	44	36	30	42	35	29	40	34	29	38	33	28	26
9	55	41	33	27	53	40	32	27	39	31	26	37	31	26	35	30	25	24
10	51	38	30	25	50	37	30	24	36	29	24	34	28	24	33	27	23	21

LAMPS (number of lamps)

## LUMINAIRE BUDGETARY DIAGRAM



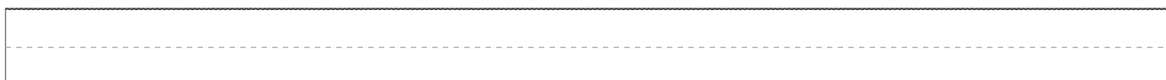
## ZONAL LUMEN SUMMARY

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
9.94 lm	28.0 lm	41.4 lm	48.6 lm	49.2 lm	44.5 lm	35.9 lm	26.2 lm	18.1 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
11.8 lm	6.16 lm	1.81 lm	0.667 lm	0.629 lm	0.548 lm	0.431 lm	0.271 lm	0.093 lm

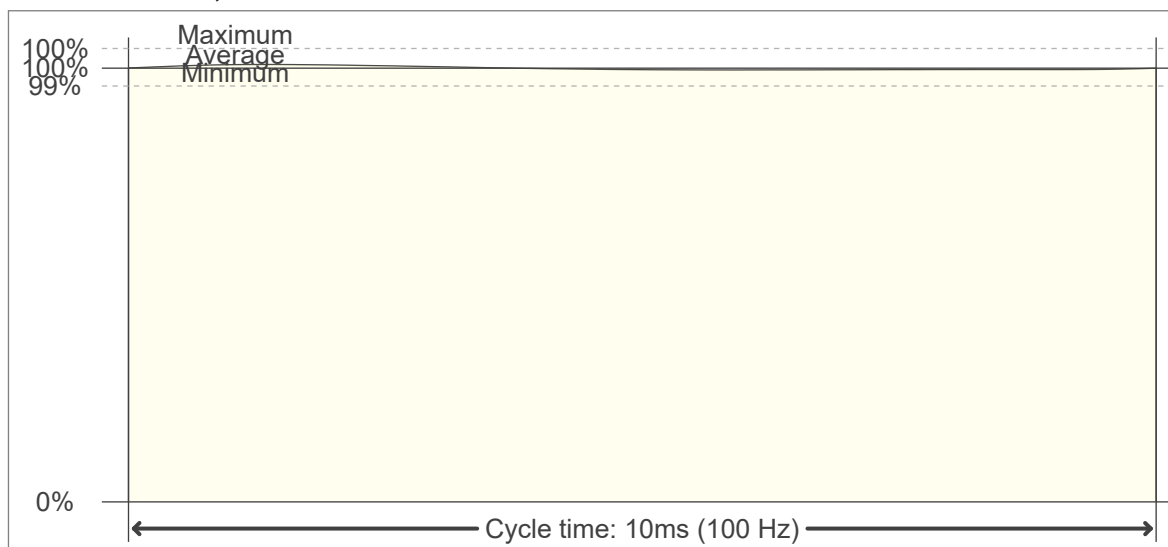


## FLICKER

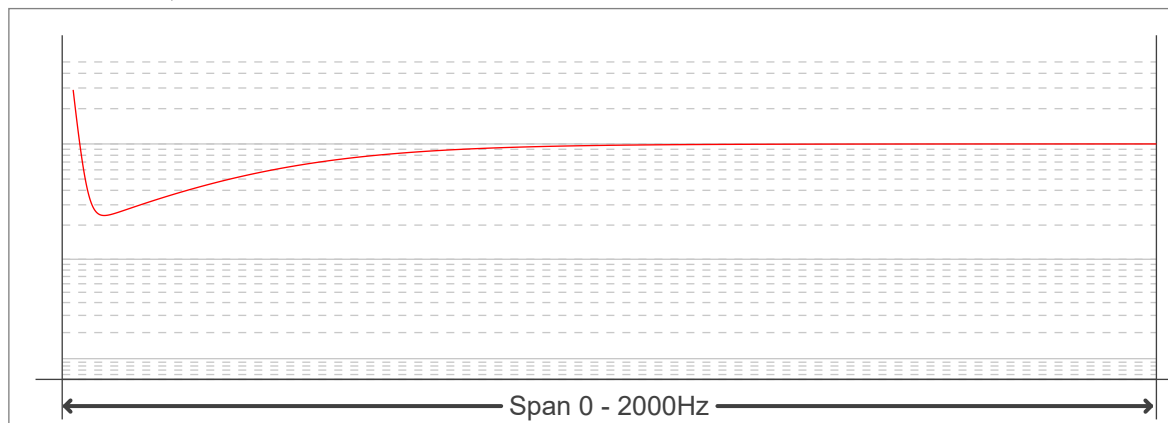
## FLICKER CURVE (COMPLETE SAMPLED)



## 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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