ALPHABET BRUCK
LEDRA brands

Light efficiency:

82 Lumen/Watt

Light quality:

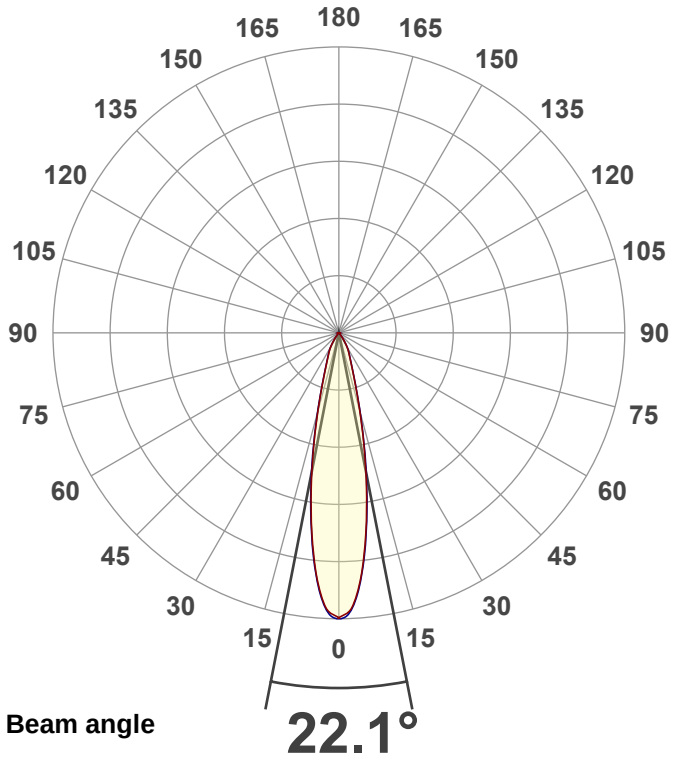
CRI: 83.6

Color temperature:

3022 K

Output: 2990 lm
Peak: 13936 cd

Power: 36.3 W
PF: 0.99



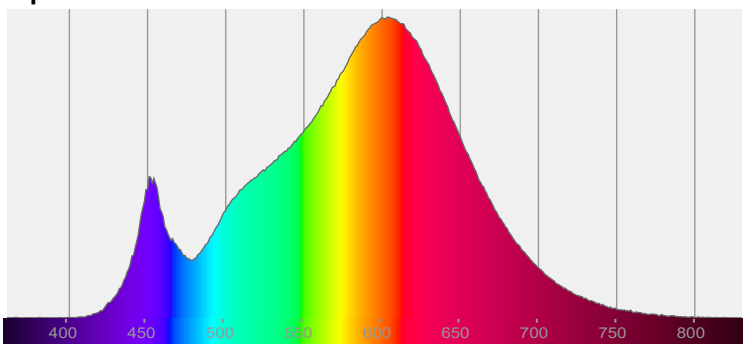
Beam angle

NU4-RD-SW-40LM-30K-80-25D-HCL-WH-WH

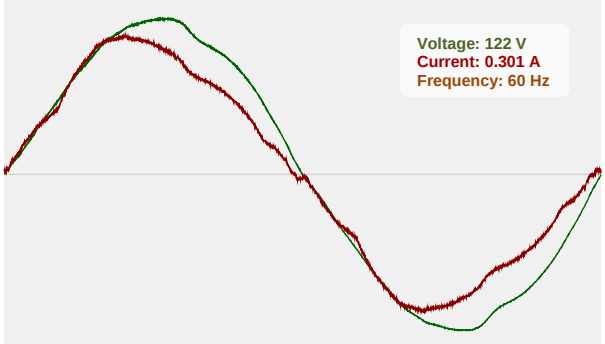
Date and time:
1/11/2023 10:05:14 AM

CIE 1931
x: 0.439
y: 0.411

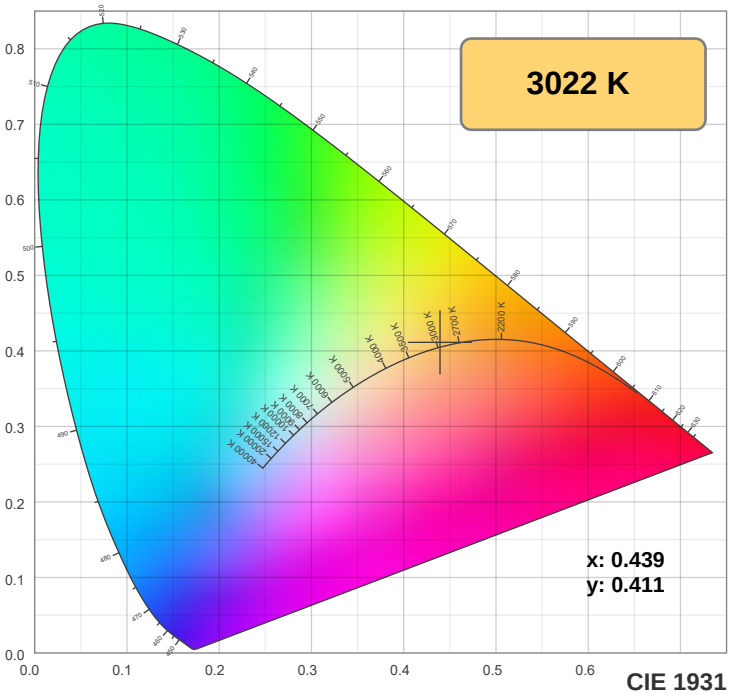
Spectra



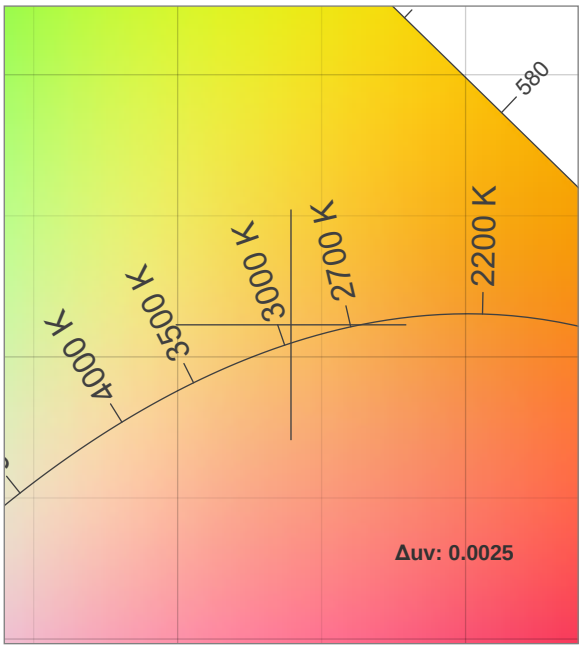
Power



Color Details

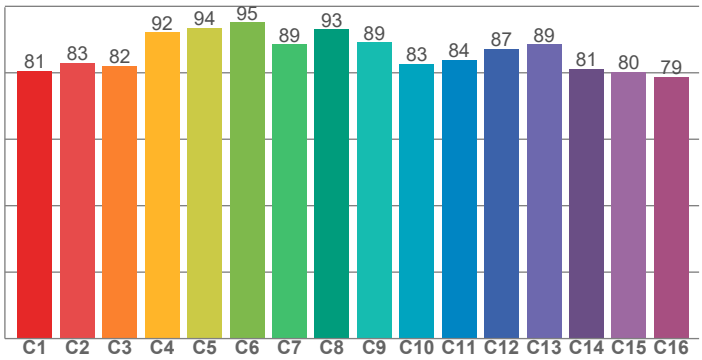


CIE 1931

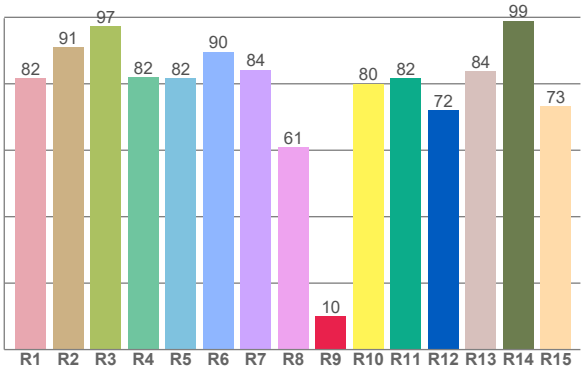


CIE 1931 ZOOM

TM30: 86.4



CRI: 83.6 (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
81.6	91.1	97.3	82.0	81.7	89.7	84.3	60.9	10.1	80.0	81.6	72.1	83.8	99.0	73.2

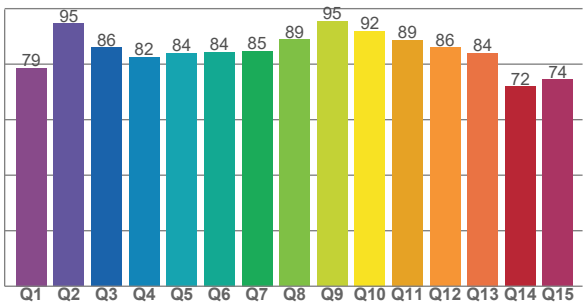
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.6	83.0	82.1	92.1	93.6	95.2	88.5	93.1	89.1	82.7	84.0	87.2	88.6	81.1	80.3	78.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.6	94.6	86.0	82.5	84.1	84.4	84.8	88.9	95.4	91.9	88.7	86.0	84.1	71.9	74.4

CQS: 83.6



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3022 K	83.6	10.1	86.4	94.5	83.6	0.439	0.411	0.249	0.350	0.0025

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TM30 Details

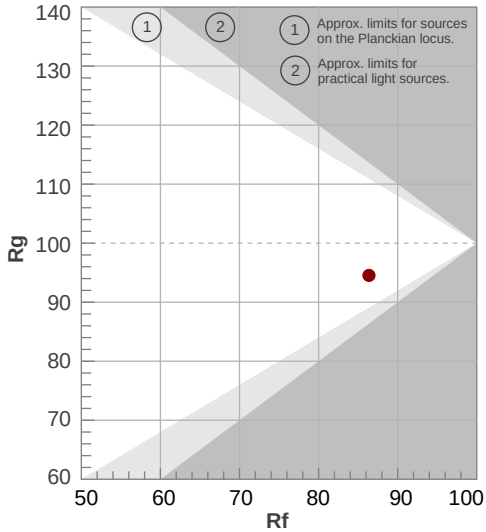
Rf 86.4

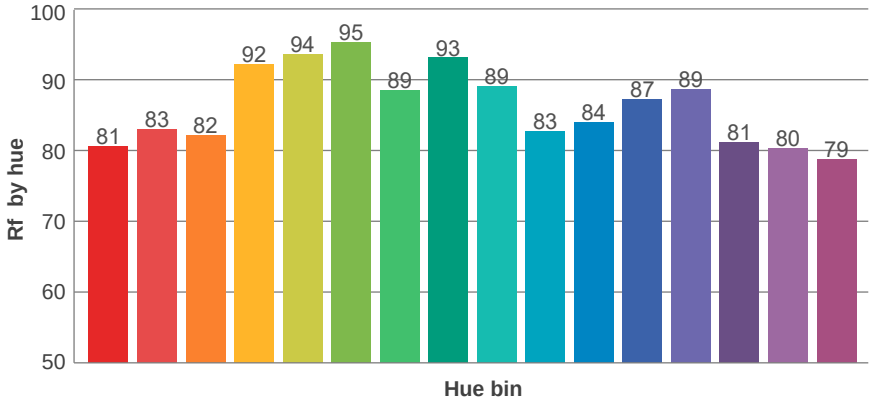
Fidelity index Rf

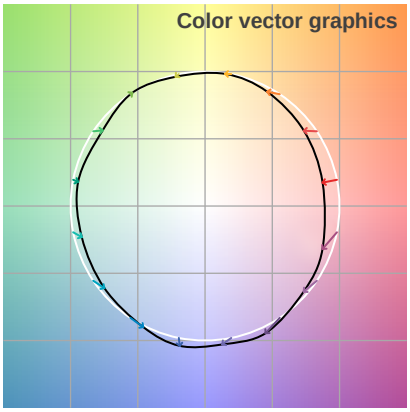
Rg 94.5

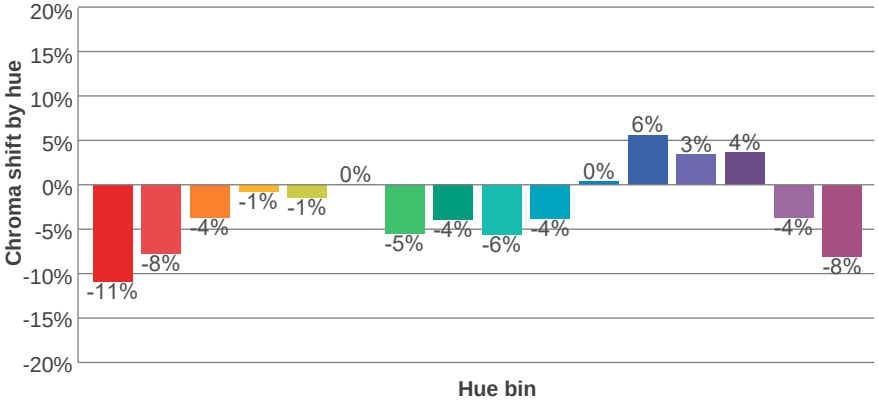
Gammut index Rg

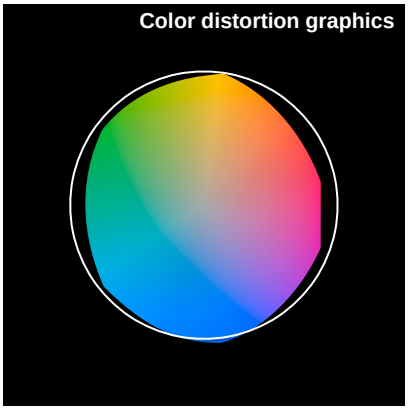
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	81	-11%	0%
2	83	-8%	6%
3	82	-4%	9%
4	92	-1%	5%
5	94	-1%	3%
6	95	0%	-2%
7	89	-5%	-4%
8	93	-4%	1%
9	89	-6%	5%
10	83	-4%	9%
11	84	0%	12%
12	87	6%	2%
13	89	3%	-8%
14	81	4%	-15%
15	80	-4%	-12%
16	79	-8%	-14%

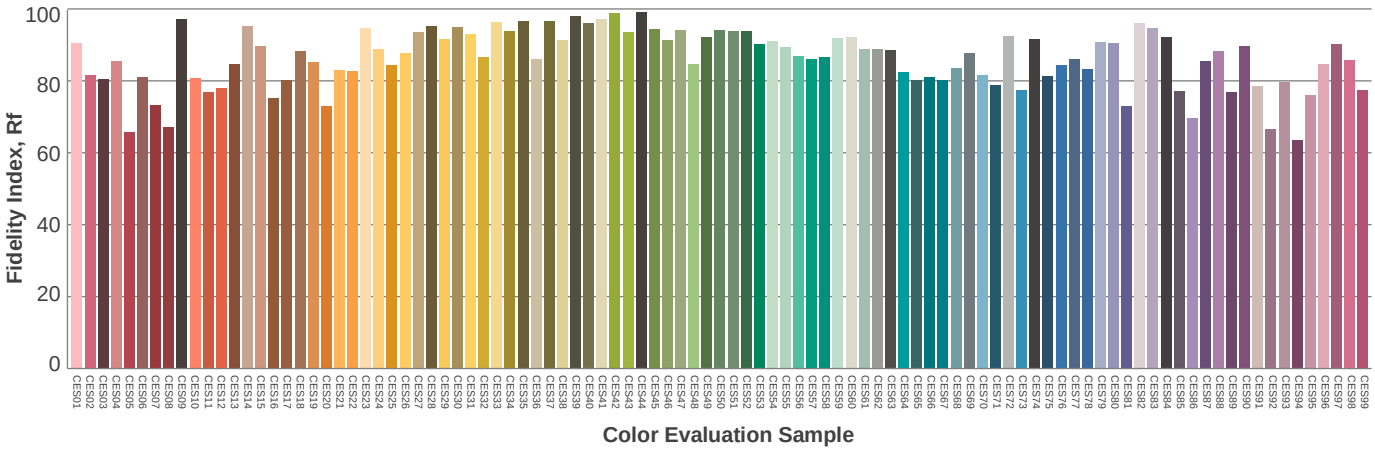






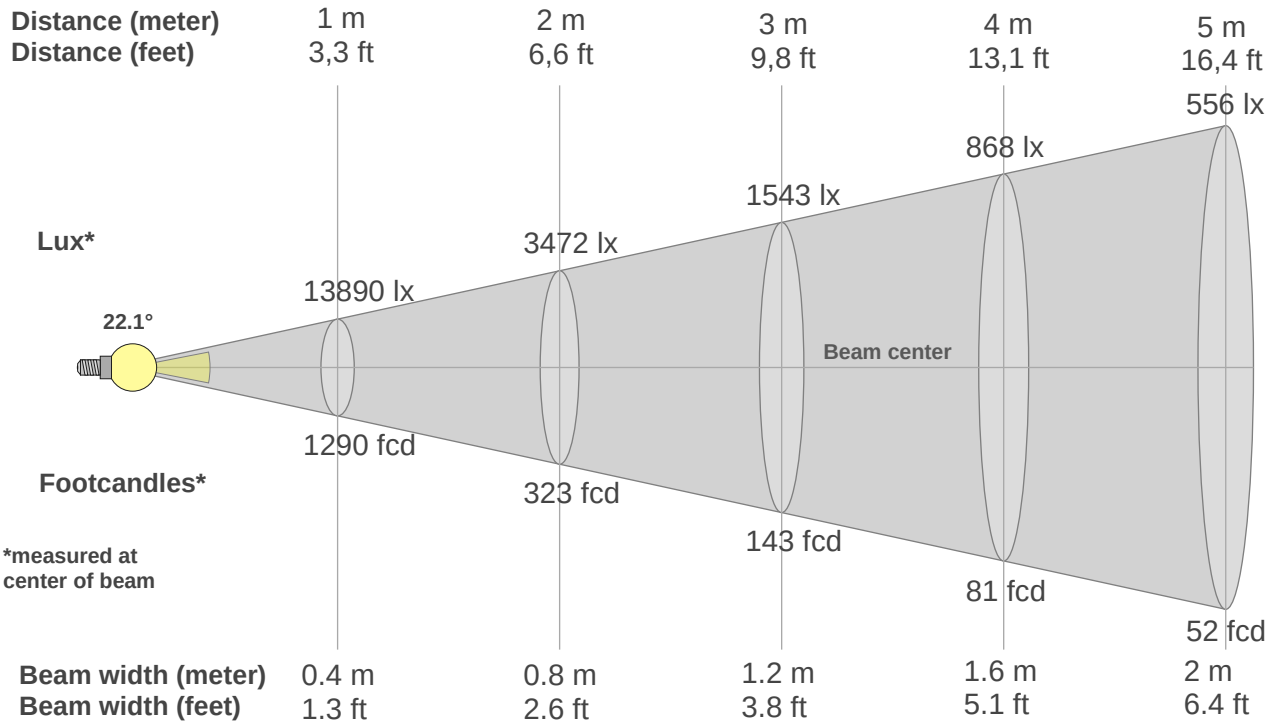






ALPHABET BRUCK
LEDRA brands

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
13890lx	3472lx	1543lx	868lx	556lx	386lx	283lx	217lx	171lx	139lx	115lx	96lx	82lx	71lx	62lx	54lx	48lx	43lx	38lx	35lx
1290.4fcd	322.6fcd	143.4fcd	80.6fcd	51.6fcd	35.8fcd	26.3fcd	20.2fcd	15.9fcd	12.9fcd	10.7fcd	9fcd	7.6fcd	6.6fcd	5.7fcd	5fcd	4.5fcd	4fcd	3.6fcd	3.2fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
13.9K	13.6K	12.7K	11.3K	9.6K	7.8K	6.1K	4.7K	3.5K	2.6K	2.0K	1.6K	1.3K	1.1K	1.0K	0.8K	0.6K	0.4K	0.3K	0.1K
100%	98%	91%	81%	69%	56%	44%	34%	25%	18%	14%	12%	10%	8%	7%	6%	4%	3%	2%	1%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
13.9K	13.7K	12.9K	11.4K	9.7K	7.9K	6.2K	4.7K	3.5K	2.6K	2.0K	1.6K	1.4K	1.2K	1.0K	0.8K	0.6K	0.4K	0.2K	0.1K
100%	99%	93%	82%	70%	57%	45%	34%	25%	19%	15%	12%	10%	8%	7%	6%	4%	3%	2%	1%

Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
13.9K	13.6K	12.7K	11.3K	9.6K	7.8K	6.1K	4.7K	3.5K	2.6K	2.0K	1.6K	1.3K	1.1K	1.0K	0.8K	0.6K	0.4K	0.3K	0.1K
100%	98%	91%	81%	69%	56%	44%	34%	25%	18%	14%	12%	10%	8%	7%	6%	4%	3%	2%	1%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
13.9K	13.7K	12.9K	11.4K	9.7K	7.9K	6.2K	4.7K	3.5K	2.6K	2.0K	1.6K	1.4K	1.2K	1.0K	0.8K	0.6K	0.4K	0.2K	0.1K
100%	99%	93%	82%	70%	57%	45%	34%	25%	19%	15%	12%	10%	8%	7%	6%	4%	3%	2%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22.1°	**47°**	**69.4°**	**98.8%**	**98.4%**