ALPHABET BRUCK
LEDRA brands

Light efficiency:

66 Lumen/Watt

Light quality:

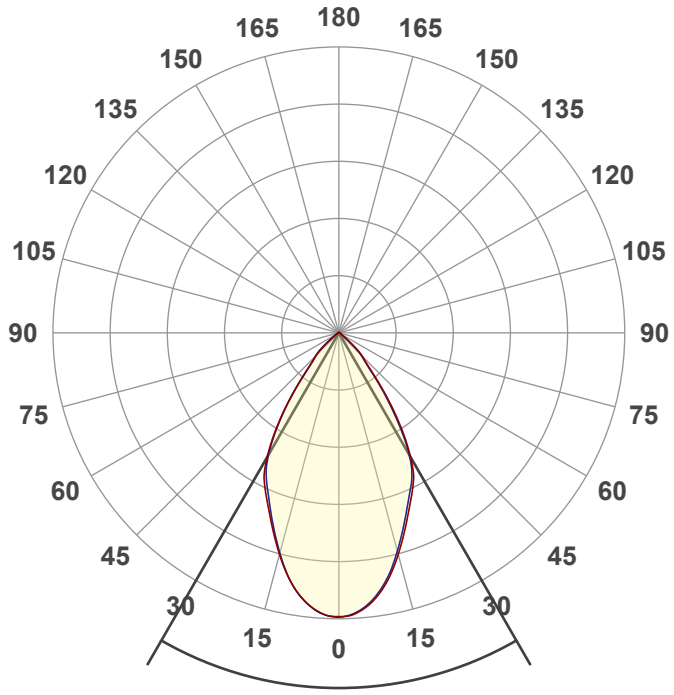
CRI: 93.0

Color temperature:

3533 K

Output: 1186 lm
Peak: 1297 cd

Power: 18.0 W
PF: 0.97



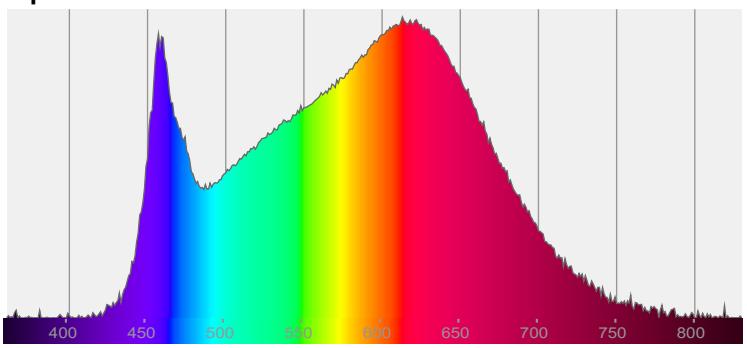
BETA-3R-TW-15LM-2765-95-D60-WH-WH

Date and time:
1/3/2023 11:16:15 AM

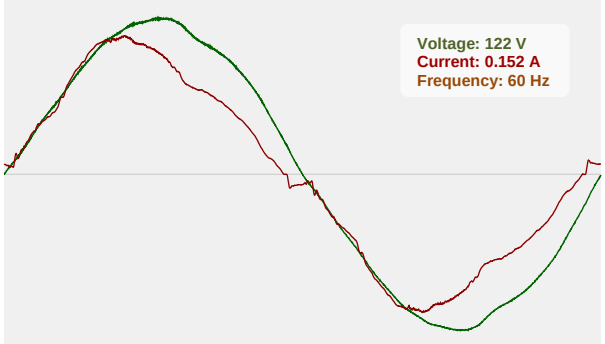
Beam angle **60°**

CIE 1931
x: 0.400
y: 0.379

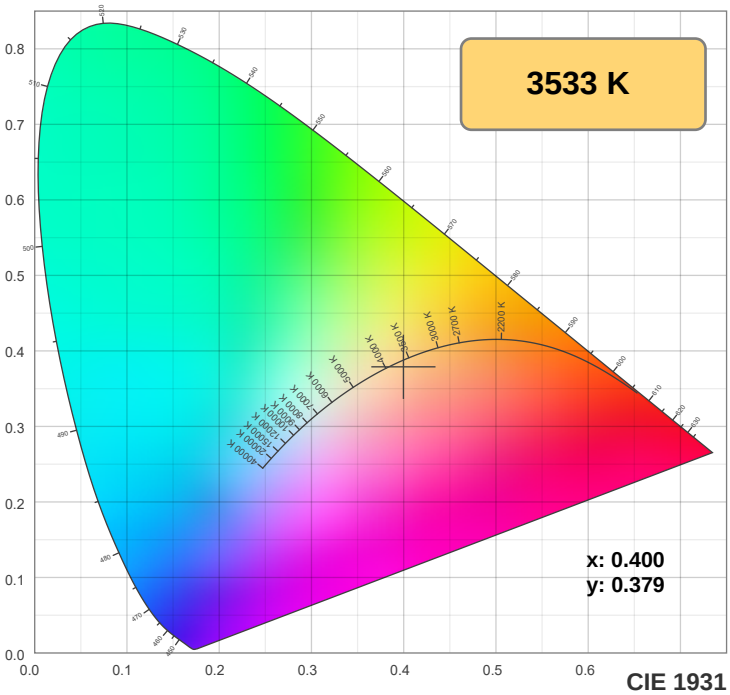
Spectra



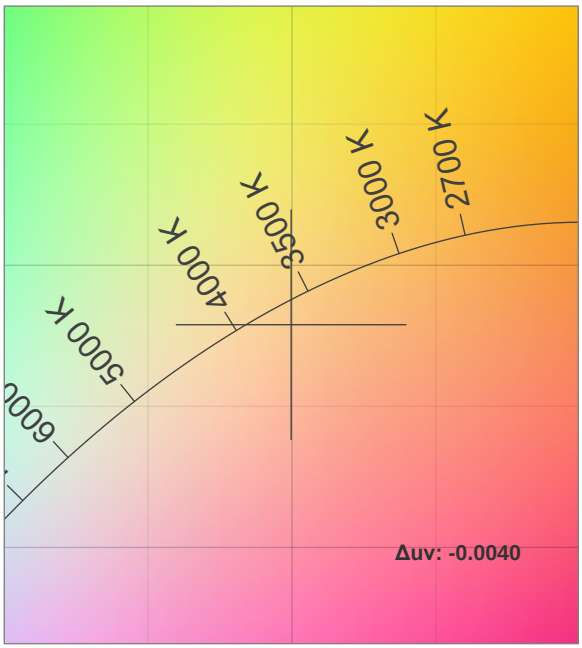
Power



Color Details

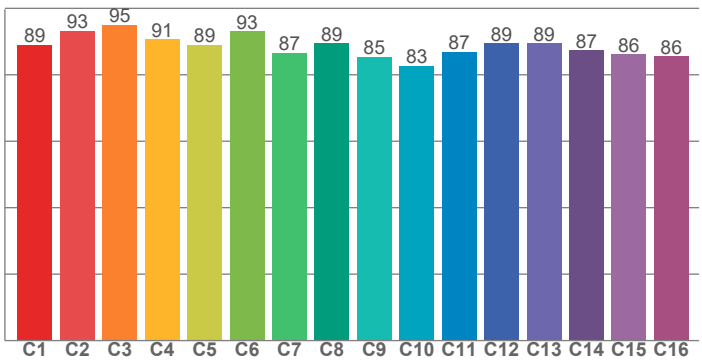


CIE 1931

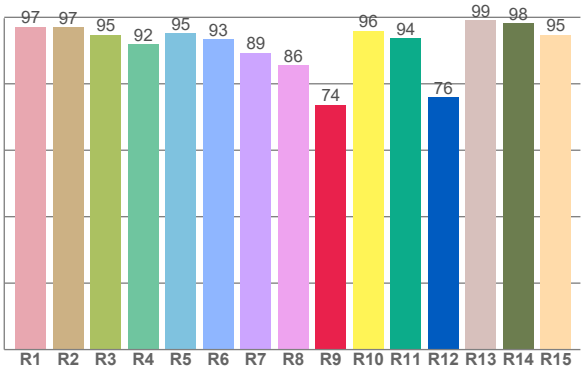


CIE 1931 ZOOM

TM30: 88.7



CRI: 93.0 (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
97.1	97.0	94.7	91.9	95.1	93.3	89.4	85.6	73.7	96.0	93.7	76.0	99.1	98.2	94.8

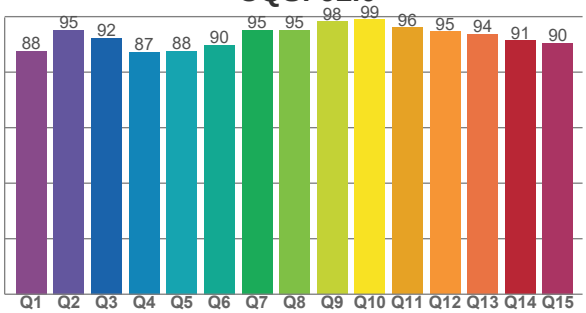
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.0	93.1	95.1	90.6	89.0	93.1	86.6	89.4	85.4	82.7	87.0	89.5	89.5	87.3	86.1	85.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.6	95.2	92.3	87.3	87.7	89.7	95.2	95.2	98.3	99.0	96.1	94.6	93.8	91.4	90.4

CQS: 92.0



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
3533 K	93.0	73.7	88.7	96.1	92.0	0.400	0.379	0.237	0.337	-0.0040

ALPHABET BRUCK
LEDRA brands

TM30 Details

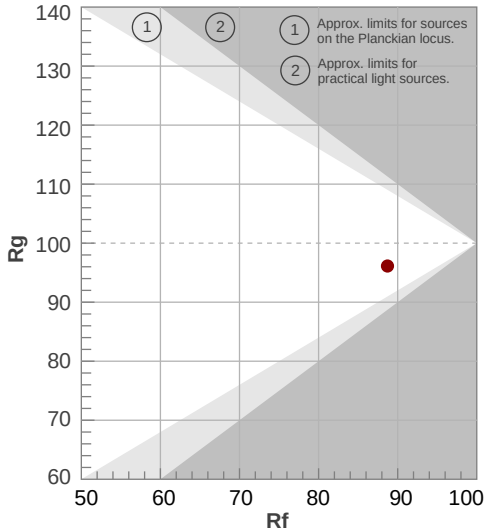
Rf 88.7

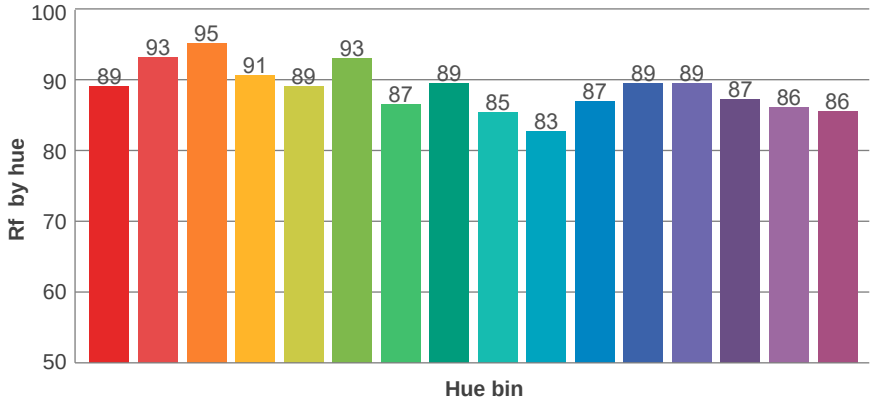
Fidelity index Rf

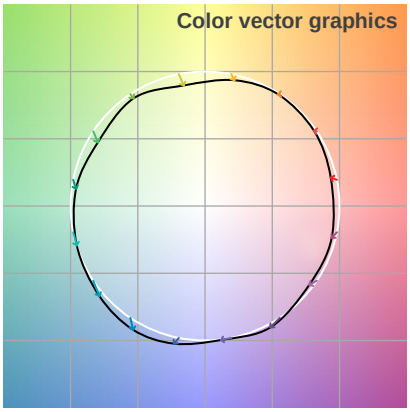
Rg 96.1

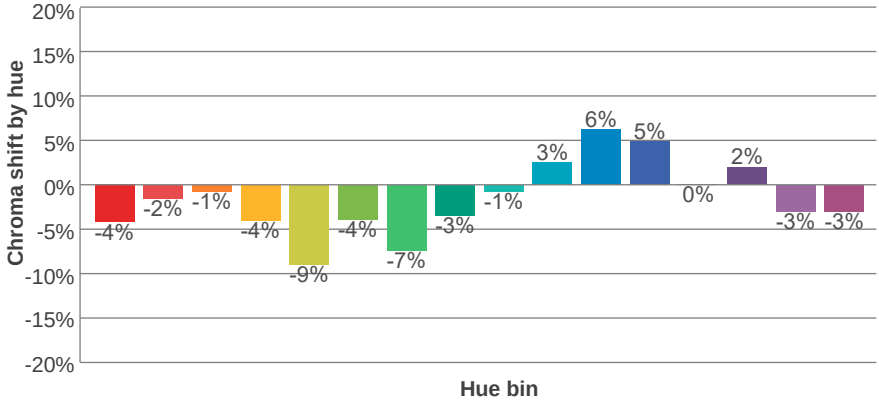
Gammut index Rg

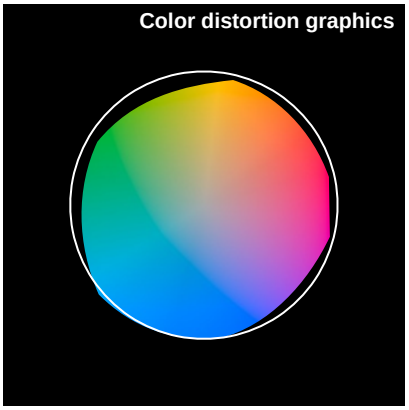
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	89	-4%	2%
2	93	-2%	2%
3	95	-1%	1%
4	91	-4%	-3%
5	89	-9%	-2%
6	93	-4%	0%
7	87	-7%	5%
8	89	-3%	6%
9	85	-1%	10%
10	83	3%	12%
11	87	6%	7%
12	89	5%	-3%
13	89	0%	-8%
14	87	2%	-10%
15	86	-3%	-6%
16	86	-3%	-5%

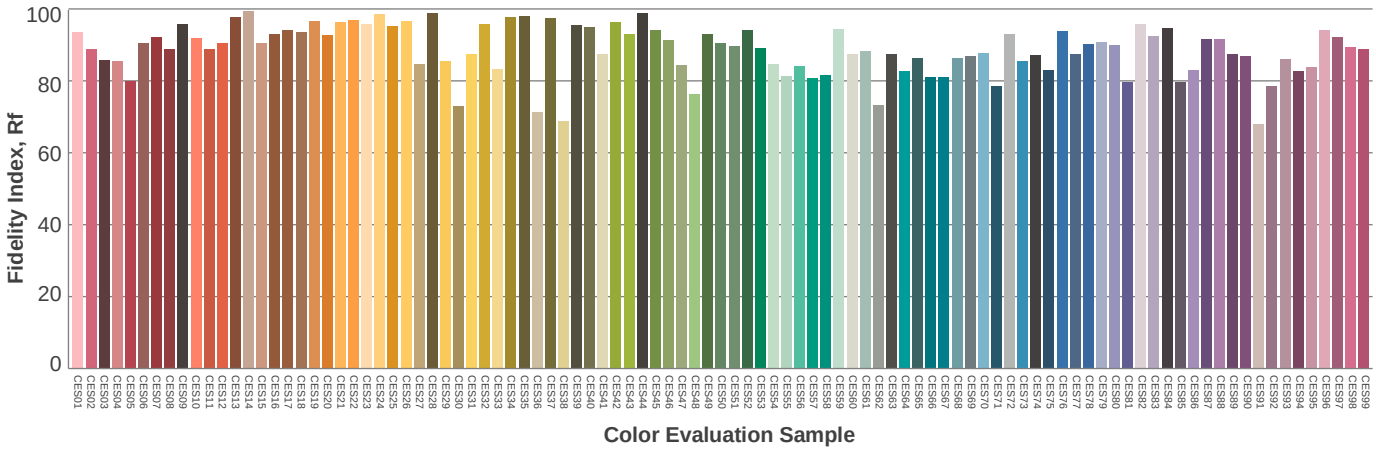






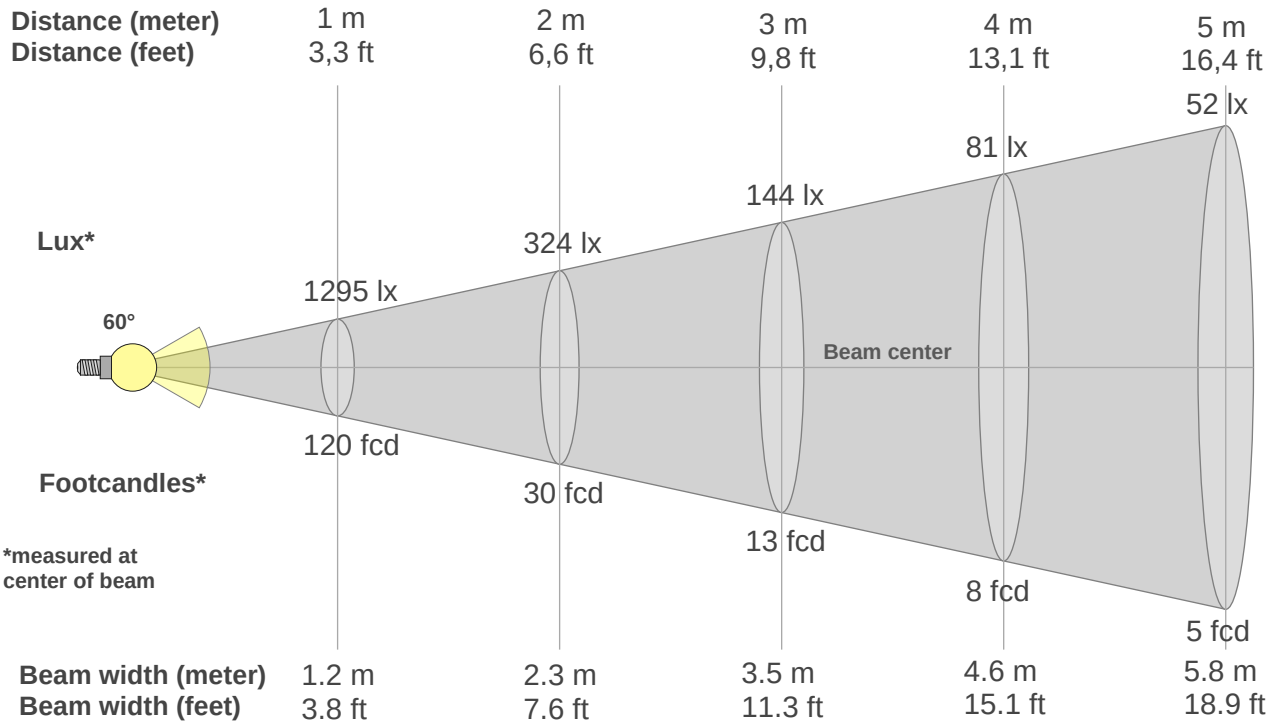






ALPHABET BRUCK LEDRA brands

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
1295lx	324lx	144lx	81lx	52lx	36lx	26lx	20lx	16lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	4lx	4lx	4lx	3lx
120.4fcd	30.1fcd	13.4fcd	7.5fcd	4.8fcd	3.3fcd	2.5fcd	1.9fcd	1.5fcd	1.2fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd

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°
1295	1291	1277	1252	1219	1177	1129	1075	1018	962	909	860	815	772	724	653	573	487	400	318
100%	100%	99%	97%	94%	91%	87%	83%	79%	74%	70%	66%	63%	60%	56%	50%	44%	38%	31%	25%

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°
1295	1288	1272	1246	1211	1168	1118	1060	1002	945	891	841	796	756	706	639	557	467	379	301
100%	99%	98%	96%	93%	90%	86%	82%	77%	73%	69%	65%	61%	58%	54%	49%	43%	36%	29%	23%

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°
1295	1291	1277	1252	1219	1177	1129	1075	1018	962	909	860	815	772	724	653	573	487	400	318
100%	100%	99%	97%	94%	91%	87%	83%	79%	74%	70%	66%	63%	60%	56%	50%	44%	38%	31%	25%

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°
1295	1292	1277	1252	1219	1178	1127	1070	1010	952	896	844	796	752	705	640	562	478	393	309
100%	100%	99%	97%	94%	91%	87%	83%	78%	73%	69%	65%	61%	58%	54%	49%	43%	37%	30%	24%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
60°	**92.8°**	**106.2°**	**98.9%**	**93.1%**