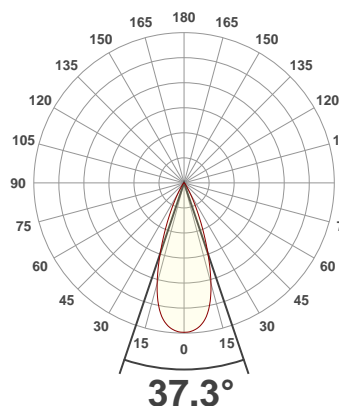




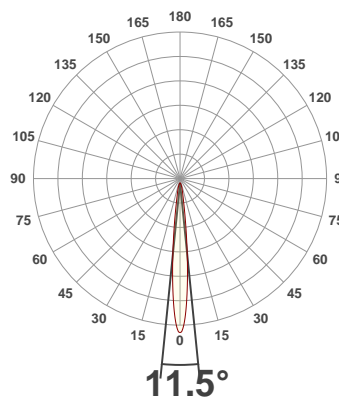
PRODUCT INFORMATION

SERIAL NUMBER:	LL-20191121-1168
DATE OF MEASUREMENT:	2019-11-21
SIZE (mm): (L x W x H)	298 x 71 x 59.5

ANGULAR DISTRIBUTION AT C0/180



ANGULAR DISTRIBUTION AT C90/270



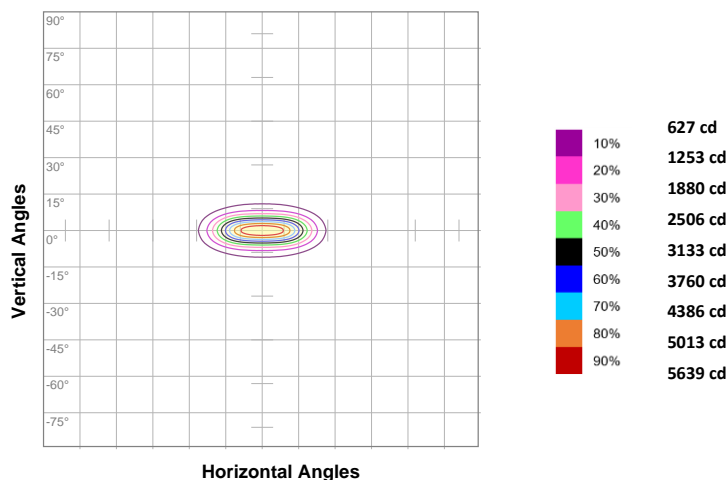
LIGHT OUTPUT DATA

TOTAL LUMEN OUTPUT:	1131 lm
EFFICACY:	76 lm/W
PEAK INTENSITY:	6271 cd
COLOR RENDERING INDEX (CRI):	83.8
COLOR TEMPERATURE (CCT):	3784K
FIDELITY INDEX (TM30Rf):	84.7
GAMUT INDEX (TM30Rg):	93.5

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	37.3°
BEAM ANGLE (FWHM) C90/270:	11.5°
FIELD ANGLE (10%) C0/180:	58.3°
FIELD ANGLE (10%) C90/270:	24.5°
NUMBER OF PLANES MEASURED:	36

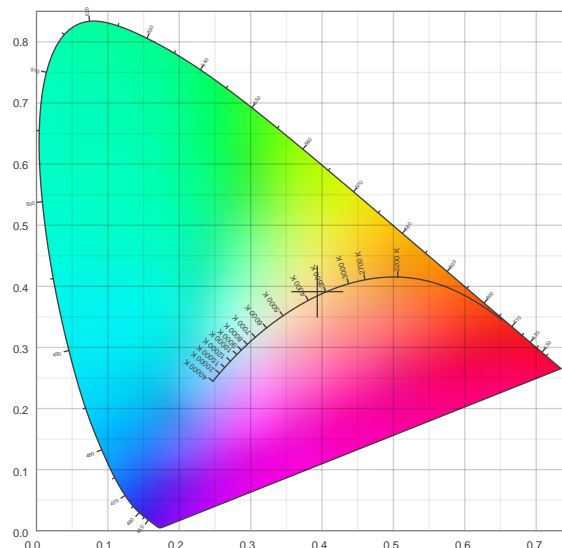
ISO CANDELA DIAGRAM



DATA

INPUT POWER:	14.9 W
POWER FACTOR:	1.0
OPTICAL POWER:	3.42 mW
PEAK WAVELENGTH:	598 nm
DOMINANT WAVELENGTH:	580 nm

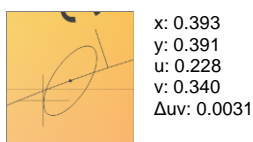
CIE 1931:



SPECTRA

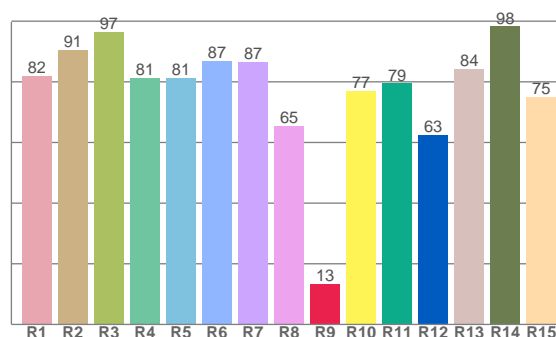
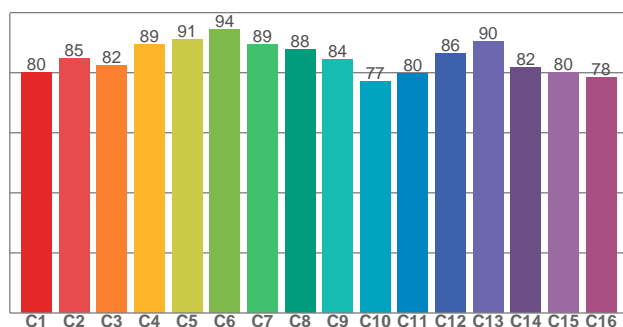


CIE 1931 ZOOM



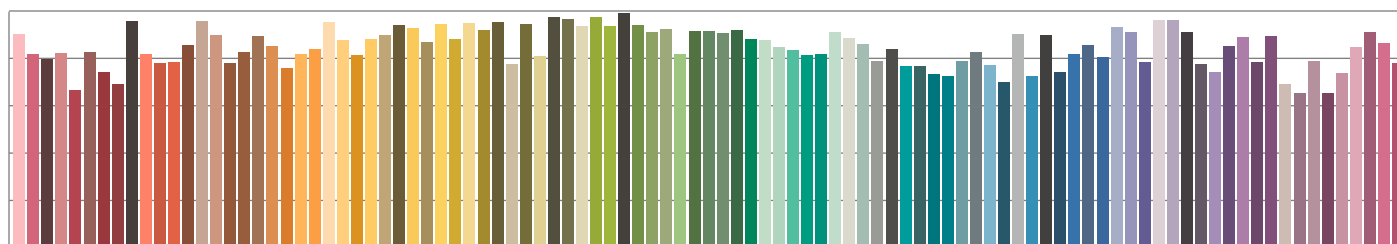
ZONAL LUMEN SUMMARY

0°-10° 387 lm	10°-20° 420 lm	20°-30° 189 lm	30°-40° 70.5 lm	40°-50° 33.4 lm	50°-60° 17.8 lm	60°-70° 9.23 lm	70°-80° 3.45 lm	80°-90° 0.459 lm
90°-100° 0.057 lm	100°-110° 0.051 lm	110°-120° 0.028 lm	120°-130° 0.017 lm	130°-140° 0.012 lm	140°-150° 0.009 lm	150°-160° 0.006 lm	160°-170° 0.004 lm	170°-180° 0.008 lm

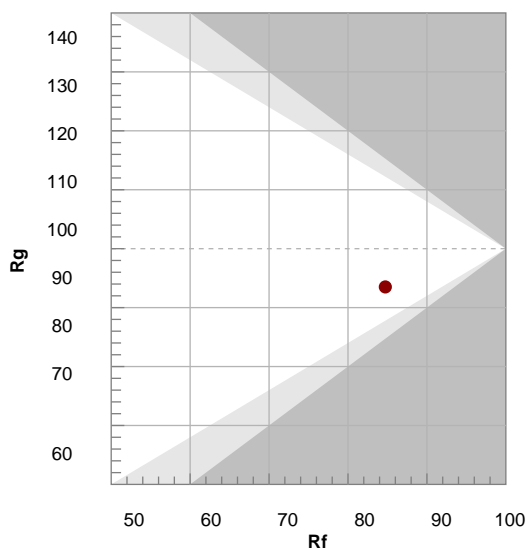
COLOR DETAILS
TM30: 84.7
CRI: 83.8 (R1-R8)

TM30 C values, 16 binned values out of total of 99 C values
CRI R values, only R1-R8 are used to calculate final CRI value

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.2	84.8	82.3	89.5	91.2	94.3	89.5	87.8	84.4	77.0	79.7	86.3	90.3	81.9	80.1	78.3

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81.9	90.6	96.6	81.3	81.3	86.9	86.6	65.4	13.3	77.1	79.5	62.6	84.2	98.2	75.1

TM30 COLOR EVALUATION SAMPLE

TM30 DETAILS

Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	80	-11%	0%
2	85	-7%	5%
3	82	-4%	8%
4	89	-2%	4%
5	91	-3%	2%
6	94	-2%	-1%
7	89	-7%	-1%
8	88	-7%	2%
9	84	-6%	9%
10	77	-5%	13%
11	80	3%	14%
12	86	6%	3%
13	90	3%	-5%
14	82	5%	-14%
15	80	-3%	-13%
16	78	-7%	-11%

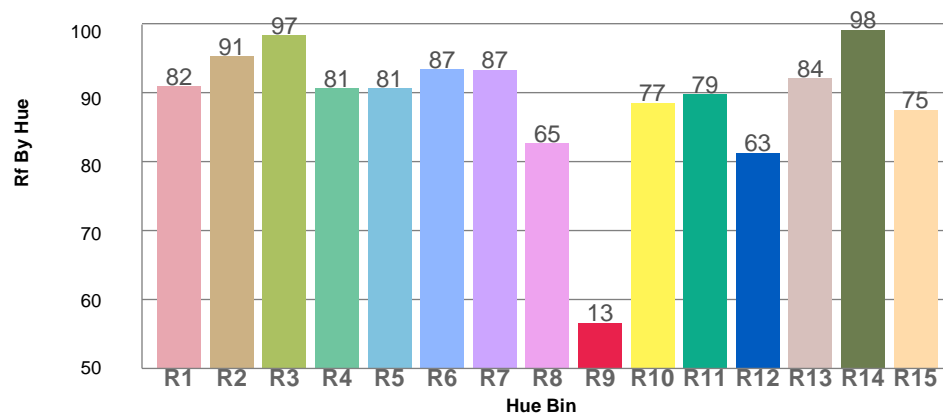


FIDELITY INDEX
 R_f 84.7

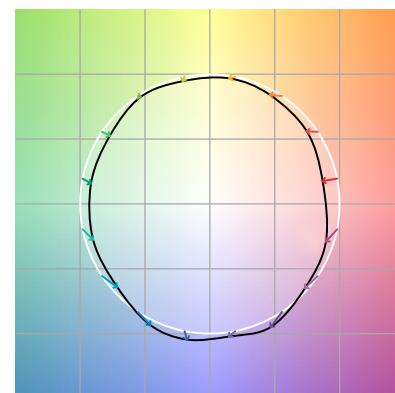
GAMUT INDEX
 R_g 93.5

Approx. limits for sources on the Planckian locus.
Approx. limits for practical light sources.

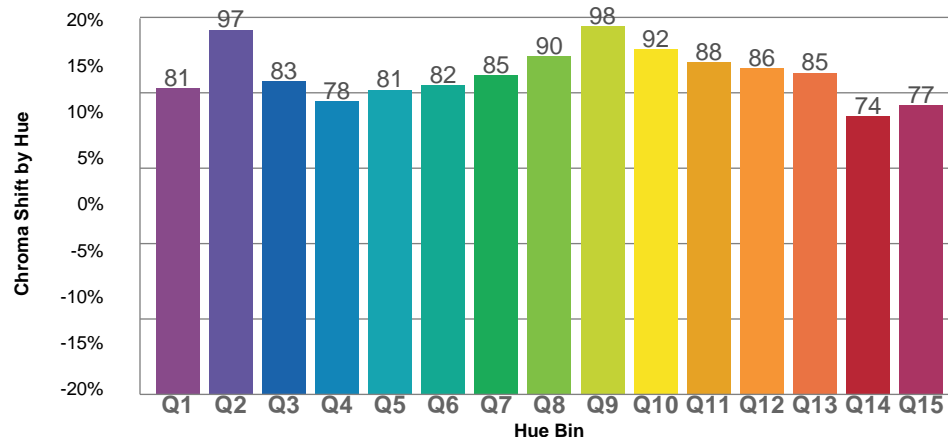
TM30 OVER 50



COLOR VECTOR GRAPHICS

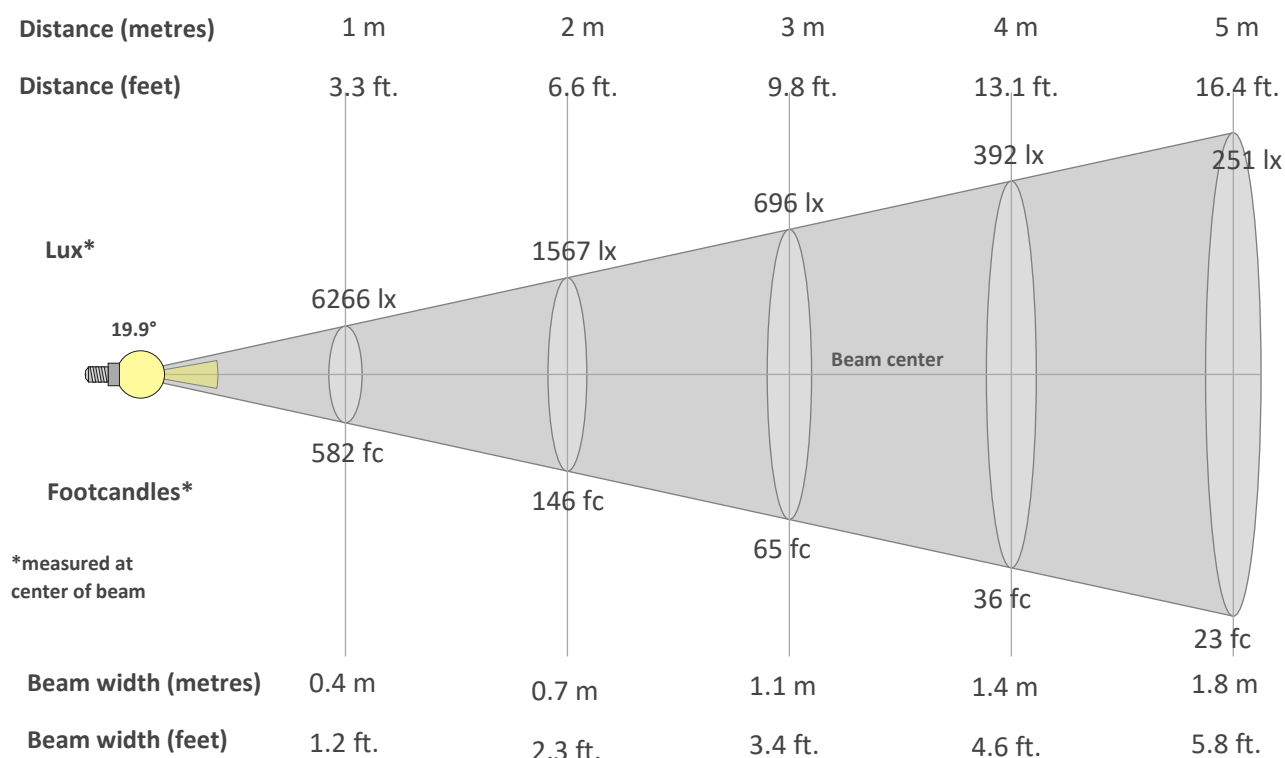


TM30 CHROMA SHIFT



COLOR DISTORTION GRAPHICS



BEAM DETAILS

Beam intensity 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
6266lx	1567lx	696lx	392lx	251lx	174lx	128lx	98lx	77lx	63lx	52lx	44lx	37lx	32lx	28lx	24lx	22lx	19lx	17lx	16lx
582.1fc	145.5fc	64.7fc	36.4fc	23.3fc	16.2fc	11.9fc	9.1fc	7.2fc	5.8fc	4.8fc	4fc	3.4fc	3fc	2.6fc	2.3fc	2fc	1.8fc	1.6fc	1.5fc

Intensity in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6266	6260	6244	6219	6180	6127	6062	5976	5868	5743	5586	5395	5180	4934	4652	4352	4030	3693	3353	3015
100%	100%	100%	99%	99%	98%	97%	95%	94%	92%	89%	86%	83%	79%	74%	69%	64%	59%	54%	48%

Intensity in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6266	6128	5736	5143	4426	3665	2927	2273	1732	1316	1011	799	654	552	478	421	375	335	299	267
100%	98%	92%	82%	71%	58%	47%	36%	28%	21%	16%	13%	10%	9%	8%	7%	6%	5%	5%	4%

Intensity in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6266	6260	6244	6219	6180	6127	6062	5976	5868	5743	5586	5395	5180	4934	4652	4352	4030	3693	3353	3015
100%	100%	100%	99%	99%	98%	97%	95%	94%	92%	89%	86%	83%	79%	74%	69%	64%	59%	54%	48%

Intensity in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6266	6128	5736	5143	4426	3665	2927	2273	1732	1316	1011	799	654	552	478	421	375	335	299	267
100%	98%	92%	82%	71%	58%	47%	36%	28%	21%	16%	13%	10%	9%	8%	7%	6%	5%	5%	4%