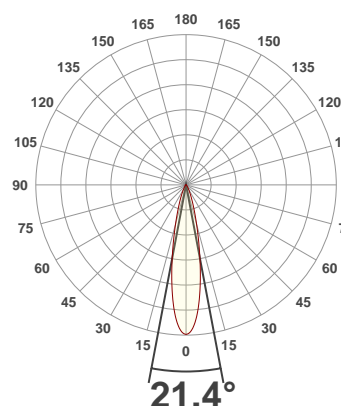
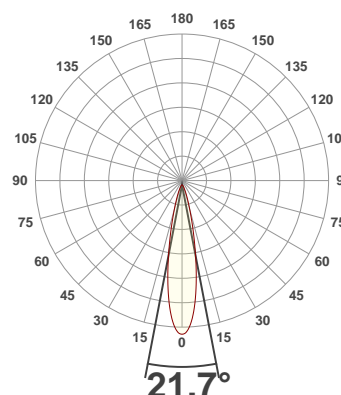



PRODUCT INFORMATION

SERIAL NUMBER: **LL-20190725-396-BMS**

DATE OF MEASUREMENT: **2019-07-25**

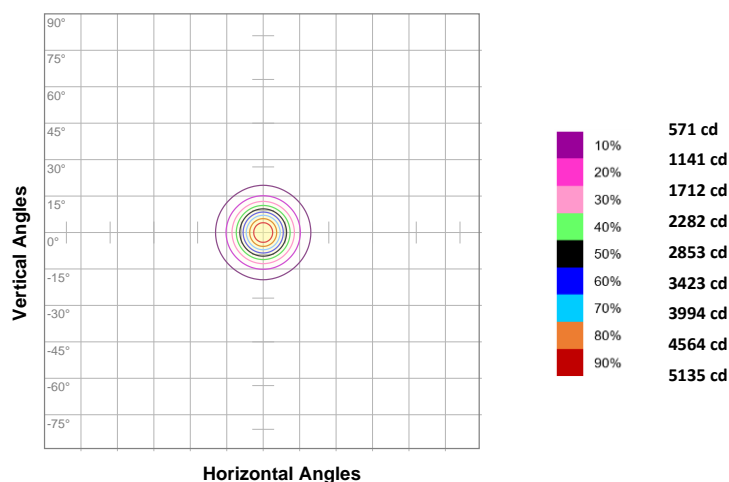
SIZE (mm): (L x W x H) **298 x 71 x 59.5**

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA

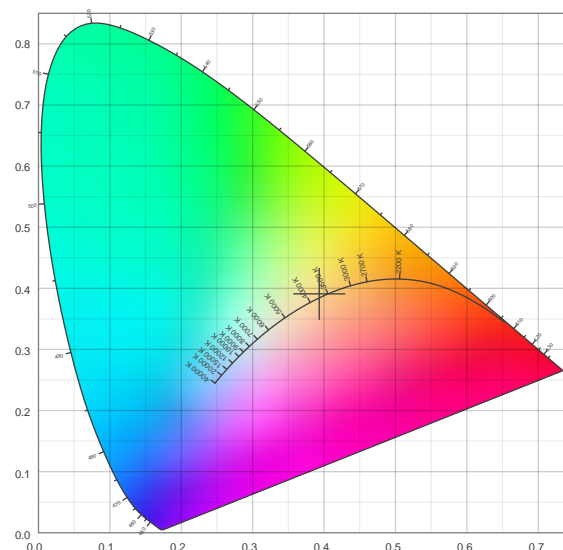
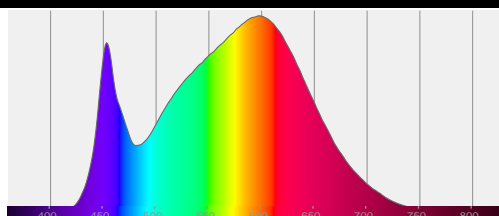
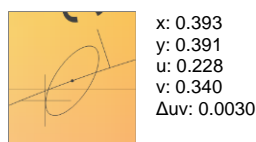
TOTAL LUMEN OUTPUT:	1174 lm
EFFICACY:	78 lm/W
PEAK INTENSITY:	5709 cd
COLOR RENDERING INDEX (CRI):	83.9
COLOR TEMPERATURE (CCT):	3783K
FIDELITY INDEX (TM30Rf):	84.8
GAMUT INDEX (TM30Rg):	93.6

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	21.4°
BEAM ANGLE (FWHM) C90/270:	21.7°
FIELD ANGLE (10%) C0/180:	43.7°
FIELD ANGLE (10%) C90/270:	43.3°
NUMBER OF PLANES MEASURED:	12

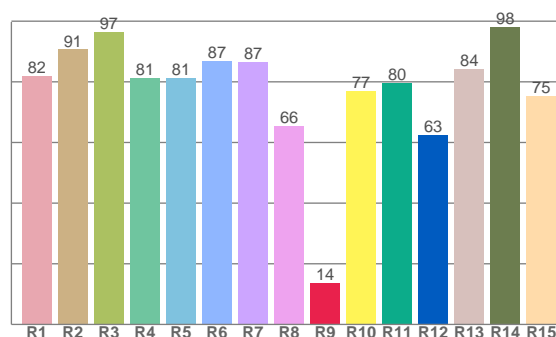
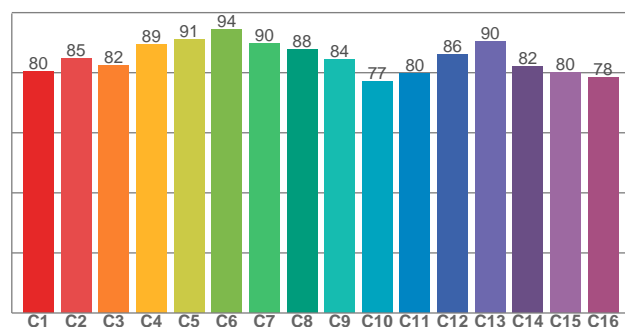
ISO CANDELA DIAGRAM

DATA

INPUT POWER:	15.1 W
POWER FACTOR:	1.0
OPTICAL POWER:	3.55 mW
PEAK WAVELENGTH:	598 nm
DOMINANT WAVELENGTH:	580 nm

CIE 1931:

SPECTRA

CIE 1931 ZOOM


ZONAL LUMEN SUMMARY

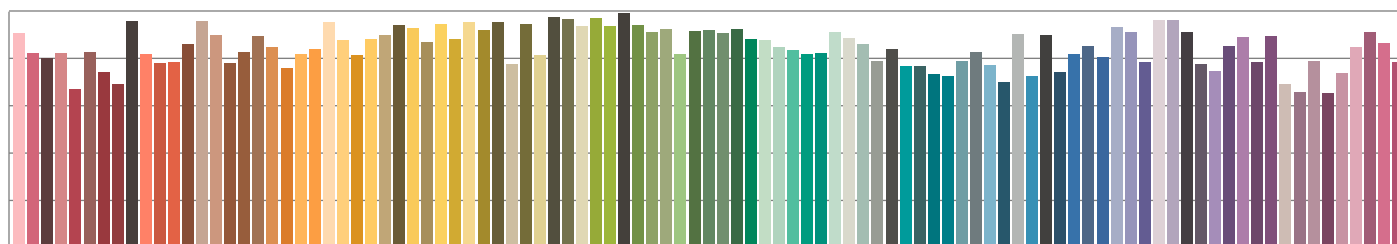
0°-10° 412 lm	10°-20° 436 lm	20°-30° 173 lm	30°-40° 73.1 lm	40°-50° 39.6 lm	50°-60° 22.9 lm	60°-70° 12.1 lm	70°-80° 4.19 lm	80°-90° 0.405 lm
90°-100° 0.040 lm	100°-110° 0.022 lm	110°-120° 0.018 lm	120°-130° 0.017 lm	130°-140° 0.010 lm	140°-150° 0.005 lm	150°-160° 0.004 lm	160°-170° 0.002 lm	170°-180° 0.001 lm

COLOR DETAILS
TM30: 84.8
CRI: 83.9 (R1-R8)

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

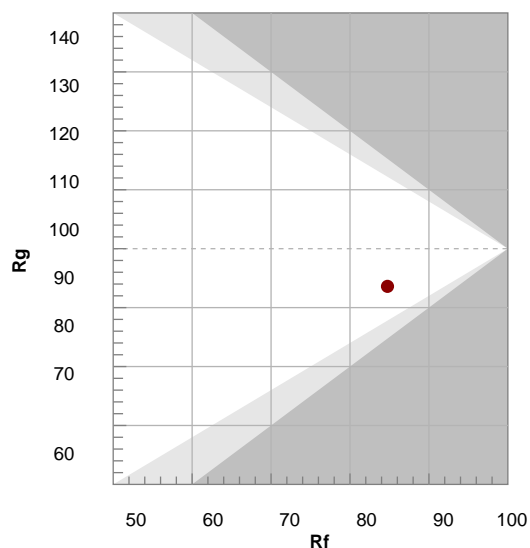
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.3	84.8	82.3	89.4	91.1	94.4	89.6	87.9	84.5	77.0	79.6	86.2	90.4	81.9	80.2	78.3

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
82.0	90.6	96.5	81.4	81.4	86.9	86.6	65.6	13.7	77.1	79.6	62.6	84.3	98.2	75.2

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	90	-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%

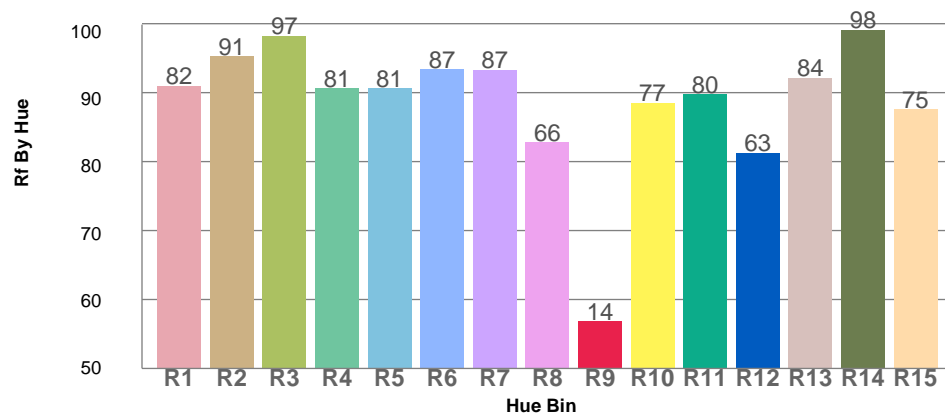


FIDELITY INDEX
 R_f 84.8

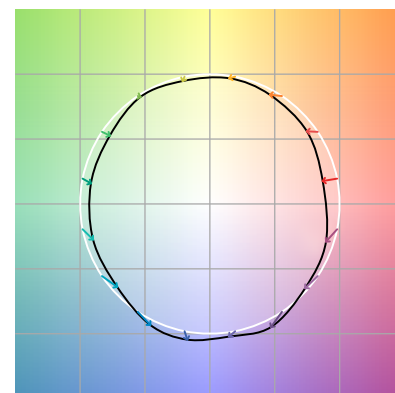
GAMUT INDEX
 R_g 93.6

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

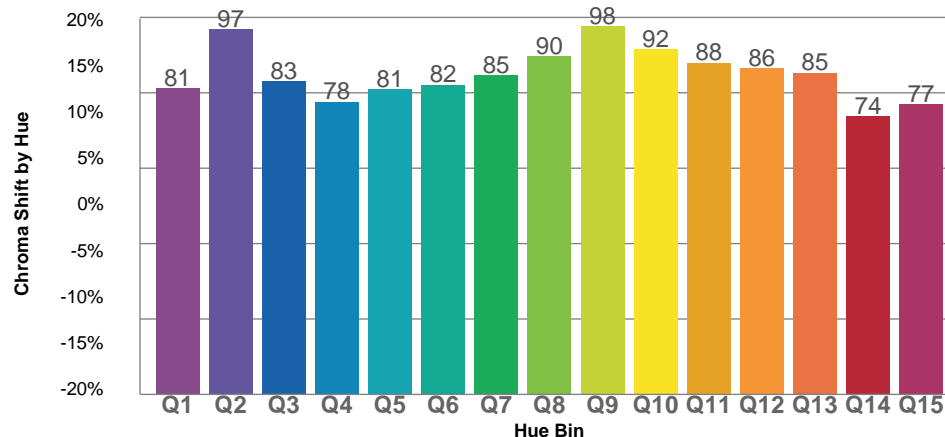
TM30 OVER 50



COLOR VECTOR GRAPHICS

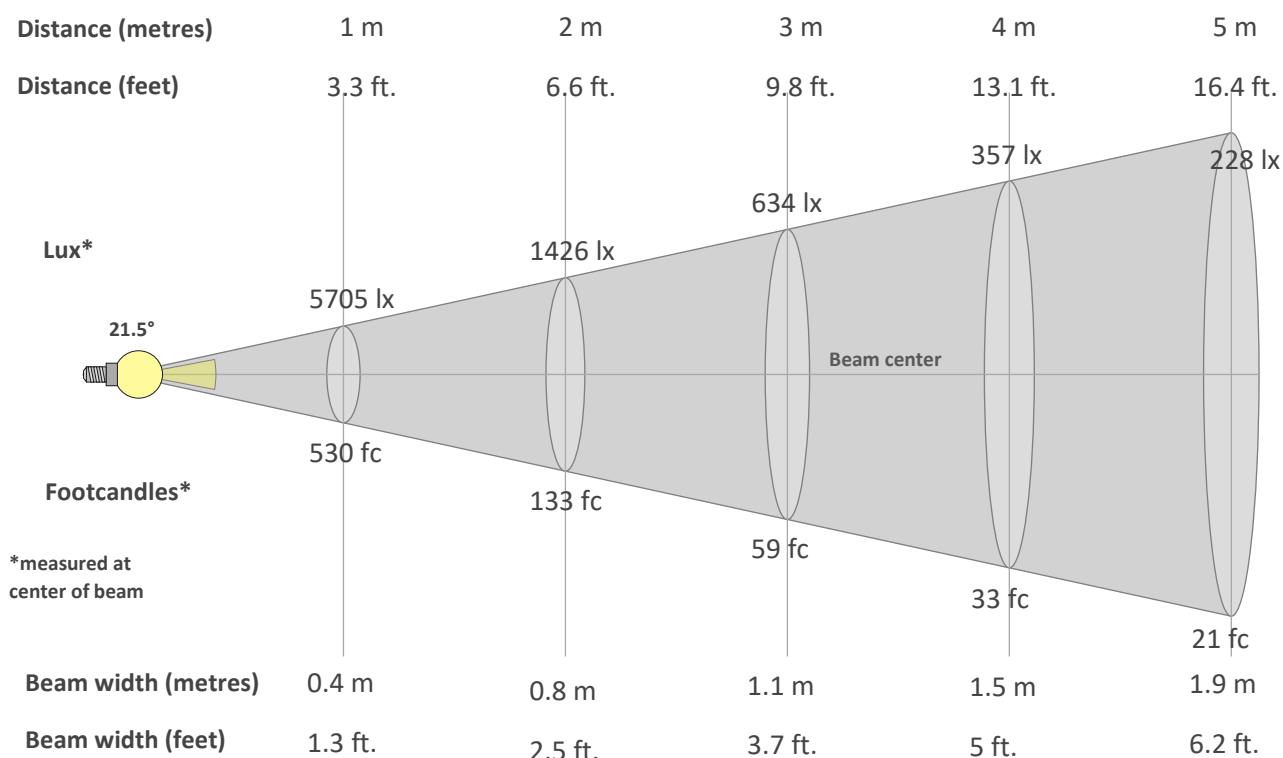


TM30 CHROMA SHIFT



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
5705lx	1426lx	634lx	357lx	228lx	158lx	116lx	89lx	70lx	57lx	47lx	40lx	34lx	29lx	25lx	22lx	20lx	18lx	16lx	14lx
530fc	132.5fc	58.9fc	33.1fc	21.2fc	14.7fc	10.8fc	8.3fc	6.5fc	5.3fc	4.4fc	3.7fc	3.1fc	2.7fc	2.4fc	2.1fc	1.8fc	1.6fc	1.5fc	1.3fc

Intensity in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5705	5573	5198	4609	3877	3108	2397	1804	1341	997	744	560	422	322	246	191	151	123	100	82
100%	98%	91%	81%	68%	54%	42%	32%	24%	17%	13%	10%	7%	6%	4%	3%	3%	2%	2%	1%

Intensity in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5705	5582	5224	4657	3942	3166	2427	1800	1313	962	717	544	418	324	252	197	157	128	106	89
100%	98%	92%	82%	69%	55%	43%	32%	23%	17%	13%	10%	7%	6%	4%	3%	3%	2%	2%	2%

Intensity in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5705	5573	5198	4609	3877	3108	2397	1804	1341	997	744	560	422	322	246	191	151	123	100	82
100%	98%	91%	81%	68%	54%	42%	32%	24%	17%	13%	10%	7%	6%	4%	3%	3%	2%	2%	1%

Intensity in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
5705	5582	5224	4657	3942	3166	2427	1800	1313	962	717	544	418	324	252	197	157	128	106	89
100%	98%	92%	82%	69%	55%	43%	32%	23%	17%	13%	10%	7%	6%	4%	3%	3%	2%	2%	2%