



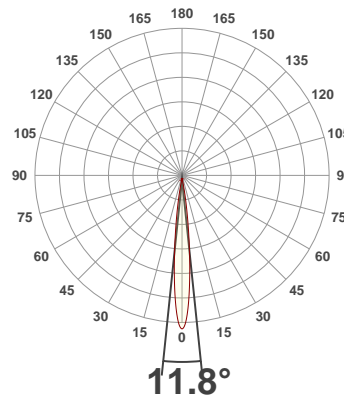
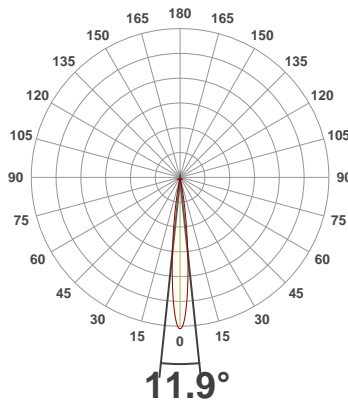
PRODUCT INFORMATION

SERIAL NUMBER:	LL-200325-0494
DATE OF MEASUREMENT:	25/03/2020
SIZE (dia. x h):	73 mm x 47 mm

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA

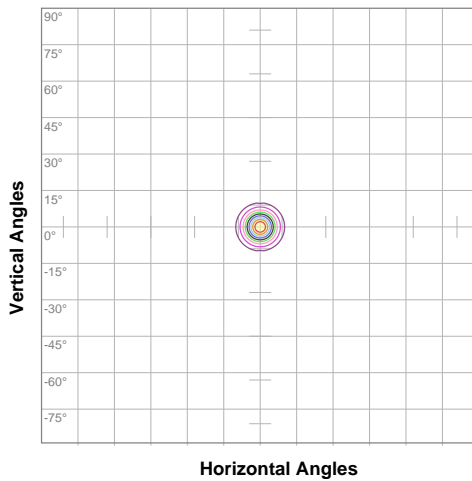


TOTAL LUMEN OUTPUT:	200 lm
EFFICACY:	26 lm/W
PEAK INTENSITY:	3747 cd
COLOR RENDERING INDEX (CRI):	91.2
COLOR TEMPERATURE (CCT):	3594K
FIDELITY INDEX (TM30Rf):	85.6
GAMUT INDEX (TM30Rg):	106.4

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	11.9°
BEAM ANGLE (FWHM) C90/270:	11.8°
FIELD ANGLE (10%) C0/180:	22.4°
FIELD ANGLE (10%) C90/270:	22°
NUMBER OF PLANES MEASURED:	12

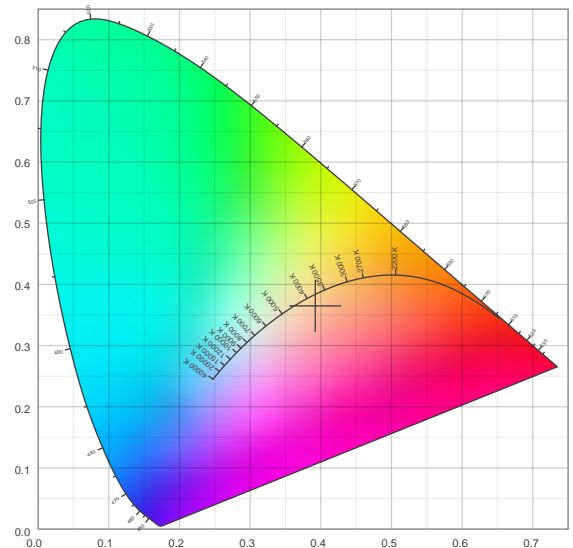
ISOCANDELA DIAGRAM



10%	375 cd
20%	749 cd
30%	1124 cd
40%	1498 cd
50%	1873 cd
60%	2247 cd
70%	2622 cd
80%	2996 cd
90%	3371 cd

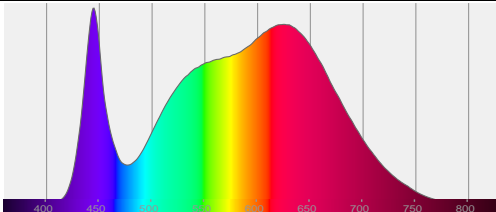
INPUT POWER:	7.8 W
POWER FACTOR:	1.0
OPTICAL POWER:	0.725 mW
PEAK WAVELENGTH:	445 nm
DOMINANT WAVELENGTH:	587 nm

CIE 1931



SPECTRAL DISTRIBUTION

CIE 1931 ZOOM



x:	0.392
y:	0.365
u:	0.238
v:	0.332
$\Delta u v$:	-0.0088

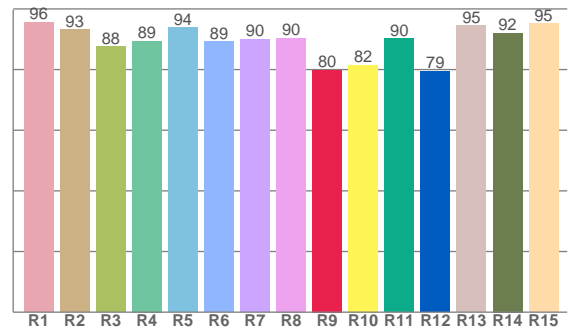
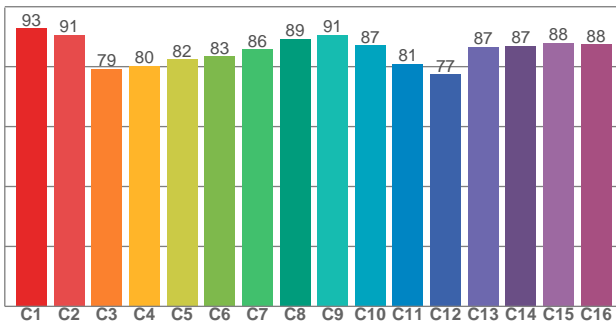
ZONAL LUMEN SUMMARY

0°-10° 157 lm	10°-20° 35.2 lm	20°-30° 5.15 lm	30°-40° 1.42 lm	40°-50° 0.448 lm	50°-60° 0.174 lm	60°-70° 0.105 lm	70°-80° 0.080 lm	80°-90° 0.068 lm
90°-100° 0.021 lm	100°-110° 0.007 lm	110°-120° 0.005 lm	120°-130° 0.005 lm	130°-140° 0.004 lm	140°-150° 0.003 lm	150°-160° 0.003 lm	160°-170° 0.002 lm	170°-180° 0.001 lm

COLOR DETAILS

TM30: 85.6

CRI: 91.2 (R1-R8)



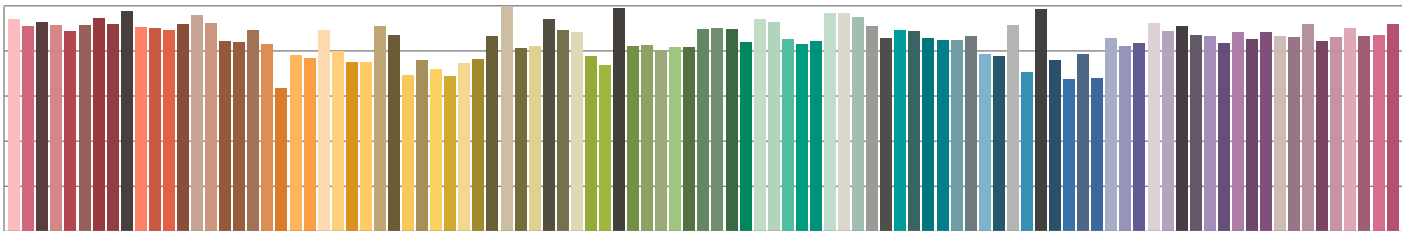
TM30 C values, 16 binned values out of total of 99 C values

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
92.7	90.6	79.2	80.3	82.4	83.4	85.7	89.3	90.6	87.1	80.9	77.4	86.6	86.9	87.9	87.5

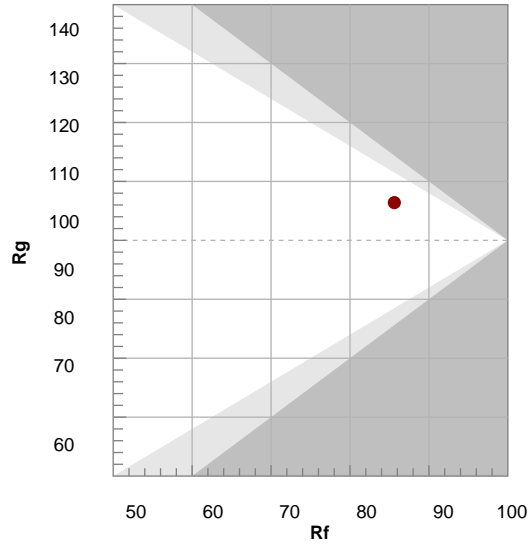
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95.6	93.1	87.6	89.5	93.8	89.3	90.0	90.4	79.8	81.5	90.3	79.5	94.5	92.1	95.2

TM30 COLOR EVALUATION SAMPLE



TM30 DETAILS

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	93	-3%	-3%
2	91	-3%	4%
3	79	0%	11%
4	80	5%	12%
5	82	11%	8%
6	83	12%	0%
7	86	7%	-7%
8	89	2%	-7%
9	91	-3%	-5%
10	87	-7%	2%
11	81	-2%	13%
12	77	5%	12%
13	87	8%	7%
14	87	11%	2%
15	88	7%	-5%
16	88	3%	-8%



FIDELITY INDEX

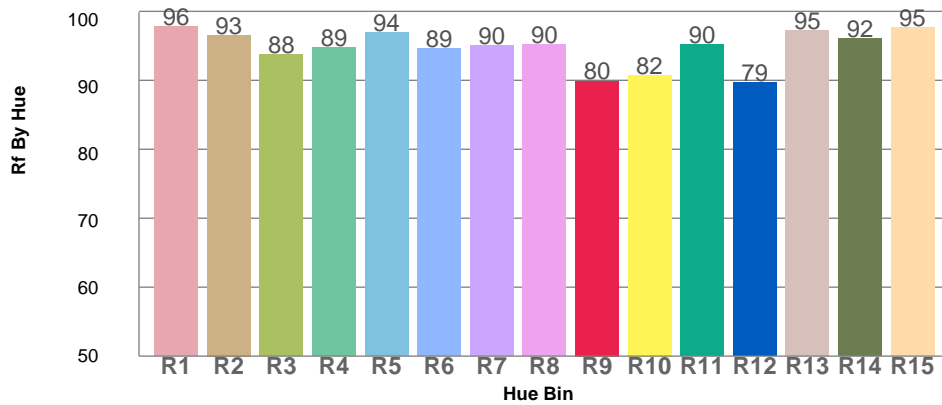
Rf 85.6

GAMUT INDEX

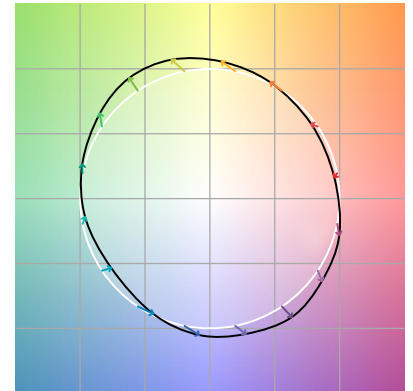
Rg 106.4

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

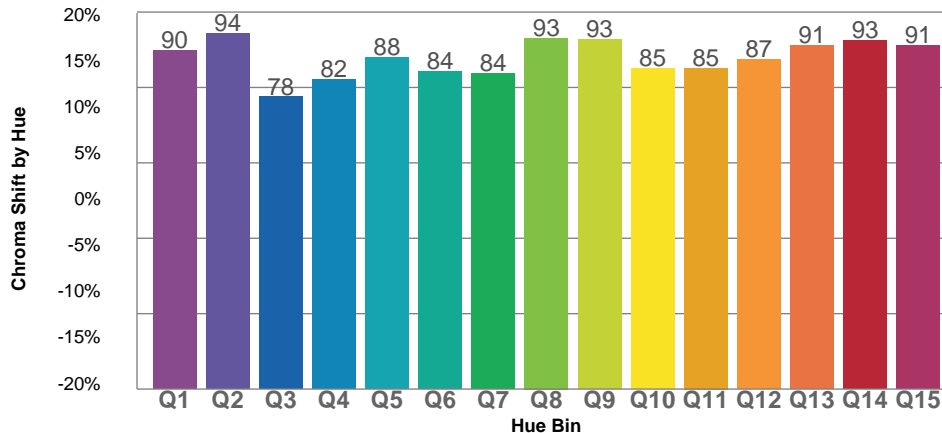
TM30 OVER 50



COLOR VECTOR GRAPHICS



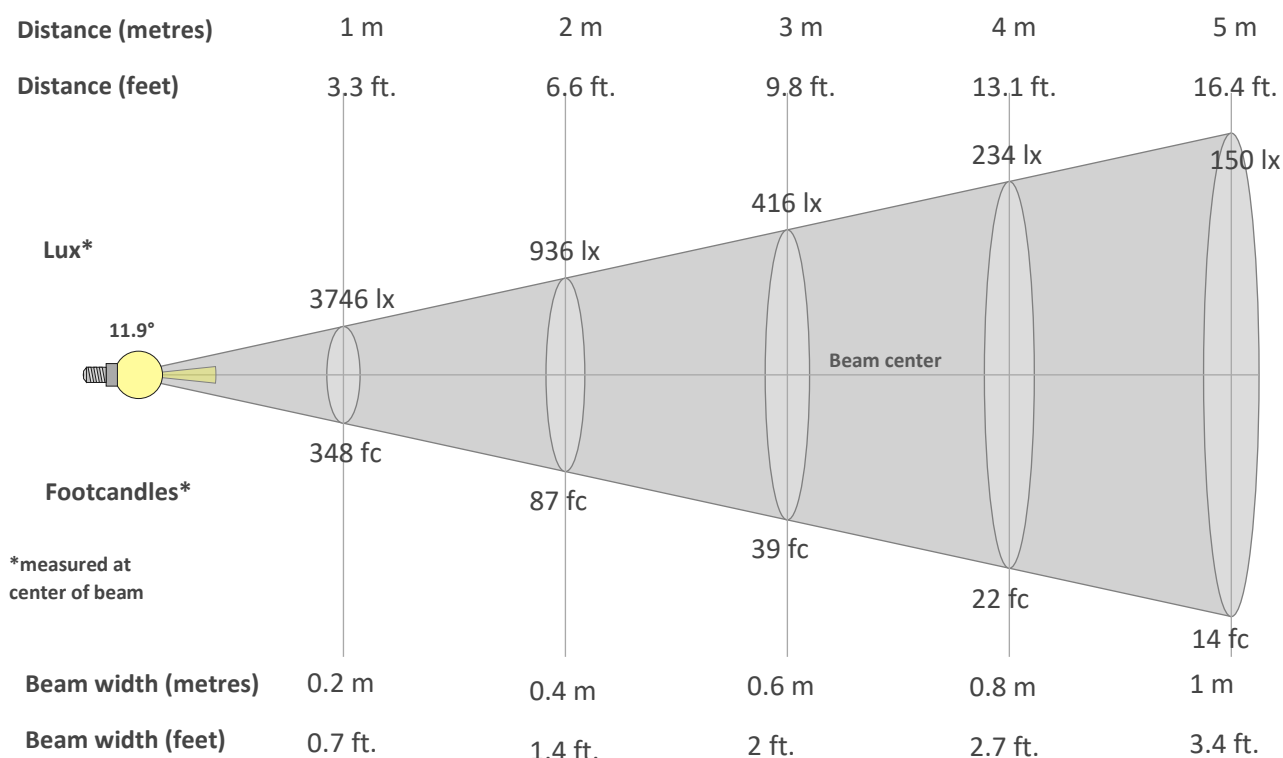
TM30 CHROMA SHIFT



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
3746lx	936lx	416lx	234lx	150lx	104lx	76lx	59lx	46lx	37lx	31lx	26lx	22lx	19lx	17lx	15lx	13lx	12lx	10lx	9lx
348fc	87fc	38.7fc	21.7fc	13.9fc	9.7fc	7.1fc	5.4fc	4.3fc	3.5fc	2.9fc	2.4fc	2.1fc	1.8fc	1.5fc	1.4fc	1.2fc	1.1fc	1fc	0.9fc

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°
3746	3675	3457	3127	2727	2294	1855	1451	1103	812	576	401	276	187	128	90	66	50	39	32
100%	98%	92%	83%	73%	61%	50%	39%	29%	22%	15%	11%	7%	5%	3%	2%	2%	1%	1%	1%

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°
3746	3671	3457	3125	2716	2274	1829	1423	1070	778	545	373	252	168	113	79	58	45	36	29
100%	98%	92%	83%	73%	61%	49%	38%	29%	21%	15%	10%	7%	4%	3%	2%	2%	1%	1%	1%

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°
3746	3675	3457	3127	2727	2294	1855	1451	1103	812	576	401	276	187	128	90	66	50	39	32
100%	98%	92%	83%	73%	61%	50%	39%	29%	22%	15%	11%	7%	5%	3%	2%	2%	1%	1%	1%

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°
3746	3671	3457	3125	2716	2274	1829	1423	1070	778	545	373	252	168	113	79	58	45	36	29
100%	98%	92%	83%	73%	61%	49%	38%	29%	21%	15%	10%	7%	4%	3%	2%	2%	1%	1%	1%