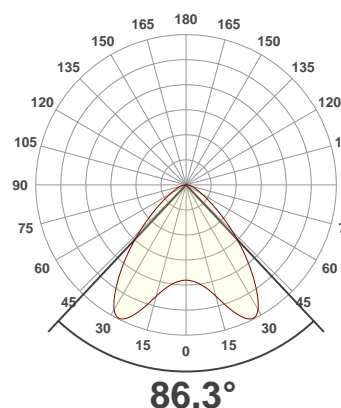
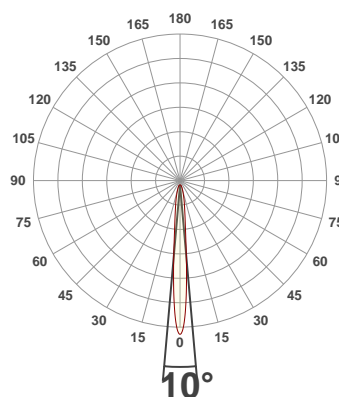



PRODUCT INFORMATION

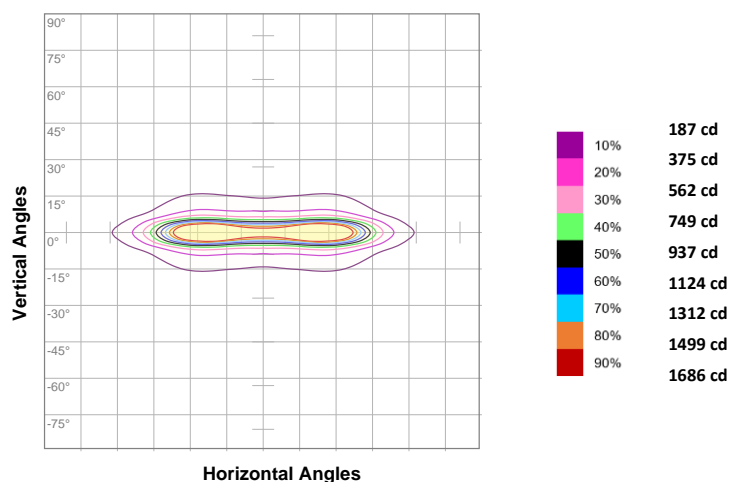
SERIAL NUMBER:	LL-20191120-1163
DATE OF MEASUREMENT:	2019-11-20
SIZE (mm): (L x W x H)	298 x 71 x 59.5

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA

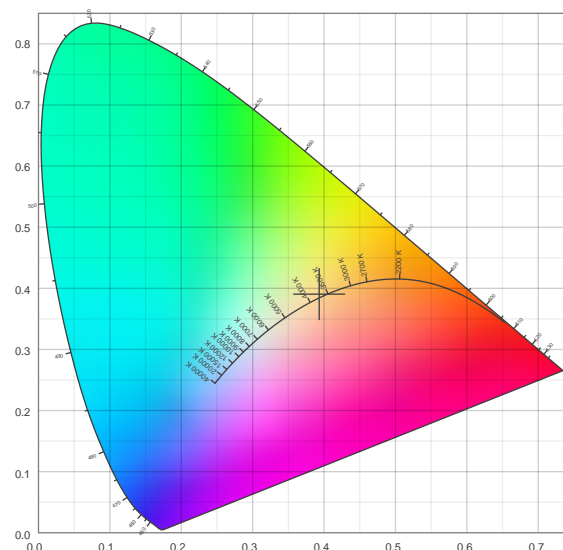
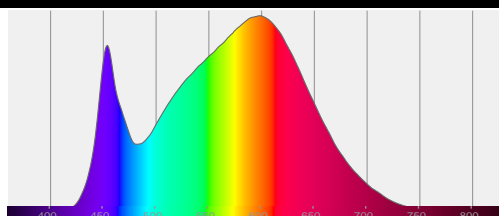
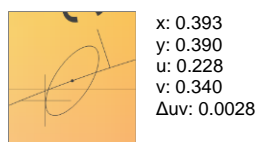
TOTAL LUMEN OUTPUT:	1014 lm
EFFICACY:	67 lm/W
PEAK INTENSITY:	2936 cd
COLOR RENDERING INDEX (CRI):	83.8
COLOR TEMPERATURE (CCT):	3781K
FIDELITY INDEX (TM30Rf):	84.6
GAMUT INDEX (TM30Rg):	93.5

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	86.3°
BEAM ANGLE (FWHM) C90/270:	10°
FIELD ANGLE (10%) C0/180:	125.8°
FIELD ANGLE (10%) C90/270:	31.5°
NUMBER OF PLANES MEASURED:	36

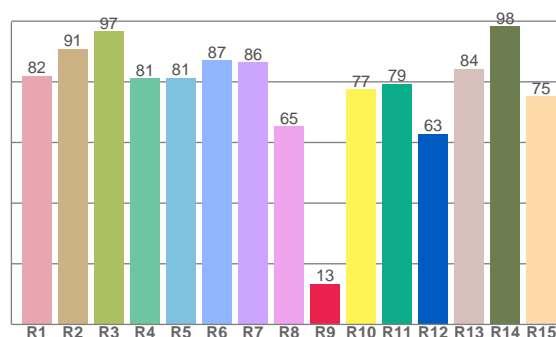
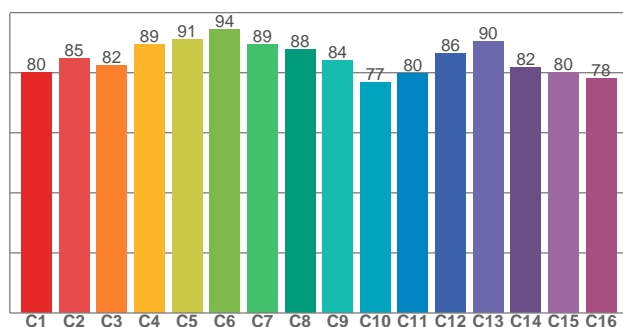
ISO CANDELA DIAGRAM

DATA

INPUT POWER:	15.1 W
POWER FACTOR:	1.0
OPTICAL POWER:	3.07 mW
PEAK WAVELENGTH:	598 nm
DOMINANT WAVELENGTH:	580 nm

CIE 1931:

SPECTRA

CIE 1931 ZOOM


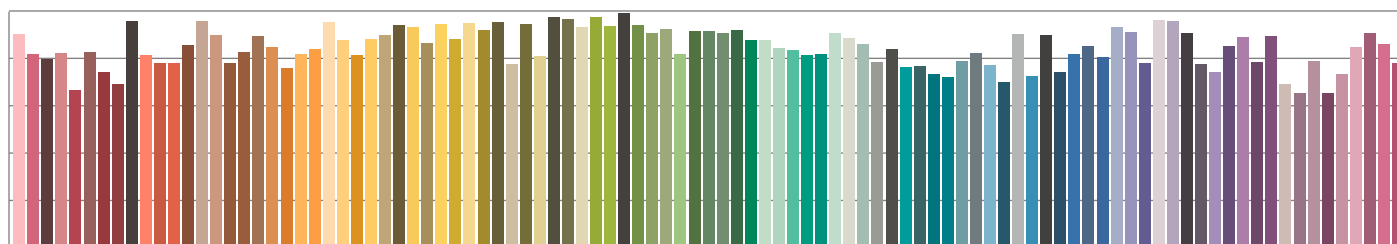
ZONAL LUMEN SUMMARY

0°-10° 114 lm	10°-20° 190 lm	20°-30° 229 lm	30°-40° 203 lm	40°-50° 133 lm	50°-60° 74.6 lm	60°-70° 40.8 lm	70°-80° 21.5 lm	80°-90° 6.39 lm
90°-100° 0.499 lm	100°-110° 0.476 lm	110°-120° 0.109 lm	120°-130° 0.032 lm	130°-140° 0.026 lm	140°-150° 0.019 lm	150°-160° 0.014 lm	160°-170° 0.009 lm	170°-180° 0.003 lm

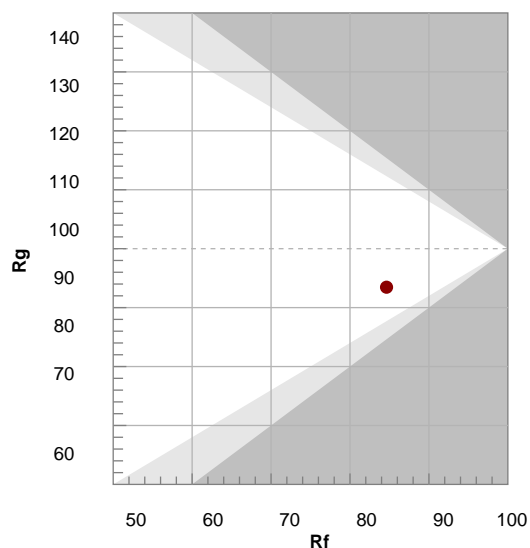
COLOR DETAILS
TM30: 84.6
CRI: 83.8 (R1-R8)

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
80.1	84.7	82.2	89.4	91.1	94.2	89.3	87.6	84.2	76.8	79.7	86.3	90.3	81.8	80.0	78.2

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
82.0	90.8	96.6	81.1	81.4	87.0	86.4	65.2	13.2	77.5	79.3	62.8	84.3	98.3	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%	-2%
7	89	-7%	-1%
8	88	-7%	2%
9	84	-6%	10%
10	77	-5%	14%
11	80	3%	14%
12	86	6%	3%
13	90	3%	-6%
14	82	5%	-14%
15	80	-3%	-13%
16	78	-7%	-11%

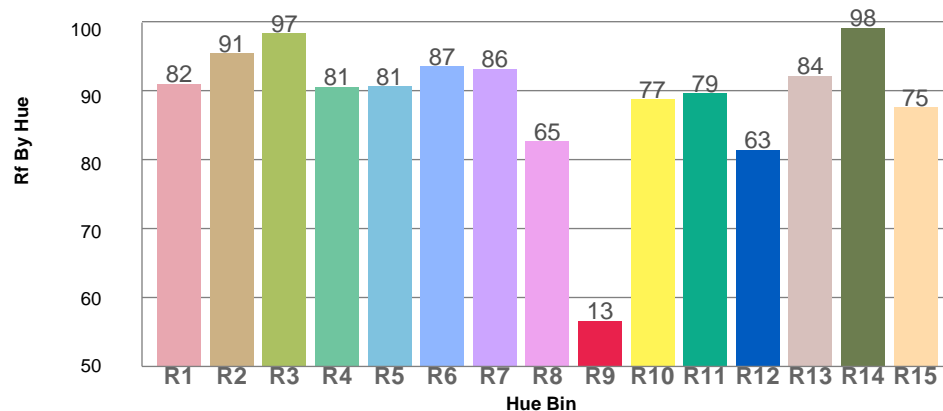


FIDELITY INDEX
 R_f 84.6

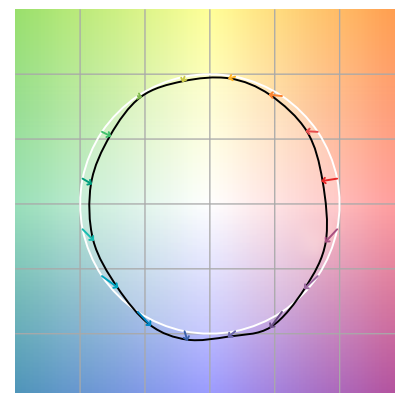
GAMUT INDEX
 R_g 93.5

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

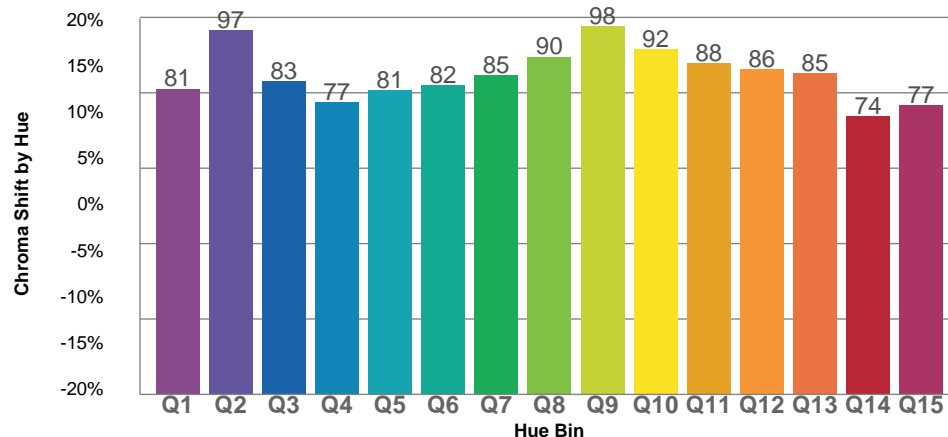
TM30 OVER 50



COLOR VECTOR GRAPHICS

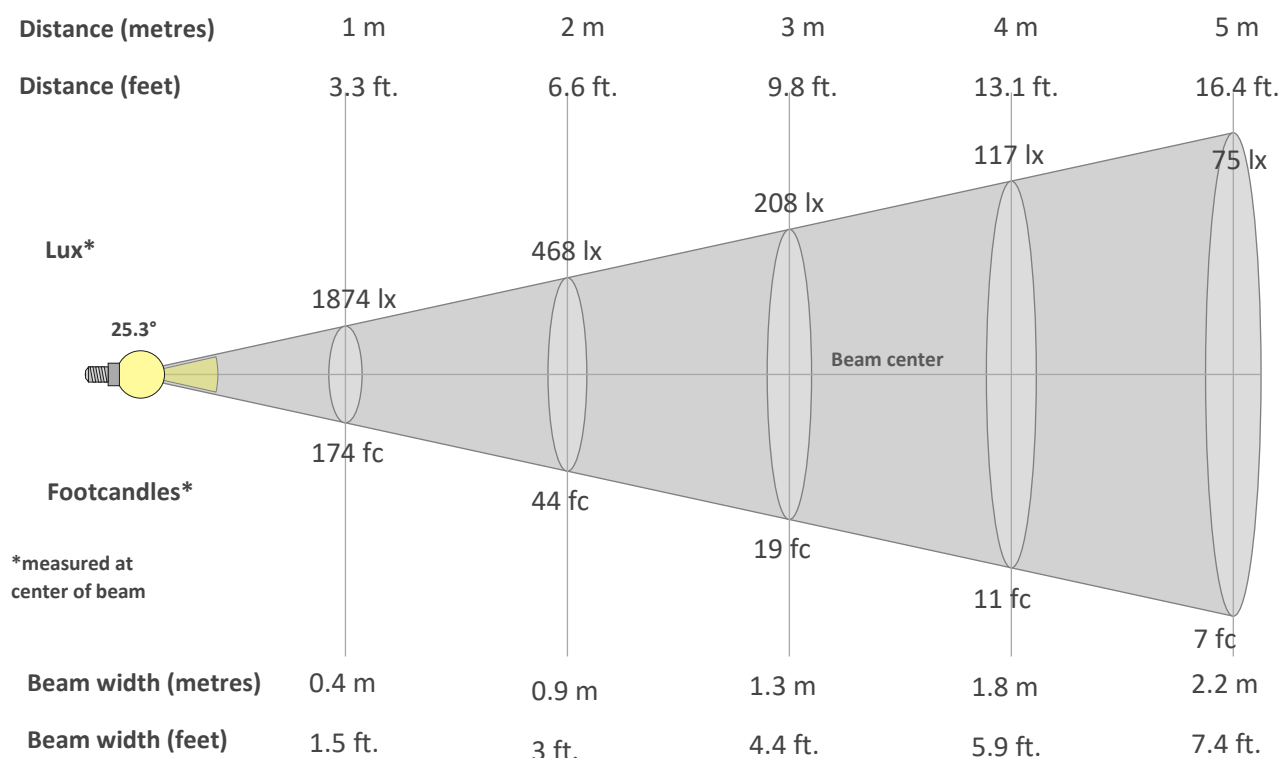


TM30 CHROMA SHIFT



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
1874lx	468lx	208lx	117lx	75lx	52lx	38lx	29lx	23lx	19lx	15lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx
174.1fc	43.5fc	19.3fc	10.9fc	7fc	4.8fc	3.6fc	2.7fc	2.1fc	1.7fc	1.4fc	1.2fc	1fc	0.9fc	0.8fc	0.7fc	0.6fc	0.5fc	0.5fc	0.4fc

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°
1874	1880	1898	1928	1970	2029	2105	2206	2333	2478	2625	2761	2869	2929	2916	2827	2666	2466	2249	2027
100%	100%	101%	103%	105%	108%	112%	118%	124%	132%	140%	147%	153%	156%	156%	151%	142%	132%	120%	108%

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°
1874	1685	1195	727	483	358	279	224	182	148	123	103	87	74	65	57	51	45	40	36
100%	90%	64%	39%	26%	19%	15%	12%	10%	8%	7%	5%	5%	4%	3%	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°
1874	1880	1898	1928	1970	2029	2105	2206	2333	2478	2625	2761	2869	2929	2916	2827	2666	2466	2249	2027
100%	100%	101%	103%	105%	108%	112%	118%	124%	132%	140%	147%	153%	156%	156%	151%	142%	132%	120%	108%

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°
1874	1685	1195	727	483	358	279	224	182	148	123	103	87	74	65	57	51	45	40	36
100%	90%	64%	39%	26%	19%	15%	12%	10%	8%	7%	5%	5%	4%	3%	3%	3%	2%	2%	2%