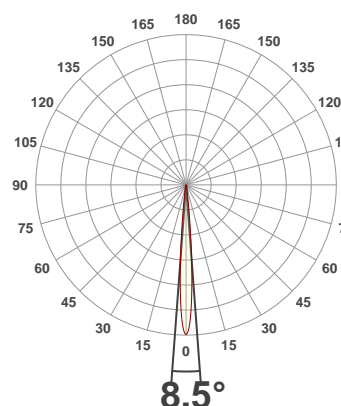
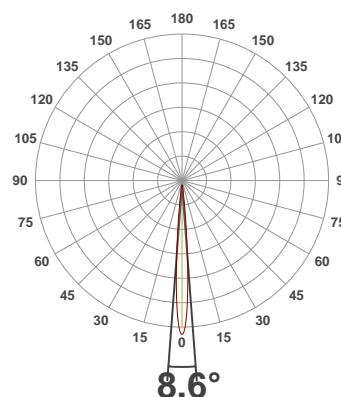



PRODUCT INFORMATION

SERIAL NUMBER: **LL-20190717-371-BMS**

DATE OF MEASUREMENT: **2019-07-17**

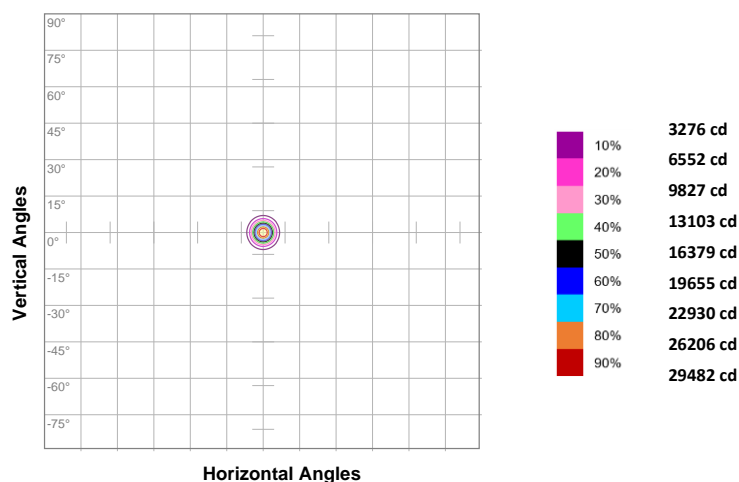
SIZE (mm): (L x W x H) **298 x 71 x 59.5**

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA

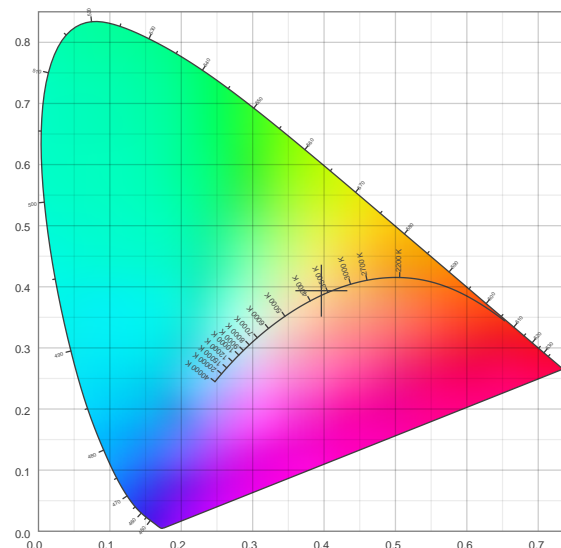
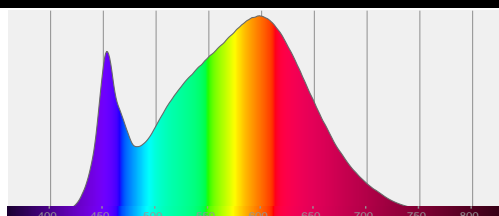
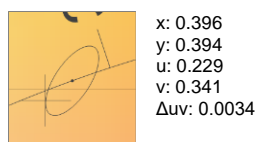
TOTAL LUMEN OUTPUT: **1119 lm**
 EFFICACY: **74 lm/W**
 PEAK INTENSITY: **32770 cd**
 COLOR RENDERING INDEX (CRI): **83.7**
 COLOR TEMPERATURE (CCT): **3733K**
 FIDELITY INDEX (TM30Rf): **84.7**
 GAMUT INDEX (TM30Rg): **93.4**

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) | C0/180: **8.5°**
 BEAM ANGLE (FWHM) | C90/270: **8.6°**
 FIELD ANGLE (10%) | C0/180: **15.1°**
 FIELD ANGLE (10%) | C90/270: **15.6°**
 NUMBER OF PLANES MEASURED: **36**

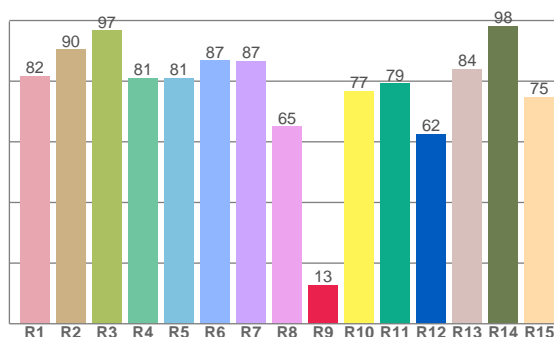
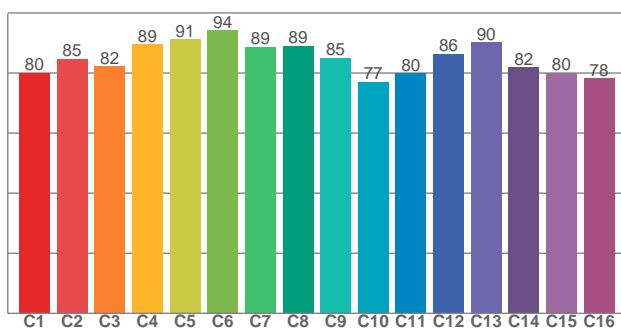
ISO CANDELA DIAGRAM

DATA

INPUT POWER: **15.2 W**
 POWER FACTOR: **1.0**
 OPTICAL POWER: **3.38 mW**
 PEAK WAVELENGTH: **597 nm**
 DOMINANT WAVELENGTH: **580 nm**

CIE 1931:

SPECTRA

CIE 1931 ZOOM


ZONAL LUMEN SUMMARY

0°-10° 803 lm	10°-20° 177 lm	20°-30° 80.8 lm	30°-40° 38.3 lm	40°-50° 16.8 lm	50°-60° 3.46 lm	60°-70° 0.283 lm	70°-80° 0.022 lm	80°-90° 0.011 lm
90°-100° 0.004 lm	100°-110° 0.003 lm	110°-120° 0.003 lm	120°-130° 0.001 lm	130°-140° 0.001 lm	140°-150° 0.000 lm	150°-160° 0.000 lm	160°-170° 0.000 lm	170°-180° 0.000 lm

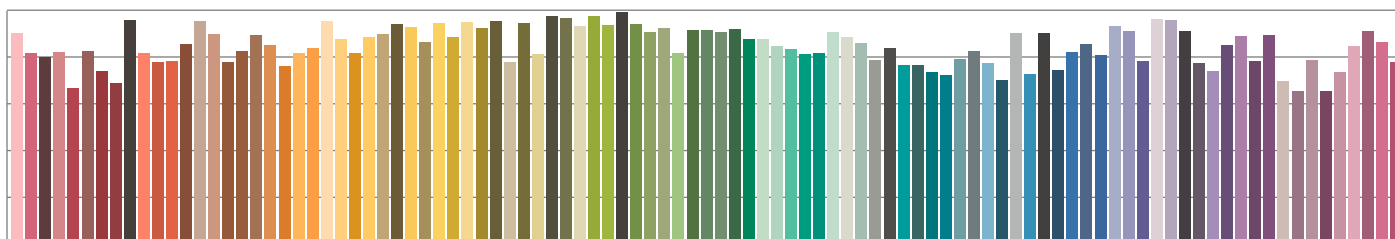
COLOR DETAILS
TM30: 84.7
CRI: 83.7 (R1-R8)


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

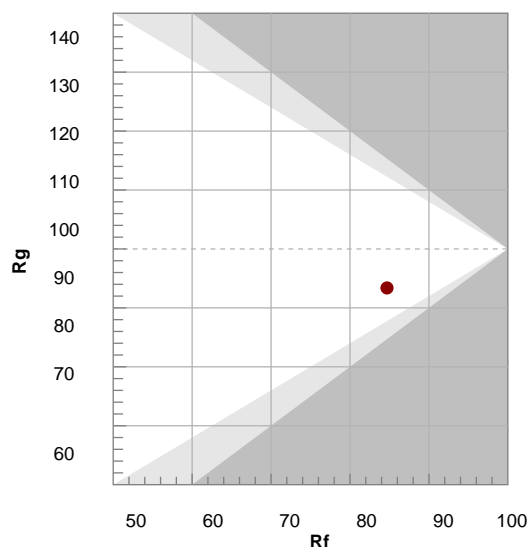
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.1	84.7	82.3	89.4	91.2	94.3	88.7	89.1	85.1	77.1	79.8	86.4	90.3	81.8	80.1	78.2

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
81.7	90.5	96.6	81.1	81.0	86.8	86.5	65.0	12.7	76.8	79.2	62.5	84.0	98.2	74.7

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	89	-6%	2%
9	85	-6%	8%
10	77	-4%	15%
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

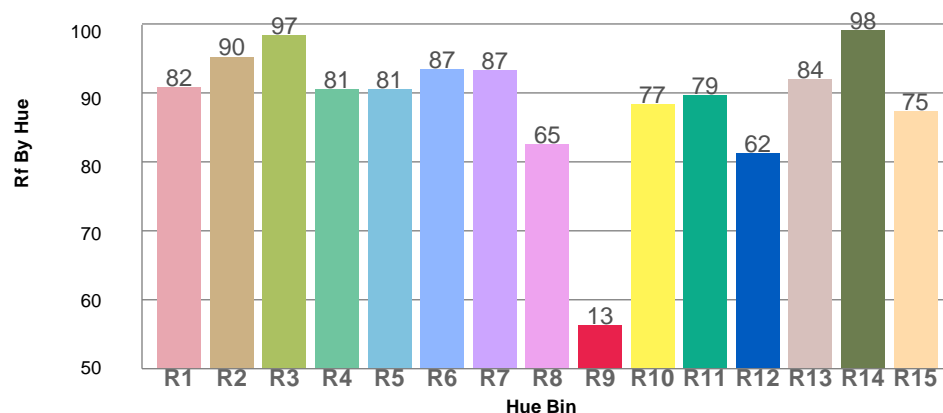
R_f 84.7

GAMUT INDEX

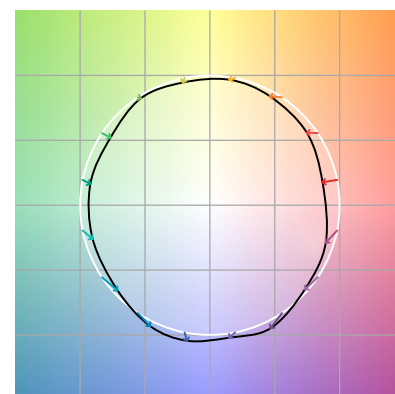
R_g 93.4

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

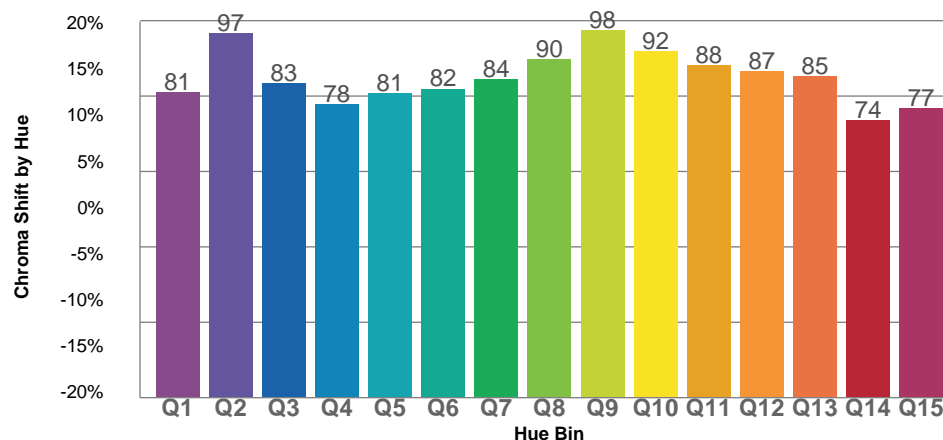
TM30 OVER 50



COLOR VECTOR GRAPHICS

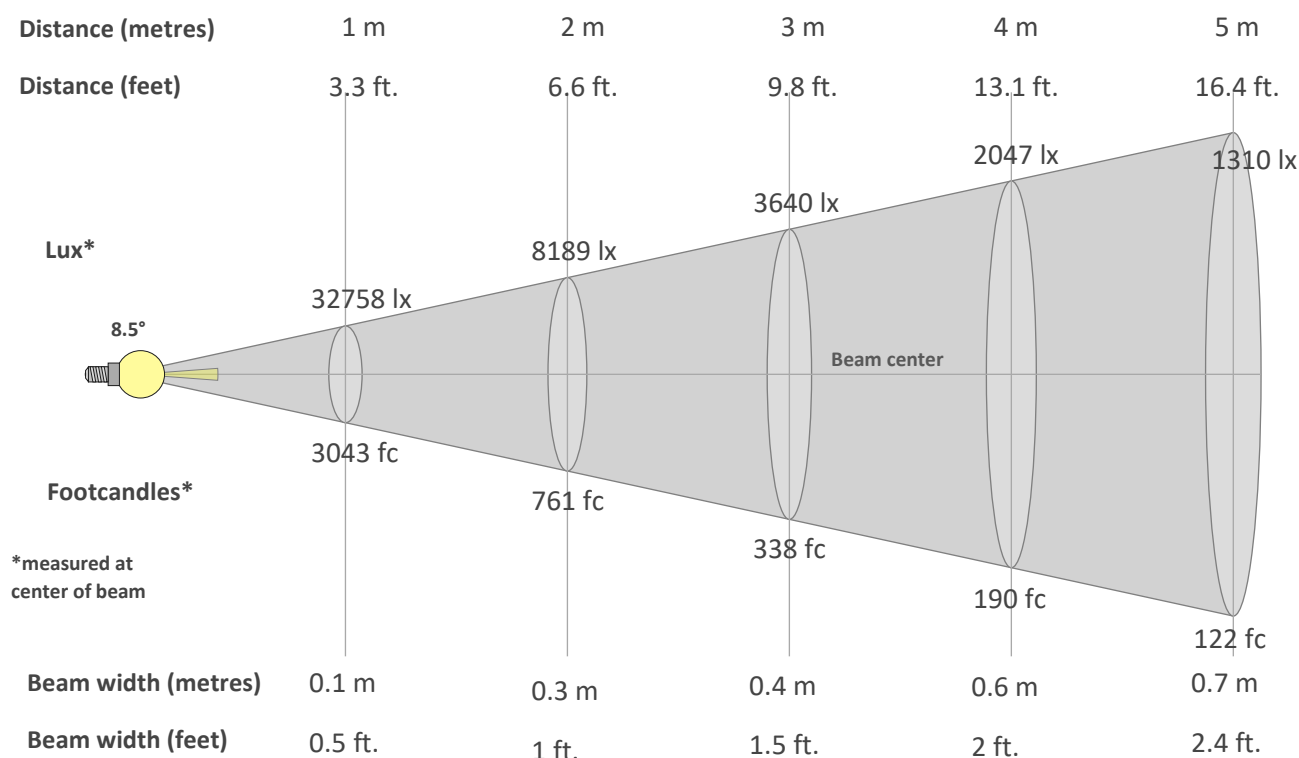


TM30 CHROMA SHIFT



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
32758lx	8189lx	3640lx	2047lx	1310lx	910lx	669lx	512lx	404lx	328lx	271lx	227lx	194lx	167lx	146lx	128lx	113lx	101lx	91lx	82lx
3043.3fc	760.8fc	338.1fc	190.2fc	121.7fc	84.5fc	62.1fc	47.6fc	37.6fc	30.4fc	25.2fc	21.1fc	18fc	15.5fc	13.5fc	11.9fc	10.5fc	9.4fc	8.4fc	7.6fc

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°
32.8K	31.7K	28.7K	23.8K	17.9K	12.1K	7.5K	4.4K	2.7K	1.8K	1.3K	1.0K	0.9K	0.8K	0.7K	0.6K	0.5K	0.5K	0.4K	0.4K
100%	97%	87%	73%	55%	37%	23%	13%	8%	5%	4%	3%	3%	2%	2%	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°
32.8K	31.8K	28.7K	23.9K	18.1K	12.5K	8.0K	4.8K	3.0K	2.0K	1.5K	1.1K	0.9K	0.8K	0.7K	0.6K	0.6K	0.5K	0.4K	0.4K
100%	97%	88%	73%	55%	38%	24%	15%	9%	6%	4%	3%	3%	2%	2%	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°
32.8K	31.7K	28.7K	23.8K	17.9K	12.1K	7.5K	4.4K	2.7K	1.8K	1.3K	1.0K	0.9K	0.8K	0.7K	0.6K	0.5K	0.5K	0.4K	0.4K
100%	97%	87%	73%	55%	37%	23%	13%	8%	5%	4%	3%	3%	2%	2%	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°
32.8K	31.8K	28.7K	23.9K	18.1K	12.5K	8.0K	4.8K	3.0K	2.0K	1.5K	1.1K	0.9K	0.8K	0.7K	0.6K	0.6K	0.5K	0.4K	0.4K
100%	97%	88%	73%	55%	38%	24%	15%	9%	6%	4%	3%	3%	2%	2%	2%	2%	1%	1%	1%