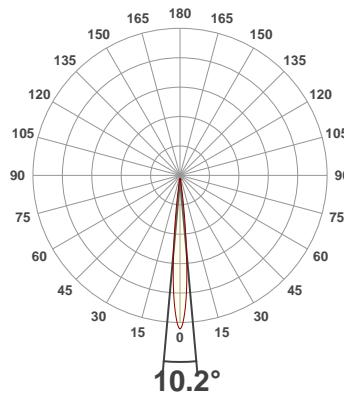
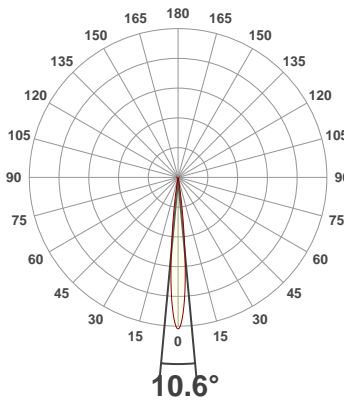




**PRODUCT INFORMATION**

SERIAL NUMBER:	LL-190625-271-BMS
DATE OF MEASUREMENT:	2019-06-25
SIZE (l x w. x h):	298 mm x 71 mm x 59.5 mm

**ANGULAR DISTRIBUTION AT C0/180 | ANGULAR DISTRIBUTION AT C90/270 | LIGHT OUTPUT DATA**

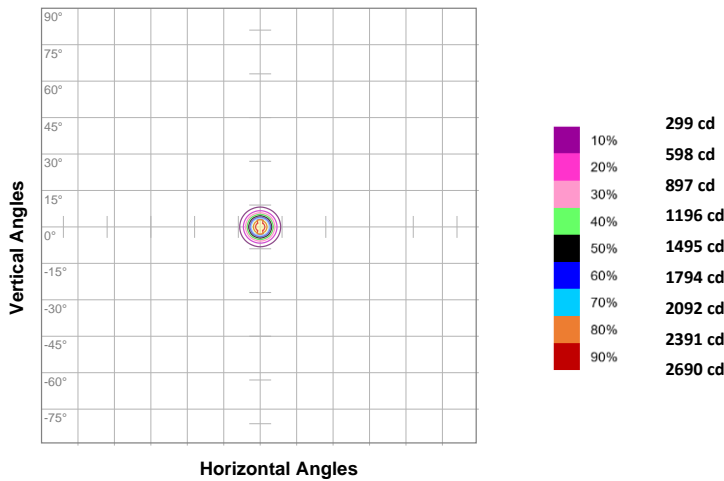


TOTAL LUMEN OUTPUT:	139 lm
EFFICACY:	11 lm/W
PEAK INTENSITY:	2992 cd
COLOR RENDERING INDEX (CRI):	0.0
COLOR TEMPERATURE (CCT):	0K
FIDELITY INDEX (TM30Rf):	0.0
GAMUT INDEX (TM30Rg):	0.0

**BEAM OUTPUT DATA**

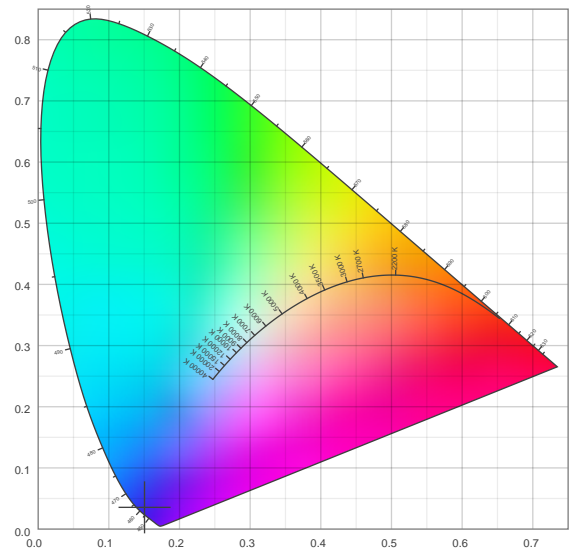
BEAM ANGLE (FWHM)   C0/180:	10.6°
BEAM ANGLE (FWHM)   C90/270:	10.2°
FIELD ANGLE (10%)   C0/180:	19°
FIELD ANGLE (10%)   C90/270:	18.2°
NUMBER OF PLANES MEASURED:	8

**ISOCANDELA DIAGRAM**

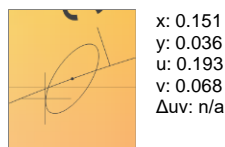
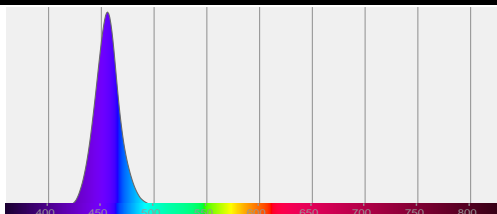


INPUT POWER:	12.2 W
POWER FACTOR:	1.0
OPTICAL POWER:	2.79 mW
PEAK WAVELENGTH:	456 nm
DOMINANT WAVELENGTH:	459 nm

**CIE 1931**

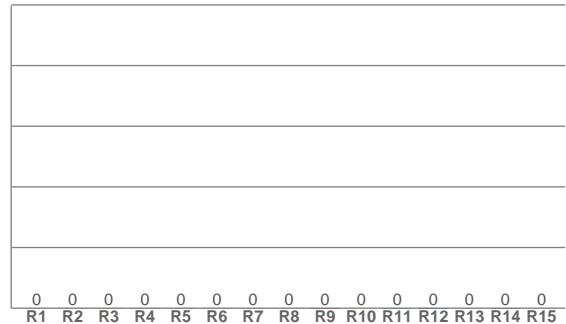
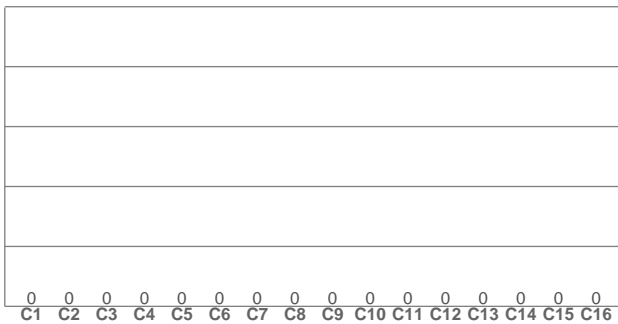


**SPECTRAL DISTRIBUTION | CIE 1931 ZOOM**



**ZONAL LUMEN SUMMARY**

0°-10° 99.6 lm	10°-20° 21.5 lm	20°-30° 9.41 lm	30°-40° 3.18 lm	40°-50° 2.19 lm	50°-60° 1.86 lm	60°-70° 0.827 lm	70°-80° 0.168 lm	80°-90° 0.020 lm
90°-100° 0.011 lm	100°-110° 0.010 lm	110°-120° 0.011 lm	120°-130° 0.015 lm	130°-140° 0.016 lm	140°-150° 0.019 lm	150°-160° 0.018 lm	160°-170° 0.014 lm	170°-180° 0.005 lm

**COLOR DETAILS**
**TM30: 0.0**
**CRI: 0.0 (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
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

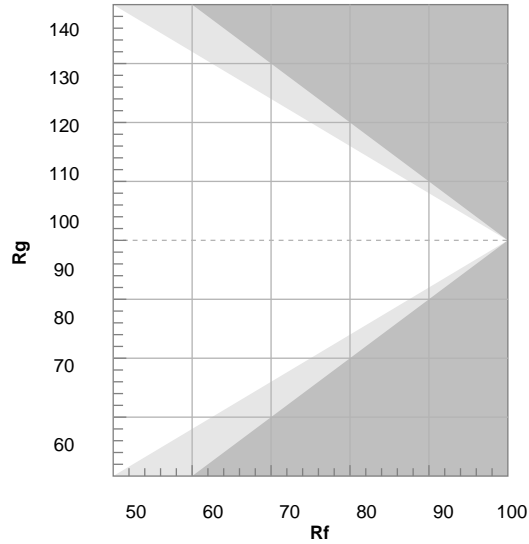
CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**TM30 COLOR EVALUATION SAMPLE**


TM30 DETAILS

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%



FIDELITY INDEX

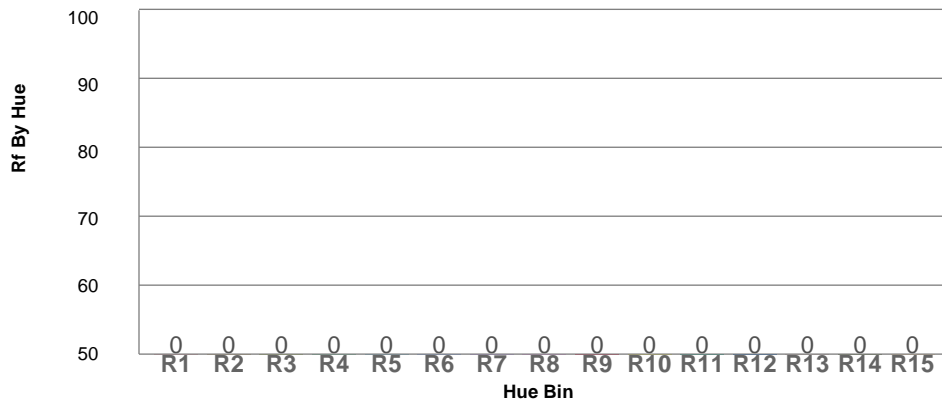
**R<sub>f</sub> 0.0**

GAMUT INDEX

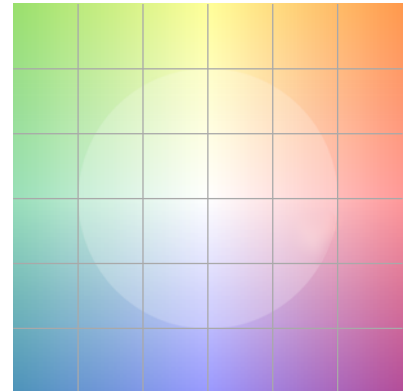
**R<sub>g</sub> 0.0**

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

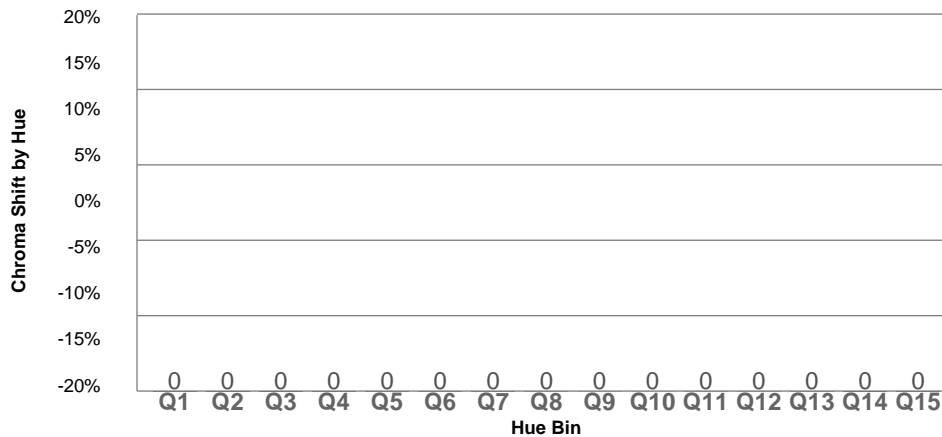
TM30 OVER 50



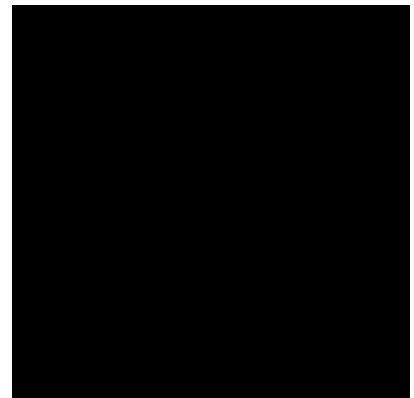
COLOR VECTOR GRAPHICS

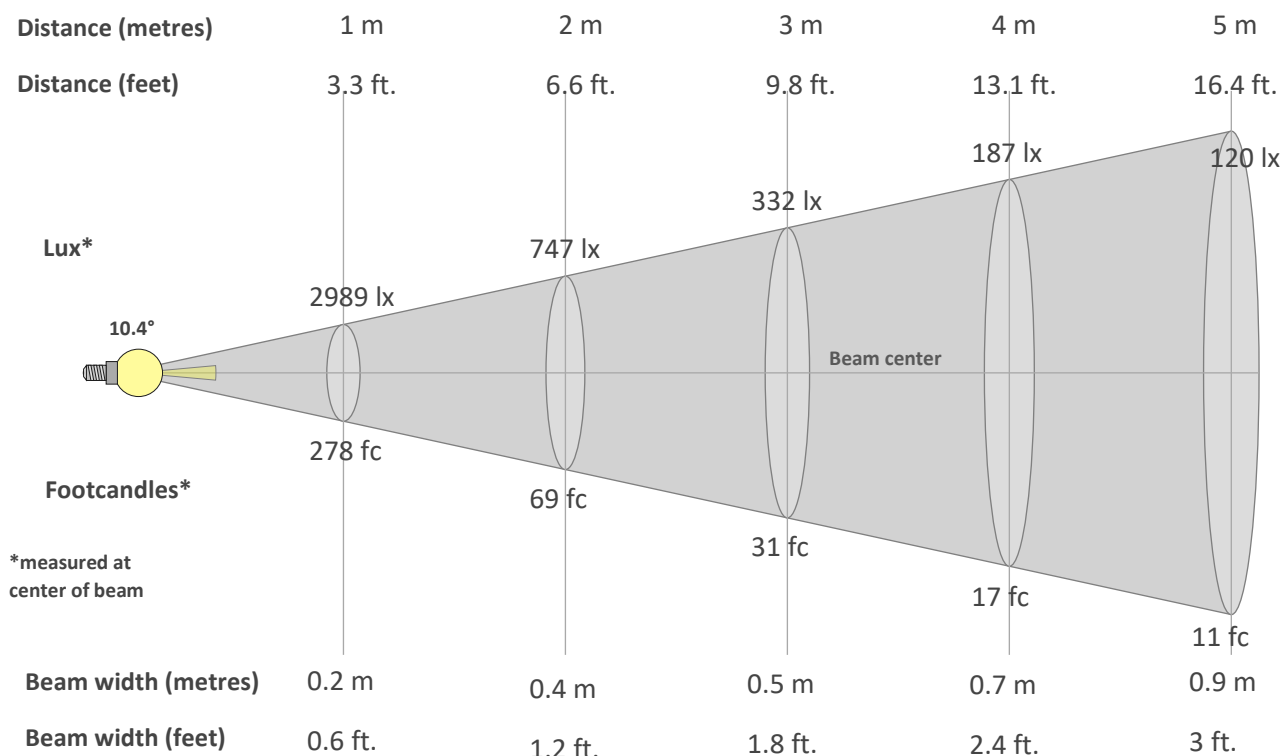


TM30 CHROMA SHIFT



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
2989lx	747lx	332lx	187lx	120lx	83lx	61lx	47lx	37lx	30lx	25lx	21lx	18lx	15lx	13lx	12lx	10lx	9lx	8lx	7lx
277.7fc	69.4fc	30.9fc	17.4fc	11.1fc	7.7fc	5.7fc	4.3fc	3.4fc	2.8fc	2.3fc	1.9fc	1.6fc	1.4fc	1.2fc	1.1fc	1fc	0.9fc	0.8fc	0.7fc

**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°
2989	2910	2714	2422	2050	1616	1194	840	563	370	244	169	124	95	78	68	61	56	51	46
100%	97%	91%	81%	69%	54%	40%	28%	19%	12%	8%	6%	4%	3%	3%	2%	2%	2%	2%	2%

**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°
2989	2903	2681	2377	1989	1546	1111	748	484	311	207	148	111	87	71	60	54	50	46	42
100%	97%	90%	80%	67%	52%	37%	25%	16%	10%	7%	5%	4%	3%	2%	2%	2%	2%	2%	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°
2989	2910	2714	2422	2050	1616	1194	840	563	370	244	169	124	95	78	68	61	56	51	46
100%	97%	91%	81%	69%	54%	40%	28%	19%	12%	8%	6%	4%	3%	3%	2%	2%	2%	2%	2%

**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°
2989	2903	2681	2377	1989	1546	1111	748	484	311	207	148	111	87	71	60	54	50	46	42
100%	97%	90%	80%	67%	52%	37%	25%	16%	10%	7%	5%	4%	3%	2%	2%	2%	2%	2%	1%