



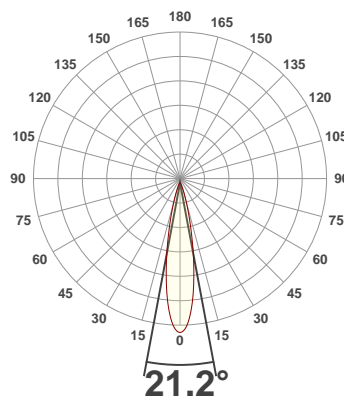
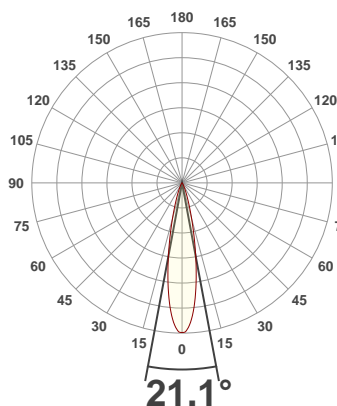
PRODUCT INFORMATION

SERIAL NUMBER:	LL-200228-0339
DATE OF MEASUREMENT:	2020-02-28
SIZE (dia. x h):	310 mm x 85 mm

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA



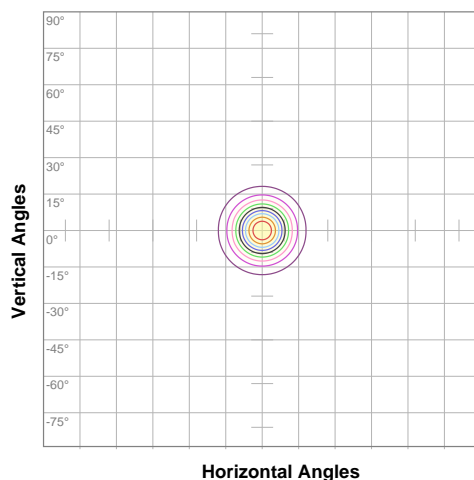
TOTAL LUMEN OUTPUT:	10286 lm
EFFICACY:	106 lm/W
PEAK INTENSITY:	57275 cd
COLOR RENDERING INDEX (CRI):	81.1
COLOR TEMPERATURE (CCT):	3790K
FIDELITY INDEX (TM30Rf):	82.2
GAMUT INDEX (TM30Rg):	98.2

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	21.1°
BEAM ANGLE (FWHM) C90/270:	21.2°
FIELD ANGLE (10%) C0/180:	40.2°
FIELD ANGLE (10%) C90/270:	40.4°
NUMBER OF PLANES MEASURED:	12

ISO CANDELA DIAGRAM

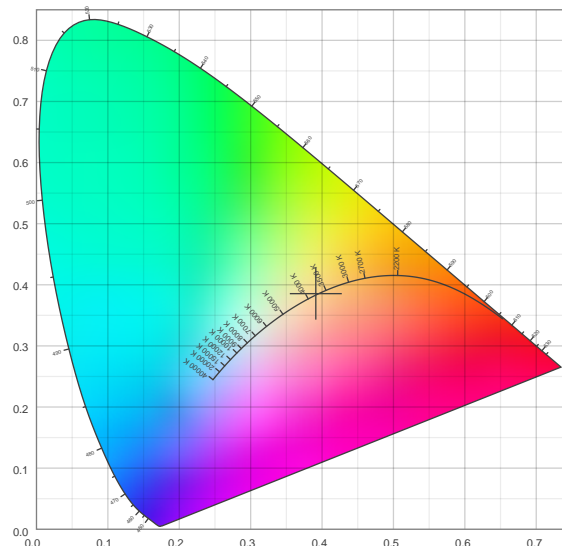
DATA



10%	5720 cd
20%	11441 cd
30%	17161 cd
40%	22881 cd
50%	28602 cd
60%	34322 cd
70%	40042 cd
80%	45763 cd
90%	51483 cd

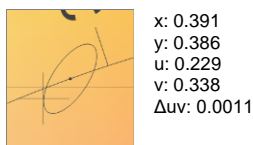
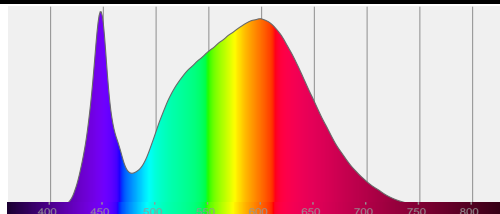
INPUT POWER:	96.9 W
POWER FACTOR:	1.0
OPTICAL POWER:	31.0 mW
PEAK WAVELENGTH:	448 nm
DOMINANT WAVELENGTH:	581 nm

CIE 1931:



SPECTRA

CIE 1931 ZOOM



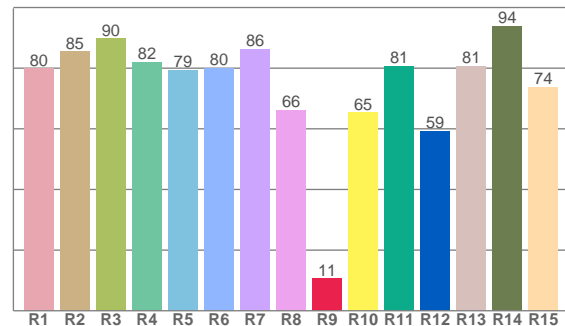
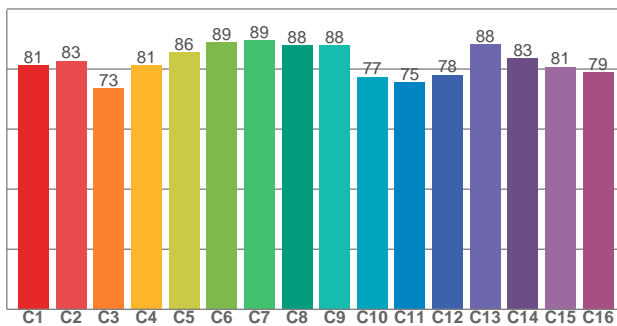
ZONAL LUMEN SUMMARY

0°-10° 4085 lm	10°-20° 4071 lm	20°-30° 1255 lm	30°-40° 412 lm	40°-50° 209 lm	50°-60° 138 lm	60°-70° 85.0 lm	70°-80° 29.9 lm	80°-90° 0.593 lm
90°-100° 0.004 lm	100°-110° 0.003 lm	110°-120° 0.003 lm	120°-130° 0.002 lm	130°-140° 0.001 lm	140°-150° 0.001 lm	150°-160° 0.001 lm	160°-170° 0.000 lm	170°-180° 0.000 lm

COLOR DETAILS

TM30: 82.2

CRI: 81.1 (R1-R8)



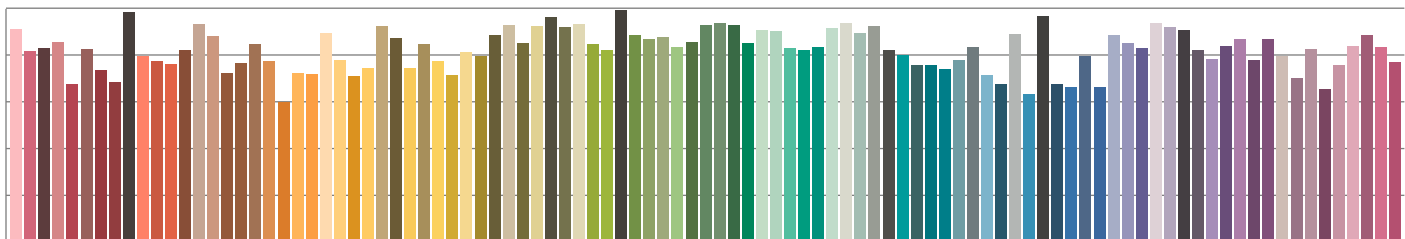
TM30 C values, 16 binned values out of total of 99 C values

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
81.1	82.7	73.5	81.2	85.5	88.8	89.5	87.9	88.0	77.5	75.5	78.1	88.3	83.5	80.7	78.9

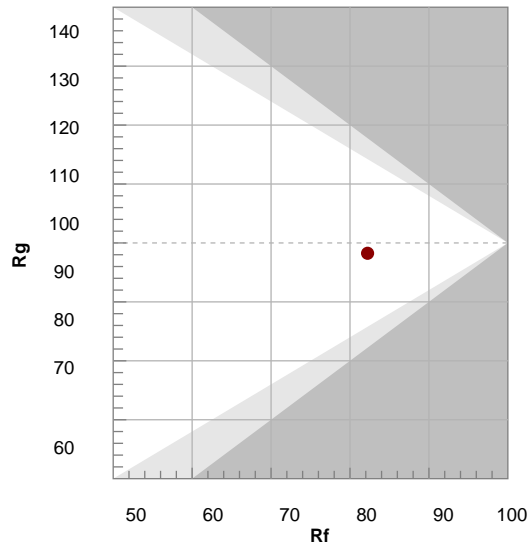
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
79.9	85.4	89.8	82.1	79.4	80.0	86.2	66.3	10.6	65.4	80.8	59.3	80.7	94.0	73.7

TM30 COLOR EVALUATION SAMPLE



TM30 DETAILS

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-11%	-2%
2	83	-8%	6%
3	73	-4%	14%
4	81	3%	12%
5	86	7%	7%
6	89	7%	-2%
7	89	0%	-7%
8	88	-5%	-6%
9	88	-8%	0%
10	77	-10%	9%
11	75	-1%	17%
12	78	6%	11%
13	88	7%	1%
14	83	10%	-9%
15	81	2%	-14%
16	79	-4%	-13%



FIDELITY INDEX

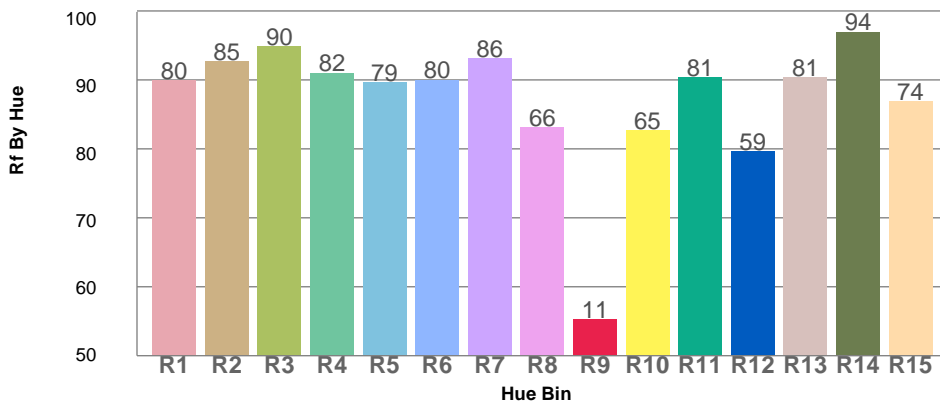
R_f 82.2

GAMUT INDEX

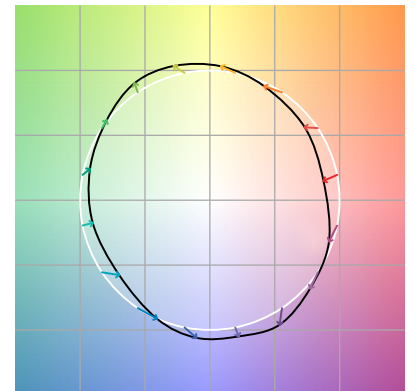
R_g 98.2

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

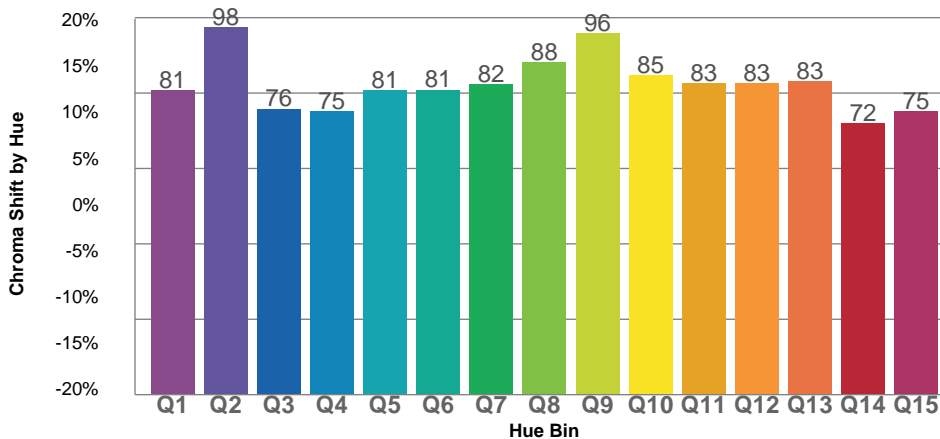
TM30 OVER 50



COLOR VECTOR GRAPHICS



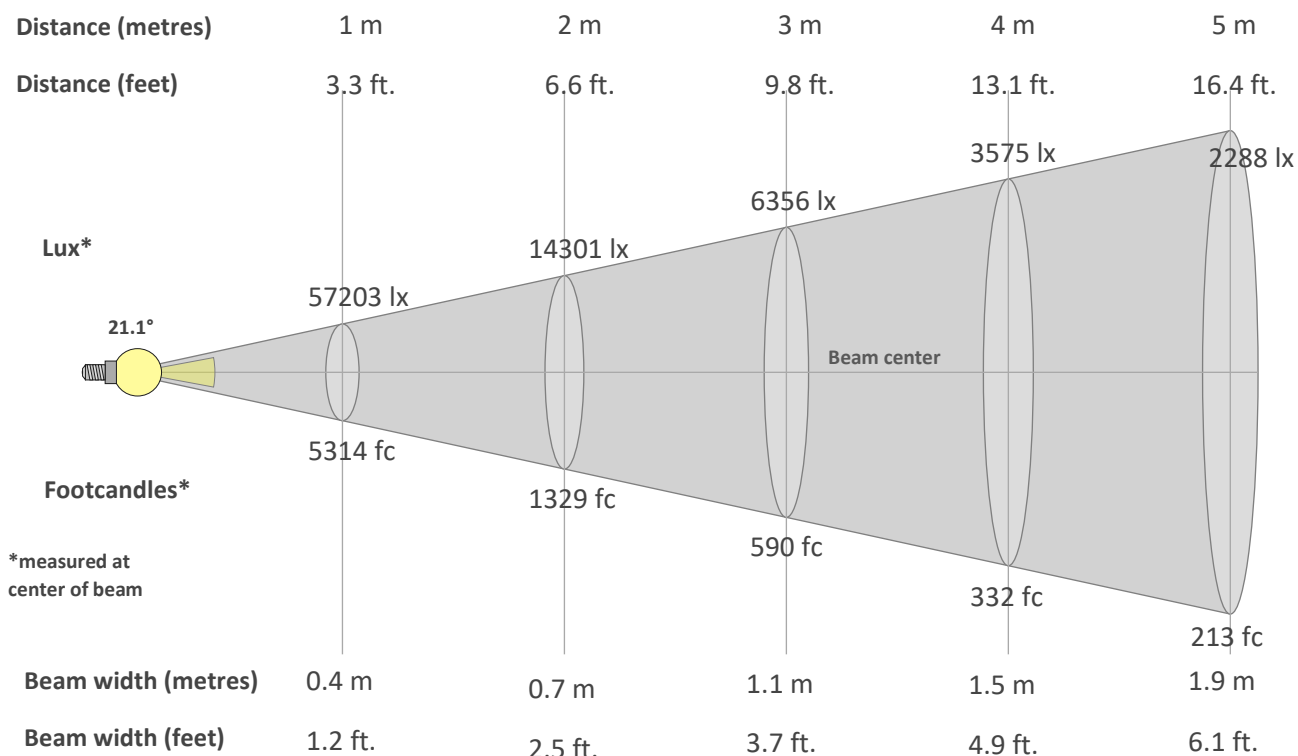
TM30 CHROMA SHIFT



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
57203lx	14301lx	6356lx	3575lx	2288lx	1589lx	1167lx	894lx	706lx	572lx	473lx	397lx	338lx	292lx	254lx	223lx	198lx	177lx	158lx	143lx
5314.4fc	1328.6fc	590.5fc	332.1fc	212.6fc	147.6fc	108.5fc	83fc	65.6fc	53.1fc	43.9fc	36.9fc	31.4fc	27.1fc	23.6fc	20.8fc	18.4fc	16.4fc	14.7fc	13.3fc

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°
57.2K	55.9K	52.0K	45.9K	38.5K	30.5K	23.1K	16.7K	11.8K	8.2K	5.8K	4.1K	2.9K	2.1K	1.5K	1.1K	0.9K	0.7K	0.5K	0.4K
100%	98%	91%	80%	67%	53%	40%	29%	21%	14%	10%	7%	5%	4%	3%	2%	2%	1%	1%	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°
57.2K	55.9K	52.0K	46.0K	38.6K	30.8K	23.4K	17.1K	12.1K	8.5K	5.9K	4.2K	3.0K	2.2K	1.6K	1.2K	0.9K	0.7K	0.6K	0.5K
100%	98%	91%	80%	67%	54%	41%	30%	21%	15%	10%	7%	5%	4%	3%	2%	2%	1%	1%	1%

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°
57.2K	55.9K	52.0K	45.9K	38.5K	30.5K	23.1K	16.7K	11.8K	8.2K	5.8K	4.1K	2.9K	2.1K	1.5K	1.1K	0.9K	0.7K	0.5K	0.4K
100%	98%	91%	80%	67%	53%	40%	29%	21%	14%	10%	7%	5%	4%	3%	2%	2%	1%	1%	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°
57.2K	55.9K	52.0K	46.0K	38.6K	30.8K	23.4K	17.1K	12.1K	8.5K	5.9K	4.2K	3.0K	2.2K	1.6K	1.2K	0.9K	0.7K	0.6K	0.5K
100%	98%	91%	80%	67%	54%	41%	30%	21%	15%	10%	7%	5%	4%	3%	2%	2%	1%	1%	1%