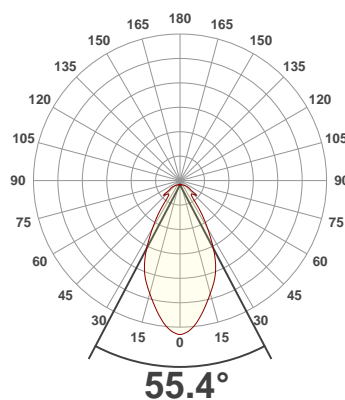
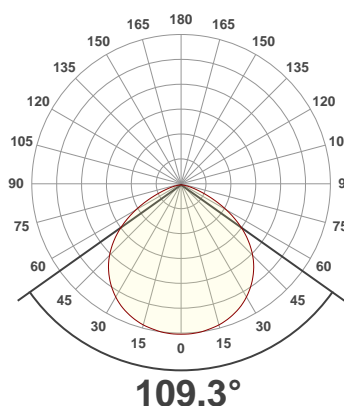




PRODUCT INFORMATION

SERIAL NUMBER:	LL-200409-0638
DATE OF MEASUREMENT:	2020-04-09
SIZE (l x w. x h):	297 mm x 34.9 mm x 34.4 mm

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

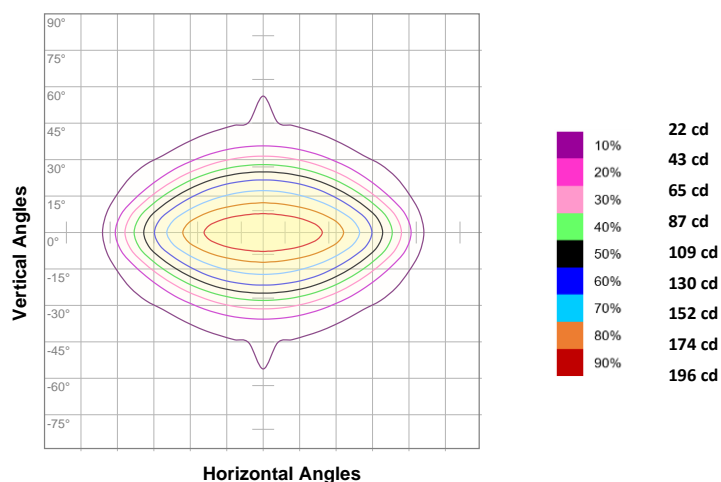


TOTAL LUMEN OUTPUT:	340 lm
EFFICACY:	113 lm/W
PEAK INTENSITY:	218 cd
COLOR RENDERING INDEX (CRI):	84.7
COLOR TEMPERATURE (CCT):	4074K
FIDELITY INDEX (TM30Rf):	82.8
GAMUT INDEX (TM30Rg):	92.5

BEAM OUTPUT DATA

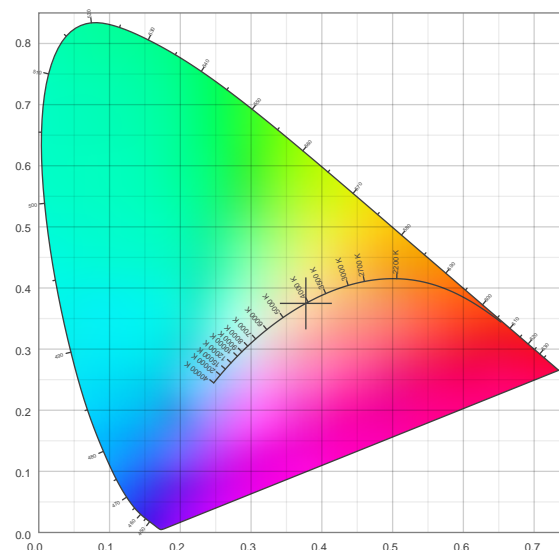
BEAM ANGLE (FWHM) C0/180:	109.3°
BEAM ANGLE (FWHM) C90/270:	55.4°
FIELD ANGLE (10%) C0/180:	147.2°
FIELD ANGLE (10%) C90/270:	124.8°
NUMBER OF PLANES MEASURED:	24

ISOCANDELA DIAGRAM

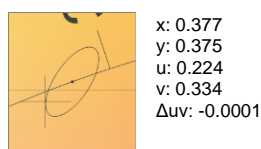


INPUT POWER:	3.0 W
POWER FACTOR:	1.0
OPTICAL POWER:	1.05 mW
PEAK WAVELENGTH:	458 nm
DOMINANT WAVELENGTH:	581 nm

CIE 1931



SPECTRAL DISTRIBUTION | CIE 1931 ZOOM



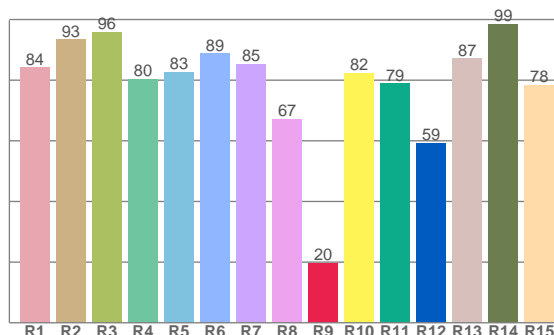
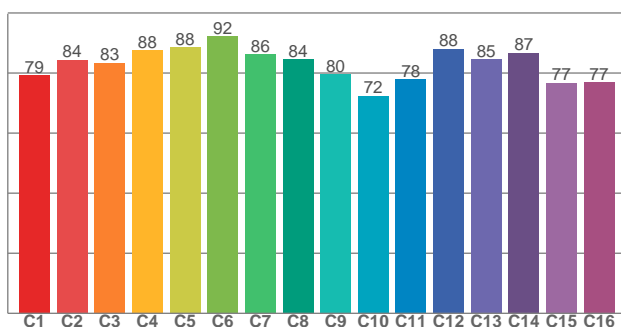
ZONAL LUMEN SUMMARY

0°-10° 20.0 lm	10°-20° 52.4 lm	20°-30° 70.7 lm	30°-40° 68.5 lm	40°-50° 51.5 lm	50°-60° 35.8 lm	60°-70° 24.0 lm	70°-80° 11.6 lm	80°-90° 3.94 lm
90°-100° 0.548 lm	100°-110° 0.516 lm	110°-120° 0.313 lm	120°-130° 0.218 lm	130°-140° 0.156 lm	140°-150° 0.109 lm	150°-160° 0.080 lm	160°-170° 0.049 lm	170°-180° 0.016 lm

COLOR DETAILS

TM30: 82.8

CRI: 84.7 (R1-R8)



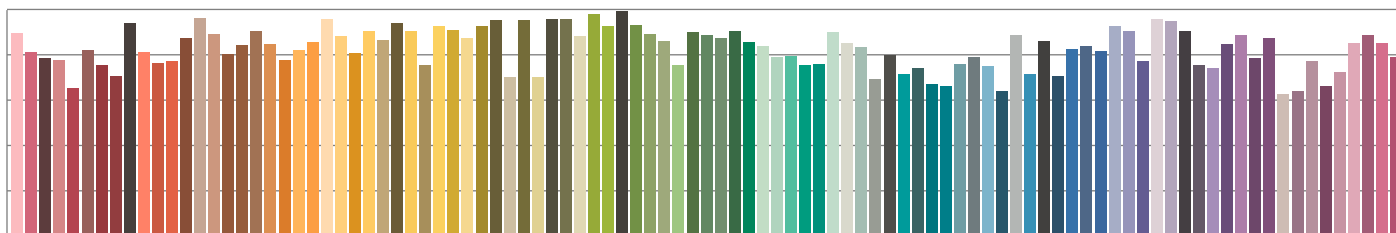
TM30 C values, 16 binned values out of total of 99 C values

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
79.3	84.4	83.4	87.6	88.5	92.1	86.3	84.5	79.6	72.4	77.8	88.0	84.6	86.8	76.8	76.9

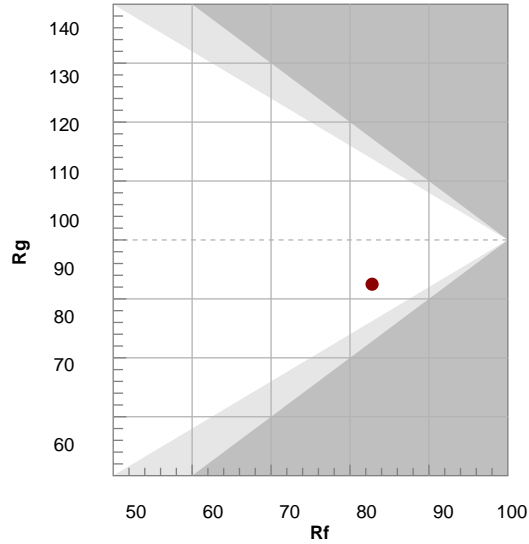
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
84.2	93.4	95.8	80.3	82.7	88.8	85.2	67.1	19.8	82.3	78.9	59.4	87.2	98.5	78.4

TM30 COLOR EVALUATION SAMPLE



TM30 DETAILS

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	79	-11%	2%
2	84	-6%	5%
3	83	-4%	7%
4	88	-3%	3%
5	88	-6%	1%
6	92	-4%	-2%
7	86	-9%	1%
8	84	-8%	5%
9	80	-6%	14%
10	72	-4%	17%
11	78	5%	14%
12	88	6%	2%
13	85	6%	-10%
14	87	0%	-7%
15	77	-3%	-16%
16	77	-7%	-11%



FIDELITY INDEX

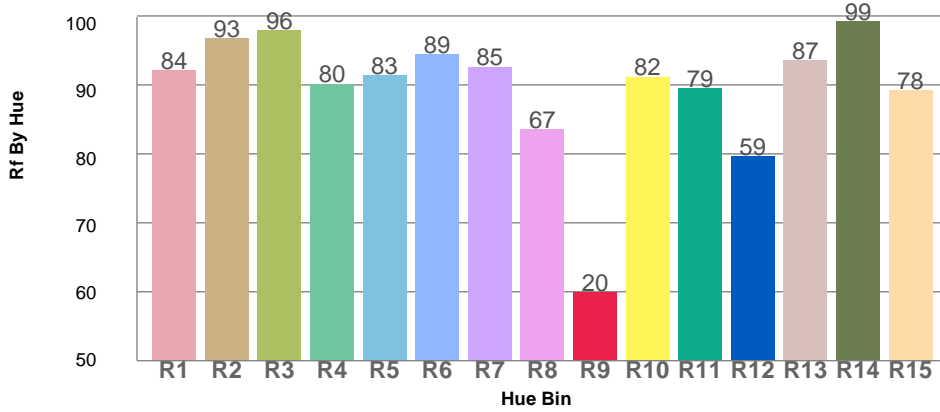
R_f 82.8

GAMUT INDEX

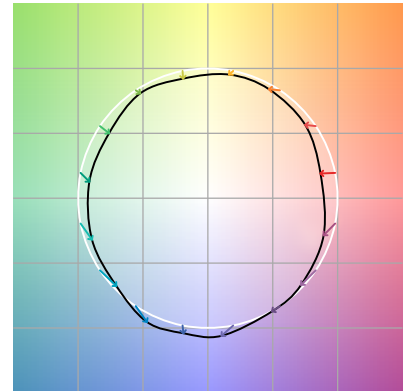
R_g 92.5

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

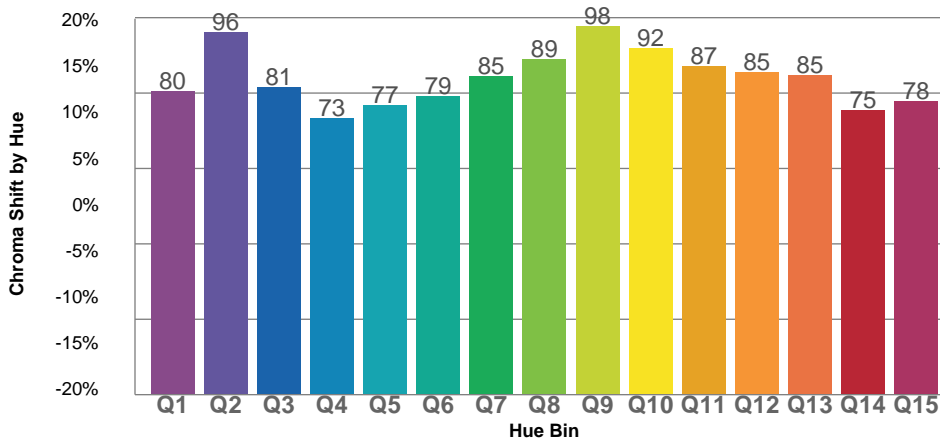
TM30 OVER 50



COLOR VECTOR GRAPHICS



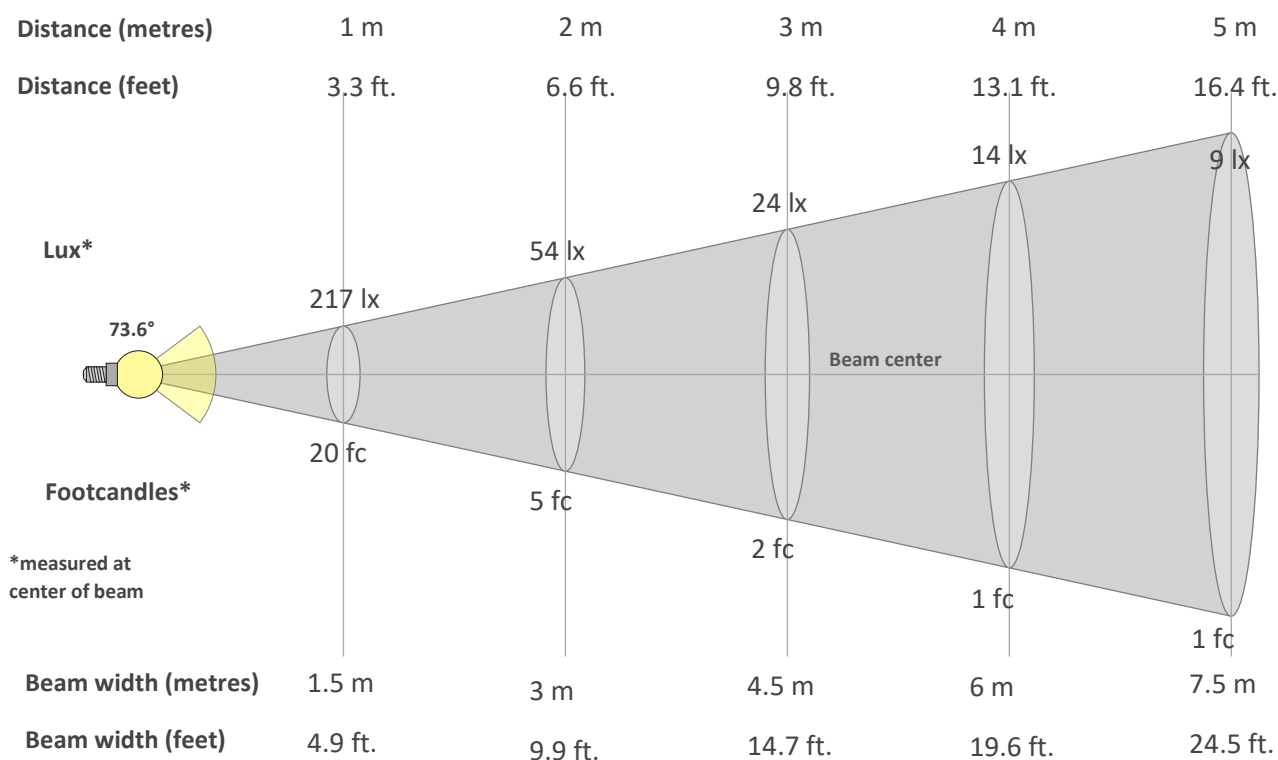
TM30 CHROMA SHIFT



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
217lx	54lx	24lx	14lx	9lx	6lx	4lx	3lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
20.2fc	5fc	2.2fc	1.3fc	0.8fc	0.6fc	0.4fc	0.3fc	0.2fc	0.2fc	0.2fc	0.2fc	0.1fc	0.1fc	0.1fc	0.1fc	0.1fc	0.1fc	0.1fc	0.1fc

Intensity in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
217	217	214	211	206	199	190	178	165	149	129	107	82	56	34	18	8	3	0	0
100%	100%	99%	97%	95%	92%	87%	82%	76%	68%	59%	49%	38%	26%	15%	8%	4%	1%	0%	0%

Intensity in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
217	209	190	168	149	125	94	65	42	27	22	24	26	18	15	12	8	5	1	1
100%	96%	87%	77%	68%	58%	43%	30%	19%	13%	10%	11%	12%	8%	7%	5%	4%	2%	0%	0%

Intensity in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
217	217	214	211	206	199	190	178	165	149	129	107	82	56	34	18	8	3	0	0
100%	100%	99%	97%	95%	92%	87%	82%	76%	68%	59%	49%	38%	26%	15%	8%	4%	1%	0%	0%

Intensity in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
217	209	190	168	149	125	94	65	42	27	22	24	26	18	15	12	8	5	1	1
100%	96%	87%	77%	68%	58%	43%	30%	19%	13%	10%	11%	12%	8%	7%	5%	4%	2%	0%	0%