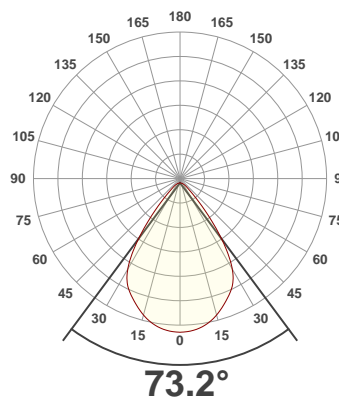
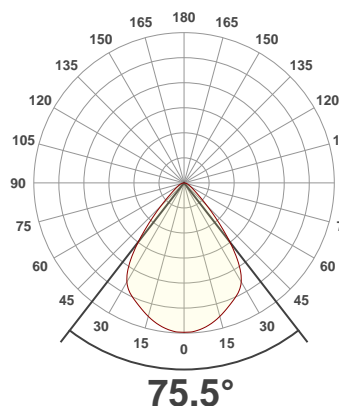




PRODUCT INFORMATION

SERIAL NUMBER:	LL-200302-0344
DATE OF MEASUREMENT:	2020-03-02
SIZE (dia. x h):	310 mm x 85 mm

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

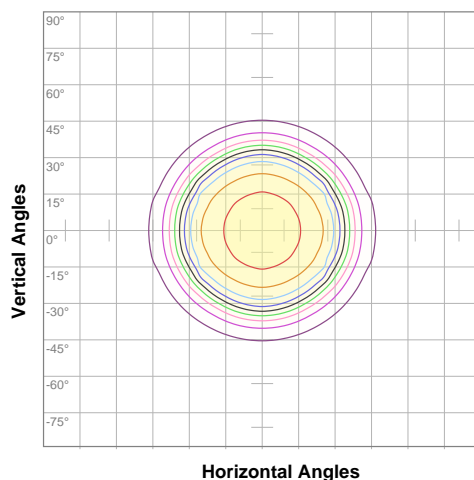


TOTAL LUMEN OUTPUT:	10077 lm
EFFICACY:	104 lm/W
PEAK INTENSITY:	7331 cd
COLOR RENDERING INDEX (CRI):	81.2
COLOR TEMPERATURE (CCT):	3811K
FIDELITY INDEX (TM30Rf):	82.2
GAMUT INDEX (TM30Rg):	98.2

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	75.5°
BEAM ANGLE (FWHM) C90/270:	73.2°
FIELD ANGLE (10%) C0/180:	103.8°
FIELD ANGLE (10%) C90/270:	101.6°
NUMBER OF PLANES MEASURED:	12

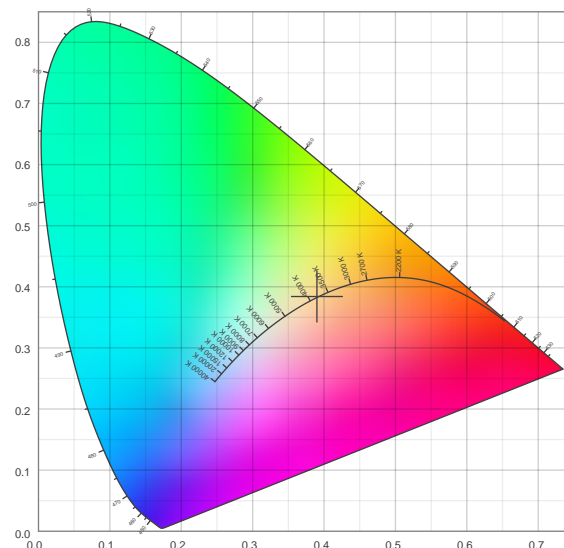
ISO CANDELA DIAGRAM | DATA



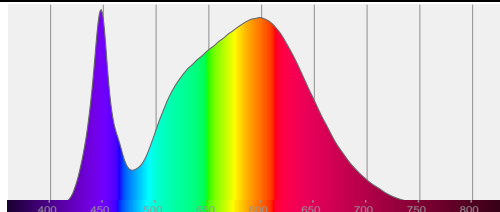
10%	733 cd
20%	1465 cd
30%	2198 cd
40%	2931 cd
50%	3664 cd
60%	4396 cd
70%	5129 cd
80%	5862 cd
90%	6594 cd

INPUT POWER:	96.9 W
POWER FACTOR:	1.0
OPTICAL POWER:	30.4 mW
PEAK WAVELENGTH:	448 nm
DOMINANT WAVELENGTH:	581 nm

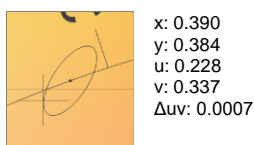
CIE 1931:



SPECTRA



CIE 1931 ZOOM



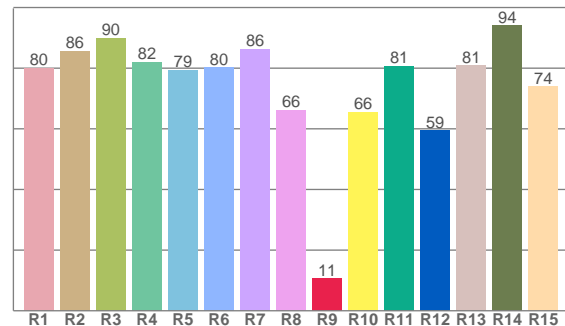
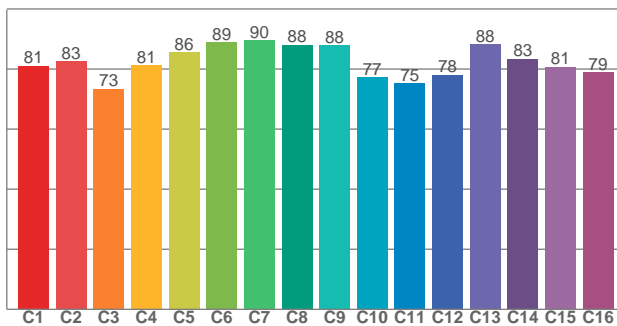
ZONAL LUMEN SUMMARY

0°-10° 688 lm	10°-20° 1907 lm	20°-30° 2748 lm	30°-40° 2597 lm	40°-50° 1211 lm	50°-60° 491 lm	60°-70° 276 lm	70°-80° 136 lm	80°-90° 22.2 lm
90°-100° 0.002 lm	100°-110° 0.002 lm	110°-120° 0.001 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: 82.2

CRI: 81.2 (R1-R8)



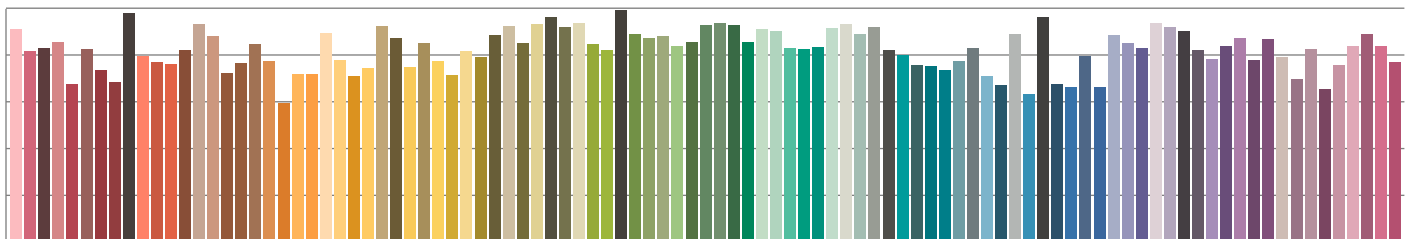
TM30 C values, 16 binned values out of total of 99 C values

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	82.6	73.4	81.3	85.6	89.0	89.6	88.0	88.0	77.2	75.3	78.0	88.3	83.4	80.7	78.9

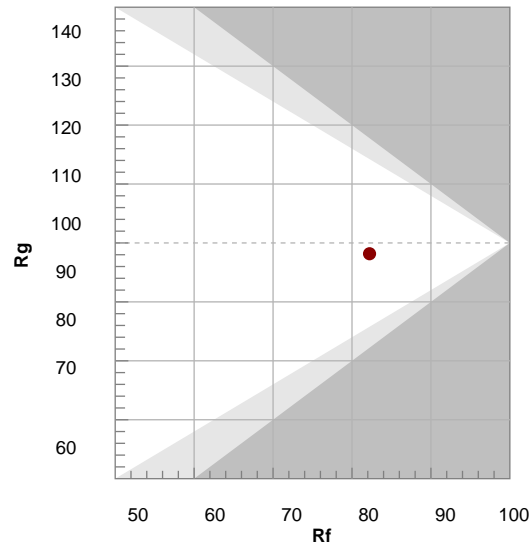
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80.0	85.6	89.9	82.0	79.5	80.1	86.2	66.3	10.6	65.6	80.7	59.4	80.8	94.0	73.9

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	90	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%	-13%
16	79	-4%	-13%



FIDELITY INDEX

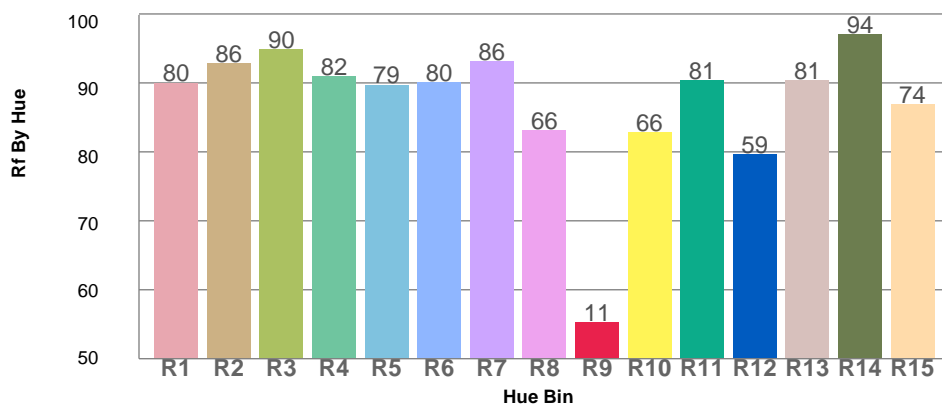
R_f 82.2

GAMUT INDEX

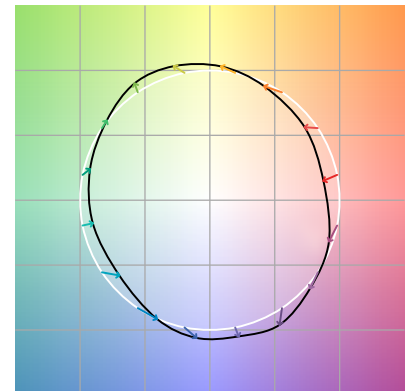
R_g 98.2

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

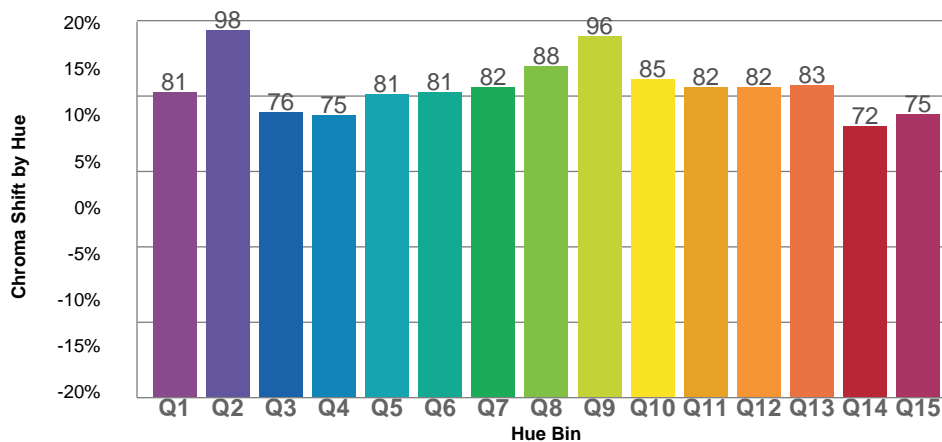
TM30 OVER 50



COLOR VECTOR GRAPHICS



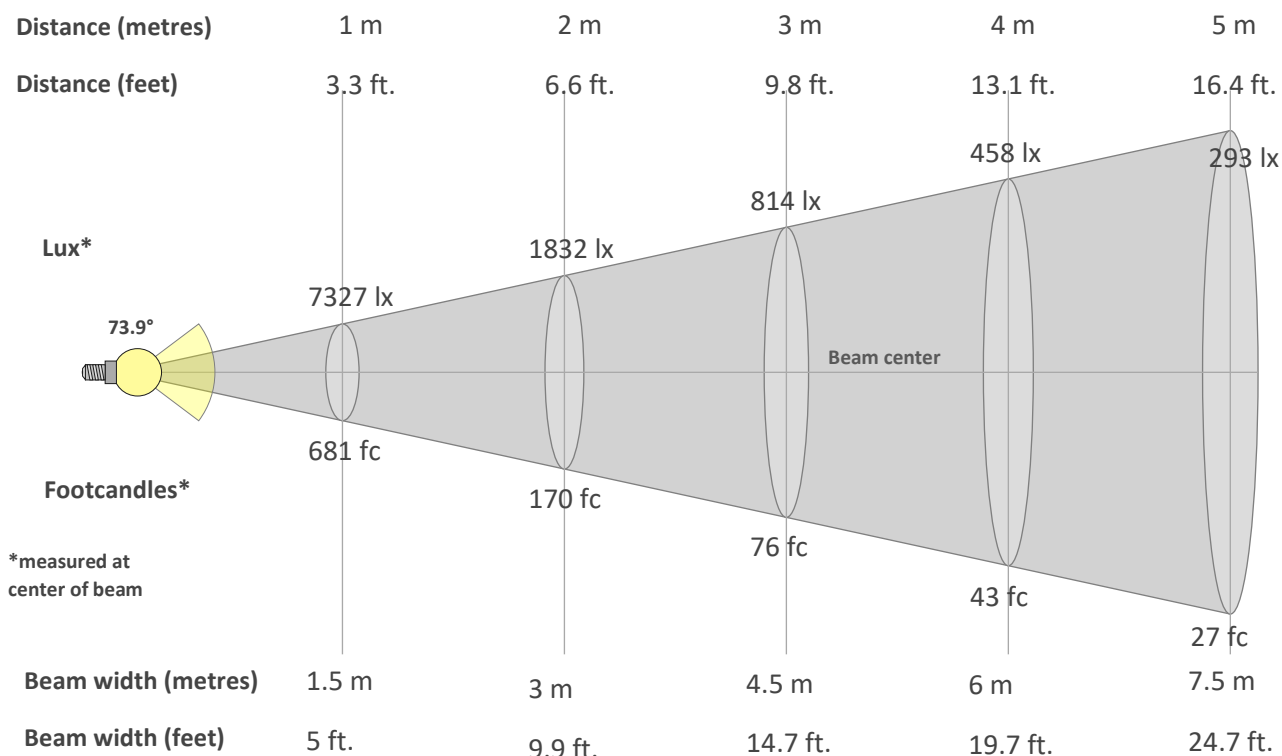
TM30 CHROMA SHIFT



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
7327lx	1832lx	814lx	458lx	293lx	204lx	150lx	114lx	90lx	73lx	61lx	51lx	43lx	37lx	33lx	29lx	25lx	23lx	20lx	18lx
680.7fc	170.2fc	75.6fc	42.5fc	27.2fc	18.9fc	13.9fc	10.6fc	8.4fc	6.8fc	5.6fc	4.7fc	4fc	3.5fc	3fc	2.7fc	2.4fc	2.1fc	1.9fc	1.7fc

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°
7327	7261	7067	6771	6423	6087	5594	4517	2939	1621	891	551	383	280	199	129	64	14	0	0
100%	99%	96%	92%	88%	83%	76%	62%	40%	22%	12%	8%	5%	4%	3%	2%	1%	0%	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°
7327	7275	7105	6803	6393	5950	5335	4151	2601	1414	793	509	365	271	194	127	64	13	0	0
100%	99%	97%	93%	87%	81%	73%	57%	35%	19%	11%	7%	5%	4%	3%	2%	1%	0%	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°
7327	7261	7067	6771	6423	6087	5594	4517	2939	1621	891	551	383	280	199	129	64	14	0	0
100%	99%	96%	92%	88%	83%	76%	62%	40%	22%	12%	8%	5%	4%	3%	2%	1%	0%	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°
7327	7275	7105	6803	6393	5950	5335	4151	2601	1414	793	509	365	271	194	127	64	13	0	0
100%	99%	97%	93%	87%	81%	73%	57%	35%	19%	11%	7%	5%	4%	3%	2%	1%	0%	0%	0%