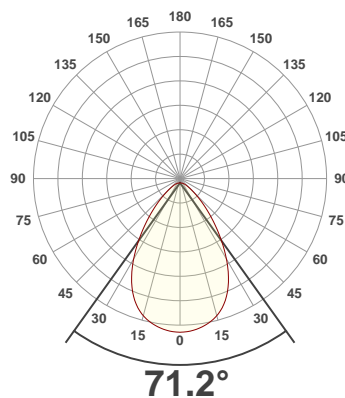
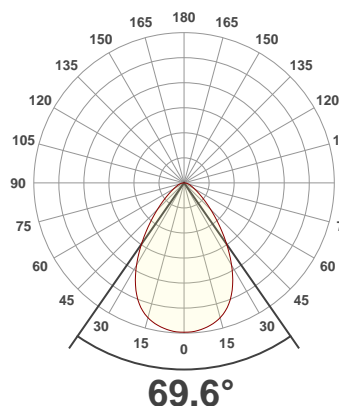




PRODUCT INFORMATION

SERIAL NUMBER:	LL-200302-0346
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

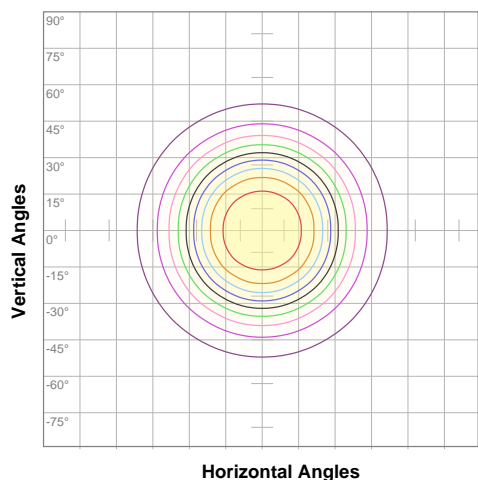


TOTAL LUMEN OUTPUT:	9650 lm
EFFICACY:	100 lm/W
PEAK INTENSITY:	6638 cd
COLOR RENDERING INDEX (CRI):	81.2
COLOR TEMPERATURE (CCT):	3803K
FIDELITY INDEX (TM30Rf):	82.3
GAMUT INDEX (TM30Rg):	98.0

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	69.6°
BEAM ANGLE (FWHM) C90/270:	71.2°
FIELD ANGLE (10%) C0/180:	114.5°
FIELD ANGLE (10%) C90/270:	116.1°
NUMBER OF PLANES MEASURED:	12

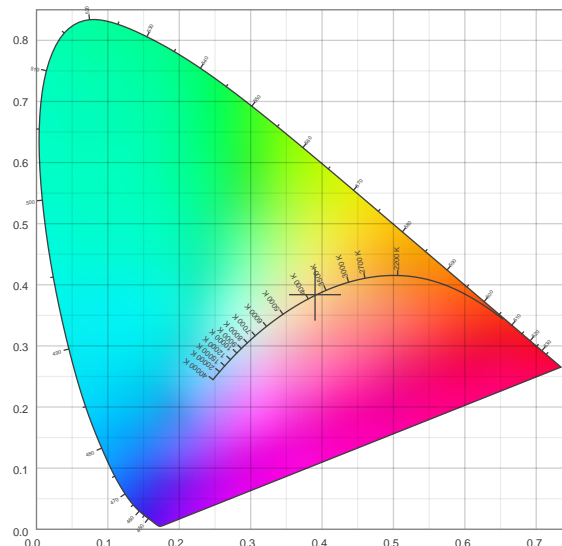
ISO CANDELA DIAGRAM | DATA



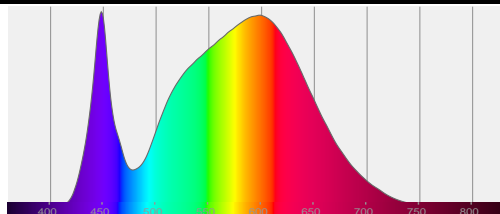
10%	664 cd
20%	1327 cd
30%	1991 cd
40%	2654 cd
50%	3318 cd
60%	3981 cd
70%	4645 cd
80%	5308 cd
90%	5972 cd

INPUT POWER:	96.9 W
POWER FACTOR:	1.0
OPTICAL POWER:	29.2 mW
PEAK WAVELENGTH:	448 nm
DOMINANT WAVELENGTH:	581 nm

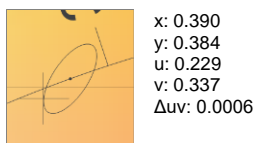
CIE 1931:



SPECTRA



CIE 1931 ZOOM



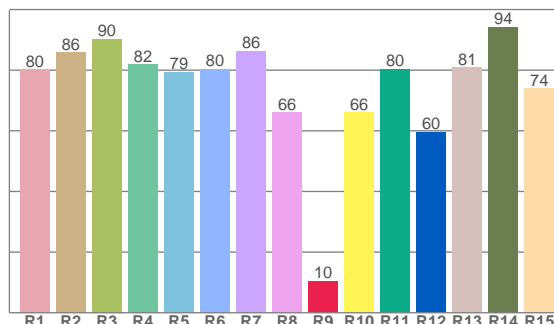
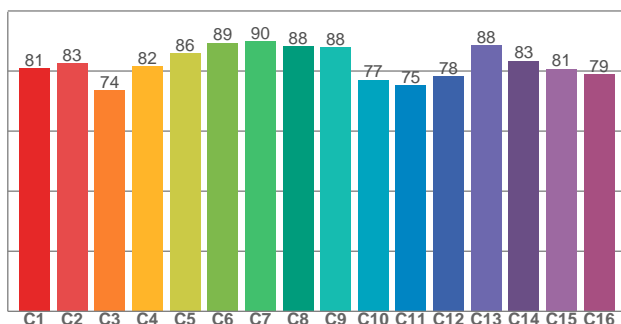
ZONAL LUMEN SUMMARY

0°-10° 624 lm	10°-20° 1739 lm	20°-30° 2349 lm	30°-40° 2112 lm	40°-50° 1379 lm	50°-60° 751 lm	60°-70° 405 lm	70°-80° 221 lm	80°-90° 67.6 lm
90°-100° 0.968 lm	100°-110° 0.939 lm	110°-120° 0.466 lm	120°-130° 0.331 lm	130°-140° 0.159 lm	140°-150° 0.043 lm	150°-160° 0.032 lm	160°-170° 0.019 lm	170°-180° 0.007 lm

COLOR DETAILS

TM30: 82.3

CRI: 81.2 (R1-R8)



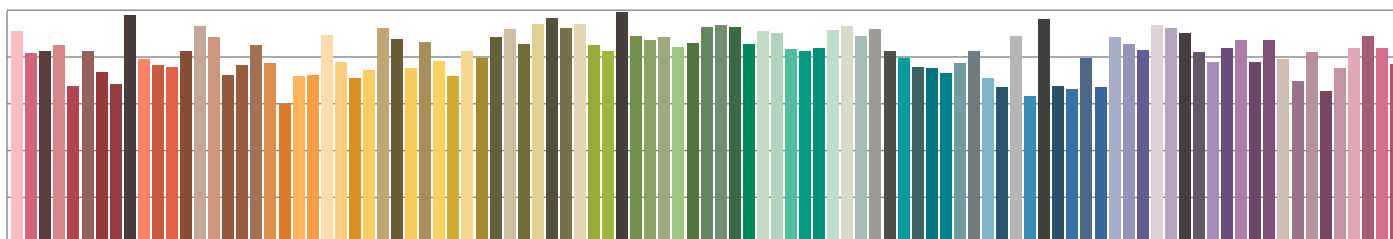
TM30 C values, 16 binned values out of total of 99 C values

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
81.0	82.5	73.5	81.6	86.0	89.4	89.8	88.2	88.0	77.0	75.3	78.3	88.5	83.4	80.7	79.0

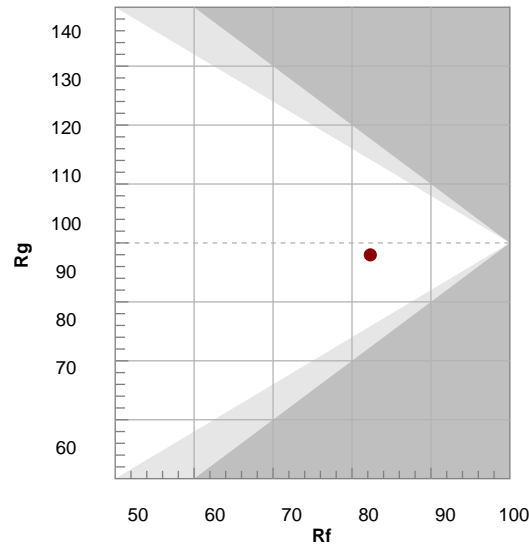
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80.0	85.8	90.2	81.9	79.4	80.4	86.2	66.0	10.4	66.1	80.3	59.6	80.9	94.2	73.9

TM30 COLOR EVALUATION SAMPLE



TM30 DETAILS

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-11%	-2%
2	83	-8%	6%
3	74	-4%	14%
4	82	3%	11%
5	86	6%	7%
6	89	7%	-2%
7	90	0%	-7%
8	88	-5%	-5%
9	88	-8%	0%
10	77	-10%	10%
11	75	-1%	17%
12	78	6%	10%
13	88	7%	1%
14	83	10%	-9%
15	81	2%	-14%
16	79	-4%	-13%



FIDELITY INDEX

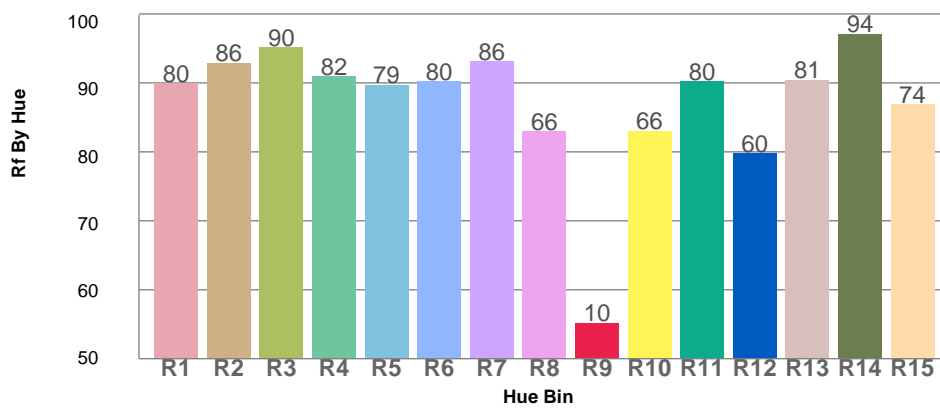
R_f 82.3

GAMUT INDEX

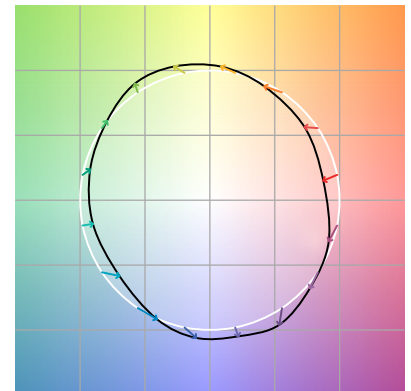
R_g 98.0

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

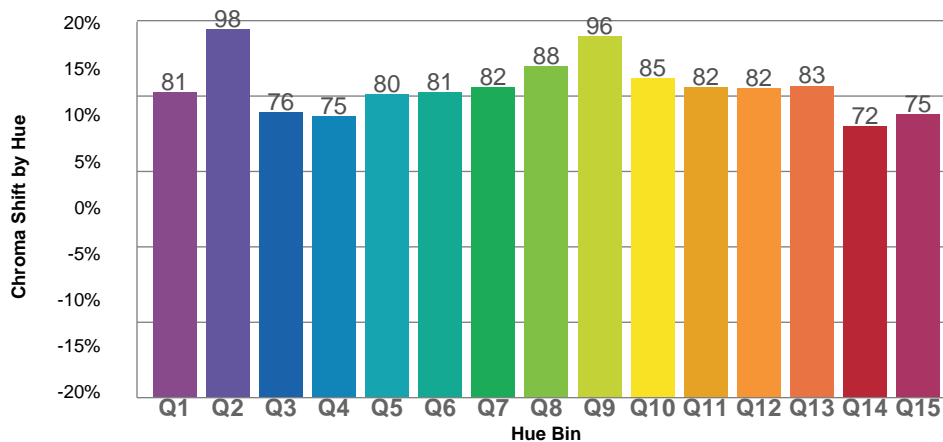
TM30 OVER 50



COLOR VECTOR GRAPHICS



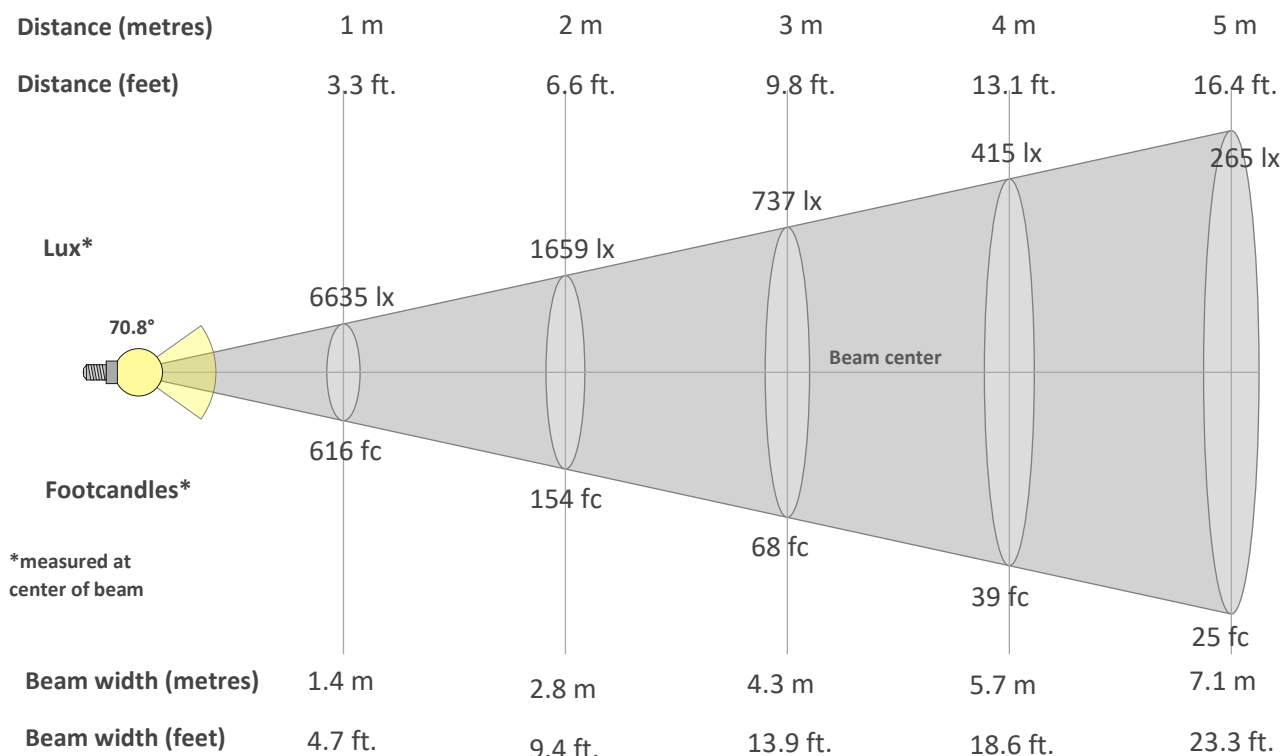
TM30 CHROMA SHIFT



COLOR DISTORTION GRAPHICS



BEAM DETAILS



*measured at center of beam

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
6635lx	1659lx	737lx	415lx	265lx	184lx	135lx	104lx	82lx	66lx	55lx	46lx	39lx	34lx	29lx	26lx	23lx	20lx	18lx	17lx
616.4fc	154.1fc	68.5fc	38.5fc	24.7fc	17.1fc	12.6fc	9.6fc	7.6fc	6.2fc	5.1fc	4.3fc	3.6fc	3.1fc	2.7fc	2.4fc	2.1fc	1.9fc	1.7fc	1.5fc

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°
6635	6584	6441	6188	5753	5081	4214	3274	2392	1675	1146	781	544	390	285	205	133	60	2	2
100%	99%	97%	93%	87%	77%	64%	49%	36%	25%	17%	12%	8%	6%	4%	3%	2%	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°
6635	6583	6435	6186	5778	5161	4348	3428	2541	1798	1235	838	575	405	291	208	134	62	2	2
100%	99%	97%	93%	87%	78%	66%	52%	38%	27%	19%	13%	9%	6%	4%	3%	2%	1%	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°
6635	6584	6441	6188	5753	5081	4214	3274	2392	1675	1146	781	544	390	285	205	133	60	2	2
100%	99%	97%	93%	87%	77%	64%	49%	36%	25%	17%	12%	8%	6%	4%	3%	2%	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°
6635	6583	6435	6186	5778	5161	4348	3428	2541	1798	1235	838	575	405	291	208	134	62	2	2
100%	99%	97%	93%	87%	78%	66%	52%	38%	27%	19%	13%	9%	6%	4%	3%	2%	1%	0%	0%