



PRODUCT INFORMATION

SERIAL NUMBER: **LL-200302-0345**

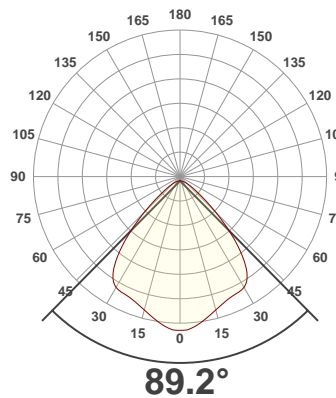
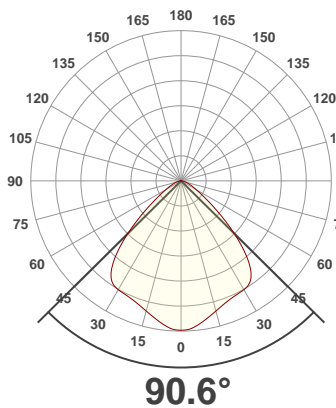
DATE OF MEASUREMENT: **2020-03-02**

SIZE (dia. x h): **310 mm x 85 mm**

ANGULAR DISTRIBUTION AT C0/180

ANGULAR DISTRIBUTION AT C90/270

LIGHT OUTPUT DATA



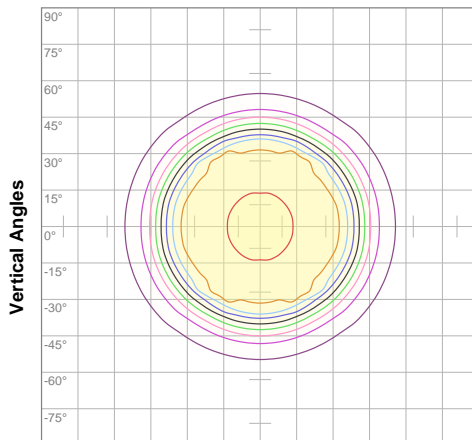
TOTAL LUMEN OUTPUT:	10078 lm
EFFICACY:	104 lm/W
PEAK INTENSITY:	5305 cd
COLOR RENDERING INDEX (CRI):	81.3
COLOR TEMPERATURE (CCT):	3812K
FIDELITY INDEX (TM30Rf):	82.3
GAMUT INDEX (TM30Rg):	98.1

BEAM OUTPUT DATA

BEAM ANGLE (FWHM) C0/180:	90.6°
BEAM ANGLE (FWHM) C90/270:	89.2°
FIELD ANGLE (10%) C0/180:	123.8°
FIELD ANGLE (10%) C90/270:	122.8°
NUMBER OF PLANES MEASURED:	12

ISO CANDELA DIAGRAM

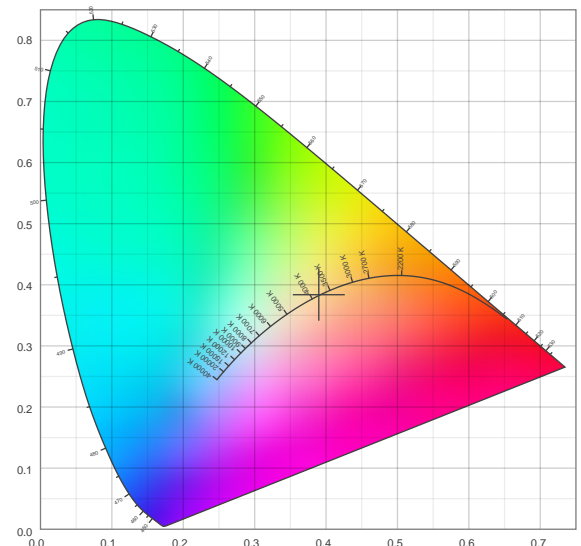
DATA



10%	530 cd
20%	1059 cd
30%	1589 cd
40%	2118 cd
50%	2648 cd
60%	3177 cd
70%	3707 cd
80%	4236 cd
90%	4766 cd

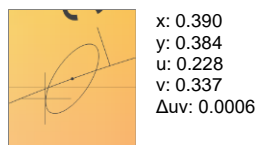
INPUT POWER:	96.9 W
POWER FACTOR:	1.0
OPTICAL POWER:	30.5 mW
PEAK WAVELENGTH:	448 nm
DOMINANT WAVELENGTH:	581 nm

CIE 1931:



SPECTRA

CIE 1931 ZOOM



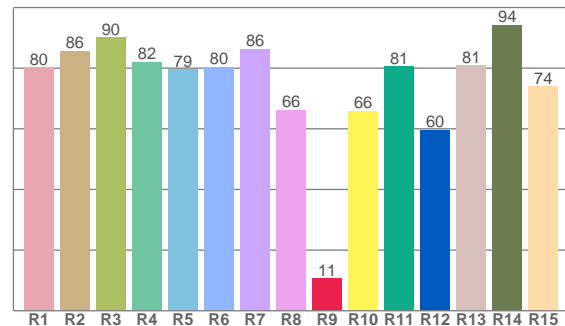
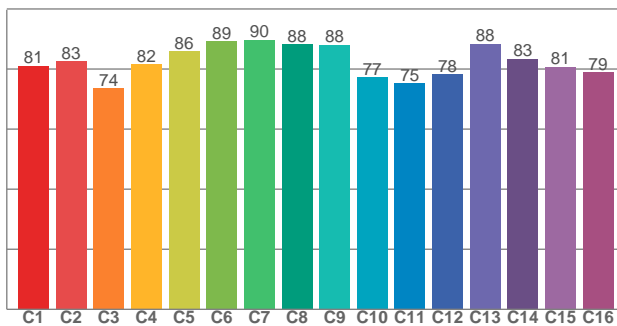
ZONAL LUMEN SUMMARY

0°-10° 490 lm	10°-20° 1351 lm	20°-30° 2081 lm	30°-40° 2600 lm	40°-50° 2013 lm	50°-60° 917 lm	60°-70° 409 lm	70°-80° 183 lm	80°-90° 33.3 lm
90°-100° 0.038 lm	100°-110° 0.036 lm	110°-120° 0.034 lm	120°-130° 0.030 lm	130°-140° 0.012 lm	140°-150° 0.001 lm	150°-160° 0.001 lm	160°-170° 0.000 lm	170°-180° 0.000 lm

COLOR DETAILS

TM30: 82.3

CRI: 81.3 (R1-R8)



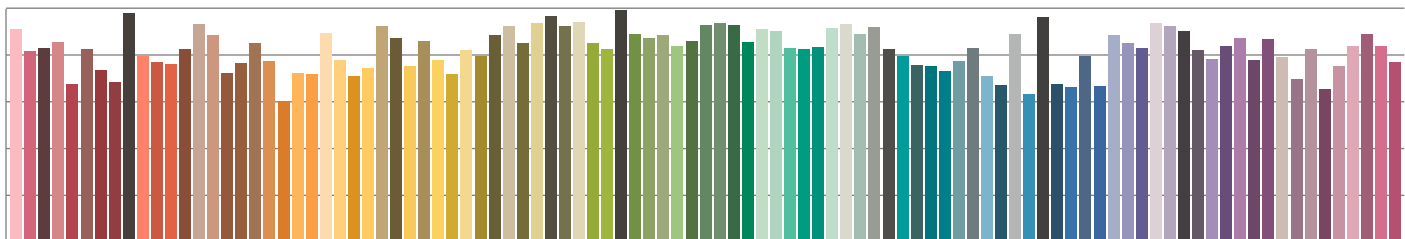
TM30 C values, 16 binned values out of total of 99 C values

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	73.5	81.5	85.8	89.2	89.7	88.2	88.0	77.2	75.3	78.2	88.4	83.4	80.7	79.0

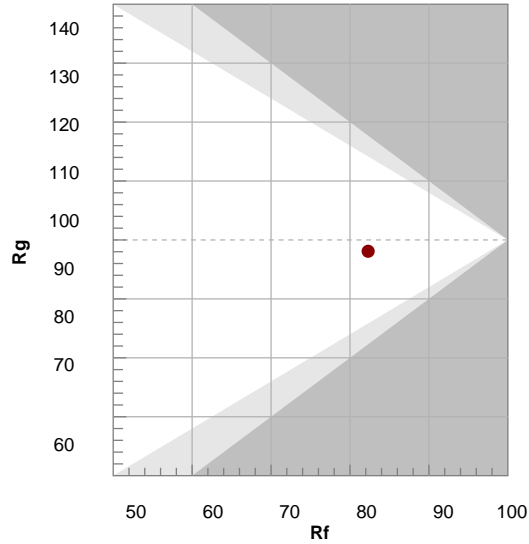
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
80.0	85.7	90.0	82.0	79.5	80.3	86.2	66.2	10.7	65.9	80.6	59.6	80.9	94.1	73.9

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%	12%
5	86	7%	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%	-13%
16	79	-4%	-13%



FIDELITY INDEX

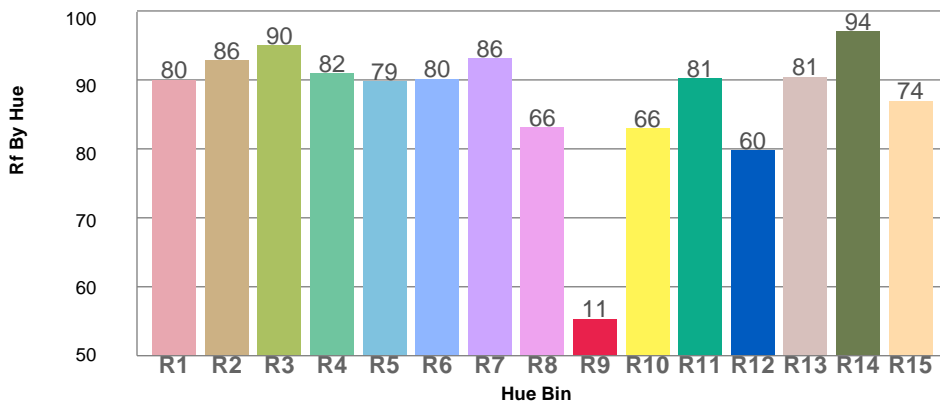
R_f 82.3

GAMUT INDEX

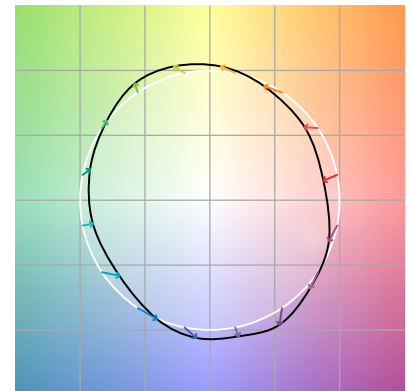
R_g 98.1

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

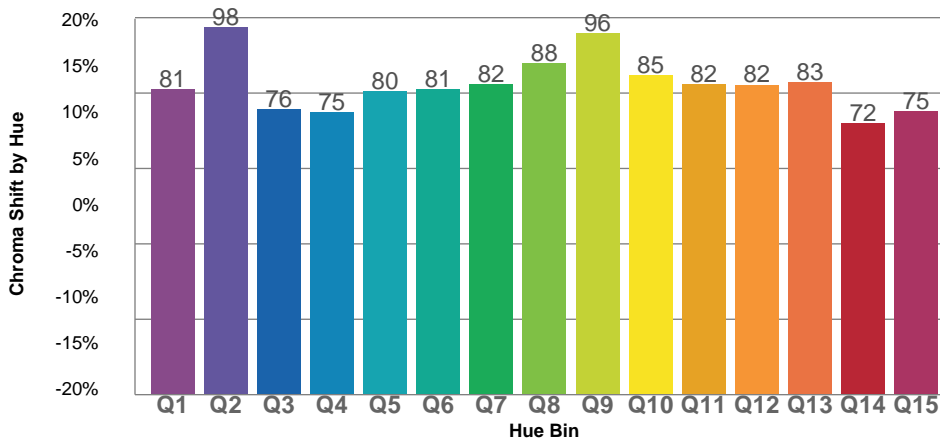
TM30 OVER 50



COLOR VECTOR GRAPHICS



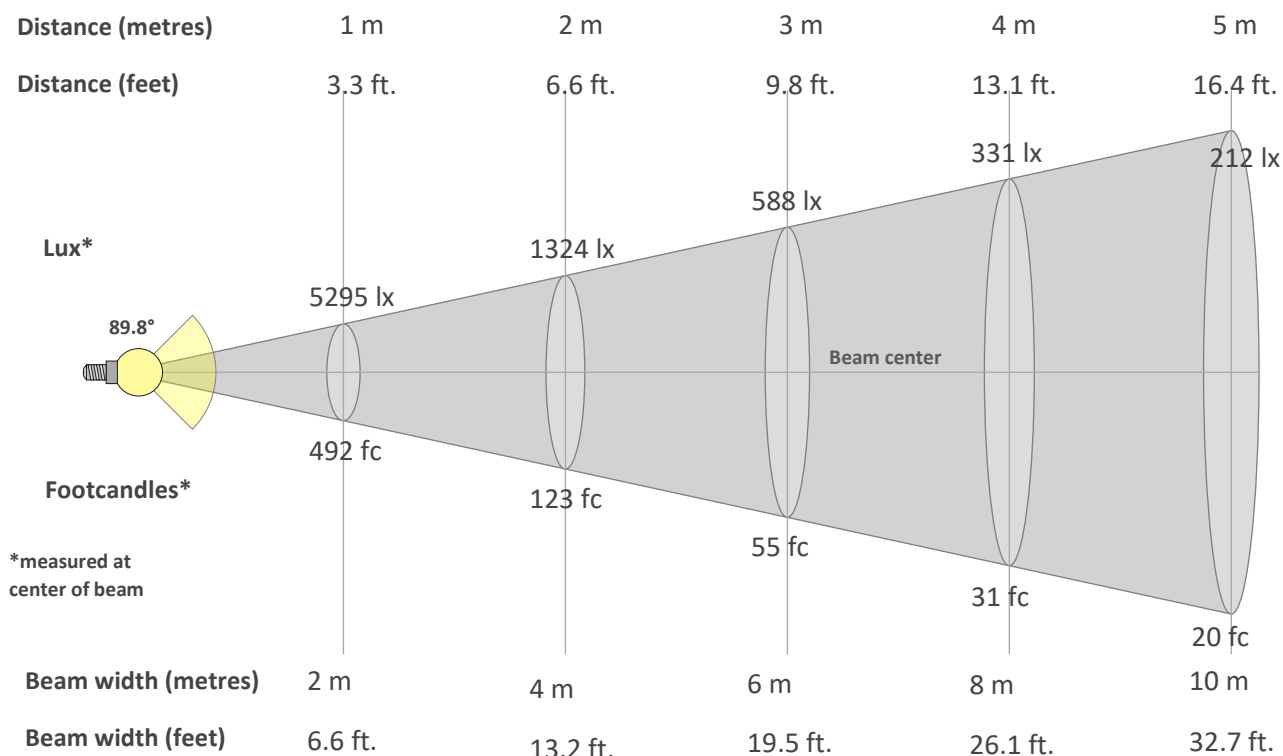
TM30 CHROMA SHIFT



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
5295lx	1324lx	588lx	331lx	212lx	147lx	108lx	83lx	65lx	53lx	44lx	37lx	31lx	27lx	24lx	21lx	18lx	16lx	15lx	13lx
491.9fc	123fc	54.7fc	30.7fc	19.7fc	13.7fc	10fc	7.7fc	6.1fc	4.9fc	4.1fc	3.4fc	2.9fc	2.5fc	2.2fc	1.9fc	1.7fc	1.5fc	1.4fc	1.2fc

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°
5295	5195	4981	4765	4593	4491	4442	4280	3697	2707	1703	1005	622	410	274	174	89	23	0	0
100%	98%	94%	90%	87%	85%	84%	81%	70%	51%	32%	19%	12%	8%	5%	3%	2%	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°
5295	5205	4998	4777	4598	4493	4449	4225	3551	2552	1601	951	593	393	264	167	86	23	0	0
100%	98%	94%	90%	87%	85%	84%	80%	67%	48%	30%	18%	11%	7%	5%	3%	2%	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°
5295	5195	4981	4765	4593	4491	4442	4280	3697	2707	1703	1005	622	410	274	174	89	23	0	0
100%	98%	94%	90%	87%	85%	84%	81%	70%	51%	32%	19%	12%	8%	5%	3%	2%	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°
5295	5205	4998	4777	4598	4493	4449	4225	3551	2552	1601	951	593	393	264	167	86	23	0	0
100%	98%	94%	90%	87%	85%	84%	80%	67%	48%	30%	18%	11%	7%	5%	3%	2%	0%	0%	0%