

PHOTOMETRICS, COLORIMETRY AND FIELD COVERAGE



IANILED5

WARNING

It is worth reminding the end users that CIE (Commission Internationale d'éclairage) the responsible body for setting the lighting standards, has clearly excluded that the existing instruments for halogen, discharge and florescent sources are adequate to measure LEDs emissions. The measurement of Chromaticity, Colour difference, Correlated Colour temperature and Illuminance of these new light sources demand for last generation Chroma meters with calibration and correcting functions that are not available on most of the commonly used Lux meters and Colour meters used with conventional sources.

The peculiar spectral emission of LEDs sources, lacking of Infrared and Uv, make the quantitative lux/footcandles values not indicative of their actual illumination capacity. Therefore the following data are based on the existing survey procedures and they are just indicative values.

We suggest you to choose the IANILEDs module that best matches your lighting need on the field, testing the light with the specific camera and lens on use. The IANILEDs sophisticated electronics and the filtering options will always allow for the right adjustments on the production set.






IANILED6 & 7

LENS	IANILED6			IANILED7		
	FIELD COVERAGE IN CMS			FIELD COVERAGE IN CMS		
	3 metres	2 metres	1 metre	3 metres	2 metres	1 metre
MEDIUM	100	96	46	120	90	41
MED+DIF	150	110	52	160	130	57
WIDE	174	164	60	175	120	61
WIDE+DIF	190	182	72	216	144	67
SPOT	70	52	24	68	45	//
SPOT+DIF	110	90	44	127	88	//

- The colour temperature average values resulting from the use of the various lenses and diffusers, are within the range of 5100°k-5600°k (+/-10%).
- The average LUX values taken at 2 metres are from 600 lx to 215 lx for the Ianiled 6 and from 693 lx to 236 lx for the Ianiled 7, depending on the type of lenses used (from spot to wide). Our frosted filters are losing about 10% light only and they widen the beam.
- The photometric, colorimetry and coverage data are to be considered indicative for the reasons above explained.
- Because of the assembly of more light emitting diodes in one array, it is possible to note some differences from fixture to fixture.
- The measurements are taken by sample and they take into account an average response to all parameters. The missing data are not relevant for the practical use.
- The photometrics expressed in LUX are taken at a typical operational distance of 2mt.
- The correspondence to the most common recording media is accurate and precise.
- The values were taken in absolute dark and reflections free room.
- The field is calculated at 50% of the peak value.
- The colorimetry, resulting from an accurate selection of LED, presents minor fluctuations that are irrelevant in the practical use of cine photo and television systems.
- Rarely it can be found a presence of 5-7 green tone values; also these are insignificant in practice.
- The peculiar spectral emission of LED can show discrepant data with various thermocolometres. Therefore we suggest to test the lighting fixtures with one's own equipment and operational methods.
- The samples that show substantial variations from the data taken are immediately excluded from the assembly and distribution chain.
- Should the user claim manufacturing anomalies, the unit will be replaced according to IANIRO General Conditions for sale and warranty terms.



IANILED54

	LENS	2 METERS			4 METERS		
		LUX	Beam angle at 10% peak value (field) °K +/-200°k	°K +/-200°k	LUX	Beam angle at 10% peak value (field) °K +/-200°k	°K +/-200°k
 <p>laniled54 54W 3 Modules assembled</p>	MEDIUM	2800	16°	5150	690	12°	5150
	WIDE	700	24°	5150	180	18°	5150
	SPOT	5000	7°	5150	1367	12°	5150
 <p>laniled36 36W 2 Modules assembled</p>	MEDIUM	2100	16°	5150	570	12°	5150
	WIDE	490	24°	5150	120	18°	5150
	SPOT	3300	7°	5150	800	12°	5150
 <p>laniled18 18W Single Modules Small</p>	MEDIUM	1500	16°	5150	450	12°	5150
	WIDE	245	24°	5150	60	18°	5150
	SPOT	1600	7°	5150	480	12°	5150
 <p>laniled18 18W Single Modules Medium</p>	MEDIUM	517	16°	5150	134	12°	5150
	WIDE	230	24°	5150	58	18°	5150
	SPOT	1350	7°	5150	450	12°	5150
 <p>laniled18 18W Single Modules Large</p>	MEDIUM	550	16°	5150	150	12°	5150
	WIDE	240	24°	5150	60	18°	5150
	SPOT	1750	7°	5150	450	12°	5150

Field

Please note that as “useful field”, we mean a surface where the photometrics are uniform. So an area within which the colour temperature is constant, and the output does not drop more than 10% of the peak value.

Conventionally the field is also calculated at 50% of the peak value: in this case the field almost doubles. Please consider this when you make your evaluations.

Colour temperature

It's interesting to note that even from where we start to have a 10% drop to the edge of the beam, the CCT remains constant. The factory Normal preset is at 5150°K. This because the DOP has always the choice to tune IANILED 54 white tone with the electronic red/amber-red mix Custom control.

The Cool set is 6.300°K +/- 200°K. The Warm set is 4.400°K +/- 200°k.

Different application

Looking at the data, you will notice as the system is versatile in terms of output and applications: for example the IANILED 18 Single Module Large (the

outer ring) is very useful at approximately 1,50m of typical distance for close ups, it gives 5150°K with 450 Lux, 500 ISO 25 Fps and iris 4. But using the 3 modules together, you obtain a powerful key light. For example we could test that using 800ASA, with HD camera the iris of lens didn't have to be changed compared to the settings with a frosted 1200 HMI.

Diffuser filters

The diffuser filters brings a reduction of 1 stop approximately.

Use without lenses

The use of Ianileds without lenses and bounced by Lite disks, is very useful for lighting in very small spaces because the field becomes much larger. Ideal for close ups.

Power to consumption ratio

The LED power to consumption ratio in IANILED compared to tungsten is very good, approximately in the region of 1 to 6 (18w=108w).

This thanks to the efficiency of LEDs sources (no infrared, no UV), to the special selection of LEDs used in IANILEDs and their overall array design that enhance the light output.

