

NELLY



JLED linear planar light – Rev. 02

Information provided is subject to change without notice; All values are design or typical in laboratory conditions

JUGANU
BRIGHTER

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JLED Linear Planar series

JLED *planar* Light enables *Smart High Tech Campus*

NELLY family of linear planar luminaries by Juganu are efficient, lightweight and reliable. High SYSTEM efficacy of up to 160 LPW (from AC mains to light on the floor) allows significant electricity savings of 75-90%, compared to fluorescent lights and 30-50% and compared to other LEDs. Negligible reduction of light with time of under 1% per year allows stable lighting for many years. Optimized optics direct the light where it is needed, providing uniform illumination, while meeting the international standards for office/retail/lab space lighting.

NELLY family provides a sophisticated wireless communication with management and control software, which allows autonomous operation and accurate power management.

NELLY family is enabled with a plug-in interface for an easy integration of Juganu optional additional technologies, like a video camera, can be added.

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BENEFITS

- Increases quality of life and public security
- 75-90% savings in electricity costs
- 95% saving in maintenance costs
- Easy installation – plug-and-play

APPLICATIONS

- Designed to meet campus and enterprise luminance and illuminance requirements
- Designed as an enabler for IoT sensing infrastructure (Optional in premium module)

FEATURES

- Replaces regular 4 x T8/T5 tubes in a 60x60 rectangular ceiling plate.
- Patented LightCell™ Technology
- Optimized optics for office applications
- CCT (typical)
 - 3500K ÷ 4500K
- “Low” Blue content, safer to eyes
- Communication
 - Juganu wifi wireless lighting control module
- Anti-fire and anti-high voltage PBT material for lighting base
- Lumens maintenance technology
- Allows Over-The-Air (OTA) firmware upgrade and configuration
- Multi user secure wireless access to different IoT devices

RATINGS

- Environmental: IP30
- Temperature range: –25° to 50°C ambient
- Compliant with RoHS
- AC input of up to 305V
- Weight : less than 5kg

MOUNTING

- Easy mounting to standard false ceiling/metal bars

SPECIFICATIONS

- **Power consumption** | 0 to 40W (Continually dimmable)
- **Dimming** | factory set / 0 to 10V / wireless control
- **System efficacy** |
 - up to 160 LPW (including AC PS & Optics)
- **Correlated Color Temperature (CCT)** | 3,500-4,500K
- **Color Rendering Index (CRI)** | > 90
- **R9** | > 90
- **SDCM = 0.5**
- **Photometry** | Batwing

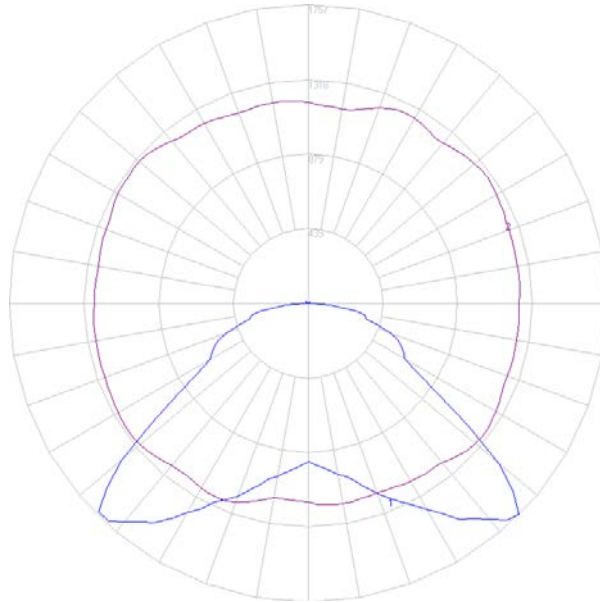
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- **Maintenance of Lumen output** | Light reduction < 1% / Year
- **Operating temperature Range** | -25 to +50 °C
 - **Main AC voltage** | 180 – 305 VAC (90 – 305 VAC upon request)
- **Frequency range** | 47 to 63 Hz
- **Lumen maintenance LM80, TM21**
 - **L90** 60,000 hours
 - **L70** 120,000 hours
- **Power factor** | > 0.92, max current THD 15% at 220V
- **MTBF** | > 1,000,000 hours Telcordia SR-332 (Bellcore)
- **Material** | Aluminum, PMMA, Polycarbonate, Silicon
- **Maintenance** | No internal cleaning required
- **General Dimension: 595 x 595 x 9mm**
- **Standards** (additional local standards applicable)
- **Encryption and Authentication** - Symmetric or asymmetric (public/private keys) cryptography with a dynamic key exchange that is digitally signed.

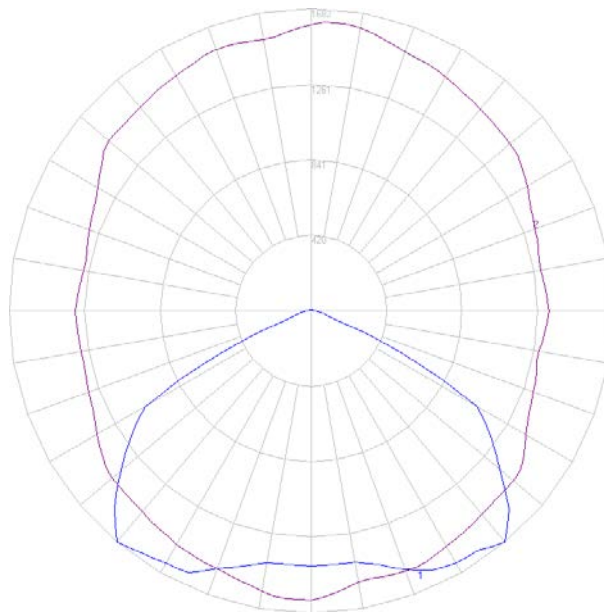
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Optional photometry curves

D01



D02



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Options of power & lumens

Power [W]	Typ. efficacy [LPW]	Total lumens [LM]
10	147	1471
20	138	2757
30	131	3943
40	125	5000

Ordering information

Product ID	Power	Family	CCT	Wireless COM	Distribution curve	Sx (Optional)
JLED	xxxW	NELLY	xx	Wx	Dxx	Sx

CCT (other values possible)	30 – 3000K	
	40 – 4000K	Standard
	50 – 5000K	
Wx	W0 – Wireless controller not included	Standard
	WW – Control through standard Wi-Fi	
Distribution curves	Dxx – see distribution curves	D01 - standard
Sx (Optional)	S0 – without camera	Standard
	S1 - HD Cam sensor	Full HD Cam

Ordering code example

JLED-30W-NELLY-40-WW-D01-S1

Description:

JLED linear surface of NELLY family with 30W, 4000K, with wifi wireless control, distribution curve D01, and HD Camera

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WW - Control through standard Wi-Fi

NELLY lighting fixture optionally includes sophisticated management and control module through standard WiFi. The WiFi module can operate as AP or Station. In the first case, user can connect his smart phone to the network, produced by the lamp. In case of Station mode, the lamp is connected to the local existing WiFi AP.

Remote server, running Management and Control software can control the lamp, using set of APIs, including, turn-on, turn-off and dimming.

Hardware Features	
Model	WU106
Antenna Type	IPEX or PCB Antenna
Chipset solution	MT7687
Voltage	3.3V±10%
Dimension (LxWxH)	31.3mm*20.3mm*3.2mm
Wireless Features	
Wireless Standards	IEEE 802.11b/g/n
Frequency Range	2412MHz---2484MHz
Data Rates	IEEE 802.11b: 1,2,5.5,11Mbps
	IEEE 802.11g: 6,9,12,18,24,36,48, 54Mbps
	IEEE 802.11n: MCS0--MCS7 @ HT20
	MCS0--MCS7 @ HT40
Receiver Sensitivity	HT40 MCS7: -70dBm@ 10%PER(MCS7)
	HT20 MCS7: -73dBm@ 10%PER(MCS7)
	54M: -77dBm@10% PER
	11M: -89dBm@ 8% PER
Modulation Technique	DSSS (DBPSK, DQPSK, CCK)
	OFDM (BPSK, QPSK, 16-QAM,64-QAM)
Wireless Security	WPA/WPA2, WEP, TKIP and AES, WPS2.0, WAPI
Transmit Power	IEEE 802.11n: 15dBm @HT20/40 MCS7
	IEEE 802.11g: 16dBm @54MHz
	IEEE 802.11b: 18dBm @11MHz
Work Mode	AP Mode/Station Mode
Others	
Certification	RoHS, UL certified
Environment	Operating Temperature: -20°C~55°C
	Storage Temperature: -40°C~125°C
	Operating Humidity: 10%~90% non-condensing
	Storage Humidity: 5%~90% non-condensing

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Optional - Full HD Video detection sensor specifications

The JSense CAM is a plug-in JSense family accessory for an easy deployment with Juganu indoor fixtures to provide modular and flexible CCTV platform.

The Module supports Wi-Fi 802.11ac based IP camera for CCTV applications for seamlessly wireless connection to the Juganu lighting fixture and from there to the storage server for further video analytics.

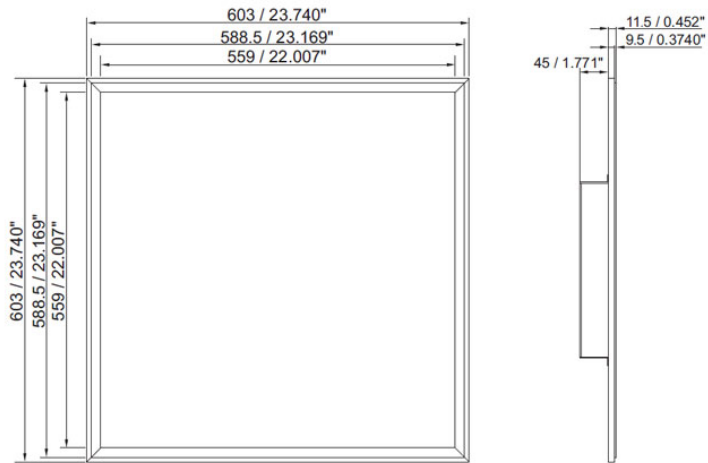
- Resolution: Full HD (optional 4K camera)
- Frame rate: 30 FPS
- Compression method: H.264/H.265 @ ~4Mb/2.5Mb BW under CBR (Full HD).
- FoV: supports up to FishEye 180°. Standard Fov 138°

Features

- ONVIF S, RTSP
- CBR/VBR configuration
- VMD
- DHCP/Static IP configuration
- Password protected OTA management
- 802.11ac 1x1 433Mbps PHY rate
- SD card slot for local recording
- Optional backup battery
- Optional local video analytics features
- Operating temperature range: -25° - 50°
- Power: JSense interface

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Mechanical Dimensions



Remark: all dimension tolerance is $\pm 0.5\text{mm}$ unless otherwise noted

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Installation

