

HapiLED



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Ambiance combined with energy performance

Lighting parks, squares and residential areas requires a specific approach that is very different from lighting roads. The creation of ambiance plays a prominent role.

However this must not be done at the expense of efficiency.

The age of the opal sphere luminaire with high energy consumption and a source of light pollution is gone forever.

The HapiLED, an economical, aesthetic, robust and efficient LED solution, is here to replace it.



IP 66

IK 10



Concept

HapiLED combines the energy efficiency of LED technology with the photometric performance of the LensoFlex®2 concept developed by Schröder.

The luminaire is composed of 3 main elements: a mounting part and a top cover made of painted die-cast aluminium with a protector in anti-UV polycarbonate. The ensemble offers a high tightness level and a high impact resistance. HapiLED is designed for post-top mounting on a 60mm diameter spigot.

HapiLED provides an economical, aesthetic, comfortable, robust and efficient LED solution for the creation of ambiance. Thanks to its versatility, it offers many assets for a timeless and future-oriented lighting solution. The photometric versatility of the HapiLED luminaire, which provides both asymmetrical and symmetrical light distributions, makes it the perfect tool for various lighting applications: pedestrian areas (parks, squares...), bike paths, residential streets, car parks and urban roads.

HapiLED proposes a broad range of control options: programmable drivers, remote management and motion detection features with a PIR sensor.



HapiLED offers an easy access to the optical and gear compartments for maintenance.



HapiLED offers slip-over mounting onto a 60mm diameter spigot with 6 M6 screws.

Types of application

- URBAN & RESIDENTIAL STREETS
- BRIDGES
- BIKE & PEDESTRIAN PATHS
- RAILWAY STATIONS & METROS
- CAR PARKS
- SQUARES & PEDESTRIAN AREAS

Key advantages

- Elegant and comfortable solution for creating a warm ambiance
- Low energy consumption
- Low light pollution (ULOR 3%)
- Several light distributions
- FutureProof : smart upgradability
- Supplied pre-wired to facilitate its installation



HapiLED is equipped with an internal diffuser for superior visual comfort.



The striated polycarbonate protector combines elegance and robustness (IK 10).



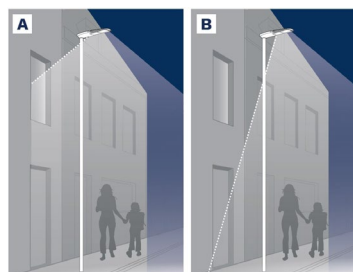
LensoFlex®2

LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light distribution. The proven LensoFlex®2 concept includes a glass protector to seal the LEDs and lenses into the luminaire body.



Back Light control

As an option, the LensoFlex®2 modules can be equipped with a Back Light control system. This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.

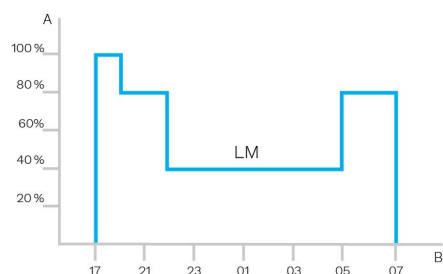


A. Without Back Light control | B. With Back Light control



Custom dimming profile

Intelligent luminaire drivers can be programmed with complex dimming profiles. Up to five combinations of time intervals and light levels are possible. This feature does not require any extra wiring. The period between switching on and switching off is used to activate the preset dimming profile. The customised dimming system generates maximum energy savings while respecting the required lighting levels and uniformity throughout the night.



A. Performance | B. Time



PIR sensor: motion detection

In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area. Each luminaire level can be configured individually with several parameters such as minimum and maximum light output, delay period and ON/OFF duration time. PIR sensors can be used in an autonomous or interoperable network.



GENERAL INFORMATION

Recommended installation height	3m to 5m 10' to 16'
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site
Driver included	Yes
CE Mark	Yes
ENEC certified	Yes
ROHS compliant	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)

HOUSING AND FINISH

Housing	Aluminium
Optic	PMMA
Protector	Polycarbonate
Housing finish	Polyester powder coating
Standard colour(s)	AKZO grey 900 sanded
Tightness level	IP 66
Impact resistance	IK 10
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)
Access for maintenance	Direct access to the gear compartment by loosening screws on the top cover

· Any other RAL or AKZO colour upon request

OPERATING CONDITIONS

Operating temperature range (Ta)	-30 °C up to +35 °C / -22 °F up to 95°F
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· Depending on the luminaire configuration. For more details, please contact us.

ELECTRICAL INFORMATION

Electrical class	Class I EU, Class II EU
Nominal voltage	220-240V – 50-60Hz
Power factor (at full load)	0.95
Surge protection options (kV)	10
Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547
Control protocol(s)	1-10V, DALI
Control options	AmpDim, Bi-power, Custom dimming profile, Remote management
Associated control system(s)	Owlet Nightshift
Sensor	PIR (optional)

OPTICAL INFORMATION

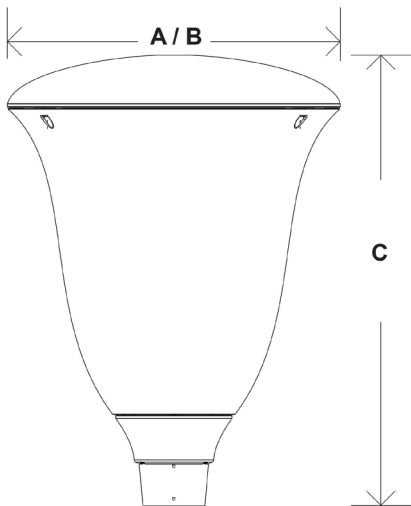
LED colour temperature	2700K (Warm White) 3000K (Warm White) 4000K (Neutral White)
Colour rendering index (CRI)	>70 (Warm White) >80 (Warm White) >70 (Neutral White)
Upward Light Output Ratio (ULOR)	<4%

LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L90
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DIMENSIONS AND MOUNTING

AxBxC (mm inch)	410x556x410 16.1x21.9x16.1
Weight (kg lbs)	6 13.2
Aerodynamic resistance (CxS)	0.08
Mounting possibilities	Post-top slip-over – Ø60mm





			Luminaire output flux (lm) Neutral White 740		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Warm White 727		Power consumption (W)	Luminaire efficacy (lm/W)	
	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
HAPILED	16	200	1100	1300	1000	1200	900	1100	900	1100	11.1	117	
	16	300	1600	1900	1500	1800	1400	1600	1400	1600	15.8	120	
	16	400	2100	2400	2000	2300	1800	2100	1800	2100	20.8	115	
	16	500	2500	2900	2400	2800	2200	2500	2200	2500	26.1	111	
	16	600	2900	3400	2800	3300	2600	3000	2500	2900	31.2	109	
	16	700	3300	3900	3200	3700	2900	3400	2900	3300	36.1	108	
	24	200	1700	1900	1600	1900	1400	1700	1400	1700	16.1	118	
	24	300	2400	2800	2300	2700	2100	2400	2100	2400	23.2	121	
	24	400	3100	3600	3000	3500	2700	3200	2700	3100	30.7	117	
	24	590	4400	5100	4200	4800	3800	4400	3800	4400	45	113	
	24	600	4400	5100	4200	4900	3900	4500	3800	4400	45	113	
	24	700	5000	5800	4800	5600	4400	5100	4300	5000	53.5	108	
	32	200	2200	2600	2100	2500	1900	2300	1900	2200	20.8	125	
	32	300	3300	3800	3100	3600	2800	3300	2800	3200	30.2	126	
	32	450	4700	5400	4500	5200	4000	4700	4000	4600	45	120	
	32	500	5100	5900	4900	5600	4400	5100	4400	5100	49	120	
	32	600	5900	6900	5700	6600	5200	6000	5100	5900	59.5	116	
	48	200	3400	3900	3200	3800	2900	3400	2900	3400	30.4	128	
	48	300	4900	5700	4700	5400	4300	4900	4200	4900	45	127	
	48	450	7000	8100	6700	7800	6100	7100	6000	7000	67	121	

Tolerance on LED flux is $\pm 7\%$ and on total luminaire power $\pm 5\%$

