### Schréder

Experts in lightability™

## **SHUFFLE**



SHUFFLE is a connected, modular approach to city hardware - with its plugand-play rotatable modules that contain pre-certified hardware, it can be configured to suit your specific needs.

### **KEY ADVANTAGES**

- > Seamless integration in the SHUFFLE column
- Numerous lighting configurations
- > Remote control lighting through 7-pin NEMA or Zhaga socket
- > Easy installation with patented mounting system
- > Integrated access points
- > Extremely simple WiFi deployment

The SHUFFLE 360 LGT WLAN GEN2 is a versatile module that offers an array of highly performing public WiFi options, carefully designed to offer the best possible lighting options and at the same time improve communication and connectivity between citizens.

The versatility of this module continues with the light which provides a connected intelligent LED system with options like LED colour, power, type of optics, control options, electrical class, protector type and so much more. From an integrated control unit to IoT solutions delivered through a standard NEMA 7-pin or Zhaga socket, this module can adapt to any local requirements.

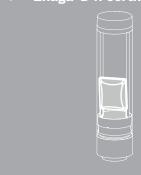
Modules are carefully manufactured in die-cast, high pressure aluminium and clear, semi or totally sanded protectors is added to host the technology within. All fasteners are in stainless steel. The housing is covered in the highest graded polyester powder paint supporting a variety of colours.



### SHUFFLE 360 LGT WLAN GEN2 | CHARACTERISTICS

### **KEY FEATURES**

- > Lumen package range: 1,500 to 8,400lm
- > Back-light control (optional)
- > French law compliant with G-Limiter option (GL)
- > DarkSky Certification
- > Neutral or warm white LEDs
- Optional internal diffuser or external diffuse protector for enhanced visual comfort
- NEMA 7-pin socket for smart city IoT controller
- > Self-forming and selfhealing meshed network. Individual access points can connect with each other wirelessly
- > Adapts automatically to environmental changes
- > Many concurrent users per access point
- > Stable connections at higher data rates
- > Dividable bandwidth: e.g. to assign a dedicated part to city operators and a restricted bandwidth for the general public
- > Unmatched scalability, cloud or locally managed
- > Zhaga-D4i certified



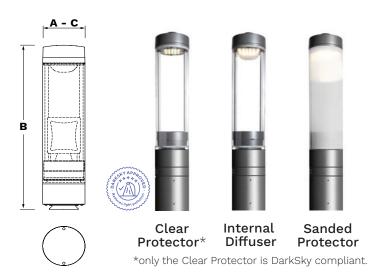
#### **COMPARISON TABLE**

_	SH36LW2-FO SH36LW2-FV	SH36LW2-JT
Wi-Fi coverage	***	**☆
Wi-Fi throughput	***	**☆
Ethernet throughput	***	***
Mesh	Yes	Yes
Powered by PoE	Yes	Yes
Client capacity	512 per AP	250 per AP
Maximum transmission power	26dBm	20dBm
Wi-Fi 6	Yes	No
Managment Platform	Yes	Yes

### \*contact Customer Support

### **DIMENSIONS AND MOUNTING**

AxBxC (mm   inch)	194x815x194   7.6x32x7.6
Weight (kg   lbs)	8   17.6
Aerodynamic resistance (CxS)	0.16
Mounting possiblilities	Clamps



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# **SHUFFLE**

### SHUFFLE 360 LGT WLAN GEN2 (SH36LW2-FO/FV) | CHARACTERISTICS

**ELECTRICAL** 

311011 EE 3	, 33 EG : 17 E ; 11 G E ; 12 (S
GENERAL	
Recommended installation height	3m to 6.8m   9.8' to 22.3'
Driver included	Yes
CE Mark	Yes
UKCA Certified	Yes
ENEC Certified	Yes
ENEC+ Certified	Yes
UL Mark	Yes
ROHS Compliant	Yes
Zhaga-D4i Certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
DarkSky friendly lighting Certified	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory
HOUSING AND FINIS	<b>Э</b> Н
Housing	Aluminum
Optic	PMMA
Protector	Polycarbonate PMMA
Internal diffuser	Polycarbonate

Housing	Aluminum
Optic	PMMA
Protector	Polycarbonate PMMA
Internal diffuser	Polycarbonate
Housing finish	Polyester powder coating
Standard colour	AKZO grey 900 sanded*
Tightness level	IP 66

IK 10 (polycarbonate)

IK 06 (PMMA)

### **OPERATING CONDITIONS**

Impact resistance

Operating temperature range (Ta)	-40°C up to 50°C / -40°F up to 122°F with wind effect*
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<sup>\*</sup>Depending on the module configuration. For more details, please contact us.

#### SHUFFLE

SHUFFLE pole model	2 doors same side   3 doors
SHUFFLE components	Mains box   Lighting box Beyond light power supply box
	Support plate network
	Network cable
Position on pole	Always top position

### LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L95
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Electrical class	Class I EU, Class II EU
	Class 1 US

Nominal voltage	220-240V - 50/60Hz 120-277V - 50/60Hz
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Power factor	0.05
(at full load)	0.95+

#### Surge protection 10 options (kV)

	EN 55015 / EN 61000-3-2 / EN 61000-3-3 /
Electromagnetic	EN 61547/ EN 61000-4-2 / EN 61000-4-3 /
compatibilty (EMC)	EN 61000-4-4 / EN 61000-4-5 / EN 61000-
, , ,	4-6 / FN 61000-4-8 / FN 61000-4-11

Control protocol(s)	1-10V, DALI
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Control options	Custom Dimming Profile, Remote
Controt options	management

Socket	NEMA 7-pin
Socker	7haga

Associated control	OWLET Nightshift
system(s)	Schréder EXEDRA

#### PIR (optional) Sensor

### **OPTICAL INFORMATION**

LED colour temperature	2700K (Warm White 727) 3000K (warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740)
Color rendering index (CRI)	>70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740)
Upward Light	< 3%

Output Ratio (ULOR)

### WLAN (Access point and Mesh node)

Antenna connection	Embedded antenna
Power supply	802.3af/at(POE)
WiFi frequency	2.4GHz, 5GHz
Peak PHY rates	2.4GHz: 574Mbps 5GHz: 1200Mbps
Client capacity	Up to 512 clients per AP
SSID	Up to 31 per AP
WiFi country license	WW* (EU), US, CA
WiFi mounting	Screws
WiFi norms	a, b, g, n, ac, 6
WiFi operating mode	Access Point, Gateway, Mesh node

<sup>\*</sup>Although worldwide, it does not apply to all countries.

<sup>\*</sup>any other RAL or AKZO colour upon request

ULOR may be different according to the configuration. Please consult us. · Meets DarkSky requirements when fitted with LEDs of 3000K or less.

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## **SHUFFLE**

## SHUFFLE 360 LGT WLAN GEN2 (SH36LW2-JT) | CHARACTERISTICS

GENERAL	
Recommended installation height	3m to 6.8m   9.8' to 22.3'
Driver included	Yes
CE Mark	Yes
UKCA Certified	Yes
ENEC Certified	Yes
ENEC+ Certified	Yes
UL Mark	Yes
ROHS compliant	Yes
Zhaga-D4i Certified	Yes
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g
DarkSky friendly lighting Certified	Yes
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory
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#### HOUSING AND FINISH

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Housing	Aluminum	
Optic	PMMA	
Protector	Polycarbonate PMMA	
Internal diffuser	Polycarbonate	
Housing finish	Polyester powder coating	
Standard colour	AKZO grey 900 sanded*	
Tightness level	IP 66	
Impact resistance	IK 10 (polycarbonate) IK 06 (PMMA)	

<sup>\*</sup>any other RAL or AKZO colour upon request

### **OPERATING CONDITIONS**

<sup>\*</sup>Depending on the module configuration. For more details, please contact us.

#### **SHUFFLE**

SHUFFLE Pole model	2 doors same side   3 doors
SHUFFLE Components	Mains box   Lighting box Beyond light power supply box
	Support plate network
	Network cable
Position on pole	Always top position

### LIFETIME OF THE LEDS @ TQ 25°C

All configurations	100,000h - L95

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Electrical class	Class I EU, Class II EU Class 1 US
Nominal voltage	220-240V - 50/60Hz 120-277V - 50/60Hz
Power factor (at full load)	0.95+
Surge protection options (kV)	10
Electromagnetic compatibilty (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-3-3 / EN 61547/ EN 61000-4-2 / EN 61000-4-3 / EN 61000-4-4 / EN 61000-4-5 / EN 61000-4-6 / EN 61000-4-8 / EN 61000-4-11
Control protocol(s)	1-10V, DALI
Control options	Custom Dimming Profile, Remote management
Socket	NEMA 7-pin Zhaga
Associated control system(s)	OWLET Nightshift Schréder EXEDRA
Sensor	PIR (optional)

#### OPTICAL INFORMATION

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LED colour temperature	2700K (Warm White 727) 3000K (warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740)						
Color rendering index (CRI)	>70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740)						
Upward Light Output Ratio (ULOR)	<3%						

<sup>·</sup> ULOR may be different according to the configuration. Please consult us.

### **WLAN** (Access point and Mesh node)

Antenna connection	External Dual-Band Omni Antennas
Power supply	802.3af/at(POE)
WiFi frequency	2.4GHz, 5GHz
Peak PHY rates	2.4GHz: 300Mbps 5GHz: 867Mbps
Client capacity	Up to 250 clients per AP
SSID	Up to 8 per AP
WiFi country license	EU
WiFi mounting	Screws
WiFi norms	802.11 a/b/g/n/r/k/v/ac
WiFi operating mode	Access Point, Gateway, Mesh node

<sup>·</sup> Meets DarkSky requirements when fitted with LEDs of 3000K or less.



### SHUFFLE 360 LGT WLAN GEN2 | PERFORMANCE

		Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)	Luminaire efficacy (lm/W)		
Modules	Number of LEDs	Current (mA)	Min	Max	Min	Max	Min	Max	Min	Max		Up to	Photometry
	16	350	1500	2200	1600	2400	1600	2300	1600	2400	18.3	140	LENSO FLEX" 2
SHUFFLE 360 LGT WLAN GEN2	16	500	2000	3000	2200	3300	2200	3200	2200	3300	26	135	LENSO FLEX*2
	16	700	2700	4100	2900	4300	2700	4100	3100	4600	37	126	LENSO FLEX" 2
	20	350	-	-	2100	3100	1900	2900	2200	3200	22.5	146	LENSO FLEX*4
	20	500	-	-	2800	4200	2700	3900	3000	4400	32.2	139	LENSO FLEX 4
	20	700	-	-	3700	5500	3500	5100	3900	5800	44.9	130	LENSO PLEX 4
	24	350	2300	3400	2400	3600	2300	3400	2600	3800	26.9	143	LENSO FLEX <sup>-</sup> 2
	24	500	3100	4600	3300	4900	3100	4600	3500	5200	38.5	137	LENSO FLEX" 2
	24	700	4100	6200	4400	6600	4100	6200	4700	6900	53.5	130	LENSO FLEX" 2
	24	900	5000	7400	5300	7900	5000	7400	5600	8400	70	120	LENSO FLEX" 2

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

