

# Citea NG



## New generation. New lighting levels. New features.

Completely redeveloped, the only feature that the Citea New Generation (NG) shares with its predecessor, is the pure design that easily blends into all types of rural and urban environments.

Thanks to a new mechanical design, the long life span of the LEDs is guaranteed and performance is assured over time.

The Citea NG is equipped with second generation LensoFlex®2 photometric engines that have been specifically developed to light various spaces where the safety and well-being of the people using the environment are essential.



URBAN &  
RESIDENTIAL  
STREETS



BRIDGES



BIKE &  
PEDESTRIAN  
PATHS



RAILWAY  
STATIONS &  
METROS



CAR PARKS



LARGE AREAS



SQUARES &  
PEDESTRIAN  
AREAS



ROADS &  
MOTORWAYS

## Concept

Citea NG has been designed to incorporate the latest generation of LEDs and optics. The mechanical design was carefully thought-out to separate the LED module and the driver compartment to optimise thermal management.

Citea NG is composed of a high-pressure, die-cast aluminium body and a glass protector.

Citea NG is available in two sizes: Mini and Midi. Mini, which can incorporate 8 to 48 LEDs is ideal for lighting residential streets, urban roads and car parks while the Midi which can integrate from 16 to 96 LEDs is perfect for main roads, avenues and squares. With suspended or side-entry mounting options, it can be installed on various brackets (single, double, wall) and columns for a perfect integration into the landscape.



Citea NG is available in two sizes: Mini and Midi.



Citea NG benefits from a range of mounting options and brackets.

## TYPES OF APPLICATION

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

## KEY ADVANTAGES

- Timeless and elegant design for rural and urban environments
- Two sizes available: Mini and Midi
- Protector in extra-clear tempered glass for high-performance
- Wide range of mounting options and brackets
- Low energy consumption
- LensoFlex®2 photometric engine with photometry adapted to various applications
- ThermoX® for long lasting performance
- FutureProof: easy replacement of photometric engine and power supply on-site
- Designed to incorporate the Owlet range of control solutions



Citea NG takes advantage of the proven LensoFlex®2 photometric engines.



Designed to incorporate the Owlet range of control solutions.



## LensoFlex®2

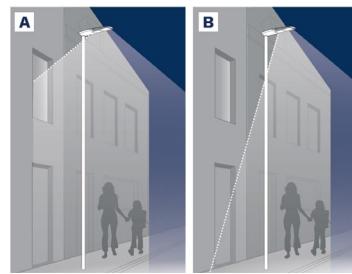
LensoFlex®2 is based upon the addition principle of photometric distribution. Each LED is associated with a specific PMMA lens that generates the complete photometric distribution of the luminaire. The number of LEDs in combination with the driving current determines the intensity level of the light 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 and LensoFlex®4 modules can be equipped with a Back Light control system (figure B). This additional feature minimises light spill from the back of the luminaire to avoid intrusive light towards buildings.



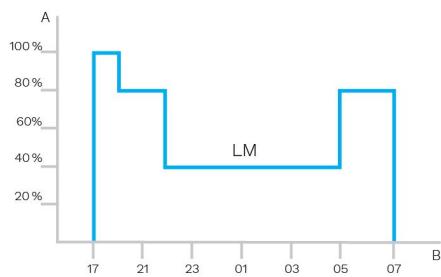
A. Without Back Light control | B. With Back Light control



### 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.

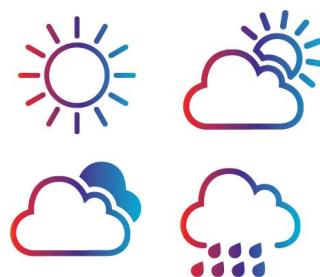


A. Performance | B. Time



### Daylight sensor / photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at nightfall so as to provide safety and comfort in public spaces.



### PIR sensor: motion detection

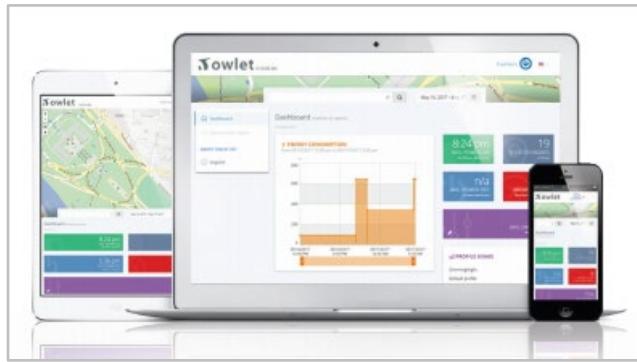
In places with little nocturnal activity, lighting can be dimmed to a minimum most of the time. By using passive infrared (PIR) sensors, the level of light can be raised as soon as a pedestrian or a slow vehicle is detected in the area.

Each luminaire level can be configured individually with several parametres 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.



# Owlet IoT

Owlet IoT remotely controls luminaires in a lighting network, creating opportunities for improved efficiency, accurate real-time data and energy savings of up to 85%.



## ALL-IN-ONE

The LUCO P7 CM controller includes the most advanced features for optimised asset management. It also provides an integrated photocell and operates with an astronomical clock for seasonal dimming profile adaptations.

## EASY TO DEPLOY

Thanks to wireless communication, no cabling is needed. The network is not subject to physical constraints or limitations.

From a single control unit to an unlimited network, you can expand your lighting scheme at any time.

With real-time geolocation and automatic detection of luminaire features, commissioning is quick and easy.

## USER-FRIENDLY

Once a controller is installed on a luminaire, the luminaire automatically appears with its GPS coordinates on a web-based map.

An easy-to-use dashboard enables each user to organise and customise screens, statistics and reports. Users can gain relevant, real-time insights.

The Owlet IoT web application can be accessed at all times from anywhere in the world with a device connected to the Internet. The application adapts to the device to offer an intuitive and user-friendly experience.

Real-time notifications can be pre-programmed to monitor the most important elements of the lighting scheme.



Plugging the LUCO P7 CM controller onto the 7-pin NEMA socket.

## SECURE

The Owlet IoT system uses a local wireless mesh communication networks to control the on-site luminaires combined with a remote control system utilising the cloud to ensure smooth data transfers to and from the central management system.

The system uses encrypted IP V6 communication to protect data transmission in both directions. Using a secure APN, Owlet IoT ensures a high level of protection.

In the exceptional case of a communication failure, the built-in astronomical clock and photocell will take over to switch the luminaires on and off, thus avoiding a complete blackout at night.

## EFFICIENT

Thanks to sensors and/or pre-programmed settings, lighting scenarios can be easily adapted to cope with live events, providing the right lighting levels at the right time and in the right place.

The integrated utility grade meter offers the highest accuracy available on the market today, enabling decisions based on real figures.

Accurate real-time feedback and clear reporting ensures that the network operates efficiently and maintenance is optimised.

When LED luminaires are switched on, the inrush current can create problems for the electricity grid. Owlet IoT incorporates an algorithm to preserve the grid at all times.

## OPEN

The LUCO P7 CM controller can be plugged onto the standard 7 pin NEMA socket and operates through either a DALI or 1-10V interface to control the luminaire.

Owlet IoT is based on the IPv6 protocol. This method for addressing devices can generate an almost unlimited number of unique combinations to connect non-traditional components to the Internet or computer network.

Through open APIs, Owlet IoT can be integrated into existing or future global management systems.

The Schréder Bluetooth solution consists of 3 main components:

- A Bluetooth dongle plugged into the modular driver of the luminaire (BLE transceiver)
- A Bluetooth antenna fitted on the luminaire
- A smartphone application called Sirius BLE



## Easy to use

The Schréder Bluetooth solution is ideal for the on-site configuration of individual outdoor luminaires using Bluetooth. From the ground, the user is able to switch the luminaire on or off, adapt the dimming curve, read diagnostic data and much more. A user-friendly application called Sirius BLE provides an easy and secure access to the control and configuration functions.

Whether you are managing a lighting network in an urban or a residential area, this solution will make it easy to control your outdoor luminaires while simply standing by the pole.

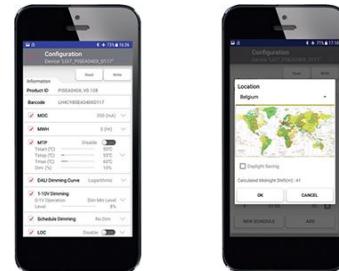
## Quick and easy pairing

Get the Sirius App from Schréder. Go to the menu. Press the “SCAN DEVICE (START)” button, to search for the surrounding BLE modules. They will be displayed with a bar graphic (signal intensity) to indicate the closest and the most distant one you can reach. Click on the device you want to connect to and enter your personal access key to control the luminaire.



## Defining the settings

Once you are connected to a luminaire, you can set various parameters such as the maximum output current, minimum dimming level and custom dimming profile.



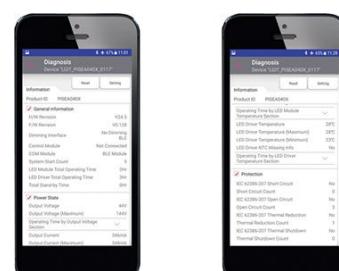
## Manual dimming control

The App enables you to do a manual override to adapt the dimming levels instantly. Simply tap on the “Dimming” button in the main menu and adjust the dimming using the wheel and button. Predefined dimming levels can be applied immediately. The corresponding value is displayed on the wheel. This enables you to test the ON / OFF and dimming features of the luminaire paired to the smartphone.



## On-site diagnostic

When a luminaire is paired, you can access various diagnostic information: total number of power up events, operation time of LED module and driver, total energy consumption of LED driver... etc. You can also track operating events (short circuits, thermal shutdowns...). The diagnostic values may be the current state or values accumulated to date.

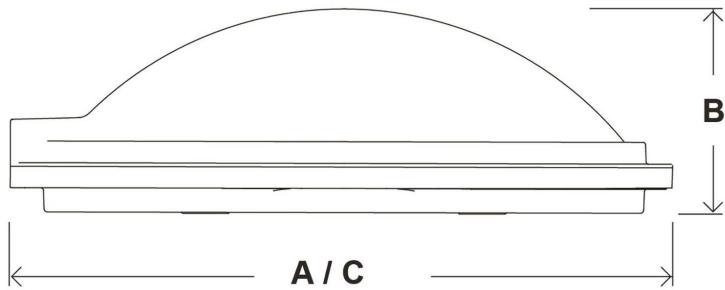


GENERAL INFORMATION		ELECTRICAL INFORMATION	
Recommended installation height	4m to 12m   13' to 39'	Electrical class	Class I EU, Class II EU
FutureProof	Easy replacement of the photometric engine and electronic assembly on-site	Nominal voltage	220-240V – 50-60Hz
Driver included	Yes	Power factor (at full load)	0.9
CE Mark	Yes	Surge protection options (kV)	10
ENEC certified	Yes	Electromagnetic compatibility (EMC)	EN 55015 / EN 61000-3-2 / EN 61000-4-5 / EN 61547
ROHS compliant	Yes	Control protocol(s)	Bluetooth, 1-10V, DALI
French law of December 27th 2018 - Compliant with application type(s)	a, b, c, d, e, f, g	Control options	AmpDim, Bi-power, Custom dimming profile, Photocell, Remote management
BE 005 certified	Yes	Socket	Low voltage socket (optional) NEMA 7-pin (optional)
Testing standard	LM 79-08 (all measurements in ISO17025 accredited laboratory)	Associated control system(s)	Sirius BLE Owlet Nightshift Owlet IoT
<b>HOUSING AND FINISH</b>		Sensor	PIR (optional)
Housing	Aluminium	· Low voltage socket only available for Citea NG Midi	
Optic	PMMA	<b>OPTICAL INFORMATION</b>	
Protector	Tempered glass Frosted glass	LED colour temperature	2200K (Warm White 822) 2700K (Warm White 727) 3000K (Warm White 730) 3000K (Warm White 830) 4000K (Neutral White 740)
Housing finish	Polyester powder coating	Colour rendering index (CRI)	>80 (Warm White 822) >70 (Warm White 727) >70 (Warm White 730) >80 (Warm White 830) >70 (Neutral White 740)
Standard colour(s)	AKZO grey 900 sanded	Upward Light Output Ratio (ULOR)	0%
Tightness level	IP 66	<b>LIFETIME OF THE LEDS @ TQ 25°C</b>	
Impact resistance	IK 10	All configurations	100,000h - L90
Vibration test	Compliant with modified IEC 68-2-6 (0.5G)		
· Any other RAL or AKZO colour upon request			
<b>OPERATING CONDITIONS</b>			
Operating temperature range (Ta)	-30 °C up to +55 °C / -22 °F up to 131 °F		
· Depending on the luminaire configuration. For more details, please contact us.			

### DIMENSIONS AND MOUNTING

AxBxC (mm   inch)	CITEA NG MINI - 500x160x500   19.7x6.3x19.7 CITEA NG MIDI - 595x185x595   23.4x7.3x23.4
Weight (kg   lbs)	CITEA NG MINI - 12   26.4 CITEA NG MIDI - 15   33.0
Aerodynamic resistance (CxS)	CITEA NG MINI - 0.06 CITEA NG MIDI - 0.08
Mounting possibilities	Side-entry slip-over – Ø60mm Side-entry penetrating – Ø60mm Post-top slip-over – Ø60mm Suspended 1" gas male Suspended 1" gas female Catenary

• Various dedicated swiveling and direct mountings. Please consult the installation sheet.





Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to	Photometry
CITEA NG MINI	8	300	700	900	800	1000	500	700	700	900	800	1000	8.7	8.7	115	
	8	400	900	1200	1000	1300	700	900	900	1200	1100	1400	11.1	11.1	126	
	8	500	1100	1400	1300	1600	900	1100	1100	1400	1300	1700	13.7	13.7	124	
	8	600	1300	1700	1500	1900	1000	1300	1300	1700	1500	2000	16.6	16.6	120	
	8	700	1500	1900	1700	2100	1200	1500	1500	1900	1700	2200	19.4	19.4	113	
	8	800	1700	2100	1900	2400	1300	1700	1700	2100	1900	2500	22.2	22.2	113	
	8	940	1900	2400	2100	2700	1500	1900	1900	2400	2200	2800	25.7	25.7	109	
	16	200	1000	1300	1100	1400	800	1000	1000	1300	1100	1500	11	11	136	
	16	300	1400	1900	1600	2100	1100	1500	1400	1900	1700	2100	15.8	15.8	133	
	16	400	1900	2400	2100	2700	1500	1900	1900	2400	2200	2800	20.8	20.8	135	
	16	500	2300	2900	2600	3300	1800	2300	2300	2900	2600	3400	25.9	25.9	131	
	16	600	2500	3300	2800	3600	2000	2600	2500	3300	2900	3800	31.1	31.1	122	
	16	700	3000	3900	3400	4300	2400	3100	3000	3900	3500	4500	36.4	36.4	124	
	16	850	3500	4500	3900	5000	2800	3600	3500	4500	4100	5200	44.5	44.5	117	
	24	200	1500	1900	1700	2200	1200	1500	1500	1900	1700	2200	15.4	15.4	143	
	24	300	2200	2800	2400	3100	1700	2200	2200	2800	2500	3200	22.5	22.5	142	
	24	400	2800	3700	3200	4100	2200	2900	2800	3700	3300	4200	29.9	29.9	140	
	24	590	4000	5100	4400	5700	3100	4000	4000	5100	4600	5900	44.5	44.5	133	
	24	600	4000	5200	4500	5800	3200	4100	4000	5200	4700	6000	45.5	45.5	132	
	24	700	4600	5900	5100	6500	3600	4600	4600	5900	5300	6800	53.5	53.5	127	
	24	800	5100	6500	5700	7300	4000	5200	5100	6500	5900	7500	61.5	61.5	122	
	24	900	5500	7100	6200	7900	4400	5600	5500	7100	6400	8200	69.5	69.5	118	

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %



Luminaire	Number of LEDs	Current (mA)	Min	Max	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	Photometry
					Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to			
CITEA NG MINI	24	1000	6000	7700	6700	8500	4700	6100	6000	7700	6900	8800	78	78	113			
	32	200	2000	2600	2200	2900	1600	2000	2000	2600	2300	3000	20	20	150			
	32	300	2900	3800	3300	4200	2300	3000	2900	3800	3400	4300	29.6	29.6	145			
	32	450	4200	5400	4700	6000	3300	4300	4200	5400	4900	6200	45.5	45.5	136			
	32	500	4600	5900	5200	6600	3700	4700	4600	5900	5300	6800	50	50	136			
	32	600	5400	6900	6000	7700	4300	5500	5400	6900	6200	8000	60	60	133			
	32	700	6100	7800	6800	8700	4800	6200	6100	7800	7000	9000	70	70	129			
	32	800	6800	8700	7600	9700	5400	6900	6800	8700	7800	10000	80	80	125			
	40	200	2500	3300	2800	3600	2000	2600	2500	3300	2900	3700	24.5	24.5	151			
	40	350	4200	5400	4700	6100	3300	4300	4200	5400	4900	6300	42.5	42.5	148			
	40	400	4800	6100	5300	6800	3800	4800	4800	6100	5500	7100	48.5	48.5	146			
	40	500	5800	7400	6500	8300	4600	5900	5800	7400	6700	8600	61	61	141			
	40	600	6800	8700	7500	9700	5300	6900	6800	8700	7800	10000	73	73	137			
	40	700	7700	9800	8500	10900	6100	7800	7700	9800	8800	11300	85	85	133			
	48	200	3000	3900	3400	4400	2400	3100	3000	3900	3500	4500	28.9	28.9	156			
	48	300	4400	5700	4900	6300	3500	4500	4400	5700	5100	6500	43	43	151			
	48	400	5700	7400	6400	8200	4500	5800	5700	7400	6600	8500	57.5	57.5	148			
	48	550	7600	9700	8400	10800	6000	7700	7600	9700	8700	11200	80	80	140			
	48	600	8100	10400	9000	11600	6400	8200	8100	10400	9400	12000	86	86	140			
	48	700	9200	11800	10300	13100	7300	9300	9200	11800	10600	13600	101	101	135			
	48	800	10200	13100	11400	14600	8100	10400	10200	13100	11800	15100	116	116	130			

Tolerance on LED flux is ± 7% and on total luminaire power ± 5 %



Luminaire	Number of LEDs	Current (mA)	Luminaire output flux (lm) Warm White 727		Luminaire output flux (lm) Warm White 730		Luminaire output flux (lm) Warm White 822		Luminaire output flux (lm) Warm White 830		Luminaire output flux (lm) Neutral White 740		Power consumption (W)		Luminaire efficacy (lm/W)	
			Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to	Photometry
CITEA NG MIDI	16	200	1000	1300	1100	1400	800	1000	1000	1300	1200	1500	11	11	136	
	16	300	1400	1900	1600	2100	1100	1500	1400	1900	1700	2100	15.8	15.8	133	
	16	400	1900	2400	2100	2700	1500	1900	1900	2400	2200	2800	20.8	20.8	135	
	16	500	2300	2900	2500	3200	1800	2300	2300	2900	2600	3400	25.9	25.9	131	
	16	600	2600	3400	3000	3800	2100	2700	2600	3400	3100	3900	31.1	31.1	125	
	16	700	3000	3900	3400	4300	2400	3000	3000	3900	3500	4400	36.4	36.4	121	
	16	850	3400	4400	3800	4900	2700	3500	3400	4400	4000	5100	44.5	44.5	115	
	24	200	1500	2000	1700	2200	1200	1500	1500	2000	1800	2300	15.4	15.4	149	
	24	300	2200	2800	2400	3100	1700	2200	2200	2800	2500	3200	22.5	22.5	142	
	24	400	2800	3600	3200	4000	2200	2900	2800	3600	3300	4200	29.9	29.9	140	
	24	590	3900	5000	4400	5600	3100	4000	3900	5000	4500	5800	44.5	44.5	130	
	24	600	4000	5100	4500	5700	3200	4000	4000	5100	4600	5900	45.5	45.5	130	
	24	700	4500	5800	5100	6500	3600	4600	4500	5800	5200	6700	53.5	53.5	125	
	24	800	5000	6400	5600	7200	4000	5100	5000	6400	5800	7400	61.5	61.5	120	
	24	900	5500	7100	6200	7900	4400	5600	5500	7100	6400	8100	69.5	69.5	117	
	24	1000	6000	7600	6600	8500	4700	6000	6000	7600	6900	8800	78	78	113	
	32	200	2100	2600	2300	2900	1600	2100	2100	2600	2400	3000	20	20	150	
	32	300	2900	3800	3300	4200	2300	3000	2900	3800	3400	4300	29.6	29.6	145	
	32	450	4200	5400	4700	6000	3300	4200	4200	5400	4800	6200	45.5	45.5	136	
	32	500	4600	5900	5100	6500	3600	4600	4600	5900	5300	6800	50	50	136	
	32	600	5300	6800	6000	7600	4200	5400	5300	6800	6200	7900	60	60	132	
	32	700	6100	7800	6800	8600	4800	6100	6100	7800	7000	8900	70	70	127	
	32	800	6700	8600	7500	9600	5300	6800	6700	8600	7800	9900	80	80	124	
	40	200	2600	3300	2900	3700	2000	2600	2600	3300	3000	3800	24.5	24.5	155	
	40	350	4200	5400	4700	6000	3300	4300	4200	5400	4900	6200	42.5	42.5	146	
	40	400	4700	6100	5300	6800	3700	4800	4700	6100	5500	7000	48.5	48.5	144	
	40	500	5800	7400	6400	8200	4600	5800	5800	7400	6600	8500	61	61	139	
	40	600	6700	8600	7500	9500	5300	6800	6700	8600	7700	9900	73	73	136	
	40	700	7600	9700	8500	10800	6000	7700	7600	9700	8800	11200	85	85	132	
	48	200	3100	4000	3500	4400	2400	3100	3100	4000	3600	4600	28.9	28.9	159	
	48	300	4400	5700	4900	6300	3500	4500	4400	5700	5100	6500	43	43	151	
	48	400	5700	7300	6400	8100	4500	5800	5700	7300	6600	8400	57.5	57.5	146	
	48	550	7500	9600	8300	10600	5900	7600	7500	9600	8600	11000	80	80	138	

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



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					Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Up to	Photometry	
CITEA NG MDI	48	600	8000	10300	9000	11400	6400	8100	8000	10300	9300	11800	86	86	137		
	48	700	9100	11700	10200	13000	7200	9200	9100	11700	10500	13400	101	101	133		
	48	800	10100	12900	11300	14400	8000	10200	10100	12900	11700	14900	116	116	128		
	56	200	3600	4600	4000	5200	2900	3700	3600	4600	4200	5300	33.4	33.4	159		
	56	300	5200	6600	5800	7400	4100	5200	5200	6600	6000	7600	49.5	49.5	154		
	56	470	7700	9800	8500	10900	6100	7700	7700	9800	8800	11300	80	80	141		
	56	500	8100	10300	9000	11500	6400	8200	8100	10300	9300	11900	83	83	143		
	56	680	10400	13300	11600	14800	8200	10500	10400	13300	12000	15300	114	114	134		
	64	200	4200	5300	4600	5900	3300	4200	4200	5300	4800	6100	38	38	161		
	64	300	5900	7600	6600	8400	4700	6000	5900	7600	6800	8700	56.5	56.5	154		
	64	420	7900	10100	8900	11300	6300	8000	7900	10100	9200	11700	80	80	146		
	64	500	9200	11800	10300	13100	7300	9300	9200	11800	10600	13600	95	95	143		
	64	600	10700	13700	12000	15300	8500	10900	10700	13700	12400	15800	114	114	139		
	64	700	12200	15600	13600	17300	9600	12300	12200	15600	14000	17900	134	134	134		
	72	200	4700	6000	5200	6700	3700	4700	4700	6000	5400	6900	42.5	42.5	162		
	72	370	8000	10200	8900	11400	6300	8100	8000	10200	9200	11800	79	79	149		
	72	400	8600	11000	9600	12200	6800	8700	8600	11000	9900	12600	85	85	148		
	72	540	11100	14200	12300	15800	8800	11200	11100	14200	12800	16300	115	115	142		
	80	200	5200	6700	5800	7400	4100	5300	5200	6700	6000	7700	47	47	164		
	80	300	7400	9500	8300	10600	5900	7500	7400	9500	8600	10900	70	70	156		
	80	400	9500	12200	10600	13600	7500	9600	9500	12200	11000	14000	94	94	149		
	80	500	11600	14800	12900	16400	9200	11700	11600	14800	13300	17000	118	118	144		
	80	600	13400	17200	15000	19100	10600	13600	13400	17200	15500	19800	142	142	139		
	88	200	5700	7300	6400	8200	4500	5800	5700	7300	6600	8400	51.5	51.5	163		
	88	300	8200	10400	9100	11600	6500	8300	8200	10400	9400	12000	77	77	156		
	88	400	10500	13400	11700	14900	8300	10600	10500	13400	12100	15400	103	103	150		
	88	500	12700	16300	14200	18100	10100	12900	12700	16300	14700	18700	130	130	144		
	88	600	14800	18900	16500	21000	11700	15000	14800	18900	17000	21700	157	157	138		
	96	200	6300	8000	7000	8900	4900	6300	6300	8000	7200	9200	56.5	56.5	163		
	96	300	8900	11400	9900	12700	7100	9000	8900	11400	10300	13100	84	84	156		
	96	400	11500	14600	12800	16300	9100	11600	11500	14600	13200	16800	112	112	150		
	96	530	14600	18600	16200	20700	11500	14700	14600	18600	16800	21400	150	150	143		

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

