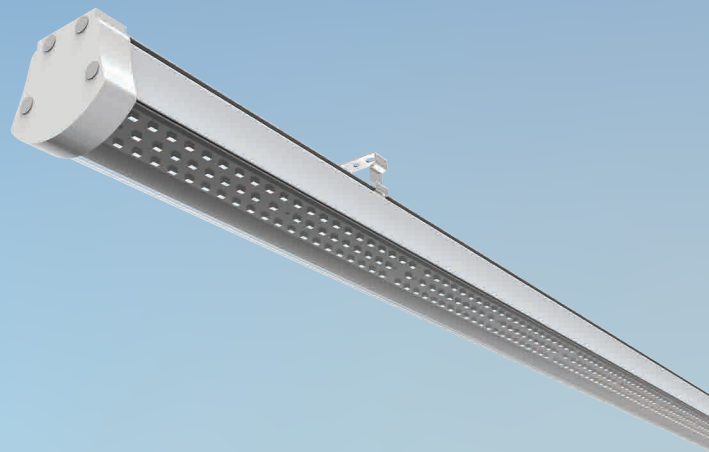




LED LIGHTING LUMINAIRES





In the next pages, we are presenting a wide range of lighting solutions with LEDs, produced by Electromagnetica, according to the European Standards in force. You will discover perfect luminaires with a large palette of mounting variants from where you can choose the appropriate solution for your space.

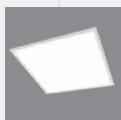
ELECTROMAGNETICA

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Omicron 15



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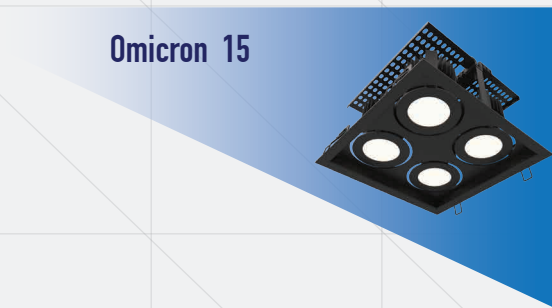
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Residential/ ambiental/ office lighting

Content



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Omicron 15



Atlas 9



Tempus 18

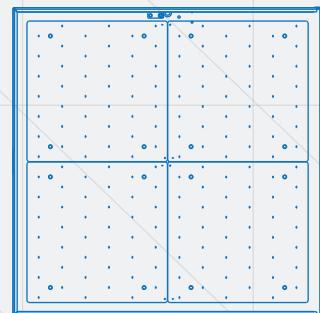
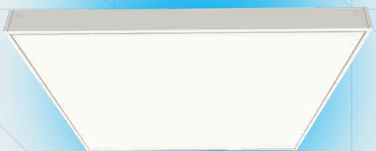


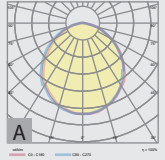
Igreco 12



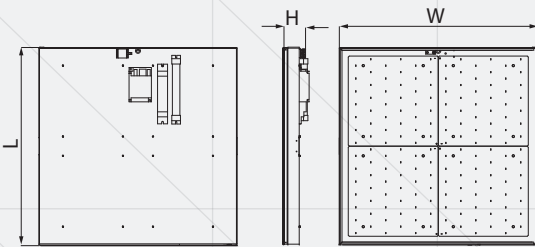
ALCOR

ALCOR luminaire offer a minimalist design with an easy installation system for rooms with coffered ceiling. It's time to abandon 4x18 W fluorescent lamps and to choose **ALCOR** range!





- Installation: Shopping centers, offices, conference rooms
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: + 5°C . . . + 40°C
- Light distribution: A
- Emergency lighting: battery autonomy - 60 min

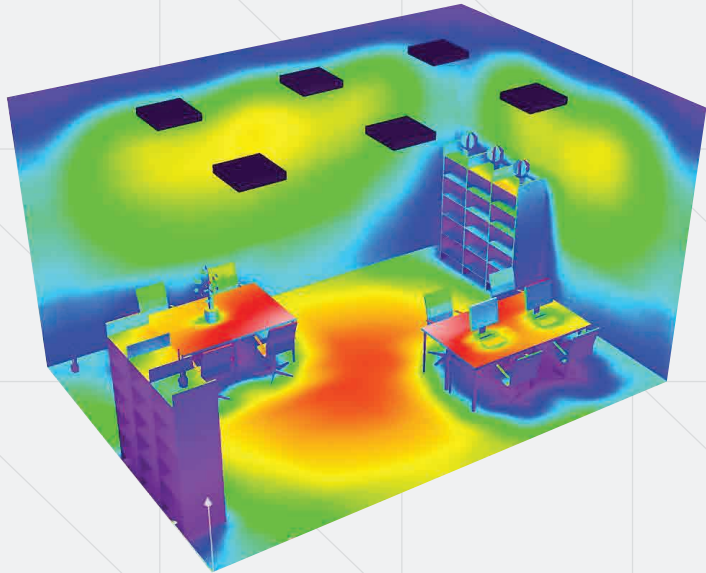


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 81778-014	48 W	plexiglass	6250 lm	594 x 594 x 80 mm 4,4 kg	-
RS 81778-015	48 W	plexiglass	6250 lm	594 x 594 x 80 mm 4,4 kg	-
RS 81778-018	30 W	plexiglass	3900 lm	594 x 594 x 80 mm 4,4 kg	-
RS 81778-019	30 W	plexiglass	3900 lm	594 x 594 x 80 mm 4,4 kg	-
RS 81778-022	30 W	plexiglass	3900 lm	594 x 594 x 80 mm 4,2 kg	Bluetooth module
RS 81778-023	32 W	plexiglass	4200 lm	594 x 594 x 80 mm 4,2 kg	Ni-Cd batteries kit 4,8 V / 1,6 Ah
RS 81778-024	50 W	plexiglass	6500 lm	594 x 594 x 80 mm 4,2 kg	dimnable
RS 81778-025	30 W	plexiglass	3900 lm	594 x 594 x 50 mm 4,2 kg	connection to an emergency power supply
RS 81778-026	33 W	plexiglass	4300 lm	594 x 594 x 80 mm 4,2 kg	Ni-Cd batteries kit 4,8 V / 1,6 Ah
RS 81778-029	30 W	plexiglass	3900 lm	594 x 594 x 80 mm 5,4 kg	-
RS 81778-030	33 W	plexiglass	4300 lm	594 x 594 x 86 mm 5,5 kg	Ni-Cd batteries kit 4,8 V / 1,6 Ah
RS 81778-031	30 W	plexiglass	3900 lm	594 x 594 x 80 mm 5,4 kg	-
RS 81778-032	33 W	plexiglass	4200 lm	594 x 594 x 80 mm 4,3 kg	Ni-Cd batteries kit 4,8 V / 4,5 Ah

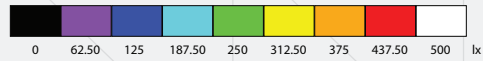
Compliance standards:

SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 60598-2-22:2015+
 AC:2015+AC:2016
 SR EN 62031:2009+A1:2013
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





Height of space: 3.000 m
 Fitting height: 3.000 m
 Maintenance factor : 0.90

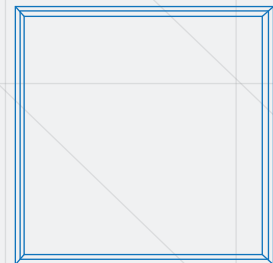


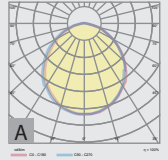
Surface	p [%]	Em [lx]	Emin [lx]	Emax [lx]	u0
Usable surface	/	484	23	828	0.047
Floor	20	300	5.91	743	0.020
Ceiling	70	102	35	214	0.346
Walls	50	291	46	2030	/



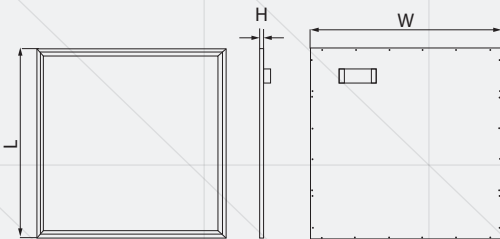
ATLAS

An elegant design and just 10 mm thickness, **ATLAS** light fittings are designed for office buildings, conference halls, pharmacies. TIR technology eliminates the pixel effect from the LED's light source .





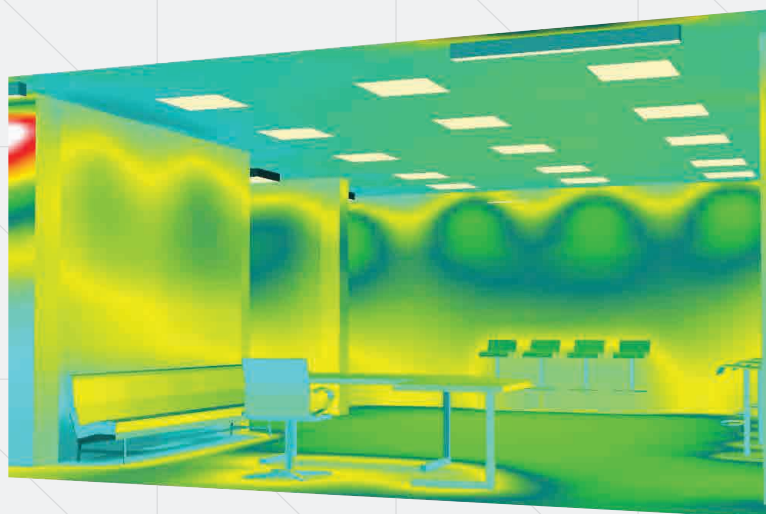
- Installation: Conference rooms, office lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: + 5°C . . . + 40°C
- Light distribution: A



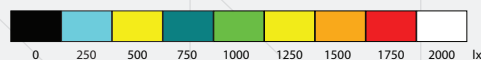
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82019-001	30 W	polycarbonate	3300 lm	595 x 595 x 10 mm 3,2 kg	-
RS 82019-002	30 W	polycarbonate	3300 lm	605 x 602 x 50 mm 3,4 kg	-
RS 82019-003	16 W	polycarbonate	1800 lm	295 x 595 x 10 mm 2 kg	-
RS 82019-004	30 W	plexiglass	3300 lm	1195 x 295 x 10 mm 2,5 kg	-
RS 82019-005	33 W	plexiglass	3300 lm	595 x 595 x 10 mm 3,6 kg	Ni-Cd batteries kit 4,8 V / 1,6 Ah
RS 82019-006	33 W	plexiglass	3300 lm	595 x 595 x 10 mm 3,7 kg	Ni-Cd batteries kit 4,8 V / 4,5 Ah
RS 82019-007	33 W	plexiglass	3300 lm	602 x 602 x 44 mm 4,6 kg	Ni-Cd batteries kit 4,8 V / 1,6 Ah
RS 82019-008	30 W	plexiglass	3300 lm	605 x 602 x 50 mm 4,6 kg	Ni-Mh batteries kit 4,8 V / 4,0 Ah

Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-2:2012
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





Height of space : 3,000 m
 Maintenance factor : 0,90

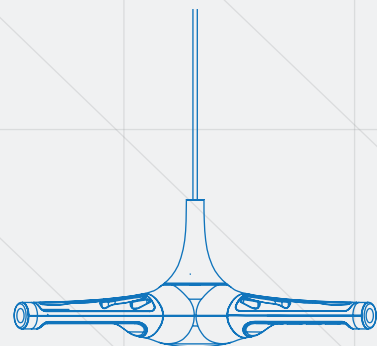


Surface	p [%]	Em [lx]	Emin [lx]	Emax [lx]	u0
Usable surface	/	723	36	1244	0.050
Floor	41	546	20	1095	/
Ceiling	70	227	40	810	/
Walls	50	347	33	3520	/



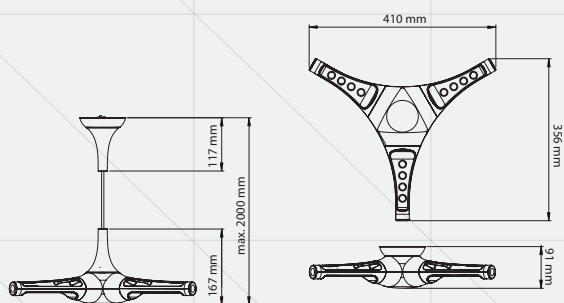
IGREGO

IGREGO luminaire has an original and innovative design, provides elegance and simplicity to your project. Developed for minimalist as well for to industrial interior types, **IGREGO** suits perfectly any kind of space. Single or several interconnected luminaires may create specific ambiance.

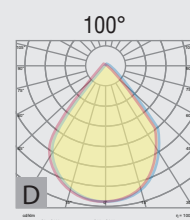
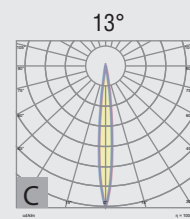
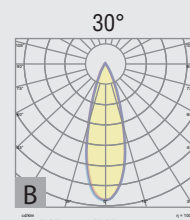
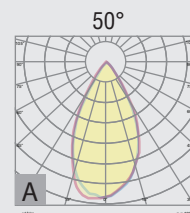


IGREGO

- Installation: Conference rooms, office lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20
- Power supply: 230 V / 50 Hz
- Safety class: II
- Operating temperature: max. + 40°C

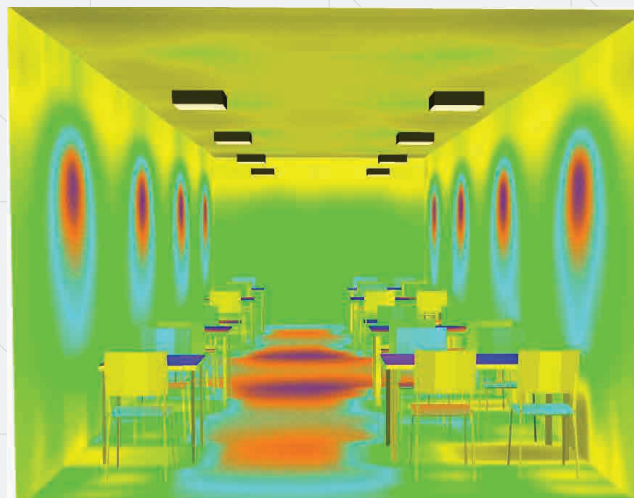


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Light distribution	Observation
RS 81760-001	27 W	matte dffuser	3700 lm	592 x 592 x 75 mm 1 kg	D	without electrical interconnection
RS 81760-002	27 W	PMMA lens	3700 lm	592 x 592 x 75 mm 1 kg	C	without electrical interconnection
RS 81760-003	27 W	PMMA lens	3600 lm	592 x 592 x 75 mm 1 kg	B	without electrical interconnection
RS 81760-004	27 W	PMMA lens	3700 lm	592 x 592 x 75 mm 1 kg	A	without electrical interconnection
RS 81760-005	27 W	matte dffuser	2400 lm	592 x 592 x 75 mm 1 kg	D	with electrical interconnection
RS 81760-006	27 W	PMMA lens	2200 lm	592 x 592 x 75 mm 1 kg	C	with electrical interconnection
RS 81760-007	27 W	PMMA lens	2400 lm	592 x 592 x 75 mm 1 kg	B	with electrical interconnection
RS 81760-008	27 W	PMMA lens	2360 lm	592 x 592 x 75 mm 1 kg	A	with electrical interconnection

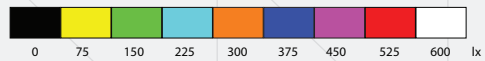


Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-2:2012
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010

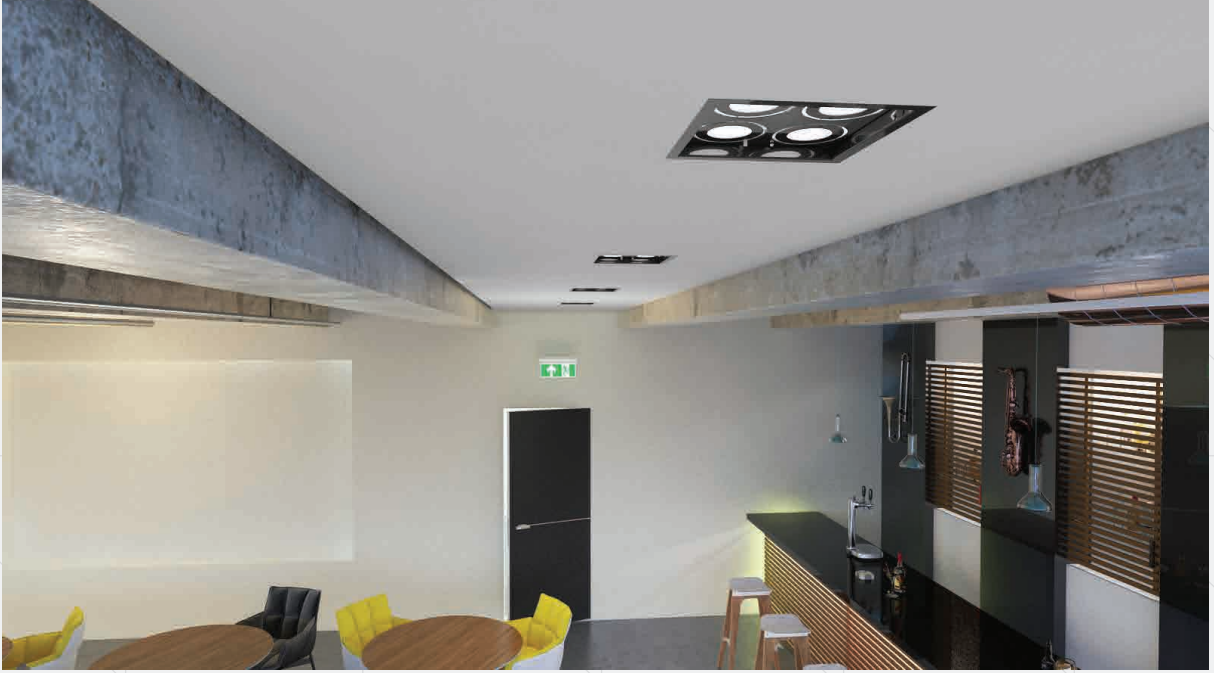




Height of space : 4,700 m
 Maintenance factor : 0,90

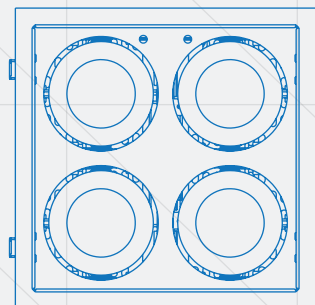
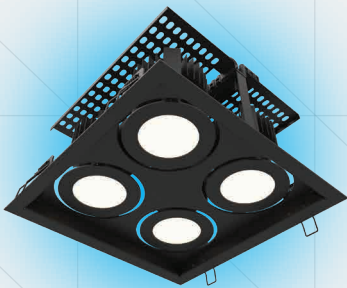


Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable surface	/	634	55	1465	0.087
Floor	20	434	23	1136	0.053
Ceiling	70	126	28	271	0.327
Walls	50	170	36	544	0.221

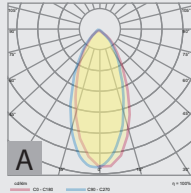


OMICRON

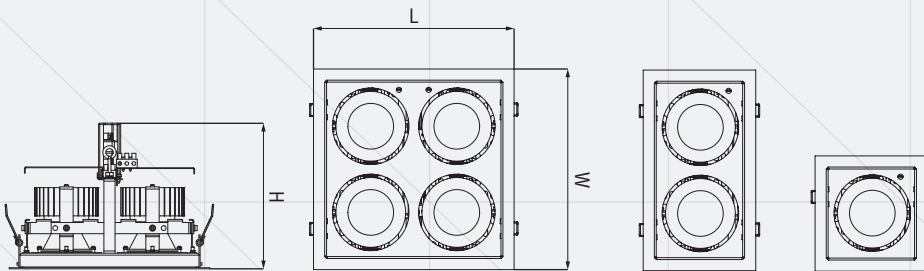
When several areas need to be lit, **OMICRON** family is the best choice. They were designed, as to combine aesthetics with functionality, in order to light on the desired areas.



OMICRON



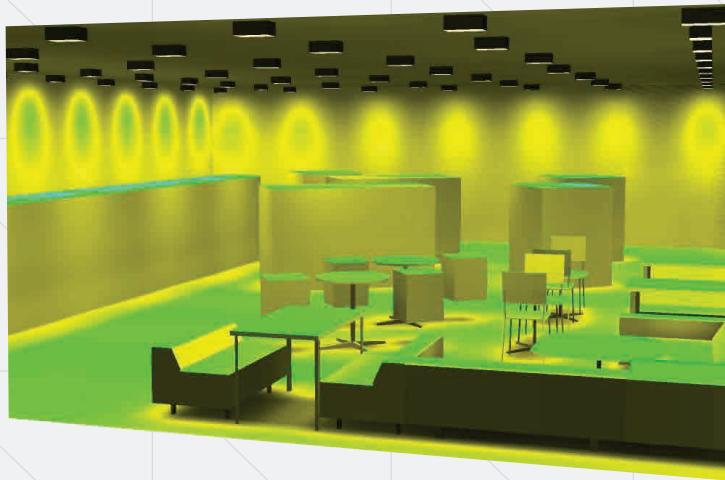
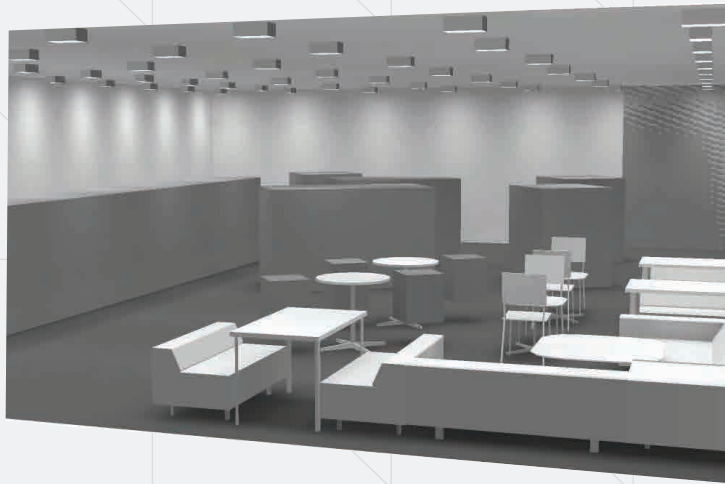
- Installation: Conference rooms, office lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20
- Power supply: 230 V / 50 Hz
- Safety class: II
- Operating temperature: max. + 40°C
- Emergency lighting: battery autonomy - 60 min
- Light distribution: A



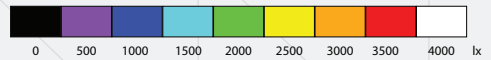
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H); (kg)	Modules number	Observations
RS 81637-001	50 W	matte plexiglass	5200 lm	270 x 270 x 215 mm 2 kg	4	-
RS 81637-002	56 W	matte plexiglass	5200 lm	270 x 270 x 215 mm 2,8 kg	4	Ni-Cd batteries 4,8 V / 1,6 Ah
RS 81637-003	27 W	matte plexiglass	2700 lm	270 x 160 x 153 mm 1,5 kg	2	-
RS 81637-004	12 W	matte plexiglass	1250 lm	160 x 160 x 112 mm 1,0 kg	1	-

Compliance standards:
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





Height of space: 6.000 m
 Fitting height: 3.500 m
 Maintenance factor : 0.90

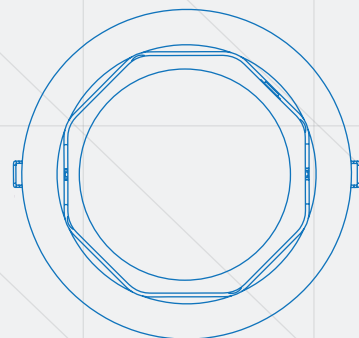
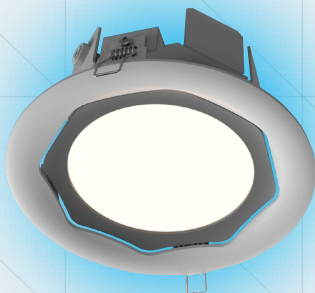


Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable surface	/	1042	12	2522	0.012
Floor	20	760	9.49	2263	0.012
Ceiling	70	307	43	638	0.140
Walls	50	225	27	1078	/

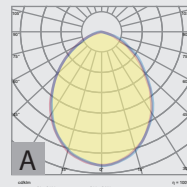


TEMPUS

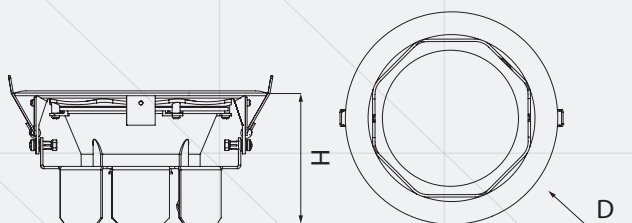
Why **TEMPUS** luminaire are suitable for indoors lighting? Simply because it is a downlight which allows precise light distribution. They are suitable in administration office buildings or public places such as schools, shops, hotels.



TEMPUS



- Installation: Conference rooms, office lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20/IP54
- Power supply: 230 V / 50 Hz
- Safety class: II
- Operating temperature: max. + 40°C
- Light distribution: A

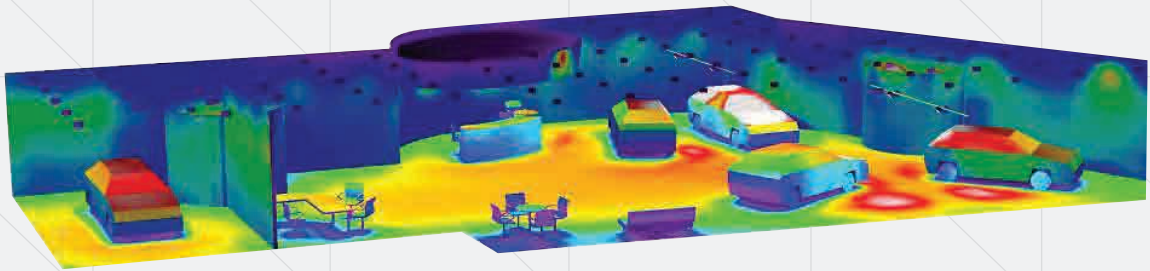


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (D x H);(kg)	Observations
RS 81511-001	23 W	matte PMMA	2200 lm	220 x 118 mm 1,8 kg	emergency lighting kit: 60 min.
RS 81523 A2	20 W	matte PMMA	2240 lm	220 x 118 mm 1,6 kg	-
RS 81523-005	23 W	matte PMMA	2240 lm	220 x 118 mm 1,8 kg	emergency lighting kit: 180 min.
RS 81523-006	14 W	PMMA lenses	1100 lm	220 x 118 mm 2,0 kg	Bluetooth dimmable

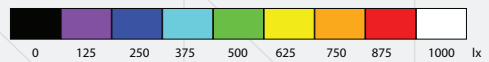
Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



TEMPUS



Height of space: 3,470 m
 Maintenance factor : 0.90



Surface	p [%]	Em [lx]	Emin [lx]	Emax [lx]	u0
Usable surface	/	728	170	1494	0.233
Floor	10	545	37	988	0.067
Ceiling	70	176	53	451	0.300
Walls	85	323	78	2207	/

Industrial lighting

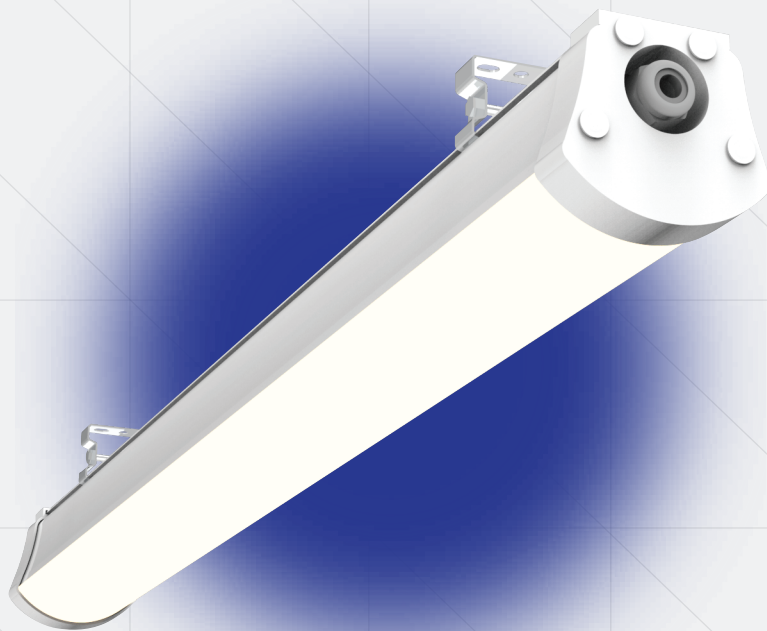
Content



Gamma 22



Maia 25



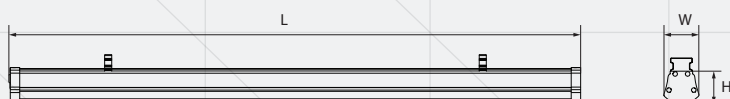
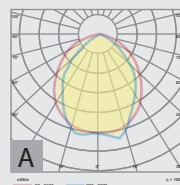
GAMMA

GAMMA is a linear luminaire, suitable for industrial lighting or shopping center lighting. They consist of one up to five modules and can be mounted either suspended or apparent. Optional may include an emergency kit.



GAMMA

- Installation: Shopping centers
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: +5 . . . + 45°C
- Emergency lighting: battery autonomy - 60 min

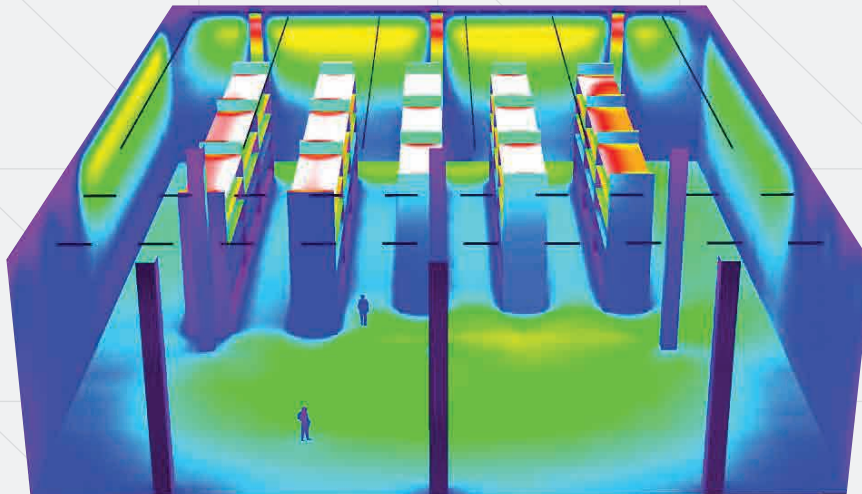
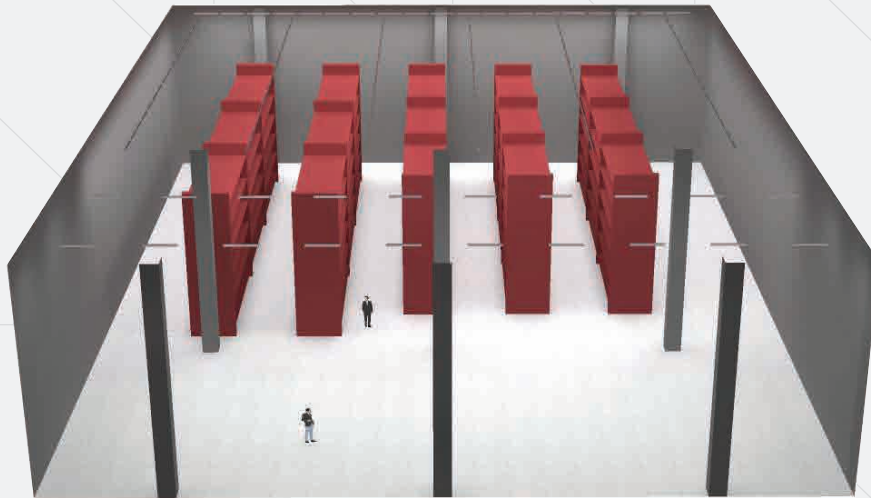


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82070-002	40 W	transparent polycarbonate	6000 lm	1200 x 95 x 68 mm 1,3 kg	operating temperature range: -30°C ...+45°C
RS 82070-004	45 W	transparent polycarbonate	6000 lm	1200 x 95 x 70 mm 1,6 kg	Ni-Cd batteries 4,8 Vcc / 1,6 Ah
RS 82070-005	20 W	transparent polycarbonate	3000 lm	600 x 95 x 70 mm 0,8 kg	operating temperature range: -30°C ...+45°C
RS 82070-006	25 W	transparent polycarbonate	3000 lm	750 x 95 x 70 mm 0,9 kg	LiFePO4 batteries 3,2 Vcc / 3,0 Ah
RS 82070-007	50 W	transparent polycarbonate	7300 lm	1500 x 95 x 70 mm 1,5 kg	operating temperature range: -30°C ...+45°C
RS 82070-008	50 W	transparent polycarbonate	7400 lm	1500 x 95 x 70 mm 1,6 kg	LiFePO4 batteries 3,2 Vcc / 3,0 Ah
RS 82070-009	10 W	transparent polycarbonate	1350 lm	300 x 95 x 70 mm 0,5 kg	operating temperature range: -30°C ...+45°C

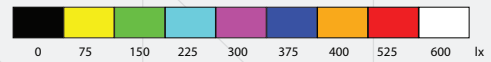
Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



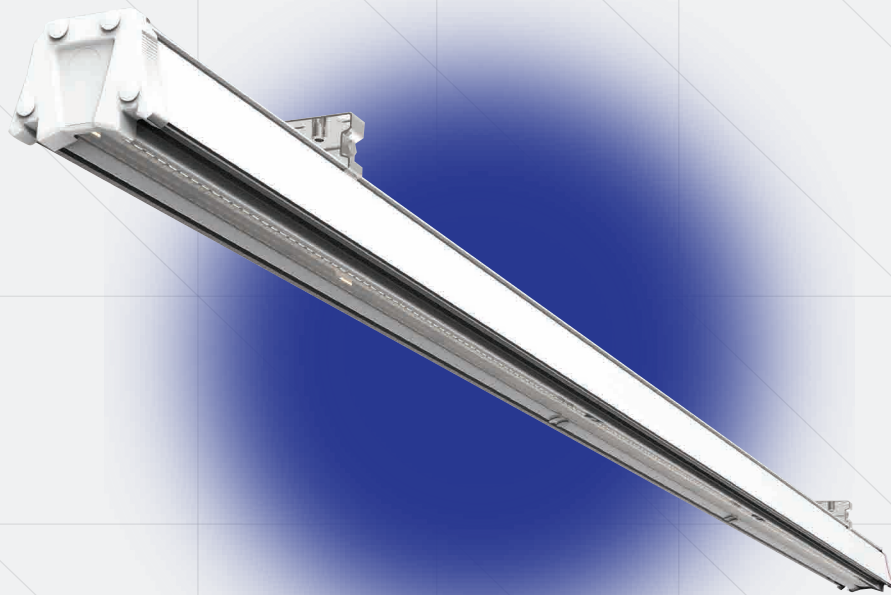
GAMMA



Height of space: 6.000 m
 Fitting height: 3.500 m
 Maintenance factor: 0.90



Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable surface	/	512	60	1090	0.116
Floor	51	430	26	743	0.060
Ceiling	70	177	90	256	0.506
Walls	50	201	7.87	991	/



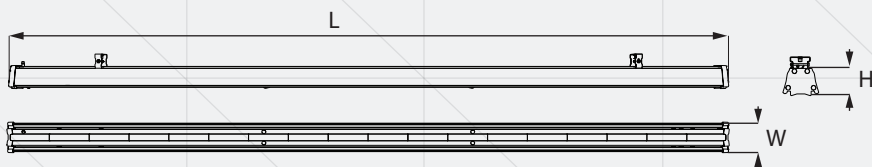
MAIA

MAIA is a linear luminaire, used for industrial or shopping centers lighting, which can be mounted both suspended and apparent.

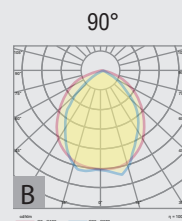
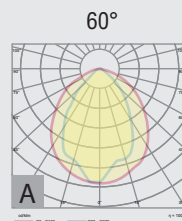


MAIA

- Installation: Industrial lighting, shopping centers
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP20
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: +5 . . . + 40°C
- Emergency lighting: battery autonomy - 60 min

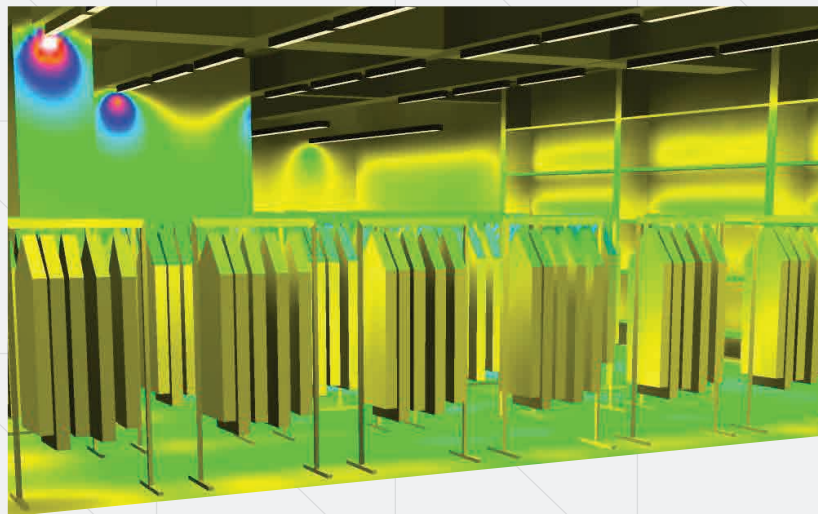


Code	Nominal power	Diffuser	Luminous flux	Light distribution	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82083-006	74 W	lens	10600 lm	A	1722x 73 x 83 mm 2,0 kg	-
RS 82083-008	74 W	lens	10600 lm	B	1722 x 73 x 83 mm 2,0 kg	-
RS 82083-009	74 W	lens	10600 lm	B	1722 x 73 x 83 mm 2,0 kg	dimnable
RS 82083-014	78 W	lens	10600 lm	A	1722 x 73 x 83 mm 2,0 kg	LiFePO4 batteries 3,2 Vcc / 3,0 Ah
RS 82083-019	74 W	lens	10600 lm	B	1810 x 70 x 81 mm 2,5 kg	-
RS 82083-022	78 W	lens	10600 lm	A	1722 x 73 x 83 mm 2,5 kg	LiFePO4 batteries 3,2 Vcc / 3,0 Ah
RS 82083-029	78 W	lens	10600 lm	B	1722 x 73 x 83 mm 2,5 kg	LiFePO4 batteries 3,2 Vcc / 3,0 Ah

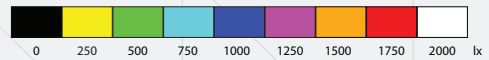


Compliance standards:
 SR EN 60598-1:2015+AC:2016
 +A1:2018
 SR EN 60598-2-22:2015
 +AC:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





Height of space: 3,470 m
 Maintenance factor : 0.90



Surface	p [%]	Em [lx]	Emin [lx]	Emax [lx]	u0
Usable plan	/	570	105	911	0.184
Floor	50	463	101	763	0.218
Ceiling	70	70	33	119	0.479
Walls	50	241	39	2880	/

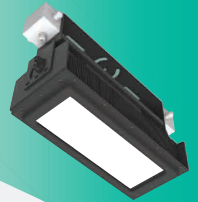
Projectors

Content

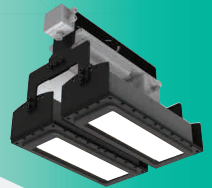


Ronda 28

Aquila 1M 36



Aquila 2M 36



Aquila 3M 36



Virgo 30

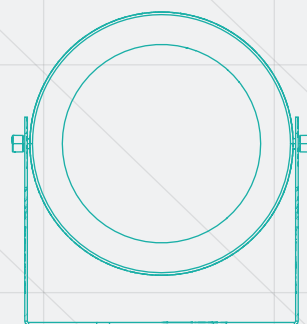


Castor 33



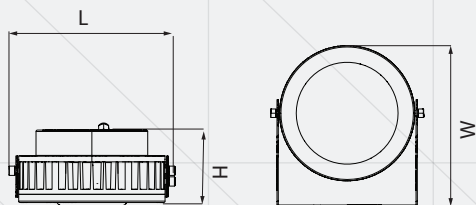
RONDA

RONDA, a floodlight type luminaire, is suitable for architectural lighting, as well for general lighting applications. The RGBW combine architectural objectives with illumination needs.



RONDA

- Installation: Architectural lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 70
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: -30°C . . . + 45°C



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H); (kg)	Observations
RS 82042-005	30 W	PMMA lens	3000 lm	232 x 145 x 105 mm 2,2 kg	-

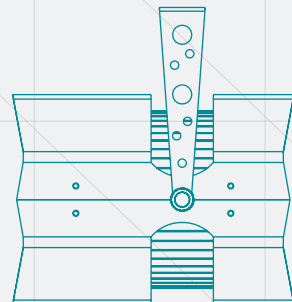
Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





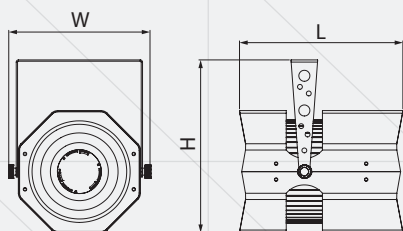
VIRGO

A dynamical asymmetrical shape, **VIRGO**, combines aesthetics with performance. The multiple optical version is recommended in various applications and integration into any type of environment, especially in retail areas .



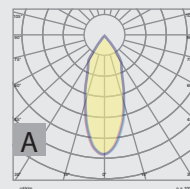
VIRGO

- Installation type: Comercial centers lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP30
- Power supply: 230 V / 50 Hz
- Safety class: II
- Operating temperature range: max. + 45°C

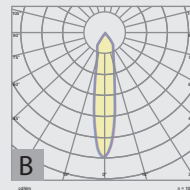


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Light distribution	Observation
RS 81797-001	40 W	matte	4300 lm	195 x 185 x 138 mm 1,6 kg	C	-
RS 81797-002	40 W	matte	4300 lm	195 x 185 x 138 mm 1,6 kg	B	-
RS 81797-003	40 W	matte	4300 lm	195 x 185 x 138 mm 1,6 kg	A	-
RS 81797-004	20 W	matte	1500 lm	186 x 128 x 132 mm 0,8 kg	A	rail mounting
RS 81797-005	20 W	matte	1500 lm	186 x 128 x 132 mm 0,8 kg	B	rail mounting
RS 81797-006	20 W	matte	1500 lm	186 x 128 x 132 mm 0,8 kg	D	rail mounting
RS 81797-007	20 W	transparent	1500 lm	186 x 128 x 132 mm 0,8 kg	C	rail mounting

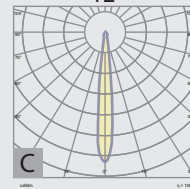
38°



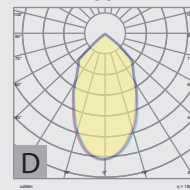
19°



12°



60°



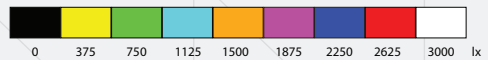
Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



VIRGO



Height of space : 3,500 m
 Maintenance factor : 0,90

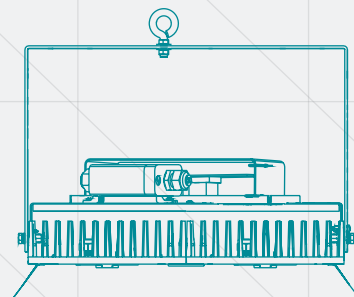
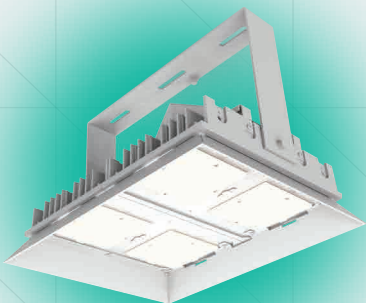


Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable plan	/	1042	12	2522	0.012
Floor	20	760	9.49	2263	0.012
Ceiling	70	307	43	638	0.140
Walls	50	225	27	1078	/

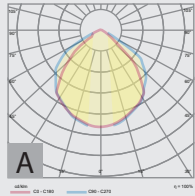


CASTOR

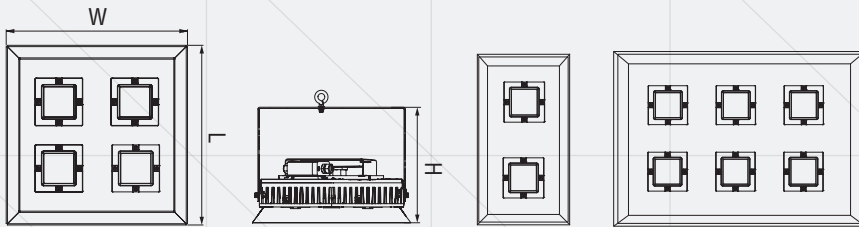
CASTOR is part of the floodlight family, suitable both for the indoor and outdoor lighting of the warehouses and industrial buildings. One of the main feature is to provide fast and easy mounting, either suspended or recessed on the ceiling or the wall. There also position is adjustable by 90 degrees rotation upward and downward degrees.



CASTOR



- Installation: Industrial lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C
- Light distribution: A

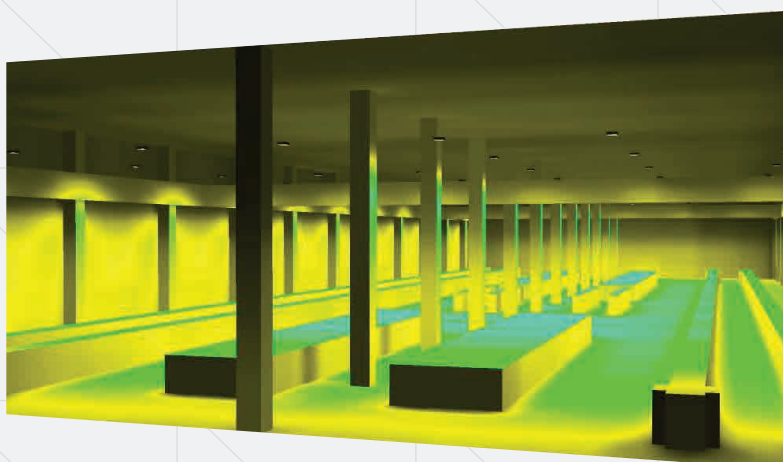


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Modules number	Observations
RS 81455-031	65 W	polycarbonate dispenser	9400 lm	310 x 210 x 285 mm 4 kg	2	-
RS 81455-032	65 W	glass lens	7830 lm	310 x 210 x 285 mm 4 kg	2	-
RS 81455-033	65 W	glass lens	7830 lm	315 x 210 x 285 mm 4,2 kg	2	-
RS 81455-038	137 W	polycarbonate dispenser	20000 lm	387 x 310 x 285 mm 5,5 kg	4	-
RS 81455-044	180 W	polycarbonate dispenser	25600 lm	562 x 310 x 87 mm 8,4 kg	6	-

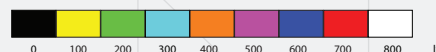
Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-5:2016
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



CASTOR



Height of space : 7.000 m
Maintenance factor : 0.80

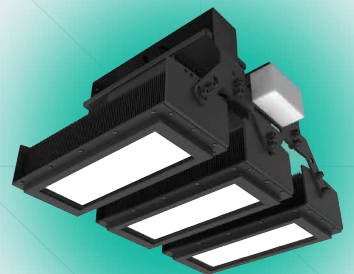
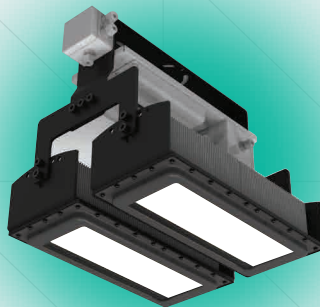
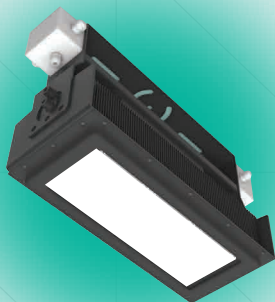


Suprafață	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable plan	/	299	13	907	0.044
Floor	20	220	7.68	756	0.035
Ceiling	70	86	35	217	0.405
Walls	50	131	24	2777	/



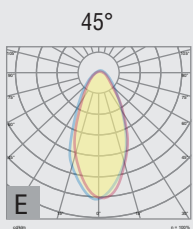
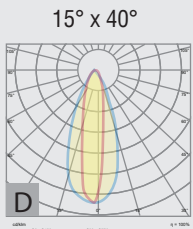
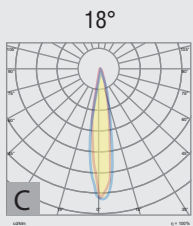
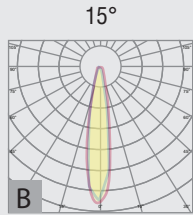
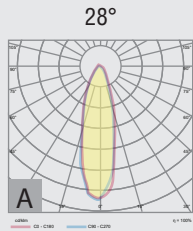
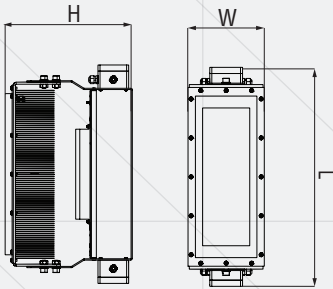
AQUILLA

AQUILLA luminaires have been specially designed for football stadium and sport grounds, areas that require strong lighting to carry out activities in the best conditions. These can be ordered in 1 or 3 module variants, depending on the application location.



AQUILLA 1M

- Installation: Stadium, parking, tunnel, architectural lighting
- Colour temperature: 5700K
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C



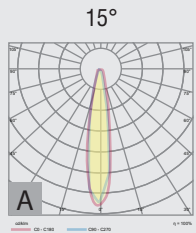
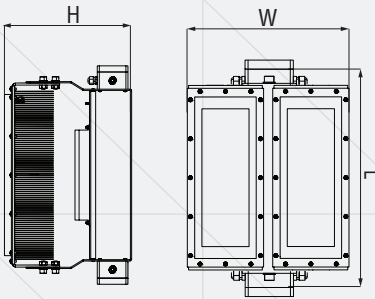
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Light distribution	Observations
RS 82025-006	230 W	PMMA lens	21000 lm	534 x 311 x 186 mm 9 kg	A	dimnable; CRI < 90
RS 82025-007	230 W	PMMA lens	21800 lm	534 x 311 x 186 mm 9 kg	B	dimnable; CRI < 90
RS 82025-008	230 W	PMMA lens	21600 lm	534 x 311 x 186 mm 9 kg	C	dimnable; CRI < 90
RS 82025-009	230 W	PMMA lens	21280 lm	534 x 311 x 186 mm 9 kg	D	dimnable; CRI < 90
RS 82025-010	230 W	PMMA lens	19700 lm	534 x 311 x 186 mm 9 kg	E	dimnable; CRI < 90
RS 82025-016	230 W	PMMA lens	30000 lm	534 x 311 x 186 mm 9 kg	A	dimnable; CRI < 70
RS 82025-017	230 W	PMMA lens	29500 lm	534 x 311 x 186 mm 9 kg	B	dimnable; CRI < 70
RS 82025-018	230 W	PMMA lens	31430 lm	534 x 311 x 186 mm 9 kg	C	dimnable; CRI < 70
RS 82025-019	230 W	PMMA lens	30730 lm	534 x 311 x 186 mm 9 kg	D	dimnable; CRI < 70
RS 82025-020	230 W	PMMA lens	28480 lm	534 x 311 x 186 mm 9 kg	E	dimnable; CRI < 70
RS 82025-022	230 W	PMMA lens	24150 lm	534 x 311 x 186 mm 9 kg	A	dimnable; CRI < 80
RS 82025-023	230 W	PMMA lens	24000 lm	534 x 311 x 186 mm 9 kg	B	dimnable; CRI < 80
RS 82025-024	230 W	PMMA lens	24250 lm	534 x 311 x 186 mm 9 kg	C	dimnable; CRI < 80
RS 82025-025	230 W	PMMA lens	24100 lm	534 x 311 x 186 mm 9 kg	D	dimnable; CRI < 80
RS 82025-026	230 W	PMMA lens	23900 lm	534 x 311 x 186 mm 9 kg	E	dimnable; CRI < 80

Compliance standards:
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



AQUILLA 2M

- Installation: Stadium, parking, tunnel, architectural lighting
- Colour temperature: 5700K
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C
- Light distribution: A



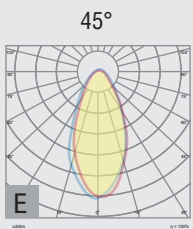
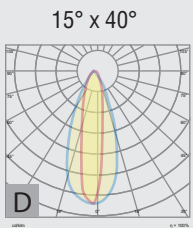
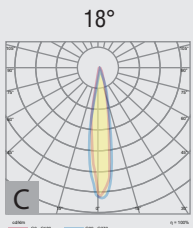
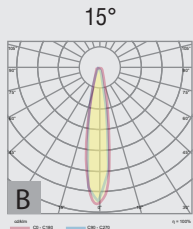
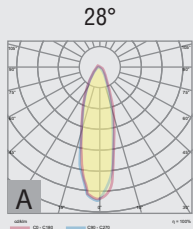
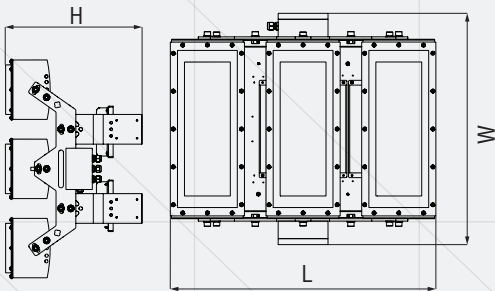
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82025-027	2 x 240 W	PMMA lens	2 x 25000 lm	500 x 490 x 410 mm 18 kg	dimnable

Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



AQUILLA 3M

- Installation: Stadium, sport grounds
- Colour temperature: 5700K
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Light distribution	Observation
RS 82025-001	3 x 230 W	lentile PMMA	3 x 21000 lm	643 x 580 x 415 mm 24 kg	A	dimnable; CRI < 90
RS 82025-002	3 x 230 W	lentile PMMA	3 x 21800 lm	643 x 580 x 415 mm 24 kg	B	dimnable; CRI < 90
RS 82025-003	3 x 230 W	lentile PMMA	3 x 21600 lm	643 x 580 x 415 mm 24 kg	C	dimnable; CRI < 90
RS 82025-004	3 x 230 W	lentile PMMA	3 x 21280 lm	643 x 580 x 415 mm 24 kg	D	dimnable; CRI < 90
RS 82025-005	3 x 230 W	lentile PMMA	3 x 19700 lm	643 x 580 x 415 mm 24 kg	E	dimnable; CRI < 90
RS 82025-011	3 x 230 W	lentile PMMA	3 x 30000 lm	643 x 580 x 415 mm 24 kg	A	dimnable; CRI < 70
RS 82025-012	3 x 230 W	lentile PMMA	3 x 29500 lm	643 x 580 x 415 mm 24 kg	B	dimnable; CRI < 70
RS 82025-013	3 x 230 W	lentile PMMA	3 x 31430 lm	643 x 580 x 415 mm 24 kg	C	dimnable; CRI < 70
RS 82025-014	3 x 230 W	lentile PMMA	3 x 30730 lm	643 x 580 x 415 mm 24 kg	D	dimnable; CRI < 70
RS 82025-015	3 x 230 W	lentile PMMA	3 x 28480 lm	643 x 580 x 415 mm 24 kg	E	dimnable; CRI < 70
RS 82025-002D	3 x 230 W	lentile PMMA	3 x 30000 lm	630 x 486 x 432 mm 25 kg	A	dimnable; CRI < 90
RS 82025-012D	3 x 230 W	lentile PMMA	3 x 30000 lm	630 x 486 x 432 mm 25 kg	B	dimnable; CRI < 70
RS 82025-021D	3 x 230 W	lentile PMMA	3 x 24000 lm	630 x 486 x 432 mm 25 kg	C	dimnable; CRI < 80

Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-1:2001
 SR EN 62031:2009+A1:2013+
 A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



Street lighting

Content



ElmaRo 41

Leos 50



Phoenix 53



Evocityeco 44

Selena 56



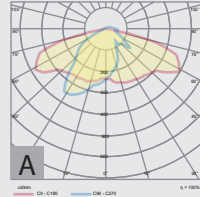
Evocity 47



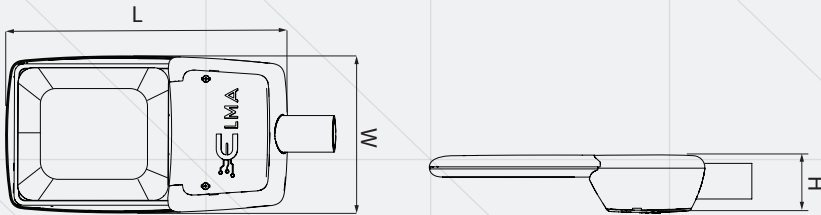
ELMARO

ElmaRO is a street lighting fixture, made entirely of plastics. Heat transfer is performed using a new technology, based on the injection of thermally conductive plastic based on graphite.

ELMARO



- Installation: Street lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 70
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Light distribution: A
- Operating temperature range: - 30°C . . . + 50°C
- Pipe mounting: Ø 48 - 60 mm



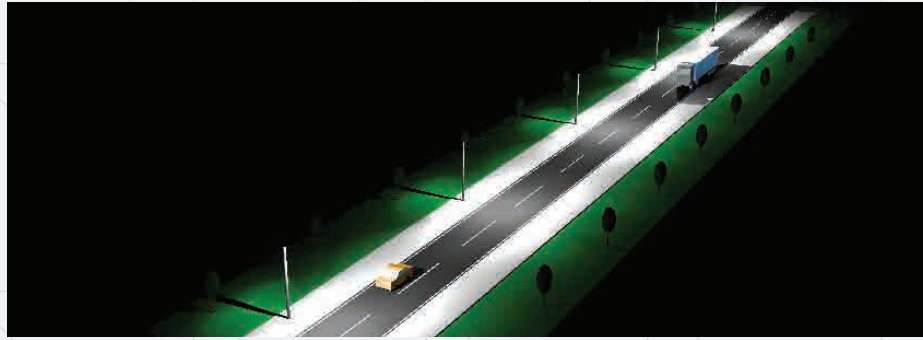
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x l x h);(kg)	Observations
RS 82053-001*	35 W	polycarbonate diffuser/ PMMA lens	5430 lm	465 x 257 x 105 mm 3,2 kg	-
RS 82053-002**	50 W	polycarbonate diffuser/ PMMA lens	7500 lm	465 x 257 x 105 mm 3,6 kg	-
RS 82053-001D*	35 W	polycarbonate diffuser/ PMMA lens	5430 lm	465 x 257 x 105 mm 3,3 kg	dimnable
RS 82053-002D**	50 W	polycarbonate diffuser/ PMMA lens	7500 lm	465 x 257 x 105 mm 3,8 kg	dimnable

*At customer's request the power may have values between 18-35W

**At customer's request the power may have values between 30-50W

Compliance standards :
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-3:2004
 +A1:2012
 SR EN 62031:2009+A1:2013
 +A2:2015 art. 13.2 si 15
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





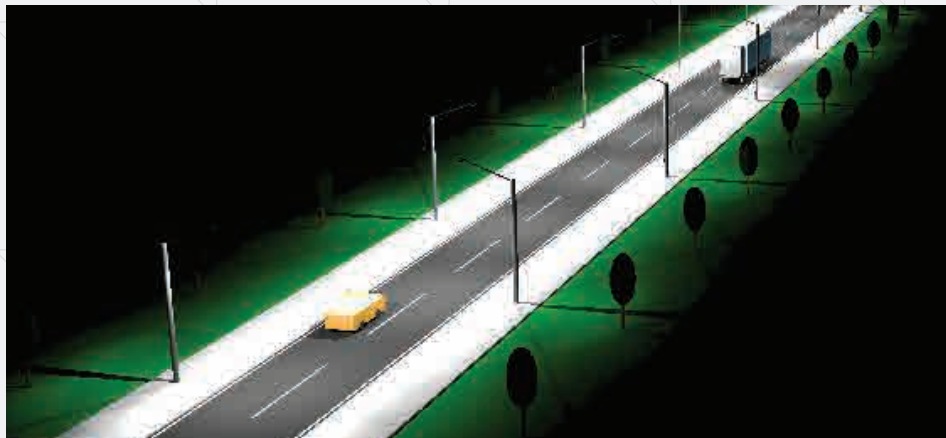
Calculation area list

Evaluation field: Street 1
 Length: 40.000 m, Width: 7.000 m
 Raster: 12 x 6 Points
 Attached street elements: Street 1.
 Covering: R3, q0: 0.070
 Selected illumination class: ME4

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

Lm [cd/m ²]	U0	UI	TI [%]	SR
0.75	0.61	0.80	13	0.60
≥ 0.75	≥ 0.40	≥ 0.50	≤ 15	≥ 0.50
✓	✓	✓	✓	✓



Calculation area list

Evaluation field: Street 1
 Length: 40.000 m, Width: 7.000 m
 Raster: 14 x 6 Points
 Attached street elements: Street 1.
 Covering: R3, q0: 0.070
 Selected illumination class: ME3

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

Lm [cd/m ²]	U0	UI	TI [%]	SR
1.52	0.60	0.74	8	0.60
≥ 1.50	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
✓	✓	✓	✓	✓

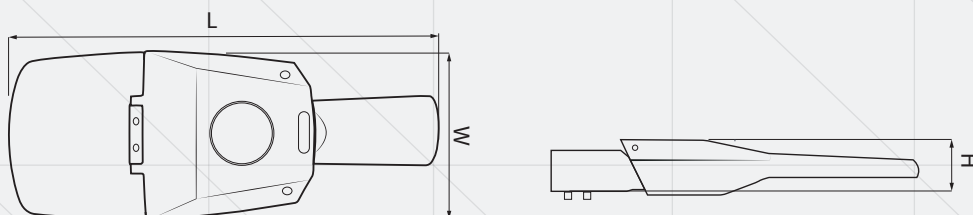
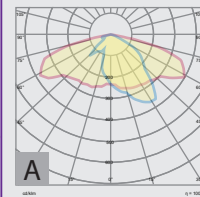


EVOCITYECO

EVOCITYECO lighting device is made of an aluminum cast body, with outer protection, corrosion protection treatment and UV resistant paint. **EVOCITYECO** products can have values between 30W and 50W, depending on the number of LED modules. The luminaires have a safety glass diffuser and ensure IP66 ingress protection for all constructive variants.

EVOCITYECO

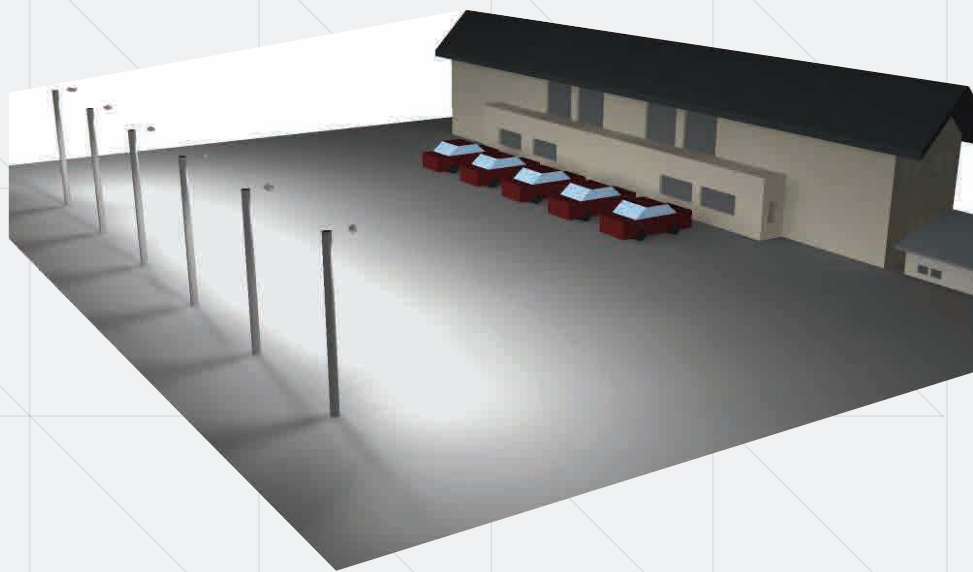
- Installation: Street lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Light distribution: A
- Operating temperature range: - 30°C . . . + 45°C
- Pipe mounting: Ø 48 - 60 mm



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82076-002	30 W	glass diffuser/ PMMA lens	4200 lm	508 x 203 x 110 mm 3,5 kg	-
RS 82076-005	50 W	glass diffuser/ PMMA lens	7200 lm	508 x 203 x 110 mm 3,5 kg	-

Compliance standards :
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-3:2004
 +A1:2012
 SR EN 62031:2009+A1:2013
 +A2:2015 art. 13.2 si 15
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010





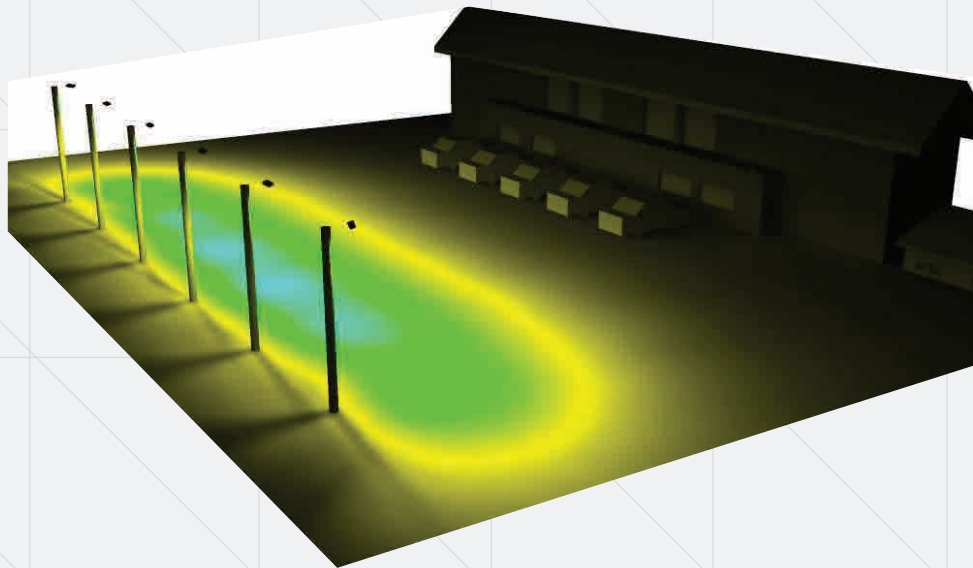
Calculation area list

Evaluation field: Street 1
 Length: 35.000 m, Width: 14.000 m
 Raster: 12 x 12 Points
 Attached street elements: Street 1.
 Covering: R2, q0: 0.070
 Selected illumination class: ME3

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

	Lm [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	2.06	0.59	0.73	10	0.50
Necessary values according to class:	≥ 2.00	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
Acquired/ Not acquired:	✓	✓	✓	✓	✓



Calculation area list

Evaluation field: Street 1
 Length: 35.000 m, Width: 14.000 m
 Raster: 12 x 6 Points
 Attached street elements: Street 1.
 Covering: R3, q0: 0.070
 Selected illumination class: ME4

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

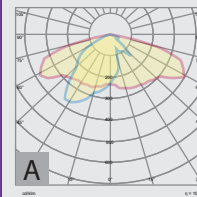
	Lm [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	1.60	0.77	0.86	5	0.68
Necessary values according to class:	≥ 1.50	≥ 0.40	≥ 0.70	≤ 10	≥ 0.50
Acquired/ Not acquired:	✓	✓	✓	✓	✓



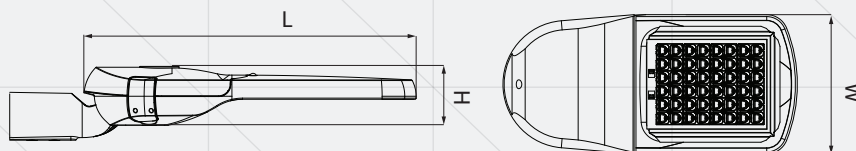
EVOCITY

The EVOCITY lighting device offers flexible module combinations with LEDs for powers between 45 - 160 W. EVOCITY lighting device is made of an aluminum cast body, in dark gray color, with outer protection, corrosion protection treatment and UV resistant paint. It has a tempered glass disperser with IK09 impact protection. The mounting on the pole can be made horizontally or vertically, with the possibility of adjusting the angle between -15° and $+15^{\circ}$. EVOCITY luminaire has an over voltage protection of 10kV and ensure a IP66 protection degree for all constructive variants. ENEC and ENEC+ certified products.

EVOCITY



- Installation: Street lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Light distribution: A
- Operating temperature range: - 40°C . . . + 45°C
- Pipe mounting: Ø 48 - 60 mm



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 82023-006	100 W ¹	glass diffuser / PMMA lens	15900 lm	673 x 260 x 122 mm 6,6 kg	ENEC/ ENEC Plus
RS 82023-007	160 W ²	glass diffuser / PMMA lens	24000 lm	794 x 320 x 122 mm 9,6 kg	ENEC/ ENEC Plus
RS 82023-008	45 W ³	glass diffuser / PMMA lens	6880 lm	527 x 200 x 114 mm 3,7 kg	ENEC/ ENEC Plus
RS 82023-009	75 W ⁴	glass diffuser / PMMA lens	11440 lm	608 x 234 x 122 mm 5,2 kg	ENEC/ ENEC Plus
RS 82023-006D	100 W ¹	glass diffuser / PMMA lens	15900 lm	673 x 260 x 122 mm 6,7 kg	with controller
RS 82023-007D	160 W ²	glass diffuser / PMMA lens	24000 lm	794 x 320 x 122 mm 9,7 kg	with controller
RS 82023-008D	45 W ³	glass diffuser / PMMA lens	6880 lm	527 x 200 x 114 mm 3,8 kg	with controller
RS 82023-009D	75 W ⁴	glass diffuser / PMMA lens	11440 lm	608 x 234 x 122 mm 5,3 kg	with controller
RS 82023-006C2	100 W ¹	glass diffuser / PMMA lens	15900 lm	673 x 260 x 122 mm 6,6 kg	ingress protection II
RS 82023-007C2	160 W ²	glass diffuser / PMMA lens	24000 lm	794 x 320 x 122 mm 9,6 kg	ingress protection II
RS 82023-008C2	45 W ³	glass diffuser / PMMA lens	6880 lm	527 x 200 x 114 mm 3,7 kg	ingress protection II
RS 82023-009C2	75 W ⁴	glass diffuser / PMMA lens	11440 lm	608 x 234 x 122 mm 5,2 kg	ingress protection II

¹ At customer's request the power may have values between 75 - 100 W;

² At customer's request the power may have values between 100 - 160 W;

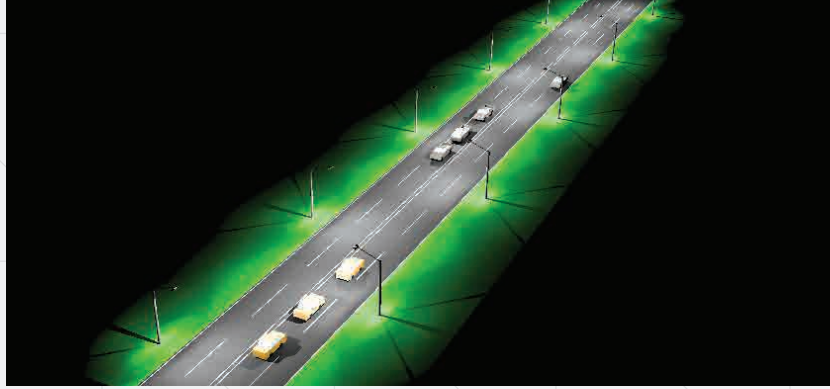
³ At customer's request the power may have values between 20 - 45 W;

⁴ At customer's request the power may have values between 45 - 75 W;

Compliance standards :
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-3:2004
 +A1:2012
 SR EN 62031:2009+A1:2013
 +A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



EVOCITY



Calculation area list

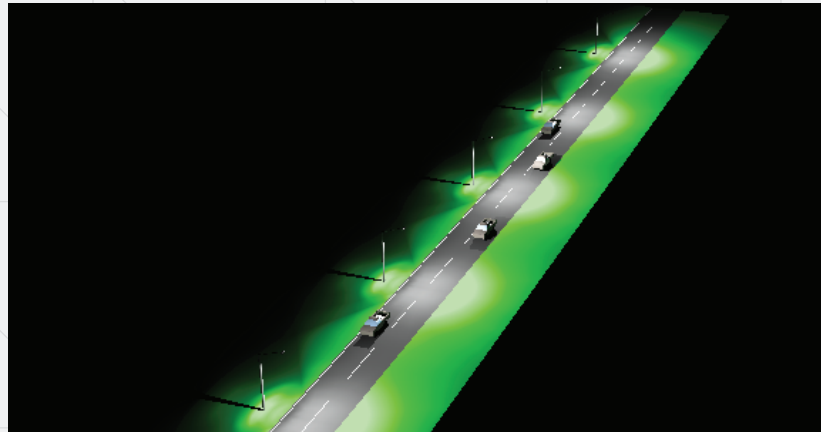
Evaluation field: Street 1
 Length: 35.000 m, Width: 14.000 m
 Raster: 12 x 12 Points
 Attached street elements: Street 1.
 Covering: R3, q0: 0.070
 Selected illumination class: ME3

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

	Lm [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	1.51	0.71	0.71	2	0.69
Necessary values according to class:	≥ 1.50	≥ 0.40	≥ 0.71	≤ 10	≥ 0.50
Acquired/ Not acquired:	✓	✓	✓	✓	✓

EVOCITY



Calculation area list

Evaluation field: Street 1
 Length: 35.000 m, Width: 7.000 m
 Raster: 12 x 6 Points
 Attached street elements: Street 1.
 Covering: R2, q0: 0.070
 Selected illumination class: ME3

(All photometric requirements are met.)

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

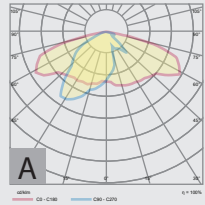
	Lm [cd/m ²]	U0	UI	TI [%]	SR
Calculated values:	0.32	0.49	0.46	3	0.69
Necessary values according to class:	≥ 0.30	≥ 0.35	≥ 0.40	≤ 15	/
Acquired/ Not acquired:	✓	✓	✓	✓	✓



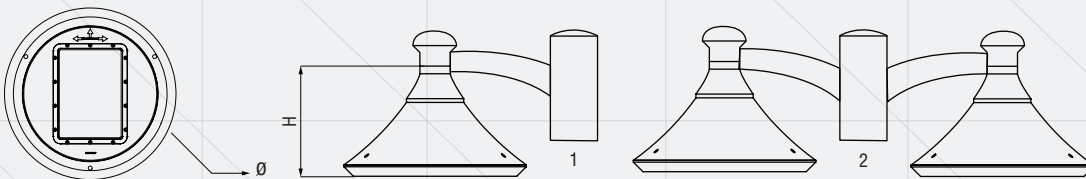
LEOS

LEOS LED luminaire is the right solution for street lighting in pedestrian areas, alleys, parks and individual lenses with application specific distribution.

LEOS



- Installation: Pedestrian lighting, alleys, parks
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Light distribution: A
- Operating temperature: max. + 45°C
- Pipe mounting: Ø 48 - 60



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (\varnothing x H); (kg)	Luminaire type	Observations
RS 82015-005	30 W	transparent diffuser / PMMA lens	4030 lm	\varnothing 480 x 310 mm 3 kg	1	-
RS 82015-003	2 x 30 W	transparent diffuser / PMMA lens	2 x 4030 lm	2 x (\varnothing 480 x 310 mm) 8 kg	2	-

Compliance standards :
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-3:2004
 +A1:2012
 SR EN 62031:2009+A1:2013
 +A2:2015 art. 13.2 si 15
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



LEOS

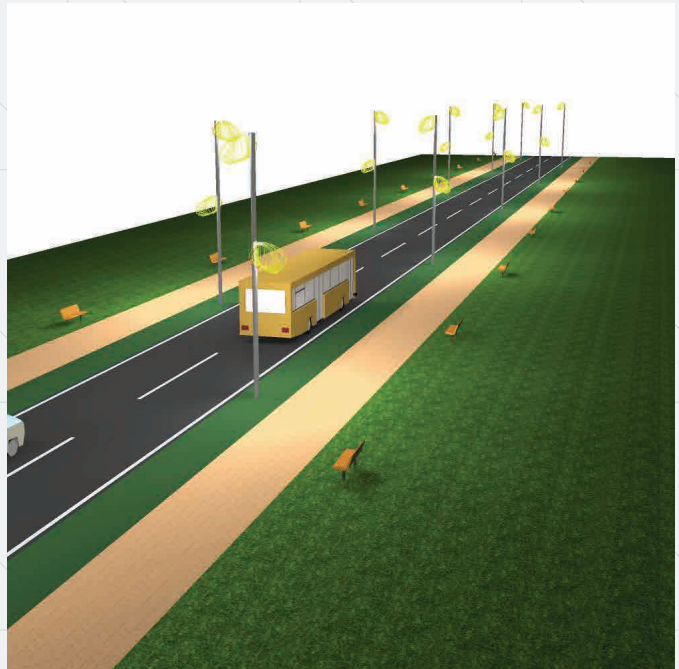
Calculation area list

Evaluation field: Street 1
 Length: 35.000 m, Width: 7000 m
 Raster: 12 x 6 Points
 Attached street elements: Street 1.
 Covering: R3, q0: 0.070
 Selected illumination class: ME4

(All photometric requirements are met.)

Lm [cd/m ²]	U0	UI	TI [%]	SR
1.02	0.71	0.73	8	1.08
≥ 1.00	≥ 0.40	≥ 0.50	≤ 15	≥ 0.50
✓	✓	✓	✓	✓

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:



LEOS

Calculation area list

Evaluation field : Sidewalk 1
 Length: 35.000 m, Width: 3.000 m
 Raster: 12 x 3 Points
 Attached street elements: Sidewalk 1.
 Selected illumination class: S2

(All photometric requirements are met.)

E [lx]	E [lx]
13.74	5.73
≤ 10.00	≥ 3.00
✓	✓

Calculated values:
 Necessary values according to class:
 Acquired/ Not acquired:

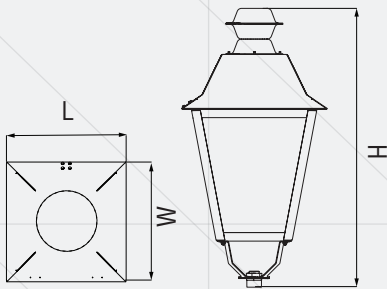


PHOENIX

The **PHOENIX** lantern with LED is used in street lighting, for pedestrian areas. The main reason is its zinc-plated sheet metal housing, coated under electrostatic charge, and its matte plexiglass diffuser. With an attractive retro design, it creates a pleasant environment.

PHOENIX

- Installation: Pedestrian lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C
- Pipe mounting: Ø 48 - 60

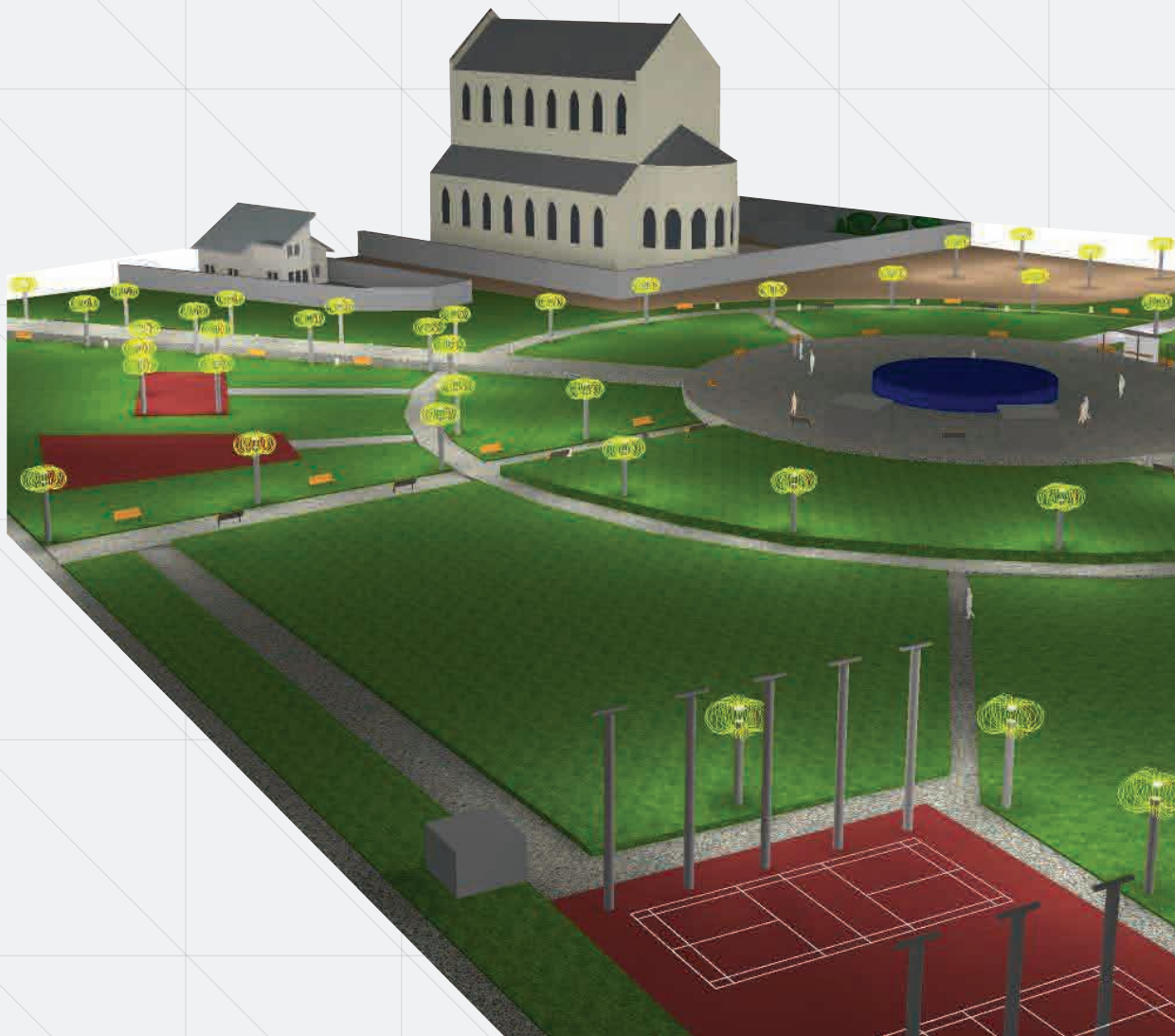


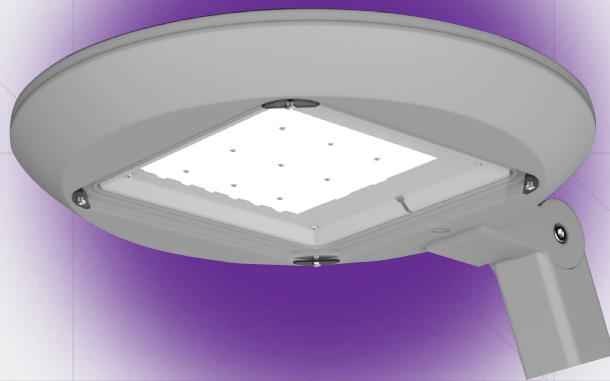
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 81708-003	60 W	plexiglass	5500 lm	500 x 500 x 850 mm 8 kg	-

Compliance standards :
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-3:2004
 +A1:2012
 SR EN 62031:2009+A1:2013
 +A2:2015 art. 13.2 si 15
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



PHOENIX

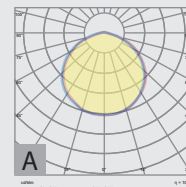




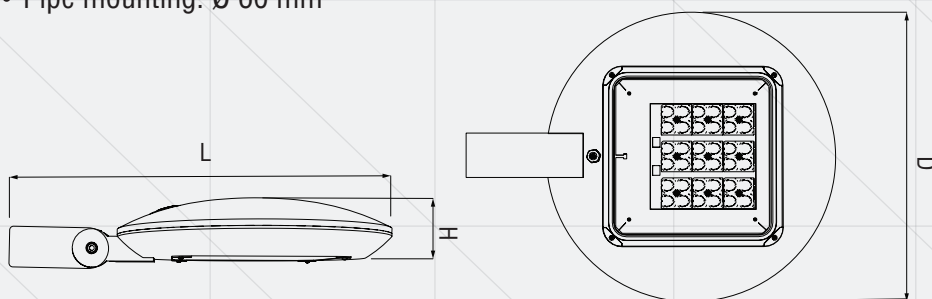
SELENA

SELENA lighting device is made of an aluminum cast body, in dark gray color, with outer protection, corrosion protection treatment and UV resistant paint. The safety glass diffuser offers protection against mechanical impact IK09. Pipe mounting can be done horizontally or vertically, with possibility of adjusting the angle between -15° ... $+15^{\circ}$.

SELENA



- Installation: street lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP66
- Power supply: 230 V / 50 Hz
- Safety class: I
- Light distribution: A
- Operating temperature range: - 25°C . . . + 45°C
- Pipe mounting: Ø 60 mm



Cod	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x D x H);(kg)	Observations
RS 81677-001A	30 W	glass diffuser/ PMMA lenses	4350 lm	658 x 480 x 130 mm 6,5 kg	-
RS 81677-001B	55 W	glass diffuser/ PMMA lenses	8360 lm	658 x 480 x 130 mm 6,5 kg	-
RS 81677-001C	80 W	glass diffuser/ PMMA lenses	11600 lm	658 x 480 x 130 mm 6,5 kg	-

Compliance standards:
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-5:2016
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010
 SR EN 60079-0:2013
 SR EN 60079-15:2011
 SR EN 60079-31:2014



Emergency indication luminaires

Content



Sigma 59



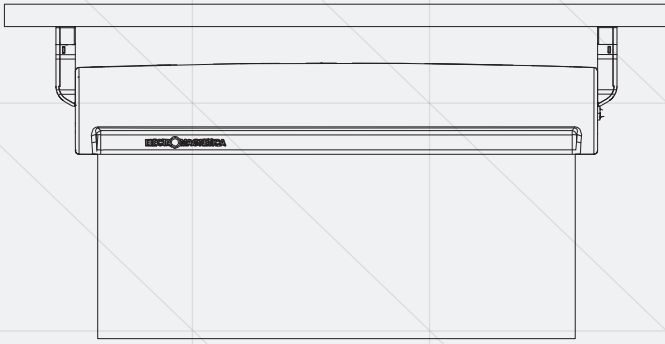
Indus 64



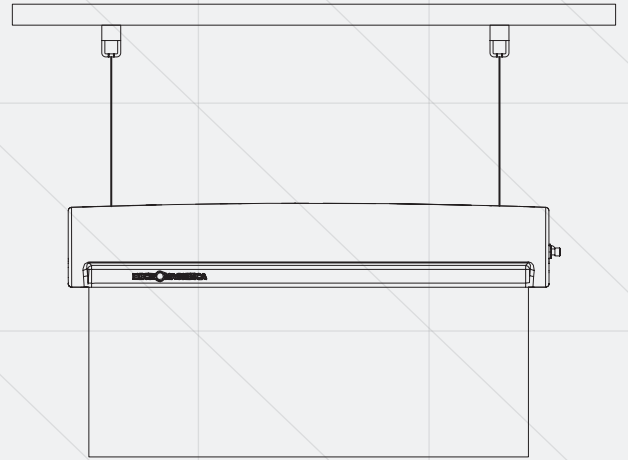
SIGMA

When there are evacuation routes in the building, it is good to mark them so they can be easily identified and used. Choose **SIGMA**, LED security indicator which design was created in such way to be integrated easily in any type of space. **SIGMA** is produced in many mounting variants, so you can choose the best solution, suitable for your space.

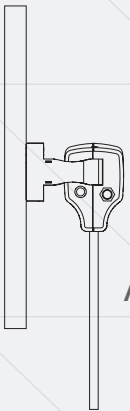




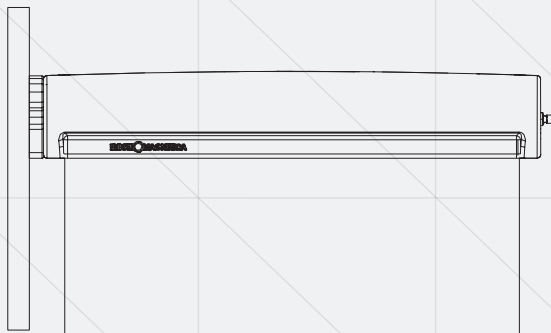
Applied on the ceiling



Suspended



Applied on the wall



Laterally applied on the wall

Mounting variants



RS 81805-S-H



RS 81805-S-D



RS 81805-S-L



RS 81805-S-R



RS 81805-S-RDS



RS 81805-S-LUS



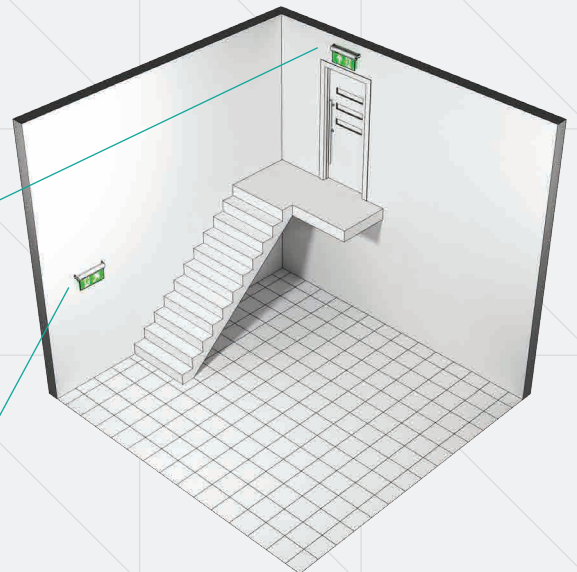
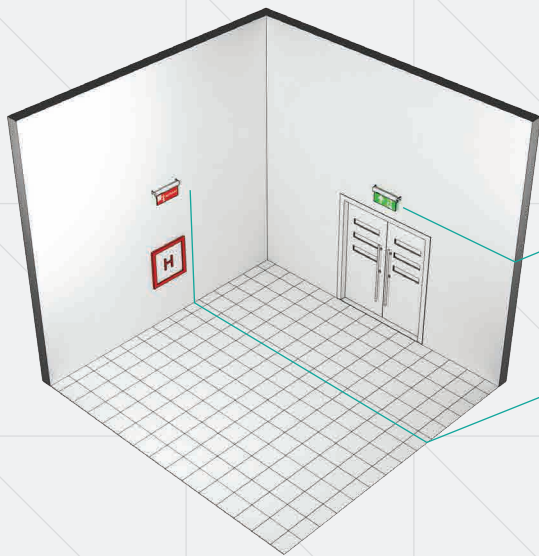
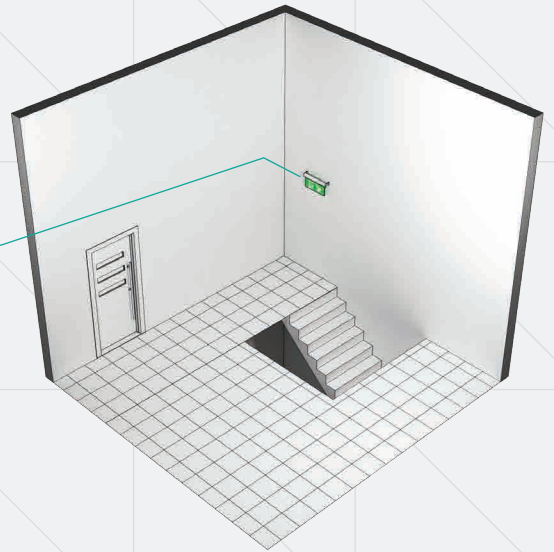
RS 81805-S-RUS



RS 81805-S-LDS

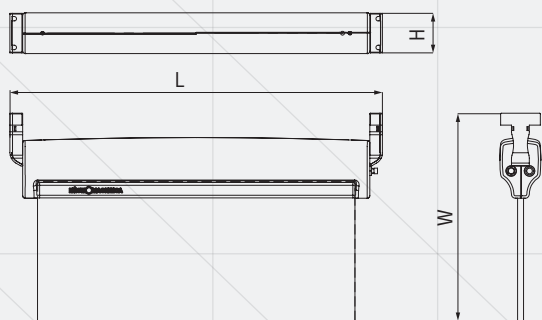


RS 81805-S-U



SIGMA

- Installation: Emergency lighting
- Ingress protection: IP30
- Power supply: 230 V / 50 Hz
- Safety class: II
- Operating temperature: max. + 40°C
- Emergency lighting: Battery autonomy - 180 min
- Weight: 0,8 kg



Code	Nominal power	Diffuser	Dimensions (L x W x H)	Observations
RS 81805-S-H	3 W	plexiglass	375 x 185 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-D	3 W	plexiglass	375 x 185 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-L	3 W	plexiglass	375 x 185 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-R	3 W	plexiglass	375 x 185 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-RDS	3 W	plexiglass	375 x 184 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-LUS	3 W	plexiglass	375 x 184 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-RUS	3 W	plexiglass	375 x 184 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-LDS	3 W	plexiglass	375 x 184 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh
RS 81805-S-U	3 W	plexiglass	375 x 185 x 40 mm	Ni-Mh batteries 3,6 V / 2000 mAh

Compliance standards:
 SR EN 1838:2014
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-22:2015
 +AC:2015+AC:2016
 SR EN 62031:2009+A1:2013
 +A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



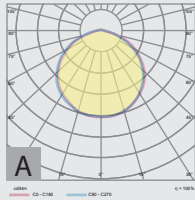


INDUS

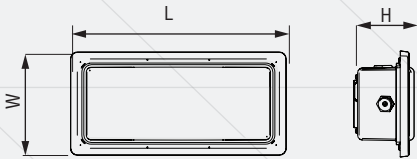
Special created to illuminate the emergency escape route and to signal the escape routes, the **INDUS** lighting devices are perfect to be mounted in any public space.



INDUS

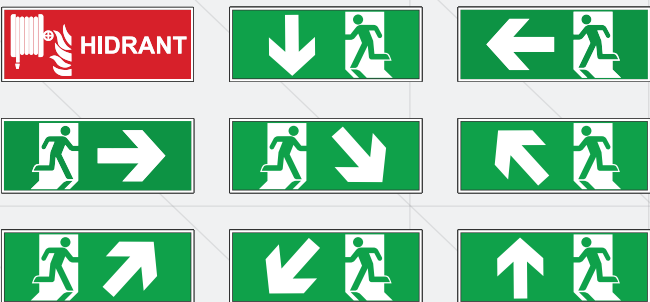


- Installation: Emergency lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65/ IP44
- Power supply: 230 V / 50 Hz
- Safety class: II
- Light distribution: A
- Operating temperature: max. + 40°C



Code	Nominal power	Diffuser	Luminous flux	Dimensions (L x W x H)	Observations
RS 81140 E	7 W	transparent	475 lm	356 x 136 x 84 mm 0,7 kg	-
RS 81140 DS1	8 W	transparent	440 lm	356 x 136 x 84 mm 1,2 kg	Ni-Cd batteries 4,8 V / 1,6 Ah battery autonomy: 60 min.
RS 81312-006	10 W	transparent	600 lm	317 x 153 x 87 mm 1,1 kg	Ni-Cd batteries 4,8 V / 4,5 Ah battery autonomy: 180 min.
RS 81312-009	10 W	transparent	600 lm	317 x 153 x 87 mm 1,1 kg	Ni-Cd batteries 4,8 V / 1,6 Ah battery autonomy: 60 min.

* Signaling variants



Compliance standards:
 SR EN 60598-1:2015
 +AC:2016
 SR EN 60598-2-22:2015
 +AC:2015+AC:2016
 SR EN 62031:2009+A1:2013
 +A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



Antiex Content



Cetex 67

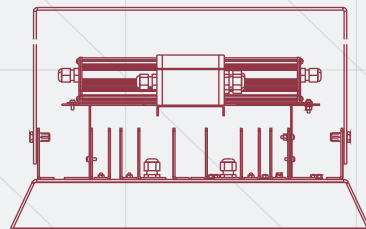


Gemma 70



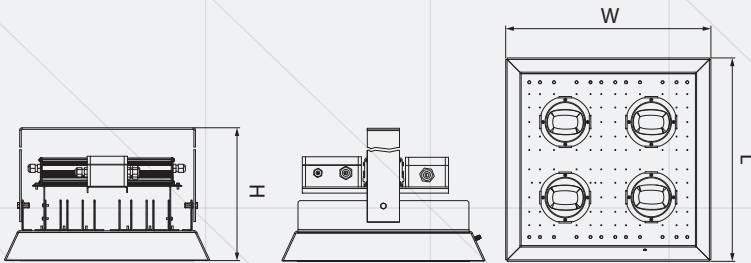
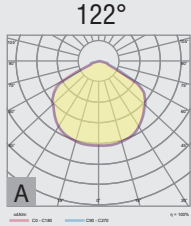
CETEX

This series of illuminators is perfect for industrial environment, especially because it has been designed for areas with potentially explosive atmosphere due to the presence of gas and dust. It can be fitted suspended and also applied on the ceiling or on the wall, having an adjustable position.



CETEX

- Installation: Gas station lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C . . . + 45°C
- Light distribution: A



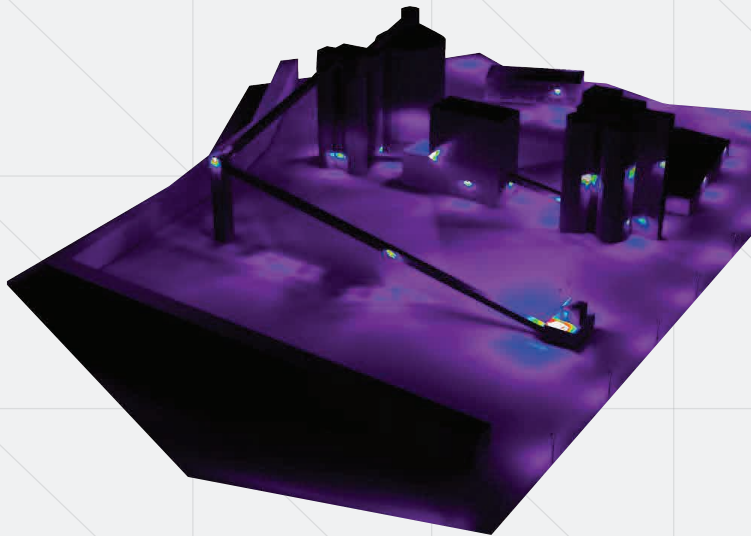
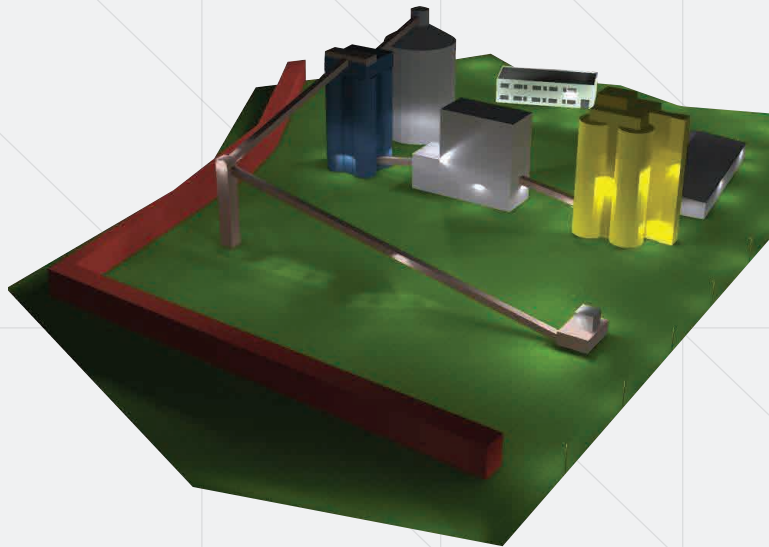
Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x l x h);(kg)	Observations
RS 81951 A	140 W	polycarbonate	15700 lm	382 x 378 x 332 mm 7 kg	-
RS 81951 B	70 W	polycarbonate	8300 lm	378 x 225 x 332 mm 4,5 kg	-

Antiex

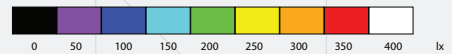
Lighting devices marked with antiex sign are designed for operation in risk of explosion areas (zone 2 protection level Gc gas group IIB, temperature class T4 max.100°, type of protection "nA" and "mc") and for risk of explosion due dust lighting, zone 22 with level of protection Dc- group IIIC (maximum surface temperature of 100 °) type of protection tc.

Compliance standards:
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-5:2016
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010
 SR EN 60079-0:2013
 SR EN 60079-15:2011
 SR EN 60079-31:2014





Height of space : 12.000 m
 Maintenance factor : 0.80

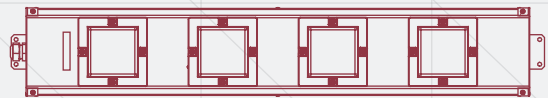


Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable plan	/	226	20	328	0.089
Floor	20	221	26	306	0.117
Ceiling	70	65	26	112	/
Walls	50	134	41	4992	/

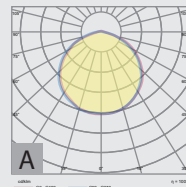


GEMMA

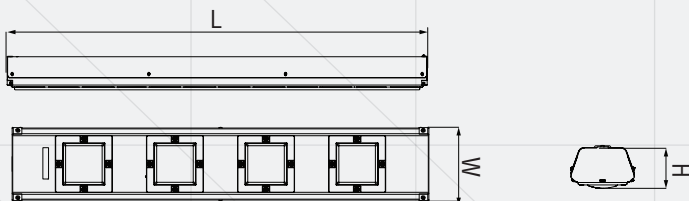
GEMMA luminaire has been design to cover a wide range of lighting needs in potentially explosive atmospheres such as gas or dust. This luminaire can be mounted both suspended and apparent.



GEMMA



- Installation: Gas station lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: II
- Light distribution: A
- Operating temperature range: - 25°C . . . + 45°C



Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x l x h);(kg)	Observations
RS 81953 A-EX	60 W	transparent polycarbonate	6150 lm	1200 x 130 x 89 mm 4,2 kg	-
RS 81953 B-EX	35 W	transparent polycarbonate	3700 lm	732 x 130 x 89 mm 3,5 kg	-

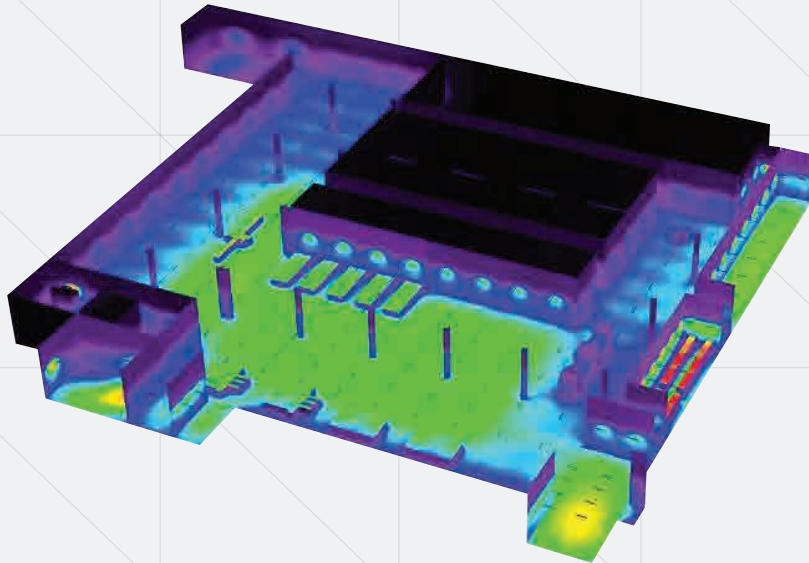
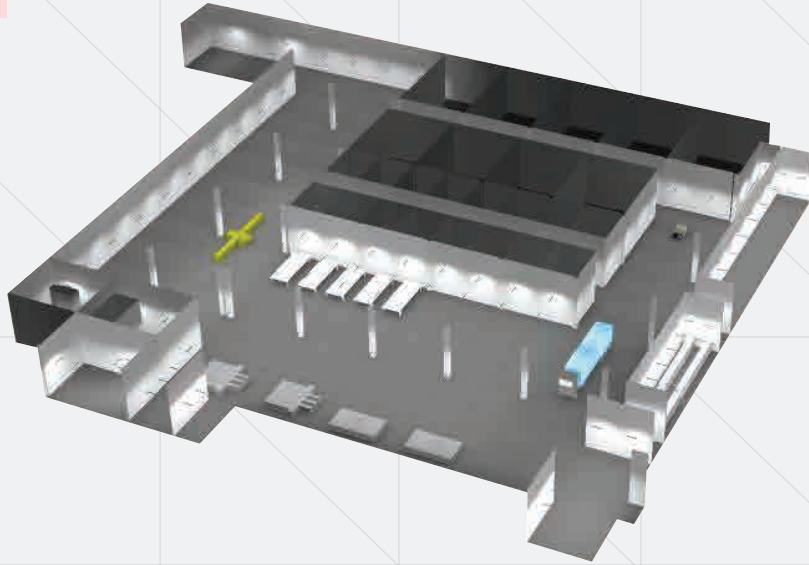
Antiex 

Lighting devices marked with antiex sign are designed for operation in risk of explosion areas (zone 2 protection level Gc gas group IIB, temperature class T4 max.100°, type of protection "nA" and "mc") and for risk of explosion due dust lighting, zone 22 with level of protection Dc- group IIIC (maximum surface temperature of 100 °) type of protection tc.

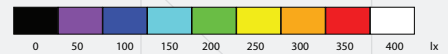
Compliance standards:
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-5:2016
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010
 SR EN 60079-0:2013
 SR EN 60079-15:2011
 SR EN 60079-31:2014



GEMMA



Height of space : 12.000 m
 Maintenance factor : 0.80



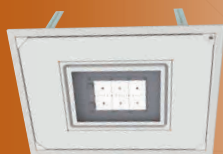
Surface	ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	u_0
Usable plan	/	105	0.19	364	0.002
Floor	20	99	0.21	288	0.002
Ceiling	70	20	0.24	61	0.012
Walls	50	23	0.41	577	/

Special applications

Content



Dorado 74

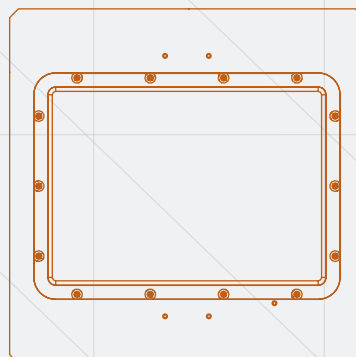
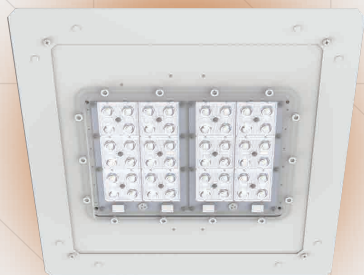


Vega 77

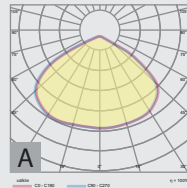


DORADO

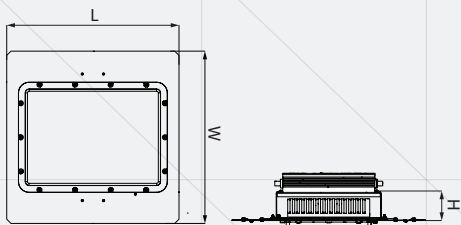
The illuminators **DORADO** have been specially projected for gas stations and other spaces which need low height mounting of the illuminators . Their structure is robust and reliable, ensuring an easy mounting. It is a perfect alternative that you should take into consideration.



DORADO



- Installation: Gas station lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 40°C ... + 45°C
- Light distribution: A

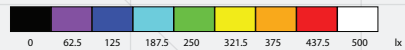
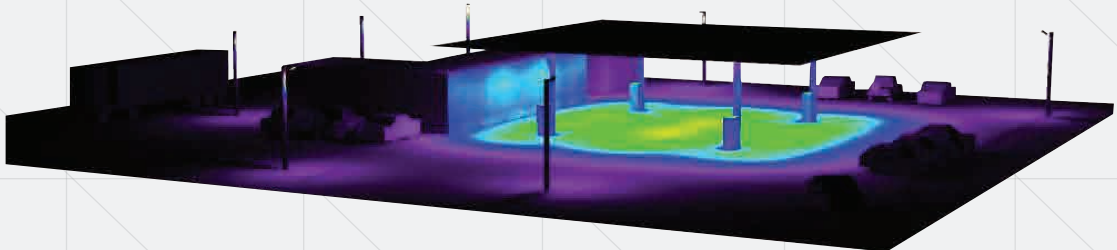
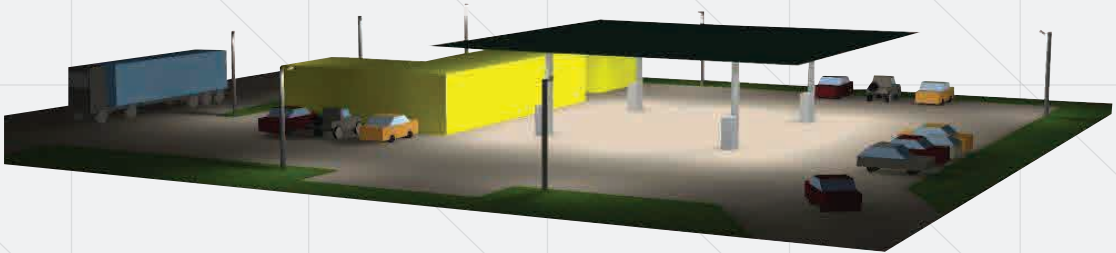


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Observations
RS 81160-004	100 W	transparent polycarbonate	16000 lm	345 x 345 x 114 mm 3 kg	-
RS 81160-006	100 W	transparent polycarbonate	16000 lm	441 x 413 x 114 mm 3 kg	includes mounting frame
RS 81160-007	120 W	transparent polycarbonate	15600 lm	440 x 440 x 160 mm 7,5 kg	-
RS 81160-008	120 W	transparent polycarbonate	14400 lm	440 x 440 x 160 mm 7,5 kg	-
RS 81160-009	120 W	transparent polycarbonate	15000 lm	440 x 440 x 160 mm 7,5 kg	-
RS 81160-012	100 W	transparent polycarbonate	16000 lm	413 x 413 x 162 mm 7,2 kg	DALI interface

Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-2:2012
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



DORADO

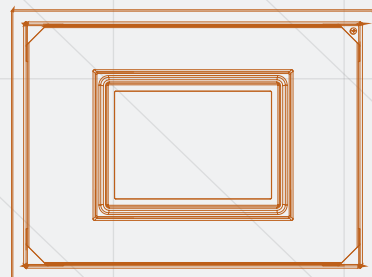
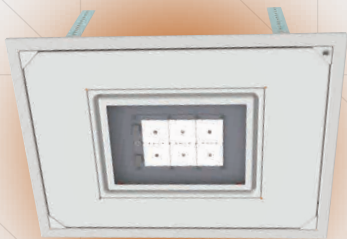


p [%]	Em [lx]	E _{min} [lx]	E _{max} [lx]	Em [lx]/E _{max}
228	53	339	0.232	0.156



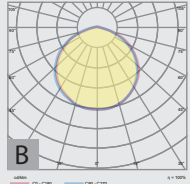
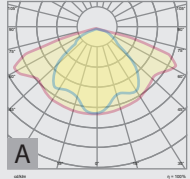
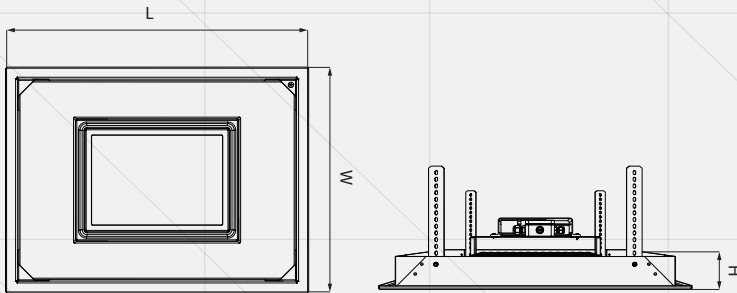
VEGA

The series **VEGA** consists of specially designed illuminators that can be fitted at a low height. Having a robust and reliable structure, the illuminator **VEGA** ensures an easy mounting, being a good alternative to the existing lighting solutions.



VEGA

- Installation: Gas station lighting
- Colour temperature: warm, neutral, cold
- Colour rendering index: CRI > 80
- Ingress protection: IP65
- Power supply: 230 V / 50 Hz
- Safety class: I
- Operating temperature range: - 30°C ... + 45°C

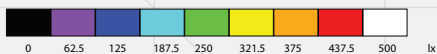
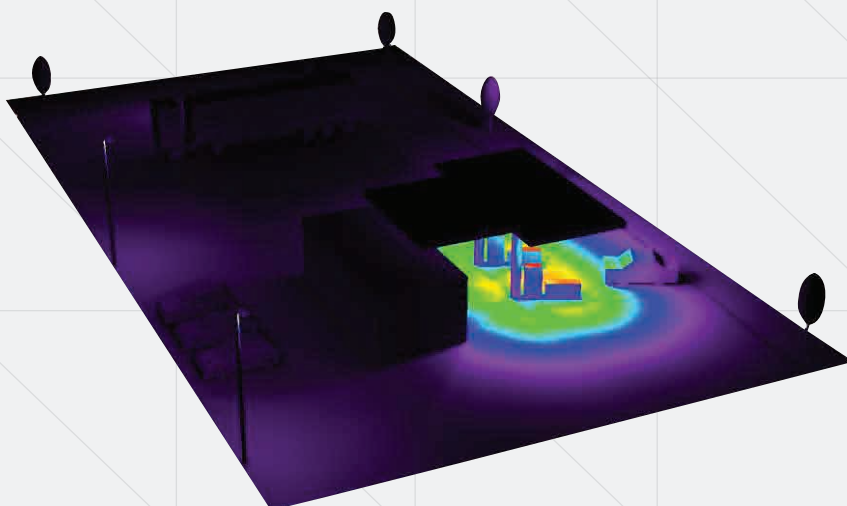
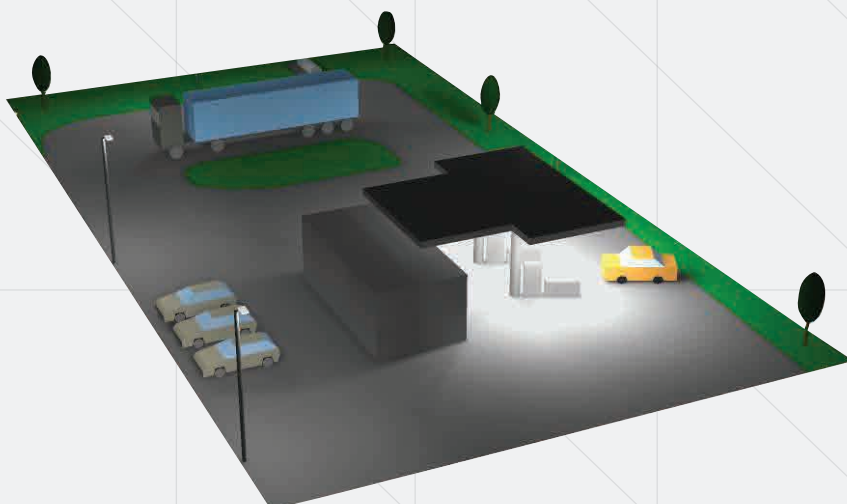


Code	Nominal power	Diffuser	Luminous flux	Dimensions; Weight (L x W x H);(kg)	Light distribution	Observation
RS 81520-001	60 W	polycarbonate	7200 lm	580 x 580 x 256 mm 4,3 kg	B	-
RS 81520-003	75 W	polycarbonate	10000 lm	590 x 440 x 240 mm 4,3 kg	A	-

Compliance standards :
 SR EN 60598-1:2015+AC:2016
 SR EN 60598-2-2:2012
 SR EN 62031:2009+A1:2013+A2:2015
 SR EN 55015:2014+A1:2015
 SR EN 61000-3-2:2015
 SR EN 61000-3-3:2014
 SR EN 61547:2010



VEGA



ρ [%]	E_m [lx]	E_{min} [lx]	E_{max} [lx]	E_m [lx]/ E_{max}
332	139	425	0.419	0.328



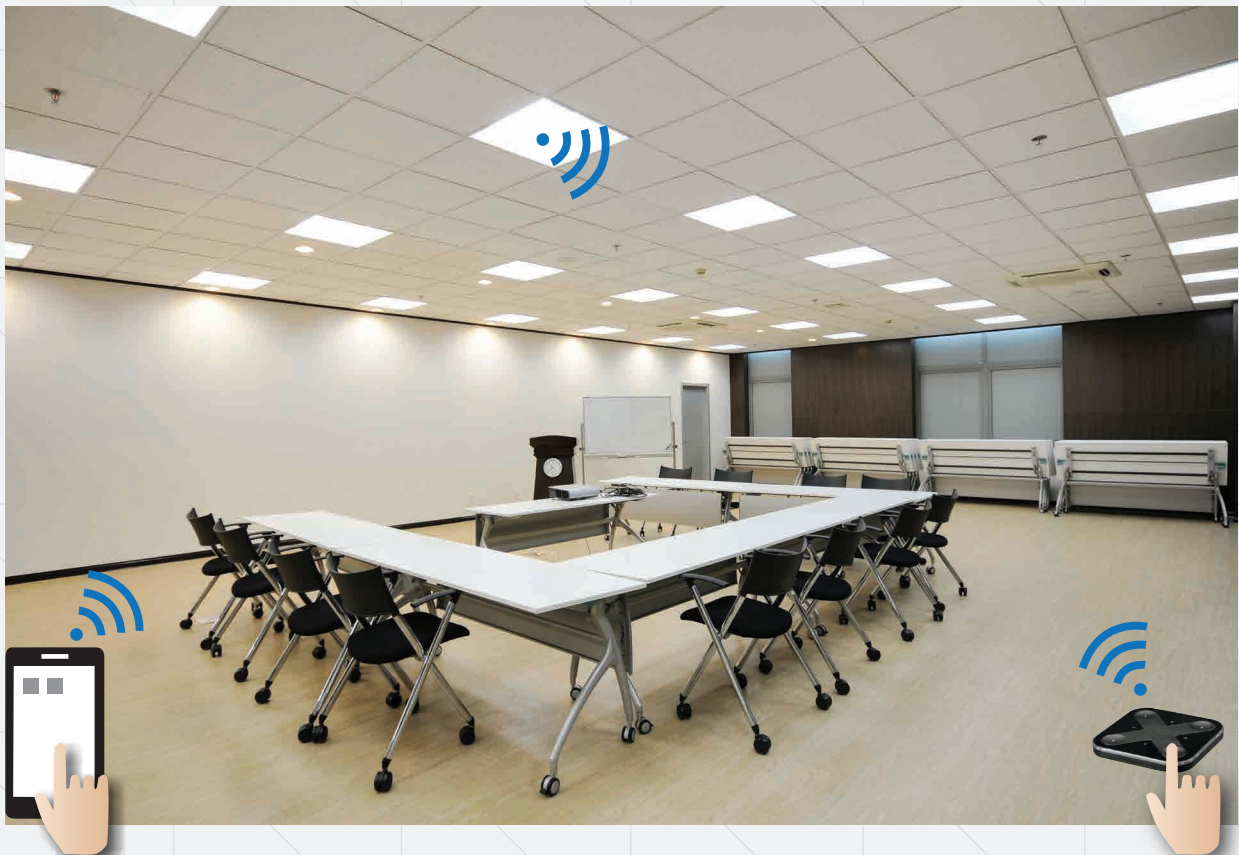
Adaptive office lighting

The lighting fixtures are equipped with electronic sources with dimming and Bluetooth radio interface, can be connected in a Bluetooth network with a maximum of 250 nodes and perform the On / Off and Dim Up / down functions, all at once or in functional groups.

Presence and lighting level sensors can be integrated in the Bluetooth radio network. The sensors can be assigned to certain luminaires and are programmed to operate in the local loop.

The setup of radio network, functional groups of lighting devices, sensors and remote control, is made from a software application, which runs on a smartphone and can be downloaded from the App Store or Google Play. It is possible to schedule time-conditioned functional scenarios.

For luminaires equipped with electronic sources with a power greater than 45W, separate radio modules can be used, which are added to each luminaire and communicate with the electronic source through the DALI interface.

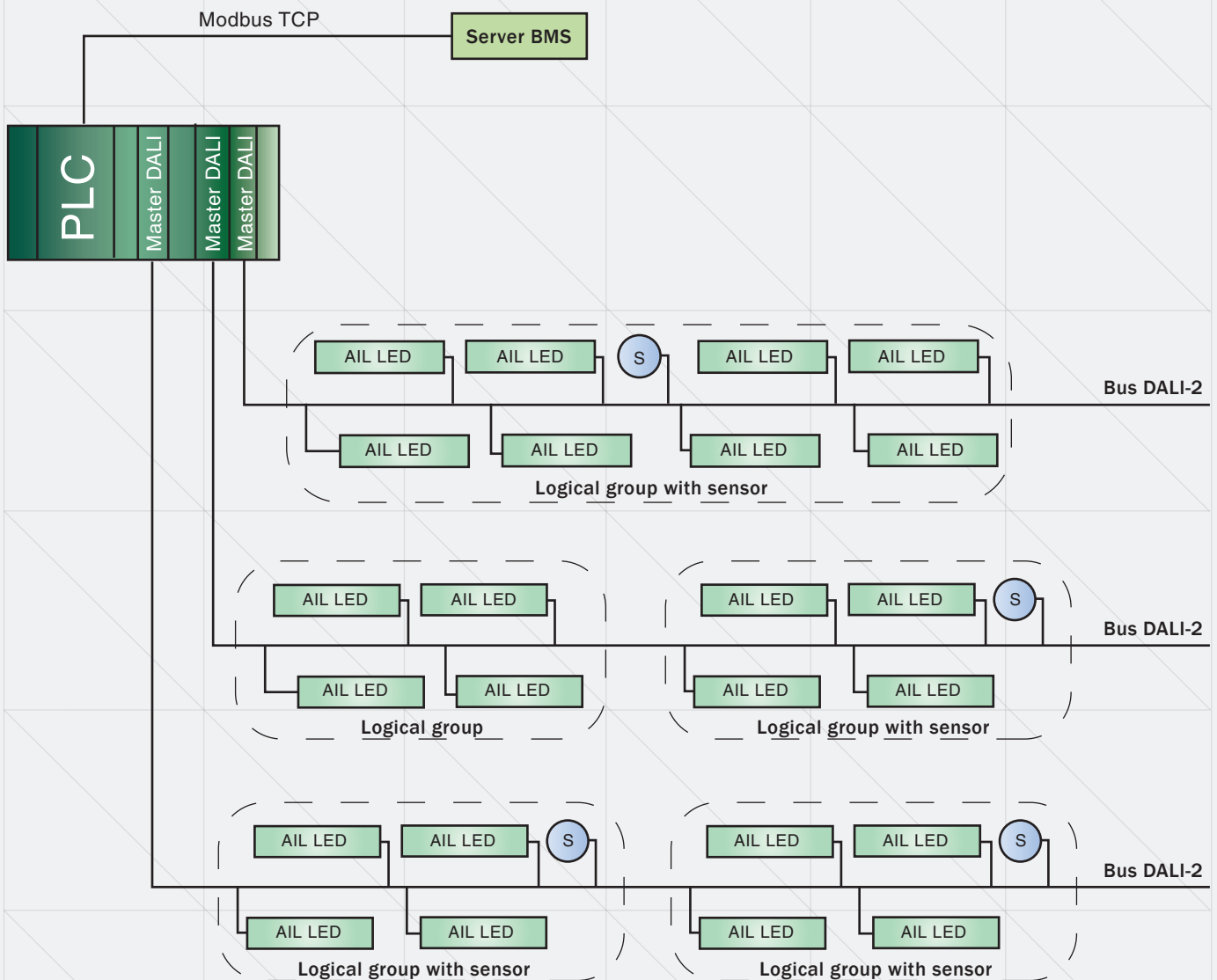




Integration of lighting fixtures

The integration of LED lighting fixtures in BMS automation systems (Building Management Systems) is done through high quality, modular technical solutions, based on PLCs.

The integration solutions contain adaptive lighting technologies by conditioning to presence, motion, light intensity sensors and allow the control and automated management of lighting fixtures and sensors.



REMOTE MANAGEMENT SYSTEM - SOFTWARE APPLICATION AND LON NETWORK POWER LINE COMMUNICATION

The remote management system scope for street illumination, is the remote controlling and monitoring of the LED lighting devices. This system allows the reduction of electricity consumption, increasing the lighting devices life time, prompt and fast corrective maintenance activities development and easily design the preventive maintenance.

Here are the system's functions:

- Turning on/ off and dimming the light flow (level dimming) of the lighting devices, individually or on logical groups;
- Easily programming and re-programming the functioning profiles of the lighting devices (on/ off, level dimming), for different hours setting;
- Graphical display of the lighting points (lighting devices) and data concentrators on the map.

Software application – it is web-based type, communicates with the data concentrators, collects and centralizes the data from data concentrators, allows the remote controlling and monitoring of the lighting devices and displays their status and parameters. The communication is made through UMTS/HSPA+(max. 14,4/5,7Mbps, DL/UL) mobile data networks with automatic performance degrading to GPRS/EDGE, according to the radio signal quality, Tunelling IPsec, AES 256 SH1 encryption.

Through Ethernet networks, Cat 5 cable transmission medium.

LON Network – allows the data communication between data concentrator and the individual control element is made through low voltage electrical circuits for powering the lighting devices, by using the LON Power Line Communication bi-directional communication technology, in the C (125...140kHz)/ B (95...125Khz) frequency band, according to CENELEC EN 50065-1 and according to ANSI CEA 709.1 / EN 14908-1 and ANSI CEA 709.3 / EN 14908-3 standards.

ELECTROMAGNETICA S.A.



Data center ADMIN
Setup ROUTER AND VPN



System ADMIN
Monitoring installation



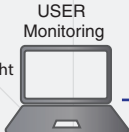
CenterSight
Ilon Smart Server
GPS Tracker
OLC project

System ADMIN



CenterSight
Ilon Smart Server
GPS Tracker
OLC project

USER
Monitoring
CenterSight



On site
ADMIN



CenterSight
Ilon Smart Server
GPS Tracker
OLC project

VPN, IPSec AES2563G/4G

CLIENT



Client user
CenterSight

Switch



Router



Lan



INTERNET Ethernet/ FO/ WIFI/ GSM-3G/ 4G



CenterSight

Client user

VPN, IPSec AES2563G/4G

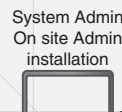
CenterSight
Ilon Smart Server
GPS Tracker
OLC project



Data Center
Server Electromagnetica



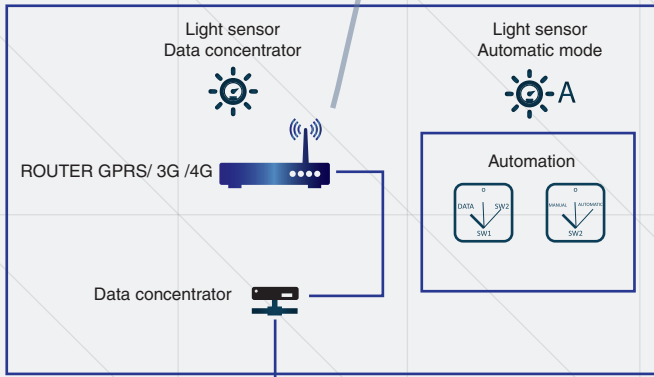
VPN Server



System Admin
On site Admin
installation
Ilon Smart Server
GPS Tracker
OLC project

VPN, IPSec AES2563G/4G

SIT

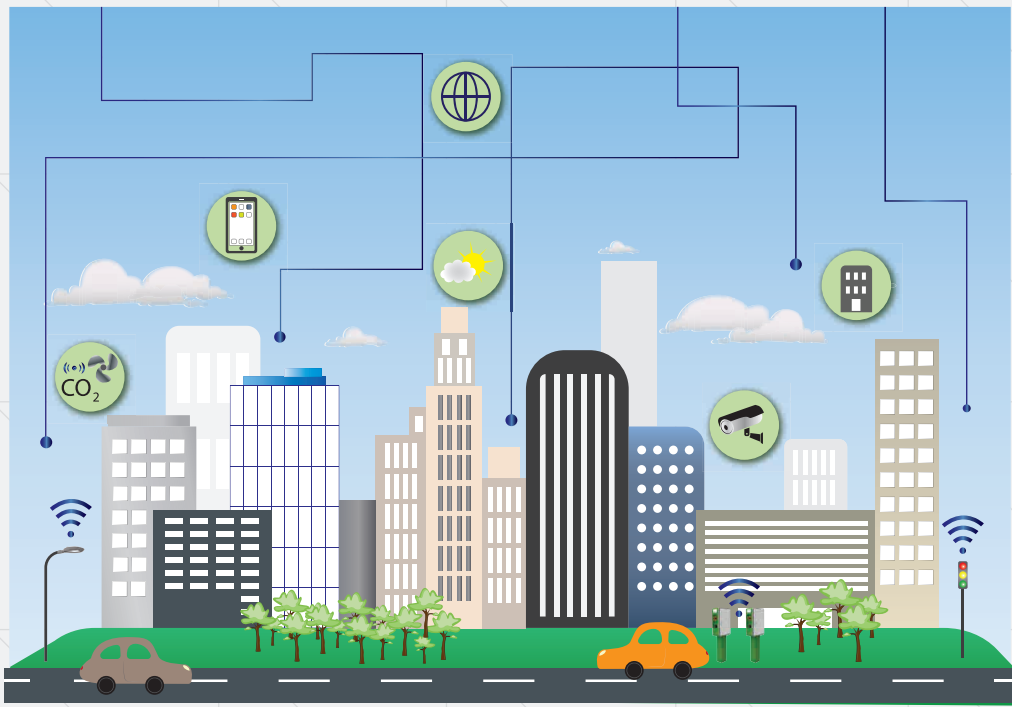


Ignition point

Local command mode



POWER LINE COMMUNICATION



CMS SOFTWARE PLATFORMS DEDICATED TO SMART CITY SOLUTIONS

They are software platforms type Central Management System and allow the knowledge, analysis and anticipation of events, influencing factors and variables that affect the safe and efficient operation of the systems of interest connected to them.

It integrates information coming from different systems, data coming from different data sources and for which it ensures, without altering them, the collection, visualization, management, analysis, prediction and generation of orders.

Integration in CMS platforms:

- street lighting systems;
- energy metering systems;
- electric vehicle charging station management software platforms;
- IP video cameras;
- vehicle traffic estimation elements;
- fog, temperature and air quality sensors, motion sensors;
- smart parking sensors;
- PLC / BMS systems and equipment;
- WEB services;
- electronic information panels;
- any other systems with APIs or OPC servers;



REMOTE CONTROL SYSTEM SOFTWARE PLATFORM AND URBAN COMMUNICATION NETWORK

IPv6 / 6Lowpan mesh: 868 MHz, WI-Fi: 2.4 GHz and 5 x GHz

The system is based on modern, advanced solutions, on IoT technologies, on a radio mesh radio network, IPv6 / 6LoWPAN, compliant with IEEE 802.15.4g. and on IEEE 802.11 ac / a / b / g / n compliant Wi-Fi connectivity solutions.

The operation of the System is done using minimum internet browsing knowledge, by accessing the software platform for telemanagement, in computer security conditions, from any terminal (PC, laptop, tablet, smartphone) connected to the internet.

The software platform is accessible in the form of Software as a Service (SaaS) from a Cloud infrastructure.

The SaaS hardware solution is provided with connectivity and redundant power supply and works permanently, 24 hours a day.

The system is based on open standards, IP technologies and LwM2M (Lightweight M2M) / IPSO (Internet Protocol for data models. Smart Objects).

The system is scalable, is based on a back-end architecture and micro-services, is provided with complete API interfaces (RESTful, PUSH) and is of the multitenancy type.

The system has implemented authentication and authorization schemes for users and devices and communication encryption algorithms.

The telemanagement system - is a Smart City type solution and for street lighting elements, it allows:

- static modification of the light flux, according to predefined programs;
- dynamic modification of the light flux, depending on the signal received from the sensors;
- operation by means of manual controls, transmitted up to the device level with easy programming and reprogramming of the operation profiles of the public lighting;
- "online" knowledge of the states of the elements of the public lighting system.

The Software Platform - is of the Central Management System type, dedicated to Smart City solutions and for street lighting elements, allows:

- displaying on a digital map, the lighting devices and the lighting points, through the GPS coordinates;
- displaying the ON / OFF status, the dimming level and the value of the electrical parameters and of the consumed energy;
- graphical display of the time variation of the electrical parameters for each luminaire;
- permanent monitoring of lighting devices and transmission of reports;
- permanent monitoring of lighting devices and transmission of alerts.

Urban Communication Network - is a system element connectivity solution, natively oriented for multiple applications and allows the

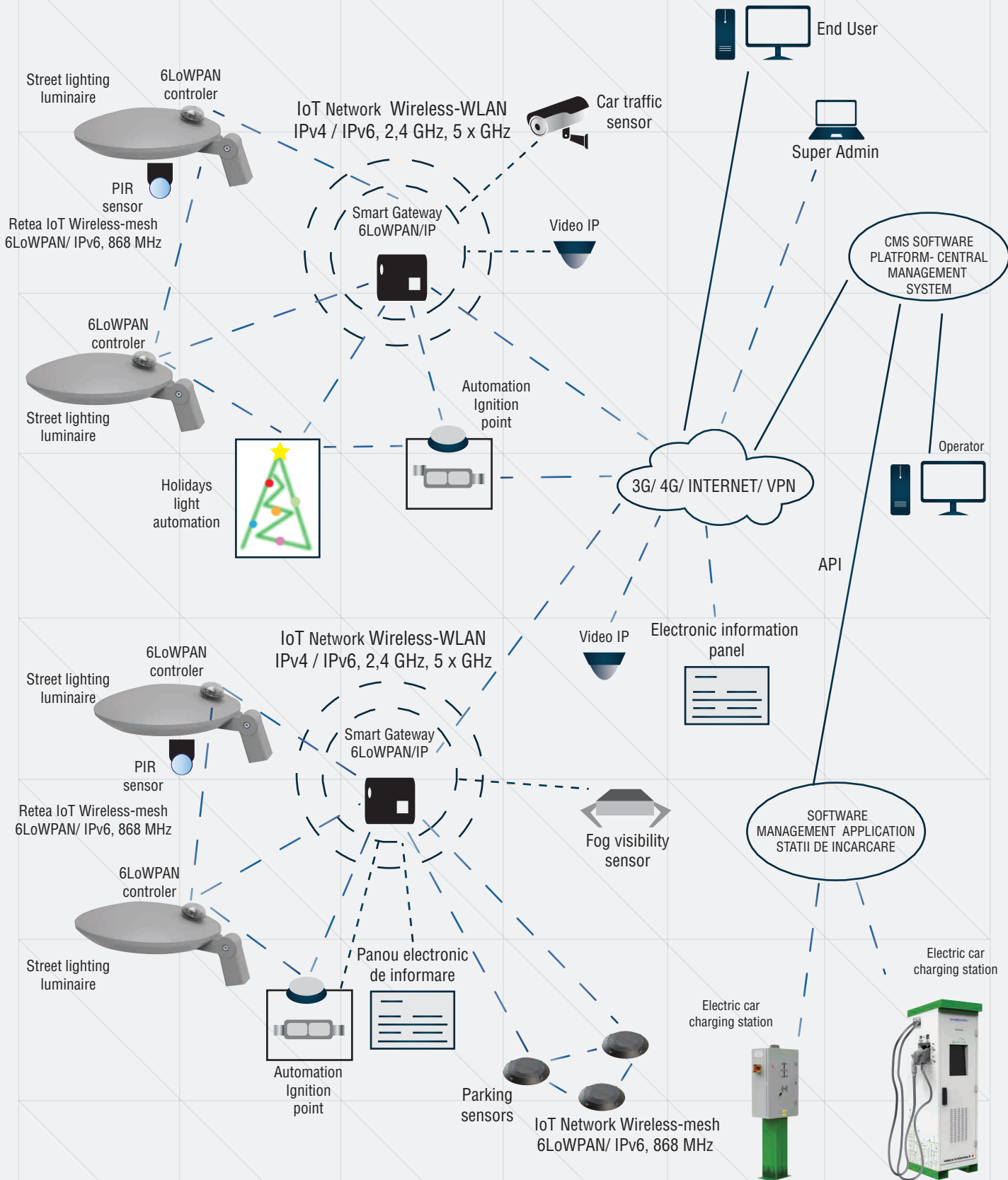
- connection of applications and services through:
mesh network, IPv6 / 6LoWPAN, IEEE 802.15.4, in the radio band of 868.0 - 868.6 MHz using the routing protocol RPL (Routing Protocol for Low Power and Lossy Network).
- at the gateway level, wireless radio communications, according to IEEE 802.11 ac / a / b / g / n, in the 2.4GHz and 5.x GHz radio band, for video surveillance cameras, sensors that require traffic and increased data transfer speed.

System integration

The system allows functional integration through the communication network and in the software platform for:

- motion sensors, traffic sensors and detection of people falling on the road, IP video cameras
- fog sensors, temperature sensors and air quality smart parking sensors
- data from electric vehicle charging stations, through API interfacing with software platforms for managing electric vehicle charging stations
- electronic information panels

SOFTWARE PLATFORM AND URBAN COMMUNICATION NETWORK FOR TELEMAGEMENT SYSTEM





REMOTE CONTROL SYSTEM CMS SOFTWARE PLATFORM and LoRaWAN SOFTWARE PLATFORM MANAGEMENT - EU868 MHz

The system is based on modern, advanced solutions, on IoT technologies, on a radio mesh radio network, LoRaWAN, which operates in EU868 frequency band.

The operation of the System is done using minimum internet browsing knowledge, by accessing the software platform for telemanagement, in computer security conditions, from any terminal (PC, laptop, tablet, smartphone) connected to the internet.

The software platform is accessible in the form of Software as a Service (SaaS) from a Cloud infrastructure.

The SaaS hardware solution is provided with connectivity and redundant power supply and works permanently, 24 hours a day.

The system is scalable, is provided with complete API interfaces (RESTful, PUSH) and is of the multitenancy type.

The system has implemented authentication and authorization schemes for users and devices and communication encryption algorithms.

The telemanagement system - is a Smart City type solution and for street lighting elements, it allows:

- static modification of the light flux, according to predefined programs;
- dynamic modification of the light flux, depending on the signal received from the sensors;
- operation by means of manual controls, transmitted up to the device level with easy programming and reprogramming of the operation profiles of the public lighting;
- "online" knowledge of the states of the elements of the public lighting system.

The Software Platform - is of the Central Management System type, dedicated to Smart City solutions and for street lighting elements, allows:

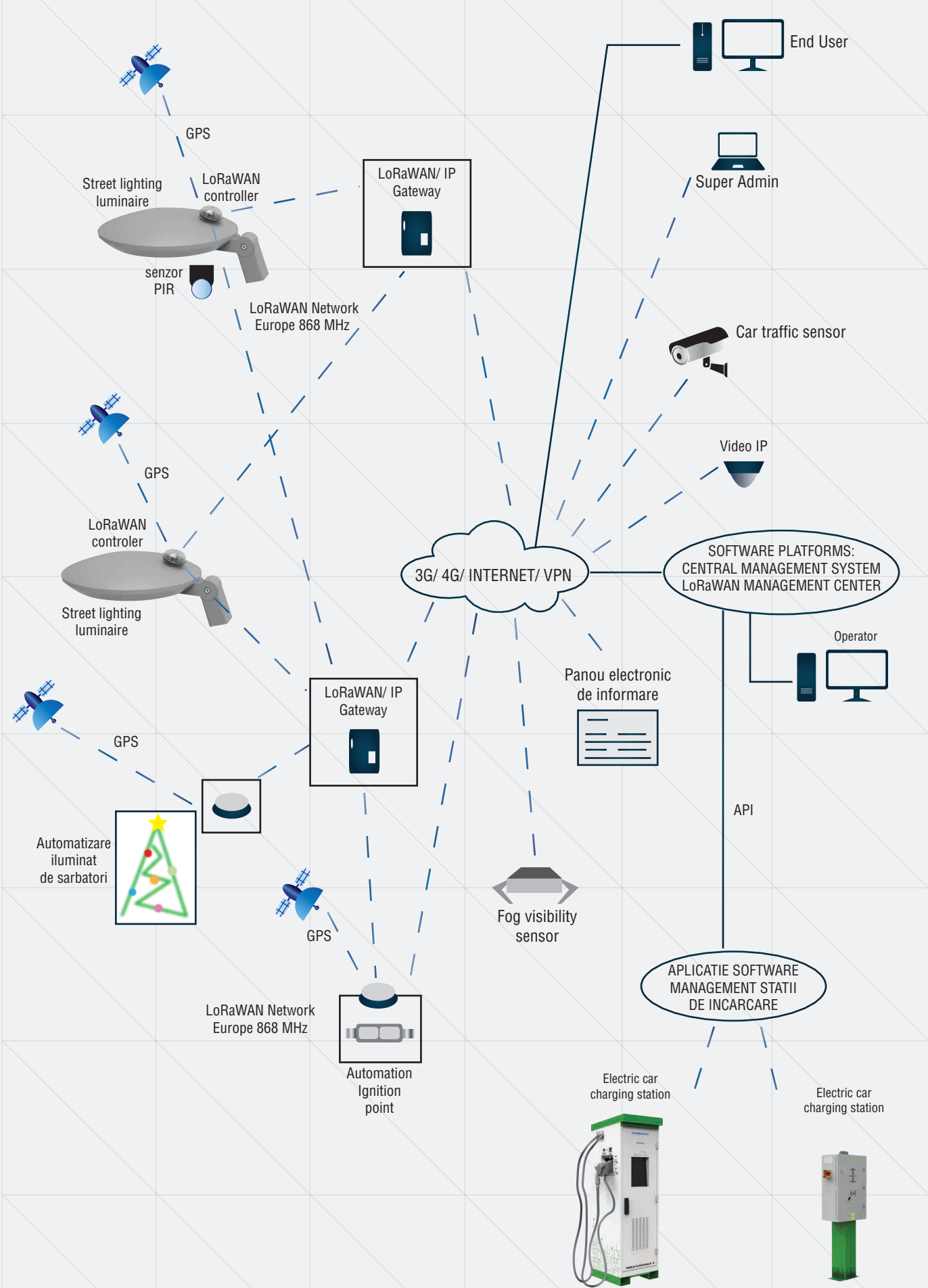
- displaying on a digital map, the lighting devices and the lighting points, through the GPS coordinates;
- displaying the ON / OFF status, the diming level and the value of the electrical parameters and of the consumed energy;
- graphical display of the time variation of the electrical parameters for each luminaire;
- permanent monitoring of lighting devices and transmission of reports;
- permanent monitoring of lighting devices and transmission of alerts.

LoRaWAN Network Management Software - is a management solution for LoRaWAN networks, LoRaWAN / IP gateways and redundancy through topology, through components: LoRa Network Server, Base Station , Radio Network Controller Controller and Gateway Management System.

System integration

The system allows functional integration through the communication network and in the software platform for:

- motion sensors, traffic sensors and detection of people falling on the road, IP video cameras
- fog sensors, temperature sensors and air quality smart parking sensors
- data from electric vehicle charging stations, through API interfacing with software platforms for managing electric vehicle charging stations
- electronic information panels





Colour aspects

A lamp with relatively white colour has two qualities:

- the apparent colour of the lamp;
- the ability of the lamp to emit the colour, a characteristic that can affect the colour appearance of the objects and people that are illuminated by the lamp.

These two attributes have to be considered separately.

The colour appearance

The appearance of the colour refers to the apparent colour (chromatic) of the beam of light. This is quantified by the temperature of the correlated colour (TCP).

The colour appearance is described in the table below.

Color appearance	Colour temperature correlated TCP K
Warm	smaller than 3300 K
Neutral	From 3300 to 5300 K
Cold	Greater than 5300 K

Correlation between the colour rendering index and the colour classes of light source	
Color class	Color rendering index Ra
1A	>90
2B	80<Ra<90
2A	60<Ra<80
2B	40<Ra<60
3	20<Ra<40

*The luminaires in this catalog have the light flow measured in neutral, white - 4000K.

The choice of the colour appearance represents a psychological, aesthetic and contextual matter. The choice depends on the level of illumination, the colours of the room and furniture, the environment and the mounting way. In warm environments, a colder appearance of the light is preferred, whereas in the colder environments a warmer appearance is favoured.

Colour rendering

For a good visual performance and a feeling of comfort and wellness, it is important that all the colours of the environment, the colour of the objects and human complexion be rendered naturally, correctly and in a way that makes people look natural.

The safety colours must always be identified as such (see ISO 3864).

To ensure an objective designation of the colour rendering properties of a lighting source the general index Ra of colour rendering was created. The maximum value of Ra is 100. This value decreases along with the decrease of the colour rendering. The lamps with a colour rendering index smaller than 80 should not be used in enclosed spaces in which people work or stay for a longer period. Exceptions may be accepted for some certain things and/or activities (for example high level lighting), but adequate measures have to be taken to ensure great rendering illumination in fixed working places that are continuously occupied where the safety colours should be acknowledged.



Ingress protection IP conform SR EN 60529

The first characteristic figure
Protection against solid foreign bodies

0	Unprotected
1	Protection against solid foreign bodies with a width greater than or equal to 50 mm.
2	Protected against solid foreign bodies with a width greater than or equal with 12,5 mm.
3	Protected against solid foreign bodies with a width greater than or equal with 2,5 mm.
4	Protected against solid foreign bodies with a width greater than or equal with 1 mm.
5	Protected against dust.
6	Dust - proof.

The second characteristic figure
Protection against water

0	Unprotected
1	Protected against vertical falling of water drops.
2	Protected against vertical falling of water drops when the framing is tilted up to maximum 15°.
3	Protected against rain; water finely sprayed falling from a direction which makes an angle up to 60° on either sides of the vertical.
4	Protected against water spray coming from all directions.
5	Protected against water jets.
6	Protected against powerful water jets.
7	Protected against temporary immersion in water.
8	Protected against prolonged immersion in water.



Protection against electric shock

CLASS I LIGHTING DEVICE



Lighting device where the protection against electrical shock is not based only on base insulation, but includes a supplementary safety measure as some means of connecting the accessible conducting parts to a protection wire (earthing) from the fixed installation cabling, so the accessible conducting parts not becoming active if the base insulation fails.

CLASS II LIGHTING DEVICE



Lighting device where the protection against electrical shock is not based only on base insulation, but includes supplementary safety measures, as double insulation or hardened insulation. These devices are not containing any protection device based on earthing or installation conditions .

CLASS III LIGHTING DEVICE



Lighting device where the protection against electrical shock is based on power feeding at a very low safety voltage (VLSV) and where higher voltages than the very low safety voltage (VLSV) are not generated.

NOTE – A Class III lighting device must not have any protection means by earthing.



IK protection level

This level classifies the protection level against mechanical impacts from outside on the cases of the electrical devices.

IK

1	Resistant against the impact of a 200 g object thrown from a height of 7.5 cm.
2	Resistant against the impact of a 200 g object thrown from a height of 10 cm.
3	Resistant against the impact of a 200 g object thrown from a height of 17.5 cm.
4	Resistant against the impact of a 200 g object thrown from a height of 25 cm.
5	Resistant against the impact of a 200 g object thrown from a height of 35 cm.
6	Resistant against the impact of a 500 g object thrown from a height of 20 cm.
7	Resistant against the impact of a 500 g object thrown from a height of 40 cm.
8	Resistant against the impact of a 1.7 kg object thrown from a height of 29.5 cm.
9	Resistant against the impact of a 5 kg object thrown from a height of 20 cm.
10	Resistant against the impact of a 5 kg object thrown from a height of 40 cm.



LED emergency lighting

As you probably know, the general objective of emergency lighting for evacuation is to guide the way out of the building, safely, on power grid failure.

Here are the objectives of each emergency lighting type:

- The lighting of the evacuation ways – its purpose is to facilitate the exit from a building, in safe conditions. It ensures the necessary visibility to identify and use the evacuation ways, on one hand, and ensures the necessary visibility to locate and use the safety and firefighting equipment, on the other hand;
- Emergency safety lighting – its objective is to ensure the visibility for orientation and to locate and use the evacuation ways;
- The ambient lighting (anti-panic) – its role is to reduce the risk of agitation and panic, allowing the persons that have to evacuate the space to move and orientate in safe conditions. For evacuation ways or for open spaces, it is recommended that the lighting flow to be oriented downwards, in the direction of the working plan. In the same time it is recommended the illumination of any obstacle situated up to 2 meters in height from that plan.
- The illumination of the high risk activities areas - its purpose is to contribute to the safety of the persons that are working in high risk potential areas or in dangerous areas . In the same time, this kind of lighting allows the well developing of the stopping procedures for other persons safety in the same location.



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