

Lighting: Fluorescent Lighting

RE Series: Recessed Fluorescent Lighting Fixtures, Standard and Emergency Back-Up – Increased Safety



4 x 18 W Surface Mounting



2 x 36 W Recessed

Compliance Data:

ATEX – IECEx:



Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IECEx	CE
Ex de IIC or Ex demb IIC (emergency version)	T6 to T4	Ex tD A21	T 75°C	IP66 - IK09/10

Technical Data:

18 W 36 W 58 W	1, 2, 3 & 4 Lamp Versions	Fluorescent T8 (Bi-pin G13)	110 to 254 Vac/Vdc +/- 10% 50/60 Hz
Recessed or Surface Mounting		Painted or Stainless Steel	Front Access

Operating Temperatures:

-20°C to +55°C

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Applications:

- Designed for flush or surface mounting; most specifically clean room environments where a seamless smooth ceiling is mandatory.
- Typical applications include: the food industry, chemical plants, pharmaceuticals and delicate electronic manufacturing such as the aerospace industry.
- Ideal for rigorous corrosive environments, involving water, dust and extreme temperature variations.
- Can be installed in hazardous areas designated as Zone 1, 2, 21 and 22.

Features:

- One-piece welded steel housing with integral frame to seal out contaminants.
- Allows recessed mounting in permanent ceilings from 55 mm to 130 mm (2" to 5" approximately).
- Frameless tempered (safety) 5 mm (1/4") thick lens. Lens secured to housing by internal metallic hinges and secured with captive 316L stainless steel screws, allowing for easy lamp replacement and fixture maintenance.
- Positive safety switch and new Ex e battery with plug-in connector for safety and easy maintenance in hazardous locations.
- Designed for ease of installation and maintenance.
- Bi-pin G13 lampholder.
- Also available as surface mounting version.
- New ballast:
 - EOL (End Of Life) protection in accordance to the latest EN 60079-7 standard
 - Multi-tap 110 to 254 Vac/Vdc +/-10% 50/60 Hz
 - Two channel standard ballast (if one lamp fails the second lamp remains in operation)
 - Ex e plug-in connector for rapid and error free maintenance
 - Self test on 3 hours duration emergency version
 - High power factor electronic ballast (>0.95)

Termination/Wiring:

- Terminal capacity: 4 mm² (flexible) or 6 mm² (solid).
- Loop in/Loop out: One terminal block
 - Standard version:
2 (L) + 2 (N) + 2 (PE)

- Emergency version:
2 (LP) + 2 (L) + 2 (N) + 2 (PE)
- Through wired: Two terminal blocks (one at each end)
 - Standard version:
2 (L) + 2 (N) + 2 (PE)
1 (L) + 1 (N) + 1 (PE)
 - Emergency version:
2 (LP) + 2 (L) + 2 (N) + 2 (PE)
1 (LP) + 1 (L) + 1 (N) + 1 (PE)

PE: Earth N: Neutral L: Live
LP: Permanent Live for emergency version

Cable Entries:

- Three clearance holes for M20 cable gland supplied with M20 polyamide cable gland (cable dia. 6.5 to 14.5 mm) and M20 polyamide blanking plug as below quantity:

Version	Cable Gland	Blanking Plug	Nickel Plated Brass Locknut
Loop	1	2	3
Through	2	1	3

- One M6 earth stud.

Standard Materials:

- One-piece white powder epoxy painted welded steel housing and integral frame.
- 5 mm thick tempered safety lens.
- Silicone 4 lips gasket completely sealed and contained in the fixture.
- White polycarbonate multi-parabolic internal reflector.
- Polyamide cable gland and blanking plug.

Standard Finishes:

- White powder epoxy paint

Options:

- 316L stainless steel housing and integral frame, natural finish.
- Through wiring.
- White powder epoxy painted steel reflector.

Catalog Number Logic:

RE	B	X	XX	XX	X	X	X
Series:	Number of Lamps: 1 = 1 Lamp 2 = 2 Lamps 3 = 3 Lamps 4 = 4 Lamps	Voltage: BU = 110 to 254 Vac/Vdc 50/60 Hz B3 = 100 to 130 Vac/Vdc 50/60 Hz BK = 220 to 254 Vac/Vdc 50/60 Hz	Mounting/Access: F = Recessed Lighting/Front Access (U Shape) M = Surface mounting Lighting	Termination/Wiring: L = Loop In/Loop Out T = Through wired (2)	Options: E = 3 H Emergency (combined) - Battery 6 V - 4 Ah E1 = 1 H 30 Emergency (combined) - Battery 6 V - 7 Ah E7 = 3H Emergency (combined) - Battery 6 V - 7 Ah N = No switch (3) P = White painted steel internal reflector (1) S = 316L Stainless steel housing		
Lamp Type: B = Bi-pin (G13)	Wattage: 18 = 18 Watt 36 = 36 Watt 58 = 58 Watt						

(1) = As standard for 18 W emergency version and 4 lamp version
(2) = T/W and Loop in/Loop out - 3 cores (single phase)
(3) = Only for standard versions

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LIGHTING

Ordering Information:

Recessed — 110/254 Vac/Vdc 50/60 Hz — Front access — White Painted Steel Housing

Version	Wiring	Reflector	Weight (Kg)	Volume (dm ³)	Catalog Number
Standard Version — Bi-pin Lamps (G13)					
2 x 18 W	Loop	Polycarbonate	14	64	REB218BUFL
2 x 18 W	Through	Polycarbonate	14	64	REB218BUFT
4 x 18 W	Loop	White Painted Steel	21	93	REB418BUFLP
4 x 18 W	Through	White Painted Steel	21	93	REB418BUFTP
2 x 36 W	Loop	Polycarbonate	19	108	REB236BUFL
2 x 36 W	Through	Polycarbonate	19	108	REB236BUFT
4 x 36 W	Loop	White Painted Steel	29	158	REB436BUFLP
4 x 36 W	Through	White Painted Steel	29	158	REB436BUFTP
2 x 58 W	Loop	Polycarbonate	22	130	REB258BUFL
2 x 58 W	Through	Polycarbonate	22	130	REB258BUFT
4 x 58 W	Loop	White Painted Steel	32	190	REB458BUFLP
4 x 58 W	Through	White Painted Steel	32	190	REB458BUFTP



3 Hours Emergency Version — Bi-pin Lamps (G13)

2 x 18 W	Loop	Polycarbonate	14	64	REB218BUFLEP
2 x 18 W	Through	Polycarbonate	14	64	REB218BUFTEP
4 x 18 W	Loop	White Painted Steel	21	93	REB418BUFLEP
4 x 18 W	Through	White Painted Steel	21	93	REB418BUFTEP
2 x 36 W	Loop	Polycarbonate	19	108	REB236BUFLE
2 x 36 W	Through	Polycarbonate	19	108	REB236BUFTE
4 x 36 W	Loop	White Painted Steel	29	158	REB436BUFLEP
4 x 36 W	Through	White Painted Steel	29	158	REB436BUFTEP
2 x 58 W	Loop	Polycarbonate	22	130	REB258BUFLE
2 x 58 W	Through	Polycarbonate	22	130	REB258BUFTE
4 x 58 W	Loop	White Painted Steel	32	190	REB458BUFLEP
4 x 58 W	Through	White Painted Steel	32	190	REB458BUFTEP

For non-recessed lighting, please replace letter “F” with letter “M” as per Catalog number logic.

Example: REB218BUFL becomes REB218BUML.

Accessories:

	Description	Weight (Kg)	Volume (dm ³)	Catalog Number
	Ceiling Mounting Brackets - Set of Two			
	Zinc plated steel	2.00		RECMST
	316 stainless steel	2.00		RECMSS
	M8 Eye Bolts - Set of Four			
	Zinc plated steel	0.25		REEBST
	316 stainless steel	0.25		REEBSS
	Fixing Brackets - Set of Four			
	Zinc plated steel	0.60		REFBST
	316 stainless steel	0.60		REFBSS

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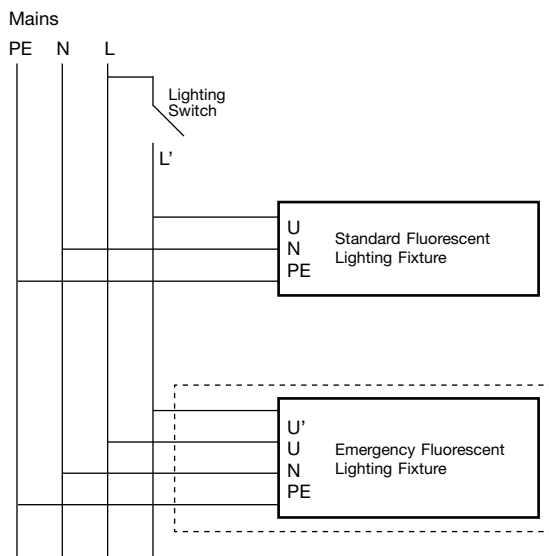
Zone 1 & 2 – 21 & 22

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Wiring Diagram:



Emergency Function Diagram:

Two Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

Three Lamp Version

Mains	Lighting Switch ON	Lighting Switch OFF
ON		
OFF		

LED status:

Color	Indication	Function
Green	LED glows LED blinks	Batteries are connected Batteries are charged
Red	LED blinks	Batteries are not connected or defect
Yellow	LED blinks	Batteries are charging and discharging during automatic cycle

Emergency Light Duration:

Version	Battery Capacity	Duration	Emergency Light Output
2 x 18 W	4 Ah – 6 V	3 hours	45%
2 x 36 W	4 Ah – 6 V	3 hours	15%
	7 Ah – 6 V	3 hours	25%
2 x 58 W	4 Ah – 6 V	3 hours	9%
	7 Ah – 6 V	3 hours	15%

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Compliances:

Hazardous Area	Gas	Dust
Certified Type	RE	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ex II 2 G	CE 0081 Ex II 2 D
Symbol of Protection ATEX	Ex de IIC / Ex demb IIC (emergency version)	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 to T4 (see table)	N.A.
Surface Temperature	N.A.	T75°C
Ambient Temperature	-20°C ≤ Ta ≤ +55°C	
CE Declaration of Conformity	50276	
ATEX Certificate	LCIE 07 ATEX 6104	
IECEx Certificate	IECEx LCI 07.0019	
Other Certifications	–	
Index of Protection	IP66	
Impact Resistance (shock)	IK09 or IK10 depending on version	

T Ratings:

Version	Ceiling Position			Wall Position		
	Ambient Temperature			Ambient Temperature		
	+40°C	+50°C	+55°C	+40°C	+50°C	+55°C
2 x 18 W (1)	T6	T5	T5	T5	T5	T4
2 x 18 W Emergency (1)	T5	T4	T4	T5	T5	T4
3 x 18 W	T5	T4	T4	T4	T4	T4
4 x 18 W	T5	T4	T4	T5	T4	T4
2 x 36 W (1)	T5	T4	T4	T5	T4	T4
2 x 36 W Emergency (1)	T5	T4	T4	T5	T4	T4
3 x 36 W	T4	T4	T4	T4	T4	T4
4 x 36 W	T5	T4	T4	T5	T4	T4
2 x 58 W (1)	T4	T4	T4	T4	T4	T4
2 x 58 W Emergency (1)	T4	T4	T4	T4	T4	T4
3 x 58 W	T4	T4	T4	T4	T4	T4
4 x 58 W	T4	T4	T4	T4	T4	T4

(1) T rating for single lamp version is the same as twin lamp version.

Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
Product Standards	EN / IEC 60598-1; 60598-2-22
EMC Standards	EN / IEC 55015; 61547
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

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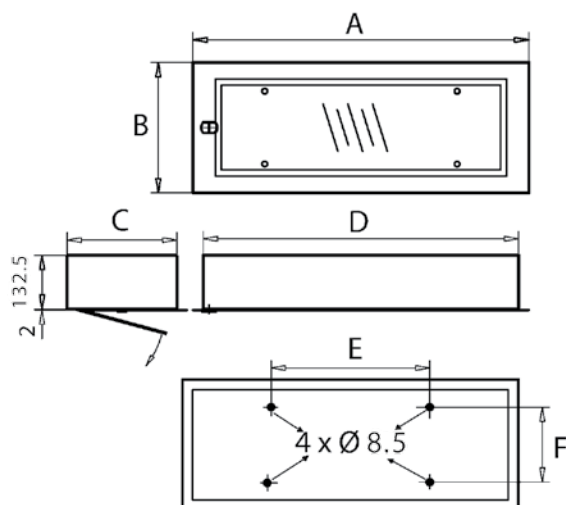
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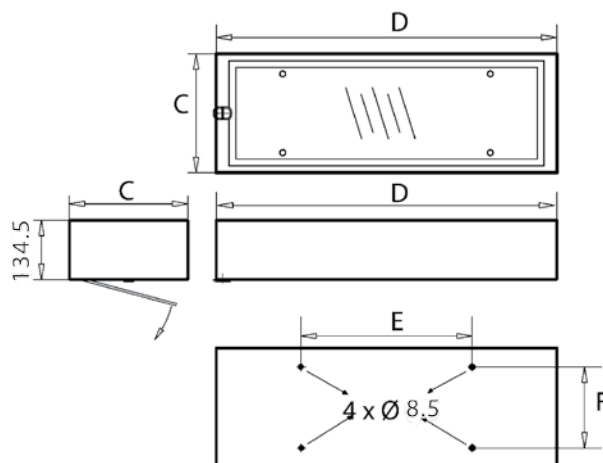
Dimensions (mm):

Versions	Dimensions (mm)							
	A	B	C	D	E	F	G	H
18 W (1, 2, 3 lamps)	826	320	270	776	390	184	786	280
18 W (4 lamps)	826	490	440	776	390	354	786	450
36 W (1, 2, 3 lamps)	1436	320	270	1386	1000	184	1396	280
36 W (4 lamps)	1436	490	440	1386	1000	354	1396	450
58 W (1, 2, 3 lamps)	1736	320	270	1686	1300	184	1696	280
58 W (4 lamps)	1736	490	440	1686	1300	354	1696	450

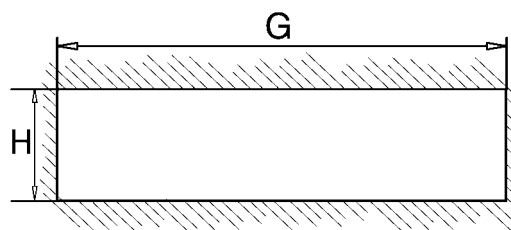
Recessed Luminaire



Surface Mounting Luminaire



Ceiling Cut-out



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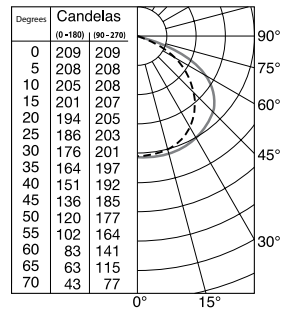
Photometric Data:

Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

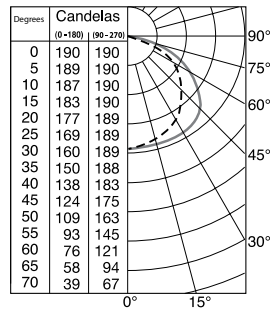
--- Longitudinal
— Transverse

18 W Versions with Polycarbonate Reflector:

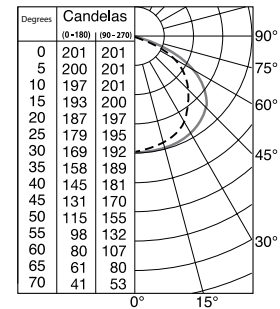
1 x 18 W
Efficiency 67.1%
NF C 71-121: 0.67 E



2 x 18 W
Efficiency 62%
NF C 71-121: 0.62 E

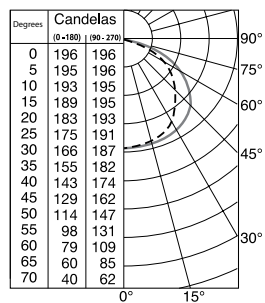


3 x 18 W
Efficiency 61.2%
NF C 71-121: 0.61 E

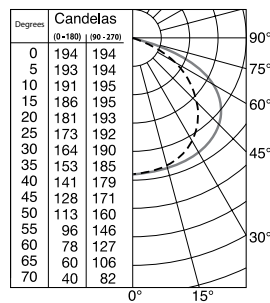


18 W Versions with Painted Steel Reflector:

2 x 18 W
Efficiency 60.5%
NF C 71-121: 0.60 F

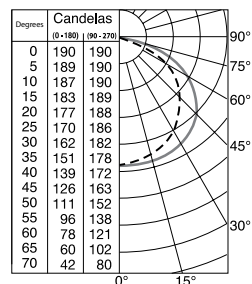


4 x 18 W
Efficiency 63.7%
NF C 71-121: 0.63 E



36 W Versions with Painted Steel Reflector:

4 x 36 W
Efficiency 61.5%
NF C 71-121: 0.61 E



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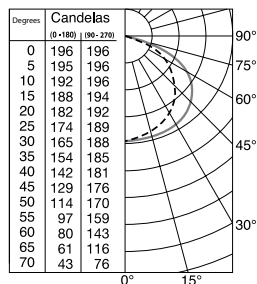
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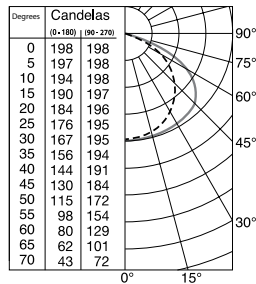
Photometric Data – Continued:

36 W Versions with Polycarbonate Reflector:

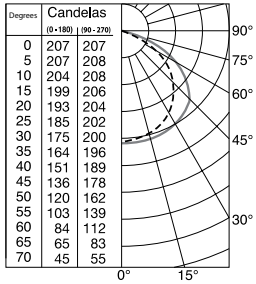
1 x 36 W
Efficiency 64.4%
NF C 71-121: 0.64 E



2 x 36 W
Efficiency 64.8%
NF C 71-121: 0.64 E

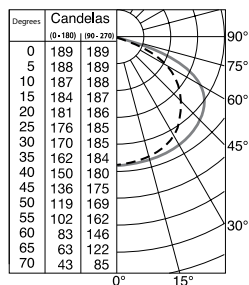


3 x 36 W
Efficiency 63.7%
NF C 71-121: 0.63 F

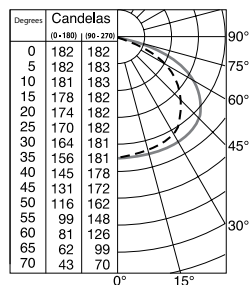


58 W Versions with Polycarbonate Reflector:

1 x 58 W
Efficiency 64.9%
NF C 71-121: 0.65 E



2 x 58 W
Efficiency 61.8%
NF C 71-121: 0.62 E



3 x 58 W
Efficiency 57.8%
NF C 71-121: 0.58 E

