

RE Series Recessed and Surface Mounting Fluorescent Luminaires

Standard and Emergency Back-Up. Increased Safety

Zone 1 and 2 - 21 and 22
Gas (G) and Dust (D)

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 use in rigorous corrosive environments, involving water, dust and extreme temperature variations.
- Can be installed in hazardous areas designated as Zone 1 and 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.
- Frameless tempered 5 mm 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 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)
- Cable entries:
 - Three clearance holes for M20 cable gland supplied with M20 polyamide cable gland — cable diameter 6.5 to 14.5 mm — and M20 polyamide blanking plug. See *Standard Cable Entry Accessories on following pages.*
 - One M6 earth stud.

Standard Materials

- Housing and integral frame: one piece, welded steel
- Safety lens: 5 mm thick tempered
- Gasket: silicone, 4 lips, completely sealed and contained in the fixture
- Internal reflector: white polycarbonate multi-parabolic
- Cable gland and blanking plug: polyamide

Standard Finishes

- Housing and integral frame: white powder epoxy paint

Options

- 3 hours emergency version - Battery 6 V - 4 Ah. Add suffix **-E**.
- 1 hour 30 emergency (combined) - Battery 6 V - 7 Ah. Add suffix **-E1**.
- 3H Emergency (combined) - Battery 6 V - 7 Ah. . Add suffix **-E7**.
- White painted steel internal reflector. Add suffix **-P**.
- 316L stainless steel housing and integral frame, natural finish. Add suffix **-S**.



4 x 18 W Surface Mounting



2 x 36 W Recessed

Certifications and Compliances

◆ ATEX/IECEx Certification

- **Certification Type: RE**
 - Gas: Zones 1 and 2
 - Conforming to ATEX 94/9/CE: Ⓜ II2 G
 - Type of Protection: Ex de IIC/ Ex demb IIC (emergency version)
 - Temperature class: T6 to T4 (See Table on following page)
 - Dust: Zone 22
 - Conforming to ATEX 94/9/CE: Ⓜ II2 D
 - Type of Protection: Ex td A21
 - Surface Temperature: 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
 - Index of Protection according EN/IEC 60529: IP66
 - Impact Resistance (shock): IK09 or IK10 depending on version

◆ EURASEC Certification

- EURASEC N° TC RU C-FR.Г505.B.00912

◆ Others Certification

- INMETRO Certificate: BVC13.2672 ①

① Inmetro certification available on special request only. Contact your local sales for more information

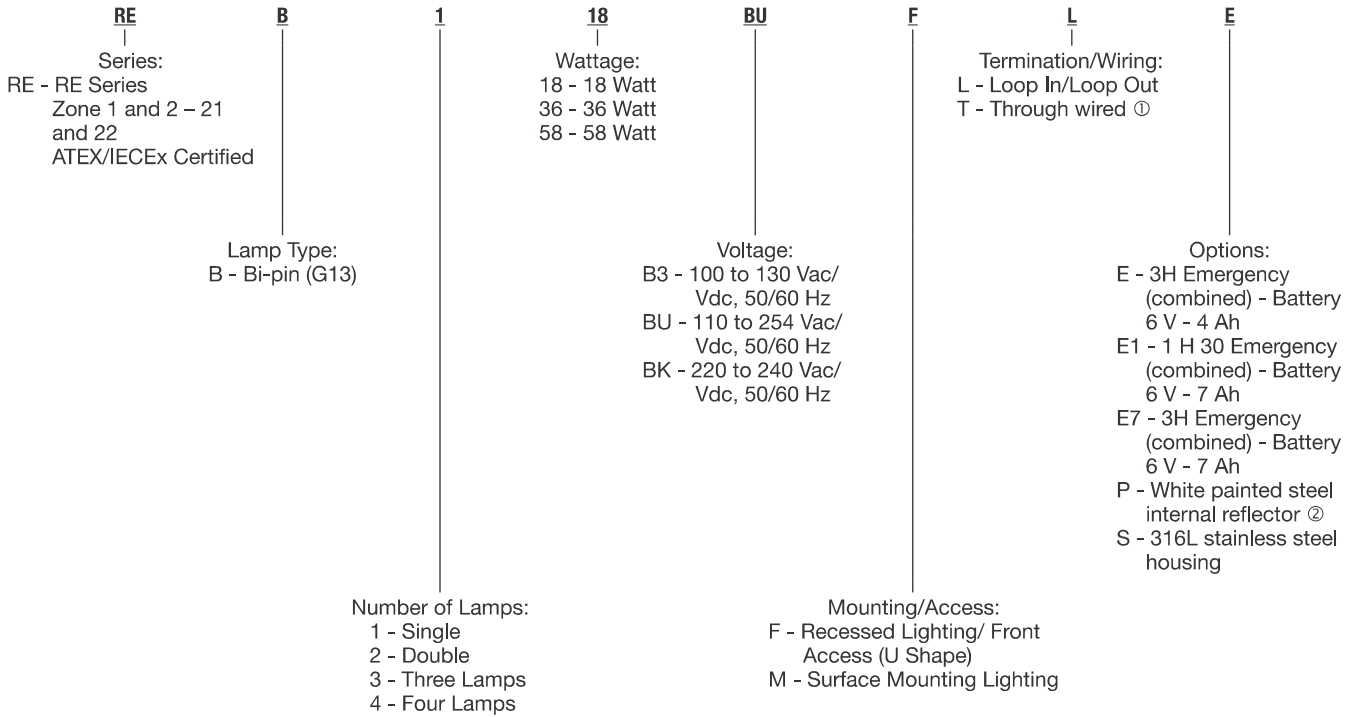
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Order using catalog numbering guide below or select catalog number from tables on following pages.

Catalog Numbering Guide — RE Series Recessed Fluorescent Luminaires



① T/W and Loop in/Loop out - 3 cores (single phase).

② As standard for 18 W emergency version and 4 lamp version.

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T Ratings

Version	Ambient Temperature					
	Ceiling Position			Wall Position		
	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

Termination and Wiring

- Terminal capacity: 4 mm² flexible or 6 mm² solid.
- Loop in/Loop out: One terminal block ②
 - 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) ②
 - 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)

Standard Cable Entry Accessories

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

① T Rating for single lamp version is the same as twin lamp version.

② PE: Earth; N: Neutral. L: Live. LP: Permanent Live for emergency version.

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

Version	Reflector	Wiring	Weight kg	Volume dm ³	Catalog Number
					①②③④⑤⑥⑦
Standard Version — Bi-pin Lamps (G13)					
2 x 18 W	Polycarbonate	Loop	14	64	REB218BUFL
		Through	14	64	REB218BUFT
4 x 18 W	White Painted Steel	Loop	21	93	REB418BUFLP
		Through	21	93	REB418BUFTP
2 x 36 W	Polycarbonate	Loop	19	108	REB236BUFL
		Through	19	108	REB236BUFT
4 x 36 W	White Painted Steel	Loop	29	158	REB436BUFLP
		Through	29	158	REB436BUFTP
2 x 58 W	Polycarbonate	Loop	22	130	REB258BUFL
		Through	22	130	REB258BUFT
4 x 58 W	White Painted Steel	Loop	32	190	REB458BUFLP
		Through	32	190	REB458BUFTP
3 Hours Emergency Version — Bi-pin Lamps (G13)					
2 x 18 W	White Painted Steel	Loop	14	64	REB218BUFLEP
		Through	14	64	REB218BUFTPE
4 x 18 W	White Painted Steel	Loop	21	93	REB418BUFLEP
		Through	21	93	REB418BUFTPE
2 x 36 W	Polycarbonate	Loop	19	108	REB236BUFLE
		Through	19	108	REB236BUFTE
4 x 36 W	White Painted Steel	Loop	29	158	REB436BUFLEP
		Through	29	158	REB436BUFTPE
2 x 58 W	Polycarbonate	Loop	22	130	REB258BUFLE
		Through	22	130	REB258BUFTE
4 x 58 W	White Painted Steel	Loop	32	190	REB458BUFLEP
		Through	32	190	REB458BUFTPE

① For surface mounting lighting, replace letter **F** with letter **M** in the 9th position; example: REB218BUML.

② For 3 hours emergency version - Battery 6 V - 4 Ah, add suffix **E** to the end of the catalog number; example: REB218BUFLE.

③ For 1 hour 30 emergency (combined) - Battery 6 V - 7 Ah, add suffix **E1** to the end of the catalog number; example: REB218BUFLE1.

④ For 3H Emergency (combined) - Battery 6 V - 7 Ah, add suffix **E7** to the end of the catalog number; example: REB218BUFLE7.

⑤ For fixture without a safety switch, add suffix **N** to the end of the catalog number; example: REB218BUFLN.

⑥ For fixture with a white painted steel internal reflector, add suffix **P** to the end of the catalog number; example: REB218BUFLP.


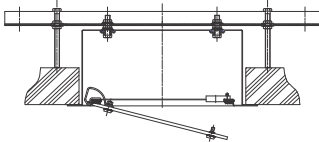

⑦ For fixture with 316L stainless steel housing and integral frame and natural finish, add suffix **S** to the end of the catalog number; example: REB218BUFLS.

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Accessories and Replacement Parts

	Description	Weight kg	Catalog Number
Fixing Brackets - Set of four			
	Zinc plated steel	0.60	REFBST
	316 stainless steel	0.60	REFBSS
Ceiling Mounting Brackets - Set of two			
	Zinc plated steel	2.00	RECMST
	316 stainless steel	2.0	RECMSS
M8 Eye Bolts - Set of four			
	Zinc plated steel	0.25	REEBST
	316 stainless steel	0.25	REEBSS

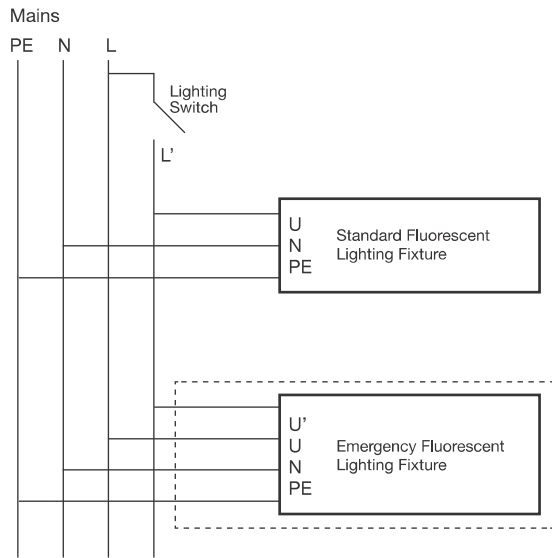
Shaded catalog numbers are normally stocked items. All other items are made to order.

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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 Blinking	Mains good – Battery charging
	LED Continuous	Mains good – Battery charged
Red	LED Blinking	No battery connected <i>OR</i> Something is defective
	LED Continuous	Mains faulty – Output ON
	LED Flashing	Mains faulty – Battery empty <i>OR</i> Lamp is defective
Yellow	LED Blinking	Mains good – Performing self test
	LED Continuous	Self test was not okay
None (Off)	No Light Emitted	No mains – Battery completely empty

Emergency Light Duration

Version	Battery Capacity	Duration	Light Output
2 x 18 W	4 Ah – 6 V	90 minute	80%
	4 Ah – 6 V	3 hour	40%
2 x 36 W	7 Ah – 6 V	90 minute	45%
	7 Ah – 6 V	3 hour	25%
2 x 58 W	7 Ah – 6 V	90 minute	30%
	7 Ah – 6 V	3 hour	15%

Lighting
FLUORESCENT LUMINAIRES

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Dimensions in Millimeters

Ceiling Cut-out

Versions	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

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Appleton

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Photometric Data

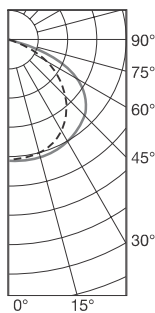
Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

--- Longitudinal
— Transverse

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

CANDELA DISTRIBUTION

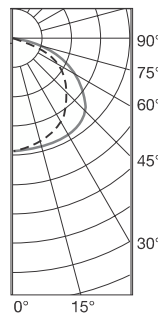
	0-180	90-270
0	209	209
5	208	208
10	205	208
15	201	207
20	194	205
25	186	203
30	176	201
35	164	197
40	151	192
45	136	185
50	120	177
55	102	164
60	83	141
65	63	115
70	43	77



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

CANDELA DISTRIBUTION

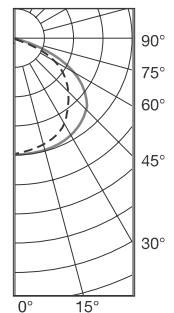
	0-180	90-270
0	205	205
5	204	203
10	202	203
15	197	202
20	191	201
25	182	201
30	173	200
35	161	192
40	148	183
45	133	177
50	117	173
55	99	168
60	80	168
65	61	163
70	41	154



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

CANDELA DISTRIBUTION

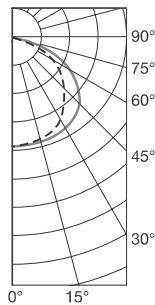
	0-180	90-270
0	201	201
5	200	201
10	197	201
15	193	200
20	187	197
25	179	195
30	169	192
35	158	189
40	145	181
45	131	170
50	115	155
55	98	132
60	80	107
65	61	80
70	41	53



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

CANDELA DISTRIBUTION

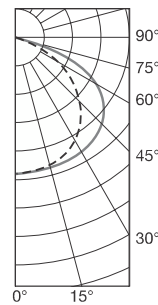
	0-180	90-270
0	196	196
5	195	196
10	193	195
15	189	195
20	183	193
25	175	191
30	166	187
35	155	182
40	143	174
45	129	162
50	114	147
55	98	131
60	79	109
65	60	85
70	40	62



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

CANDELA DISTRIBUTION

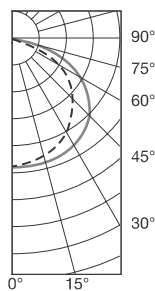
	0-180	90-270
0	194	194
5	193	194
10	191	195
15	186	195
20	181	193
25	173	192
30	164	190
35	153	185
40	141	179
45	128	171
50	113	160
55	96	146
60	78	127
65	60	106
70	40	82



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

CANDELA DISTRIBUTION

	0-180	90-270
0	190	190
5	289	190
10	287	190
15	183	189
20	177	188
25	170	186
30	162	182
35	151	178
40	139	172
45	126	163
50	111	152
55	96	138
60	78	121
65	60	102
70	42	80



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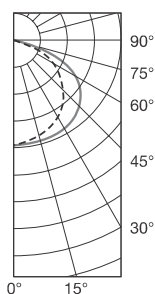
Polar curves for a 1000 lm flux, according to NF C 71-120
Luminaire symbol according to NF C 71-121

--- Longitudinal
— Transverse

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

CANDELA DISTRIBUTION

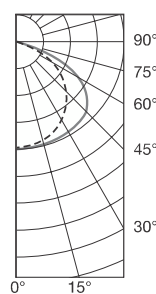
	0-180	90-270
0	196	196
5	195	196
10	192	196
15	188	194
20	182	192
25	174	189
30	165	188
35	154	185
40	152	181
45	129	176
50	114	170
55	97	159
60	80	143
65	61	116
70	43	76



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

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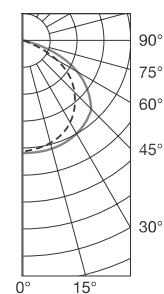
	0-180	90-270
0	198	198
5	197	198
10	194	198
15	190	197
20	184	196
25	176	195
30	167	195
35	156	194
40	144	191
45	130	184
50	115	172
55	98	154
60	80	129
65	62	101
70	43	72



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

CANDELA DISTRIBUTION

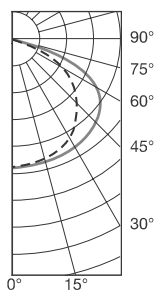
	0-180	90-270
0	207	207
5	207	208
10	204	208
15	199	206
20	193	204
25	185	202
30	175	200
35	164	196
40	151	189
45	136	178
50	120	162
55	103	139
60	84	112
65	65	83
70	45	55



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

CANDELA DISTRIBUTION

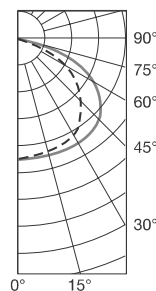
	0-180	90-270
0	189	189
5	188	189
10	187	188
15	184	187
20	181	186
25	176	185
30	170	185
35	162	184
40	150	180
45	136	175
50	119	169
55	102	162
60	83	146
65	63	122
70	43	85



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

CANDELA DISTRIBUTION

	0-180	90-270
0	182	182
5	182	183
10	181	183
15	178	182
20	174	182
25	170	182
30	164	181
35	156	181
40	145	178
45	131	172
50	116	162
55	99	148
60	81	126
65	52	99
70	43	70



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

CANDELA DISTRIBUTION

	0-180	90-270
0	185	185
5	185	185
10	183	185
15	181	184
20	177	182
25	172	180
30	166	178
35	159	174
40	147	168
45	133	158
50	118	144
55	100	125
60	82	101
65	63	75
70	43	49

