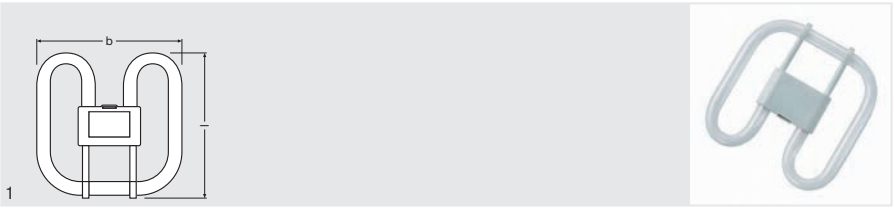
OSRAM CFL SQUARE® 2 pins
Square CFLni with 2-pin GR8 base for CCG operation



Product name	GTIN (EAN)	W			lm 25°C
CFL SQUARE 16 W/827 GR8	4050300816852	16	LUMILUX INTERNA	GR8	1050
CFL SQUARE 16 W/835 GR8	4050300816838	16	LUMILUX White	GR8	1050
CFL SQUARE 28 W/827 GR8	4050300816913	28	LUMILUX INTERNA	GR8	2050
CFL SQUARE 28 W/835 GR8	4050300816937	28	LUMILUX White	GR8	2050

Product name	R_a	l [mm]			No.
CFL SQUARE 16 W/827 GR8	80…89	138 [1)]	B	20	1
CFL SQUARE 16 W/835 GR8	80…89	138 [1)]	B	20	1
CFL SQUARE 28 W/827 GR8	80…89	205 [1)]	A	20	1
CFL SQUARE 28 W/835 GR8	80…89	205 [1)]	A	20	1

1) Maximum

Product features
- Single-ended two-pin plug-in GR8 base
- Short and compact pin-base lamp with double-turn tubes
- Color rendering index R_a: 80…89

Product benefits
- Square shape provides uniform distribution of light
- No shadows at either end and no dark patches
- Extremely low profile
- Very economical
- Good quality of light
- Long service life

Areas of application
- Low-profile wall and ceiling luminaires
- Public buildings, reception areas, offices, corridors, etc.
- Shops
- Supermarkets and department stores
- Hotels, restaurants
- Industry
- Outdoor applications only in suitable luminaires

Equipment / Accessories
- Suitable for operation on conventional control gears

Safety advice
In case of lamp breakage:
www.ledvance.com/sustainability

Technical data

Lamp **OSRAM DULUX®** **Wattage**	Lamp voltage at 50/60 Hz V	 at HF mode V	Lamp current at 50/60 Hz mA	 at HF mode mA	System wattage ECG mode* W	Lumi- nance cd/cm² LF 827, 830, 840	PF correction Parallel capac- itor [1] CCG mode 230 V/50 Hz µF	 Series capac- itor [2] CCG mode µF
CFL SQUARE 16	103	84	195	180	–	–	2.0	–
CFL SQUARE 28	108	95	320	260	–	–	3.0	–
CFL SQUARE 38	110	97	430	355	–	–	4.5	–
DULUX S 5	35	–	180	–	–	2.5	2.2	–
DULUX S 7	47	–	175	–	–	2.6	2.1	–
DULUX S 9	60	–	170	–	–	2.8	2.0	–
DULUX S 11	91	–	155	–	–	2.7	1.7	–
DULUX D 10	64	–	190	–	–	4.0	2.2	–
DULUX D 13	91	–	175	–	–	4.0	1.8	–
DULUX D 18	100	–	220	–	–	4.5	2.2	1.7
DULUX D 26	105	–	325	–	–	5.5	3.2	2.5
DULUX T 13	91	–	175	–	–	4.2	1.8	1.4
DULUX T 18	100	–	225	–	–	4.7	2.3	1.7
DULUX T 26	105	–	325	–	–	6.0	3.3	2.5
DULUX S/E 7	–	37	–	175	9	2.6	–	–
DULUX S/E 9	–	48	–	170	12	2.8	–	–
DULUX S/E 11	–	75	–	150	14	2.7	–	–
DULUX D/E 10	–	51	–	190	12	4.0	–	–
DULUX D/E 13	–	77	–	165	14	4.0	–	–
DULUX D/E 18 [3]	–	80	–	210	20	4.5	–	–
DULUX D/E 26 [3]	–	80	–	300	28	5.5	–	–
DULUX T/E 13	–	77	–	165	14	4.2	–	–
DULUX T/E 18	–	80	–	210	20	4.7	–	–
DULUX T/E 26 [4]	–	80	–	300	28	6.0	–	–
DULUX T/E 32 [3][4]	–	100	–	320	35	6.5	–	–
DULUX T/E 42 [3][4]	–	135	–	320	46	7.0	–	–
DULUX L 18 [3][5]	58	50	375	320	19	2.1	4.2	2.7
DULUX L 24 [3][5]	87	75	345	300	27	2.1	3.6	2.7
DULUX L 36 [3][5]	106	90	435	360	39	2.8	4.4	3.4
DULUX L 40 [4]	–	126	–	320	45	2.3	–	–
DULUX L 55 [3][4]	–	101	–	550	61	3.2	–	–
DULUX L 80 [4]	–	145	–	555	86	3.2	–	–
DULUX L DE LUXE 36	106	90	435	360	39	2.3	4.4	3.4
DULUX L DE LUXE 55	–	101	–	550	61	2.7	–	–
DULUX L HE 26 W	–	157	–	170	30	**	–	–
DULUX L HE 28 W	–	147	–	190	31	1.9	–	–
DULUX F 18	58	50	375	320	19	2.4	4.2	2.7
DULUX F 24	87	75	345	300	27	2.5	3.6	2.7
DULUX F 36	106	90	435	360	39	3.0	4.4	3.4

* ECG also available in two-lamp version
** Under clarification
For QUICKTRONIC® electronic control gears, see Section 16
For detailed technical information, see the "Technical Guides"



1) Design for cos phi = 0.95, dielectric strength of the capacitors 250 V_{AC}, capacitance tolerance ±10 %
2) To maintain the specified operating and preheating values, close-tolerance capacitors (±2 %) and series reactors (±1.5 %) are required for series compensation. Check the product ranges of leading manufacturers ! Dielectric strength of the capacitors 450 V AC
3) Also applies to the XT version
4) Also applies to the CONSTANT version
5) Also applies to the SP version at +5 °C
For more system information, see Section 16 (ECGs)

Technical data

Lamp Wattage	Base	Length l max.	Length acc. to IEC l max.	Length l_1 max.	Length l_2 max.	Length acc. to IEC l_1 max.
DULUX S 5	G23	–	–	85	108	85
DULUX S 7	G23	–	–	114	137	115
DULUX S 9	G23	–	–	144	167	145
DULUX S 11	G23	–	–	214	237	215
DULUX S/E 7	2G7	114	115	–	–	–
DULUX S/E 9	2G7	144	145	–	–	–
DULUX S/E 11	2G7	214	215	–	–	–
DULUX D 10	G24d-1	–	–	87	110	95
DULUX D 13	G24d-1	–	–	115	138	130
DULUX D 18	G24d-2	–	–	130	153	140
DULUX D 26	G24d-3	–	–	149	172	160
DULUX D/E 10	G24q-1	–	–	87	103	95
DULUX D/E 13	G24q-1	–	–	115	131	130
DULUX D/E 18 [1]	G24q-2	–	–	130	146	140
DULUX D/E 26 [1]	G24q-3	–	–	149	165	160
DULUX T PLUS 13	GX24d-1	–	–	90	113	90
DULUX T PLUS 18	GX24d-2	–	–	101	124	110
DULUX T PLUS 26	GX24d-3	–	–	116	139	130
DULUX T/E PLUS 13	GX24q-1	–	–	90	106	90
DULUX T/E PLUS 18	GX24q-2	–	–	101	117	110
DULUX T/E PLUS 26	GX24q-3	–	–	116	132	130
DULUX T/E PLUS 32 [2]	GX24q-3	–	–	132	148	145
DULUX T/E PLUS 42 [2]	GX24q-4	–	–	153	169	155
DULUX T/E CONSTANT 26	GX24q-3	–	–	112	128	130
DULUX T/E CONSTANT 32	GX24q-3	–	–	128	144	145
DULUX T/E CONSTANT 42	GX24q-4	–	–	149	165	155
DULUX L 18 [1]	2G11	217	225	–	–	–
DULUX L 24 [1]	2G11	317	320	–	–	–
DULUX L 36 [1]	2G11	411	415	–	–	–
DULUX L 40 [3]	2G11	533	535	–	–	–
DULUX L 55 [1] [3]	2G11	533	535	–	–	–
DULUX L 80 [3]	2G11	565	565	–	–	–
DULUX L SP 18	2G11	209	225	–	–	–
DULUX L SP 24	2G11	309	320	–	–	–
DULUX L HE 26	2GX11	533	u.c.	–	–	–
DULUX L HE 28	2GX11	565	565	–	–	–
DULUX F 18	2G10	122	122	–	–	–
DULUX F 24	2G10	165	165	–	–	–
DULUX F 36	2G10	217	217	–	–	–

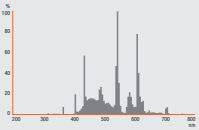
	A in mm	B in mm	C in mm	D in mm	E in mm	F in mm	G in mm
CFL SQUARE 16	max. 138.0	max. 141.0	max. 9.9	max. 4.5	max. 42.0	max. 33.0	57.0
CFL SQUARE 28	max. 205.0	max. 207.0	max. 9.9	max. 4.5	max. 42.0	max. 33.0	93.0
CFL SQUARE 38	max. 205.0	max. 207.0	max. 9.9	max. 4.5	max. 42.0	max. 33.0	93.0

For details of the geometry and diagram, see "CFLni Technical Guide"

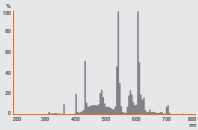
1) Also applies to the XT version
2) Also applies to T/E XT
3) Also applies to the CONSTANT version

Spectral power distribution of OSRAM DULUX® pin-base lamps

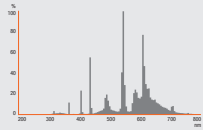
Visible range from 380 to 780 nm, relative spectral emission per 5 nm.



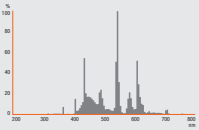
Color 954 LUMILUX®
DE LUXE Daylight



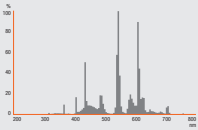
Color 940 LUMILUX®
DE LUXE Cool White



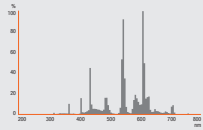
Color 930 LUMILUX®
DE LUXE Warm White



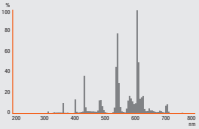
Color 865 LUMILUX®
Cool Daylight



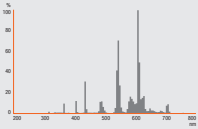
Color 840 LUMILUX®
Cool White



Color 835 LUMILUX®
White



Color 830 LUMILUX®
Warm White



Color 827 LUMILUX
INTERNA®



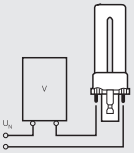
Light colors and color rendering properties according to EN 12464-1/DIN 5035 for OSRAM DULUX® pin-base lamps

Class 1	1 A	954 LUMILUX® DE LUXE	940 LUMILUX® DE LUXE	930 LUMILUX® DE LUXE
Very good	R_a 90 … 99	Daylight	Cool White	Warm White
		5400 K	4000 K	3000 K
	1 B	865 LUMILUX®	840 LUMILUX®	835 LUMILUX®
Good	R_a 80 … 89	Cool Daylight	Cool White	White
		6500 K	4000 K	3500 K
				830 LUMILUX® Warm White
				3000 K
				827 LUMILUX INTERNA®
				2700 K

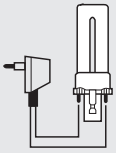
For an explanation of light colors, see page 9.40 ff.



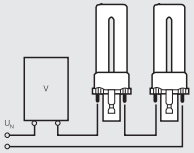
Circuit diagrams for conventional control gears



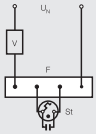
1
Single lamp with control gear
OSRAM DULUX® S 5 W, 7 W, 9 W, 11 W
OSRAM DULUX® D 10 W, 13 W, 18 W, 26 W
OSRAM DULUX® D ES 16 W, 23 W
OSRAM DULUX® T 13 W, 18 W, 26 W



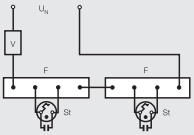
2
Single lamp with plug-in control gear
OSRAM DULUX® S 5 W, 7 W, 9 W, 11 W
OSRAM DULUX® D 10 W, 13 W
OSRAM DULUX® T 13 W



3
Series connection with control gear
OSRAM DULUX® S 5 W, 7 W, 9 W



4
Single circuit, starter St 111
or DEOS® St 171
OSRAM DULUX® L 18 W, 24 W, 36 W
OSRAM DULUX® L 18 W SP, 24 W SP, 36 W SP
OSRAM DULUX® F 18 W, 24 W, 36 W



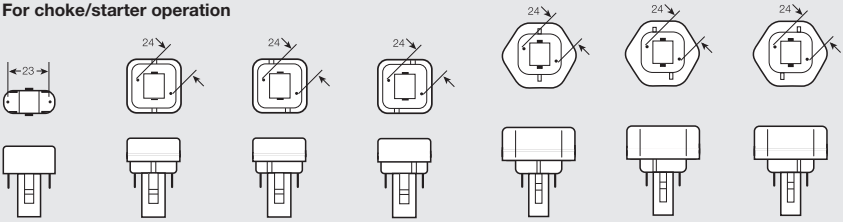
5
Series operation on 230 V only
with starter St 151
OSRAM DULUX® L 18 W
OSRAM DULUX® L 18 W SP
OSRAM DULUX® F 18 W

F = Four-pin holder
St = Starter
U_N = Line voltage
V = Control gear

For circuit diagrams for HF operation, see Section 16.

Bases IEC/EN 60061-1

For choke/starter operation



G23
Sheet 7004-69

G24q-1
Sheet 7004-78

G24q-2
Sheet 7004-78

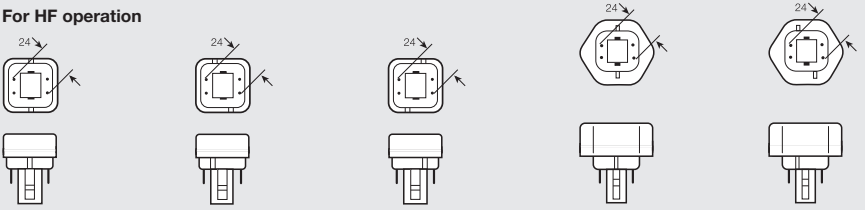
G24q-3
Sheet 7004-78

GX24q-1
Sheet 7004-78

GX24q-2
Sheet 7004-78

GX24q-3
Sheet 7004-78

For HF operation



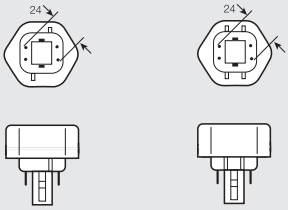
G24q-1
Sheet 7004-78

G24q-2
Sheet 7004-78

G24q-3
Sheet 7004-78

GX24q-1
Sheet 7004-78

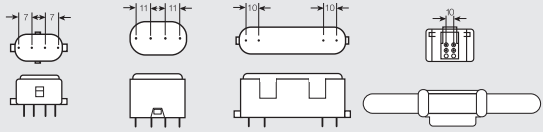
GX24q-2
Sheet 7004-78



GX24q-3
Sheet 7004-78

GX24q-4
Sheet 7004-78

For HF operation



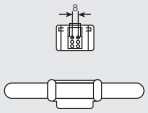
2G7
Sheet 7004-102

2G11 [1]
Sheet 7004-82

2G10 [1]
Sheet 7004-118

GR10q [1]
Sheet 7004-77

For choke/starter operation



GR8
Sheet 7004-68

1) Also for choke/starter operation