

Basic Flex G4 24V White IP00



1. Product Description

Basic Flex G4 is designed for high uniformity up to 168 LEDs per meter, and widely used for embedded lighting as a cost-effective solution. This family provides 3SDCM, CRI90 and R9>50, and up to 50,000hrs lifetime.

2. Key Features & Benefits

SDCM<3 and CRI/Ra>90, R9>50.

L70B50 up to 50,000 hrs.

Switch times up to 1,000,000

Lumen output up to 3000lm/m.

High Efficiency up to 130lm/W

3. Certificates

CE/CB/ENEC10/BIS

4. Applications

- Hospitality lighting
- Cabinet lighting
- Signage
- Architecture lighting
- Wall integration

5. Photometrical data

Product Name	CRI/Ra	Color Temp. [K]	Cx	Cy	SDCM	Luminous flux / M [lm]	Nominal wattage/M [W]	Luminous flux / reel [lm]	Luminous efficacy [lm/w]
BF400S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	400	3.5	2000	120
BF400S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	412	3.5	2020	124
BF400S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	430	3.5	2090	130
BF400S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	430	3.5	2090	130
BF600S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	620	5	2880	120
BF600S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	620	5	2970	124
BF600S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	640	5	3070	128
BF600S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	640	5	3070	128
BF900S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	900	8.0	4270	115
BF900S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	950	8.0	4560	121
BF900S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	1000	8.0	4840	128
BF900S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	1000	8.0	4840	128
BF1200S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	1200	10.5	5160	115
BF1200S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	1260	10.5	5420	121
BF1200S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	1320	10.5	5670	127
BF1200S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	1320	10.5	5670	127
BF1500S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	1520	13.5	6680	111
BF1500S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	1560	13.5	6760	116
BF1500S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	1590	13.5	7070	125
BF1500S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	1590	13.5	7070	125
BF2000S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	2050	19	8200	105
BF2000S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	2100	19	8400	110
BF2000S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	2000	19	8000	113
BF2000S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	2000	19	8000	113
BF2400S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	2350	21.5	9600	109
BF2400S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	2370	21.5	10080	110
BF2400S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	2240	21.5	10560	113
BF2400S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	2240	21.5	10560	113
BF3000S-G4-927-24-05	>90	2700	0.4578	0.4101	< 3	2900	27	10500	107
BF3000S-G4-930-24-05	>90	3000	0.4338	0.4030	< 3	3032	27	11000	112
BF3000S-G4-940-24-05	>90	4000	0.3809	0.3799	< 3	3260	27	11550	121
BF3000S-G4-965-24-05	>90	6500	0.3123	0.3282	< 3	3260	27	11550	121

6. Electrical Data

Product Name	Nominal voltage [V, DC]	Input voltage range [V, DC]	Reverse Voltage [V, DC]	Nominal wattage per meter [W]	Nominal wattage [W]	Nominal current per meter [mA, DC]	Nominal current [mA, DC]	Dimmable
BF400S-G4-9XX-24-05	24	23...25	25	3.5	16	146	660	Yes
BF600S-G4-9XX-24-05	24	23...25	25	5	23	208	970	Yes
BF900S-G4-9XX-24-05	24	23...25	25	8.0	36	333	1480	Yes
BF1200S-G4-9XX-24-05	24	23...25	25	10.5	46	433	1920	Yes
BF1500S-G4-9XX-24-05	24	23...25	25	13.5	60	558	2500	Yes
BF2000S-G4-9XX-24-05	24	23...25	25	19	80	792	3330	Yes
BF2400S-G4-9XX-24-05	24	23...25	25	21.5	95	895	3960	Yes
BF3000S-G4-9XX-24-05	24	23...25	25	27	111	1125	4630	Yes

7. Temperatures & operating conditions & lifespan

Product Name	ta ¹⁾ [°C]	tp ²⁾ [°C]	tc_max ³⁾ [°C]	ts ⁴⁾ [°C]	Lifetime[hrs] L70B50 @tc_max	Switch Times ⁶⁾	ESD Protection
BF400S-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF600S-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF900S-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF1200S-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF1500S-G4-9XX-24-05	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF2000S-G4-9XX-24-05 ⁵⁾	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF2400S-G4-9XX-24-05 ⁵⁾	-20 ... 50	55	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV
BF3000S-G4-9XX-24-05 ⁵⁾	-20 ... 45	60	85	-30 ... 80	>50000	>1,000,000	Contact±4KV, Air±8KV

1) Ambient temperature range

2) Performance temp. acc. to IEC 62717

3) Maximum temperature at tc test point

4) Temperature range at storage

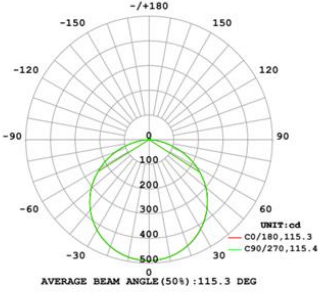
5) Operating with heat sink or aluminum profile is needed.

6) 1s ON, 1s OFF

8. Lumen maintenance

Operating voltage	Operating Temperature	L90			L80			L70		
		B10	B30	B50	B10	B30	B50	B10	B30	B50
24V	ta = 25°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000
	ta = 35°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000
	ta = 45/50°C	25,000	25,000	25,000	35,000	35,000	35,000	50,000	50,000	50,000

9. Light distribution

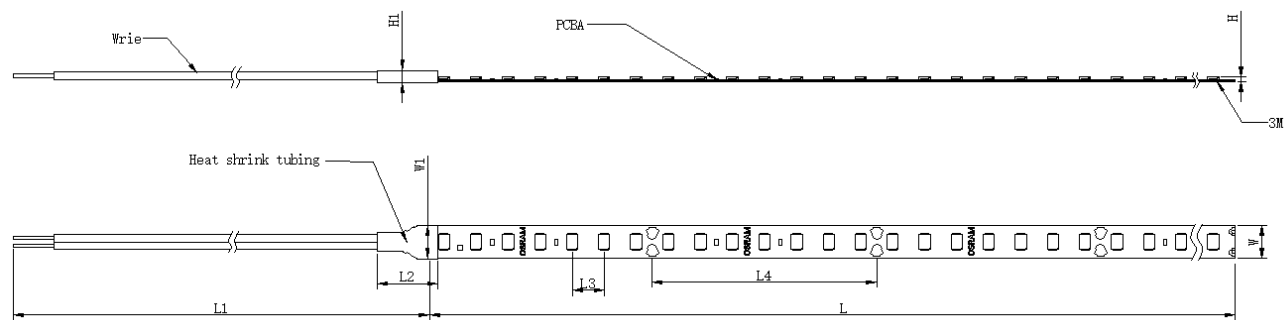
Product Name	Light Distribution Graph	Beam Angle (2Xθ1/2)
BF400S-G4-9xx-24-05 BF600S-G4-9xx-24-05 BF900S-G4-9xx-24-05 BF1200S-G4-9xx-24-05 BF1500S-G4-9xx-24-05 BF2000S-G4-9xx-24-05 BF2400S-G4-9xx-24-05 BF3000S-G4-9xx-24-05		115°±10°

10.LED Module Information

Product Name	Number of LEDs per smallest unit	Number of LEDs per meter	Number of LEDs per module	Flux variability on the full length	LED Pitch	Prewired Cable Length [mm]	Conductor cross section	Lowest bending radius [mm]
BF400S-G4-9XX-24-05	7	126	630	< 20%	7.94	>300	0.5mm ²	25
BF600S-G4-9XX-24-05	7	126	630	< 20%	7.94	>300	0.5mm ²	25
BF900S-G4-9XX-24-05	7	126	630	< 20%	7.94	>300	0.5mm ²	25
BF1200S-G4-9XX-24-05	7	126	630	< 20%	7.94	>300	0.5mm ²	25
BF1500S-G4-9XX-24-05	7	126	630	< 20%	7.94	>300	0.5mm ²	25
BF2000S-G4-9XX-24-05	7	140	700	< 25%	7.14	>300	0.5mm ²	25
BF2400S-G4-9XX-24-05	7	140	700	< 25%	7.14	>300	0.5mm ²	25
BF3000S-G4-9XX-24-05	7	168	840	< 25%	5.95	>300	0.5mm ²	25

11.Dimensions

BF400S-G4-9XX-24-05 / BF600S-G4-9XX-24-05 / BF900S-G4-9XX-24-05 / BF1200S-G4-9XX-24-05 / BF1500S-G4-9XX-24-05									
Dimension/mm	L	L1	L2	L3	L4	W	W1	H	H1
Min.	4990	340	13	7.8	55.5	7.8	8.1	1.2	2.6
Typ.	5000	350	15	7.9	55.6	8.0	8.4	1.4	2.9
Max.	5010	360	17	8.0	55.7	8.2	8.7	1.6	3.2
BF2000S-G4-9XX-24-05 / BF2400S-G4-9XX-24-05									
Dimension/mm	L	L1	L2	L3	L4	W	W1	H	H1
Min.	4990	340	13	7.0	49	7.8	8.1	1.2	2.6
Typ.	5000	350	15	7.1	50	8.0	8.4	1.4	2.9
Max.	5010	360	17	7.2	51	8.2	8.7	1.6	3.2
BF3000S-G4-9XX-24-05									
Dimension/mm	L	L1	L2	L3	L4	W	W1	H	H1
Min.	4990	340	13	5.8	40.7	7.8	8.1	1.2	2.6
Typ.	5000	350	15	5.9	41.7	8.0	8.4	1.4	2.9
Max.	5010	360	17	6.0	42.7	8.2	8.7	1.6	3.2



12. Max cable length

Product Name	Flex Length(m)	20AWG(0.52mm ²)		18AWG(0.81mm ²)		16AWG(1.32mm ²)		14AWG(2.07mm ²)	
		m	ft	m	ft	m	ft	m	ft
BF400S-G4-9XX-24-05 BF600S-G4-9XX-24-05 BF900S-G4-9XX-24-05 BF1200S-G4-9XX-24-05	1	10	32	13	42	21	68	25	82
	2	8	26	11	36	18	59	20	65
	3	5	16	8	26	12	39	15	49
	4	3	9	5	16	8	26	10	32
	5	1	3	2	6	3	9	5	16
BF2000S-G4-9XX-24-05 BF2400S-G4-9XX-24-05	1	8	26	11	36	18	59	20	65
	2	5	16	8	26	12	39	15	49
	3	3	9	5	16	8	26	10	32
	4	1	3	2	6	3	9	5	16
	5	0.5	1	2	6	3	9	5	16
BF3000S-G4-9XX-24-05	1	5	16	8	26	12	39	15	49
	2	3	9	5	16	8	26	10	32
	3	1	3	2	6	3	9	5	16
	4	0.5	1	2	6	3	9	5	16
	5	0.3	1	1	3	2	6	3	9

13. Maximum Infeed Length

NO.	Product Name	Example based on 0,5 mm ² wire cross-section				
		0m	1m	3m	6m	10m
1	BF400S-G4-9XX-24-05	14	13	12	8.5	4
2	BF600S-G4-9XX-24-05	13	12	11	6	3.5
3	BF900S-G4-9XX-24-05	11	10	7	3.5	2.0
4	BF1200S-G4-9XX-24-05	10	9	6.5	2.5	1.5
5	BF1500S-G4-9XX-24-05	7	6	4	2	1
6	BF2000S-G4-9XX-24-05	6	4.5	3.0	1.5	1.0
7	BF2400S-G4-9XX-24-05	5	4	2.5	1.0	0.5
8	BF3000S-G4-9XX-24-05	5	3.0	2.0	1.0	0.5

14. Standards / Normative Requirements

Eye security: IEC/TR 62778

Flammability: IEC/EN 61347- 1

Protection class: IEC/EN 60529

Safety Requirements: IEC/EN 62031

IEC/EN 60598- 1

IEC/EN 61347- 1

EMC / immunity: IEC/EN 61547

15. Safety Information

- The LED module itself and all its components must not be mechanically stressed.

The LED module incorporates no protection against short circuits, overload or overheating.

In order to drive Inventronics LED-Modules safely, it is absolutely necessary to operate them with an electronically stabilized SELV power supply protecting against short circuits, overload and overheating.

For dimming applications attention should be paid to specific references in "OPTOTRONIC® Technical Guide".

To also ease the luminaire/installation approval, electronic control gear for LED or LED modules must carry the CE mark.

In Europe the declarations of conformity must include the following standards:

EN 61347-2-13, EN 55015, EN 61547 and EN 61000-3-2.

- Assembly must not damage or destroy conducting paths on the circuit board.
- To avoid mechanical damage, the LED modules should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Installation of LED modules (with power supplies) need to be made regarding all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Observe correct polarity! Incorrect polarity will lead to no light emission and may cause damage of the LED module.
- Parallel connection is highly recommended as safe electrical operation mode. Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the LED module.
- When mounting on metallic or otherwise conductive surfaces, there needs to be an electrical isolation at soldering points between module and the mounting surface,
- Pay attention to ESD steps when mounting the module.
- Please ensure that the power supply is of adequate power to operate the total load.
- LED modules are dimmable by means of PWM (pulse width modulation). It is recommended using SELV CV drivers from Inventronics.
- Damage by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For applications involving exposure to humidity and dust the module must be protected by a fixture or housing with a suitable protection class.

16. Ordering Information

Item	Product Name	Family Code	Basic Code	EAN10	EAN40	S/Unit
1	BF400S-G4-927-24-05	D30087335	AM51161	6977770433007	6977770433014	20
2	BF400S-G4-930-24-05	D30087335	AM51162	6977770433021	6977770433038	20
3	BF400S-G4-940-24-05	D30087335	AM51163	6977770438507	6977770438507	20
4	BF400S-G4-965-24-05	D30087335	AM51164	6977770438521	6977770438521	20
5	BF600S-G4-927-24-05	D30087335	AM51165	6977770438545	6977770438545	20
6	BF600S-G4-930-24-05	D30087335	AM51166	6977770433106	6977770433113	20
7	BF600S-G4-940-24-05	D30087335	AM51167	6977770433120	6977770433137	20
8	BF600S-G4-965-24-05	D30087335	AM51168	6977770433144	6977770433151	20
9	BF900S-G4-927-24-05	D30087335	AM51170	6977770433168	6977770433175	20
10	BF900S-G4-930-24-05	D30087335	AM51171	6977770433182	6977770433199	20
11	BF900S-G4-940-24-05	D30087335	AM51172	6977770433205	6977770433212	20
12	BF900S-G4-965-24-05	D30087335	AM51173	6977770433229	6977770433236	20
13	BF1200S-G4-927-24-05	D30087335	AM51174	6977770433243	6977770433250	20
14	BF1200S-G4-930-24-05	D30087335	AM51175	6977770433267	6977770433274	20
15	BF1200S-G4-940-24-05	D30087335	AM51176	6977770433281	6977770433298	20
16	BF1200S-G4-965-24-05	D30087335	AM51177	6977770433304	6977770433311	20
17	BF1500S-G4-927-24-05	D30087335	AM51178	6977770433328	6977770433335	20
18	BF1500S-G4-930-24-05	D30087335	AM51179	6977770433342	6977770433359	20
19	BF1500S-G4-940-24-05	D30087335	AM51180	6977770433366	6977770433373	20
20	BF1500S-G4-965-24-05	D30087335	AM51181	6977770433380	6977770433397	20
21	BF2000S-G4-927-24-05	D30087335	AM51182	6977770433403	6977770433410	20
22	BF2000S-G4-930-24-05	D30087335	AM51183	6977770433427	6977770433434	20
23	BF2000S-G4-940-24-05	D30087335	AM51184	6977770433441	6977770433458	20
24	BF2000S-G4-965-24-05	D30087335	AM51185	6977770433465	6977770433472	20
25	BF2400S-G4-927-24-05	D30087335	AM51186	6977770433489	6977770433496	20
26	BF2400S-G4-930-24-05	D30087335	AM51187	6977770433502	6977770433519	20
27	BF2400S-G4-940-24-05	D30087335	AM51188	6977770433526	6977770433533	20
28	BF2400S-G4-965-24-05	D30087335	AM51189	6977770433540	6977770433557	20
29	BF3000S-G4-927-24-05	D30087335	AM51190	6977770433564	6977770433571	20
30	BF3000S-G4-930-24-05	D30087335	AM51191	6977770433588	6977770433595	20
31	BF3000S-G4-940-24-05	D30087335	AM51192	6977770433601	6977770433618	20
32	BF3000S-G4-965-24-05	D30087335	AM51193	6977770433625	6977770433632	20

Disclaimer

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.inventronics-light.com.