Non-Metallic Fixtures, NV2 Series, for Fluorescent Lamps

Fluorescent Non-Metallic **Corrosion Resistant Hazardous Fixtures**

Applications:

Designed specifically for corrosive and wet NEMA 4X and hazardous environments. Typical applications include manufacturing plants, chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, agricultural, commercial/industrial, mining and marine facilities.

Features:

- NV2 Series non-metallic light fixtures combine an outstanding balance of strength, stiffness, toughness and electrical properties.
- Energy and labor saving fluorescent or incandescent models available.
- Accessories include polycarbonate dome reflectors and wall extension.
- Molded from 30% glass-filled thermoset polyester for high strength.
- · Resists corrosive effects of most chemicals, hydrocarbons and solvents.
- Designed for indoor and outdoor applications.

Compliances:

c⊕us to the following standards:

- UL 1598 Standard for luminaires.
- UL 1598A Marine type luminaires.
- UL 844 Standard for lighting fixtures for hazardous locations.
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations.
- Enclosed and gasketed.
- NEMA 3, 4, 4X, IP66

*NOTES:

- Tempered Globes are required for Wet Location applications.
- Colored Globe Options (Suffix to Catalog Number): Standard: Amber (-A), Blue (-B), Ruby (-R), Green (-G), Purple (-P), Blue-Green (-BG); Tempered: Amber (-A), Blue (-B), Ruby (-R), Blue-Green (-BG).
- Fluorescent unit pack models (only) include the lamp.
- Fluorescent models use "world voltage" ballasts for 120VAC through 277VAC 50/60Hz applications.



Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, **Groups IIC,IIB,IIA** Class II, Div. 2, **Groups F,G**

Class III

Marine

NEMA 3, 4, 4X, IP66

ABS Type Approval



(Pendant)

(Ceiling)

NV2FG__ASG NV2FG__XSG NV2FG__BSG (Wall Mount)

Catalog Number Globe Type* Lamp Type

Pendant, Non-Metallic, Fluorescent* with Lamp, with Clear* Globe and Guard, Hub Size 3/4"

NV2FG _ _ ASG# Standard* Fluorescent NV2FG _ _ AHG# Tempered Fluorescent

[#]include Wattage Size to Catalog No. – available: **13**, **18, 26, 32, 42**

Ceiling, Non-Metallic, Fluorescent* with Lamp, with Clear* Globe and Guard, Hub Size 3/4"

NV2FG _ _ XSG# Standard* Fluorescent NV2FG XHG# Tempered Fluorescent

[#]include Wattage Size to Catalog No. – available: 13, 18, 26, 32, 42

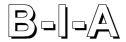
Wall Mount, Non-Metallic, Fluorescent* with Lamp, with Clear* Globe and Guard, Hub Size 3/4"

NV2FG _ _ BSG# Standard* Fluorescent NV2FG _ BHG# Tempered **Fluorescent**

#include Wattage Size to Catalog No. – available: 13, 18, 26, 32, 42

T-Codes at 4	0°C Max; with	or without Ref	lector; min.	supply wire 60°C.
Fluorescent Type	Class I Div.2 Clear/Color*	Class II Div.2 Clear/Color*		Operating max. 120Vac/277Vac
13W	T3C / T3C	T4A / T4A	-15 / +5	0.144A / 0.067A
18W	T3C / T3C	T4A / T4A	-15 / +5	0.158A / 0.073A
26W	T3B / T3A	T4A / T4A	-15 / +5	0.220A / 0.097A
32W	T3B / T3A	T4A / T4A	-15 / +5	0.285A / 0.128A
42W	T2D / T2C	T4A / T4A	-15 / +5	0.380A / 0.166A

- Incandescent models for use with Medium Base (E26) 150W Lamp size A-21 max. Please order the lamp separately.
- Incandescent models 277VAC 60Hz max.
- All assemblies are unit packed with required components (not assembled).
- Reflector is sold separately. For wall mounting with reflector, the NVEXTG extension is required and sold separately.
- For M20 ceiling units change "X" in part number to "M". For wall units change "B" to "W". M20 Pendant not available.



B□]□⚠ Product Information

Photometrics, NV2 Series, Fluorescent Lamps

NV2FG26 Fluorescent

With Globe and Guard

Candlepower - 26 Watt

CF26 lamp 1800 lumens

For 13 Watt multiply by .50

For 18 Watt multiply by .67

For 32 Watt multiply by 1.33

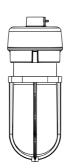
For 42 Watt multiply by 1.78

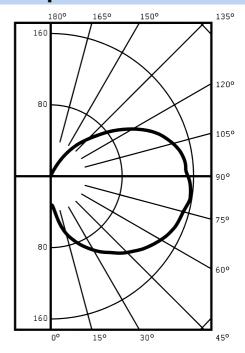
COEFFICIENTS OF UTILIZATION -ZONAL CAVITY METHOD

% EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20	80	70	50	30	10	0
% WALL REFLECTANCE 1w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCRW	20	% Effective FI	oor Cavity	Reflectan	се	
0	.86 .86 .86 .86	.80 .80 .80 .80	.69 .69 .69	.59.59 .59	.50 .50 .50	.46
1	.73 .68 .63 .58	.68 .63 .58 .54	.53 .50 .47	.45.42 .39	.37 .35 .33	.29
2	.65 .57 .50 .44	.60 .52 .46 .41	.44 .39 .35	.36.33 .29	.30 .27 .24	.20
3	.58 .48 .41 .34	.53 .44 .38 .32	.37 .32 .27	.31.26 .23	.25 .21 .18	.15
4	.52 .42 .34 .28	.48 .38 .31 .26	.32 .27 .22	.27.22 .18	.21 .18 .15	.12
5	.48 .37 .29 .23	.44 .34 .27 .21	.28 .23 .18	.23.19 .15	.19 .15 .12	.09
6	.44 .32 .25 .19	.40 .30 .23 .18	.25 .19 .15	.21.16 .13	.17 .13 .10	.08
7	.40 .29 .22 .16	.37 .27 .20 .15	.22 .17 .13	.19.14 .11	.15 .11 .08	.06
8	.37 .26 .19 .14	.34 .24 .18 .13	.20 .15 .11	.17.12 .09	.14 .10 .07	.05
9	.34 .24 .17 .12	.32 .22 .16 .11	.18 .13 .10	.15.11 .08	.12 .09 .06	.05
10	.32 .21 .15 .11	.30 .20 .14 .10	.17 .12 .09	.14.10 .07	.11 .08 .06	.04

SPACING CRITERION = 3.5

TEST NO. 1720





ZONAL LUMEN	SUMMARY		
ZONE	LUMENS	%LAMP	%FIXT
0- 30	63	3.5	4.5
0- 40	128	7.1	9.1
0- 60	344	19.1	24.4
0- 90	825	45.8	58.5
90-120	434	24.1	30.8
90-130	515	28.6	36.5
90-150	582	32.3	41.2
90-180	586	32.5	41.5
0-180	1411	78.4	100.0

TOTAL LUMINAIRE EFFICIENCY = 78.4 %

NV2FG26 Fluorescent

With Globe, Guard and Reflector

Candlepower - 26 Watt

CF26 lamp 1800 lumens

For 13 Watt multiply by .50 For 18 Watt multiply by .67

For 32 Watt multiply by 1.33

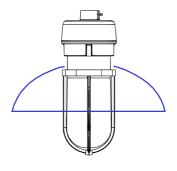
For 42 Watt multiply by 1.78

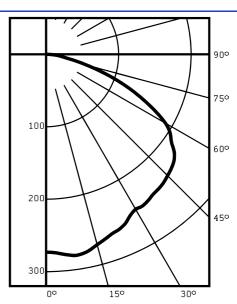
COEFFICIENTS OF UTILIZATION -ZONAL CAVITY METHOD

% EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20		80)			7	0			50			30			10	1	0
% WALL REFLECTANCE 1w	70	50	30 1	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
ROOM CAVITY RATIO RCRW				20	% E	ffec	tiv	e Fl	oor	Ca	vity	Re	flec	tan	ice			
0	.64	.64	.64	.64	.63	.63	.63	.63	.60	.60	.60	.58	.58	.58	.55	.55	.55	.54
1	.59	.56	.54	.52	.57	.55	.53	.51	.53	.51	.49	.50	.49	.48	.48	.47	.46	.45
2	.53	.48	.45	.41	.52	.47	.44	.41	.45	.42	.40	.44	.41	.39	.42	.40	.38	.37
3	.48	.42	.37	.34	.47	.41	.37	.34	.40	.36	.33	.38	.35	.32	.37	.34	.32	.31
4	.44	.37	.32	.28	.42	.36	.32	.28	.35	.31	.28	.34	.30	.27	.32	.29	.27	.26
5	.40	.33	.28	.24	.39	.32	.27	.24	.31	.27	.23	.30	.26	.23	.29	.26	.23	.22
6	.37	.29	.24	.21	.36	.29	.24	.20	.28	.23	.20	.27	.23	.20	.26	.23	.20	.19
7	.34	.26	.21	.18	.33	.26	.21	.18	.25	.21	.18	.24	.20	.18	.23	.20	.17	.16
8	.32	.24	.19	.16	.31	.24	.19	.16	.23	.19	.16	.22	.18	.16	.21	.18	.15	.14
9	.29	.22	.17	.14	.29	.22	.17	.14	.21	.17	.14	.20	.17	.14	.20	.16	.14	.13
10	.27	.20	.16	.13	.27	.20	.16	.13	.19	.15	.13	.19	.15	.13	.18	.15	.12	.11

SPACING CRITERION = 1.4 TEST NO. 1724

*Full cutoff distribution





ZONAL LUMEN	SUMMARY		
ZONE	LUMENS	%LAMP	%FIXT
0- 30	222	12.3	22.8
0- 40	376	20.9	38.5
0- 60	750	41.7	76.9
0- 90	976	54.2	100.0
90-180	0	0.0	0.0
0-180	976	54.2	100.0

TOTAL LUMINAIRE EFFICIENCY =

54.2 %

B□□△ Product Information

125770₀₃

Non-Metallic Fixtures, NV2 Series, for Incandescent Lamps

Incandescent Non-Metallic Corrosion Resistant Hazardous Fixtures

Applications:

Designed specifically for corrosive and wet NEMA 4X and hazardous environments. Typical applications include manufacturing plants, chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, agricultural, commercial/industrial, mining and marine facilities.

Features:

- NV2 Series non-metallic light fixtures combine an outstanding balance of strength, stiffness, toughness and electrical properties.
- Energy and labor saving fluorescent or incandescent models available.
- Accessories include polycarbonate dome reflectors and wall extension.
- Molded from 30% glass-filled thermoset polyester for high strength.
- · Resists corrosive effects of most chemicals, hydrocarbons and solvents.
- Designed for indoor and outdoor applications.

Compliances:

c⊕us to the following standards:

- UL 1598 Standard for luminaires.
- UL 1598A Marine type luminaires.
- UL 844 Standard for lighting fixtures for hazardous locations.
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations.
- Enclosed and gasketed.
- NEMA 3, 4, 4X, IP66

*NOTES:

- Tempered Globes are required for Wet Location applications.
- Colored Globe Options (Suffix to Catalog Number): Standard: Amber (-A), Blue (-B), Ruby (-R), Green (-G), Purple (-P), Blue-Green (-BG); Tempered: Amber (-A), Blue (-B), Ruby (-R), Blue-Green (-BG).
- Fluorescent unit pack models (only) include the lamp.
- Fluorescent models use "world voltage" ballasts for 120VAC through 277VAC 50/60Hz applications.



Certified File LR11713

Class I, Div. 2, Groups A,B,C,D Class I, Zone 2, Groups IIC,IIB,IIA Class II, Div. 2, **Groups F,G** Class III

Marine

NEMA 3, 4, 4X, IP66

ABS Type Approval





Incandescent Fixtures



NV2IG15ASG (Pendant)

NV2IG15XSG (Ceiling)

NV2IG15BSG (Wall Mount)

Catalog Number Globe Type* Lamp Type*

Pendant, Non-Metallic, Incandescent* without Lamp, with Clear* Globe and Guard, Hub Size 3/4"

NV2IG15ASG Standard* Incandescent, 150W max. **NV2IG15AHG** Tempered Incandescent, 150W max. Lamp Types e.g.: 75A19 (75W), 100A19 (100W), 150A21 (150W)

Ceiling, Non-Metallic, Incandescent* without Lamp, with Clear* Globe and Guard, Hub Size 3/4"

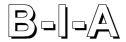
NV2IG15XSG Standard* Incandescent, 150W max. **NV2IG15XHG** Tempered Incandescent, 150W max. Lamp Types e.g.: 75A19 (75W), 100A19 (100W), 150A21 (150W)

Wall Mount, Non-Metallic, Incandescent* without Lamp, with Clear* Globe and Guard, Hub Size 3/4"

NV2IG15BSG Standard* Incandescent, 150W max. NV2IG15BHG Tempered Incandescent, 150W max. Lamp Types e.g.: 75A19 (75W), 100A19 (100W), 150A21 (150W)

T-Codes at 40°C	Max; with or withou	ut Reflector; min. su	pply wire 90°C.
Incandescent	Class I Div. 2	Class II Div. 2	
Type	Clear / Color*	Clear / Color*	
75A	T2C / T2B	T3C / –	
100A	T2A / T2	T3C / –	
150A	T2B / T2	– / –	

- Incandescent models for use with Medium Base (E26) 150W Lamp size A-21 max. Please order the lamp separately.
- Incandescent models 277VAC 60Hz max.
- All assemblies are unit packed with required components (not assembled).
- Reflector is sold separately. For wall mounting with reflector, the NVEXTG extension is required and sold separately.
- For M20 ceiling units change "X" in part number to "M". For wall units change "B" to "W". M20 Pendant not available.



B□]□⚠ Product Information

Photometrics, NV2 Series, Incandescent Lamps

NV2IG15 Incandescent

With Globe and Guard

Candlepower - 150 Watt

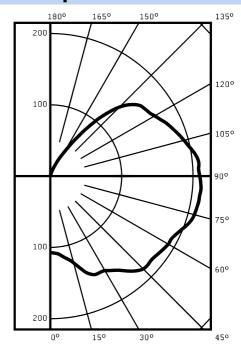
A-21 lamp 2850 lumens For 75 Watt multiply by .42 For 100 Watt multiply by .61

COEFFICIENTS OF UTILIZATION -ZONAL CAVITY METHOD

% EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20	80	70	50	30	10	0
% WALL REFLECTANCE 1w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCRW	20	% Effective F	loor Cavity	Reflectan	ice	
0	.79 .79 .79 .79	.74 .74 .74 .74	.64 .64 .64	.54.54 .54	.45 .45 .45	.41
1	.69 .64 .59 .55	.63 .59 .55 .51	.50 .47 .44	.41 .39 .37	.34 .32.30	26
2	.61 .53 .47 .42	.56 .49 .44 .39	.41 .37 .33	.34.31 .28	.27 .25 .23	.19
3	.55 .46 .39 .33	.50 .42.36 .31	.35 .30 .26	.29.25 .22	.23 .20 .18	.14
4	.49 .40 .33 .27	.45 .37 .30 .25	.31 .26 .21	.25.21 .18	.20 .17 .14	.11
5	.45 .35 .28 .23	.41 .23 .26 .21	.27 .22 .18	.22.18 .15	.18 .14 .12	.09
6	.41 .31 .24 .19	.38 .29 .22 .18	.24 .19 .15	.20.16 .12	.16 .12 .10	.08
7	.38 .28 .21 .16	.35 .26 .20 .15	.22 .17 .13	.18.14 .11	.14 .11 .08	.06
8	.35 .25 .19 .14	.32 .23 .17 .13	.20 .15 .11	.16.12 .09	.13 .10 .07	.06
9	.33 .23 .17 .12	.30 .21 .15 .12	.18 .13 .10	.15.11 .08	.12 .09 .06	.05
10	.30 .21 .15 .11	.28 .19 .14 .10	.16 .12 .09	.14.10 .07	.11 .08 .06	.04

SPACING CRITERION = 2.3 TEST NO. 1716





ZONAL LUMEN	SUMMARY		
ZONE	LUMENS	%LAMP	%FIXT
0- 30	117	4.1	5.6
0- 40	219	7.7	10.5
0- 60	528	18.5	25.3
0- 90	1172	41.1	56.1
90-120	608	21.3	29.1
90-130	754	26.5	36.1
90-150	903	31.7	43.3
90-180	915	32.1	43.9
0-180	2087	73.2	100.0

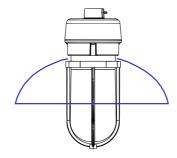
TOTAL LUMINAIRE EFFICIENCY = 73.2 %

NV2IG15 Incandescent

With Globe, Guard and Reflector

Candlepower - 150 Watt

A-21 lamp 2850 lumens For 75 Watt multiply by .42 For 100 Watt multiply by .61



900 750 130 60° 260 450 15°

ZONAL LUMEN	SUMMARY		
ZONE	LUMENS	%LAMP	%FIXT
0- 30	322	11.3	20.7
0- 40	550	19.3	35.5
0- 60	1112	39.0	71.7
0- 90	1550	54.4	100.0
90-180	0	0.0	0.0
0-180	1550	54.4	100.0

TOTAL LUMINAIRE EFFICIENCY = 54.4 %

COEFFICIENTS OF UTILIZATION -ZONAL CAVITY METHOD

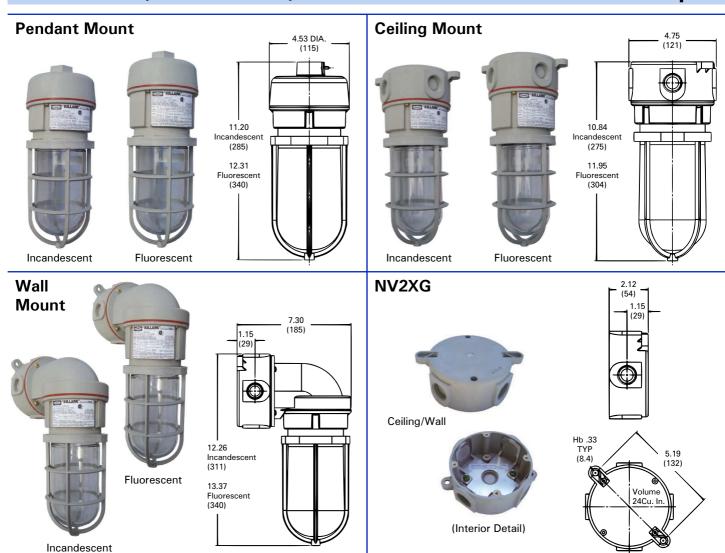
% EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20	80	70	50	30	10	0
% WALL REFLECTANCE 1w	70 50 30 10	70 50 30 10	50 30 10	50 30 10	50 30 10	0
ROOM CAVITY RATIO RCRW	20	% Effective FI	loor Cavity	Reflectan	ce	
0	.65 .65 .65 .65	.63 .63 .63 .63	.60 .60 .60	.58.58 .58	.55 .55 .55	.54
1	.58 .56 .53 .51	.57 .54 .52 .50	.52 .50 .48	.50 .48 .47	.48 .47 .45	.44
2	.53 .48 .43 .40	.51 .47 .43 .40	.45 .41 .39	.43.40 .38	.41 .39 .37	.36
3	.47 .41 .36 .32	.46 .40 .36 .32	.39 .35 .31	.37.34 .31	.36 .33 .30	.29
4	.43 .36 .31 .27	.42 .35 .30 .27	.34 .29 .26	.32.29 .26	.31 .28 .25	.24
5	.39 .32 .26 .23	.38 .31 .26 .22	.30 .25 .22	.29.25 .22	.28 .24 .12	.20
6	.36 .28 .23 .19	.35 .28 .23 .19	.27 .22 .19	.26.22 .19	.25 .21 .19	.17
7	.33 .25 .20 .17	.32 .25 .20 .17	.24 .20 .17	.23.19 .16	.23 .19 .16	.15
8	.31 .23 .18 .15	.30 .23 .18 .15	.22 .18 .15	.27.17 .14	.21 .17 .14	.13
9	.29 .21 .16 .13	.28 .21 .16 .13	.20 .16 .13	.19.16 .13	.19 .15 .13	.12

SPACING CRITERION = 1.5 TEST NO. 1717 *Full cutoff distribution

B-I-A Vertriebs GmbH / Germany Email: info@BiaGmbH.com



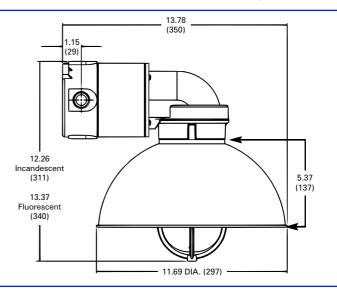
Dimensions, NV2 Series, Fluorescent & Incandescent Lamps*



Wall mount with optional reflector and with extension. Extension required only for wall mount units using reflector.



*NOTE: Dimensional diagrams show incandescent models, but include height also for fluorescent.



Dimensions in inches (mm)



Component and Replacement Parts, for NV2 Series Fixtures







Incandescent Fluorescent



Globe Guard



NV2 Splice Boxes - Includes Silicone Gaskets and Brass Screws							
Catalog No.	Description						
NV2AG	Pendant	3/4" NPT	Pendant splice box includes a 316 stainless steel set screw at the conduit connection				
NV2XG* NV2MG*	Ceiling Box Ceiling Box	3/4" NPT M20	Ceiling box vol. 24 cu. inches Ceiling box vol. 24 cu. inches				
NV2BG	Wall Bracket		Use with NV2XG or NV2MG for wall mount				
NV2 Bodies							
Catalog No.	Description						
NV2IG15	Incandescent fixture rated	•	E-26 medium base socket; VAC max.				
NV2FG13 NV2FG18 NV2FG26 NV2FG32	18W Fluoreso 26W Fluoreso	cent Body W cent Body W	/orld Voltage 120V-277V 50/60Hz /orld Voltage 120V-277V 50/60Hz /orld Voltage 120V-277V 50/60Hz				
NV2FG32 NV2FG42		•	/orld Voltage 120V-277V 50/60Hz /orld Voltage 120V-277V 50/60Hz				

NV2 Glass Globes and Guards								
Catalog No.	Description							
VCG-100 VCGP-100	Clear, Standard when used with incandescent lamp: Clear, Tempered 150 watt Lamp size A-21 max.							
Use tempered globes for wet locations.	Colored Globe Options (Suffix to Catalog Number): Standard: Amber (-A), Blue (-B), Ruby (-R), Green (-G), Purple (-P), Blue-Green (-BG); Tempered: Amber (-A), Blue (-B), Ruby (-R), Blue-Green (-BG).							
NV2GG	Guard							

NV2 Reflectors and Extension		
Catalog No.	Description	
NVPSD12	White Polycabonate Reflector (secured by guard)	
NVEXTG	Extension (for wall mount fixture with reflector)	

Blank Covers for NV2XG Ceiling Boxes			
Catalog No.	Description		
NV2CG	Gray Cover		
NV2CC*	Clear Cover		

NV2F Fluorescent Replacement Quad-Pin Lamps and Ballasts					
MQL13	13W (900 Lumens)	Rep. Ballasts:			
MQL18	18W (1200 Lumens)	BKF131830	13/18 Watt		
MQL26	26W (1800 Lumens)	BKF263230	26/32 Watt		
MQL32	32W (2400 Lumens)	BKF324230	32/42 Watt		
MQL42	42W (3200 Lumens)				

NV2 ceiling (wall) boxes have four 10-32 brass inserts with 2 ground screws. May be used for wet locations, as terminal/junction, boxes, or instruments using 'clear' blank cover.