NFL Series Fluorescent Luminaires

Higher Ambient Suitability: 55°C
Cold Weather Start (32W T8 Lamps)
Cl. I, Div. 2, Groups A, B, C, D
Cl. I, Zone 2, Group IIC

Wet Locations
3, 3R, 4, 4X

Applications:

The NFL Light Luminaires are used:

- In hazardous locations where dust, dirt, combustible vapors, smoke, fumes, moisture, corrosive, and wet conditions are present
- Where lamps may be broken due to physical abuse or movable equipment, such as in manufacturing areas or warehouses
- Where cleanliness and sanitation are prime factors such as in dairies, canneries, food processing plants, bottling plants, and laboratories
- In dock areas for protection against salt spray
- In areas where low mounting height and the even light distribution associated with a line type light source are required

Key Features:

- UL, cUL Listed for Class I, Division 2, Groups A, B, C, D areas with ambient suitability of 40°C (104°F) and 55°C (131°F) ambient suitability
- NEMA 4X with Myers Hubs and threaded metal plug (furnished)
- Non-metallic construction enclosure is corrosion-resistant
- Continuous form-in-place gasket ensures dust-tight, moisture-tight, and wet locations integrity
- Molded-in-place mounting studs – eliminate the need of bracket gaskets
- Standard construction includes:
  S.S. mounting brackets
  Electronic ballast
  Cold weather ballast (4' F32 T8)
- S.S. mounting bracket combination ceiling and chain
- S.S. mounting brackets provide superior corrosion resistance
- Electronic ballast for energy efficiency
- Cold Weather Ballast (4' F32 T8)
- Two ½" conduit Myers Hubs for end and feed through wiring simplify installation and wiring
- Full metal fixture interior provides improved photometrics as well as access to and concealment of ballast and wiring
- Provisions (drill mark) on 4 ft. unit to field drill for pendant mounting for application and installation flexibility

Certifications and Compliances:

- Class I, Division 2, Groups A, B, C, D
- Class I, Zone 2, Group IIC
- UL Listed 844
- cUL
- Wet locations
- 4X



Standard Materials:

- Housing – non-metallic, one piece fiberglass-reinforced polyester
- Latches – Celcon™ acetal plastic
- Lens – acrylic plastic
- Gaskets – seamless thermoset polyurethane
- Mounting Bracket – stainless steel

Celecon™ is a trade name of Hoechst Celanese.

Standard Finishes:

- Fiberglass housing – white
- Acrylic plastic lens – crepe pattern

Options:

Description	Suffix
• Fused (not suitable for marine applications).....	**S658**
• Factory assembled with lamps installed	**FA**
• Battery back-up emergency ballast† (NFL 2140 and NFL 4232 only)....	**S799***
• Increased impact-resistant lens (acrylic crepe pattern)..	**DR1295046***
• Stainless steel latches	**S863***
• Tamperproof latches.....	**S861***

†For non-hazardous locations.
*UNV voltages: 120, 208, 230, 240, 277, 50–60 Hz.

Ratings (Electrical/Size):

Sources/Wattage: luminaires are for use with the following lamps

- NFL2140
  one 40 W long twin tube
- NFL4232
  two 32W T8 lamps
- NFL4240
  two 34W "F40 Style" T12 lamps

Voltages

- 120V 60Hz
- 120 – 277V, 50 – 60 Hz
- 347V 60 Hz

Conduit Entries

- Two ½" inch Myers hubs, one on each end

Temperature Performance Data:

Ambient temperature range suitability:	°C
Two lamp, 32W T8, 4 ft luminaire	-18°C to 55°C
All others	0°C to 55°C
Supply wire	75°C min.

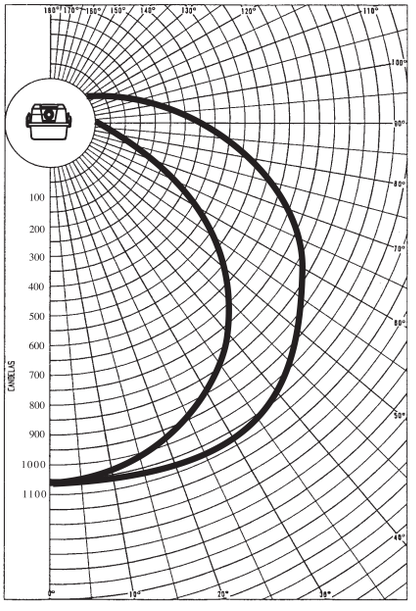
Ordering Information:

Luminaire Cat. #	Size/# of Lamp(s)	Wattage/ Lamp type	Voltage/Hz
NFL2140/UNV	2 ft/ 1-lamp	40W T5 compact single ended	120 / 60 120–277/50–60 347 / 60
NFL2140/347			
NFL4232/UNV	4 ft/2-lamp	32W T8 rapid start	120 / 60 120–277/50–60
NFL4240/120	4ft/2-lamp	34W T12 "F40 Style" rapid start	120 / 60
NFL4240/277			277 / 60
NFL4240/347			347 / 60
N2FL4232/UNV	4ft/2-lamp	32W T8 rapid start	120 / 60
N2FL4232/347			347 / 60

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Luminaire: All NFL Luminaires

Candlepower Distribution Curve (in Candelas)



Candelas

Angle	Along	Across
0°	1049	1049
10°	1034	1056
20°	978	1071
30°	866	1075
40°	762	1027
50°	606	939
60°	416	838
70°	228	723
80°	92	549
90°	17	363
100°	19	243
110°	10	131
120°	5	46
130°	4	20
140°	4	9
150°	4	3
160°	4	0
170°	0	0
180°	0	0

Zonal Lumens

Zone	Lumens
0–30	862
0–40	1462
0–60	2778
0–90	4130
0–180	4499

Photometric data, developed using two (2) F32T8/35K 2850 lumen lamps, represents the performance of all NFL series luminaires.

- Coefficient of Utilization – These values are for all NFL series luminaires (Do not use multipliers).
- Candlepower Distribution Curve (in candelas) and Zonal Lumens – These values are for all NFL series luminaires, adjusted by conversion factors (multipliers) below.

Example:

- Candlepower at 20° across for NFL4232 using two (2) F32T/35K lamps (5700 lumen total) is 1071 candelas.
- Candlepower at 20° across for NFL2140 using one (1) T5 compact lamp (3100 lumen total) is 1071 x .55 = 589 candelas.

Luminaire Series	Lamp Qty	Lamp Watts	Lamp Type (Lumens ea.)	Conversion Factor (multipliers)
NFL2140	2	32	F32T8/35K (2850)	1.0
NFL4232	2	34	F40T12/RS (2650)	0.93
NFL4240	1	40	T5 Compact (3150)	0.55

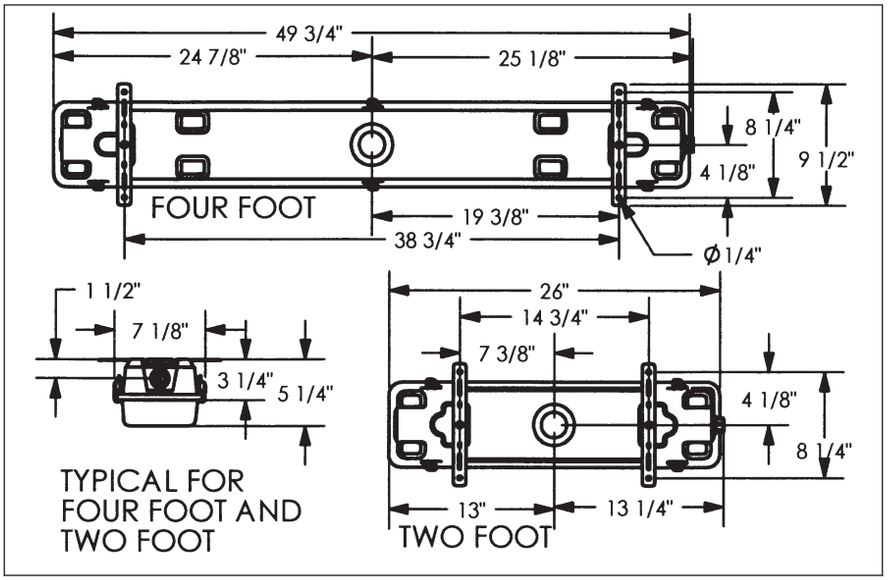
Coefficient of Utilization: For all NFL Series Light Luminaires

Effective Floor Cavity Reflectance 20%

% Reflectance Eff. Ceiling	Wall	Room Cavity Ratio 1	2	3	4	5	6	7	8	9	10
80	70	.83	.75	.68	.62	.56	.51	.47	.44	.40	.37
	50	.78	.67	.59	.52	.45	.40	.36	.32	.29	.26
	30	.74	.61	.52	.44	.38	.33	.29	.25	.22	.20
	10	.71	.56	.46	.39	.32	.28	.24	.20	.17	.15
70	70	.80	.72	.65	.59	.54	.49	.46	.42	.39	.36
	50	.76	.65	.57	.50	.44	.39	.35	.31	.28	.26
	30	.72	.60	.51	.43	.37	.32	.28	.25	.22	.19
	10	.69	.55	.46	.38	.32	.27	.23	.20	.17	.15
50	50	.71	.61	.54	.47	.42	.37	.33	.30	.27	.24
	30	.68	.57	.48	.42	.35	.31	.27	.24	.21	.19
	10	.66	.53	.44	.37	.31	.26	.23	.20	.17	.15
30	50	.67	.58	.51	.45	.39	.35	.32	.28	.25	.23
	30	.65	.54	.46	.40	.34	.30	.26	.23	.20	.18
	10	.62	.51	.42	.36	.30	.26	.22	.19	.16	.14
10	50	.63	.54	.48	.42	.37	.33	.30	.27	.24	.22
	30	.61	.51	.44	.38	.33	.29	.25	.22	.19	.17
	10	.59	.48	.41	.35	.29	.25	.22	.18	.16	.14
0	0	.57	.46	.39	.33	.27	.23	.20	.17	.14	.12

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Dimensions:



Net Luminaire Weights

Luminaire Series	Weight (lbs.)
NFL2140	9.1
NFL4232	14.3
NFL4240	14.3

Temperature Performance Data:

Cat. No.	Watts	Ambient Temp. °C	Lamp Type	Supply Wire Temp. °C	Class I, Div. 2 Temp. Rating	Class II Temp. Rating	Simultaneous Presence Class I, Div. 2
NFL4232	32	40	T8	60	T6	-	-
NFL4232	32	55	T8	75	T5	-	-
NFL4240	34	40	T12	60	T6	-	-
NFL4240	34	55	T12	75	T5	-	-
NFL2140	40	40	T12	60	T6	-	-
NFL2140	40	55	T12	75	T5	-	-

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Cl. I, Zone 2, Group IIC

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- NEMA 4X with Myers Hubs and threaded metal plug (furnished)
- Non-metallic construction enclosure is corrosion-resistant
- Continuous form-in-place gasket ensures dust-tight, moisture-tight, and wet locations integrity
- Molded-in-place mounting studs – eliminate the need of bracket gaskets
- Standard construction includes:
  S.S. mounting brackets
  Electronic ballast
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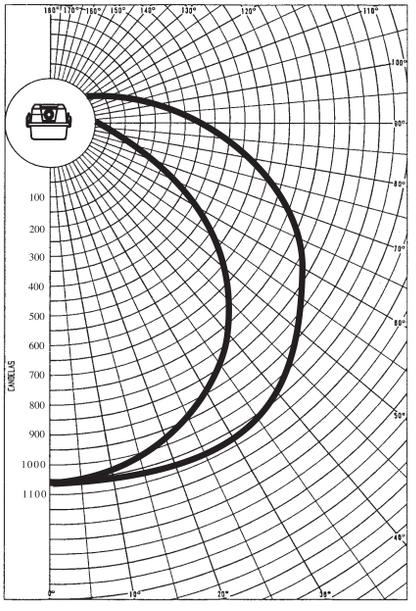
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NFL2140/347			
NFL4232/UNV	4 ft/2-lamp	32W T8 rapid start	120 / 60 120–277/50–60
NFL4240/120	4ft/2-lamp	34W T12 "F40 Style" rapid start	120 / 60
NFL4240/277			277 / 60
NFL4240/347			347 / 60
N2FL4232/UNV	4ft/2-lamp	32W T8 rapid start	120 / 60
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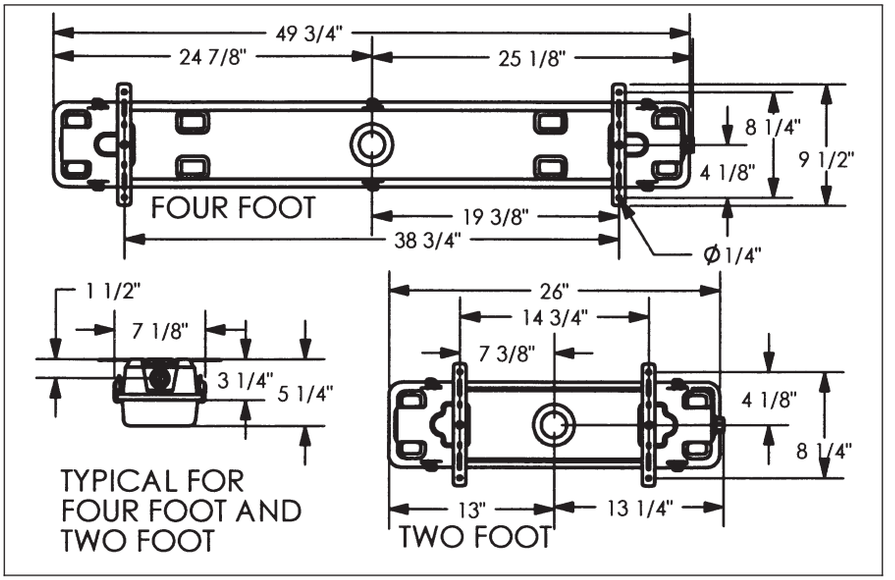
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	50	.76	.65	.57	.50	.44	.39	.35	.31	.28	.26
	30	.72	.60	.51	.43	.37	.32	.28	.25	.22	.19
	10	.69	.55	.46	.38	.32	.27	.23	.20	.17	.15
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	10	.62	.51	.42	.36	.30	.26	.22	.19	.16	.14
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Dimensions:



Net Luminaire Weights

Luminaire Series	Weight (lbs.)
NFL2140	9.1
NFL4232	14.3
NFL4240	14.3

Temperature Performance Data:

Cat. No.	Watts	Ambient Temp. °C	Lamp Type	Supply Wire Temp. °C	Class I, Div. 2 Temp. Rating	Class II Temp. Rating	Simultaneous Presence Class I, Div. 2
NFL4232	32	40	T8	60	T6	-	-
NFL4232	32	55	T8	75	T5	-	-
NFL4240	34	40	T12	60	T6	-	-
NFL4240	34	55	T12	75	T5	-	-
NFL2140	40	40	T12	60	T6	-	-
NFL2140	40	55	T12	75	T5	-	-

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