

5L 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

Celcon™ 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.

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. |

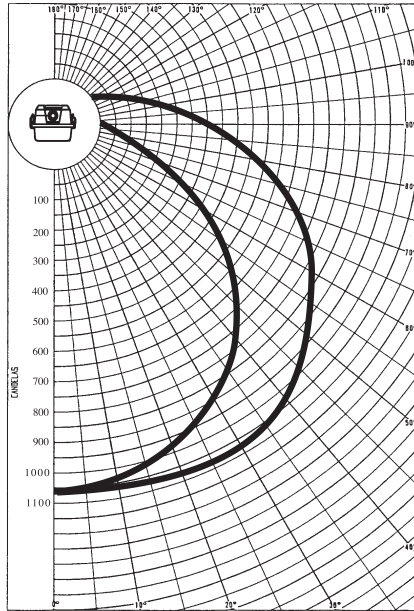
Ordering Information:

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

Crouse-Hinds
by **EATON**

Luminaire: All NFL Luminaires

Candlepower Distribution Curve (in 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 | | Type (Lumens ea.) | Conversion Factor (multipliers) |
|------------------|------|-------|-------------------|---------------------------------|
| | Qty | Watts | | |
| 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%

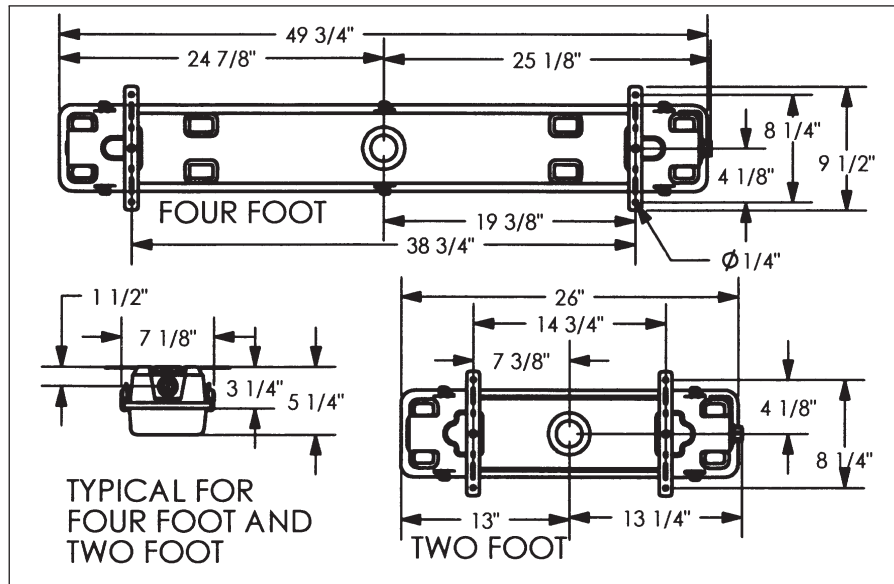
| % Reflectance Eff. Ceiling | Wall | Room Cavity Ratio | | | | | | | | | |
|----------------------------|------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 80 | 70 | .83 | .75 | .68 | .62 | .56 | .51 | .47 | .44 | .40 | .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 |
| | 0 | .62 | .51 | .42 | .36 | .30 | .26 | .22 | .19 | .16 | .14 |
| 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 |
| | 0 | .57 | .46 | .39 | .33 | .27 | .23 | .20 | .17 | .14 | .12 |
| 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 | .57 | .46 | .39 | .33 | .27 | .23 | .20 | .17 | .14 | .12 |



5L NFL Series Fluorescent Luminaires

Dimensions and Weights

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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