IDEC

Think Automation and beyond...

LUMIFA LED Lighting

IDEC CORPORATION

LIGHTING YOUR WAY

Our LUMIFA LEDs provide bright, long-lasting illumination for a variety of applications, from machine tools to chemical plants—and everything in between. Thanks to their rugged construction and range of IP ratings, they can withstand even the toughest industrial environment to bring you high-quality, uniform lighting using one-third of the power of traditional fluorescent bulbs.

Technical Features

QUALITY ILLUMINATION

With brightness levels up to 153 lumens/watt, our LEDs cast bright, uniform lighting onto target objects with minimal metal reflection, glare and shadows.

RUGGED

With their solid housing and IP ratings, our units can withstand exposure to dust, water, oil and metal shavings, making them suitable for harsh industrial environments and hazardous applications in oil and gas, mining—and more.

LOW MAINTENANCE

Swapping out a light is quick and easy. Our LEDs offer plug-and-play connection options, including quick-connect and pigtail M12 connections, as well as pre-wired models with removable plug-in or spring-clamp terminals.

VERSATILE

Models are available in a variety of sizes, brightness levels, colors and connections, while optional adjustable or fixed-angle mounting brackets make installation fast and easy. With widths as narrow as 25 mm, they can even be deployed in tight, hard-to-reach spaces.

LUMIFA LF1B-N

- Industrial Machines
- Semiconductor Equipment
- Control Panels

LF1B-N Series

The LF1B-N series is available in six lengths, two covers (transparent or white) and six distinct colors—cool white, warm white, yellow, red, blue and green—making it a flexible lighting solution for control panels, industrial machines, manufacturing lines, work stations and more. These compact, energy-efficient units are low-maintenance and last for years, contributing to overall cost savings.

- Compact size: 27.5 mm wide x 16 mm high
- Six lengths: 134, 210, 330, 580 and 1,080 mm
- Vibration- and shock-resistant
- Yellow light ideal for photosensitive materials
- IP65-rated for use in wet environments

Optical Specifications

ILLUMINATION COLOR		COOL WHITE		WARM WHITE		YELLOW		RED		GREEN		BLUE	
COVER		Clear	White	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Color Temperature/ Dominant Wavelength (typ.)		6500K		3000K		590nm		620nm		525nm		455nm	
Reference Brightness (typ.) at 0.5m, lx	LF1B-NA	95	85	90	80	20	18	20	18	30	27	10	9
	LF1B-NB	240	215	230	2100	40	36	40	36	60	55	20	18
	LF1B-NC	455	410	440	395	75	65	75	65	110	100	30	27
	LF1B-ND	840	750	815	725	125	110	125	110	190	170	50	45
	LF1B-NE	1100	995	1065	960	160	145	160	145	260	235	60	55
	LF1B-NF	1350	1210	1300	1170	180	160	180	160	300	270	80	70

LED modules and illumination units may vary in color and brilliance. Luminous flux, color temperature, and illuminance values shown are typical.

Part Number Structure (use for interpreting part numbers only)

LF1B - NC 3 P - 2 THWW2 - 3M

LENGTH
A: 134mm (5.28″)
B: 210mm (8.27″)
C: 330mm (12.99″)
D: 580mm (22.83″)
E: 830mm (32.68″)
F: 1,080mm (42.52″)

COVER
3: Clear
4: White

ILLUMINATION COLOR
THWW2: Cool White
TLWW2: Warm White
SHY2: Yellow
SHR2: Red
THS2: Blue
SHG2: Green

CABLE LENGTH
3M: 3m

LUMIFA LF2B

- Control Panels
- Industrial Equipment
- Manufacturing Lines & Work Stations

LF2B Series

The LF2B features a rugged, slim design for industrial applications and installations where space is limited. Its high illuminance, snap-in mounting brackets, range of input voltages, DC-battery compatibility and IP65 rating make this series ideal for a wide variety of lighting applications, from control panels to industrial equipment in wet environments.

- Slim size: 40 mm wide x 29 mm high
- Five lengths: 210, 330, 580, 830 and 1,080 mm
- Clear or white cover options
- 100-240V AC or 12/24V DC rated voltages
- Mounting brackets enable one-step installation process in tight spaces
- IP65-rated for use in wet environments

Optical Specifications

*UL applies for DC units only.

MODEL	LF2B-B (210 mm)		LF2B-C (330 mm)		LF2B-D (580 mm)		LF2B-E (830 mm)		LF2B-F (1,080 mm)	
COVER	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Illumination Color	Cool White									
Color Temperature, K	6500									
Luminous Flux (typ.), lm	235	215	465	425	935	860	1380	1270	1860	1710
Reference Illuminance (typ.) at 0.5m directly below, lx	290	265	540	500	1065	980	1385	1275	1520	1400

LED modules and illumination units may vary in illumination colors and illuminance.

Part Number Structure (use for interpreting part numbers only)

LF2B - C 3 P - ATHWW2 - 1M

LENGTH
B: 210mm (8.27”) E: 830mm (32.68”)
C: 330mm (12.99”) F: 1,080mm (42.52”)
D: 580mm (22.83”)

COVER
3: Clear
4: White

RATED VOLTAGE
A: 100–240 VAC
B: 12V/24V DC

DC12V/24V Length
B: (210mm)
C: (330mm)
D: (580mm) only

LUMIFA LF1D & LF2D

- Machine Tools
- Food & Beverage Processing Equipment
- Pharmaceutical & Chemical
- Automotive

LF1D & LF2D Series

Thanks to their rugged construction and high brightness levels up to 3,000 lumens, the LF1D and LF2D series are ideal for machine tools, food and beverage processing equipment and automotive, pharmaceutical and chemical applications. With their IP67, IP67F, IP67G and IP69K ratings, stainless-steel cover and diecast aluminum housing, they can even be used in the presence of high-pressure, high-temperature washdown.

MINI (LF1D-C)

- Compact size: 100 x 50 x 25 mm
- Single LED module design eliminates multiple shadows

SLIM & WIDE (LF1D/2D-EN, EH, FH)

- Durable polycarbonate or reinforced glass options
- No glare, shadows or strip effect
- M12 Quick Connect available
- Surface or recessed mount options

LONG (LF1D-H/J)

- Two lengths: 365 and 510 mm
- Extremely bright illumination—2,000 lumens (LF1D-H) or 3,000 lumens (LF1D-J)
- M12 Quick Disconnect option (Pig Tail)

Optical Specifications

MODEL	MINI	SLIM		WIDE	LONG	
	LF1D-C	LF1D/2D-EN	LF1D/2D-EH	LF1D/2D-FH	LF1D-H	LF1D-J
Illumination Color	Cool White				Neutral White	
Total Luminous Flux, lm	560	1530	1260	1540	2000	3000
Color Temperature, k	5700				4700	
Reference Illuminance at 1.0m, lx	180	1700	1800	1500	560	840

LED modules and illumination units may vary in color and brilliance. Luminous flux, color temperature, and illuminance values shown are typical.

Part Number Structure (use for interpreting part numbers only)

L F 1 D - EN 2F - 2 W - A

SHAPE
1: Surface Mount
2: Recessed Mount

SIZE (LED Arrangement)
C: Mini 100mm (3.94")
EN: Slim Model (48 LEDs x 1 Row)
EH: Slim Model (10 LEDs x 1 Row)
FH: Wide Model (7 LEDs x 2 Rows)
H: Long 365mm (14.37")
J: Long 510mm (20.08")

LENS TYPE DEGREE OF PROTECTION
2F: Reinforced glass
3G: Polycarbonate (EH, FH only)
21F: Reinforced Glass/ Diffused (EN only)

ILLUMINATION COLOR
W: Cool White
N: Neutral White

CABLE OPTIONS
(see chart in datasheet)

LUMIFA EF1A

- Hazardous Locations
- Oil & Gas
- Waste Water Treatment
- Painting & Chemical Plants

EF1A Series

Thanks to its rugged construction and Type 4X enclosure rating, the EF1A series is ideal for demanding applications in oil and gas, water treatment, chemical plants—and more. Units integrate heavy-duty aluminum housing with a reinforced glass lens, as well as UL-rated LED flood lights (Class 1, Zones 1 and 2). With their variety of mounting options, including adjustable, fixed angle or no mounting brackets, the EF1A can be installed virtually anywhere.

- Heavy-duty aluminum housing with reinforced glass lens
- Optional clear or translucent lenses
- Fixed or angle adjustable mounting bracket options
- Long-lasting, maintenance-free LEDs
- ON/OFF switch option

Optical Specifications

LENS TYPE	Clear		Diffused	
COLLECTING LENS (Optical Dispersion)	With	Without	With	Without
Illumination Color	Cool White			
Color Temperature (typ.), K	5700			
Total Luminous Flux (typ.), lm	960			
Reference Illuminance (typ.) at 1.0m directly below, lx	1100	450	205	175

Part Number Structure (use for interpreting part numbers only)

EF1A - 1 1 1 W 1 P S A - N2 - A2

VOLTAGE
1: 24V DC
2: 100 to 240V AC

LENS TYPE
Blank: Clear
1: Diffused

OPTICAL DISPERSION
Blank: Narrow
1: Wide

CONDUIT/SWITCH
Blank: With conduit on one side / Without
T: With conduit on both sides / Without
P: With conduit on one side / With

TERMINATION TYPE
Blank: Spring clamp terminal
S: Screw terminal

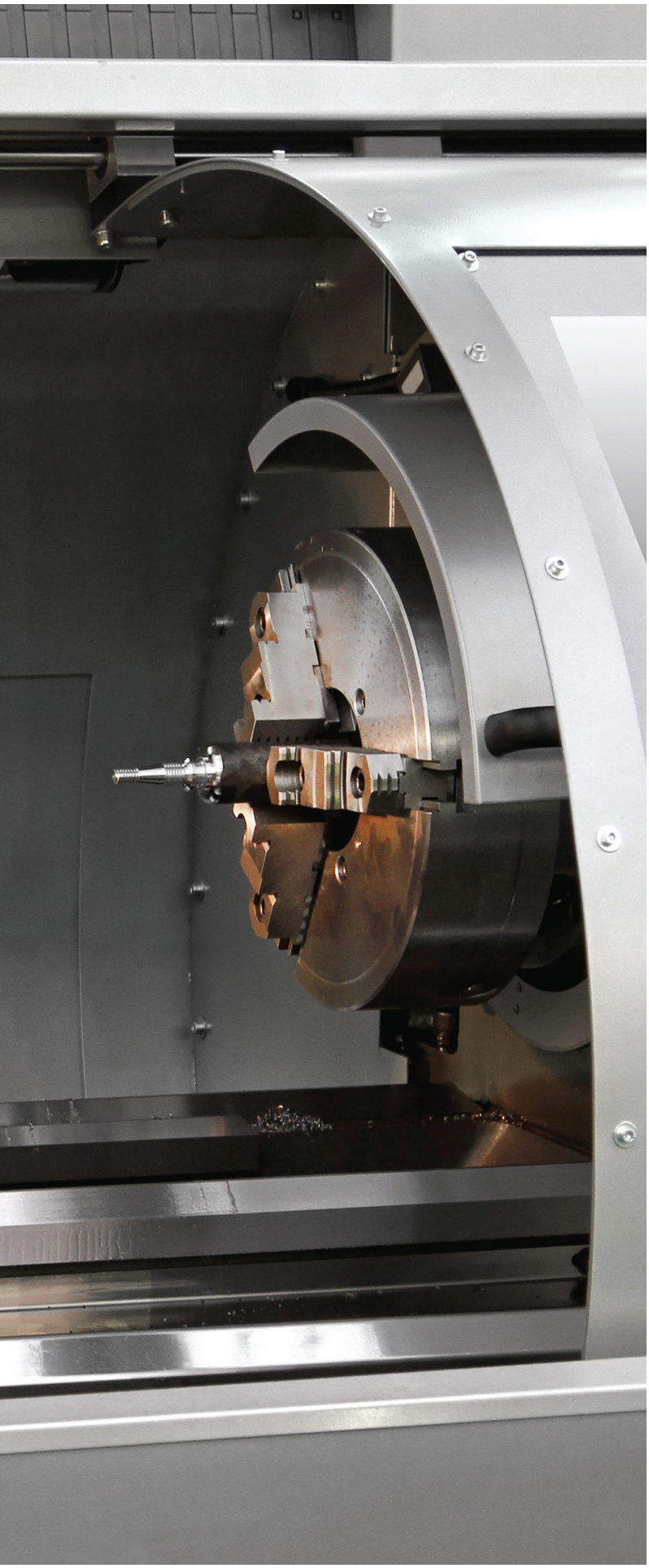
MOUNTING BRACKET
Blank: Without
A: With fixed angle mounting bracket
B: With adjustable angle mounting bracket

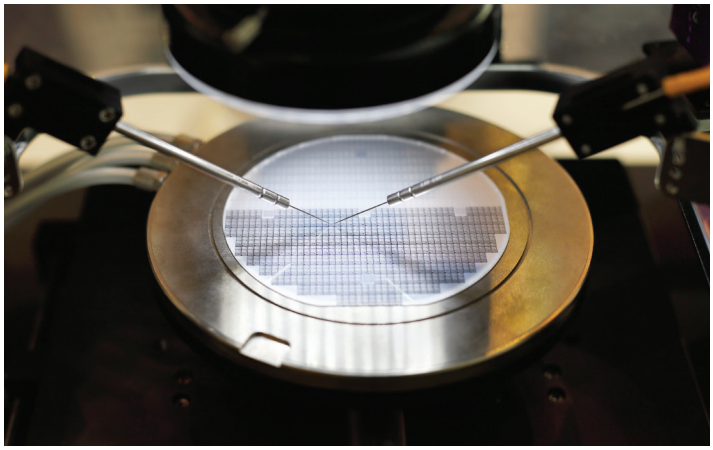
CONDUIT SIZE
(Male Connection Thread)
N1: 1/2" NPT
N2: 3/4" NPT
M25: M25 (P1.5)
M32: M32 (P1.5)

PUSHBUTTON SWITCH
A2: Extended (Maintained)

LUMIFA LED APPLICATIONS

- Food & beverage processing machines
- Packaging machines
- Semiconductor manufacturing equipment
- Machine tools
- Automotive manufacturing machines
- Oil & gas (other hazardous locations)
- Control panels
- Printing machines
- Production systems
- Test equipment
- Solar power equipment
- Cosmetic manufacturing equipment
- Chemical manufacturing equipment
- Show cases
- Foundries
- Photosensitive devices
- Advertising displays
- Assembly & robotics
- Work stations





Selection Guide

	LF1B-N					
Protection Class	IP65					
Cover Options	Clear/White					
Application List	Industrial Machines, Machine Tool, Plant Equipment, Test Equipment, Control Panel, Food Processing Machines, Cosmetic Plant, Chemical Plant, Show Cases, Semiconductor Manufacturing Equipment, Ic Foundry, Photosensitive Material, Darkroom Experiment, Advertising Display, Light Ornaments					
Illumination Color[1]	Cool White (6500K)	Warm White (3000K)	Blue (455nm)	Yellow (590nm)	Red (620nm)	Green (525nm)
Reference Illumination[2]	LF1B-NA: 95lx LF1B-NF: 1350lx	LF1B-NA:90lx LF1B-NF: 1300lx	LF1B-NA: 10lx LF1B-NF: 80lx	LF1B-NA: 20lx LF1B-NF: 180lx		LF1B-NA: 30lx LF1B-NF: 300lx
Power Consumption	LF1B-NA: 1.5W LF1B-NB: 2.9W LF1B-NC: 4.4W LF1B-ND: 8.7W LF1B-NE: 13.0W LF1B-NF: 17.3W			LF1B-NA: 1.0W LF1B-NB: 2.0W LF1B-NC: 2.9W LF1B-ND: 5.8W LF1B-NE: 8.7W LF1B-NF: 11.6W		
Operating Voltage	24V DC					

	LF2B	
Protection Class	IP65	
Cover Options	Clear	White
Application List	Various Machines And Systems, Control Panel, Manufacturing Lines, Work Stations	
Illumination Color[1]	Cool White (6500K)	
Reference Illumination[2]	LF2B-B: 290lx LF2B-C: 540lx LF2B-D: 1065lx LF2B-E: 1385lx LF2B-F: 1520lx	LF2B-B: 265lx LF2B-C: 500lx LF2B-D: 980lx LF2B-E: 1275lx LF2B-F: 1400lx
Power Consumption	LF2B-B: 2.6W LF2B-C: 4.9W LF2B-D: 10.6W	LF2B-B: 2.2W LF2B-C: 4.4W LF2B-D: 7.8W LF2B-E: 12.2W LF2B-F: 15.9W
Operating Voltage	12/24V DC	100 to 240V AC

1. K: Color Temperature (typ.), mm: Dominant Wavelength (typ.).
2. Directly below at 0.5m unless otherwise noted.

	LF1D-C	LF1D/2D Wide-angle and high luminance		LF1D-H	LF1D-J
Form Factor	Mini	Slim	Wide	Long	
Protection Class[3]	IP67 / IP67F / IP69K	P67 (all models), IP67F/IP67G (see note 4), IP69K (LF1D only)		IP67 / IP67F / IP69K	
Application List	Machine Tools, Food and Beverage Processing Machines, Automotive, Chemical/Pharmaceutical, Production System, Test Equipment				
Illumination Color[1]	White (5700K)	White (5700K)		Neutral White (4700K)[3]	
Reference Illumination[2]	180lx	1800lx	1500lx	560lx	840lx
Power Consumption	4.6W	10W	12.5W	18.4W	27.6W
Operating Voltage	24V DC				

	EF1A	
Protection Class	Type 4X (IP67) without switch, Type 3S (IP65) with switch	
Application List	For Hazardous Locations: Oil, Gas And Mining Industries, Printing Factory, Gas Station, Chemical Complex Control Panel, Waste Water Treatment	
Illumination Color[1]	White (5700K)	
Reference Illumination[2]	Clear glass surface: 1,100lx (condensing light), 205lx (diffused light) Translucent glass: 450lx (condensing light), 175lx (diffused light)	
Power Consumption	19W	17W
Operating Voltage	100 to 240V AC	24V DC

1. K: Color Temperature (typ.), mm: Dominant Wavelength (typ.).
2. Directly below at 0.5m unless otherwise noted.
3. Degree of protection: IEC60529 (IP67), JIS C 0920 (IP67F/IP67G), and DIN40050-9 (IP69K).
   IP67F: LF1D-C/H/J, LF1D/LF2D-EN/EH, LF1D/LF2D-FH (reinforced glass), IP67G: LF1D/LF2D-EN, IP69K: LF1D only

LUMIFA.IDEC.COM

IDEC *Think Automation and beyond...*

800.262.4332

www.IDEC.com/usa

www.IDEC.com

USA
IDEC Corporation
Tel: (408) 747-0550
opencontact@IDEC.com

Canada
IDEC Canada Ltd.
Tel: (905) 890-8561
sales@ca.IDEC.com

Australia
IDEC Australia Pty. Ltd.
Tel: +61-3-8523-5900
sales@au.IDEC.com

Japan
IDEC Corporation
Tel: +81-6-6398-2527
marketing@IDEC.co.jp

Thailand
IDEC Asia (Thailand) Co., Ltd
Tel: +66-2-392-9765
sales@th.IDEC.com

Germany
APEM GmbH
Tel: +49-40-25 30 54-0
service@eu.IDEC.com

Hong Kong
IDEC Izumi (H.K.) Co., Ltd.
Tel: +852-2803-8989
info@hk.IDEC.com

China/Beijing
IDEC (Beijing) Corporation
Tel: +86-10-6581-6131
idec@cn.IDEC.com

China/Shanghai
IDEC (Shanghai) Corporation
Tel: +86-21-6135-1515
idec@cn.IDEC.com

China/Shenzhen
IDEC (Shenzhen) Corporation
Tel: +86-755-8356-2977
idec@cn.IDEC.com

Singapore
IDEC Asia Pte. Ltd.
Tel: +65-6746-1155
info@sg.IDEC.com

Taiwan
IDEC Taiwan Corporation
Tel: +886-2-2698-3929
service@tw.IDEC.com

©2018 IDEC Corporation. All Rights Reserved.

Catalog No. LF9Y-B100-5 8/18 5K

Specifications and other descriptions in this catalog are subject to change without notice.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

IDEC:

LF1D-EH3G-2W-401 LF1D-E2F-2W-101 LF1D-F2F-2W-101 LF1D-FH3G-2W-300 LF1D-F2F-2W-450 LF1D-F5G-2W-200 LF1D-FH3G-2W-450 LF1D-E2F-2W-A LF1D-F5G-2W-400 LF1D-J2F-2N-3B0 LF1D-F5G-2W-451 LF1D-F3G-2W-200 LF1D-F3G-2W-201 LF1D-J2F-2N-450 LF1D-E3G-2W-400 LF1D-F5G-2W-450 LF1D-E2F-2W-201 LF1D-E3G-2W-401 LF1D-EH3G-2W-301 LF1D-F5G-2W LF1D-E5G-2W-200 LF1D-F5G-2W-A LF1D-E2F-2W-401 LF1D-EH2F-2W-401 LF1D-F3G-2W LF1D-F9F-2W-451 LF1D-E3G-2W LF1D-E3G-2W-451 LF1D-E2F-2W-450 LF1D-EH2F-2W-350 LF1D-F2F-2W-451 LF1D-F3G-2W-450 LF1D-C2F-2W-350 LF1D-E9F-2W-401 LF1D-EH2F-2W-451 LF1D-E2F-2W-451 LF1D-FH2F-2W-400 LF1D-E5G-2W-101 LF1D-FH2F-2W-300 LF1D-E5G-2W-300 LF1D-FH3G-2W-350 LF1D-E9F-2W-350 LF1D-EH2F-2W-450 LF1D-EH3G-2W-451 LF1D-FH2F-2W-200 LF1D-FH3G-2W-451 LF1D-FH3G-2W-400 LF1D-E9F-2W-400 LF1D-EH2F-2W-A LF1D-E9F-2W-300 LF1D-H2F-2N-3B0 LF1D-E5G-2W-451 LF1D-F2F-2W-300 LF1D-E9F-2W-101 LF1D-FH3G-2W-101 LF1D-EH3G-2W-A LF1D-EH2F-2W LF1D-F9F-2W-A LF1D-E3G-2W-200 LF1D-F2F-2W-400 LF1D-FH2F-2W-301 LF1D-E3G-2W-301 LF1D-FH2F-2W-450 LF1D-EN2F-2W-56S01 LF1D-F9F-2W-301 LF1D-F9F-2W-101 LF1D-EH2F-2W-300 LF1D-E2F-2W-300 LF1D-E9F-2W-A LF1D-E5G-2W LF1D-FH3G-2W-A LF1D-F5G-2W-301 LF1D-E9F-2W-201 LF1D-FH2F-2W-101 LF1D-E3G-2W-300 LF1D-EN21F-2W-451 LF1D-EH3G-2W-200 LF1D-F3G-2W-401 LF1D-F3G-2W-350 LF1D-C2F-2W-450 LF1D-F3G-2W-A LF1D-E2F-2W-301 LF1D-H2F-2N-350 LF1D-F9F-2W-200 LF1D-E9F-2W LF1D-EH2F-2W-200 LF1D-F2F-2W-350 LF1D-F9F-2W-401 LF1D-E3G-2W-A LF1D-EH2F-2W-201 LF1D-E5G-2W-400 LF1D-F5G-2W-201 LF1D-FH2F-2W-A LF1D-F3G-2W-101 LF1D-EH3G-2W-350 LF1D-EH3G-2W-450 LF1D-J2F-2N-350 LF1D-F3G-2W-300 LF1D-EH3G-2W-400 LF1D-F2F-2W