Project: _____

Location: _____

Cat. #: _____

Type: _____

Quantity: _____

LED

NVL F G2 8 | LED Vaportight High/Low Bay

Features:
• High performance LED technology
• 0-10V dimming drivers standard
• Multiple hanging options, including surface, chain, and aircraft cable, for easy installation
• Pre-wired 6' single circuit cord comes standard. Other cord options available
• Durable materials and craftsmanship allows the NVL F to withstand some of the harshest environments

Applications:
Most industrial, retail, and recreational low bay and high bay applications
• Warehouse
• Manufacturing Facility
• Food Processing
• Cold/Frozen Storage *(cold temperature rules apply. Refer to warranty document at www.lumenfocus.com/support for details)*

Ambient Operating Temp.:
• -30°C to 35°C

Predicted Lifetime:
• L70 ≥ 129,000 hrs (calculated)
• L90 ≥ 39,000 hrs (reported)
(based on LM-80, TM-21 and in-situ laboratory testing)

Construction:
• UL 5VA fiberglass housing (will not melt or burn)
• Clear polycarbonate lens
• Pre-painted aluminum board trays
• Stainless steel mounting hardware

Certifications:
• UL 1598 listed for US and Canada, suitable for wet locations
• IP66
• NEMA 4X
• NSF
• PSI 1500
• RoHS

c(UL)us   NSF.   RoHS Compliant

IP 66   NEMA 4X

Warranty:
• 5 year limited system warranty - see www.LumenFocus.com for complete warranty terms and conditions

CAUTION: *Due to high pressure washdown requirements, fixture minimum mounting height is 14 feet above the floor. Lens system should never be removed by anyone but a factory-approved trained technician using torque wrenches.*

90+ CRI

MADE IN USA
USING DOMESTIC AND FOREIGN COMPONENTS

ALT⊙R

Ordering Guide:

example: NVL F G2 8 HI UV CFP 940 SM C6

Series	Vesion	Length	Output	Voltage	Shielding	CRI/CCT	Hanging	Controls	Cords	Options
NVL F	G2	8								
NVL F Flat Bottom Vaportight	**G2** Gen 2	**8** 8'	**SL** Super Low **VL** Very Low **LW** Low **MD** Medium **MH** Medium High **HI** High **VH** Very High	**UV** 120-277 **34** 347V	**CFP** Clear Flat Polycarbonate **CFPP** Heavier Gauge Clear Flat Polycarbonate	**930** 90 CRI/3000K **935** 90 CRI/3500K **940** 90 CRI/4000K **950** 90 CRI/5000K	**Blank** Surface Mounting Bracket (Comes Standard) **SMBB** Mounting Bracket Bail (For Chain Or Cable Mount) **SMBBQC** Bracket Bail with 10' Quick Hang Cable Kit **SMBBQC20** Bracket Bail with 20' Quick Hang Cable Kit **SM45** 45° Surface Mount Bracket **SC** Safety Cable	**Blank** No Controls **ZOS** Occupancy Sensor (On/Off) [1] **ZOSMD** Microwave Photo/Motion Sensor With Step-Dimming (High/Low/Off) [1] **ZOFD1** Leviton Bluetooth-enabled Programmable Dimming/Occupancy/Daylight Harvesting Sensor with Grouping (120-277V) [1] **ZOFDU** Leviton Bluetooth-enabled Programmable Dimming/Occupancy/Daylight Harvesting Sensor with Grouping, Scheduling (120-480V) [1] **Z221BL_** Wattstopper Programmable Photo/Motion Multi-Voltage Sensor (high/low/off) [2] **Z321BL_** Wattstopper Bluetooth-enabled Programmable Dimming/Occupancy/Daylight Harvesting Multi-Voltage Sensor [2] **ZPC** Photocell **ZENLO** Enlighted Ruggedized Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted One System [3] **ZENLC** Enlighted Ruggedized Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted Connected System [3] **ZENLI** Enlighted Ruggedized Sensor with Dimming/Occupancy/Daylight Harvesting and Enlighted IoT System [3]	**C6** 6' Single Circuit Cord (Comes Standard) **C6(LVL)** C6 With Integrated Dimming Leads **C10** 10' Single Circuit Cord **C10(LVL)** C10 With Integrated Dimming Leads **D6** 6' Dual Circuit Cord **D10** 10' Dual Circuit Cord	**Blank** No Options **P(NEMA)** Plug (Specify NEMA configuration) **F** Fuse **SDT(480V)** 480V To 277V Step Down Transformer **BAA** Buy American Act Compliant

Notes

[1] Max mounting height 40'. See Page 4 for more details
[2] "_" = lens type. Max mounting height 40'. See Page 4 for more details.
[3] Max mounting height 50'. See Page 5 for more details on advanced controls.

Controls Accessories *(order separately)*

For Enlighted Controls
WS-2-00   Enlighted Remote Control Wall Switch (for Enlighted Connected & IoT)
WS-2-00-IL   Enlighted Remote Control Wall Switch (for Enlighted One)

For WattStopper Controls
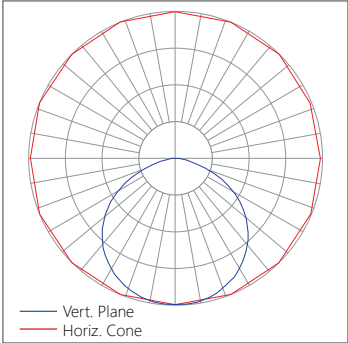FSIR-100   Wireless IR Programming Tool (For Z221Lx)

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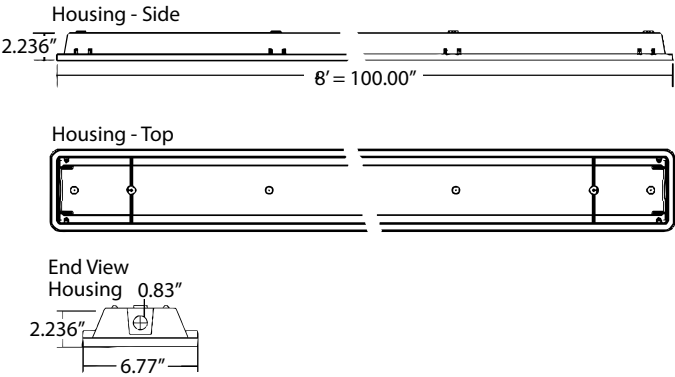LumenFocus reserves the right to change specifications without notice. Consult factory for most up to date specifications.

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Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
NVL F G2 8 SL UV CFP 9xx	30.2	3972.9	131.6	3989.7	132.1	4084.4	135.2	4084.4	135.2
NVL F G2 8 VL UV CFP 9xx	44.4	5724.0	128.9	5748.2	129.4	5884.7	132.5	5884.7	132.5
NVL F G2 8 LW UV CFP 9xx	61.5	7575.4	123.1	7607.4	123.6	7788.0	126.6	7788.0	126.6
NVL F G2 8 MD UV CFP 9xx	71.2	9405.5	132.0	9445.1	132.6	9669.5	135.7	9669.5	135.7
NVL F G2 8 MH UV CFP 9xx	87.9	11307.1	128.7	11354.7	129.2	11624.4	132.3	11624.4	132.3
NVL F G2 8 HI UV CFP 9xx	118.0	15037.1	127.4	15100.5	127.9	15459.1	131.0	15459.1	131.0
NVL F G2 8 VH UV CFP 9xx	145.1	18736.4	129.1	18815.3	129.6	19262.2	132.7	19262.2	132.7

Photometric Data:

Relative Luminous Intensity

— Vert. Plane
— Horiz. Cone

Schematic:

Housing - Side
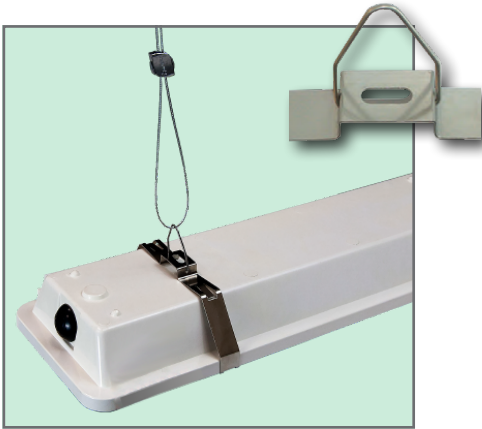
2.236"

8' = 100.00"

Housing - Top

End View
Housing   0.83"

2.236"

6.77"
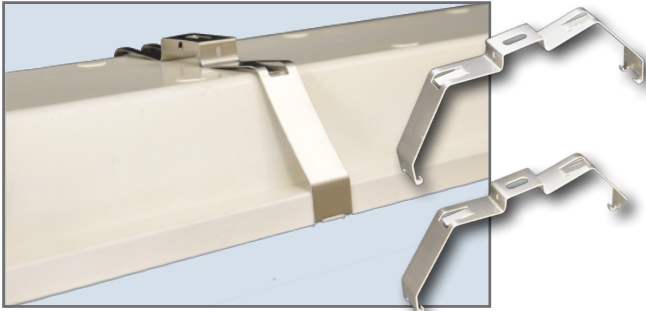
Mounting:

SM   Surface Mount Bracket (comes standard)
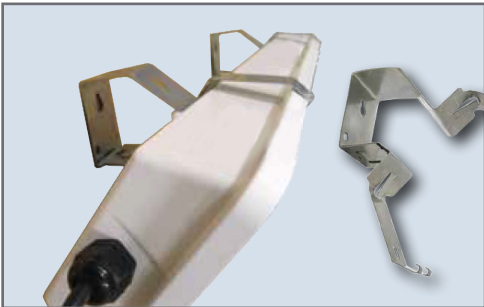
SMBB   Surface Mount with Bracket Bail - for chain or cable mounting. (Shown with QC)

SM45   45° Surface Mount Bracket

Controls Summary:

Control Code	Type	Capabilities	Communication
ZOS	Motion (PIR)	On/Off	Wired
ZOSMD	Motion (Microwave), Photosensor	On/Low/Off	Wired 1-10V
ZOFD1	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
ZOFDU	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
Z221BLx	Motion (PIR), Photosensor	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via IR remote (sold separately)
Z321BLx	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim	Wired 0-10V, Programmable via Bluetooth App (iOS, Android)
ZPC	Photosensor	On/Off	Wired
ZENLO	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Upgradable to Connected (ZENLC) or IoT (ZENLI)	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted Room Controller WS-2-00-IL (sold separately)
ZENLC	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, Upgradable to IoT (ZENLI), LLLC (Enlighted IoT)*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software
ZENLI	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitoring*, BMS Integration*, LLLC (Enlighted IoT)*, Space - Building Utilization*, Where - Real Time Location Services*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software

LLLC = Luminaire Level Lighting Control
* Additional equipment required. Contact LumenFocus representative for details

On/Off Occupancy Sensor (ZOS)

The Leviton OSFHL-CTW (or equivalent) is an end mounted PIR On/Off motion sensor. It comes with two interchangeable lenses: Low Bay (8-25' heights), High Bay (20-40' heights), as well as an aisle mask.
• IP65 rated

Microwave Occupancy Sensor (ZOSMD)

The Leviton OSM3D-DDW (or equivalent) detects motion through low density materials using high frequency electromagnetic waves. This means it can sit discretely behind the NVL F's lens. The high frequency waves offer less interference and false tripping than traditional sensing technology for reliable occupancy applications. The ZOSMD features automatic switching or dimming based on motion. The ZOSMD option adds step-dimming functionality - standby dimming level 10% / 20% / 30% / 50%. Max mounting height is 40 feet.

Programmable Dimming Sensors:

ZOFDx Sensors

The ZOFDx option includes four sensor lenses that can easily be installed or swapped out in the field. From left: the high bay lens (20'-40' mounting), the high bay lens with aisleway mask, the low bay lens (8'-20' mounting), and the low bay lens with aisleway mask.

• Leviton Smart IP66 passive infrared (PIR) sensors
• Features mesh grouping (16 devices per group), occupancy sensing, daylight harvesting, scheduling (for ZOSFDU only), single-level switching
• Comes pre-installed on the end cap
• Rated for cold locations
• Configurable through the Leviton Smart Sensor App using a smartphone or other Bluetooth-enabled iOS or Android device

Z221B/Z321B Sensors

• The Wattstopper FSP sensor provides multi-level control based on motion and/or daylight contribution
• Rated for cold locations
• Parameters for Bluetooth-enabled Z321B adjustable via phone app - iOS or Android
• Parameters for Z221B adjustable via wireless configuration tool (FSIR-100 - sold separately)
• Three lenses available, tailored for the ideal detection area and mounting height:
  -**L2:** 360º lens, maximum coverage 48', diameter from 8' height
  -**L3:** 360º lens, maximum coverage 40', diameter from 20' height
  -**L7:** 360º lens, maximum coverage 100', diameter from 40' height

1) The Wattstopper FSP sensor. **2)** The phone app interface for the Z321B. **3)** The FSIR-100 wireless configuration tool.

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Enlighted: All-in-one sensors, upgradeable systems

Enlighted's IP65-rated Ruggedized Sensor is an all-in-one unit: task tuning, high-end trimming, daylight harvesting, and occupancy/vacancy detection. Max installation height is 50 feet.

Enlighted sensors come standard with the Enlighted One system (the "ZENLO" option). Enlighted Connected ("ZENLC") offers even more options. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Each system can be fully upgraded to the next tier in the future. So if you start with Enlighted One but want to add energy reporting or building management systems integration in the future, you can.

Enlighted Capabilities*	Enlighted One (ZENLO)	Enlighted Connected (ZENLC)	Enlighted IoT (ZENLI)
Motion and Switch Groups	✓	✓	✓
Daylight Harvesting	✓	✓	✓
Schedule Lighting		✓	✓
Energy Reporting & Optimization		✓	✓
Environment Data & Lighting Controls API		✓	✓
Building Management System Integration		✓	✓
Where & Space Applications			✓
Location & Occupancy APIs & Beaconing			✓
Future App & API Ready			✓

Note: Additional equipment required for ZENLC and ZENLI

Real-time data analytics

Enlighted's control units compile data in real-time, which can be viewed via the Energy Manager. The Energy Manager is part of the Enlighted Connected and Enlighted IoT configurations.
• Real-time measurements and verification of energy savings
• Space analytics - data can be compiled into motion trails and heat maps
• Analyze traffic density and congestion in a space
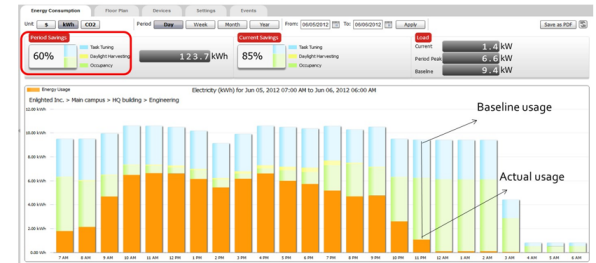
Learn more about our available advanced controls options here:
www.lumenfocus.com/controls-overview

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