

Munich

FULL CUT-OFF WALL PACK FAMILY Vandal Resistant LED

We reserve the right to revise the design or components of any product without notice.

CATALOG #		TYPE
PROJECT/LOCATION		
APPROVED BY		

SPECIFICATIONS

- BACKPLATE — Cast aluminum.
- DRIVER — Universal Voltage 120/277v Electronic Driver with 0-10V dimming is standard.
- EMERGENCY — Remote or Integral Emergency Battery Options.
- GASKETING — High temperature, non-aging black EPDM and/or neoprene rubber concealed in housing pocket and enclosed by cast-in drip shield and rear wire entrance hole to protect against outside contaminants.
- HOUSING — Heavy wall cast aluminum with wire access on back through threaded 1/2" conduit size entrance holes -- Standard Finish in Bronze oven baked Polyester Powder Coat.
- LIGHT ENGINE — Energy Efficient Light Emitting Diode (LED).
- LENS — Clear Tempered Glass (94) Standard.
- LENS FASTENERS — Stainless steel tamperproof screws – (2) To secure lens in place.
- REFLECTOR — 032 Prescription Specular aluminum for high efficiency and reduce arc tube voltage rise.
- COMPLIANCE — Built to comply with U.S. and Canadian Safety Standards. Suitable for Wet Locations. CSA Listed. Complies with Buy American Act.



ORDERING INFO

Series	Size	Reflector	LED Wattage	CCT	Voltage	Finish	Options
ORDERING GUIDE:							

SERIES

MU = Munich Series

SIZE

- L = Large (14¼" x 9" x 11")
- XL = Extra Large (18¼" x 9" x 11")

REFLECTOR

- FT = Forward Throw Distribution
- WS = Wide Spread Distribution

LED WATTAGE

Refer to Chart Below for Size/Wattage Compatibility
LED(xx) = LED (xx = Wattage, ex: LED50)

LED COLOR TEMPERATURE

- AMB = Amber — 585-595nm (See Note 3)
- 27K = ±2700K range
- 3K = ±3000K range
- 35K = ±3500K range
- 4K = ±4000K range
- 5K = ±5000K range
- 65K = ±6500K range

VOLTAGE

- 347 = 347 Volts
- UNV = Universal Volt (120-277v) Driver
- 2UNV = Two Universal Volt (120-277v) Drivers

FINISH

- BK = Black
- BZ = Bronze—Standard
- PNA = Painted Natural Aluminum
- WH = White
- +NAT = Conformal Coating - Light Engine Only
- CC = Custom Color (Visit www.ralcolor.com)
— Provide RAL# or Make-to-Match Color Chip

DIMMING OPTIONS

Note: 0-10V 100%-30% is Standard

- D7A = 0-10VDC LED Dimming Driver (100-10%)
- D7B = 0-10VDC LED Dimming Driver (100-1%)

CONTROL OPTIONS

Note: See Accessory Options for Required Remote Controller

- 9328 = Photocell Button (120/277V)
- OCC = Occupancy Sensing | Motion Sensor Integral²⁰
— Microwave / Single Feed / 120/277V Only
— Standby Dim Level Presets: ON/OFF (0%/100%)
- BLD = Bi-Level Dimming | Motion Sensor Integral²⁰
— Microwave / Single Feed / 120/277V Only
— Standby Dim Level Presets:
10% / 20% / 30% (Standard) / 50%
- BLDA = Bi-Level Dimming | Motion Sensor Integral²⁰
— Ambient Light Sensing Feature (AMB)
— Microwave / Single Feed / 120/277V Only
— Standby Dim Level Presets:
10% / 20% / 30% (Standard) / 50%
- Bi-Level Control Initiated at AMB Light Level Preset
- BLS = Bi-Level Switching — Using 2 Drivers (2UNV)

MISC OPTIONS

- FUS = Single Fusing
- DFUS = Double Fusing
- PGD = Prismatic Glass Diffuser – No Glare
- SG = 10KA Surge Protection (ANSI spec: C62.41.2)
- TP = Tamperproof Screws

EMERGENCY BATTERY OPTIONS^{3 40 55}

No onsite Emergency Power (AC or DC) is provided

- GTD1 = Generator Transfer Device (Signify)
- GTD2 = Generator Transfer Device (LGTD)
— Shunt Relay w/Fire Alarm Override Input

Meets California Energy Commission Title 20:
(CEC-400-2014-009-CMF) Efficiency Standards

- EL4W = Integral LED 4 Watt
- EL8W = Integral LED 8 Watt
- EL16W = Integral LED 16 Watt
- EL20W = Integral LED 20 Watt

- REL4W = Remote LED 4 Watt
- REL8W = Remote LED 8 Watt
- REL16W = Remote LED 16 Watt
- REL20W = Remote LED 20 Watt

NOTE: Integral Emergency Battery Option / Size Compatibility

- Size Large: EL4W Only
- Size XL: All EL Options

Cold Weather Emergency Batteries:

Operating Temp: -20°C thru 50°C

NON-CEC Compliant

EL10W-CW = Integral LED 10 Watt - Cold Weather

REL10W-CW = Remote LED 10 Watt - Cold Weather

ACCESSORY OPTIONS (order as a separate line)

- 9002 = Tamperproof Screwdriver
- REMT = Remote Controller for Sensor Options

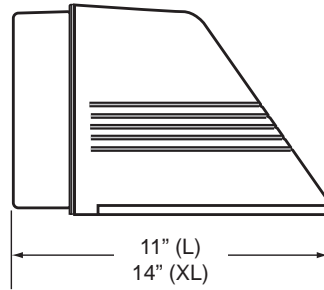
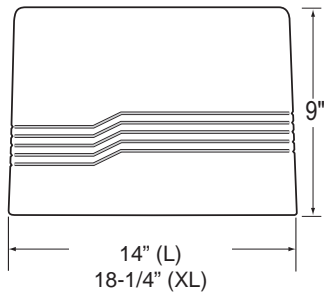
NOTES:

- 3 Consult Factory for additional Emergency Battery options not shown
- 20 Max mounting height of fixture is 18' (18 feet)
- 40 Max WHIP length of the REL is 8 feet.
- 55 Final selection of the Battery Pack under discretion of Factory
- 3 Amber LED operates between 585-595 nanometers.
Amber LED available only for Large 37W.

LED WATTAGE		
Fixture	MUNICH L	MUNICH XL
Dimensions - W x H x D	14¼" x 9" x 11"	18¼" x 9" x 14"
Light Emitting Diode	LED 37w ²⁰ / 40w / 50w / 60w	40w / 50w / 60w

DIMENSIONS

AMBER LED CCT



Amber (AMB) Color Temperature
 Beachfront/Turtle-Safe Lighting
 For Munich Large LED37 Watt Only

LUMEN OUTPUT/EFFICACY DATA

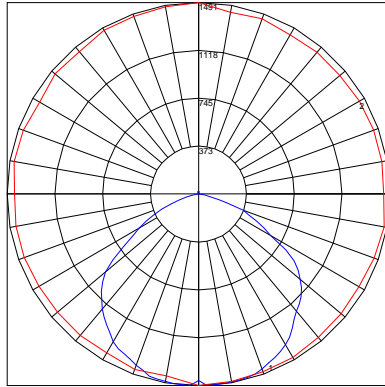
Size	Reflector	Wattage	CCT	Lumen Output	Efficacy
Large (14")	Forward Throw	25 Watt	4000K	2737 Lumens	101 LPW
Large (14")	Forward Throw	25 Watt	5000K	2851 Lumens	105 LPW
Large (14")	Forward Throw	37 Watt	3000K	3784 Lumens	93 LPW
Large (14")	Forward Throw	37 Watt	4000K	4105 Lumens	101 LPW
Large (14")	Forward Throw	37 Watt	5000K	4276 Lumens	105 LPW
Large (14")	Forward Throw	50 Watt	3000K	5046 Lumens	93 LPW
Large (14")	Forward Throw	50 Watt	4000K	5473 Lumens	93 LPW
Large (14")	Forward Throw	50 Watt	5000K	5701 Lumens	93 LPW
Large (14")	Wide Spread	25 Watt	4000K	2867 Lumens	106 LPW
Large (14")	Wide Spread	25 Watt	5000K	2987 Lumens	110 LPW
Large (14")	Wide Spread	37 Watt	4000K	4301 Lumens	106 LPW
Large (14")	Wide Spread	37 Watt	5000K	4480 Lumens	110 LPW
Large (14")	Wide Spread	50 Watt	4000K	5735 Lumens	106 LPW
Large (14")	Wide Spread	50 Watt	5000K	5974 Lumens	110 LPW
X-Large (18")	Forward Throw	40 Watt	4000K	4074 Lumens	100 LPW
X-Large (18")	Forward Throw	40 Watt	5000K	4244 Lumens	105 LPW
X-Large (18")	Forward Throw	60 Watt	4000K	6112 Lumens	100 LPW
X-Large (18")	Forward Throw	60 Watt	5000K	6366 Lumens	105 LPW
X-Large (18")	Wide Spread	40 Watt	4000K	4510 Lumens	111 LPW
X-Large (18")	Wide Spread	40 Watt	5000K	4698 Lumens	116 LPW
X-Large (18")	Wide Spread	60 Watt	4000K	6765 Lumens	111 LPW

PHOTOMETRIC DATA

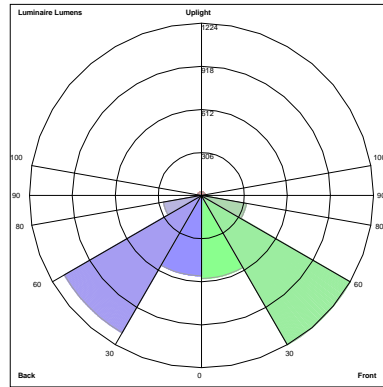
Test #: Q2016030502B | Catalogue #: MU-L-WS-LED40-5K-UNV | Test Date: 3/5/2016

Lamp Output	Lumen Efficacy	Input Wattage	Distribution Type	Color Temp	BUG Rating
4148.0 Lumens	100.0 LPW	41.5W	Type V - Short	5000K	B2-U2-G0

POLAR GRAPH



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



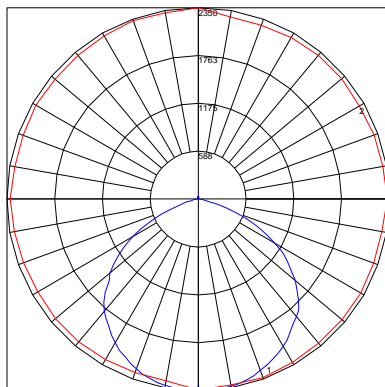
LCS Summary

Zone	Lumens
Forward Low (0-30)	589.5
Forward Medium (30-60)	1224.1
Forward High (60-80)	324.4
Forward Very High (80-90)	6.3
Back Low (0-30)	570.4
Back Medium (30-60)	1126.8
Back High (60-80)	273.3
Back Very High (80-90)	5.5
Up Low (90-100)	1.8
Up High (100-180)	26.1

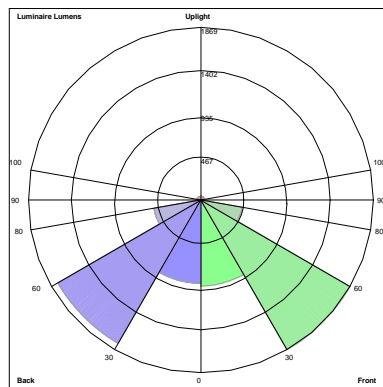
Test #: Q2016030701B | Catalogue #: MU-XL-WS-LED60-5K-UNV | Test Date: 3/7/2016

Lamp Output	Lumen Efficacy	Input Wattage	Distribution Type	Color Temp	BUG Rating
6525.0Lumens	106.4 LPW	61.3W	Type V - Short	5000K	B2-U2-G1

POLAR GRAPH



LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



LCS Summary

Zone	Lumens
Forward Low (0-30)	928.0
Forward Medium (30-60)	1869.2
Forward High (60-80)	453.6
Forward Very High (80-90)	10.4
Back Low (0-30)	899.5
Back Medium (30-60)	1790.3
Back High (60-80)	515.4
Back Very High (80-90)	16.3
Up Low (90-100)	2.8
Up High (100-180)	39.5