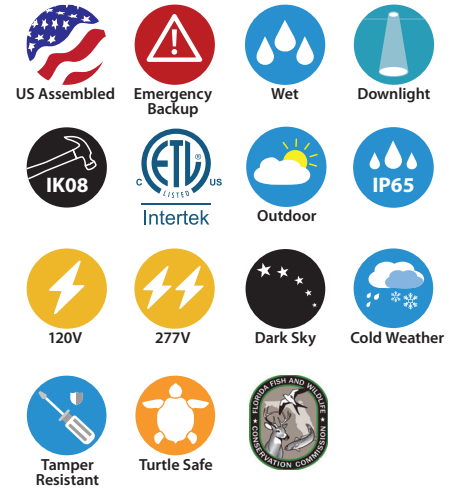
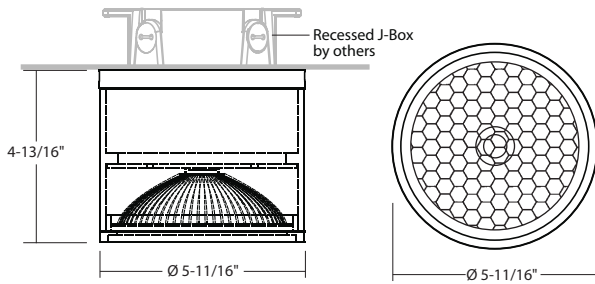


DL360 : 6" ROUND

CEILING DOWNLIGHT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Wildlife Lighting Approved
- Chip-On-Board light engine
- Energy efficient, low glare LED Chip-On-Board light engine
- True Amber Narrow Wavelength 590nm LED
- Emergency back up available
- Integral Surface J-Box Option
- 5-Year Limited Warranty

ORDERING : DL360B-UE-DUN-TAM-LVR-EMAC-JB

DL360

Fixture	Finish	Dimming	LED	Emergency Options	Options			
Finish		Dimming		LED		Options		
White	(RAL 9003)	W	Non-Dimming	Blank	Amber - Limited Wavelength - 590nm	-TAM-LVR	None	Blank
Silver	(RAL 7037)	S	UniDim™ (120V/277V)	UE-DUN			Photocell Sensor	-SDL
Bronze	(RAL 8019)	BZ	0-10V 1% Dimming	UE-D10P1	Emergency Options		Integral Junction Box	-JB
Black	(RAL 9005)	B	(120V/277V)		None	Blank	1-Outlet	
Light Silver	(RAL 7036)	LS ¹			Remote location	-EMAC	Surge Protector	-SRG
Dark Grey	(RAL 7015)	DG ¹			Emergency System		Cold Weather	-CW ^{2,4}
Metallic Gold	(RAL 1001)	MG ¹					Glare Shield	-SH
Metallic Black	(RAL 7021)	MB ¹			Emergency in Canopy for Surface Mounted Fixture	-EMA ^{3,4}		

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

² Starting temperature -30°C/-22°F; see pg. 6.

³ Standard option only available for Black (B), and White (W) finish. For alternate finishes.

Contact factory for pricing. Extended lead time may apply.

⁴ (-EMA) is not compatible with (-CW) option.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This DL series covered ceiling mount downlight can be used for surface ceiling or pendant mount in both interior and outdoor settings. Typical locations are in commercial and retail spaces that require lighting from above. Dark sky compliant.

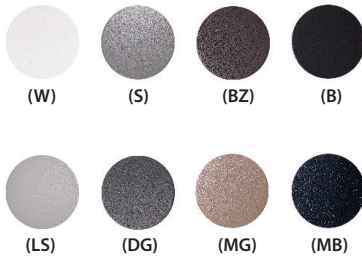
Housing

Housing is constructed of one piece high grade aluminum extrusion (Alloy 6061<.04% Cu). Faceplate (with tempered glass lens) and top cap are of a robust die cast aluminum alloy and seal the housing top and bottom. Faceplate has a silicone o-ring to seal the flush lens and threads into housing. A U-bracket installs onto an electrical junction box and secures into the top cap with two (2) flat head countersunk phillips head stainless steel screws.

Mounting:

The 6" high x 4-1/2" wide rectangular mounting plate with U-bracket installs onto a 4" octagonal electrical junction box. For other junction box sizes see installation instructions.

Finish:



A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)

Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65).

Assembled in USA.

IK08 rated for impact resistance.

Certified by the Florida Fish and Wildlife Conservation Commission as Wildlife Lighting Approved.

SPECIFICATION (Continued)

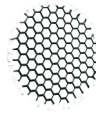
Caution: LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (See option SRG)

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 50°C/122°F. Doing so will result in reduced lamp life and voided warranty.

Optics

Multifaceted aluminum reflector produces low glare illumination. Additional beam control provides cutoff of illumination above 45°, 3 mm /.125" (size of the cells) - matte black finish.



45° cutoff louver included with optic.

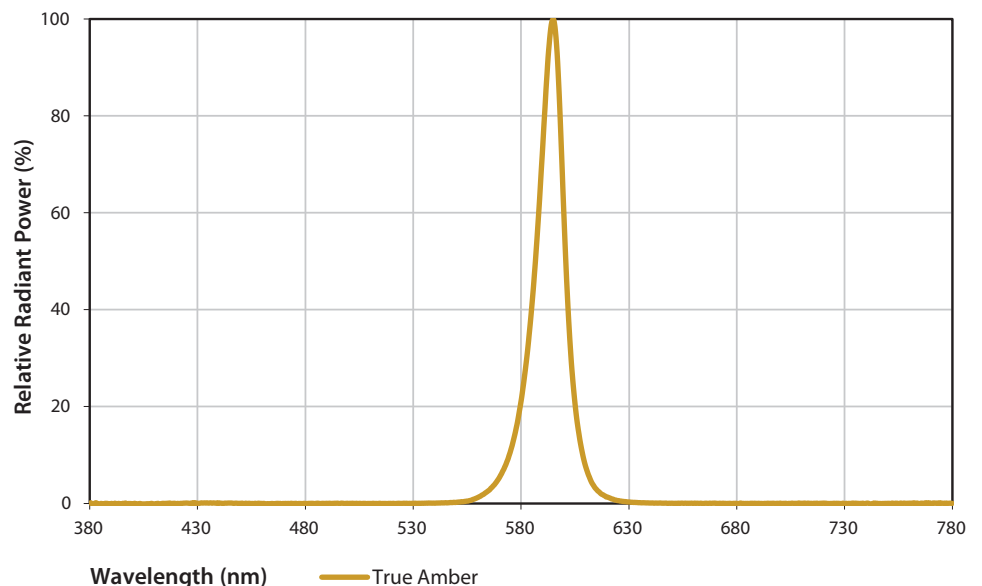
LED

COB (Chip on Board) singular LED light source provides for smooth, uniform light output, eliminating the imaging produced by multiple LED source optics.

Lumen Maintenance: Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal): 250lm (22W)

Color Temperature: Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes.

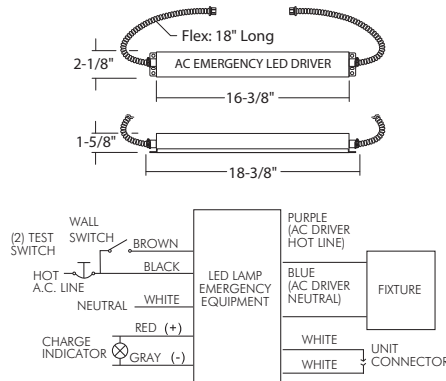
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

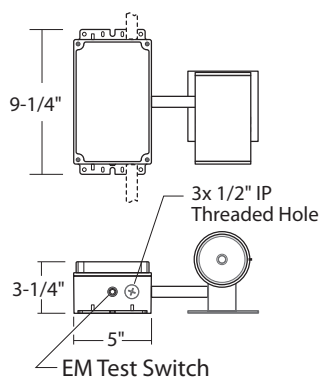


Output Power:	25 Watts (Max)
Input Power:	6 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	100-277 VAC, 50-60Hz
Battery:	High Temp Nickel-Cadmium 48 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3 lbs.
Warranty:	2-year
Surge Protection:	None

BackPack Side Mount (-EMD-SD/FC):

Eliminates need for long runs back to remote emergency battery location. Installs directly on building surface. Ideal for locations wanting same mounting aesthetics for Emergency and Non-Emergency fixtures without the use of remote Emergency power. Can be fed from recessed wall mounted junction box from the back of fixture or surface conduit from side of fixture.

- Wet location rated
- 120V-347V operation
- Self diagnostic
- Integral surge protector for emergency driver only.
- Includes (2) 1/2" NPT knock-outs

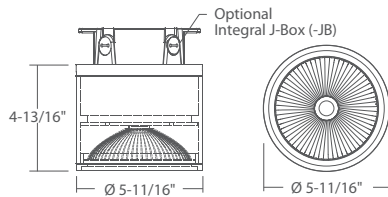


Output Power:	30 Watts (Max)
Input Power:	76 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	120V-347 VAC
Battery:	Recyclable lithium battery 24 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3-3/4 lbs.
Warranty:	5-year
Surge Protection:	Integral 3,000V
Self-diagnostic testing:	Monthly 30 sec. test, Yearly 90 min. test to verify proper emergency operation per life safety code requirements.

SPECIFICATION (Continued)

Additional Options

Optional J-Box (Direct Conduit Entry):



For use with mounting locations without a recessed junction box.
Factory installed outlet box with five (5) 1/2 NPSM trade conduit holes and plugs
(1 top, 4 sides) for 1/2 in. trade conduit and wire entry.

Configure as:

-JB: (5) conduit entry from left or
right looking at fixture

Photocell (-SDL):



Allows for energy savings when illumination is not need during between dawn to dusks. Cuts
off power to LED's during day time or in illuminated environments.

Power Consumption: .5W

Voltage: 120V, 277V

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2- Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Surge Suppressor (-SRG):



Protects driver against surges in line voltage/current
(20KV, 1.2/50μS & 10KA, 8/20μS).

Provides a positive indication of end-of-life by opening voltage to the load.

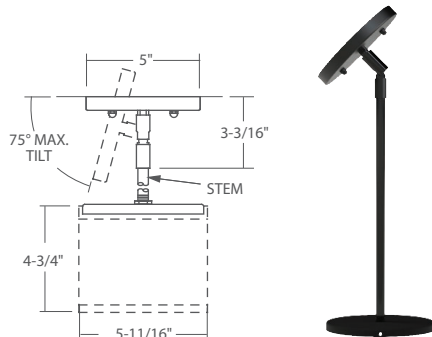
Surge suppressor is a perishable device requiring periodic replacement.

Not a warranted item.

Additional Options - Pendant Mounting

Adjustable Pendant Accessory:

See spec sheet [LPCMDL6](#)
for details and configuration.



SPECIFICATION (Continued)

Additional Options - Pendant Mounting

Aircraft Cable Pendant Mount Accessory Kit: See spec sheet [LPCMCDL](#) for details and configuration



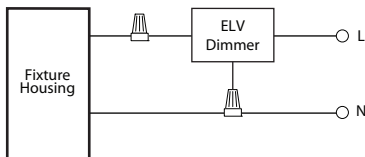
Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.
Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature:
Standard: -10°C/14°F
-CW: Cold Weather Option: -30°C/-22°F
UE-DUN: -10°C/ 14°F

Dimming Options

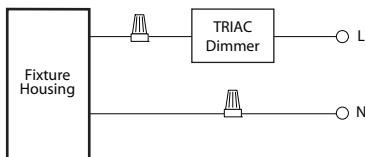
Incandescent/Phase Wiring
ELV



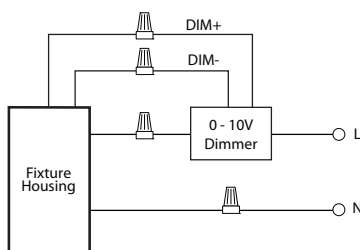
UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

TRIAC

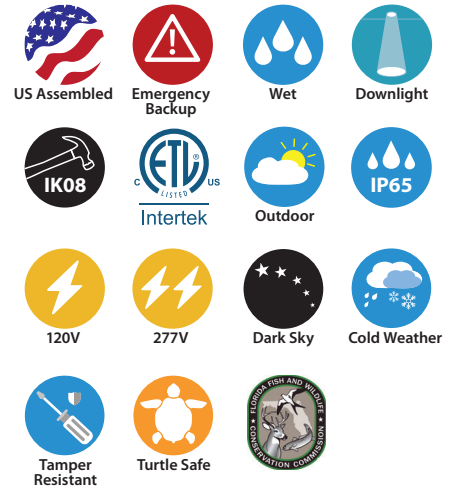
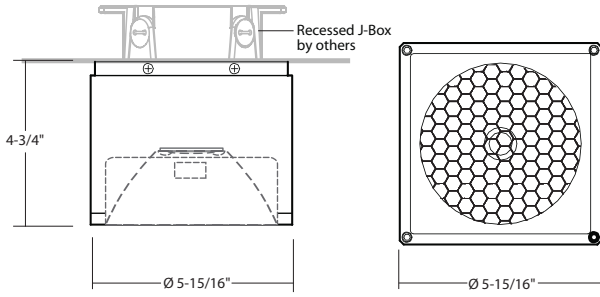


0 - 10V Wiring



DLQ360 : 6" SQUARE

CEILING DOWNLIGHT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Wildlife Lighting Approved
- Energy efficient, low glare LED Chip-On-Board light engine
- True Amber Narrow Wavelength 590nm LED
- Emergency back up available
- Integral Surface J-Box Option
- 5-Year Limited Warranty

ORDERING : DLQ360B-UE-DUN-TAM-LVR

DLQ360

Fixture	Finish	Dimming	Emergency Options	LED	Options
Finish		Dimming		Emergency Options	
White	(RAL 9003) W	Non-Dimming	Blank	None	Blank
Silver	(RAL 7037) S	UniDim™ (120V/277V)	UE-DUN	Remote Location	-EMAC
Bronze	(RAL 8019) BZ	0-10V 1% Dimming (120V)	-D10P1	Emergency integral to fixture	-EMA^{3,4}
Black	(RAL 9005) B	347V 0-10V Dimming	-347-D10		
Light Silver	(RAL 7036) LS¹				
Dark Grey	(RAL 7015) DG¹				
Metallic Gold	(RAL 1001) MG¹				
Metallic Black	(RAL 7021) MB¹				
LED		Options		LED	
				Amber - Limited Wavelength - 590nm	-TAM-LVR
				Options	
				None	Blank
				Photocell Sensor	-SDL
				Integral Junction Box 1-Outlet	-JB
				Surge Protector	-SRG
				Cold Weather	-CW^{2,4}

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

² Starting temperature -30°C/-22°F; see pg. 6.

³ White (W) finish is standard. Black (B), and Silver (S) finish available. Contact factory for pricing.

⁴ (-EMA) is not compatible with (-CW) option.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This DL series covered ceiling mount downlight can be used for surface ceiling or pendant mount in both interior and outdoor settings. Typical locations are in commercial and retail spaces that require lighting from above. Dark sky compliant.

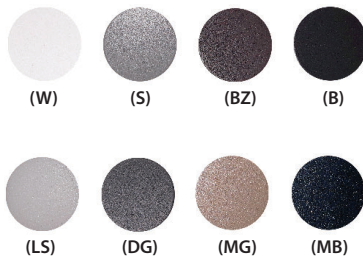
Housing

Housing is constructed from a square one piece high grade aluminum extrusion. (Alloy 6061 <04% Cu). Faceplate (with a tempered glass lens) and top cap are of a robust die-cast aluminum alloy and are secured to the housing with (4) socket head tamper resistant stainless steel screws and seal the housing (top and bottom) using silicone gaskets.

Mounting:

A mounting bracket attaches to or over a recessed J-Box (by others) and has through holes to accept (4) four countersunk phillips head screws in the top edge of the fixture housing.

Finish:



A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)

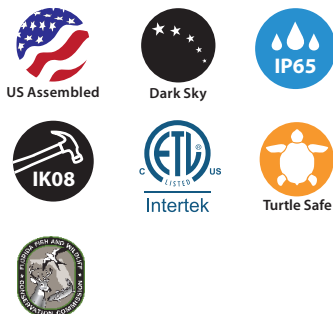
Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

IK08 rated for impact resistance.

Certified by the Florida Fish and Wildlife Conservation Commission as Wildlife Lighting Approved.

SPECIFICATION (Continued)

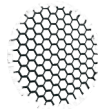
Caution: LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (See option SRG)

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 50°C/122°F. Doing so will result in reduced lamp life and voided warranty.

Optics

Multifaceted aluminum reflector produces low glare illumination. Additional beam control provides cutoff of illumination above 45°, 3 mm /.125" (size of the cells) - matte black finish.



45° cutoff louver included with optic.

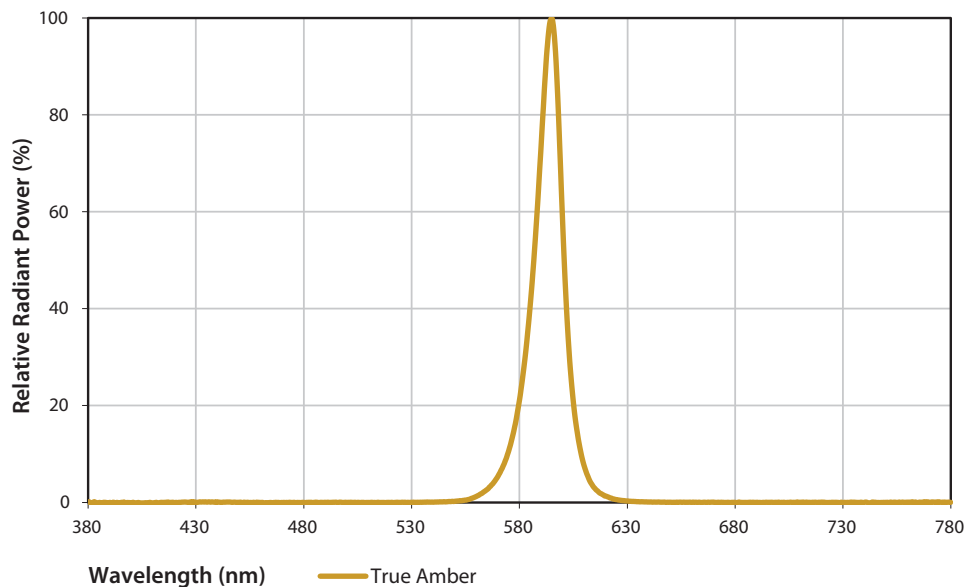
LED

COB (Chip on Board) singular LED light source provides for smooth, uniform light output, eliminating the imaging produced by multiple LED source optics.

Lumen Maintenance: Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal): 250lm (22W)

Color Temperature: Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes.

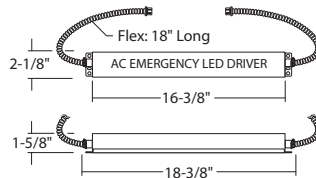
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

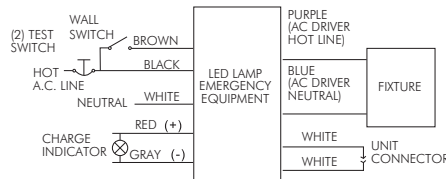
- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

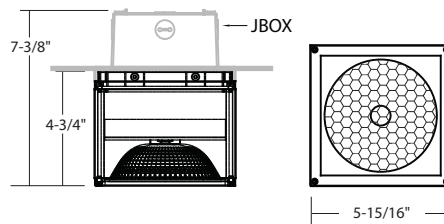


Input Voltage:	120-277VAC/60Hz
Output Voltage:	170VDC (120VAC Equivalent)
Wattage:	30W
Switching Time:	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	0°C
Maximum Temperature:	50°C
Maximum Lumens:	2600lm



Integral Emergency System (-EMA):

- The Integral Emergency System (-EMA) is installed in the fixture housing and includes a test switch.
- Wet location rated
- Covered Ceiling Mount
- May be pendant mounted using LPCMDLQ6.



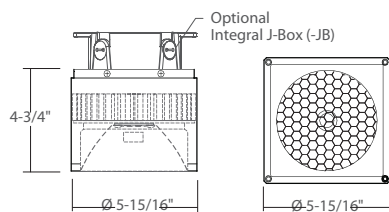
Voltage:	120-277VAC/60H
Wattage:	15W
Switching Time :	<1s
Charging Time:	24h
Operating Time:	90 minutes
Minimum Temperature:	-20°C
Maximum Temperature:	45°C
Maximum Lumens :	1500lm

Additional Options

Optional J-Box (Direct Conduit Entry):

For use with mounting locations without a recessed junction box.

Factory installed outlet box with five (5) 1/2 NPSM trade conduit holes and plugs (1 top, 4 sides) for 1/2 in. trade conduit and wire entry.



Configure as:

-JB: (5) conduit entry from left or right looking at fixture

SPECIFICATION (Continued)

Photocell (-SDL):



Allows for energy savings when illumination is not need during between dawn to dusks. Cuts off power to LED's during day time or in illuminated environments.

Power Consumption: .5W

Voltage: 120V, 277V

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2- Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Surge Suppressor (-SRG):



Protects driver against surges in line voltage/current (20KV, 1.2/50μS & 10KA, 8/20μS).

Provides a positive indication of end-of-life by opening voltage to the load.

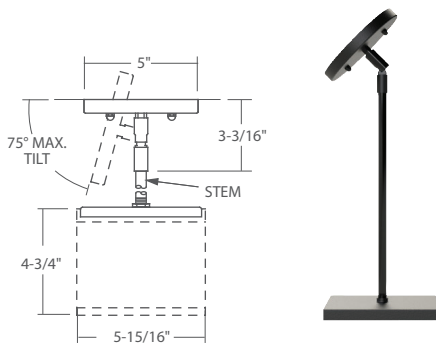
Surge suppressor is a perishable device requiring periodic replacement.

Not a warrantied item.

Additional Options - Pendant Mounting

Adjustable Pendant Accessory:

See spec sheet [LPCMDLO6](#) for details and configuration



Aircraft Cable Pendant Mount Accessory Kit:

See spec sheet [LPCMCDL](#) for details and configuration



SPECIFICATION (Continued)

Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.
Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature:

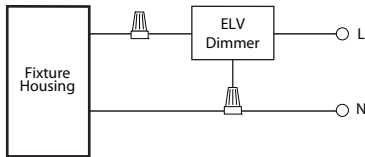
Standard: -10°C/14°F

-CW: Cold Weather Option: -30°C/-22°F

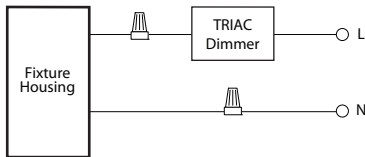
UE-DUN: -10°C/ 14°F

Dimming Options

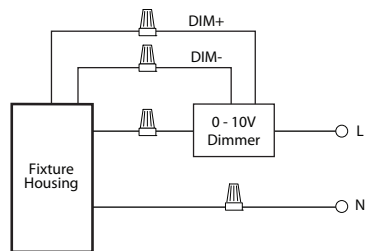
Incandescent/Phase Wiring
ELV



TRIAC



0 - 10V Wiring

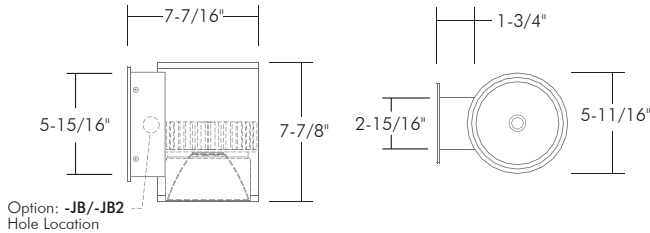


UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

|WD1360: 6" ROUND 1-DIRECTION

WALL MOUNT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Wildlife Lighting Approved
- Energy efficient, low glare LED Chip-On-Board light engine
- True Amber Narrow Wavelength 590nm LED
- Emergency back up available
- Integral Surface J-Box Option
- 5-Year Limited Warranty

ORDERING : WD1360BUE-DUN-TAM-LVR EMAC-SDL

WD1360

Fixture	Finish	Dimming	LED	Emergency Options	Options
Finish					
White	(RAL 9003) W		590mm AMBER	-TAM-LVR	None
Silver	(RAL 7037) S				Blank
Bronze	(RAL 8019) BZ				Photocell Sensor
Black	(RAL 9005) B				-SDL
Light Silver	(RAL 7036) LS ¹				Integral Junction Box 1-Entry
Dark Grey	(RAL 7015) DG ¹				-JBL, JBR ⁴
Metallic Gold	(RAL 1001) MG ¹				Integral Junction Box 2-Entries
Metallic Black	(RAL 7021) MB ¹				-JB2
Dimming					
Non-Dimming (120V)		Blank			Junction Box, Conduit Top Entry
UniDim™ (120V/277V)		UE-DUN			-JBT
0-10V 1% Dimming (120V/277V)		UE-D10P1			Surge Protector

LED	
590mm AMBER	-TAM-LVR
Emergency Options	
None	Blank
Remote	-EMAC
Back Pack (Side Mount)	-EMB-SD ^{3,5}
Back Pack (Face Mount)	-EMB-FC ^{3,5}
Empty Back Pack (Face Mount)	-EMB-BLANK ^{3,5}

Options	
None	Blank
Photocell Sensor	-SDL
Integral Junction Box 1-Entry	-JBL, JBR ⁴
Integral Junction Box 2-Entries	-JB2
Junction Box, Conduit Top Entry	-JBT
Surge Protector	-SRG
Cold Weather	-CW ^{2,5}
Glare Shield	-SH

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

² Starting temperature -30°C/-22°F; see pg. 6.

³ White (W) finish is standard. Black (B), and Silver (S) finish available. Contact factory for pricing.

⁴ Select left or right entry.

⁵ (-EMB-XX) is not compatible with (-CW) option.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This WD1 series single direction wall mount luminaire can be used for both interior and outdoor locations. The single reflector design can be used for direct illumination downward or indirect illumination upward for new construction or retrofit installations. Typical locations are in residential, commercial, and architectural facades and retail spaces that contain walls and/or columns.

Housing/Arm

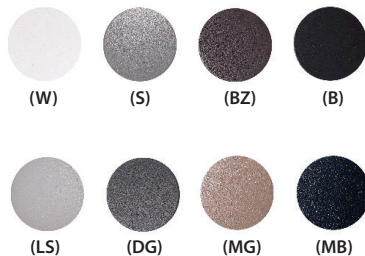
Housing is constructed from a round one piece high grade aluminum extrusion with a rectangular extrusion arm. Extrusions are 6061 alloy; <04% Cu. Faceplate (with a tempered glass lens) and end caps are die-cast aluminum (Alloy A360; <.6% Cu) and seal the housing (top and bottom) using silicone o-rings. An aluminum alloy mounting plate with a U-bracket installs onto an electrical junction box and secures into the arm with two (2) flat head countersunk phillips head stainless steel screws.

Mounting:

The 6" high x 4-1/2" wide rectangular mounting plate with U-bracket installs onto a 4" octagonal electrical junction box. For other junction box sizes see installation instructions.

Finish:

A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)



Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:

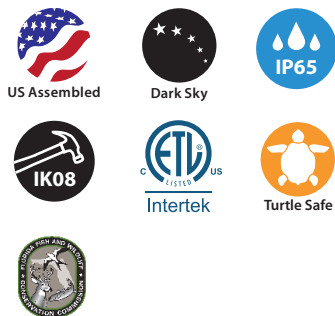
ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

IK08 rated for impact resistance.

Wildlife Lighting Approved.



SPECIFICATION (Continued)

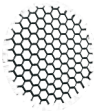
Caution:

LITON recommends use of surge protectors on the power entering LED Housings.
Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 50°C/122°F. Doing so will result in reduced lamp life and voided warranty.

Optics



Multifaceted aluminum reflector produces low glare illumination. Additional beam control provides cutoff of illumination above 45°, 3 mm /.125" (size of the cells) - matte black finish.

45° cutoff louver included with optic.

LED

COB (Chip on Board) singular LED light source provides for smooth, uniform light output, eliminating the imaging produced by multiple LED source optics.

Lumen Maintenance:

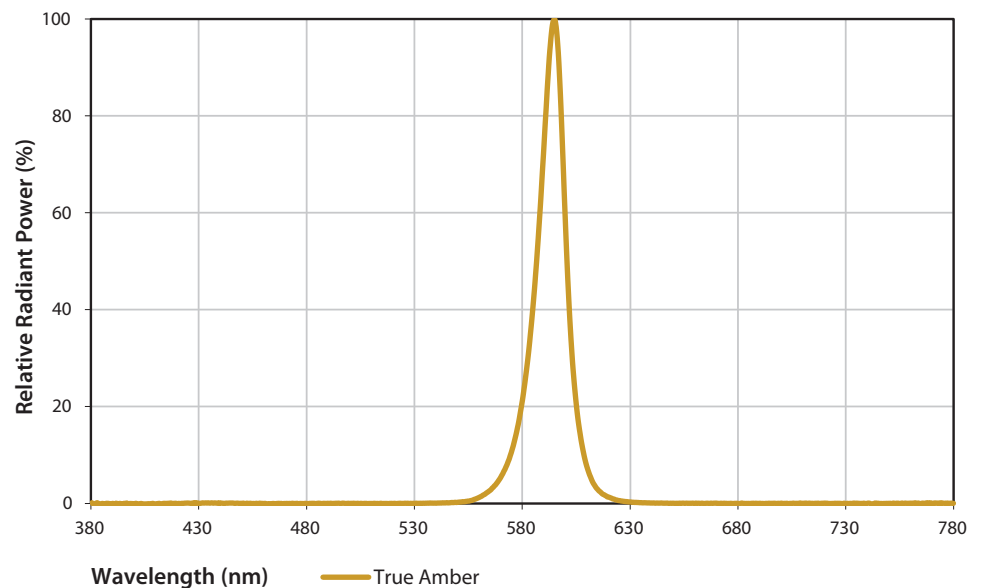
Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal):

250lm (22W)

Color Temperature:

Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes.

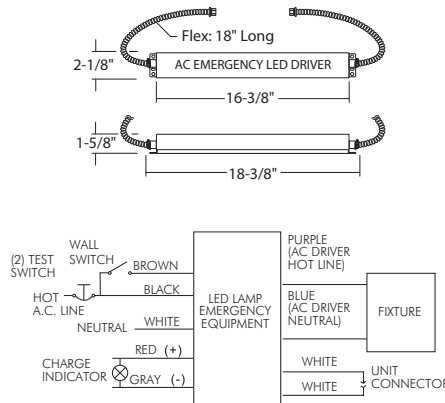
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

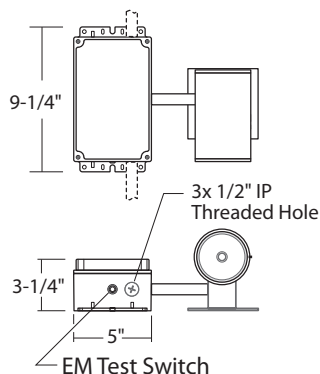


Output Power:	25 Watts (Max)
Input Power:	6 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	100-277 VAC, 50-60Hz
Battery:	High Temp Nickel-Cadmium 48 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3 lbs.
Warranty:	2-year
Surge Protection:	None

BackPack Side Mount (-EMD-SD/FC):

Eliminates need for long runs back to remote emergency battery location. Installs directly on building surface. Ideal for locations wanting same mounting aesthetics for Emergency and Non-Emergency fixtures without the use of remote Emergency power. Can be fed from recessed wall mounted junction box from the back of fixture or surface conduit from side of fixture.

- Wet location rated
- 120V-347V operation
- Self diagnostic
- Integral surge protector for emergency driver only.
- Includes (2) 1/2" NPT knock-outs

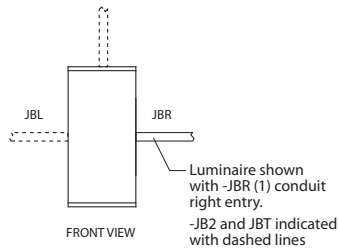


Output Power:	30 Watts (Max)
Input Power:	76 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	120V-347 VAC
Battery:	Recyclable lithium battery 24 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3-3/4 lbs.
Warranty:	5-year
Surge Protection:	Integral 3,000V
Self-diagnostic testing:	Monthly 30 sec. test, Yearly 90 min. test to verify proper emergency operation per life safety code requirements.

SPECIFICATION (Continued)

Additional Options

Optional J-Box (Direct Conduit Entry):



For use with mounting locations without a recessed junction box.

Allows for direct mounting to building surface. Arm may be configured for up to 3 conduit entries (1/2") total; 2 on the sides, 1 on top. .

Configure as:

-JBL, -JBR: (1) conduit entry from left or right looking at fixture

-JB2 (2) conduit entry on sides

-JBT (1) conduit entry on top

Photocell (-SDL):



Allows for energy savings when illumination is not need during between dawn to dusks. Cuts off power to LED's during day time or in illuminated environments.

Power Consumption .5W

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2- Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Surge Suppressor (-SRG):



Protects driver against surges in line voltage/current (20KV, 1.2/50μS & 10KA, 8/20μS).

Provides a positive indication of end-of-life by opening voltage to the load.

Surge suppressor is a perishable device requiring periodic replacement.

Not a warrantied item.

SPECIFICATION (Continued)

Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.
Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature:

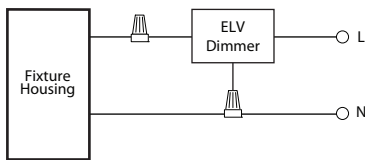
Standard: -10°C/14°F

-CW: Cold Weather Option: -30°C/-22°F

UE-DUN: -10°C/ 14°F

Dimming Options

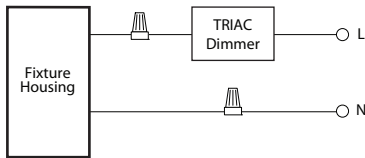
Incandescent/Phase Wiring
ELV



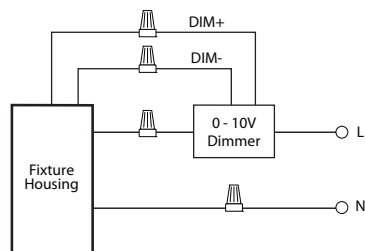
UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

TRIAC

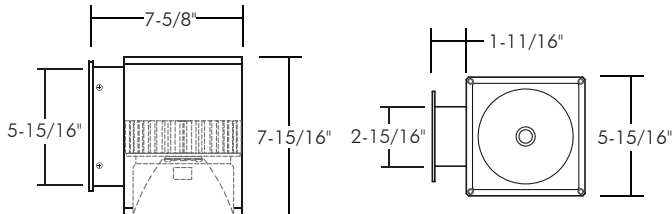


0 - 10V Wiring



| WD1Q360: 6" SQUARE 1-DIRECTION

WALL MOUNT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Wildlife Lighting Approved
- Energy efficient, low glare LED Chip-On-Board light engine
- True Amber Narrow Wavelength 590nm LED
- Emergency back up available
- Integral Surface J-Box Option
- 5-Year Limited Warranty

ORDERING : WD1Q360BUE-DUN-TAM-LVR-EMAC-SDL

WD1Q360

Fixture	Finish	Lumen	Optics	Dimming	Emergency Options	LED	Options
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Finish

White	(RAL 9003)	W
Silver	(RAL 7037)	S
Bronze	(RAL 8019)	BZ
Black	(RAL 9005)	B
Light Silver	(RAL 7036)	LS¹
Dark Grey	(RAL 7015)	DG¹
Metallic Gold	(RAL 1001)	MG¹
Metallic Black	(RAL 7021)	MB¹

Dimming

Non-Dimming (120V)	Blank
UniDim™ (120V/277V)	UE-DUN
0-10V 1% Dimming (120V/277V)	UE-D10P1

LED

590mm AMBER	-TAM-LVR
Emergency Options	
None	Blank
Remote	-EMAC
Back Pack (Side Mount)	-EMB-SD^{3,5}
Back Pack (Face Mount)	-EMB-FC^{3,5}
Empty Back Pack (Face Mount)	-EMB-BLANK^{3,5}

Options

None	Blank
Photocell Sensor	-SDL
Integral Junction Box 1-Entry	-JBL, JBR⁴
Integral Junction Box 2-Entries	-JB2
Junction Box, Conduit Top Entry	-JBT
Surge Protector	-SRG
Cold Weather	-CW^{2,5}

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

² Starting temperature -30°C/-22°F; see pg. 6.

³ White (W) finish is standard. Black (B), and Silver (S) finish available. Contact factory for pricing.

⁴ Select left or right entry.

⁵ (-EMB-XX) is not compatible with (-CW) option.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This WD1 series single direction wall mount luminaire can be used for both interior and outdoor locations. The single reflector design can be used for direct illumination downward or indirect illumination upward for new construction or retrofit installations. Typical locations are in residential, commercial, and architectural facades and retail spaces that contain walls and/or columns.

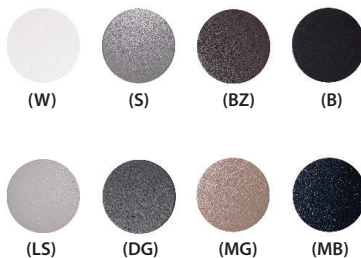
Housing/Arm

Housing is constructed from a round one piece high grade aluminum extrusion with a rectangular extrusion arm. Extrusions are 6061 alloy; <04% Cu. Faceplate (with a tempered glass lens) and end caps are die-cast aluminum (Alloy A360; <.6% Cu) and seal the housing (top and bottom) using silicone o-rings. An aluminum alloy mounting plate with a U-bracket installs onto an electrical junction box and secures into the arm with two (2) flat head countersunk phillips head stainless steel screws.

Mounting:

The 6" high x 4-1/2" wide rectangular mounting plate with U-bracket installs onto a 4" octagonal electrical junction box. For other junction box sizes see installation instructions.

Finish:



A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)

Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

IK08 rated for impact resistance.

Wildlife Lighting Approved.

SPECIFICATION (Continued)

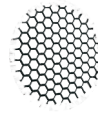
Caution: LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 50°C/122°F. Doing so will result in reduced lamp life and voided warranty.

Optics

Multifaceted aluminum refl ector produces low glare illumination. Additional beam control provides cutoff of illumination above 45°, 3 mm /.125" (size of the cells) - matte black finish.



45° cutoff louver included with optic.

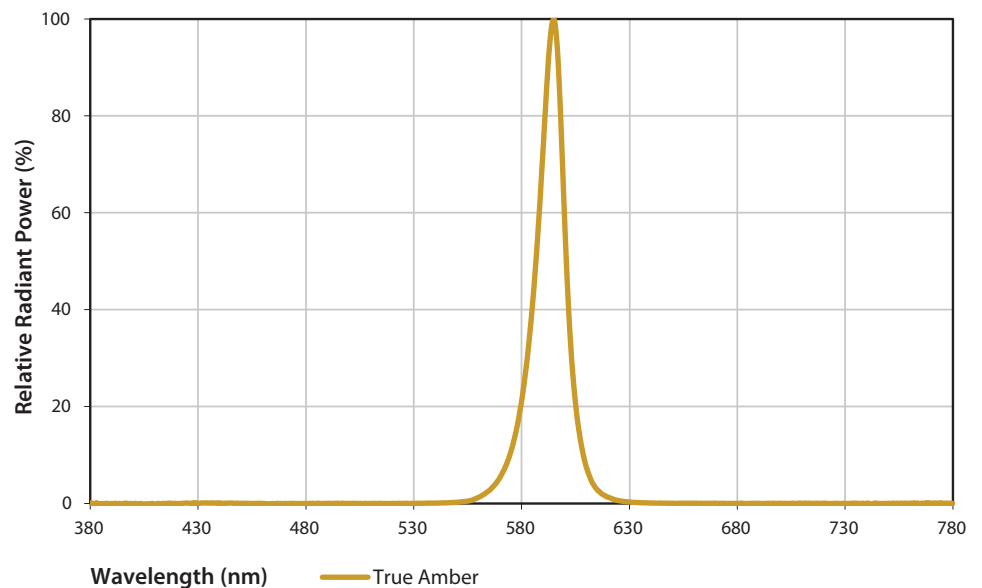
LED

COB (Chip on Board) singular LED light source provides for smooth, uniform light output, eliminating the imaging produced by multiple LED source optics.

Lumen Maintenance: Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal): 250lm (22W)

Color Temperature: Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single enclosure. *Not for use with -CW (Cold Weather) option. Consult factory.

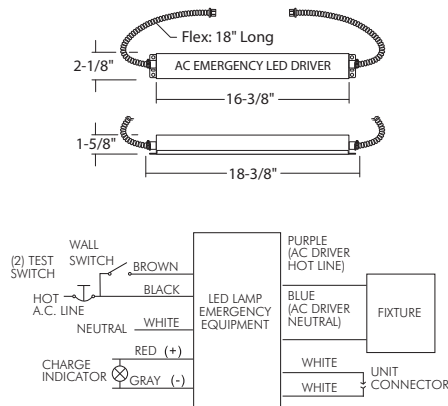
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

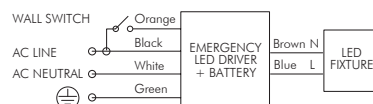
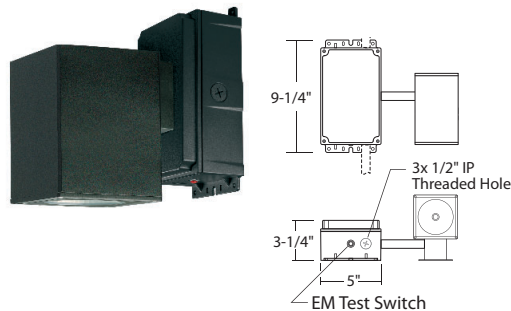


Output Power:	25 Watts (Max)
Input Power:	6 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	100-277 VAC, 50-60Hz
Battery:	High Temp Nickel-Cadmium 48 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3 lbs.
Warranty:	2-year
Surge Protection:	None

BackPack Side Mount (-EMB-SD/FC):

Eliminates need for long runs back to remote emergency battery location. Installs directly on building surface. Ideal for locations wanting same mounting aesthetics for Emergency and Non-Emergency fixtures without the use of remote Emergency power. Can be fed from recessed wall mounted junction box from the back of fixture or surface conduit from side of fixture.

- Wet location rated
- 120V-347V operation
- Self diagnostic
- Integral surge protector for emergency driver only
- Includes (2) 1/2" NPT knock-outs
- Optional -EMB-BLANK can be used to maintain a common aesthetic when -EMB-FC are used.

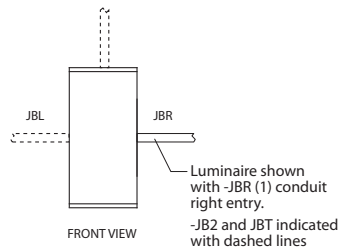


Output Power:	30 Watts (Max)
Input Power:	76 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	120V-347 VAC
Battery:	Recyclable lithium battery 24 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3-3/4 lbs.
Warranty:	5-year
Surge Protection:	Integral 3,000V
Self-diagnostic testing:	Monthly 30 sec. test, Yearly 90 min. test to verify proper emergency operation per life safety code requirements.

SPECIFICATION (Continued)

Additional Options

Optional J-Box (Direct Conduit Entry):



For use with mounting locations without a recessed junction box.

Allows for direct mounting to building surface. Arm may be configured for up to 3 conduit entries (1/2") total; 2 on the sides, 1 on top.

Configure as:

- JBL, -JBR: (1) conduit entry from left or right looking at fixture
- JB2 (2) conduit entry on sides
- JBT (1) conduit entry on top

Photocell (/SDL):



Allows for energy savings when illumination is not need during between dawn to dusks. Cuts off power to LED's during day time or in illuminated environments.

Power Consumption .5W

Voltage: 120V, 277V

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2-Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Surge Suppressor (/SRG):



Protects driver against surges in line voltage/current (20KV, 1.2/50μS & 10KA, 8/20μS).

Provides a positive indication of end-of-life by opening voltage to the load.

Surge suppressor is a perishable device requiring periodic replacement.

Not a warrantied item.

SPECIFICATION (Continued)

Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.
Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature:

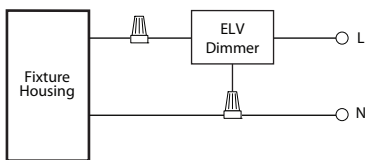
Standard: -10°C/14°F

-CW: Cold Weather Option: -30°C/-22°F

UE-DUN: -10°C/ 14°F

Dimming Options

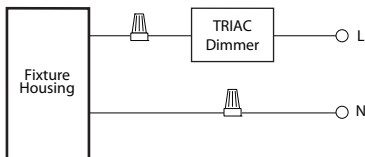
Incandescent/Phase Wiring
ELV



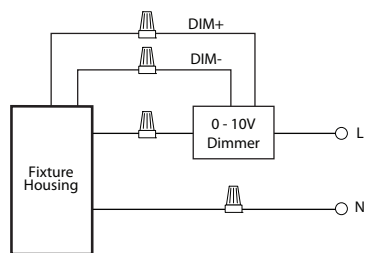
UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

TRIAC

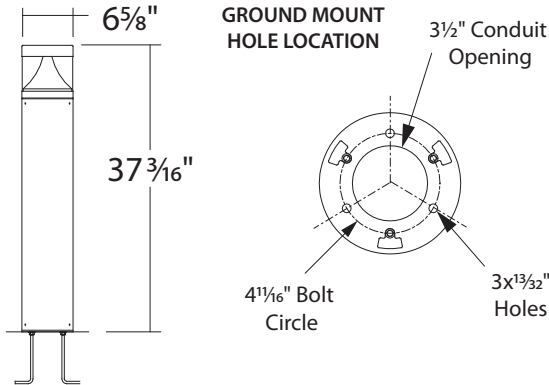


0 - 10V Wiring



BL31 : 7" LED ROUND BOLLARD

AMBER (TURTLE SAFE) (FLAT TOP) 2300LM (28W)



- Up to 83% energy savings
- Glare Free
- Corrosion-resistant polyester powder coat finish
- Available in Black, White, Silver, and Bronze
- 120V/277V standard
- Universal Dimming option dims with ELV, 2-Wire 0-10V Dimming Systems
- 5-Year Limited Warranty
- Up to 20' O.C. spacing



Turtle Safe Requirements:

LOW: The product is designed for low to medium ceiling heights and delivered lumen output is sufficient to produce enough foot-candles to satisfy building codes but not overpower the environment with excessive lumen output.

SHIELDED: The trim is deeply recessed and provides a minimum of 50° of glare cutoff. The trim reflector color is black to limit re-reflections. The beam spread is tightly controlled.

LONG: LED color is verified as 560nm or longer.

ORDERING : BL31B-BUE-DUN-TAM-BIII

BL31

Fixture	Reflector Finish	Dimming	LED	Distribution
---------	------------------	---------	-----	--------------

Finish		ReflectorFinish	Dimming		LED		Distribution	
Black	B	Black	-B	120v/277V	UE	590nm	-TAM	Type III - 90°
Bronze	BZ					AMBER		Wide Forward
Silver	S¹			UniDim™	UE-DUN			Throw
White	W¹			120V/277V				

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This Turtle Safe Bollard is designed for indoor and outdoor applications where low-level illumination is required. Bollards are used to light walkways, public gathering spaces, gardens, along waterfronts and marinas and other public and private areas.

Luminaire Construction

High grade extruded aluminum tube with die cast aluminum top and base. The luminaire is secured to the base by three (3) tamper resistant, stainless steel setscrews. Base is mounted to Anchor Bolt Assembly Kit by three (3) nuts and washers. Note: A solid foundation for installation is recommended.

Luminaire Enclosure

Flat, one-piece top is constructed of heavy duty die cast aluminum housing with a powder coat finish. A clear U.V. stabilized polycarbonate molded lens, interior anodized aluminum louvers and top anodized reflector provides a 360° symmetrical light distribution. Luminaire enclosure is secured to lower housing by three (3) tamper resistant, stainless steel set screws and silicone gasket for quick installation and/or relamping.

Lumen Maintenance

Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results. See ordering guide for delivered lumens.

Thermal Management

Effective thermal dissipation facilitated by integral cast-aluminum, heat sink design for maximum heat rejection to provide long LED life.

Dimming

(-DUN) option is a universal dimming system that works with most 3-Wire ELV, 2-Wire Incandescent and 5-Wire 0-10V fluorescent dimmers.

Electrical

Through wiring, a maximum of four (4) No. 12 AWG conductors (plus ground wire), rated 90°C min. A 3" diameter conduit opening at base bottom provided.

Certifications and Listings



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

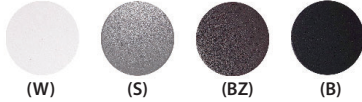
IK08 rated for impact resistance.

IBL31 : 7" LED ROUND BOLLARD

AMBER (TURTLE SAFE) (FLAT TOP) 2300LM (28W)

SPECIFICATION (Continued)

Finish



Available in Black, Bronze, Silver and White.

Distribution

Type III - 90° Wide Forward Throw.

LED



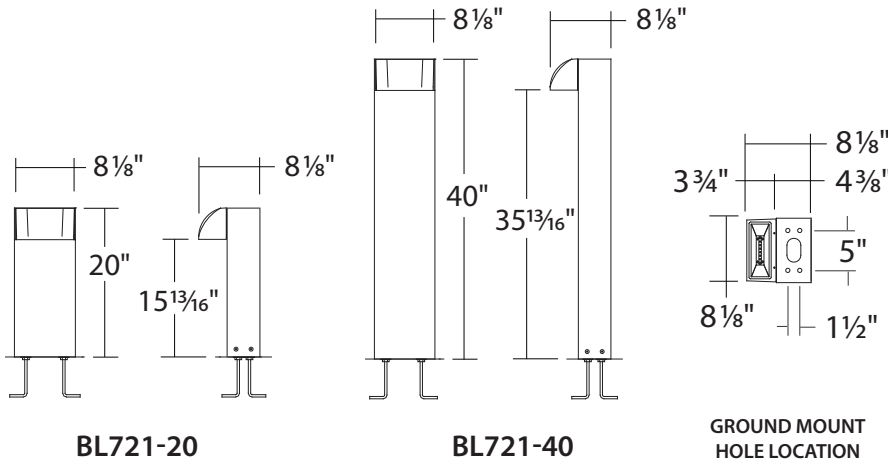
Available in 590nm Amber.

BL721 : 8"x4" SCOOP BOLLARD

(IP65) - 590NM - AMBER (TURTLE SAFE) (15W)



- Sleek architectural design
- Durable, corrosion resistant finish
- Emergency back up available
- 5-year limited warranty



Turtle Safe Requirements:

LOW: The product is designed for low to medium ceiling heights and delivered lumen output is sufficient to produce enough foot-candles to satisfy building codes but not overpower the environment with excessive lumen output.
SHIELDED: The trim is deeply recessed and provides a minimum of 50° of glare cutoff. The trim reflector color is black to limit reflections. The beam spread is tightly controlled.
LONG: LED color is verified as 585nm minimum and 595nm maximum.

ORDERING : BL721-20B-TAM-LVR

BL721						
Fixture		Height	Finish	Lens		LED
Height		Finish		Lens		LED
20"	-20	Black	B	Clear	Blank	590nm Amber
40"	-40	White	W ¹	Frosted	-FR	-TAM-LVR
		Bronze	BZ ¹			
		Silver	S ¹			

¹ Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This single head bollard is designed for outdoor applications where a Dark Sky compliant illumination is required. Bollards are used to light walkways, public gathering spaces, gardens, along waterfronts and marinas and other public and private areas.

Post

High grade rectangular extruded aluminum with a high grade powder coat finish. Includes liquid tight plug for cord entry and a zinc plated steel base with a high grade powdercoat finish and an anchor bolt kit. The base is secured to the post by four (4) tamper resistant, stainless steel flat head screws and the base is mounted to the ground by four (4) anchor bolts and eight (8) nuts and washers. Note: A solid foundation for installation is recommended. Post can accommodate daisy chain and through wiring.

Head

Constructed from a two (2) piece high grade die cast aluminum with a high grade powder coat finish. Includes a clear tempered glass lens (sits flush to the head), LED array, reflector, LED driver, silicone gasket and a hole with liquid tight plugs for cord to exit the post. The two piece housing is secured together by four (4) tamper resistant stainless steel set screws and is secured to the post by two stainless steel screws.

Lumen Maintenance

Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results. See ordering guide for delivered lumens.

Thermal Management

Effective thermal dissipation facilitated by integral cast-aluminum, heat sink design for maximum heat rejection to provide long LED life.

Electrical

LED driver, 120VAC, 50/60Hz, electronic Constant Current, Class 2, Power Factor > .90pf, integrally mounted.

Certifications and Listings



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

Note: Dark Sky compliant.

SPECIFICATION (Continued)

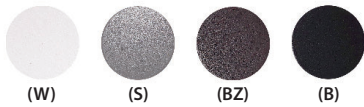
Caution

LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 60 degrees C. Doing so will result in reduced lamp life and voided warranty.

Finish



Available in Black, White, Bronze, and Silver.

LED



Turtle Safe 590nm Amber.

PHOTOMETRY

BL721-20B-TAM-LVR

System Power	: 16.5W
Test Date	: 04/20/2020
Beam Angle 50%	: 56.8° H / 38.9° V
Field Angle 10%	: 93.5° H / 59.4° V
Nanometers (nm) (Amber)	: 590nm
Lumens Delivered	: 81.0
CBCP	: 105
Power Factor	: 0.98

Statistics:

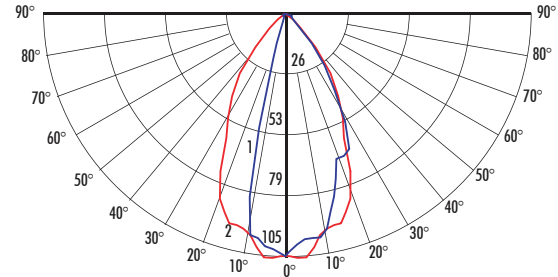
Description	Bollard Symbol	FC loc. Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	○	+	6.4fc	58.5fc	0.00fc	500+	16.1

+0.0	+0.1	+0.0	+0.0	+0.1	+0.0
+0.1	+0.4	+0.1	+0.1	+0.4	+0.0
+0.3	⊕58.5	+0.4	+20.8	⊕58.5	+0.3

NOTES:

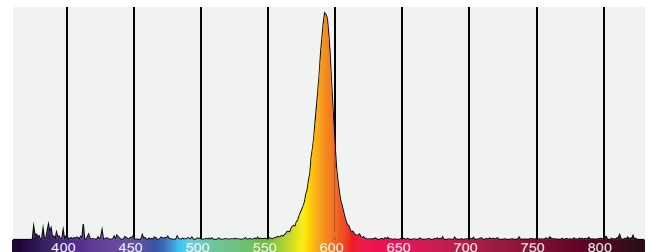
1. On center spacing: 6 ft
2. Distance between fc reading: 2 ft

CANDELA TABULATION



Maximum Candela = 75 Located At Horizontal Angle = 0, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
 # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

SPECTRAL DISTRIBUTION

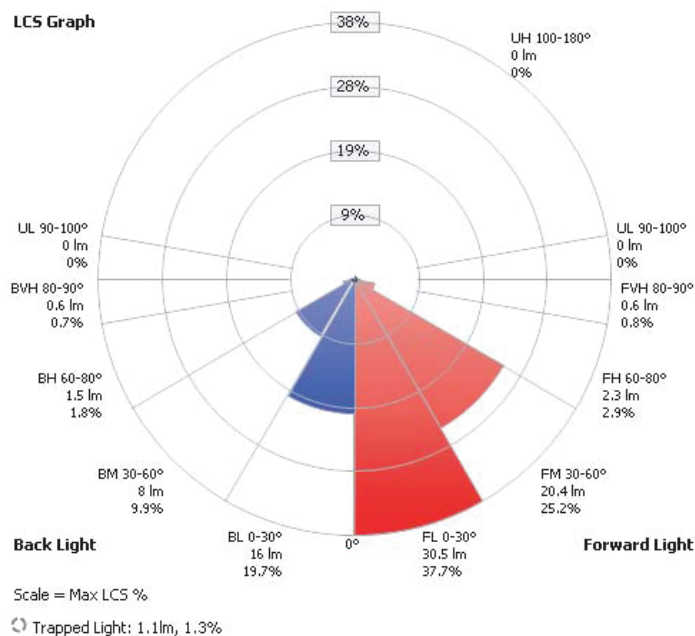


Nanometers (nm) (Amber): 590nm

LCS TABLE

BUG Rating	B0 - U1 - G0	
Forward Light	Lumens	Lumens %
Low (0-30):	30.5	37.70%
Medium (30-60):	20.4	25.20%
High (60-80):	2.3	2.90%
Very High (80-90):	0.6	0.80%
Back Light		
Low (0-30):	16.0	19.70%
Medium (30-60):	8	9.90%
High (60-80):	1.5	1.80%
Very High (80-90):	0.6	0.70%
Up Light		
Low (90-100):	0	0.00%
High (100-180):	0	0%
Trapped Light:	1.1	1%

LCS Graph



PHOTOMETRY (Continued)

BL721-40B-TAM-LVR

System Power	:16.5W
Test Date	:04/20/2020
Beam Angle 50%	:56.8° H / 38.9° V
Field Angle 10%	:93.5° H / 59.4° V
Nanometers (nm) (Amber)	:590nm
Lumens Delivered	:81.0
CBCP	:105
Power Factor	:0.98

Statistics:

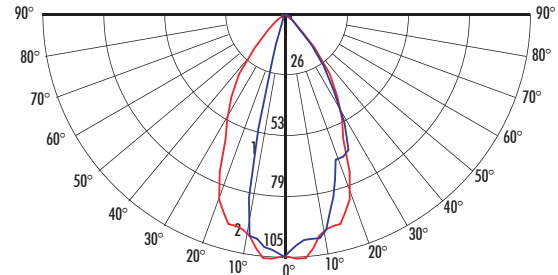
Description	Bollard Symbol	FC loc. Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	○	+	1.6fc	11.7fc	0.00fc	389	93.7

+0.0	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.1	+0.0
+0.1	+0.9	+2.3	+0.9	+0.1	+0.9	+2.3	+0.9	+0.1
+0.1	+2.6	⊕11.7	+2.6	+0.2	+2.6	⊕11.7	+2.6	+0.1

NOTES:

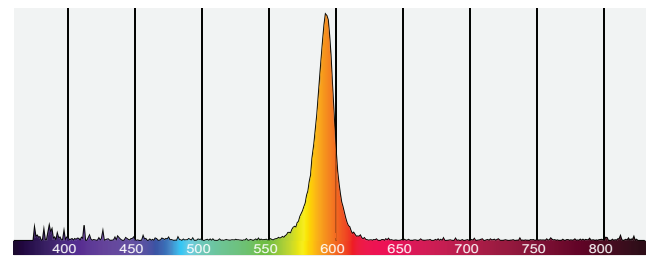
1. On center spacing: 8 ft
2. Distance between fc reading: 2 ft

CANDELA TABULATION



Maximum Candela = 75 Located At Horizontal Angle = 0, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
 # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

SPECTRAL DISTRIBUTION

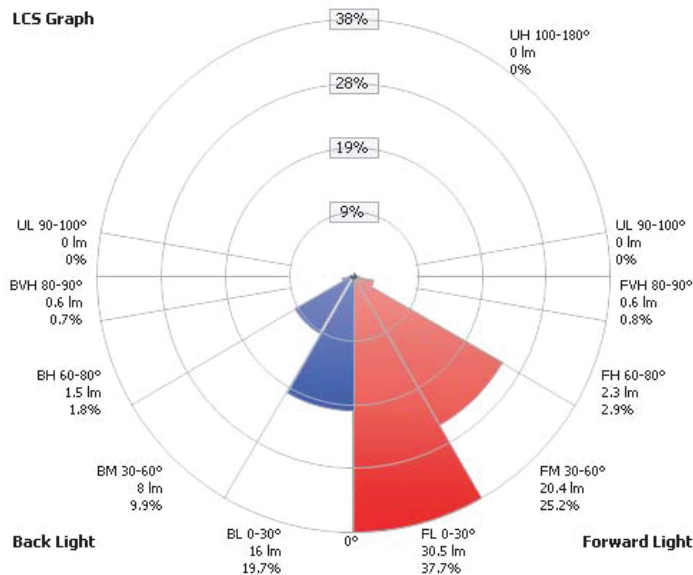


Nanometers (nm) (Amber): 590nm

LCS TABLE

BUG Rating	B0 - U1 - G0	
Forward Light	Lumens	Lumens %
Low (0-30):	30.5	37.70%
Medium (30-60):	20.4	25.20%
High (60-80):	2.3	2.90%
Very High (80-90):	0.6	0.80%
Back Light		
Low (0-30):	16.0	19.70%
Medium (30-60):	8	9.90%
High (60-80):	1.5	1.80%
Very High (80-90):	0.6	0.70%
Up Light		
Low (90-100):	0	0.00%
High (100-180):	0	0%
Trapped Light:	1.1	1%

LCS Graph



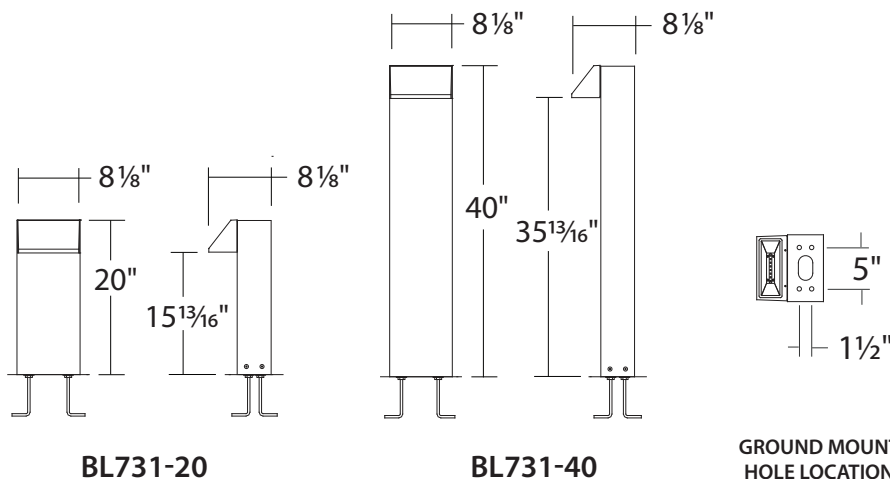
Scale = Max LCS %
 ☉ Trapped Light: 1.1lm, 1.3%

BL731 : 8"x4" TRAPEZOID BOLLARD

(IP65) - 590NM - AMBER (TURTLE SAFE) (15W)



- Sleek architectural design
- Durable, corrosion resistant finish
- 5-year limited warranty



Turtle Safe Requirements:

LOW: The product is designed for low to medium ceiling heights and delivered lumen output is sufficient to produce enough foot-candles to satisfy building codes but not overpower the environment with excessive lumen output.

SHIELDED: The trim is deeply recessed and provides a minimum of 50° of glare cutoff. The trim reflector color is black to limit reflections. The beam spread is tightly controlled.

LONG: LED color is verified as 585nm minimum and 595nm maximum.

ORDERING : BL731-20B-TAM-LVR

BL731						
Fixture		Height	Finish	Lens		LED
Height		Finish		Lens		LED
20"	-20	Black	B	Clear	Blank	590nm Amber -TAM-LVR ²
40"	-40	White	W ¹	Frosted	-FR	
		Bronze	BZ ¹			
		Silver	S ¹			

¹Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult factory.

²Special Order. Minimum Order. Extended lead time may apply. Consult factory.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This single head bollard is designed for outdoor applications where a Dark Sky compliant illumination is required. Bollards are used to light walkways, public gathering spaces, gardens, along waterfronts and marinas and other public and private areas.

Post

High grade rectangular extruded aluminum with a high grade powder coat finish. Includes liquid tight plug for cord entry and a zinc plated steel base with a high grade powdercoat finish and an anchor bolt kit. The base is secured to the post by four (4) tamper resistant, stainless steel flat head screws and the base is mounted to the ground by four (4) anchor bolts and eight (8) nuts and washers. Note: A solid foundation for installation is recommended. Post can accommodate daisy chain and through wiring.

Head

Constructed from a two (2) piece high grade die cast aluminum with a high grade powder coat finish. Includes a clear tempered glass lens (sits flush to the head), LED array, reflector, LED driver, silicone gasket and a hole with liquid tight plugs for cord to exit the post. The two piece housing is secured together by four (4) tamper resistant stainless steel set screws and is secured to the post by two stainless steel screws.

Lumen Maintenance

Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results. See ordering guide for delivered lumens.

Thermal Management

Effective thermal dissipation facilitated by integral cast-aluminum, heat sink design for maximum heat rejection to provide long LED life.

Electrical

LED driver, 120VAC, 50/60Hz, electronic Constant Current, Class 2, Power Factor > .90pf, integrally mounted.

Certifications and Listings



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

Note: Dark Sky compliant.

BL731 : 8"x4" TRAPEZOID BOLLARD

(IP65) - 590NM - AMBER (TURTLE SAFE) (15W)

SPECIFICATION (Continued)

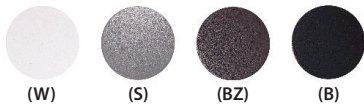
Caution

LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 60 degrees C. Doing so will result in reduced lamp life and voided warranty.

Finish



Available in Black, White, Bronze, and Silver.

LED



Turtle Safe 590nm Amber.

BL731 : 8"x4" TRAPEZOID BOLLARD

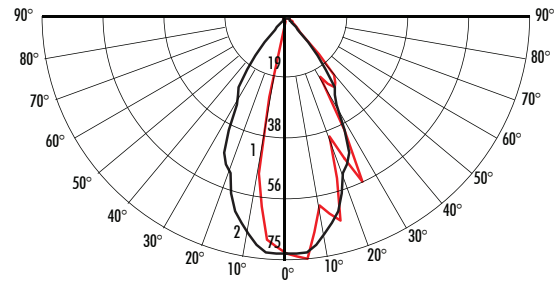
(IP65) - 590NM - AMBER (TURTLE SAFE) (15W)

PHOTOMETRY

BL731-20B-TAM-LVR

System Power	:9.7W
Test Date	:11/7/2019
Beam Angle 50%	:52.2° H / 38.8° V
Field Angle 10%	:88° H / 60.6° V
Nanometers (nm) (Amber)	:590nm
Lumens Delivered	:51.17
CBCP	:75
Power Factor	:0.98

CANDELA TABULATION

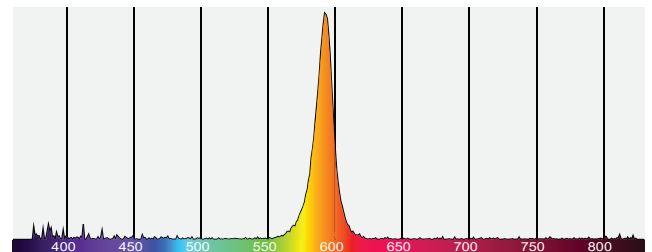


Maximum Candela = 75 Located At Horizontal Angle = 0, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
 # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

Statistics:

Description	Bollard Symbol	FC loc. Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	○	+	3.0fc	20.8fc	0.10fc	500+	76.00

SPECTRAL DISTRIBUTION



Nanometers (nm) (Amber): 590nm

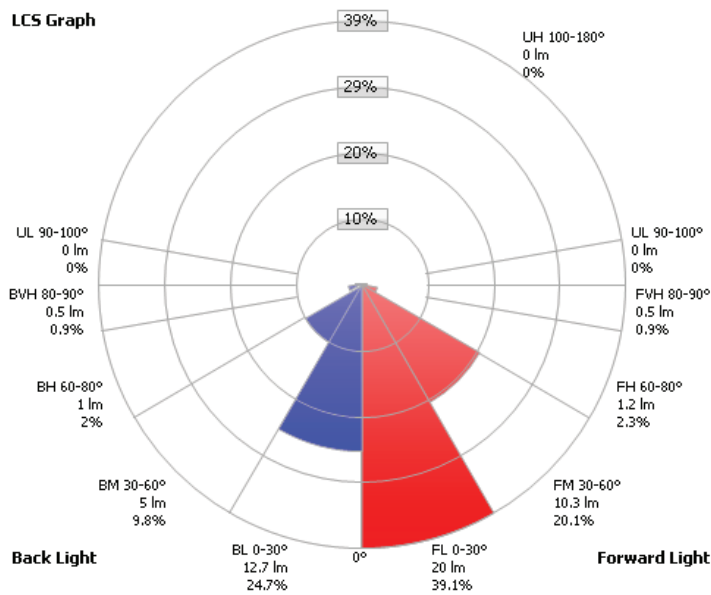
NOTES:

1. On center spacing: 4 ft
2. Distance between fc reading: 2 ft

LCS TABLE

BUG Rating	B0 - U1 - G0	
Forward Light	Lumens	Lumens %
Low (0-30):	20	39.10%
Medium (30-60):	10.3	20.10%
High (60-80):	1.2	2.30%
Very High (80-90):	0.5	0.90%
Back Light		
Low (0-30):	12.7	24.70%
Medium (30-60):	5	9.80%
High (60-80):	1	2.00%
Very High (80-90):	0.5	0.90%
Up Light		
Low (90-100):	0	0.00%
High (100-180):	0	0%
Trapped Light:	0.1	0%

LCS Graph



Scale = Max LCS %
 Trapped Light: 0.1lm, 0.2%

BL731 : 8"x4" TRAPEZOID BOLLARD

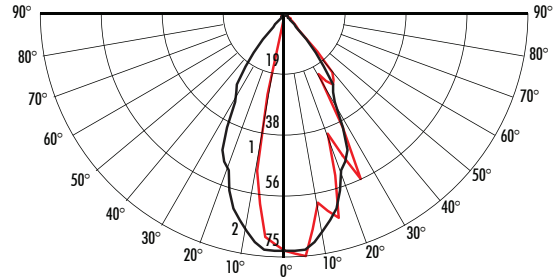
(IP65) - 590NM - AMBER (TURTLE SAFE) (15W)

PHOTOMETRY (Continued)

BL731-40B-TAM-LVR

System Power	:9.7W
Test Date	:11/7/2019
Beam Angle 50%	:52.2° H / 38.8° V
Field Angle 10%	:88° H / 60.6° V
Nanometers (nm) (Amber)	:590nm
Lumens Delivered	:51.17
CBCP	:75
Power Factor	:0.98

CANDELA TABULATION



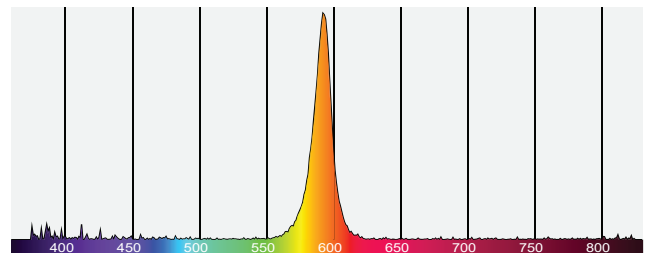
Maximum Candela = 75 Located At Horizontal Angle = 0, Vertical Angle = 5
 # 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
 # 2 - Vertical Plane Through Horizontal Angles (90 - 270)

Statistics:

Description	Bollard Symbol	FC loc. Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #1	○	+	1.1fc	8.5fc	0.10fc	412	55.00

+0.0	+0.0	+0.1	+0.0	+0.0	+0.0	+0.1	+0.0	+0.0
+0.0	+0.4	+1.6	+0.4	+0.1	+0.4	+1.6	+0.4	+0.0
+0.1	+1.7	⊕8.2	+1.8	+0.2	+1.8	⊕8.2	+1.7	+0.1

SPECTRAL DISTRIBUTION



Nanometers (nm) (Amber): 590nm

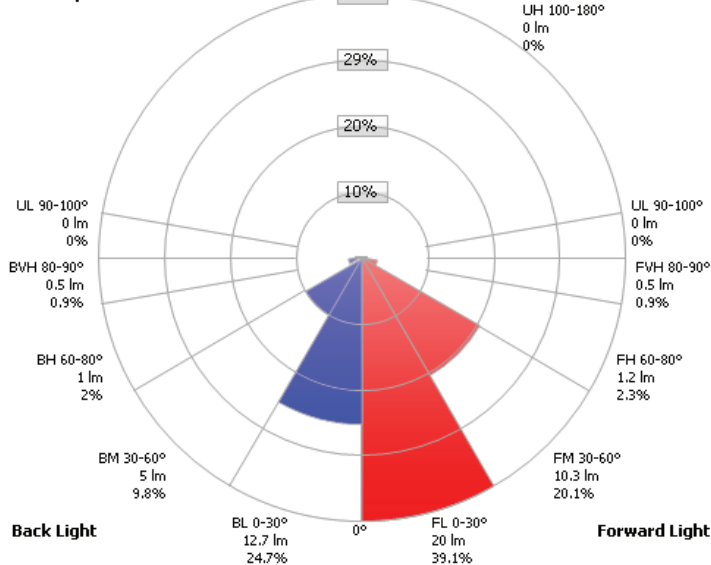
NOTES:

1. On center spacing: 8 ft
2. Distance between fc reading: 2 ft

LCS TABLE

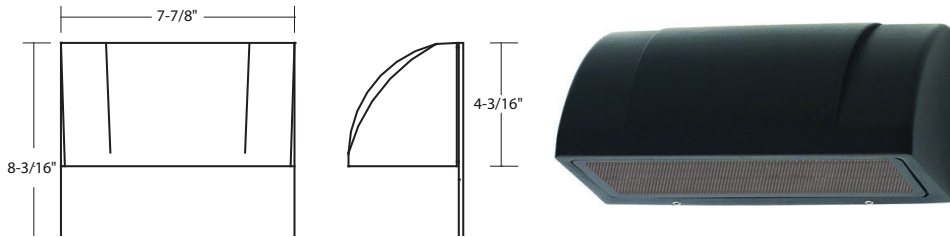
BUG Rating	B0 - U1 - G0	
Forward Light	Lumens	Lumens %
Low (0-30):	20	39.10%
Medium (30-60):	10.3	20.10%
High (60-80):	1.2	2.30%
Very High (80-90):	0.5	0.90%
Back Light		
Low (0-30):	12.7	24.70%
Medium (30-60):	5	9.80%
High (60-80):	1	2.00%
Very High (80-90):	0.5	0.90%
Up Light		
Low (90-100):	0	0.00%
High (100-180):	0	0%
Trapped Light:	0.1	0%

LCS Graph



WD1472 : 8" x 4" SCOOP

1-DIRECTIONAL WALL MOUNT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Wildlife Lighting Approved
- True Amber Narrow Wavelength 590nm LED
- Now with Integral Emergency Option!
- Sleek architectural design
- Durable, corrosion resistant finish
- Emergency back up available
- 5-year limited warranty

ORDERING : WD1472B-FRUE-D10-TAM-LVR-BIV-EMAC

WD1472

Fixture	Finish	Lens	Dimming	LED	Optics	Emergency Options	Options		
Finish			Dimming		LED		Emergency Options		
White	(RAL 9003) W	Blank	Non-Dimming (120V)	Blank	590nm AMBER	-TAM-LVR	None	Blank	
Silver	(RAL 7037) S		ELV and Triac Dimming (120V)				Remote	-EMAC	
Bronze	(RAL 8019) BZ		0-10V Dimming (120V/277V)	-DIN	Optics	Back Pack (Side Mount)	-EMB-SD²		
Black	(RAL 9005) B							None	Blank
Light Silver	(RAL 7036) LS²							Forward Throw (Type IV)	-BIV
Dark Grey	(RAL 7015) DG²		0-10V 1% Dimming (120V/277V)	UE-D10P1	Wall Wash	-BWW	Back Pack (Empty)	-EMB-BLANK^{2,3}	
Metallic Gold	(RAL 1001) MG²								
Metallic Black	(RAL 7021) MB²	UniDim™ (120V/277V)	UE-DUN						
Lens		347V 0-10V Dimming	-347-D10¹	Options					
Clear	Blank	None						Blank	
Frosted	-FR	Photocell Sensor						-SDL	
							Signage Plate	-PL¹	

¹ Special order. Minimum order quantity, extended lead time, and setup fee may apply. Consult factory.

² Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

³ Blank EM enclosure available for Non-EM units to provide a seamless design aesthetic when EM enabled products are installed.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This WD1 series single direction wall mount luminaire can be used for both interior and outdoor locations. The single reflector design can be used for direct illumination downward or indirect illumination upward for new construction or retrofit installations. Typical locations are in residential, commercial, and architectural facades and retail spaces that contain walls and/or columns.

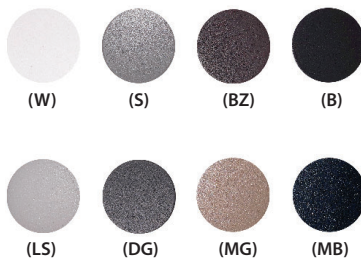
Housing

Constructed from two (2) pieces of high grade die cast aluminum with a high grade powder coat finish. Includes a faceplate with a tempered glass lens (sits flush to the housing), LED array, reflector, LED driver, silicone gasket and a wire exit hole to junction box wiring. The two piece housing is secured together by four (4) tamper resistant stainless steel set screws.

Mounting:

The fixture mounts on to a wall directly over standard 3-1/2" junction box or other similar size junction boxes.

Finish:



A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)

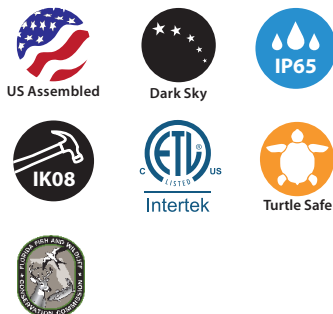
Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

IK08 rated for impact resistance.

Certified by the Florida Fish and Wildlife Conservation Commission as Wildlife Lighting Approved.

SPECIFICATION (Continued)

Caution: LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 50°C/122°F. Doing so will result in reduced lamp life and voided warranty.

Optics

The one piece, heavy-gauge aluminum reflector with deeply mounted LEDs provides 50° visual cutoff for a glare-free appearance.

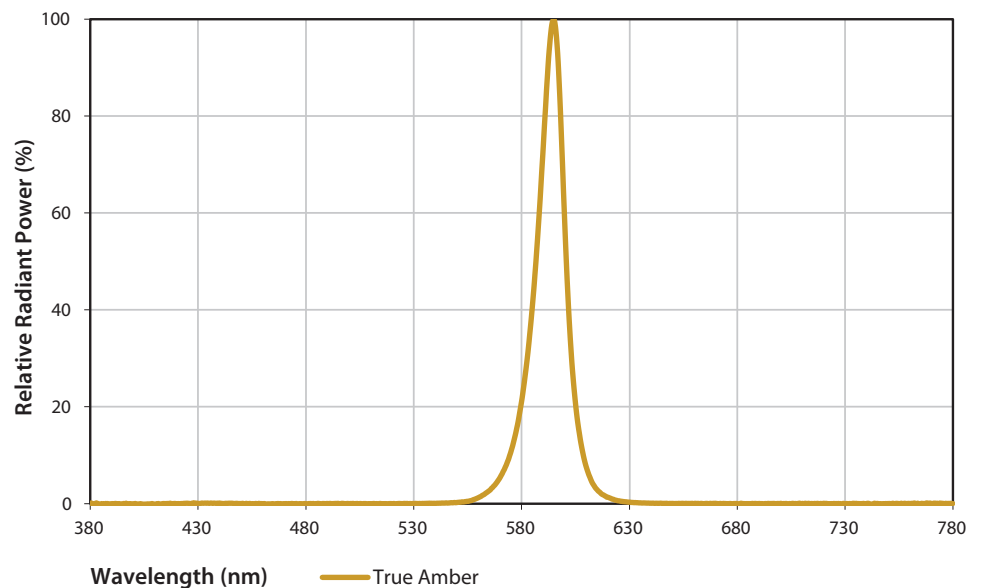
LED

Linear LED light source provides for smooth, uniform light output.

Lumen Maintenance: Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal): 250lm (22W)

Color Temperature: Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single enclosure.

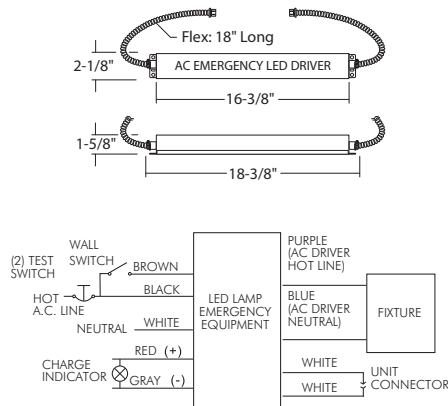
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

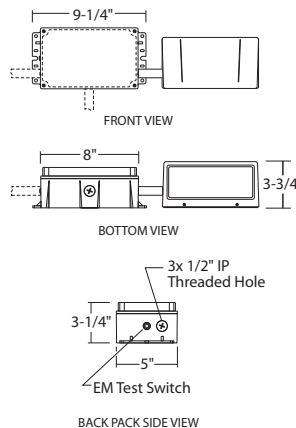


Output Power:	25 Watts (Max)
Input Power:	6 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	100-277 VAC, 50-60Hz
Battery:	High Temp Nickel-Cadmium 48 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3 lbs.
Warranty:	2-year
Surge Protection:	None

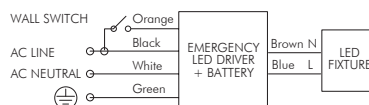
Back Pack Side Mount (-EMB-SD/FC):

Eliminates need for long runs back to remote emergency battery location. Installs directly on building surface. Ideal for locations wanting same mounting aesthetics for Emergency and Non-Emergency fixtures without the use of remote Emergency power. Can be fed from recessed wall mounted junction box from the back of fixture or surface conduit from side of fixture.

- Wet location rated
- 120V-347V operation
- Self diagnostic
- Integral surge protector for emergency driver only
- Includes (2) 1/2" NPT knock-outs
- Optional -EMB-BLANK can be used to maintain a common aesthetic when -EMB-FC are used.



Output Power:	30 Watts (Max)
Input Power:	76 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	120V-347 VAC
Battery:	Recyclable lithium battery 24 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3-3/4 lbs.
Warranty:	5-year
Surge Protection:	Integral 3,000V
Self-diagnostic testing:	Monthly 30 sec. test, Yearly 90 min. test to verify proper emergency operation per life safety code requirements.



SPECIFICATION (Continued)

Additional Options

Photocell Sensor (-SDL):



Allows for energy savings when illumination is not need during between dawn to dusks.
Cuts off power to LED's during day time or in illuminated environments.

Power Consumption .5W

Voltage: 120V, 277V

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2-Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.

Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature

Standard: -10°C/14°F

SPECIFICATION (Continued)

Dimming Options

ELV and TRIAC Driver 120V (-DIN):

Compatible with electronic low voltage, and 2-Wire incandescent dimmers. Also known as leading edge, Reverse Phase, Forward Phase dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations.

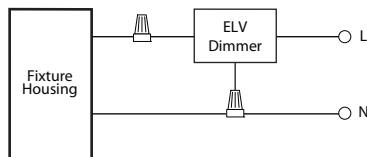
0-10V Driver 120V/277V (UE-D10):

Compatible with most existing 0-10V systems. Also known as fluorescent or 5-Wire dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations. Compatible with daylight harvesting controls.

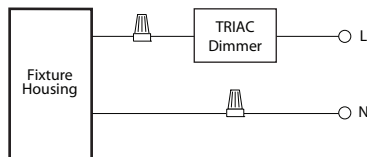
UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

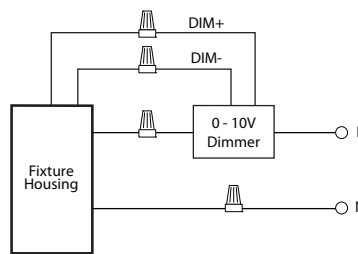
Incandescent/Phase Wiring
ELV



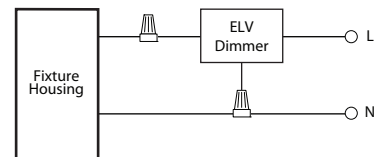
TRIAC



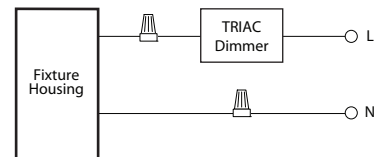
0 - 10V Wiring



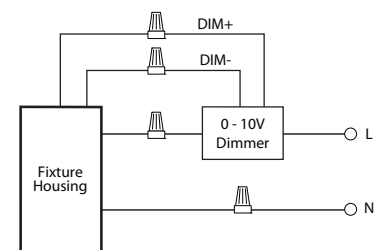
Incandescent/Phase Wiring
ELV



TRIAC

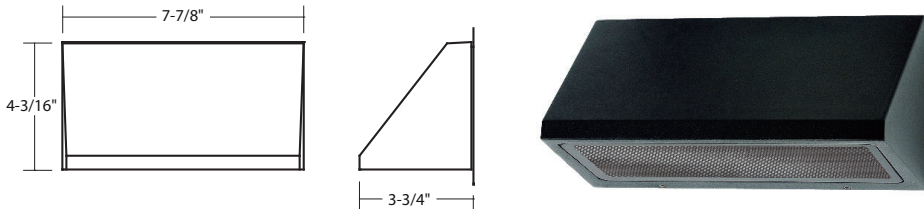


0 - 10V Wiring



|WD1473 : 8" x 4" TRAPEZOID

1-DIRECTIONAL WALL MOUNT (IP65) AMBER (TURTLE SAFE) 250LM (22W)



- Now with Integral Emergency Option!
- Sleek architectural design
- Durable, corrosion resistant finish
- Emergency back up available
- 5-year limited warranty

ORDERING : WD1473W-FR-DIN-TAM-LVR-BWW-EMB-FC-SDL

WD1473

Fixture	Finish	Lens	Dimming	LED	Optics	Emergency Options	Options	
Finish		Dimming			LED		Emergency Options	
White	(RAL 9003) W	Blank	Non-Dimming (120V)	Blank	590nm AMBER	-TAM-LVR	None	Blank
Silver	(RAL 7037) S		ELV and Triac Dimming (120V)	-DIN	Optics		Remote	-EMAC
Bronze	(RAL 8019) BZ				None	Blank	Back Pack (Side Mount)	-EMB-SD²
Black	(RAL 9005) B		0-10V Dimming (120V/277V)	UE-D10	Forward Throw (Type IV)	-BIV	Back Pack (Face Mount)	-EMB-FC²
Light Silver	(RAL 7036) LS²		0-10V 1% Dimming (120V/277V)	UE-D10P1	Wall Wash	-BWW	Back Pack (Empty)	-EMB-BLANK^{2,3}
Dark Grey	(RAL 7015) DG²		UniDim™ (120V/277V)	UE-DUN	Options			
Metallic Gold	(RAL 1001) MG²	Blank	347V 0-10V Dimming	-347-D10¹				
Metallic Black	(RAL 7021) MB²							
Lens								
Clear	Blank							
Frosted	-FR							
						Photocell Sensor	-SDL	
						Signage Plate	-PL¹	

¹ Special order. Minimum order quantity, extended lead time, and setup fee may apply. Consult factory.

² Special Order Finish. Minimum order quantity (MOQ) applies. Orders less than MOQ are subject to a special paint set-up fee for the quantity ordered. Extended lead times may apply. Consult Factory.

³ Blank EM enclosure available for Non-EM units to provide a seamless design aesthetic when EM enabled products are installed.

Custom RAL Color: Please note that we appreciate custom finishes. Custom finishes are subject to a special paint setup fee for the quantity ordered. Extended lead times may apply. Consult Factory.

SPECIFICATION

Application

This WD1 series single direction wall mount luminaire can be used for both interior and outdoor locations. The single reflector design can be used for direct illumination downward or indirect illumination upward for new construction or retrofit installations. Typical locations are in residential, commercial, and architectural facades and retail spaces that contain walls and/or columns.

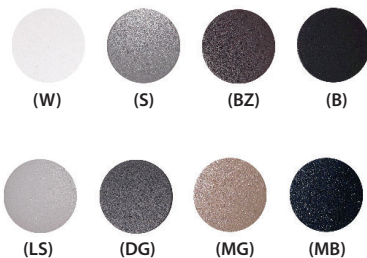
Housing

Constructed from two (2) pieces of high grade die cast aluminum with a high grade powder coat finish. Includes a faceplate with a tempered glass lens (sits flush to the housing), LED array, reflector, LED driver, silicone gasket and a wire exit hole to junction box wiring. The two piece housing is secured together by four (4) tamper resistant stainless steel set screws.

Mounting:

The fixture mounts on to a wall directly over standard 3-1/2" junction box or other similar size junction boxes.

Finish:



A 7-stage electrostatic, polymer process provides an outdoor textured powder coat finish that delivers outstanding durability, superior anti-aging, resistance to corrosion and UV-degradation. Consult factory for Custom Color. (More Information)

Standard Finishes:

White: RAL 9003 (W)
Silver: RAL 7037 (S)
Bronze: RAL 8019 (BZ)
Black: RAL 9005 (B)

Special Order Finishes:

Light Silver: RAL 7036 (LS)
Dark Gray: RAL 7015 (DG)
Metallic Gold: RAL 1001 (MG)
Metallic Black: RAL 7021 (MB)

Certifications and Listings:



ETL / cETL Listed to UL1598 and UL8750 standards.

Suitable wet locations. (IP65)

Assembled in USA.

IK08 rated for impact resistance.

Certified by the Florida Fish and Wildlife Conservation Commission as Wildlife Lighting Approved.

SPECIFICATION (Continued)

Caution:

LITON recommends use of surge protectors on the power entering LED Housings.
Surge damage is not covered by warranty.

Warranty

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship.
Fixture should not be installed in applications with ambient temperature above 50°C/122°F.
Doing so will result in reduced lamp life and voided warranty.

Optics

The one piece, heavy-gauge aluminum reflector with deeply mounted LEDs provides 50° visual cutoff for a glare-free appearance.

LED

Linear LED light source provides for smooth, uniform light output.

Lumen Maintenance:

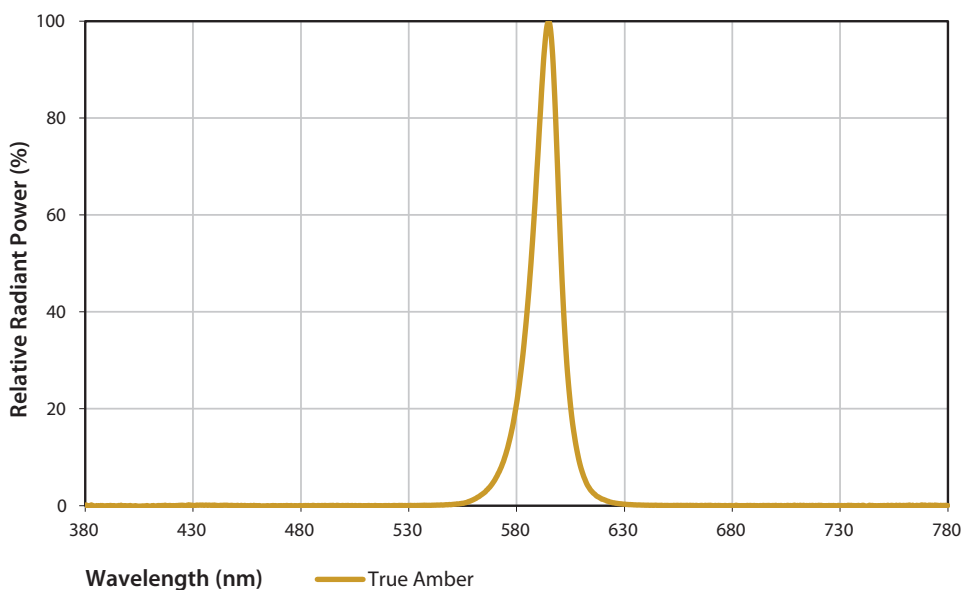
Lumen Maintenance is a minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results.

Lumen Options (Nominal):

250lm (22W)

Color Temperature:

Binned with 4-step MacAdam ellipses as per ANSI Standard recommendation.



True Amber - Narrow Band LEDs centered at 590nm with no spectral content below 560nm are supplied.

SPECIFICATION (Continued)

Emergency Options

When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single enclosure.

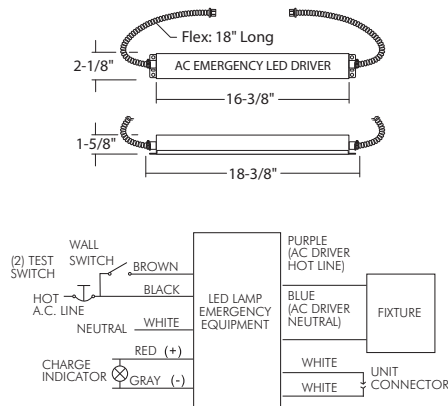
Remote Emergency Back Up (-EMAC):

For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

Not rated for outdoor mounting.

Damp location rated.

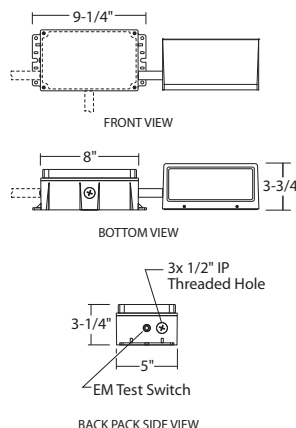
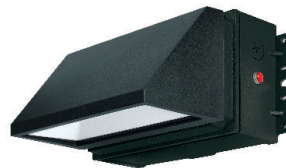


Output Power:	25 Watts (Max)
Input Power:	6 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	100-277 VAC, 50-60Hz
Battery:	High Temp Nickel-Cadmium 48 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3 lbs.
Warranty:	2-year
Surge Protection:	None

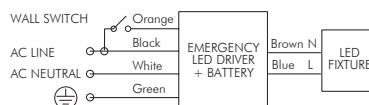
Back Pack Side Mount (-EMB-SD/FC):

Eliminates need for long runs back to remote emergency battery location. Installs directly on building surface. Ideal for locations wanting same mounting aesthetics for Emergency and Non-Emergency fixtures without the use of remote Emergency power. Can be fed from recessed wall mounted junction box from the back of fixture or surface conduit from side of fixture.

- Wet location rated
- 120V-347V operation
- Self diagnostic
- Integral surge protector for emergency driver only
- Includes (2) 1/2" NPT knock-outs
- Optional -EMB-BLANK can be used to maintain a common aesthetic when -EMB-FC are used.



Output Power:	30 Watts (Max)
Input Power:	76 Watts (Max)
Emergency Operation:	≥90 minutes
Operating temp:	0°C/32°F to 50°C/122°F
Input Voltage:	120V-347 VAC
Battery:	Recyclable lithium battery 24 Hour Recharge 7-10 Year Life Expectancy
Charge Time:	24 hours
Max Distance:	25'
Weight:	3-3/4 lbs.
Warranty:	5-year
Surge Protection:	Integral 3,000V
Self-diagnostic testing:	Monthly 30 sec. test, Yearly 90 min. test to verify proper emergency operation per life safety code requirements.



SPECIFICATION (Continued)

Additional Options

Photocell Sensor (-SDL):



Allows for energy savings when illumination is not need during between dawn to dusks.
Cuts off power to LED's during day time or in illuminated environments.

Power Consumption .5W

Voltage: 120V, 277V

On/Off Levels: On @ 0-2fc / Off @ 2fc or more

Warranty: 2-Year / 5,000 Cycles

Sensor Size: 3/8"

Rating: UL/cUL

Electrical

LED Driver: AC 50/60Hz Electronic Direct Current Class 2 driver integrally mounted.

Power Factor > 0.90. See Dimming Section for voltage and wiring.

Minimum Operating Temperature

Standard: -10°C/14°F

SPECIFICATION (Continued)

Dimming Options

ELV and TRIAC Driver 120V (-DIN):

Compatible with electronic low voltage, and 2-Wire incandescent dimmers. Also known as leading edge, Reverse Phase, Forward Phase dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations.

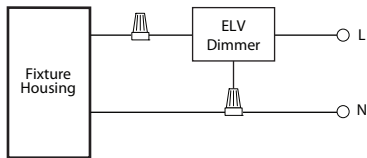
0-10V Driver 120V/277V (UE-D10):

Compatible with most existing 0-10V systems. Also known as fluorescent or 5-Wire dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations. Compatible with daylight harvesting controls.

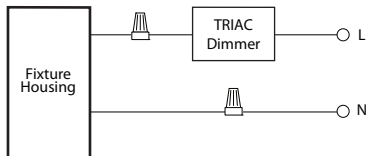
UniDim™ Driver 120V/277V (UE-DUN):

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

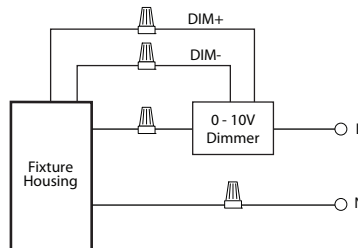
Incandescent/Phase Wiring
ELV



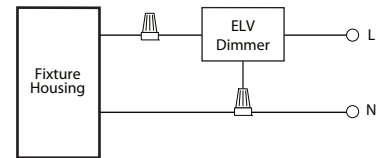
TRIAC



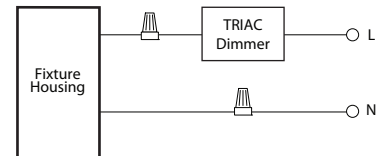
0 - 10V Wiring



Incandescent/Phase Wiring
ELV



TRIAC



0 - 10V Wiring

