GARDCO by signify

Floodlighting

Designer flood LED

DFL7, DFC7 floodlight

Project:

Location:

Cat.No:

Type:

Lumens: Qty:

Notes:

Gardco Designer floodlight LED is an architectural LED flood luminaire with a choice of numerous precision LED optical systems. Each is designed to provide a specific distribution, minimizing stray light. Designer Floodlight LED luminaires outperform comparable HID units, while providing the energy saving benefits of LED technology. The luminaires feature integral LED thermal fins to provide the thermal control so vital to LED system performance and life.

Ordering guide

example: DFL7-A33-32L-900-NW-G2-UNV-DGY-SP2

Prefix	Distribution	Number of LEDS	Drive Current	Color Temperature	Voltage	Finish	Options
DFL7 Designer Floodlight LED 7" with Standard Flat Door **DFC7** Designer Floodlight LED 7" with Standard Cutoff Hood	**SP** Spot (12° round) (NEMA 2x2) **RSP** Rectangular Spot (NEMA 3x3) **RM** Rectangular Medium Flood (NEMA 7x4) **RN** Rectangular Narrow Flood (NEMA 7x5) **A33** Asymmetric 33° Flood (NEMA 6x5)	**16L** 16 LEDS **32L** 32 LEDS	**350** 350mA **530** 530mA **700** 700mA **900** 900mA **1A** 1 Amp **1.2A** 1.2 Amp	**CW-G2** Cool White 5000K, 70 CRI Generation 2 **NW-G2** Neutral White 4000K, 70 CRI Generation 2 **WW-G2** Warm White 3000K, 70 CRI Generation 2	**UNV** 120-277V (50/60Hz) **HVU** 347-480V (50/60Hz) **120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V	**Textured** **BK** Black **WH** White **BZ** Bronze **DGY** Dark Gray **MGY** Medium Gray **Customer specified** **RAL** Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) **CC** Custom color (Must supply color chip for required factory quote)	**none** Leave blank **DD**[4] 0-10V Dimming Driver (controls by others) **PCB**[1,4] Photocontrol Button **PSO**[3] Offset Polycarbonate Flat Shield **ESB** Extended Splice Box (can be used with all Mounting Accessories) **WG**[2] Wire Guard **Fusing** **none** Leave blank **F1**[1] Single (120, 277, 347VAC) **F2**[1] Double (208, 240, 480VAC) **F3**[1] Canadian Double Pull (208, 240, 480VAC) **Surge Protection** **blank** 10kV / 10kA (standard) **SP2** 20kV / 10kA (option)

1. Must specify applicable specific input voltage, not available with UNV or HVU. PCB only available with 120V, 208V, 240V, 277V.
2. WG not Available with PSO option. Field Installable.
3. Additional flat Polycarbonate shield. PSO not available with WG option. Field installable.
4. Choose either DD or PCB. For DD the 0-10V dimming wires exit the luminaire for dimming controls by others.

DFL7/DFC7 Designer Flood LED

7" floodlights

Mounting Accessories[1]

(order separately, field installed, specify finish at placeholder F)

–	Leave blank (no Mounting option; Floodlight fits directly on 1-1/2" (1.9" or 48.3mm O.D.) rigid conduit)
C RIGID CONDUIT MT (F)	Stub-up Rigid Conduit Mount. For direct mounting to (2) 1/2" (1.27cm) or 3/4" (1.91cm) rigid conduit such as GRC Galvanized Rigid Steel Conduit, IMC Intermediate Metal Conduit, etc. No j-box required. Must use factory supplied mounting insert when setting stub-ups.
J J-BOX MT (F)	J-Box Mount. For mounting onto weather-proof J-box (by others)
W WALL/CEIL. MT (F)	Wall/Ceiling Canopy Mount. For mounting over (not to) a 4" recessed outlet box. When mounted on vertical surface, provides vertical aiming from straight down to 100° up from nadir. When mounted on a vertical surface, long axis of luminaire must be horizontal (+/-30°). Mounts directly to wall or ceiling. The surface structure must be suitable to support the luminaire. Only suitable for use on non-combustable surfaces.
WMB WALL MT BULLHORN (F)	Wall Mount Bullhorn. For mounting over (not to) a 4" (10.16cm) recessed outlet box. Provides full axial 180° vertical and 358° rotational aiming. Mounts direct to wall. Surface structure must be suitable to support the assembly. Outer end of WMB must be in the "straight up" position, as shown in diagram on page 3. Luminaire mounts with the knuckle below the body of the luminaire only.
W90 WALL ARM MT (F)	Wall Arm Mount. For mounting over (not to) a 4" (10.16cm) recessed outlet box. Provides full axial 180° vertical and 358° rotational aiming range. Mounts direct to wall. Surface structure must be suitable to support the luminaire. When mounted in wet locations, luminaire must be mounted as shown in diagrams on page 3. In damp or dry locations, arm assembly may be inverted.

1. Consult Signify to confirm whether specific accessories are BAA-compliant.

Additional Mounting Accessories[1]

(order separately, field installed, specify finish at placeholder F)

ST 18" STANCHION (F)	Stanchion Mount. 18" (45.72cm) high stanchion for in-ground concrete burial mounting.
ST/SM 18" (F)	Surface Mount Stanchion. For mounting to 18" (45.72cm)high stanchion pole assembly.
PTA (F)	Pole top 2-3/8" (6.03cm) tenon adapter
TAB TWIN ARM BRKT (F)	Twin arm bracket for use with ST, SM, or PTA
PT2 DUAL HEAD ADPTR (F)	Pole top 2-3/8" (6.03cm) tenon adapter for twin back to back luminaire mounting.

1. Consult Signify to confirm whether specific accessories are BAA-compliant.

LED Wattage and Lumen Values – 3000K

Ordering Codes	Total LEDs	LED Current (mA)	Color Temp. (K)	Avgerage System Wattage	SP		RSP		RM		RN		A33	
					Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
DFC7 or DFL7-16L-350-WW-G2	16	350	3000	20	2,747	137	2,487	124	2,550	128	2,574	129	2,637	132
DFC7 or DFL7-16L-530-WW-G2	16	530	3000	28	3,599	129	3,258	116	3,339	119	3,372	120	3,453	123
DFC7 or DFL7-16L-700-WW-G2	16	700	3000	38	4,399	117	3,983	106	4,083	108	4,122	109	4,223	112
DFC7 or DFL7-16L-900-WW-G2	16	900	3000	47	5,352	113	4,846	102	4,967	105	5,015	106	5,138	108
DFC7 or DFL7-16L-1050-WW-G2	16	1050	3000	55	6,066	109	5,492	99	5,629	101	5,684	102	5,823	105
DFC7 or DFL7-16L-1200-WW-G2	16	1200	3000	62	6,760	109	6,120	99	6,274	101	6,335	102	6,489	104
DFC7 or DFL7-32L-350-WW-G2	32	350	3000	36	5,463	152	4,946	137	5,070	141	5,119	142	5,243	146
DFC7 or DFL7-32L-530-WW-G2	32	530	3000	54	7,220	134	6,537	121	6,700	124	6,765	125	6,930	128
DFC7 or DFL7-32L-700-WW-G2	32	700	3000	71	8,880	126	8,039	114	8,240	117	8,320	118	8,522	121
DFC7 or DFL7-32L-900-WW-G2	32	900	3000	90	10,832	120	9,807	108	10,052	111	10,150	112	10,397	115

LED Wattage and Lumen Values – 4000K

Ordering Codes	Total LEDs	LED Current (mA)	Color Temp. (K)	Avgerage System Wattage	SP		RSP		RM		RN		A33	
					Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
DFC7 or DFL7-16L-350-NW-G2	16	350	4000	20	2,892	145	2,618	131	2,684	134	2,709	135	2,776	139
DFC7 or DFL7-16L-530-NW-G2	16	530	4000	28	3,788	135	3,429	122	3,515	126	3,549	127	3,635	130
DFC7 or DFL7-16L-700-NW-G2	16	700	4000	38	4,631	123	4,193	111	4,298	114	4,339	115	4,445	118
DFC7 or DFL7-16L-900-NW-G2	16	900	4000	47	5,634	119	5,101	108	5,228	110	5,279	111	5,408	114
DFC7 or DFL7-16L-1050-NW-G2	16	1050	4000	55	6,385	115	5,781	104	5,925	107	5,983	108	6,129	110
DFC7 or DFL7-16L-1200-NW-G2	16	1200	4000	62	7,116	115	6,442	104	6,604	106	6,668	107	6,830	110
DFC7 or DFL7-32L-350-NW-G2	32	350	4000	36	5,751	160	5,206	145	5,337	148	5,388	150	5,519	153
DFC7 or DFL7-32L-530-NW-G2	32	530	4000	54	7,600	141	6,881	127	7,053	131	7,121	132	7,295	135
DFC7 or DFL7-32L-700-NW-G2	32	700	4000	71	9,347	132	8,462	120	8,674	123	8,758	124	8,971	127
DFC7 or DFL7-32L-900-NW-G2	32	900	4000	90	11,402	126	10,323	114	10,581	117	10,684	118	10,944	121

DFL7/DFC7 Designer Flood LED

7" floodlights

LED Wattage and Lumen Values – 5000K

Ordering Codes	Total LEDs	LED Current (mA)	Color Temp. (K)	Avgerage System Wattage	SP		RSP		RM		RN		A33	
					Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
DFC7 or DFL7-16L-350-CW-G2	16	350	5000	20	2,892	145	2,618	131	2,684	134	2,709	135	2,776	139
DFC7 or DFL7-16L-530-CW-G2	16	530	5000	28	3,788	135	3,429	122	3,515	126	3,549	127	3,635	130
DFC7 or DFL7-16L-700-CW-G2	16	700	5000	38	4,631	123	4,193	111	4,298	114	4,339	115	4,445	118
DFC7 or DFL7-16L-900-CW-G2	16	900	5000	47	5,634	119	5,101	108	5,228	110	5,279	111	5,408	114
DFC7 or DFL7-16L-1050-CW-G2	16	1050	5000	55	6,385	115	5,781	104	5,925	107	5,983	108	6,129	110
DFC7 or DFL7-16L-1200-CW-G2	16	1200	5000	62	7,116	115	6,442	104	6,604	106	6,668	107	6,830	110
DFC7 or DFL7-32L-350-CW-G2	32	350	5000	36	5,751	160	5,206	145	5,337	148	5,388	150	5,519	153
DFC7 or DFL7-32L-530-CW-G2	32	530	5000	54	7,600	141	6,881	127	7,053	131	7,121	132	7,295	135
DFC7 or DFL7-32L-700-CW-G2	32	700	5000	71	9,347	132	8,462	120	8,674	123	8,758	124	8,971	127
DFC7 or DFL7-32L-900-CW-G2	32	900	5000	90	11,402	126	10,323	114	10,581	117	10,684	118	10,944	121

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown. Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

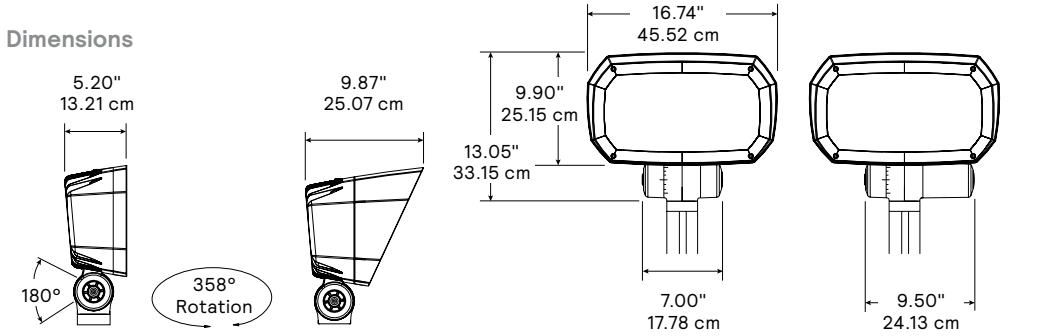
NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires. Contact factory for configurations not shown.

Predicted Lumen Depreciation Data

Ambient Temperature °C	System Current	Calculated L_{70}hrs	L_{70} per TM21	Lumen Maintenance @ 60,000hrs
25 °C	1200 mA	>100,000	>120,000	98%

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.

Dimensions



DFL7
Standard Flat Hood

DFC7
Cutoff Hood

C Mounting
Stub-up Conduit Mount

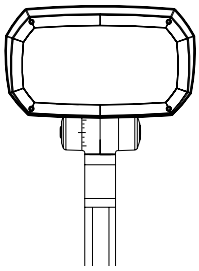
ESB Option
Extended Splice Box
(for use with any Mounting - C Mounting shown as an example)

Designer Flood LED 7" Pole Loading Data	EPA DFL7	EPA DFC7
Single Luminaire on PTA Adapter	1.5 ft^2 0.14m^2	1.8 ft^2 0.17m^2
Twin Luminaires on PTA Adapter	2.1 ft^2 0.20m^2	2.7 ft^2 0.25m^2
Twin Luminaires on TAB Adapter	3.2ft^2 0.30m^2	3.9 ft^2 0.37m^2
Approximate Single Luminare Weight	**19 lbs 8.62 kg**	**20.5 lbs 9.30 kg**

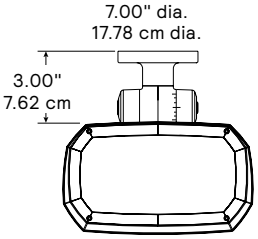
DFL7/DFC7 Designer Flood LED

7" floodlights

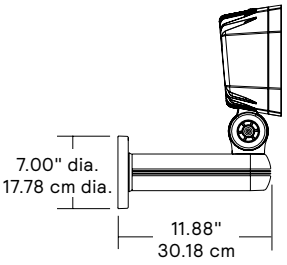
Dimensions



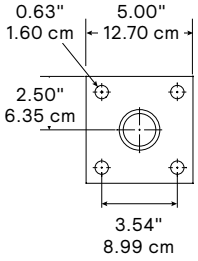
J Mounting
J-box Mount



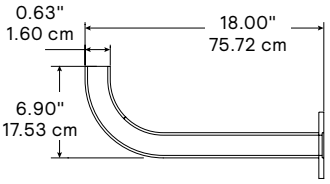
W Mounting
Wall/Ceiling Canopy Mount
(ceiling mount shown)



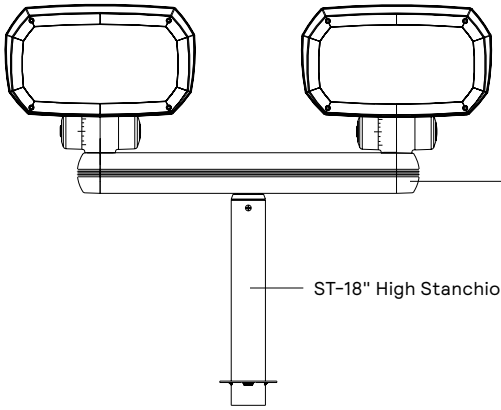
W90 Mounting
Wall Arm Mount



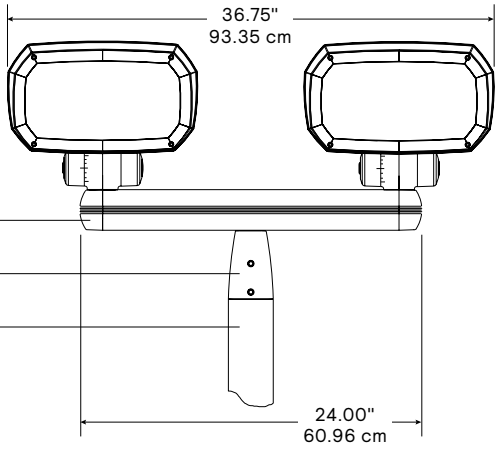
WMB Mounting
Bolt Pattern



WMB Mounting
Wall Mount Bullhorn

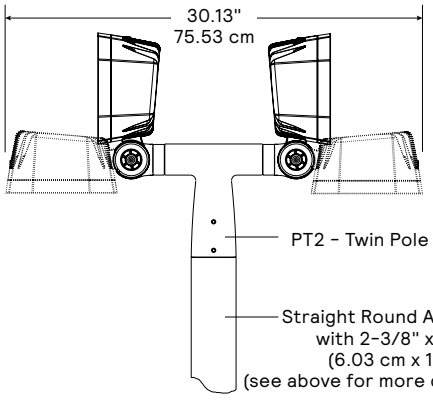


ST Mounting w/TAB
Stanchion Mount in concrete with Twin Arm Bracket

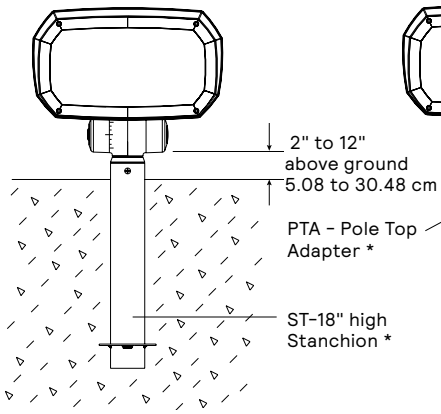


Straight Round Aluminum Pole with 2-3/8" x 4" Tenon (6.03 cm x 10.16 cm) (such as Cast Base CB, Hinged Base HB, Tenon Base STB - specify T2 drilling for 2-3/8" O.D. tenon)
NOTE: confirm EPA per table at bottom of page 3

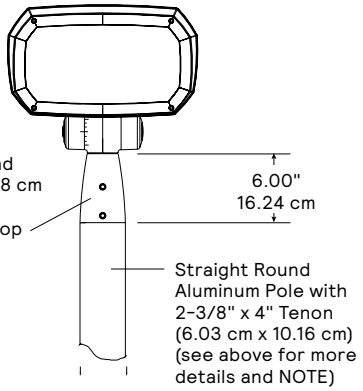
PTA Mounting w/TAB
Pole Top Mount with Twin Arm Bracket



PT2 Mounting
Pole Top Tenon Adapter for Twin Back-to-Back



ST Mounting
Stanchion Mount in Concrete



PTA Mounting
Pole Top Mount with Pole Top Adapter

* Order mounting accessories separately.

DFL7/DFC7 Designer Flood LED

7" floodlights

Specifications

Housing and Heat Sink

Single piece low copper die cast Aluminum alloy (A360) for a high resistance to corrosion. Housing also acts as heat sink, designed to ensure high efficacy and superior cooling by natural convection. Air flow pattern always close to LEDs and driver optimizing their efficiency and life. Does not use any cooling device with moving parts (only passive cooling).

Door/Lens Assembly

A heat and impact resistant 1/8" (.3175cm) tempered glass lens and one piece silicone gasket are mechanically secured to door frame providing an IP66 seal. DFL7 luminaires feature a flat door and lens assembly. DFC7 luminaires include an integral cutoff hood door and lens assembly providing additional shielding from source glare.

IP66 Rating

IP66 rated luminaire in all aiming positions including up tilt aiming per ANSI C136.37 with seal around entire perimeter of the lens and electrical / driver compartment.

Knuckle

Up tilt aiming and down tilt aiming possible with all of the mounting accessories.
cULus Listed as suitable for mounting within 4' or 1.2m of the ground.
Low copper die cast Aluminum alloy (A360) for high resistance to corrosion. Integral cULus recognized Wet Location splice compartment for field wiring with seal around entire perimeter. A single captive 3/16" (.48cm) stainless steel allen head bolt and stainless steel nut securely lock the integral interlocking aiming teeth in 5° increments.

Splice Compartment Capacity	Standard Units	Luminaires w/ Extended Splice Box (ESB) option
#12 AWG Conductors	5	9
#10 AWG Conductors	3	7

AWG Conductors include ground.

Integrated Features

Please note that these integrated features always come with this luminaire standard at no additional cost. 0–10V dimming driver included as standard, dimming leads pre-wired to PCB controls option when selected. **SP1:** Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground. Enhanced surge protection device SP2 20kV/10kA available as an option. Surge protection device wired in parallel so that if it fails open the luminaire will remain lit/powered on.

Light Engine

Composed of 3 main components: LED Module / Optical System / Driver. Electrical components are RoHS compliant. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

LED Module

Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin 3000K nominal (3045K +/-175K) or 4000K nominal (3985K +/- 275K) or 5000K nominal (5029K +/- 283K), all CRI 70 min. / 75 typical.

Optical System

Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance.

Driver

High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min). Driver enables setting LED drive current to meet your specific total wattage consumption, lumen output and/or efficacy needs - ETO Specials, contact factory.

Hardware and Seals

All exposed screws shall be stainless and/or corrosion resistant and captive. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Wiring

#16 AWG wires from the primary circuit, located inside the knuckle splice compartment for field wiring. Due to the inrush current that occurs with electronic drivers, recommend using a time delay or slow blow fuse to avoid unnecessary and unwanted fuse blowing (false tripping) that can occur with fast acting fuses.

Finish

Five standard textured colors. RAL and custom color matching available - must contact factory prior to ordering, these are ETO Specials. Color in accordance with the AAMA 2604 standard. Application of polyester powder coat paint (2.5 mils/62.5 microns) with ± 1 mils/24 microns of tolerance. The thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

LED Products Manufacturing Standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with EC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, Signify System Reliability Tool, Advance driver data and LED manufacturer LM-80/TM-21 data, expected to reach 100,000+ hours with L70 lumen maintenance @ 25°C. Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

Certifications and Compliance

cULus Listed for Canada and USA, per UL1598 and UL8750, including suitable for mounting within 4' or 1.2m of the ground. Configurations are DesignLights Consortium qualified, consult DLC QPL Qualified Products List for more details. Luminaire complies with or exceeds the following ANSI C136 standards: .2, .3, .10, .15, .21, .22, .24, .25, .31, .32, .37, .41. Entire luminaire is rated for operation in ambient temperature of -40°C (-40°F) up to +40°C (+104°F).

Limited Warranty

5-year limited warranty. See signify.com/warranties for details and restrictions.

Buy American Act of 1933 (BAA):

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies. Prior to ordering, please visit www.signify.com/baa to view a current list of BAA-compliant products to confirm this product's current compliance.

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