



**Gardco DuraForm small floodlight** provides seamless replacement of existing HID luminaires. This luminaire is available in three sizes (also see FLDM and FLDL), offers multiple lumen packages, and a complete array of optical distributions, making it an outstanding solution for all types of floodlighting applications. Includes Service Tag, Signify's innovative way to provide assistance throughout the life of the product.

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Lumens: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

### Ordering guide

example: **FLDS-A02-740-RSP-SLF-120-PCB-BZ**

Prefix	Configuration (nominal lumens)	Color Temperature	Distribution	Mounting	Voltage
<b>FLDS</b>					
<b>FLDS</b> DuraForm small	<b>A01</b> 3,400 <b>A02</b> 4,900 <b>A03</b> 6,100 <b>A04</b> 6,800 <b>A05</b> 9,800 <b>A06</b> 12,200	<b>730</b> 70CRI 3000K <b>740</b> 70CRI 4000K <b>750</b> 70CRI 5000K <b>827</b> 80CRI 2700K	<b>A33</b> Asymmetric 33° Flood (NEMA 6x5) <b>RSP</b> Rectangular Spot (NEMA 3x3) <b>RNF</b> Rectangular Narrow Flood (NEMA 7x5) <b>RMF</b> Rectangular Medium Flood (NEMA 7x4)	<b>SFC</b> Slip Fitter Mount with Cord (fits on 2-3/8" O.D. tenon, 6' or 1.83m cord exits luminaire) <b>SLF</b> Slip Fitter Mount (fits on 2-3/8" O.D. tenon, wires through slipfitter) <b>YOK</b> Yoke Mount (6' or 1.83m cord exits luminaire)	<b>120</b> 120V <b>208</b> 208V <b>240</b> 240V <b>277</b> 277V <b>347</b> 347V <b>480</b> 480V <b>UNV</b> 120-277V <b>HVU</b> 347-480V
Options					
Dimming controls <sup>1</sup>	Fusing	Surge Protection	Hardware Options	Other Options	Finish
<b>none</b> leave blank (0-10V dimming driver standard) <b>DALI</b> <sup>2,3</sup> Digitally Addressable Lighting Interface driver <b>DIMD</b> <sup>4,5</sup> 0-10V Dimming Driver external wires (controls by others) <b>FAWS</b> <sup>4</sup> Field Adjustable Wattage Selector <b>SIWI</b> <sup>4,10</sup> SiteWise integral module <b>WLDC</b> <sup>2,4,5,6</sup> Wireless Dimming Controls	<b>FS1</b> <sup>7</sup> Single Fuse (120V, 277V, or 347V) <b>FS2</b> <sup>7</sup> Double Fuse (208V, 240V, or 480V) <b>FS3</b> <sup>7,12</sup> Canadian Double Pull Fuse (208V, 240V, or 480V)	<b>blank</b> Surge Protector 10kV / 10kA (standard) <b>SP2</b> Surge Protector 20kV / 10kA (option)	<b>blank</b> Captive screws <b>TOL</b> Tool-less entry latches <b>VPA</b> Vandal Proof Access (bit included with luminaire)	<b>blank</b> Terminal Block, Service Tag, and Wiring Cover (standard) <b>API</b> Factory-installed ANSI C136.15-2015 compliant label <b>C##</b> <sup>11</sup> Cord length specified by customer for SFC or YOK (put length in feet in place of "##" - example: C10 for 10' cord, must be ordered same time as luminaire - factory installed) (6' cord standard) <b>PCB</b> <sup>2,7</sup> Photocontrol Button <b>TT7</b> <sup>9</sup> Tool-less NEMA Twist-lock 7-pin receptacle	<b>BK</b> Black <b>BZ</b> Bronze <b>MG</b> Medium Gray <b>OC</b> <sup>11</sup> Optional Color (specify optional color or RAL) <b>SC</b> <sup>11</sup> Special Color (must supply color chip, requires factory quote)

- Choose only 1 Dimming Controls option: either DALI or DIMD or FAWS or SIWI or WLDC.
- Not available with 347V, 480V, or HVU.
- Your specific required DALI profiles will be programmed at the factory. Contact factory for details.
- 0-10V dimming driver standard.
- Luminaire has 0-10V dimming wires exiting the luminaire for dimming controls by others.
- Must also select one of the Wireless System Accessories (LLCR2-(F), etc.) whenever WLDC is selected.
- Must specify applicable specific input voltage, not available with UNV or HVU.
- Not available with 480V.
- Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- Available with 120V or 277V only.
- Must contact factory prior to ordering - these items are ETO Specials.
- Extended lead times apply. Contact factory for details.

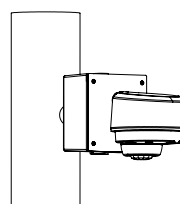
### Wireless System Accessories

(ordered separately, field installed - for wall or pole mount)

**LLCR2-(F)**<sup>12</sup> with #2 lens (specify finish at placeholder F)  
**LLCR3-(F)**<sup>12</sup> with #3 lens (specify finish at placeholder F)  
**LLCR7-(F)**<sup>12</sup> with #7 lens (specify finish at placeholder F)

Wireless pole mounted & remote controller accessory comes with standard 0-10V dimming driver. The wireless system offers a remote controller module that allows connectivity to the wireless system gateway. The remote wireless controller can be mounted to wall or pole j-box supplied. May be specified by choosing one of three different lenses to accommodate a variety of mounting heights/sensor detection ranges. Controller radio/sensor module includes radio, photocell, and motion sensor.

Pole mount



Remote pod (contact factory)



# FLDS DuraForm

## Small floodlight

### Accessories

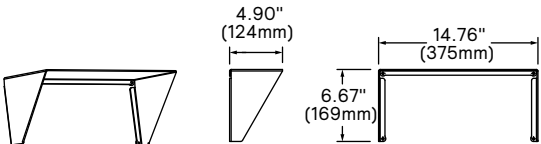
(ordered separately, field installed - mounting hardware included, uses dedicated mounting holes - do NOT remove lens)

**FLDS-VSR-(F)** Visor, top or bottom, painted same finish to match luminaire (specify finish at placeholder F, can not be used with GSH)

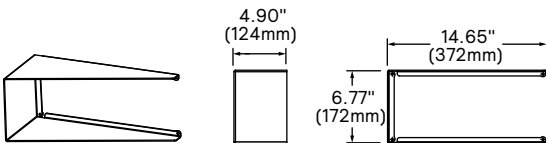
**FLDS-GSH-(F)** Glare Shield, left or right, painted same finish to match luminaire (specify finish at placeholder F, can not be used with VSR)

**FLDS-WRG** Wire Guard (nestable and can be used with either VSR or GSH)

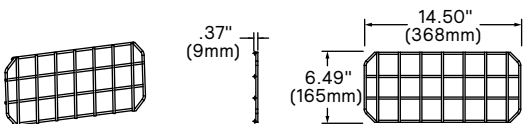
**FLDS-VSR Visor  
Top or Bottom**



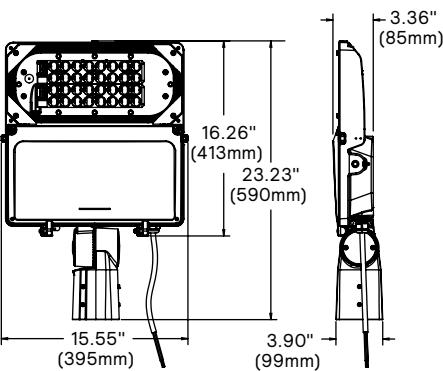
**FLDS-GSH Glare Shield  
Left or Right**



**FLDS-WRG Wire Guard  
Nestable**

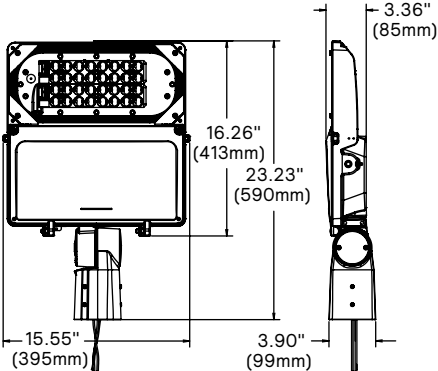


### Dimensions



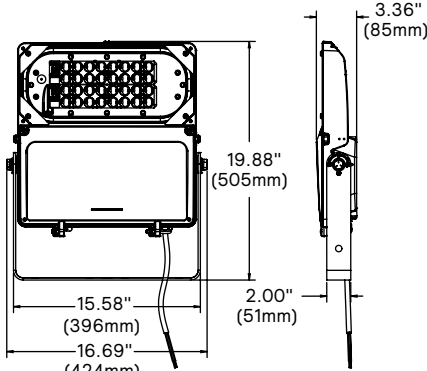
**SFC**

Luminaire weight: 19 lbs (8.6 kg)



**SLF**

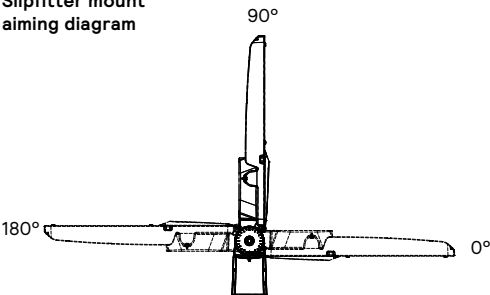
Luminaire weight: 19 lbs (8.6 kg)



**YOK**

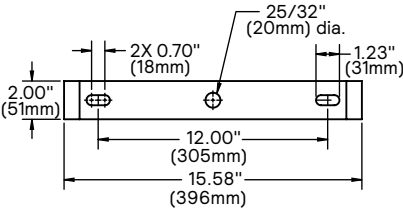
Luminaire weight: 20 lbs (9.1 kg)

**Slipfitter mount  
aiming diagram**

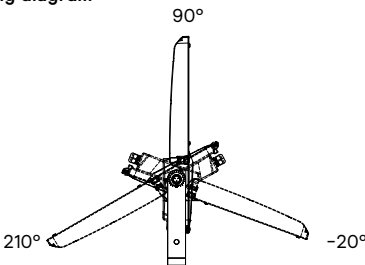


7-pin NEMA Twist Lock Receptacle option  
Aiming limited to 0-90° per ANSI C136.10

**Yoke mount  
detail**



**Yoke mount  
aiming diagram**



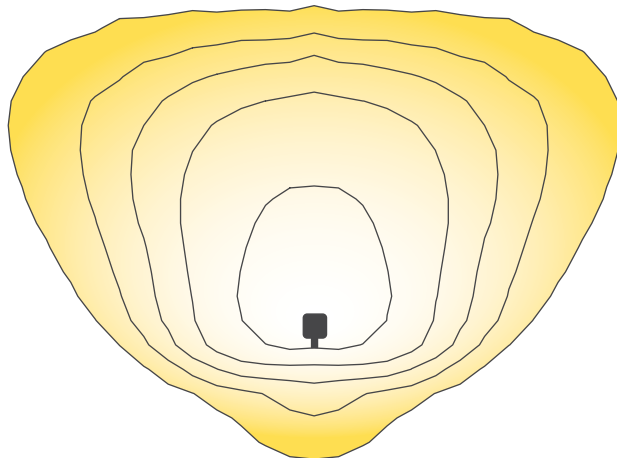
7-pin NEMA Twist Lock Receptacle option  
Aiming limited to 0-90° per ANSI C136.10

# FLDS DuraForm

## Small floodlight

### Optical Distribution Diagrams

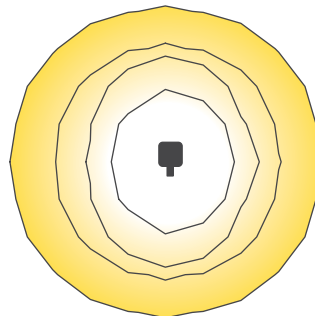
**A33 Asymmetric 33° Flood (NEMA 6x5)**



30' or 9.14m mounting height, 30° tilt

Applications include: area lighting, storage yards, transportation terminals, utility sub-stations, large facades, wall washing, large structures / monuments / statues, trees with large canopies.

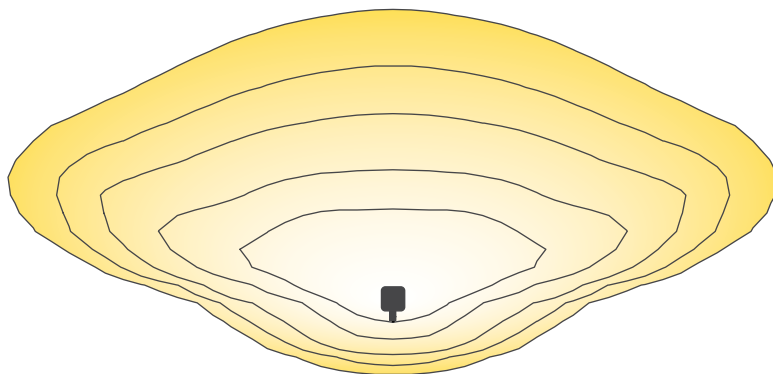
**RSP Rectangular Spot (NEMA 3x3)**



15' or 4.57m setback, 0° tilt

Applications include: flags, spotlighting, accenting, columns, scalloping, structures / monuments / statues, taller trees.

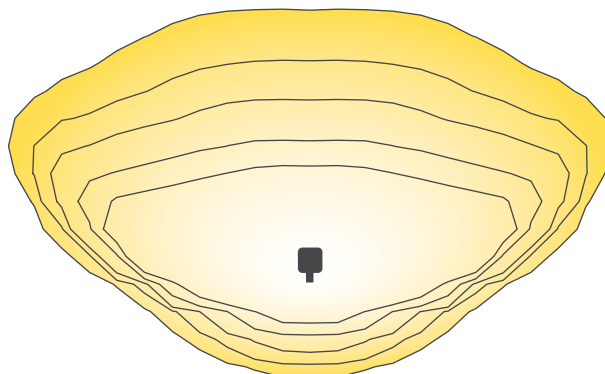
**RNF Rectangular Narrow Flood (NEMA 7x5)**



15' or 4.57m setback, 45° tilt

Applications include: facades, wall grazing, signs (especially larger and more rectangular)

**RMF Rectangular Medium Flood (NEMA 7x4)**



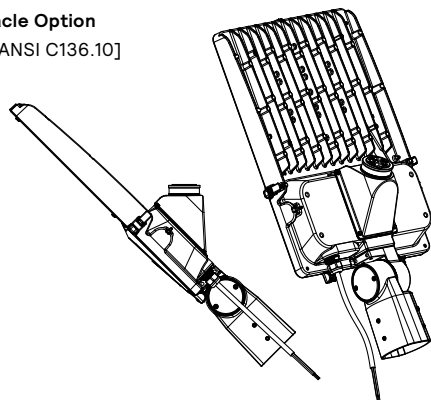
10' or 3.05m setback, 30° tilt

Applications include: building entrances and exits, security lighting, checkpoints and inspection stations, signs, ornamental trees and shrubs

### Additional drawings

#### 7-pin Twist Lock Receptacle Option

Aiming limited to 0-90° per ANSI C136.10]



# FLDS DuraForm

## Small floodlight

### LED Wattage and Lumen Values – 2700K

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Wattage Label*	RSP		RMF		RNF		A33	
						Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
FLDS-A01-827	16	530	2700	29	30	2,588	90	2,581	89	2,623	91	2,656	92
FLDS-A02-827	16	800	2700	43	40	3,684	86	3,674	86	3,733	87	3,779	88
FLDS-A03-827	16	1050	2700	56	60	4,599	82	4,587	81	4,660	83	4,719	84
FLDS-A04-827	32	530	2700	53	50	5,075	96	5,061	96	5,142	98	5,207	99
FLDS-A05-827	32	800	2700	82	80	7,344	89	7,324	89	7,442	91	7,535	92
FLDS-A06-827	32	1050	2700	109	110	9,111	83	9,087	83	9,233	84	9,348	85

### LED Wattage and Lumen Values – 3000K

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Wattage Label*	RSP		RMF		RNF		A33	
						Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
FLDS-A01-730	16	530	3000	29	30	3,137	109	3,128	108	3,179	110	3,219	111
FLDS-A02-730	16	800	3000	43	40	4,465	104	4,453	104	4,525	105	4,581	107
FLDS-A03-730	16	1050	3000	56	60	5,575	99	5,560	99	5,649	100	5,720	101
FLDS-A04-730	32	530	3000	53	50	6,151	117	6,134	117	6,233	118	6,311	120
FLDS-A05-730	32	800	3000	82	80	8,902	108	8,878	108	9,021	110	9,133	111
FLDS-A06-730	32	1050	3000	109	110	11,044	101	11,014	101	11,191	102	11,331	104

### LED Wattage and Lumen Values – 4000K

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Wattage Label*	RSP		RMF		RNF		A33	
						Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)	Lumen Output	Efficacy (LPW)
FLDS-A01-740	16	530	4000	29	30	3,429	119	3,419	118	3,475	120	3,518	122
FLDS-A02-740	16	800	4000	43	40	4,880	114	4,867	113	4,946	115	5,007	117
FLDS-A03-740	16	1050	4000	56	60	6,093	108	6,077	108	6,174	109	6,252	111
FLDS-A04-740	32	530	4000	53	50	6,723	128	6,704	127	6,813	130	6,898	131
FLDS-A05-740	32	800	4000	82	80	9,730	118	9,704	118	9,860	120	9,982	121
FLDS-A06-740	32	1050	4000	109	110	12,071	110	12,038	110	12,232	112	12,385	113

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.

\*Wattage Label per ANSI C136.15-2015. Consult factory for other labelling needs.

### Field Adjustable Wattage Selector (FAWS) Multiplier Chart

FAWS Position	Typical Delivered Lumens Multiplier	Typical System Wattage Multiplier
1	0.31	0.28
2	0.53	0.50
3	0.62	0.58
4	0.70	0.67
5	0.78	0.75
6	0.83	0.81
7	0.89	0.87
8	0.92	0.91
9	0.96	0.95
10	1.00	1.00

**Note:** Typical value accuracy +/- 5%

### Predicted Lumen Depreciation Data

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. L<sub>70</sub> is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L<sub>70</sub> hours limited to 6 times actual LED test hours

Ambient Temperature °C	Drive current	Calculated L <sub>70</sub> Hours	L <sub>70</sub> per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1050 mA	>100,000 hours	>36,000 hours	>98%

# FLDS DuraForm

## Small floodlight

### Specifications

#### Housing and Door

Made of low copper die cast Aluminum alloy (A360) for high resistance to corrosion. A hinged removable door opens to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. Captive flanged hex head screws with slotted drive provide access to electrical components and are compatible with 1/4" flat blade screwdriver.

#### Mounting

Up tilt aiming and down tilt aiming possible with all of the mounting options. Top edge of casting includes aiming sight for daytime aiming (see instructions).

cULus Listed as suitable for mounting within 4' or 1.2m of the ground.

**SFC** – Adjustable Slip Fitter with 6' (1.83m) of AWG 16-3 SEOW cord (or AWG 16-5 if DIMD or WLDC external control options are selected) exiting the luminaire through IP66 rated cord seal. Customer-specified length or different cord type available – contact factory. Slip Fitter made of low copper Aluminum alloy (A356) for high resistance to corrosion, adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place, integral cast-in aiming marks. Fits on a 2-3/8" O.D. tenon.

**SLF** – Same Adjustable Slip Fitter as SFC but with AWG 16-3 wires (or AWG 16-5 if DIMD or WLDC external control options are selected) exiting through the Slip Fitter. Integral splice compartment for field wiring with cULus Wet Location rated access cover with seal around entire perimeter.

**YOK** – Adjustable Yoke with 6' (1.83m) of AWG 16-3 SEOW cord (or AWG 16-5 if DIMD or WLDC external control options are selected) exiting the luminaire through IP66 rated cord seal. Customer-specified length or different cord type available – contact factory. Yoke made of high strength steel, galvanized and painted for high resistance to corrosion, fully adjustable (no minimum aiming increments) with bolts to secure aiming in place, integral aiming marks.

#### IP 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 seal around entire perimeter of the electrical / driver compartment.

#### Light Engine

Composed of 5 main components: Heat Sink, Lens, 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 in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

**Heat Sink:** Housing acts as heat sink, designed to ensure high efficacy and superior cooling by natural convection air flow always close to LEDs and driver(s) optimizing their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling).

**Lens:** Made of soda-lime clear tempered glass flat lens, mechanically assembled and sealed onto the housing heat sink forming IP66 seal. NOTE: Lens is not designed to be removable (if removed impacts IP66 seal).

**IK Rating:** IK09 high impact resistance rating for luminaire lens.

**LED Module:** Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin 3000K nominal (3045K +/-175K) or 4000K nominal (3985K +/- 275K), both CRI 70 min. 75 Typical. 2700K nominal (2725K +/- 145K) CRI 80 min. available – extended lead times apply, contact factory for details.

**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).

#### 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 Dimming Controls option except when DIMD or WLDC external controls options are 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.

**Service Tag:** Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the app and register your product right away.

For more details visit: [philips.com/servicetag](http://philips.com/servicetag)

**Terminal Block:** 3-position. Accepts wires from #2AWG to #14AWG, rated 600V, 85A.

**Wiring Cover:** Cosmetic cover over LED board wiring. Painted same finish to match luminaire.

#### Controls Options

**DALI:** Pre-set driver compatible with the DALI Digitally Addressable Lighting Interface control system.

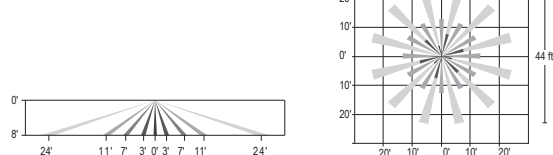
**DIMD:** 0-10V dimming driver with dimming wires externally accessible for connecting dimming controls by others.

**FAWS:** Field Adjustable Wattage Selector, pre-set to the highest position, can be easily switched in the field to the required position. This reduces total luminaire wattage consumption and reduces the light level – see the FAWS multiplier chart for more details.

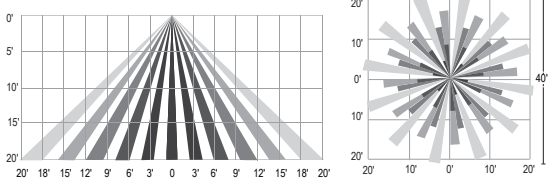
*Note: It is not recommended to use FAWS with other dimming or controls; if you do, set the switch to position 10 (maximum output) to enable the other dimming or controls. Switching FAWS to any position other than 10 will disable the other dimming or controls.*

**WLDC:** Optional wireless remote controller ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Available with various lenses depending upon mounting height. Also available with remote pod accessory to extend motion response or add other luminaires (contact factory for more information).

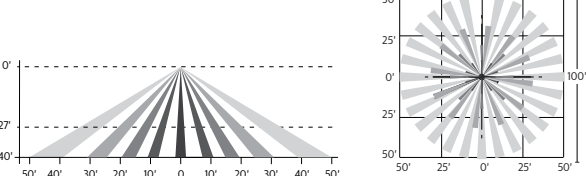
with LLCR2 #2 lens



with LLCR3 #3 lens



with LLCR7 #7 lens



# FLDS DuraForm

## Small floodlight

### Specifications (continued)

**SIWI:** SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology and your site's existing mains wiring (no additional control wiring needed). A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. Cannot be used with other control options or photocell options. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems. Complete information on the control system can be found on the SiteWise website at [philips.com/sitewise](http://philips.com/sitewise).

#### Luminaire Options

**SP2:** 20kV / 10kA surge protection device that provides extra protection beyond the standard SP1 10kV/10kA level.

**TT7\*:** Tool Less orientable twist-lock receptacle with 7 pins enabling dimming, can be used with a twist-lock photoelectric cell or a shorting cap.

*\* Use of photoelectric cell or shorting cap is required to ensure proper illumination.*

**API:** Factory Installed NEMA label, ANSI C136.15-2015 compliant, identifies LED source and wattage, affixed to luminaire at factory. Consult factory for other labeling needs.

**FS1:** Fusing, single (120, 277 or 347VAC) installed in electrical compartment

**FS2:** Fusing, double (208, 240 or 480VAC) installed in electrical compartment

**FS3:** Fusing, Canadian Double Pull (208, 240 or 480VAC) installed in electrical compartment.

**TOL:** Tool Free access 316 stainless steel latches provide a high resistance to corrosion. Latches operable while wearing protective electrical gloves.

**VPA:** Vandal Proof hardware to prevent access to internal components, 316 stainless steel, complete with Ceramic primer seal to reduce seizing of the parts, also offers a high resistance to corrosion. Bit included with luminaire.

**PCB:** Photocell Button (a.k.a. button photoeye).

#### 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 data and LED manufacturer LM-80/TM-21 data, expected to reach 100,000 + hours with  $L_{70}$  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.

#### Wiring

#2-#14 AWG wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a time-delay or slow blow fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses.

#### Hardware and Seals

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

#### Finish

Color in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with  $\pm 1$  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. The surface treatment achieves a minimum of 3000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

#### LED Products Manufacturing Standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

#### Vibration Resistance

Luminaire meets the ANSI C136.31-2018 specifications, tested by independent lab over 100,000 cycles in all three axes: Normal for both Slip Fitters, Bridge/Overpass for Yoke.

#### Certifications and Compliance

cULus Listed for Canada and USA, 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). +50°C (+122°F) also available, consult factory.

#### Limited Warranty

5-year limited warranty.

See [signify.com/warranties](http://signify.com/warranties) for details and restrictions.

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

