Dialight

ProSite LED High Mast

Technical Specification Sheet

MARCH 2024

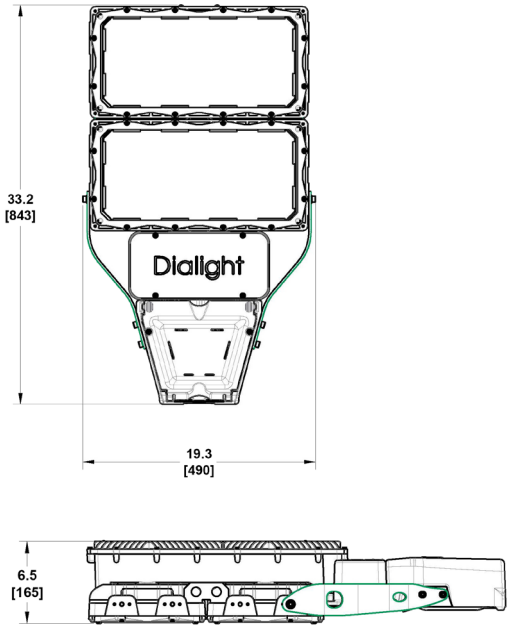
ProSite LED High Mast - UL / CSA

F2 Models

Patent US 11,686,438 B1

Certifications & Ratings

- 10 year warranty
- UL 1598/A, CSA 22.2, NOM ANC2101A00007376-(1-3)
- IP66/67, NEMA 4X
- L70 > 100,000 hours @ 122°F (50°C) ambient
- DLC/DLC Premium - selected models
- Vibration to ANSI C136.31 & CALTRANS test 611



Dimensions in inches [mm]

Mechanical Information:

Fixture weight:	47-58 lbs
Shipping weight:	~60 lbs
Mounting:	4 bolt mast arm bracket with +/-5° of adjustment. Suitable for 1.66" – 2.375" OD mounting pipe
EPA (Sq. ft):	1.50
Cable entry:	1 x 3/4" NPS

Electrical Specifications:

Operating voltage:	120-277VAC / 120-250VDC 347-480 VAC
Operating temp:	-40°F to +149°F (-40°C to +65°C) -40°F to +131°F (-40°C to +55°C) - 60klm
EMC:	Emissions: FCC Title 47 CFR Part 15 Subpart B, Class A Flicker: IEC 61000-3-3 Immunity requirements for lighting: IEC 61547 Harmonics: IEC 61000-3-2 Class C
Transient protection:	6kV/3kA
Optional:	Additional surge protection module rated for 10kA, 20kA single strike
THD:	< 20%
Power Factor:	> 0.9
Dimming:	DALI 1.0 and 2.0 compatible / 0-10VDC

Construction:

Housing:	A360 Die-cast aluminum
Hardware:	316 stainless steel
Finish:	Superior epoxy and polyester dual coat finish
Lens:	Integrated PC Optic/Lens, Optional Glass Lens Cover, PC Lens Cover

Photometric Information:

CRI:	70 (80 optional)
CCT:	5000K (cool white) 4000K (neutral white) 2200K (warm white) 2700K (warm white) - 80 CRI
Beam pattern:	NEMA 4 NEMA 6 NEMA 7x6 Asymmetric Asymmetric Wide
IES files:	Available at www.dialight.com

All values typical unless otherwise stated (tolerance +/- 10%)

ProSite LED High Mast - UL / CSA

F2 Models

Project Information		
Part Number:		
Project:		
Fixture Type:		Date:

Specifications

Ordering Information

F2	-	U	-		-		-		-		-		-		-	T	-	N	-		-		-	N
Product Series		Cert.		Lens		Beam Dist.		CCT & CRI		Oper. Voltage		Lumen Type		Controls/ Dimming		Mounting Options		Hardware		Termination		Finish		None

Product Series

F2	ProSite High Mast F2 Model

Certification

U	UL 1598/A / CSA

Lens

N	Integrated PC Optic/Lens Only
4	PC Lens Cover
7	Glass Lens Cover

*Lens option 4 and 7 is not available for asymmetric wide optic

Beam Distribution

4	NEMA 4
6	NEMA 6
7	NEMA 7x6
F	Asymmetric
J	Asymmetric Wide

*For Asymmetric beam distribution either a PC or Glass lens cover must be included

CCT & CRI

B	Cool White 5000K - 70 CRI
L	Neutral White 4000K - 70 CRI
U	Warm White 2200K - 70 CRI*
W	Warm White 2700K - 80 CRI*

*Lumen output decreases for warm white CCT options. Refer to lumen table on page 6 for accurate values.

Operating Voltage

2	120-277VAC / 120-250VDC
5	347-480 VAC
8	120-277VAC / 120-250VDC 10kV surge
9	347-480 VAC 10kV surge

Lumen Type*

H	36,000 Lumens
L	48,000 Lumens
N	60,000 Lumens

*Excludes amber. Refer to lumen table on page 6 for accurate values.

Controls/Dimming

D	0-10V / DALI as standard
S	Receptacle with Shorting Cap

Mounting Options

T	4 Bolt Mast Arm Bracket with +/-5° of Adjustment

Hardware

N	No Option

Termination

U	6mm² Terminal Block - Screw Down
V	4mm² Terminal Block - Push Down

Finish

G	Gray (RAL 7040)
Z	Bronze (RAL 7022)

Battery

N	No Options

Ordering Information

ProSite LED High Mast - UL / CSA

Industrial - UL 1598 / CSA							
Part Number	Fixture Lumens	Wattage	lm/W	Voltage	CCT	Lens	Beam Distribution
Lumen Output Family - 48,000lm							
F2U-N7B2-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B2-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B2-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB2-LDTN-VGN	47,200	346	136	120-277VAC / 120-250VDC	5000k (cool white)	Glass	Asymmetric
F2U-NJB2-LDTN-VGN	47,400	346	137	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	Asymmetric Wide
F2U-N7B5-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B5-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B5-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB5-LDTN-VGN	47,200	357	132	347-480VAC	5000k (cool white)	Glass	Asymmetric
F2U-NJB5-LDTN-VGN	47,400	357	133	347-480VAC	5000k (cool white)	Integrated PC	Asymmetric Wide
Lumen Output Family - 60,000lm							
F2U-N7B2-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B2-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B2-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB2-NDTN-VGN	60,100	484	124	120-277VAC / 120-250VDC	5000k (cool white)	Glass	Asymmetric
F2U-NJB2-NDTN-VGN	60,500	484	125	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	Asymmetric Wide
F2U-N7B5-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B5-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B5-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB5-NDTN-VGN	60,100	499	120	347-480VAC	5000k (cool white)	Glass	Asymmetric
F2U-NJB5-NDTN-VGN	60,500	499	121	347-480VAC	5000k (cool white)	Integrated PC	Asymmetric Wide

All values typical unless otherwise stated (tolerance +/- 10%).
See ordering information chart for additional options.

Ordering Information

ProSite LED High Mast - UL / CSA - 10kA Surge Protection

Industrial - UL 1598 / CSA - 10kA Surge Protection							
Part Number	Fixture Lumens	Wattage	lm/W	Voltage	CCT	Lens	Beam Distribution
Lumen Output Family - 48,000lm							
F2U-N7B8-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B8-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B8-LDTN-VGN	51,000	346	147	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB8-LDTN-VGN	47,200	346	136	120-277VAC / 120-250VDC	5000k (cool white)	Glass	Asymmetric
F2U-NJB8-LDTN-VGN	47,400	346	137	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	Asymmetric Wide
F2U-N7B9-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B9-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B9-LDTN-VGN	51,000	357	143	347-480VAC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB9-LDTN-VGN	47,200	357	132	347-480VAC	5000k (cool white)	Glass	Asymmetric
F2U-NJB9-LDTN-VGN	47,400	357	133	347-480VAC	5000k (cool white)	Integrated PC	Asymmetric Wide
Lumen Output Family - 60,000lm							
F2U-N7B8-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B8-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B8-NDTN-VGN	65,000	484	134	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB8-NDTN-VGN	60,100	484	124	120-277VAC / 120-250VDC	5000k (cool white)	Glass	Asymmetric
F2U-NJB8-NDTN-VGN	60,500	484	125	120-277VAC / 120-250VDC	5000k (cool white)	Integrated PC	Asymmetric Wide
F2U-N7B9-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 7x6
F2U-N6B9-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 6
F2U-N4B9-NDTN-VGN	65,000	499	130	347-480VAC	5000k (cool white)	Integrated PC	NEMA 4
F2U-7FB9-NDTN-VGN	60,100	499	120	347-480VAC	5000k (cool white)	Glass	Asymmetric
F2U-NJB9-NDTN-VGN	60,500	499	121	347-480VAC	5000k (cool white)	Integrated PC	Asymmetric Wide

All values typical unless otherwise stated (tolerance +/- 10%).
See ordering information chart for additional options.

Lumen Tables

Lumen Output Family	Wattage (120-277 VAC)	Wattage (347-480 VAC)	Optic	PC Optic Only				Glass Lens				Polycarbonate Lens			
				5000K	4000K	2700K	2200K	5000K	4000K	2700K	2200K	5000K	4000K	2700K	2200K
36,000	234	241	NEMA 4	37,500	37,500	29,100	29,600	35,400	35,400	27,000	27,600	33,400	33,400	24,900	25,500
			NEMA 6	37,500	37,500	29,100	29,600	35,400	35,400	27,000	27,600	33,400	33,400	24,900	25,500
			NEMA 7x6	37,500	37,500	29,100	29,600	35,400	35,400	27,000	27,600	33,400	33,400	24,900	25,500
			Asymmetric	-	-	-	-	32,800	32,800	24,400	24,900	30,800	30,800	22,300	22,900
			Asymmetric Wide	34,900	34,900	26,400	27,000	-	-	-	-	-	-	-	-
48,000	346	357	NEMA 4	51,000	51,000	39,500	40,300	48,200	48,200	36,700	37,500	45,400	45,400	33,900	34,700
			NEMA 6	51,000	51,000	39,500	40,300	48,200	48,200	36,700	37,500	45,400	45,400	33,900	34,700
			NEMA 7x6	51,000	51,000	39,500	40,300	48,200	48,200	36,700	37,500	45,400	45,400	33,900	34,700
			Asymmetric	-	-	-	-	44,600	44,600	33,200	33,900	41,800	41,800	30,300	31,100
			Asymmetric Wide	47,400	47,400	36,000	36,700	-	-	-	-	-	-	-	-
60,000	484	499	NEMA 4	65,000	65,000	50,400	51,400	61,400	61,400	46,800	47,800	57,900	57,900	43,200	44,200
			NEMA 6	65,000	65,000	50,400	51,400	61,400	61,400	46,800	47,800	57,900	57,900	43,200	44,200
			NEMA 7x6	65,000	65,000	50,400	51,400	61,400	61,400	46,800	47,800	57,900	57,900	43,200	44,200
			Asymmetric	-	-	-	-	56,900	56,900	42,300	43,200	53,300	53,300	38,700	39,700
			Asymmetric Wide	60,500	60,500	45,800	46,800	-	-	-	-	-	-	-	-

Lumen Family	Wattage (120-277 VAC)	Wattage (347-480 VAC)	Optic	PC Optic Only	Glass Lens	Polycarbonate Lens
				Amber	Amber	Amber
F2 24,000	461	485	NEMA 4	23,000	21,700	20,500
			NEMA 6	23,000	21,700	20,500
			NEMA 7x6	23,000	21,700	20,500
			Asymmetric	-	20,500	18,400
			Asymmetric Wide	21,900	-	-

Maximum per Circuit Breaker

120 VAC			
Lumen Output	10 Amp	16 Amp	20 Amp
36,000	3	5	6
48,000	2	3	4
60,000	1	2	3
24,000 Amber	2	2	3

277 VAC		
10 Amp	16 Amp	20 Amp
7	11	14
5	8	9
3	5	7
4	6	7

347 VAC			
Lumen Output	10 Amp	16 Amp	20 Amp
36,000	8	14	17
48,000	6	9	11
60,000	4	7	8
24,000 Amber	4	7	8

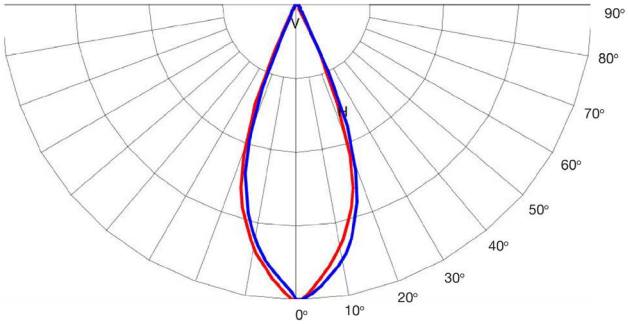
480 VAC		
10 Amp	16 Amp	20 Amp
12	19	23
8	13	16
6	9	11
6	9	12

Inrush Current

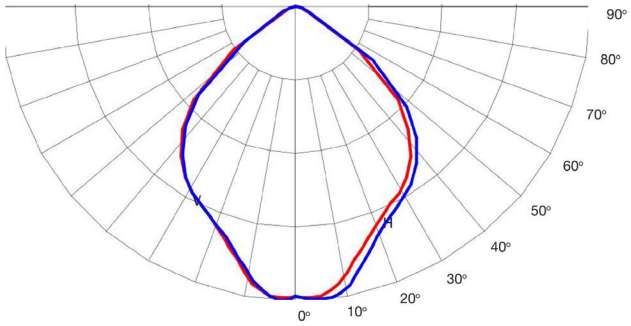
VAC	120	277	347	480
F2 Models (30 - 36klm)				
Peak inrush current (A)	7.7	17.8	4.1	5.7
Duration, T50 (ms)	1.5	1.5	1.5	1.5
F2 Models (48 - 65klm)				
Peak inrush current (A)	15.4	35.6	8.2	11.3
Duration, T50 (ms)	1.5	1.5	1.5	1.5

Beam Distribution

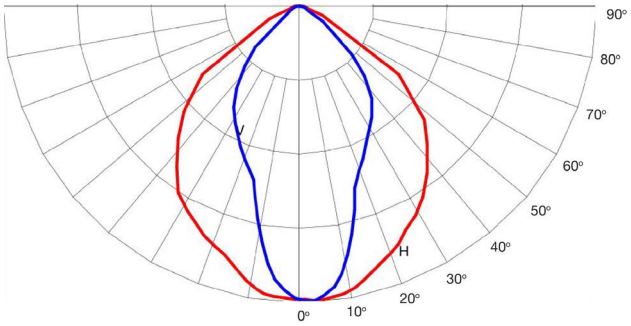
NEMA 4



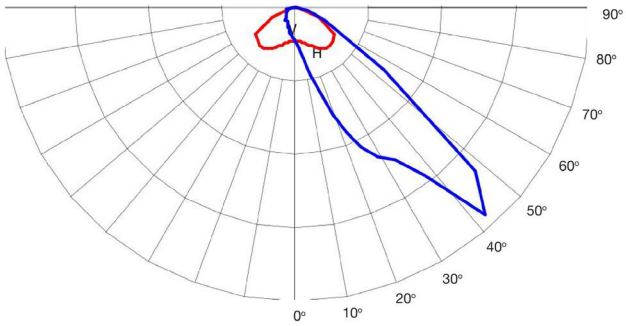
NEMA 6



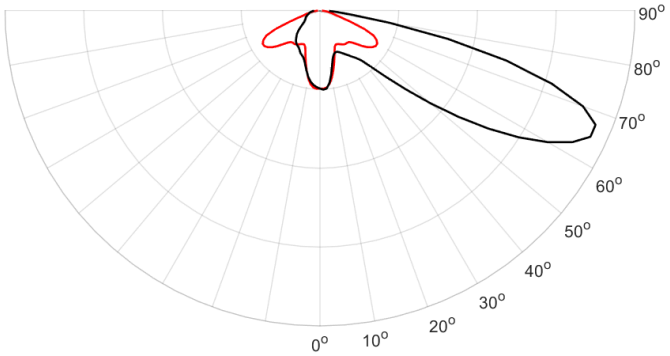
NEMA 7x6



Asymmetric



Asymmetric Wide



Lumen Maintenance Factor - F2

High Mast F2 - 36k lm (Hours)									
Ambient	0	15000	30000	45000	60000	75000	90000	100000	150000
25°C	100%	98%	97%	96%	95%	94%	93%	92%	89%
30°C	100%	98%	97%	96%	95%	94%	93%	92%	89%
35°C	100%	98%	97%	96%	95%	94%	93%	92%	89%
40°C	100%	98%	97%	96%	95%	93%	92%	92%	88%
45°C	100%	98%	97%	96%	94%	93%	92%	91%	88%
50°C	100%	98%	97%	95%	94%	93%	92%	91%	87%
55°C	100%	98%	97%	95%	94%	93%	92%	91%	87%
60°C	100%	98%	96%	95%	94%	93%	91%	91%	86%
65°C	100%	98%	96%	95%	93%	92%	90%	90%	85%

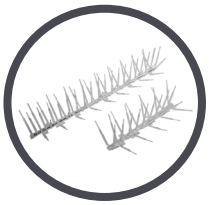
High Mast F2 - 48k lm (Hours)									
Ambient	0	15000	30000	45000	60000	75000	90000	100000	150000
25°C	100%	97%	94%	91%	89%	86%	83%	82%	74%
30°C	100%	97%	94%	91%	89%	86%	83%	82%	73%
35°C	100%	97%	94%	91%	89%	86%	83%	81%	73%
40°C	100%	97%	94%	91%	89%	86%	83%	81%	73%
45°C	100%	97%	94%	91%	88%	86%	83%	81%	73%
50°C	100%	97%	94%	91%	88%	86%	83%	81%	73%
55°C	100%	97%	94%	91%	88%	85%	82%	81%	72%
60°C	100%	97%	93%	90%	87%	84%	81%	79%	70%
65°C	100%	96%	93%	89%	86%	83%	80%	78%	68%

High Mast F2 - 60k lm (Hours)									
Ambient	0	15000	30000	45000	60000	75000	90000	100000	150000
25°C	100%	96%	93%	89%	86%	83%	80%	78%	70%
30°C	100%	96%	92%	89%	86%	83%	80%	78%	69%
35°C	100%	96%	92%	89%	85%	82%	79%	77%	68%
40°C	100%	96%	92%	88%	85%	82%	78%	76%	67%
45°C	100%	95%	91%	87%	83%	80%	76%	74%	63%
50°C	100%	95%	90%	86%	81%	77%	73%	71%	60%
55°C	100%	94%	89%	84%	79%	75%	71%	68%	56%

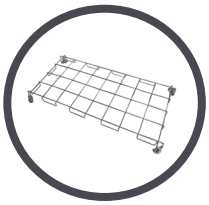
Accessories

H6XCAB72[1]
- 72” stainless steel safety rope
- Kit includes: (1) cable

H6XCAB60[1]
- 60” stainless steel safety rope
- Kit includes: (1) cable



F2SPIKES
- Bird spikes



FLWG
- Wire guard
- Kit includes (1) assembly

[1]F2 models require 2 retention cables per unit.

F1NVISOR
- F1 visor NEMA optics

F2NVISOR
- F2 visor NEMA optics

F2AVISOR
- F2 visor asymmetric optics
- Not suitable for asymmetric wide optic

Replacements

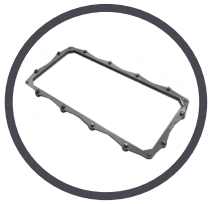
SLPC01R
- Photocell, 105-305 VAC

SLPC02R
- Photocell, 312-382 VAC

SLPC03R
- Photocell, 432-528 VAC

FL10KV277
- 10kA surge protection 100-277V

FL10KV480
- 10kA surge protection 347-480V



FLGLASSLG
- Glass lens, gray

FLGLASSLZ
- Glass lens, bronze

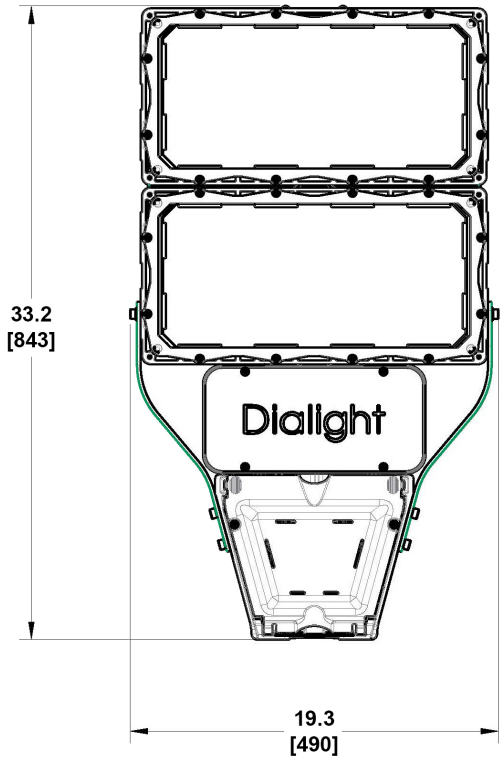
FLPCLG
- Polycarb lens, gray

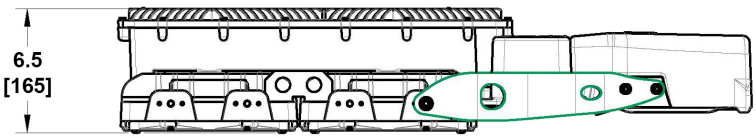
FLPCLZ
- Polycarb lens, bronze

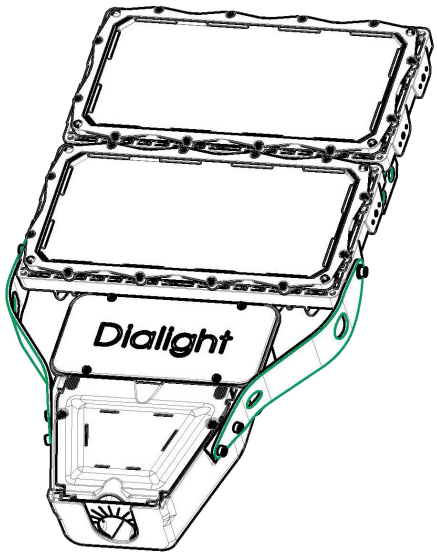
- Kit includes (1) assembly

Replacement Power Supplies	
Part Number	Description
F2PS2H	120-277V Power Supply, 36k lm
F2PS2L	120-277V Power Supply, 48k lm
F2PS2N	120-277V Power Supply, 60k lm
F2PS5H	347-480V Power Supply, 36k lm
F2PS5L	347-480V Power Supply, 48k lm
F2PS5N	347-480V Power Supply, 60k lm

Dimensional Drawings







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