November 14, 2019
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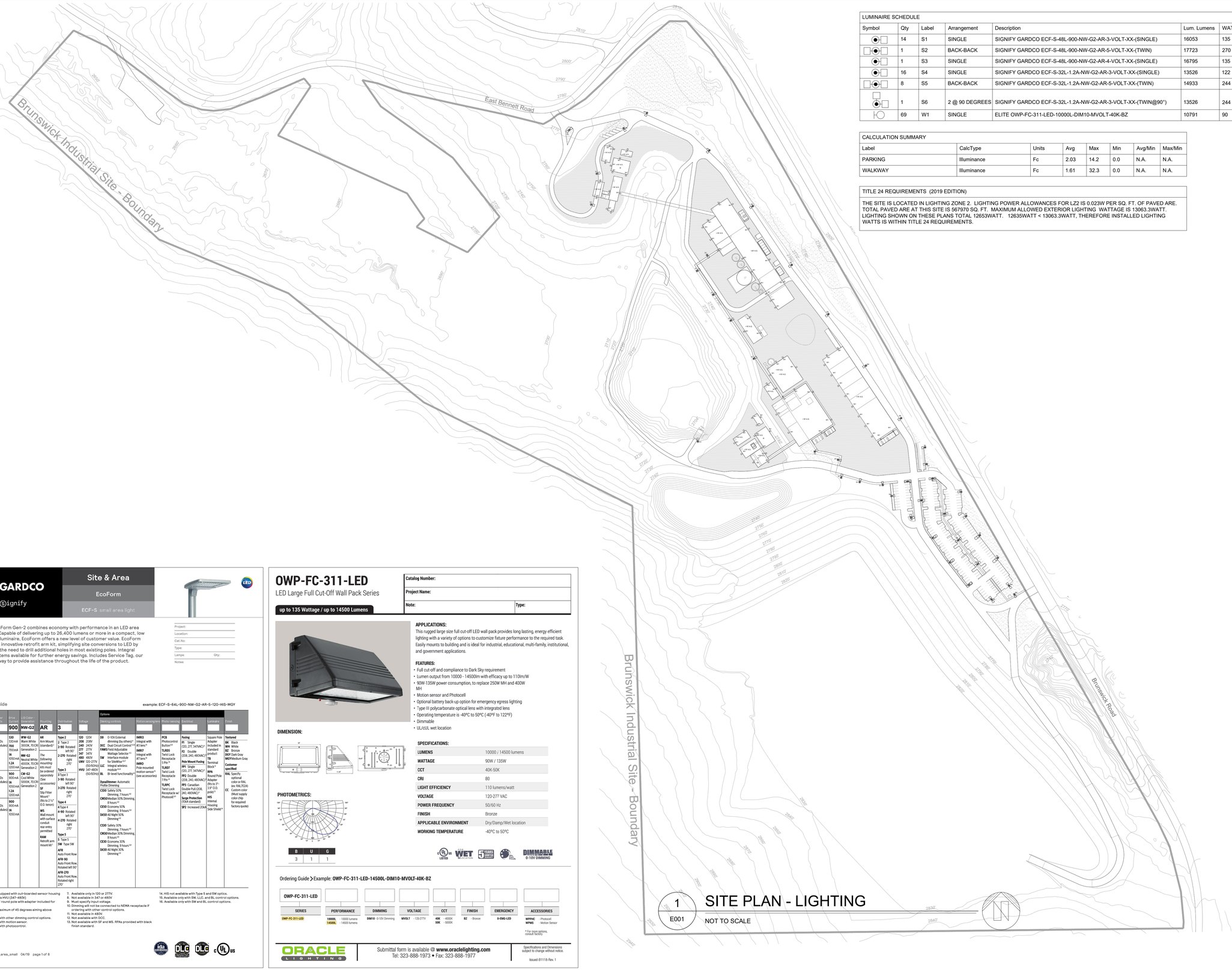

1
E001
SITE PLAN - LIGHTING
NOT TO SCALE

LUMINAIRE SCHEDULE							
Symbol	Qty	Label	Arrangement	Description	Lum. Lumens	WATT	MOUNTING HEIGT
	14	S1	SINGLE	SIGNIFY GARDCO ECF-S-48L-900-NW-G2-AR-3-VOLT-XX-(SINGLE)	16053	135	20'
	1	S2	BACK-BACK	SIGNIFY GARDCO ECF-S-48L-900-NW-G2-AR-5-VOLT-XX-(TWIN)	17723	270	20'
	1	S3	SINGLE	SIGNIFY GARDCO ECF-S-48L-900-NW-G2-AR-4-VOLT-XX-(SINGLE)	16795	135	20'
	16	S4	SINGLE	SIGNIFY GARDCO ECF-S-32L-1.2A-NW-G2-AR-3-VOLT-XX-(SINGLE)	13526	122	20'
	8	S5	BACK-BACK	SIGNIFY GARDCO ECF-S-32L-1.2A-NW-G2-AR-5-VOLT-XX-(TWIN)	14933	244	20'
	1	S6	2 @ 90 DEGREES	SIGNIFY GARDCO ECF-S-32L-1.2A-NW-G2-AR-3-VOLT-XX-(TWIN@90°)	13526	244	20'
	69	W1	SINGLE	ELITE OWP-FC-311-LED-10000L-DIM10-MVOLT-40K-BZ	10791	90	REFER TO PLANS

CALCULATION SUMMARY							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	Fc	2.03	14.2	0.0	N.A.	N.A.
WALKWAY	Illuminance	Fc	1.61	32.3	0.0	N.A.	N.A.

TITLE 24 REQUIREMENTS (2019 EDITION)

THE SITE IS LOCATED IN LIGHTING ZONE 2. LIGHTING POWER ALLOWANCES FOR LZ2 IS 0.023W PER SQ. FT. OF PAVED ARE. TOTAL PAVED ARE AT THIS SITE IS 567970 SQ. FT. MAXIMUM ALLOWED EXTERIOR LIGHTING WATTAGE IS 13063.3WATT. LIGHTING SHOWN ON THESE PLANS TOTAL 12653WATT. 12635WATT < 13063.3WATT, THEREFORE INSTALLED LIGHTING WATTS IS WITHIN TITLE 24 REQUIREMENTS.

GARDCO by Signify

Site & Area
EcoForm
ECF-S small area light

Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 26,400 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

Ordering guide

example: ECF-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Series	Number of lamps	Drive current	LED Color/Generation	Arm	Mounting	Voltage	Options: Dimming controls	Options: Motion sensing lens	Options: Photo sensing	Options: Electrical	Luminaire	Finish
ECF-S	48	900	NW-G2	AR	3							

ECF-S EcoForm site and area, small

32L 32 LEDs (2 modules)
48L 48 LEDs (3 modules)
64L 64 LEDs (4 modules)

530 530mA
700 700mA
1A 1050mA
1.2A 1200mA
900 900mA
900 900mA
1A 1050mA
1.2A 1200mA

WW-G2 Warm White 3000K, 70CRI Generation 2
NW-G2 Neutral White 4000K, 70CRI Generation 2
CW-G2 Cool White 5000K, 70CRI Generation 2

AR Arm Mount, standard[1]
The following mounting kits must be ordered separately (see accessories):
SF Slip Fitter Mount[2] (fits to 2-7/8" O.D. tenon)
WS Wall mount with surface conduit rear entry permitted
RAM Retrofit arm mount kit

Type 2
2 Type 2
2-90 Rotated left 90°
2-270 Rotated right 270°
Type 3
3 Type 3
3-90 Rotated left 90°
3-270 Rotated right 270°
Type 4
4 Type 4
4-90 Rotated left 90°
4-270 Rotated right 270°
Type 5
5 Type 5
SW Type SW
AFR Auto Front Row
AFR-90 Auto Front Row, Rotated left 90°
AFR-270 Auto Front Row, Rotated right 270°

120 120V
208 208V
240 240V
277 277V
347 347V
480 480V
UNV 120-277V (50/60Hz)
HVU 347-480V (50/60Hz)

Dimming controls
D0 0-10V External dimming (by others)[3]
DCC Dual Circuit Control[3,4]
FWS Field Adjustable Wattage Selector[4,5]
IW Interface module for SiteWise[6,7]
LLC Integral wireless module[8]
BL Bi-level functionality[9]
DynaDimmer: Automatic Profile Dimming
C30 Safety 30% Dimming, 7 hours[10]
CM50 Median 50% Dimming, 8 hours[10]
C50 Economy 50% Dimming, 9 hours[10]
D430 All Night 30% Dimming[11]
C30 Safety 30% Dimming, 7 hours[10]
CM30 Median 30% Dimming, 8 hours[10]
C30 Economy 30% Dimming, 9 hours[10]
D430 All Night 30% Dimming[11]

Motion sensing lens
IMR3 Integral with IR3 lens[9]
IMR3/7 Integral with IR7lens[9]
IMRO Pole-mounted motion sensor[9] (see accessories)

Photo sensing
PCB Photocontrol Button[12]
TLR55 Twist Lock Receptacle 5 Pin[13]
TLR57 Twist Lock Receptacle 7 Pin[13]
TLR7C Twist Lock Receptacle w/ Photocell[13]

Electrical
Fusing
F1 Single (120, 277, 347VAC)[14]
F2 Double (208, 240, 480VAC)[14]
Pole Mount Fusing
FP1 Single (120, 277, 347VAC)[14]
FP2 Double (208, 240, 480VAC)[14]
FP3 Canadian Double Pull (208, 240, 480VAC)[14]
Surge Protection (10kA standard)
SP2 Increased 20kA

Luminaire
Square Pole Adapter included in standard product
TB Terminal Block[14]
RPA Round Pole Adapter (fits to 2-3/8" O.D. pole)[15]
HIS Internal Housing Side Shield*

Finish
Textured
BK Black
WH White
BZ Bronze
DGY Dark Gray
MGY Medium Gray
Customer specified
RAL Specify optional color or RAL (ex: RAL7024)
CC Custom color (Must supply color chip for required factory quote)

1. BL=IMR3/7 equipped with out-boarded sensor housing when voltage is HVU (347–480V).
2. Mounts to a 4" round pole with adapter included for square poles.
3. Limited to a maximum of 45 degrees aiming above horizontal.
4. Not available with other dimming control options.
5. Not available with motion sensor.
6. Not available with photocontrol.
7. Available only in 120 or 277V.
8. Not available in 347 or 480V
9. Must specify input voltage.
10. Dimming will not be connected to NEMA receptacle if ordering with other control options.
11. Not available in 480V.
12. Not available with DCC.
13. Not available with SP and WS. RPAs provided with black finish standard.
14. HIS not available with Type 5 and SW optics.
15. Available only with SW, LLC, and BL control options.
16. Available only with SW and BL control options.

OWP-FC-311-LED

LED Large Full Cut-Off Wall Pack Series

up to 135 Wattage / up to 14500 Lumens

Catalog Number:
Project Name:
Note:
Type:

APPLICATIONS:
This rugged large size full cut-off LED wall pack provides long lasting, energy efficient lighting with a variety of options to customize fixture performance to the required task. Easily mounts to building and is ideal for industrial, educational, multi-family, institutional, and government applications.

FEATURES:
- Full cut-off and compliance to Dark Sky requirement
- Lumen output from 10000 - 14500lm with efficacy up to 110lm/W
- 90W-135W power consumption, to replace 250W MH and 400W MH
- Motion sensor and Photocell
- Optional battery back-up option for emergency egress lighting
- Type III polycarbonate optical lens with integrated lens
- Operating temperature is -40ºC to 50ºC (-40ºF to 122ºF)
- Dimmable
- UL/cUL wet location

DIMENSION:

PHOTOMETRICS:

B	U	G
3	1	1

SPECIFICATIONS:

LUMENS	10000 / 14500 lumens
WATTAGE	90W / 135W
CCT	40K-50K
CRI	80
LIGHT EFFICIENCY	110 lumens/watt
VOLTAGE	120-277 VAC
POWER FREQUENCY	50/60 Hz
FINISH	Bronze
APPLICABLE ENVIRONMENT	Dry/Damp/Wet location
WORKING TEMPERATURE	-40ºC to 50ºC

DIMMABLE 0-10V DIMMING

Ordering Guide > Example: **OWP-FC-311-LED-14500L-DIM10-MVOLT-40K-BZ**

OWP-FC-311-LED						
SERIES	PERFORMANCE	DIMMING	VOLTAGE	CCT	FINISH	EMERGENCY	ACCESSORIES
OWP-FC-311-LED	**10000L** - 10000 Lumens **14500L** - 14500 lumens	**DM10** - 0-10V Dimming	**MVOLT** - 120-277V	**40K** - 4000K **50K** - 5000K	**BZ** - Bronze	**0-EMG-LED**	**MPPHC** - Photocell **MPMS** - Motion Sensor

* For more options, consult factory

ORACLE LIGHTING

Submittal form is available @ **www.oraclelighting.com**
Tel: 323-888-1973 • Fax: 323-888-1977

Specifications and Dimensions subject to change without notice.

Issued-B1118-Rev. 1

No.	REVISIONS	DATE	BY
–	–	X/X/XX	–

M. NEILS ENGINEERING, INC.
Electrical Engineers | Lighting Designers
100 Howe Ave., Suite 235N
Sacramento, CA 95825-8217
www.mneilsengineering.com
Tel: (916) 923-4400 Fax: (916) 923-4410
PROJECT #: 19301.21

REGISTERED PROFESSIONAL ENGINEER
JESSE U. BASTIAN
No. E20229
Exp. 03-31-21
ELECTRICAL
STATE OF CALIFORNIA
11-11-19

SHEET TITLE: SITE PLAN - LIGHTING

PROJECT:
Idaho-Maryland Gold Project
Rise Grass Valley Inc.
PO Box 271
Grass Valley, California, USA 95945

Date:	11-11-19
Checked:	JUB
Drawn:	SG
Scale:	AS NOTED

Sheet
E001
Of • Sheets