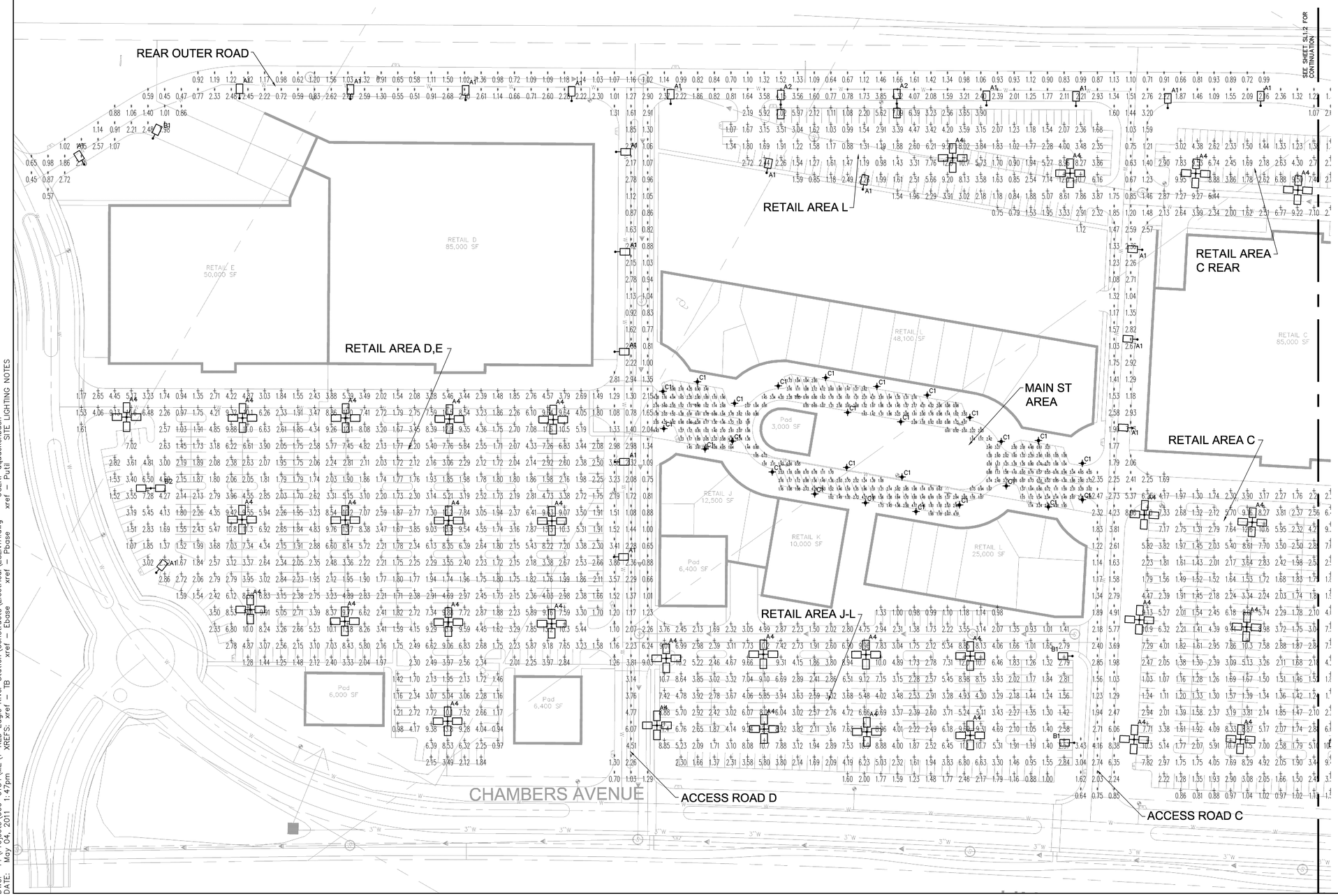
EAGLE RIVER STATION
SITE LIGHTING PHOTOMETRIC PLAN

GENERAL NOTES:

A. ALL READINGS ARE IN FOOTCANDLES AT GRADE LEVEL.



SCALE: 1"=60'

0 30 60 120
SCALE IN FEET

N

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Phoenix, AZ 85020-5282
TEL 602.748.1000
FAX 602.748.1001
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REV. NO.	DATE	REVISIONS DESCRIPTION

REVISIONS

SITE LIGHTING PHOTOMETRIC PLAN
PRELIMINARY DESIGN

EAGLE RIVER STATION
FIRST PHASE

EAGLE, COLORADO

2011

drawn by:	DPQ
designed by:	RAZ
checked by:	JLF
project no.:	009-0134
date:	05.04.11

SHEET
SL1.1

DWG: F:\Projects\009-0134\ME\1-RED Eagle River Station\Constructs\Electrical\ESLN1A.dwg USER: dquackenbush
DATE: May 04, 2011 1:47pm XREFS: xref - TB xref - Ebase xref - Pbase xref - Putil SITE LIGHTING NOTES

EAGLE RIVER STATION
SITE LIGHTING PHOTOMETRIC PLAN

GENERAL NOTES:

A. ALL READINGS ARE IN FOOTCANDLES AT GRADE LEVEL.

CALCULATIONS LUMINAIRE SCHEDULE

SYMBOLS	LABEL	CATALOG NUMBER	DESCRIPTION	LAMP	MOUNTING	FILE	LUMENS	LLF	WATTS
	A1	G18-1-3XL-250PSMH	PHILIPS GARDCO	250W PSMH	25'-0"	G18-3XL-250P.IES	22,000	0.80	291
	A2	G18-2-3XL-250PSMH	PHILIPS GARDCO	250W PSMH/ FIXTURE	25'-0"	G18-3XL-250P.IES	22,000/ FIXTURE	0.80	291/ FIXTURE
	A4	G18-4-4XL-250PSMH	PHILIPS GARDCO	250W PSMH/ FIXTURE	25'-0"	G18-4XL-250P.IES	22,000/ FIXTURE	0.80	291/ FIXTURE
	B1	G18-1-4XL-250PSMH	PHILIPS GARDCO	250W PSMH	25'-0"	G18-4XL-250P.IES	22,000	0.80	291
	B2	G18-2-4XL-250PSMH	PHILIPS GARDCO	250W PSMH/ FIXTURE	25'-0"	G18-4XL-250P.IES	22,000/ FIXTURE	0.80	291/ FIXTURE
	C1	1230-R05H-S-175MH	STERNBURG PRAIRIE	175W PSMH	14'-0"	1230-R05-175MH.IES	14,000	0.80	210

LIGHTING CALCULATIONS

AREA	SYMBOL	MAXIMUM	MINIMUM	AVERAGE	MAX/MIN	AVE/MIN
ACCESS ROAD A	*	6.40	0.75	2.19	8.54	2.93
ACCESS ROAD B	*	3.68	0.36	1.81	10.12	4.98
ACCESS ROAD C	*	8.96	0.63	2.26	14.16	3.57
ACCESS ROAD D	*	9.03	0.65	1.92	13.84	2.94
MAIN STREET AREA	+	4.85	0.51	1.91	9.42	3.72
REAR OUTER ROAD	*	10.63	0.43	2.12	24.89	4.95
REAR AREA A	+	2.79	0.35	1.29	8.05	3.72
REAR AREA B	+	3.36	0.26	1.30	12.86	4.96
RETAIL AREA A	+	13.93	0.98	4.22	14.18	4.30
RETAIL AREA A SIDE	+	14.32	0.90	4.35	15.83	4.81
RETAIL AREA B	+	14.15	0.82	3.93	17.33	4.81
RETAIL AREA C	+	13.91	0.81	3.69	17.13	4.54
RETAIL AREA C REAR	+	11.03	1.23	4.10	9.00	3.34
RETAIL AREAS D,E	+	14.12	0.94	3.98	15.00	4.23
RETAIL AREAS J-L	+	12.32	0.88	4.13	13.95	4.68
RETAIL AREA L	+	12.61	0.75	3.30	16.89	4.43

N

SCALE: 1"=60'

0 30 60 120
SCALE IN FEET

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7250 North 16th Street, Suite 210
Phoenix, AZ 85020-5282
TEL 602.748.1000
FAX 602.748.1001
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REV. NO.	DATE	REVISIONS DESCRIPTION

REVISIONS

SITE LIGHTING PHTOMETRIC PLAN
PRELIMINARY DESIGN

EAGLE RIVER STATION
FIRST PHASE

EAGLE, COLORADO

2011

drawn by:	DPQ
designed by:	RAZ
checked by:	JLF
project no.:	009-0134
date:	05.04.11

SHEET
SL1.2

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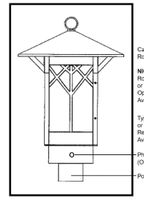
XREFS: xref - TB xref - Ebase xref - Pbase xref - Putil
USER: dquackenbush
SITE LIGHTING NOTES

EAGLE RIVER STATION
SITE LIGHTING SPECIFICATIONS

STERNBERG — *Prairie Lighting Fixtures* — *1-38*

TYPE C1

1230 PRAIRIE SERIES — SPECIFICATIONS



GENERAL
The 1230 Prairie fixture is a large scale, dramatic Wrightian/Mission squared edge design. It features a tall, straight four-sided decorative cast gage, a unique tree design grille, cast ballast housing assembly, acrylic lens and a dramatic cantilever roof design. The roof shall be appointed with an aluminum ring finial.

POST FITTER
The fitter or base shall be heavy wall cast aluminum, 319 alloy for high tensile strength. It shall have an inside diameter opening to accept a 4", 5" or 6" square or round pole or tenon. When ordered with a Sternberg aluminum pole, the fitter shall be set screwed to the pole top or tenon.

BALLAST HOUSING
The ballast housing shall be heavy wall cast aluminum, 319 alloy for high tensile strength. The housing shall be cast as an integral part of the fitter to prevent water entry into the ballast compartment and to ensure high capacity heat sinking of ballast temperatures, keeping the ballast cooler and ensuring long life. The ballast mounting plate shall be cast aluminum and provide tool-less removal from the housing using 2 ea finger latches.

ELECTRICAL
Fixture shall be U.L. or E.T.L. listed. H.I.D. ballasts shall be high power factor with lamp starting down to -30 degrees C. Medium base and mogul base porcelain sockets are 4KV rated. The ballast/socket assembly shall be pre-wired when ballast is located in the fixture. All compact fluorescent (PL) ballasts shall be instant start electronic with a starting temperature of down to 0 degrees F. They shall have a 4-pin socket to accept quad or triple tube lamps. Ballasts shall be DOE EISA compliant.

FIXTURE HOUSING
The 1230 fixture shall be 24" wide and the overall height shall be 37". It shall be made of heavy wall cast aluminum, 319 alloy and lenses will be made of vandal resistant acrylic, available in clear (CA), clear seeded (CSA), clear textured (CTA), prismatic (PA), white (WA) acrylic and art glass (AGB). The 1230 fixture features a cast 12" wide window body with cast tree design grille work. The cast 24" square roof shall cantilever the fixture body and have a solid aluminum soffit with 8 cast corner braces. The entire fixture shall be made of cast aluminum, 319 alloy.

OPTICAL OPTIONS
Refractors shall be 6" diameter borosilicate glass with an I.E.S. Type 3 (RE3G) or Type 5 (RE5G) distribution. It shall be secured to the socket stem with 7/8" plated steel threaded pipe nipple and rest on a cast aluminum holder with anti-shock gasket. The refractor will be secured to cast holder with a quarter-turn internal aluminum twist ring for ease of maintenance.

LIST NO. 1230 PRAIRIE SERIES
The **NIGHTSKY® OPTI-SHIELD® Louver Optic System** (LO-S) shall be a multi-tier reflector with 7" diameter rings to produce an I.E.S. Cut-off Type 3 or 5 distribution. The Louver Optic

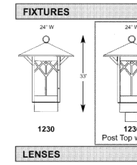
10-09

(Continued on back page)

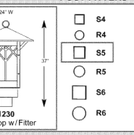
STERNBERG — *1-39*

1230 PRAIRIE — FIXTURES/FITTERS/ARMS PM-WB

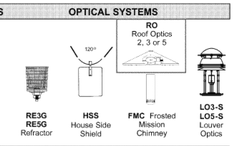
FIXTURES



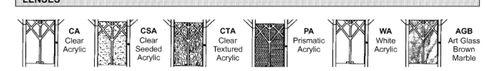
POST FITTERS



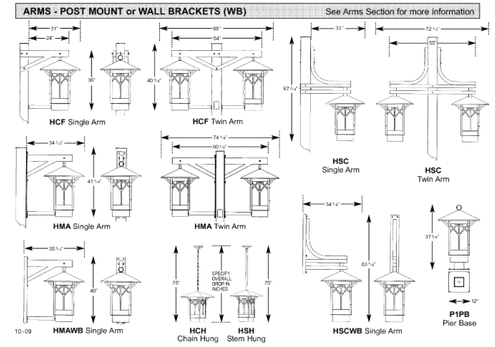
OPTICAL SYSTEMS



LENSES



ARMS - POST MOUNT or WALL BRACKETS (WB) — See Arms Section for more information



10-09

STERNBERG — *Prairie Lighting Specifications* — *1-40*

BUILDING A PART NUMBER

POST & ARM FIXTURES

NO. OF ARMS	ARM MOUNTED FIXTURE FIXTURE/POSTARM	CENTER POST TOP FIXTURE (PT) FIXT./FITTER	POST (See Post Section)	POST CAP	LIGHT SOURCE BALLAST WATTS/TYPE/VOLTS	OPTICS	OPTIONS	LENS	FINISH
2 —	1230/HCF	/ PT/	6SQ15	SC	100 MHP120		PEC	WA	BK

WALL FIXTURES

FIXTURE/WALL BRACKET	LIGHT SOURCE BALLAST WATTS/TYPE/VOLTS	OPTICS	OPTIONS	LENS	FINISH
1230/HMAWB	100 MHP120			WA	BK

PIER FIXTURES
Uses same information boxes as wall fixture
1230/P1PB
FIXTURE/PIER BASE

HANGING FIXTURES

DROP INCHES	FIXTURE/HANGING BRACKET	OVERALL DROP IN INCHES	LIGHT SOURCE BALLAST WATTS/TYPE/VOLTS	OPTICS	OPTIONS	LENS	FINISH
	1230/HCH44	96 INCHES	100 MHP120	RE5G		CA	BK

PART NUMBER SELECTIONS

FIXTURES
- 1230

FITTERS
- S4
- R4
- S5
- R5
- S6
- R6

OPTICS
- RE3G
- RE5G
- HSS
- FMC[1]
- LO3-S[2]
- LO5-S[2]
- RO2H-S[3]
- RO3H-S[3]
- RO5H-S[3]

POST ARMS
- HSC single
- HSC twin
- HMA single
- HMA twin
- HCF single
- HCF twin

VOLTAGES
- 120
- 208
- 240
- 277
- 480
- MULTI (120-277)

WALL BRACKET ARMS
- HMAWB
- HSAWB

PIER BASE
- P1PB

LENSES
- CA
- CSA
- CTA
- PA
- WA
- AGB

HANGING BRACKETS
- HCH44
- HSH44

BALLASTS[1,4]
- 35HPS[1]
- 50HPS
- 70HPS
- 100HPS
- 150HPS
- 250HPS
- 50MHP
- 70MHP
- 100MHP
- 150MHP
- 175MHP[5]
- 200MHP
- 250MHP
- 26PLT
- 32PLT
- 42PLT
- 57PLT
- 70PLT
- 60PLH
- 85PLH
- 120PLH
- INCAND
- QL55*
- QL85*
- QL165*

LAMPS[4]
- HPS35/MED
- HPS50/MED
- HPS70/MED
- HPS100/MED
- HPS150/MED
- HPS250/MOG/ED18
- MHP50/MED
- MHP70/MED
- MHP100/MED
- MHP150/MED
- MHP175/MOG/BT28[5]
- MHP200/MOG/ED28
- MHP250/MOG/ED28
- PLT26
- PLT32
- PLT42
- PLT57
- PLT70
- PLH60
- PLH65
- PLH120

*Consult factory for specification details

FINISHES STANDARD
- BKT Black Textured
- BK Black
- VG Verde Green
- PGT Park Green Textured
- PG Park Green
- ABZT Architectural Medium Bronze Textured
- ABZ Architectural Medium Bronze
- SI Swedish Iron
- DBT Dark Bronze Textured
- DB Dark Bronze
- OWGT Old World Gray Textured
- OWG Old World Gray

FINISHES CUSTOM
- WHT White Textured
- WH White
- CV Copper Vein
- WBK Weathered Black
- WBR Weathered Brown
- CD Cedar
- RT Rust
- OI Old Iron
- TT Two Tone
- CM Custom Match

OPTIONS
- PEC1 Photocell-Bimetal 120 Volt
- PEC2 Photocell-Bimetal 208-277 Volt
- PEC1-E Photocell-Electronic 120 Volt
- PEC2-E Photocell-Electronic 208-277 Volt
- FHS Single Fuse and Holder-120,277 Volt
- FHD Dual Fuse and Holder-208,240,480V
- QR Quartz Re-Strike
- LAMPS Select from List

NOTES:
[1] 35HPS is 120 volt only.
[2] MED base only when used to house lamp.
[3] Medium base sockets standard with ballasts up to 150 watts for HID. Mogul base sockets are standard with ballasts 175 watts and over. 4-pin for PL.
[4] Metal halide systems are pulse start.
[5] Consult factory for limitations.

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www. sternberglighting.com — Email: info@sternberglighting.com 10-09

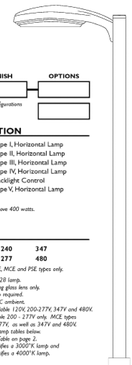
Job:
Type: A1, A2, A4, B1, B2
Notes:

Gullwing

Page 1 of 3

G18 Area Luminaires

The Philips Gardco Gullwing is an area luminaire defined by its sleek profile and rugged construction. The housing is one-piece, die cast aluminum and mounts directly to a pole or wall without the need of a separate support arm. The multifaceted arc-image duplicating optical systems provide IES Types I, II, III, IV and V distributions. The door frame is single-piece diecast aluminum and retains an optically clear tempered flat glass lens. The luminaire is completely sealed and gasketed preventing intrusion from moisture, dust and insects. Gullwing luminaires are finished with a fade and abrasion resistant TGIC powdercoat. Flat glass lens luminaires provide full cutoff performance. Sag Lens luminaires provide cutoff performance.



PREFIX	MOUNTING	DISTRIBUTION	WATTAGE	VOLTAGE	FINISH	OPTIONS
G18						

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX
- **G18** 18" Gullwing Luminaire

MOUNTING
- **1** Single Pole Mount
- **2** Twin Pole Mount at 180°
- **2@90** Twin Pole Mount at 90°
- **3** 3-way Pole Mount at 90°
- **3@120**[10] 3-way Pole Mount at 120°
- **4** 4-way Pole Mount
- **W** Wall Mount, Recessed J-Box
- **WS** Wall Mount, Surface Conduit

1. Not available with PTF option.

DISTRIBUTION
- **1**[1] Type I, Horizontal Lamp
- **2XL** Type II, Horizontal Lamp
- **3XL** Type III, Horizontal Lamp
- **4XL** Type IV, Horizontal Lamp
- **BLC**[2] Backlight Control
- **Q**[1] Type V, Horizontal Lamp

2. Not available above 400 watts.

WATTAGE

Pulse Start MH Magnetic Ballast	**100MH**[7]	**250PSMH** Ⓔ	**350PSMH** Ⓔ	**875PSMH**[7]
	150MH[7]	**250PS90**** Ⓔ	**400PSMH** Ⓔ	**1000PSMH****
	175PSMH Ⓔ	**320PSMH**[7] Ⓔ	**750PSMH**[7]	
Standard MH Magnetic Ballast	**175MH**[7]	**250MH**[7]	**400MH**[7]	**1000MH**[7]
CosmoPolis Electronic System (See Notes 6,7,9)	**60CMPE**	**90CMPE** **140CMPE**	*Note: 347V and 480V CMPE and MCE systems include and require an auxiliary transformer.*	*CosmoPolis and MasterColor Elite Systems are supplied with lamp.*
MasterColor Elite Electronic System (See Notes 6,7,8,10)	**210MCE-3K** Ⓔ	**315MCE-3K** Ⓔ		
	210MCE-4K Ⓔ	**315MCE-4K** Ⓔ		
Pulse Start MH Electronic Ballast (See Notes 6,7,9)	**150PSE**[8] Ⓔ	**175PSE** Ⓔ	**250PSE** Ⓔ	**320PSE**[8] Ⓔ
High Pressure Sodium Magnetic Ballast	**70HPS**	**150HPS**	**400HPS**	**750HPS**[7]
	100HPS	**250HPS**	**600HPS**	
Low Pressure Sodium Magnetic Ballast	**35LPS**			

** 175MH, 250MH and 400MH not available for sale in the United States.*
*** 250PS90 includes a 90% efficient magnetic PSMH ballast, meeting the requirements of California Title 20, effective 1/1/2010.*

Ⓔ *Wattages marked with Circle "E" meet federal energy efficiency standards applicable to 150 watt through 500 watt metal halide luminaires only.*

VOLTAGE

120	**240**	**347**
208	**277**	**480**
200-277 *CMPE, MCE and PSE types only.*		

3. Requires E28/B728 lamp.
4. Furnished with sag glass lens only.
5. Mogul base lamp required.
6. UL Listed at 40°C ambient.
7. CMPE types available 120V, 200-277V, 347V and 480V. PSE types available: 200 - 277V only. MCE types available 200-277V, as well as 347V and 480V.
8. See 1000 watt lamp tables below.
9. See QS / QV24 Table on page 2.
10. "-3K" suffix specifies a 3000°K lamp and "-4K" suffix specifies a 4000°K lamp.

Note 9: 1000 Watt lamp tables.

For 1000 Watt Metal Halide, use:

Brand	Product Code	Catalog Number
Venture	53702	MS1000W/HOR/BT37/3K
G.E.	18205	MVR1000/U/BT37
Venture	15332	MH1000W/U/BT37

For 1000 Watt Pulse Start Metal Halide, use:

Brand	Product Code	Catalog Number
G.E.	10389	MVR1000/U/BT37/PA
Venture	49111	MS1000W/HOR/PT25/PS

WARNING: Use of other lamps voids warranty.

1611 Clovis Barker Road, San Marcos,TX 78666
(800) 227-0758 (512) 753-1000 FAX:-(512) 753-7855 sitelighting.com
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79115-85/0411

PHILIPS GARDCO

Gullwing

Page 2 of 3

G18 Area Luminaires

FINISH

BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
OC	Optional Color Paint *Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024.*
SC	Special Paint *Specify. Must supply color chip.*

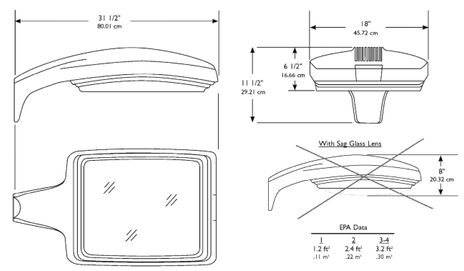
OPTIONS

F[1]	Fusing In Head
LF	In-Line In-Pole Fusing
PC[12]	Photocontrol and Receptacle
PCR	Photocontrol Receptacle only
POLY[13]	Polycarbonate Sag Lens
SG[14]	Sag Glass Lens
HS	Internal Houseside Shield
QS[1]	Quartz Standby
QST[9]	Quartz Standby - Timed Delay
Q924[9]	Quartz Emergency
QT924[9]	Quartz Emergency - Timed Delay
RPA1[15]	3" Round Pole Adapter
RPA2[16]	4" and 5" Round Pole Adapter
MF[17]	Mast Arm Fitter
TR1[18]	Single Transition
TR2[18]	Twin Transition
PTF2[19]	Pole Top Fitter - 2 3/8" - 3" Dia. Tenon
PTF3[19]	Pole Top Fitter - 3" - 3 1/2" Dia. Tenon
PTF4[19]	Pole Top Fitter - 3 1/2" - 4" Dia. Tenon
SQPTF[20]	Square Pole Top Fitter
GMR[21]	Provision for Gardco Motion Response
L6[22]	LumiStep Ballast 6 hour
L8[22]	LumiStep Ballast 8 hour
L10[22]	LumiStep Ballast 10 hour

9. See QS/Q924 Table.
11. Not available above 400 watt.
12. Not available in 480V. Provide specific input voltage.
13. 250W maximum. Polycarbonate lenses carry a 1 year warranty only.
14. In lieu of flat glass. Supplied standard and required with 750 watt and higher wattages.
15. Required for 3" O.D. round or tapered round poles where top O.D. is less than 4".
16. Required for 4"-5" O.D. round poles.
17. Mounts to a 2-3/8" O.D. mast arm.
18. Mounts to a 2-3/8" Tap Tenon. Specify a pole with a 4.50" O.D. for a smooth transition.
19. Not available in 120° mounting configurations.
20. Requires a 2-3/8" O.D. x 4" tenon or a 2.4" round pole top O.D. Specify Drilling (1, 2, 2@90, 3 or 4 only.)
21. Available only with 175PSMH through 400PSMH and 150HPS through 400HPS wattages. Includes dual-level capacitor and wiring to connect to Gardco Motion Response System.
22. Available with CosmoPolis system only. See submittal sheet GE200-005 for complete information on LumiStep ballasts.

(Note 9)	QS / Q924 Table
HID Lamp Watts	Maximum Quartz Lamp Watts
175 watts or less	100 Watts
Above 175 watts up to 400 watts	150 Watts
QS, QST, Q924, QT924 are not available with CMPE, MCE or PSE wattages or in luminaires above 400 watts HID.	

DIMENSIONS AND EPA



EPA Data

1	2	3-4
1.2 ft²	2.4 ft²	3.2 ft²
.11 m²	.22 m²	.30 m²

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OLSSON ASSOCIATES
7250 North 16th Street, Suite 210
Phoenix, AZ 85020-5282
TEL 602.748.1000
FAX 602.748.1001
www.olssonsulting.com

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION

SITE LIGHTING SPECIFICATIONS
PRELIMINARY DESIGN

EAGLE RIVER STATION
FIRST PHASE

EAGLE, COLORADO

2011

drawn by:	DPQ
designed by:	RAZ
checked by:	JLF
project no.:	009-0134
date:	05.04.11

SHEET
SL2.1

DWG: F:\Projects\009-0134\ME\1-RED Eagle River Station\Constructs\Electrical\ESLN1A.dwg USER: dquackenbush SITE LIGHTING NOTES
DATE: May 04, 2011 1:48pm XREFS: xref - TB xref - Ebase xref - Pbase xref - Putil