CLEAN ROOM LED
GCR710 (1X4) SERIES
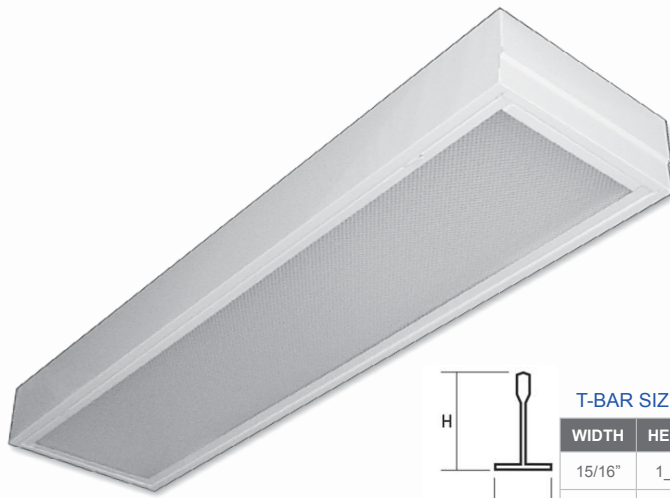### CLASS 1000/10000 CLEAN ROOM GRID LUMINAIRE

CLASS 1000/10000 GRID MOUNTED LED LUMINAIRE FOR 1" OR 1_1/2" WIDE INVERTED T-BAR CEILINGS

DIMENSIONS

11_5/8"

4_1/2"

12"

48"

36_5/16" O/C

⊕ 7/8" K.O.

11 5/8"

T-BAR SIZING

WIDTH	HEIGHT
15/16"	1_1/2"
1_1/2"	1_1/2"
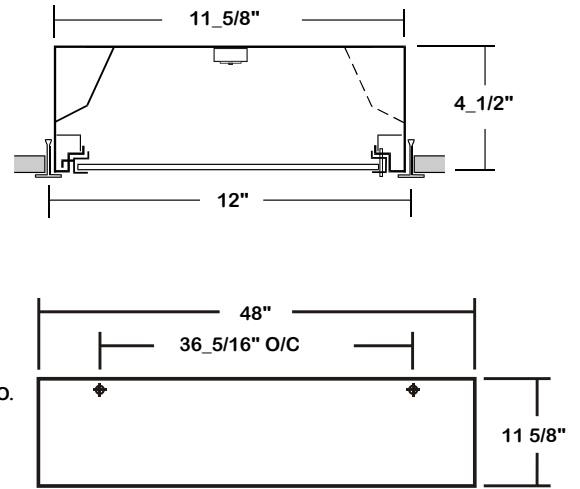
APPLICATIONS
• Clean Room, Sealed Ceiling Areas, Commercial

FEATURES
• 0-10V dimming driver standard *(See DRIVER OPTIONS for other dimming types)*
• Supports California Title 24 compliance

OPTIONS
• Full customization available upon request
• Additional lumen packages and color temperatures available
• Controls and sensors available *(See SENSOR OPTIONS for controls and sensors)*
• Wireless control options available *(See SENSOR OPTIONS for wireless controls)*
• Variety of lenses available *(See OPTICAL OPTIONS for lenses)*
• Emergency battery pack available *(See BATTERY PACK OPTIONS for battery pack options)*
• Antimicrobial finished housing and door frame available
• Tamper proof screws available

SPECIFICATIONS

CONSTRUCTION
• Class 1000/10000 / ISO Class 6 equivalent / ISO Class 7 equivalent
• 22 ga. cold rolled steel welded housing
• All parts fitted and sealed
• 20 ga. cold rolled steel door frame secured by T-hinges and positive spring loaded latches
• Door frame sealed with neoprene gasket

FINISH
• Baked white powder coated finish / welded and painted after fabrication / minimum reflectance 90%

OPTICAL
• Inverted clear prismatic acrylic lens (nominal 0.125) standard

ELECTRICAL
• High efficiency drivers coupled with long-life LEDs
• Service life greater than 50,000 hours (L70)
• Universal voltage 120V through 277V (347V / 480V available)
• Power Factor (PF) ≥ 0.9
• Total Harmonic Distortion (THD) ≤ 20%

LISTING
• UL USA and Canada listed / suitable for damp locations

WARRANTY
• 5-year limited warranty

Los Angeles Lighting Mfg. Co.
Headquarters
10141 Olney Street
El Monte, CA 91731
Made in the USA

Contact Us
T: 626-454-8300
F: 626-454-8399
www.lalighting.com

MADE IN USA

cULus

RoHS COMPLIANT

ORDERING INFORMATION

EXAMPLE: GCR710-4-4L-FSW-PA2-TP-BPL10-1DRDM-UNV-1/840

SERIES	LED LUMEN PACKAGE	EFFICACY	NOMINAL LENGTH	FINISH	DOOR FRAME	OPTICAL	MECHANICAL	ELECTRICAL	DRIVER	VOLTAGE	# OF LED ROW	CRI / CCT
GCR710			**4L**		**FSW**				**1DRDM**	**UNV**		
GCR710 Class 1000 / 10000 Clean Room Grid LED Luminaire	**2** Nom. 2000 Lumens **4** Nom. 4000 Lumens **6** Nom. 6000 Lumens **8** Nom. 8000 Lumens **12** Nom. 12000 Lumens *Additional Lumen Packages Available	**(Blank)** Standard **HE** High Efficacy (Only 2000 / 4000 / 6000 / 12000 lumens Systems)	**4L** 1' x 4'	**AMF** Antimicrobial Finished Housing and Door Frame *Leave Blank if Not Specified	**FSW** Flat Steel White Enamel Door Frame See DOOR FRAME for Options	**PA2** Clear Prismatic Acrylic 0.125 Nominal **FPA2** Frosted Prismatic Acrylic 0.125 Nominal See OPTICAL OPTIONS for Options	**TP** Tamper Proof Screws (Hex Socket with Post) *Leave Blank if Not Specified *Additional Mechanical Options*	**BPL10** Emergency Battery Pack, Constant 10W Nom. 1500 lm See BATTERY PACK OPTIONS for Options **MSxx** Motion Sensor **WLC(LEDRU)** Wireless Control See SENSOR OPTIONS for Options *Leave Blank if Not Specified *Additional Electrical Options*	**1DRDM** 0-10V One Dimming Driver See DRIVER OPTIONS for Options	**UNV** 120V-277V See DRIVER OPTIONS for Options	**1** One LED Row (Only 2000 / 4000 / 6000 / 8000 lumens Systems) **2** Two LED Rows (Only 12000 lumens System)	**830** 80+CRI / 3000K Color Temp. **835** 80+CRI / 3500K Color Temp. **840** 80+CRI / 4000K Color Temp. **850** 80+CRI / 5000K Color Temp. *Additional Color Temp. Available

SYSTEM DATA

THESE ARE THE MOST POPULAR LUMEN PACKAGES. PLEASE CONSULT FACTORY FOR ADDITIONAL SYSTEM DATA.

NOMINAL SIZE	LED LUMEN PACKAGE	OPTICAL OPTION	CRI / CCT	DELIVERED LUMENS	SYSTEM WATTS	LUMINAIRE EFFICACY	FLUORESCENT EQUIVALENT	IES FILES
1' x 4'	2000 lm	PA2	840	2036 lm	15.7 W	129.5 lm/W	1-F32T8	*
	2000HE lm	PA2	840	1932 lm	12.7 W	152.2 lm/W	1-F32T8	*
	4000 lm	PA2	840	2926 lm	33.1 W	88.4 lm/W	2-F32T8, 1-F54T5HO	LA-T3173-2
	4000HE lm	PA2	840	3845 lm	25.9 W	148.3 lm/W	2-F32T8, 1-F54T5HO	*
	6000 lm	PA2	840	5559 lm	52.3 W	106.2 lm/W	3-F32T8	*
	6000HE lm	PA2	840	5705 lm	39.6 W	143.9 lm/W	3-F32T8	*
	8000 lm	PA2	840	7509 lm	53.8 W	139.6 lm/W	4-F32T8, 2-F54T5HO	*
	12000 lm	PA2	840	11081 lm	104.6 W	105.9 lm/W	6-F32T8, 3-F54T5HO	*
	12000HE lm	PA2	840	11371 lm	79.3 W	143.5 lm/W	6-F32T8, 3-F54T5HO	*

NOTE:
System data above is based on 120V input voltage.
Actual performance may differ as a result of end-user environment and application.
This fixture has been tested and listed in accordance with UL Standards. L.A. Lighting certifies that it will operate safely when installed properly, and within an ambient temperature range from -20°C to 35°C.

Additional lumen packages and color temperatures available.

PERFORMANCE DATA

VIEW PHOTOMETRICS

SENSOR OPTIONS

HIGH FREQUENCY - INTERNALLY MOUNTED BEHIND FIXTURE LENS

MSHPC - Motion Sensor High Frequency (Microwave) with Photocell Option
• Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
• Holds lights OFF when sufficient daylight is present regardless of motion detection
• Selectable sensitivity and detection area
• Universal Voltage (120V-277V)
• Photocell is disabled by default

MSH - Motion Sensor High Frequency (Microwave)
• Super high frequency motion sensor (also known as microwave sensor) which detects movement when installed behind low density fixture materials, such as polycarbonate, acrylic and glass diffusers
• Turns light ON/OFF based on motion detection
• Universal Voltage (120V-277V)

enocean® CONTROLS AND SENSORS

WLC(LEDRU) - EnOcean® LED Relay Zone Controller
• Supports a single LED fixture or multiple daisy chained LED fixtures
• Module installed inside lighting fixture

ESRPU-W-EO - EnOcean® Rocker Switch – Single – Surface Mount
• Wireless single rocker switch with mounting plate
• No batteries needed

ESDRPU-W-EO - EnOcean® Rocker Switch – Double – Surface Mount
• Wireless double rocker switch with mounting plate
• No batteries needed

S3054-N30 - EnOcean® Navigan NWC 300U – Commissioning Tool
• Navigan Wireless Commissioner is used to configure EnOcean controllers & sensors
• It can be used to define link tables, change parameters/settings, and to edit & store projects
• Configuration settings can be saved and cloned to enable quick configuration
• Connectivity is through the NWC 300U USB Stick

EOSWU-W-EO - EnOcean® Occupancy Sensor – Wall Mount
• Wireless wall mounted occupancy sensor
• Solar powered - no batteries needed (coin battery operated in low light conditions)
• PIR motion sensor with both wide angle (50') and long range (100') options
• Mounting height: 6-8 feet

EOSCU-W-EO - EnOcean® Occupancy Sensor – Ceiling Mount
• Wireless ceiling mounted occupancy sensor
• Solar powered - no batteries needed (coin battery operated in low light conditions)
• PIR motion sensor with 360 degree viewing angle lens (34' diameter)
• Mounting height: 7-10 feet
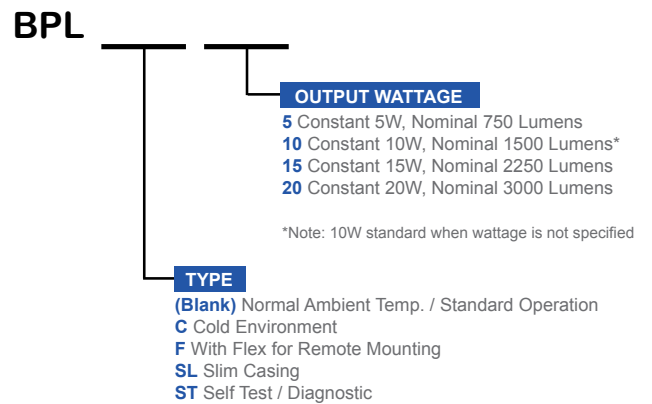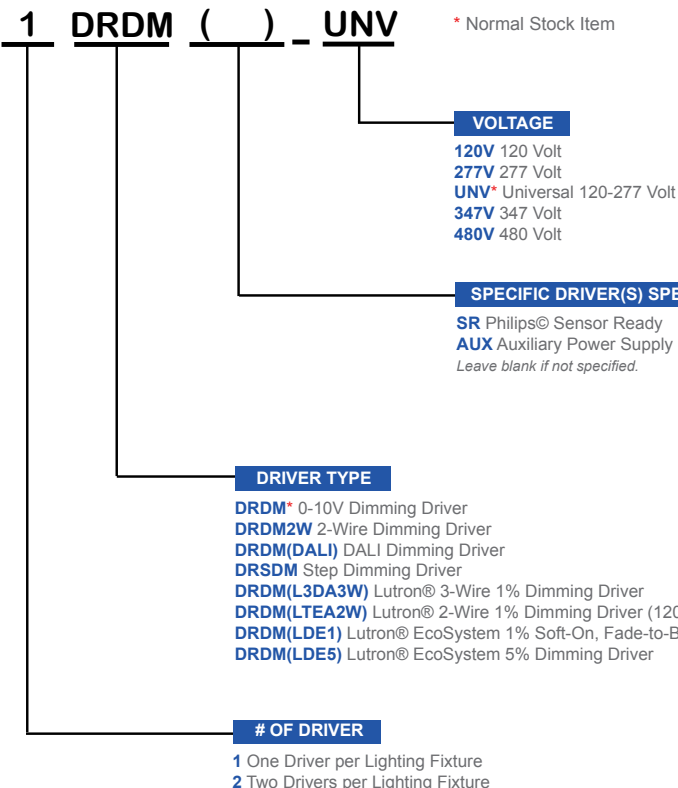
EOSCU-W-EO - EnOcean® Light Level Sensor
• Light Level sensor that measures and reports the level of available natural light
• Solar powered - no batteries needed (coin battery operated in low light conditions)
• Enables implementation of daylight harvesting control systems
• Mounting position: At the ceiling, close to ambient light source

DRIVER OPTIONS

PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED DRIVER OPTION WORKS WITH THIS FIXTURE.

1   DRDM   (   )   _ UNV

* Normal Stock Item

VOLTAGE
120V 120 Volt
277V 277 Volt
UNV* Universal 120-277 Volt
347V 347 Volt
480V 480 Volt

SPECIFIC DRIVER(S) SPECIFIED
SR Philips© Sensor Ready
AUX Auxiliary Power Supply
Leave blank if not specified.

DRIVER TYPE
DRDM* 0-10V Dimming Driver
DRDM2W 2-Wire Dimming Driver
DRDM(DALI) DALI Dimming Driver
DRSDM Step Dimming Driver
DRDM(L3DA3W) Lutron® 3-Wire 1% Dimming Driver
DRDM(LTEA2W) Lutron® 2-Wire 1% Dimming Driver (120V Forward Phase only)
DRDM(LDE1) Lutron® EcoSystem 1% Soft-On, Fade-to-Black™ Dimming Driver
DRDM(LDE5) Lutron® EcoSystem 5% Dimming Driver

 # OF DRIVER
1 One Driver per Lighting Fixture
2 Two Drivers per Lighting Fixture

BATTERY PACK OPTIONS

PLEASE CONSULT FACTORY TO SEE IF YOUR SELECTED BATTERY PACK OPTION WORKS WITH THIS FIXTURE.

BPL ___ ___

OUTPUT WATTAGE
5 Constant 5W, Nominal 750 Lumens
10 Constant 10W, Nominal 1500 Lumens*
15 Constant 15W, Nominal 2250 Lumens
20 Constant 20W, Nominal 3000 Lumens

*Note: 10W standard when wattage is not specified

TYPE
(Blank) Normal Ambient Temp. / Standard Operation
C Cold Environment
F With Flex for Remote Mounting
SL Slim Casing
ST Self Test / Diagnostic

OPTICAL OPTIONS

STANDARD LENSES FOR GCR710

PA2	Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base
FPA2	Frosted Prismatic Acrylic, Nom. 0.125 OA Thickness

ADDITIONAL AVAILABLE LENSES
(Not all optics suitable for fixture. Please consult factory to ensure selected optical option suits fixture. Please consult factory regarding any optical options not shown)

EXTRUDED PRISMATIC PATTERNS

| PA	Clear Prismatic Acrylic, No Thickness Specified, Female Prisms 3/16 Square Base
PA3	Clear Prismatic Acrylic, Min. 0.125 OA Thickness, Female Prisms 3/16 Square Base
PA8	Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base
P15	Clear Prismatic Acrylic, Nom. 0.200 OA Thickness, Female Prisms 3/8 Square Base
P195	Clear Prismatic Acrylic, Nom. 0.150 OA Thickness, Male Conical Prisms 3/16 Square Base
P198	Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Male Conical Prisms 3/16 Square Base
PWA2	White Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base
P3E	3E Batwing Pattern Lens
P195RF	Clear Prismatic Acrylic, 19 Shunts Radio Frequencies To Ground, Nom. 0.150 OA Thickness
PA2UV	Clear Prismatic Acrylic, UV Blocking, Nom. 0.125 OA Thickness

FLAT DIFFUSERS

FWA	Flat White Acrylic, No Thickness Speficied, Stippled Finish	FWA2	Flat White Acrylic, Nom. 0.125 Thickness, Stippled Finish
FFA	Frosted Flat Acrylic, No Thickness Specified	FFA2	Frosted Flat Acrylic, Nom. 0.125 Thickness
CA8	Clear Acrylic, Nom. 0.187 OA Thickness	CA	Clear Acrylic, No Thickness Specified
		CA2	Clear Acrylic, Nom. 0.125 OA Thickness

HIGH IMPACT

VL25	Clear Polycarbonate, Nom. 0.125 Thickness with 0.125 Clear Prismatic Acrylic Overlay
VL37	Clear Polycarbonate, Nom. 0.250 Thickness with 0.125 Clear Prismatic Acrylic Overlay
CPC2	Clear Polycarbonate, Nom. 0.125 OA Thickness
CPC8	Clear Polycarbonate, Nom. 0.187 OA Thickness
PPC8	Clear Prismatic Polycarbonate, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base
DRP3	High Impact Clear Prismatic Acrylic, Min. 0.125 OA Thickness, Female Prisms 3/16 Square Base
DRP2	High Impact Clear Prismatic Acrylic, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base
DRP8	High Impact Clear Prismatic Acrylic, Nom. 0.187 OA Thickness, Female Prisms 3/16 Square Base
PPC2	Clear Prismatic Polycarbonate, Nom. 0.125 OA Thickness, Female Prisms 3/16 Square Base

DOOR FRAME

CROSS SECTION

FS

FA

RA

QFA

QRA
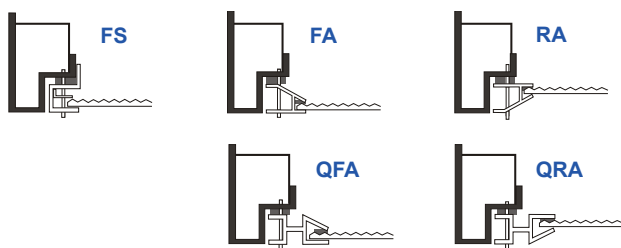
FS **W**

FINISHES
W White Enamel
B Black Enamel
N Natural Anodized Aluminum
(Only FA / RA / QFA / QRA styles)

STYLES
FS Flat Steel (with internal frame rail)
FA Flat Extruded Aluminum
RA 5/8" Regressed Extruded Aluminum
QFA Flat Extruded Aluminum-Black Reveal
QRA 1/2" Regressed Extruded Aluminum-Black Reveal

FEATURES
• Inverted Lens
• T-Hinges and Positive Spring Loaded Latches
• Sealed with Neoprene Gasket
• Light Stop Covers Installed
• Internal Frame Rail

PHOTOMETRIC DATA - GCR710 SERIES

GCR710-4-4L-FSW-PA2-1DRDM-UNV-1/840

TEST NO.=LA-T3173-2
LED TYPE=48 LED MODULE
NO. OF MODULE=2
SYSTEM WATT (W)=33.1
CRI ≥ 80
L70(Hrs.) ≥ 60,000
PHOTOMETRY TYPE=C

11_5/8"

4_1/2"

12"
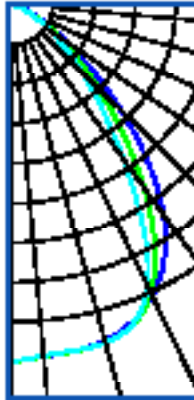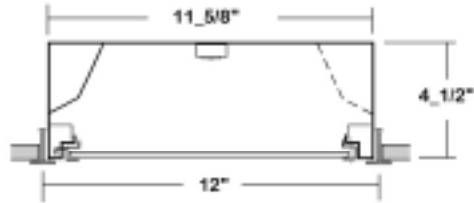
CANDLEPOWER

ANGLE	END	45	CROSS
0	1762	1762	1762
5	1763	1761	1755
15	1736	1745	1746
25	1603	1589	1551
35	1279	1111	936
45	747	557	456
55	316	264	230
65	107	95	82
75	29	27	24
85	5	4	3
90	0	0	1
95	0	0	0
115	0	0	0
125	0	0	0
135	0	0	0
145	0	0	0
155	0	0	0
165	0	0	0
175	0	0	0
180	0	0	0

ZONAL LUMEN SUMMARY

DEGREES	LUMENS	% LAMP	% FIXTURE
0-30	1395	32.5	47.6
0-60	2092	48.8	71.5
0-60	2800	65.3	95.7
0-90	2926	68.3	100.0
90-120	.02	0.0	0.0
90-150	.02	0.0	0.0
90-180	.02	0.0	0.0
0-180	2926	68.3	100.00

Luminaire Output= 2926 lumens
Luminaire Efficiency = 88.4 lm/W

SPACING CRITERION

ALONG	ACROSS
1.19	1.09