



ENMIENDA NÚM. 2

**SUBASTA FORMAL 23J-11814
PARA LA REPARACIÓN Y RECONSTRUCCIÓN DE LAS FACILIDADES DE LA
COMPAÑÍA INTEGRAL DE LA PENÍNSULA DE CANTERA
DEL GOBIERNO DE PUERTO RICO**

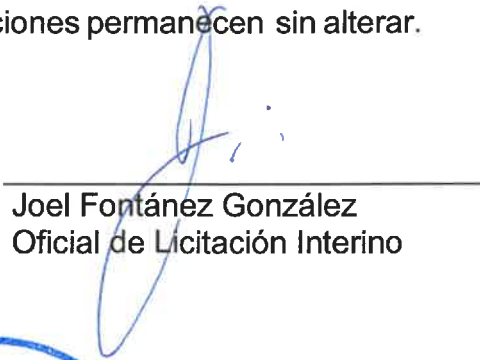
ASUNTO: VARIOS

Se notifica a los licitadores interesados en participar en la Subasta de referencia la siguiente enmienda:

- I. Se adjunta **Tabla de Ofertar Enmendada I**, la cual tendrá que ser utilizada por los licitadores para presentar su oferta.
- II. Se adjuntan **Alcance del Trabajo Enmendado y Especificaciones**, las cuales tendrán que ser utilizadas por los licitadores para presentar su oferta. (Las referencias a marcas específicas de artículos, materiales y equipos **se hacen únicamente como guía o índice** para ayudar al licitador potencial a determinar la clase y tipo de artículos, materiales y equipos que se interesa obtener. En estos casos, los licitadores potenciales pueden cotizar sus precios para otras marcas que cubran las especificaciones indicadas en el Pliego de la Subasta).

Todos los demás términos, condiciones y especificaciones permanecen sin alterar.


Lcda. Hilda Rivera Colón
Administradora Auxiliar
Área de Adquisiciones


Joel Fontáñez González
Oficial de Licitación Interino

**Emitido hoy, 8 de agosto de 2023
En San Juan, Puerto Rico**





Tabla de Ofertar Enmendada I
SUBASTA FORMAL 23J-11814
PARA LA REPARACIÓN Y RECONSTRUCCION DE LAS FACILIDADES DE LA COMPAÑIA INTEGRAL DE LA PENINSULA DE CANTERA
DEL GOBIERNO DE PUERTO RICO



Item Num	Descripción	Unidad	Precio	% Preferencia	Garantía	Término de Entrega
#220127 Cantera Península Community Center –Building 1 (Community Center)						
Exterior Site						
1	Remove and replace, Exterior Site, 3 each of Ornamental lighting poles concrete base, 6 IN long x 6 IN wide x 2 IN high, including two luminaires per pole.	LS				
2	Repair, Exterior Site, one (1) each Concrete sidewalk, 9 FT long x 9 FT wide x 4 IN high.	LS				
3	Remove and replace, Exterior Site, 160 (10 wood trellis (10.5 ft. L x 8 ft. W) with 32 wood boards each, 320 wood boards total, 160 wood boards damaged) Trellis wood boards, 5 FT long x 2 IN wide x 8 IN high.	LS				
4	Remove and replace, luminaires, 4 Wall mounted luminaire 200W.	LS				
5	Remove and replace, Exterior Site, one (1) each, Steel and wood bench, 5 FT long x 3 FT wide.	LS				
6	Remove and replace, Exterior Site, 11 SF of Red clay bricks steps, 9 IN long x 4 IN wide x 4 IN high.	LS				
7	Repair, Exterior Site, 10 each of Column stucco finish, 1 FT long x 1 FT wide x 8 FT high.	LS				
#282876 Cantera Península Community Center –Building 2 (Main Office Building)						
Building Interior:						
1	Remove and replace, Building Interior, 30 Acoustical ceiling tiles, 2 FT long x 2 FT wide.	LS				
2	Clean wash, prepare and paint, Building Interior, 1,500 SF of interior walls paint.	LS				
3	Remove and replace, Building Interior, 25 each of Surface mounted, U bulb type fluorescent lighting fixture, 2 FT long x 2 FT wide.	LS				
4	Remove and replace, Building Interior, 1 Window glass pane ¼" thick, 24 IN wide x 28 IN high.	LS				
5	Remove and replace, Building Interior, two (2) each Duplex outlet.	LS				
6	Remove and replace, Building Interior, one (1) each Wood floor base, 18 FT long x 6 IN high.	LS				
7	Remove and replace, Building Interior, one (1) each Wood floor base, 25 FT long x 6 IN high.	LS				
8	Remove and replace, Building Interior, one (1) each fluorescent lighting fixture, 4 FT long x 2 FT wide.	LS				
9	Remove and replace, Building Interior, two (2) Emergency exit signs.	LS				
10	Remove and replace, Building Interior, one (1) Exterior security camera.	LS				
11	Remove and replace, Building Interior, 64 SF of Gypsum board wall, 8 FT long x 8 FT high.	LS				
12	Clean wash, prepare and paint, Building Interior, one (1) interior ceiling paint, 71 FT long x 57 FT wide.	LS				
13	Clean wash, prepare and paint, Building Interior, one (1) interior ceiling paint, 40 FT long x 6 FT wide.	LS				
14	Remove and replace, Building Interior, three (3) each Duplex outlet.	LS				
15	Remove and replace, Building Interior, one (1) each of Vinyl floor base, 8 FT long x 6 IN high	LS				
16	Remove and replace, Building Interior, one (1) each Carpet, 14 FT long x 12 FT wide.	LS				
17	Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 9 FT wide	LS				
18	Remove and replace, Building Interior, one (1) each Carpet, 22 FT long x 15 FT wide	LS				
19	Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 10 FT wide	LS				
20	Remove and replace, Building Interior, one (1) each Carpet, 13 FT long x 12 FT wide	LS				
21	Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 8 FT wide.	LS				
22	Remove and replace, Building Interior, one (1) each (28 in. W x 80 in. H window) Window weather-stripping, 18 FT long.	LS				
23	Remove and replace, Building Interior, one (1) each (36 in. W x 96 in. H wood door) Door weather-stripping, 22 FT long.	LS				

9	Clean wash, prepare and paint, Building Interior, 696 SF of interior walls paint.	LS							
#282981 Cantera Peninsula Community Center –Building 7 (Audiovisual Center)									
Building Exterior:									
1	Remove and replace, Building Exterior, one (1) each Metal flashing system, 33 FT long.	LS							
2	Remove and replace, Building Exterior, 1 Galvanized steel handrail cables, 3/16" diameter, 2,565 FT long.	LS							
3	Remove, Building Exterior, 14 each lighting fixtures. Replace with 14 each LED wall pack lighting fixtures.	LS							
4	Remove and replace, Building Exterior, one (1) each of joint wall base sealant, 182 FT long.	LS							
5	Clean wash, prepare and paint, Building Exterior, 2,035 SF of Exterior walls paint.	LS							
6	Remove and replace, Building Exterior, one (1) aluminum and glass window, 60 IN wide x 108 IN high.	LS							
7	Remove and replace, Building Exterior, 350 SF of 5/8" Gypsum board drywall, with 2" x 4" studs.	LS							
Building Interior:									
8	Clean wash, prepare and paint, Building Interior, 5,313 SF of interior walls paint.	LS							
9	Repair, clean wash, prepare and paint, Building Interior, 550 SF of ceiling cement plaster.	LS							
10	Remove and replace, Building Interior, two (2) Aluminum and Louvered Door with 18 IN transom was damaged, 36 IN wide x 84 IN high.	LS							
11	Clean wash, prepare and paint, Building Interior, 720 SF of interior walls paint.	LS							
12	Remove and replace, Building Interior, one (1) each of Aluminum jalouse window, 36 IN wide x 84 IN high.	LS							
13	Remove and replace, Building Interior, one (1) each of Metal flashing system, 192 FT long.	LS							
#282979 Cantera Peninsula Community Center –Building 5 (Restaurant) (Alternate Works)									
Building Exterior:									
1	Clean wash, prepare and paint, Building Exterior, Overhang Ceiling 320 SF of wood ceiling treatment.	LS							
2	Remove and replace, Building Exterior (rear), wood decking (in kind) 1,500 SF (50 FT x 30 FT).	LS							
3	Remove and replace, Building Exterior (front), wood decking (in kind) 60 SF (4 FT x 15 FT).	LS							
TOTAL			\$	-					
TÉRMINO DE ENTREGA TOTAL									

NOTES: *Removal and disposal of all type of materials should be included here. Removal and disposal must be made in accordance with all applicable local, federal, and municipal laws and regulations to ensure compliance and environment protection. Refer to Exhibit T: Record of Environmental Considerations. The Bidder must attach a breakdown of the Proposed Lump Sum Price. All line items in the breakdown must be filled, either with the applicable amount to the work or N/A if it does not have a cost component to attain the Lump sum proposed.

ADDENDUM #1 - SCOPE OF WORK

#220127 Cantera Peninsula Community Center – Building 1 (Community Center)

WORK TO BE COMPLETED:

Facility Damages:

A. Exterior Site:

1. Remove and replace, Exterior Site, 3 each of Ornamental lighting poles concrete base, 6 IN long x 6 IN wide x 2 IN high, including two luminaries per pole.
 - a. **Change existing poles.**
2. Repair, Exterior Site, one (1) each Concrete sidewalk, 9 FT long x 9 FT wide x 4 IN high.
 - a. **Sidewalk facing Las Margaritas Project**
3. Remove and replace, Exterior Site, 160 (10 wood trellis (10.5 ft. L x 8 ft. W) with 32 wood boards each, 320 wood boards total, 160 wood boards damaged) Trellis wood boards, 5 FT long x 2 IN wide x 8 IN high.
 - a. **Between Columns with stucco finish in front of building.**



4. Remove and replace, luminaries, 4 Wall mounted luminaire 200W.
 - a. **On each side of lower-level garage gates, existing fixtures are round.**
5. Remove and replace, Exterior Site, one (1) each, Steel and wood bench, 5 FT long x 3 FT wide.
6. Remove and replace, Exterior Site, 11 SF of Red clay bricks steps, 9 IN long x 4 IN wide x 4 IN high.
 - a. **Vehicular access**
7. Repair, Exterior Site, 10 each of Column stucco finish, 1 FT long x 1 FT wide x 8 FT high.

Scope of Work – Cantera Peninsula Community Center – Building 1 (Community Center)



Scope of Work – Cantera Peninsula Community Center – Building 1 (Community Center)

ADDENDUM #1 - SCOPE OF WORK

#282976 Cantera Peninsula Community Center – Building 2 (Main Office Building)

WORK TO BE COMPLETED:

Facility Damages:

A. Building Interior:

1. Remove and replace, Building Interior, 30 Acoustical ceiling tiles, 2 FT long x 2 FT wide.
 - a. **Needed in the break room & executive director office.**
2. Clean wash, prepare and paint, Building Interior, 1,500 SF of Interior walls paint.
3. Remove and replace, Building Interior, 25 each of Surface mounted, U bulb type fluorescent lighting fixture, 2 FT long x 2 FT wide.
4. Remove and replace, Building Interior, 1 Window glass pane 1/4" thick, 24 IN wide x 28 IN high.
5. Remove and replace, Building Interior, two (2) each Duplex outlet.
6. Remove and replace, Building Interior, one (1) each Wood floor base, 18 FT long x 6 IN high.
7. Remove and replace, Building Interior, one (1) each Wood floor base, 25 FT long x 6 IN high.
8. Remove and replace, Building Interior, one (1) each fluorescent lighting fixture, 4 FT long x 2 FT wide.
9. Remove and replace, Building Interior, two (2) Emergency exit signs.
 - a. **One sign above the Physical Development area (projecting to main hall) and another one above Reception area (projecting to the main hall).**
10. Remove and replace, Building Interior, one (1) Exterior security camera.
11. Remove and replace, Building Interior, 64 SF of Gypsum board wall, 8 FT long x 8 FT high.
12. Clean wash, prepare and paint, Building Interior, one (1) Interior ceiling paint, 71 FT long x 57 FT wide.
13. Clean wash, prepare and paint, Building Interior, one (1) Interior ceiling paint, 40 FT long x 6 FT wide.
14. Remove and replace, Building Interior, three (3) each Duplex outlet.
15. Remove and replace, Building Interior, one (1) each of Vinyl floor base, 8 FT long x 6 IN high.
16. Remove and replace, Building Interior, one (1) each Carpet, 14 FT long x 12 FT wide.
 - a. **Admin/Financed office.**
17. Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 9 FT wide
 - a. **Neighborhood Council office.**
18. Remove and replace, Building Interior, one (1) each Carpet, 22 FT long x 15 FT wide

Scope of Work – Cantera Peninsula Community Center – Building 2 (Main Office Building)



- a. **Conference Room.**
 19. Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 10 FT wide
 - a. **Community Communications and Relations.**
 20. Remove and replace, Building Interior, one (1) each Carpet, 13 FT long x 12 FT wide
 - a. **Executive Director office.**
 21. Remove and replace, Building Interior, one (1) each Carpet, 12 FT long x 8 FT wide.
 - a. **Server Room (next to reception).**
 22. Remove and replace, Building Interior, one (1) each (28 in. W x 80 in. H window) Window weather-stripping, 18 FT long.
 23. Remove and replace, Building Interior, one (1) each (36 in. W x 96 in. H wood door) Door weather-stripping, 22 FT long.
 - a. **Exit door at Physical Development area.**
 24. Remove and replace, Building Interior, five (5) each Window weather-stripping, 10 FT long.
 25. Remove and replace, Building Interior, four (4) each Window weather-stripping, 10 FT long.
 26. Remove and replace, Building Interior, Window weather-stripping, 12 FT long.
 27. Remove and replace, Building Interior, seven (7) each (30 in. W x 80 in. H window) Window weather-stripping, 18 FT long.
- B. Exterior Site:**
1. Clean wash, prepare and paint, Exterior Site, 4,530 SF of Exterior walls paint.
 2. Clean wash, prepare and paint, Exterior Site, 940 SF of Galvanized steel gates paint.



ADDENDUM #1 - SCOPE OF WORK

#282977 Cantera Peninsula Community Center – Building 3 (Paseo Lineal) – Phase 1A

WORK TO BE COMPLETED:

Facility Damages:

Latitude/Longitude: 18.43160, -66.03470

A. Exterior Site:

1. Remove and replace, Exterior Site, 1 each of Ornamental lighting pole concrete base, 6 IN long x 6 IN wide x 2 IN high, including two luminaries per pole located at the boardwalk area.
 - a. Pole is located between bridge and Gazebo.
2. Remove and replace in the Building Exterior, 1 each of Galvanized Steel Flashing system. Located at Gazebo close to the boardwalk, 88 FT long.



ADDENDUM #1 - SCOPE OF WORK

#282978 Cantera Peninsula Community Center – Building 4 (Boat Shack)

WORK TO BE COMPLETED:

Facility Damages:

A. Building Exterior:

1. Remove and replace, Building Exterior, 1,280 SF of Galvalume metal roofing, Ga22. For mitigation purpose, provide and install additional fastener on a pattern =36 Fasteners/ 100 SF.
2. Remove and replace, Building Exterior, 1 each of Single arm pole luminary (15 ft. H), including arm and luminaire of 250 W or equivalent in LED lighting.
3. Remove and replace, Building Exterior, 9 each of Double arm ornamental luminaries. Including arms and luminaries.



Scope of Work – Cantera Peninsula Community Center – Building 4 (Boat Shack)



ADDENDUM #1 - SCOPE OF WORK

#282979 Cantera Peninsula Community Center – Building 5 (Restaurant)

WORK TO BE COMPLETED:

Facility Damages:

A. Building Exterior:

1. Remove and replace, Building Exterior, one (1) each Metal flashing system, 31 FT long.
2. Remove and replace, Building Exterior, one (1) each Roof gutter sealant, 45 FT long.
3. Clean wash, prepare and paint, Building Exterior, 5,313 SF of Exterior walls paint.
 - 750 sq.ft. for clear coat of exposed concrete (areas below jalosie windows “Miami Style” and architectural columns), remaining sq. ft. requires primer and painting.
4. Remove and replace, Building Exterior, one (1) each Galvanized steel handrails, 2,400 FT long.
5. Remove and replace, Building Exterior, four (4) each Exterior lamps, 2 FT long x 2 FT wide.
 - Located at architectural columns.
6. Remove and replace, Building Exterior, two (2) each Sunmodule 270 mono 2.5 frame Solar panels.
7. Remove and replace, Building Exterior, 222 SF of Adjustable shade curtains, 18.5 FT long x 6 FT wide.

B. Building Interior:

1. Clean wash, prepare and paint, Building Interior, 1,958 SF of interior walls paint.
2. Remove and replace, Building Interior, one (1) each Dual head emergency light.
3. Clean wash, prepare and paint, Building Interior, 800 SF of Ceiling paint, 40 FT long x 20 FT wide.
4. Remove and replace 1 (144 in. W x 24 in. H window) Window weather-stripping.

Additional Alternate Works:

1. Clean wash, prepare and paint, Building Exterior, Overhang Ceiling 320 SF of wood ceiling treatment.
2. Remove and replace, Building Exterior (rear), wood decking (in kind) 1,500 SF (50 FT x 30 FT).
3. Remove and replace, Building Exterior (front), wood decking (in kind) 60 SF (4 FT x 15 FT).

Scope of Work – Cantera Peninsula Community Center – Building 5 (Restaurant)

ADDENDUM #1 - SCOPE OF WORK

#282980 Cantera Peninsula Community Center – Building 6 (Exhibition Center)

WORK TO BE COMPLETED:

Facility Damages:

A. Building Exterior:

1. Remove and replace, Building Exterior, one (1) each Metal flashing system, 28.5 FT long.
2. Remove and replace, Building Exterior, one (1) Galvanized steel handrail cables, 3/16" diameter, 995 FT long.
3. Remove and replace, Building Exterior, one (1) each of Joint roof sealant, 185 FT long.
4. Remove and replace, Building Exterior, one (1) each of Joint roof sealant, 88 FT long.
5. Clean wash, prepare and paint, Building Exterior, 696 SF of Exterior walls paint.
6. Remove and replace, Building Exterior, one (1) Roof gutter sealant, 33 FT long.
7. Remove and replace, Building Exterior, 4 each of Aluminum overhang trellis, 12 FT long x 4 FT wide.

B. Building Interior:

1. Clean wash, prepare and paint, Building Interior, 696 SF of interior walls paint.

ADDENDUM #1 - SCOPE OF WORK

#282981 Cantera Peninsula Community Center – Building 7 (Audiovisual Center)

WORK TO BE COMPLETED:

Facility Damages:

A. Building Exterior:

1. Remove and replace, Building Exterior, one (1) each Metal flashing system, 33 FT long.
2. Remove and replace, Building Exterior, 1 Galvanized steel handrail cables, 3/16" diameter, 2,565 FT long.
3. Remove, Building Exterior, 14 each lighting fixtures. Replace with 14 each LED wall pack lighting fixtures.
4. Remove and replace, Building Exterior, one (1) each of Joint wall base sealant, 182 FT long.
5. Clean wash, prepare and paint, Building Exterior, 2,035 SF of Exterior walls paint.
6. Remove and replace, Building Exterior, one (1) aluminum and glass window, 60 IN wide x 108 IN high.
7. Remove and replace, Building Exterior, 350 SF of 5/8" Gypsum board drywall, with 2" x 4" studs.

B. Building Interior:

1. Clean wash, prepare and paint, Building Interior, 5,313 SF of interior walls paint.
 - **2nd floor**
2. Repair, clean wash, prepare and paint, Building Interior, 550 SF of ceiling cement plaster.
3. Remove and replace, Building Interior, two (2) Aluminum and Louvered Door with 18 IN transom was damaged, 36 IN wide x 84 IN high.
4. Clean wash, prepare and paint, Building Interior, 720 SF of interior walls paint.
 - **Ground floor**
5. Remove and replace, Building Interior, one (1) each of Aluminum jalousie window, 36 IN wide x 84 IN high.
6. Remove and replace, Building Interior, one (1) each of Metal flashing system, 192 FT long.

FEATURES & SPECIFICATIONS

INTENDED USE

Suitable for emergency lighting applications such as stairways and hallways.

Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.
[Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.](#)

CONSTRUCTION

Injection-molded, flame-retardant, high-impact, thermoplastic housing with snap-fit design components with LED lamps for easy installation. Universal J-box pattern (J-box not included). Track and swivel arrangement permits full range of lamp adjustment.

OPTICS

The typical life of the LED is 10 years. Two 1W LED lamps for emergency light.

Optional high-output battery to power both local and optional LED remote lamp heads simultaneously. The HO option provides additional 3W of LED remote capacity (up to 2 LED remote heads).

CCT: 5000K - 9000K

ELECTRICAL

Dual voltage input capability (120V/277V, 60Hz) or MVOLT (120-277, 50/60Hz) standard. Optional 120/347V, 60Hz meets Canadian standards. Emergency unit provided with test switch, status indicator and rechargeable battery. Battery: Maintenance-free nickel-cadmium battery provides 90 minutes of emergency power.

Self-diagnostics: Performs monthly 30 second, bi-monthly 30 minute and annual 90 minute testing with multi-status diagnostic functions.

INSTALLATION

Wall mount only (not suitable for ceiling mount).

LISTINGS

UL Listed. Meets UL 924, NFPA 101 (current Life Safety Code), NFPA 70-NEC, California Energy Commission Title 20 section 1605.3 (W)(4), FCC Title 47, Part 15, Subpart B and OSHA illumination standards. Indoor damp location 50°F to 104°F (10°C to 40°C) listed standard. CSA certified to Canadian C22.2 No. 141.15 standards.

WARRANTY

2-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

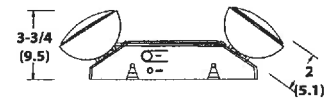
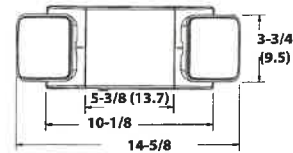
† Small Battery Chargers Certified in the CA Title 20 Appliance Efficiency Database.

Catalog Number
Notes
Type

Lithonia Lighting Basics™ LED Emergency Light

EU2C

LED Lamps



Weight (shipping): 1.7 lbs. (0.77 kgs.)

All dimensions are inches (centimeters) unless otherwise indicated.

EU2C Emergency Light



Looking for Contractor Select readily available configurations? Click here to visit Contractor Select™ spec sheet or go to www.contractorselect.com

ORDERING INFORMATION

For shortest lead times, configure product using **bolded options**.

Example: EU2C

Series	Housing Color	Voltage	Options
EU2C Emergency Light	(Blank) White B Black	(Blank) 120/277VAC ¹ 120/347 120/347VAC	(Blank) Not Required HO High Output ² SD Self Diagnostics ³

Notes:

- EU2C M6 and EU2C HO M6, white, standard with 120-277, 50/60Hz voltage input.
- HO not available with SD option.
- SD not available with HO (High Output).

Accessories: Order as separate items.	
ELA WG1	Wireguard (back mount only) ¹
ERE W SGL SQ M12	Single, LED indoor remote head, square, ivory white, 1W, 3.6V-12V voltage sensing ^{2,3}
ERE W T SQ M12	Twin, LED indoor remote head, square, ivory white, 2W, 3.6V-12V voltage sensing ^{2,3}
ERE GY SGL WP SQ M12	Single, LED weather-proof remote head, square, gray 1W, 3.6V-12V voltage sensing ^{2,3}
ERE GY T WP SQ M12	Twin, LED weather-proof remote head, square, gray 2W, 3.6V-12V voltage sensing ^{2,3}
ERE GY SGL WP RD M12	Single, LED weather-proof head, round, gray, 0.75W, 3.6V input ^{2,3}
ERE GY T WP RD M12	Twin, LED weather-proof head, round, gray, 1.5W, 3.6V input ^{2,3}

Accessories Notes:

- See spec sheet [ELA-WG](#).
- Available with HO option only.
- See spec sheet [ERE](#) remote head for additional ordering options

Description	Supply Voltage	Input Wattage		Input Amps	
		120	277	120	277
Standard (No Options)	120/277 or 120-277	.56	.70	.072	.072
High Output Option (HO)	120/277 or 120-277	.81	1	.12	.12
Self Diagnostic Option (SD)	120/277	.06	.75	.09	.09

Description	Supply Voltage	Input Wattage		Input Amps	
		120V	347V	120V	347V
Standard (No Options)	120/347	2	2	0.023	0.008
High Output Option (HO)	120/347	3	3	0.025	0.009
Self Diagnostic Option (SD)	120/347	2	2	0.023	0.008

Battery	Remote Capacity*	Maximum# Remote Lamp Heads*
3.6V	3W	2 - ERE W SGL SQ M24
		1 - ERE W T SQ M24
		2 - ERE GY SGL WP SQ M12
		1 - ERE GY T WP SQ M12
		3 - ERE W SGL WP RD M12
		2 - ERE W T WP RD M12

* These are in addition to the lamp heads on the product

SPACING GUIDELINES

*Note: To see complete photometric report or download the .ies file for this product, visit Lithonia Lighting EU2C home page.

Maximum Spacing Guidelines — EU2C ¹						
Mounting Height	Illumination Level	Single Luminaire		Multiple Luminaires		Application Notes
		3' Path of Egress	6' Path of Egress	3' Path of Egress	6' Path of Egress	
7.5'	1FC Avg	10'	6'	14'	11'	100' Corridor 8' wide, and 9' high with 80/50/20 reflectances

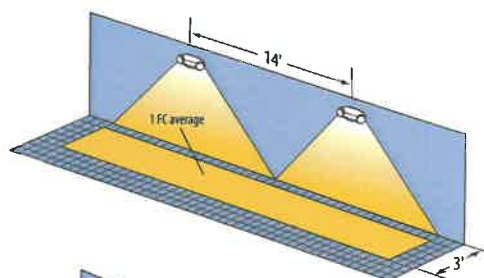
Notes:

- Also meets the additional illumination requirements of NFPA 101: 1FC minimum and max/min ratio of 40:1.

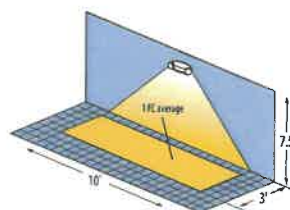
EXTENDED RUN-TIME FOR HIGH-OUTPUT (HO OPTION)

EU2C HO (up to 2 LED remotes) 90 minutes

EU2C HO (no remotes) 3 hours (180 minutes)



Example of multiple EU2C luminaires illuminating a 3' path of egress.



Example of single EU2C illuminating a 3' path of egress.



EU2C



**BENNER
PRODUCTS**

Manufactures
Representative



BENNER MINERAL FIBER CEILING

INDEX



**BENNER
PRODUCTS**

Manufactures
Representative

- 03 BENNERWINTER 5/8"
- 04 BENNERWINTER 3/4"
- 05 BENNERDU 5/8"
- 06 BENNERDU 3/4"
- 07 BENNERHEALTH 5/8"
- 08 BENNERHEALTH 3/4"
- 09 BENNERFINE 5/8"
- 10 BENNERFINE 3/4"
- 11 BENNERLAST 5/8"
- 12 BENNERLAST 3/4"
- 13 BENNERCHOOKIE 5/8"
- 14 BENNERCHOOKIE 3/4"
- 15 BENNERSOFT 5/8"
- 16 BENNERSOFT 3/4"
- 17 BENNERGLASS
- 18 BENNER GLASS PRO
- 19 BENNER SUSPENSION



BENNER MINERAL FIBER CEILING



Technical data for:	BennerWinter 5/8"
Raw material	Wet-formed mineral fiber
Surface Finish:	Factory-applied vinyl latex paint
Density:	260-300kg/m ³
Noise Reduction Coefficient (NRC):	≥0.55
Ceiling Attenuation Class (CAC):	≥35
Fire Resistance:	Class A in accordance with ASTM E 84
Humidity Resistance (RH):	70% to 95%
Microbial Resistance:	Highly resistant ASTM D6329
Light Reflectivity:	0.85
Environment:	Contains recycled material
*Meets highest air quality standards (ASTM D5116)	

BE THE CHANGE YOU WANT TO SEE IN THIS WORLD

AVAILABLE PANEL SIZES

2' x 2' x 3/4"

2' x 4' x 3/4"

2' x 2' x 5/8"

2' x 4' x 5/8"

SQUARE EDGE:



BEVELED
TEGULAR
EDGE:



Gabriel Berriz y Asociados, Inc.

Taller Ecopaisajista

PMB 268, 35 Juan C. de Borbón suite 67, Guaynabo, PR 00969-5375 Tel (787) 287-2575 Fax (787) 790-1765

3 de marzo de 2014

REVISION A CARTA DE COLORES

Exhibition:

1. Interior / Interior tienda – **WINTER BIRD** (Glidden 30YY 78/018 order #A1828)
2. Exterior áreas empañetado – **CORAL ISLAND** (Sherwim Williams 6332)
3. Pared gypsum board de la tienda hacia salón Exhibition – **CORAL ISLAND** (Sherwim Williams 6332)

Audiovisual:

1. Interior – **WINTER BIRD** (Glidden 30YY 78/018 order #A1828)
2. Oficina – **WINTER BIRD** (Glidden 30YY 78/018 order #A1828)
3. Exterior áreas empañetado (Ambas paredes cortas y pared larga con ventanas) – **UNIVERSAL KHAKI** (Sherwim Williams 6150)
4. Exterior áreas empañetado (Pared larga con puertas roll up) – **QUIVER TAN** (Sherwim Williams 6151)
5. Exterior baño – **RELAXED KHAKI** (Sherwim Williams 6149)

Restaurante:

1. Interior - **WINTER BIRD** (Glidden 30YY 78/018 order #A1828)
2. Exterior baños (no expuesto) –

Cuarto mecánico:

1. Interior - **UNIVERSAL KHAKI** (Sherwim Williams 6150)
2. Exterior – **QUIVER TAN** (Sherwim Williams 6151)

Edificio Centro Comunal:

1. Exterior (ala rectangular actualmente amarilla) – **UNIVERSAL KHAKI** (Sherwim Williams 6150)
2. Exterior jardineras - **CORAL ISLAND** (Sherwim Williams 6332)
3. Exterior paredes piso abajo y salientes - **RELAXED KHAKI** (Sherwim Williams 6149)
4. Exterior Laterales paredes con ventanas - **RELAXED KHAKI** (Sherwim Williams 6149)
5. Exterior Laterales salientes - **QUIVER TAN** (Sherwim Williams 6151)
6. Exterior detalles encima y debajo ventanal salón de conferencias - **QUIVER TAN** (Sherwim Williams 6151)

Gabriel Bérriez y Asociados, Inc.

Taller Ecopaisajista

PMB 268, 35 Juan C. de Borbón suite 67, Guaynabo, PR 00969-5375 Tel (787) 287-2575 Fax (787) 790-1765



Gabriel Bérriez y Asociados, Inc.

Taller Ecopaisajista

PMB 268, 35 Juan C. de Borbón suite 67, Guaynabo, PR 00969-5375 Tel (787) 287-2575 Fax (787) 790-1765



Glidden 30YY 78/018 order # A1828
Winter Bird



DESCRIPTION

The CE Series offers quality and value with a compact and attractive LED based emergency exit. The white or black housing is made of high impact UL flame rated thermoplastic. Snap together canopy, housing and removable chevrons for quick and easy installation. Universal single or double-face. Remote capacity option will run 4 CIR/COR Series single remote lamp-heads or 2 double CIR/COR remotes.

APPLICATION

The CE Series can be applied in stair-wells, hallways, offices and other commercial applications.

COMPLIANCES

UL924 Listed for Damp Location
NFPA 101 and NFPA 70
OSHA

WARRANTY

2 year full unit warranty



FEATURES

- LED life-cycle of more than 10 years
- Molded-in template for Quick installation
- Dual-voltage 120 or 277V AC input
- Includes long-life Nickel Cadmium battery for UL recognized 90 minute emergency lighting
- Remote capacity or extended runtime option
- Damp Location Listed
- Provided with test switch and AC-On indicator
- Canopy included

ENERGY CONSUMPTION

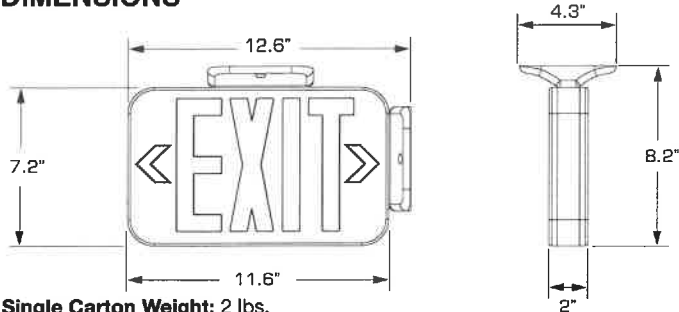
	120 VAC	277 VAC
CER	1.78 W	1.88 W
CEG	1.49 W	1.57 W
CERRC	3.60 W	4.14 W
CEGRC	3.28 W	3.81 W

ORDERING GUIDE

Catalog Number	Description
CER	White Thermoplastic Exit, Universal Face, Red LED Emergency Exit
CERB	Black Thermoplastic Exit, Universal Face, Red LED Emergency Exit
CEG	White Thermoplastic Exit, Universal Face, Green LED Emergency Exit
CEGB	Black Thermoplastic Exit, Universal Face, Green LED Emergency Exit
CERRC	White Thermoplastic Exit, Universal Face, Red LED Emergency Exit, Remote Capacity
CERRCB	Black Thermoplastic Exit, Universal Face, Red LED Emergency Exit, Remote Capacity
CEGRC	White Thermoplastic Exit, Universal Face, Green LED Emergency Exit, Remote Capacity

Note: Remote Capacity Exit will only power the Compass Indoor and Outdoor Remote (CIR and COR Series)

DIMENSIONS



Single Carton Weight: 2 lbs.

Master Carton Quantity: 6 each

ACCESSORIES

WGLX Wireguard - 10" H X 14" W X 2 1/4" D
CIR Series - Matching LED Indoor Remote Heads
COR Series - Matching LED Outdoor Remote Heads



CONCRETE SIDEWALK SPECIFICATIONS

GENERAL

Concrete sidewalks shall be constructed in accordance with these specifications and the requirements of the State of Wisconsin, Department of Transportation, Standard Specifications for Road and Bridge Construction, Current Edition (hereafter "Standard Specifications"). Concrete sidewalks shall conform to the lines and grades established by the City Engineer. All removal and replacements will be made as ordered by the City Engineer.

The Contractor shall construct one-course sidewalks of a minimum thickness of four (4) inches in accordance with the plans and specifications. Sidewalk through a driveway section shall be a minimum thickness of six (6) inches. Concrete driveway approaches shall be a minimum thickness of six (6) inches.

SUBGRADE

A new sub-base may be required by the Engineer if, in his opinion, the soil in the subgrade is soft or spongy in places and will swell or shrink with changes in its moisture content. If a new sub-base is required, it shall consist of granular material and shall be spread to a depth of at least three (3) inches and thoroughly compacted. While compacting the sub-base the material shall be thoroughly wet and shall be wet when the concrete is deposited but shall not show any pools of water. If the Contractor undercuts the subgrade two (2) inches or more, he shall, at his expense, bring the subgrade to grade by using gravel fill and it shall be thoroughly compacted. Where sidewalk is placed over excavations such as tree roots or sewer laterals, four (4) one-half (1/2) inch reinforcing bars shall be placed to prevent settling or cracking of the sidewalk. In a fill section, the subgrade for the sidewalk shall be extended one (1) foot on each side of the walk before sloping down at a 3:1 slope.

FORMS

Forms shall be of wood or metal and shall be straight and of sufficient strength to resist spring, tipping or other displacement during the process of depositing and consolidating the concrete. If of wood, forms shall be surfaced plank of at least two (2) inch nominal thickness stock except for curved sections; and if of metal they shall be of approved section and shall have a flat surface on top. The forms shall have a depth of at least equal to the depth of the sidewalk. They shall be securely staked and braced to the required line and grade of the City Engineer and shall be sufficiently tight to prevent leakage of mortar. All forms shall be cleaned thoroughly and oiled before the concrete is placed against them. The transverse slope toward the curb shall be one-quarter (1/4) inch per foot unless otherwise directed by the Engineer.

CONCRETE

Concrete used for sidewalks shall be according to pertinent sections of Section 501 of the Standard Specifications for Air-Entrained, Grade A-2 Concrete.

PLACING AND FINISHING CONCRETE

The foundation, forms and reinforcement, when required, shall be checked and approved by the Engineer before the concrete is placed. The concrete shall be placed on a moist foundation, deposited to the required depth and consolidated and spaded sufficiently to bring the mortar to the

surface, after which it shall be struck off and floated with a wooden float. Before the mortar has set, the surface shall be steel troweled and lightly brushed.

JOINTS

Sidewalk shall be divided in sections by means of contraction joints.

Insofar as feasible, sidewalk shall be divided into sections not less than three (3) feet nor more than twelve (12) feet in any dimension.

A contraction joint in sidewalk shall consist of a slot or groove, at least one (1) inch in depth and one-fourth (1/4) inch in width.

One-half (1/2) inch transverse expansion joint filler shall be placed through the sidewalk at uniform intervals of not more than 96 feet.

Expansion joint filler shall extend to the full depth of the concrete and the top shall be slightly below the finished surface of the sidewalk.

One-half (1/2) inch expansion joint filler shall be placed between the sidewalk and back of abutting parallel curb and gutter and one (1) inch between sidewalk and buildings or other rigid structures.

One-half (1/2) inch expansion joint filler shall be placed between sidewalk approaches and the back of curb and gutter or edge of pavement.

The concrete at the faces of all joints shall be thoroughly spaded and compacted to fill the voids and the surface shall be finished smooth and true to grade. The edges of the sidewalk along forms and joints shall be rounded with an edger of one-fourth (1/4) inch radius.

CURING OF CONCRETE

All concrete work shall be cured by the impervious coating method, the wet fabric method or the paper method.

For the initial curing, while the concrete is fresh, water shall be applied in a fine spray to avoid injury, and the burlap shall be kept wet.

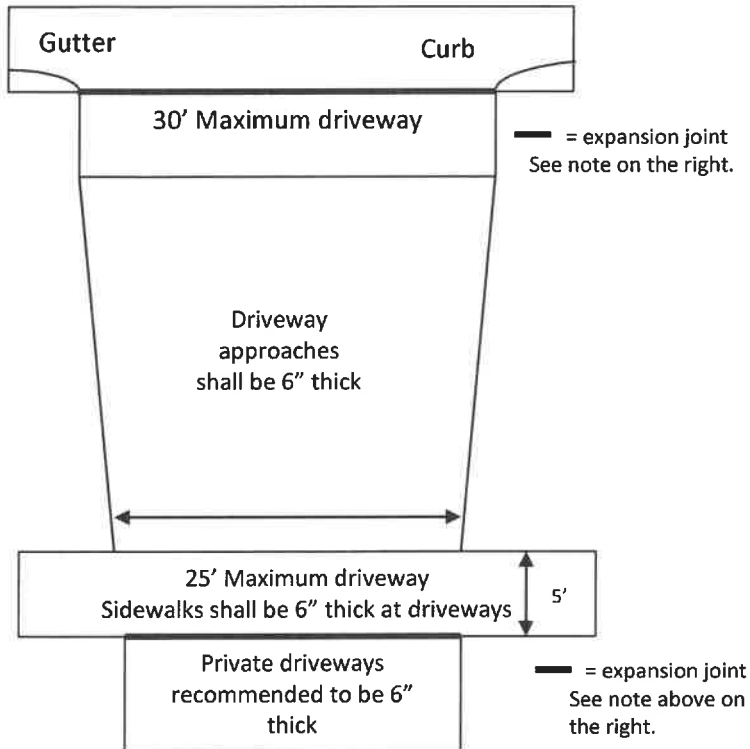
On the day following the placing of concrete, for the wet fabric method or the paper method, and on the final curing the concrete surface shall show the presence of free water under the covering for the following 72 hours.

PROTECTION OF WORK

The Contractor and property owner shall furnish and maintain adequate barriers and lights to protect the work and the public both by day and night. They will be held responsible for any damages caused by themselves, their agents or employees neglecting to take such precautions.

SPECIFICATIONS AND PLANS FOR CONCRETE DRIVEWAY APPROACHES, SIDEWALKS AND TERRACE WALKS

DRIVEWAY APPROACHES



1/2" expansion joints shall be used at these two locations and shall completely separate all concrete in the driveway approach and driveway from the concrete in the sidewalk and in the curb, including the rolled-up portion of the curb and driveway approach.

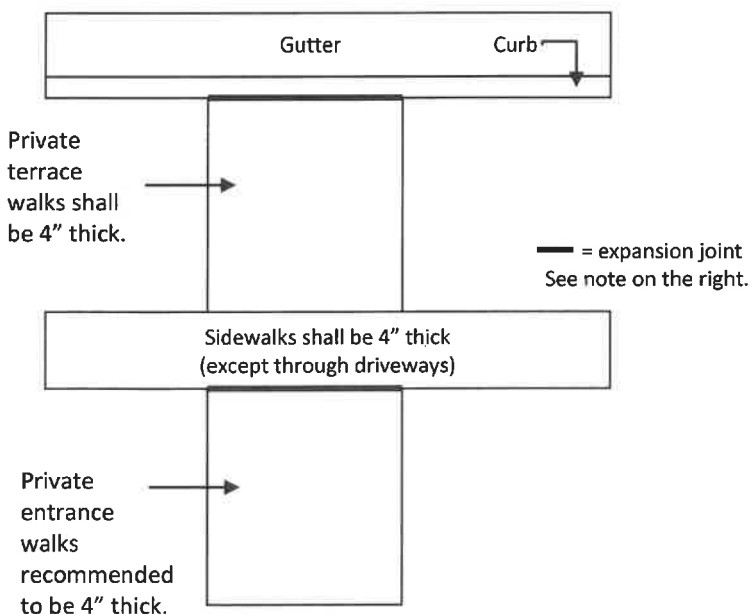
6 bag mix, air entrained concrete of a relatively dry mix (not over a four-inch slump) shall be used in all sidewalks, driveway approaches and terrace walks and is recommended for driveways and entrance walks.

Grades

15% recommended maximum

10% desirable maximum

TERRACE WALKS AND ENTRANCE WALKS



1/2" expansion joints shall be used at these two locations and shall completely separate all concrete in the terrace walks from the concrete in the curb and shall completely separate all concrete in the entrance walk from the concrete in the sidewalk.

Complete detail specifications for grades, subgrades, reinforcing over service ditches, and depositing, finishing, curing and protecting of the concrete, etc. may be secured from the City Engineering Department.

Ground Fault Products



Features and Benefits

Arc Fault AFCI Receptacles

- Meets new 2017 National Electric Code for AFCI Protection
- Qualified to Federal Specification Listing WC596
- Meets or exceeds UL requirements for tripping time on series and parallel arcs
- Tamper-Resistant and self grounding construction are standard features
- Green power ON LED indicator
- Automatically tests the AFCI each time the reset button is pressed in place
- No reset when tested if AFCI functionality is compromised



Arc Fault AFCI Receptacles



Rating	Color	Standard	Rating	Color	Standard	Blank Face
	Black	AFR15TRBK		Black	AFR20TRBK	—
	Brown	AFR15TR		Brown	AFR20TR	—
	Gray	AFR15TRGY		Gray	AFR20TRGY	—
	Ivory	AFR15TRI		Ivory	AFR20TRI	AFR20BFI
	Light Almond	AFR15TRLA		Light Almond	AFR20TRLA	AFR20BFW
	White	AFR15TRW		White	AFR20TRW	—

Specifications

Ratings

Amperage	15 Amp/20 Amp
Feed-thru	20 Amp Protection
Voltage	120V AC (+10% to 15%) (102V to 132V)
Horsepower	(1) @ Rated Voltage
Flammability	Rated V2 per UL 94
Operating Temperature	(-35°C to 66°C) or (-30°F to 150°F)

Certifications

UL1699A	E366570
UL498	Receptacle
UL Fed Spec	WC-596
CSA Standard	C22.2 No. 42
CSA Tech	Letter No. M-02A
NEMA	WD-6



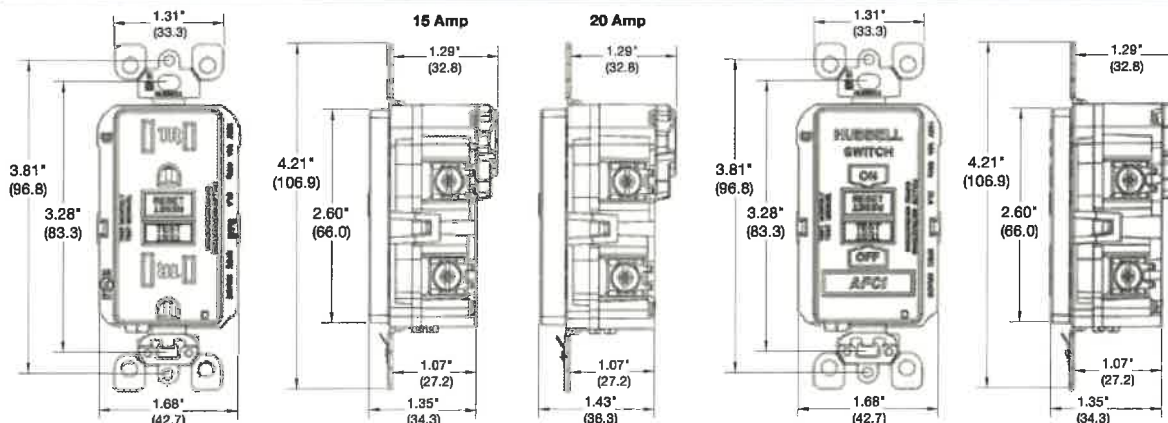
Tamper-Resistant
NEC® 406.12; 210.52 – All 15 and 20A 125V, receptacles shall be listed Tamper-Resistant for dwelling installations.

Construction

Termination	Back and Side
Terminal	#14-10 AWG
Grounding	Self-Grounding Clip
Indicators	Power & Rev Wire
Configuration	2 Pole, 3 Wire
NEMA	5-15R, 5-20R

Note: The Hubbell "AFR" series meets all requirements for an outlet branch-circuit type AFCI; protects branch circuit wiring and extensions to branches such including appliances and cord sets. All GFCI receptacles are furnished with a matching color thermoplastic wallplate.

Product Dimensions



Dimensions in Inches (mm)

NEC® is a registered trademark of the National Fire Protection Association (NFPA).

TITILE	TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS ±1/64 DECIMALS ±.005 ANGLES ±2°	WIRING DEVICE-CELLERS HUBBELL INCORPORATED SHELTON, CT			
		DR. BY	ITB	APP. BY	NB
		TR. BY		SCALE	N/A
		CHWD BY	NB	DATE	1/30/2014



DEVICE VOLUME	MEASUREMENT (IN^3)
IN BOX (FROM STRAP, BACK	4.34
TOTAL	5.35

NOTES:

1. 15A-125V RECEPTACLE (NEMA 5-15R)
20A-125V FEED THRU.
2. DIMENSIONS GIVEN IN INCHES (Millimeters).

Operating Instructions

49WJ37

Please read and save these instructions. Read through this owner's manual carefully before using product. Protect yourself and others by observing all safety information, warnings, and cautions. Failure to comply with instructions could result in personal injury and/or damage to product or property. Please retain instructions for future reference.



LED Barn Light

Description

LumaPro LED Barn Light with prismatic lens replicate the form and function of 150 watt high-pressure sodium or 175-watt metal halide fixtures, while using just 35 watts. The Barn Light operates at 120-277 volts, and can mount to walls or sealed junction boxes. It is ideal for outdoor lighting applications in areas that require a wide distribution of light including driveways, yards, properties and work areas.



49WJ37

CONSTRUCTION

- Includes black 3-pin photocontrol and mounting arm
- Replaces up to 175W MH
- Rated for ≥100,000-hour TM-21 L70 Lifetime @ 25°C
- Universal 120-277V power supply
- 5-year warranty

Specifications and Dimensions

Model	Volts	Watts	CCT	Lumens	CRI	Dimensions (in)
						H" x W" x D"
49WJ37	120-277V	35W	5000K	3,325	78	7.67" x 9.50" x 14.76"



LED Barn Light

General Safety Information

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general precautions.
- Commercial installation, service and maintenance of luminaires should be performed by a qualified licensed electrician.
- For Residential installation: If you are unsure about the installation or maintenance of the luminaires, consult a qualified licensed electrician and check your local electrical code.
- **DO NOT INSTALL DAMAGED PRODUCT!**
- This fixture is intended to be connected to a properly installed and grounded UL listed junction box.

WARNING:

RISK OF ELECTRICAL SHOCK

- Turn off electrical power at fuse or circuit breaker box before wiring fixture to the power supply.
- Turn off the power when you perform any maintenance.
- Verify that supply voltage is correct by comparing it with the luminaire label information.
- Make all electrical and grounded connections in accordance with the National Electrical Code and any applicable local code requirements.
- All wiring connections should be capped with UL approved wire connectors.

CAUTION:

RISK OF INJURY

- Wear gloves and safety glasses at all times when removing luminaire from carton, installing, servicing or performing maintenance.
- Avoid direct eye exposure to the light source while it is on.
- Account for small parts and destroy packing material, as these may be hazardous to children.

CAUTION:

RISK OF FIRE

- Keep combustible and other materials that can burn away from luminaire and lamp/lens.
- **MIN 90°C SUPPLY CONDUCTORS.**

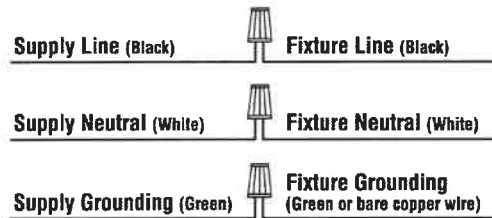


LED Barn Light

General Wiring Diagram

CAUTION: Turn off electrical power at fuse or circuit breaker box before wiring fixture to the power supply.

Twist-on wire connector



Direct Mounting Instructions

1. Inspect components to ensure that male and female port threads and sealing surfaces are free of burs, nicks and scratches or any foreign material.
2. Drill mounting holes for fixture as shown in **Fig. 1**.
3. Insert two screws (provided) into the two lower-most mounting hole locations, as shown in **Fig. 2**. Do not tighten the screws fully
4. Hook the fixture onto the two inserted screws, then insert and tighten the top screw, as shown in **Fig. 3**. Finally, tighten the two lower-most screws.
5. Remove wiring compartment cover to access knockout plug. Follow General Wiring Diagram above for reference. Make sure the power supply is disconnected before installing and be sure to secure any loose wiring connections safely inside wiring compartment.
6. Secure power supply inside wiring compartment using 1/2" connector (by others).
7. Secure wiring compartment cover to fixture.



LED Barn Light

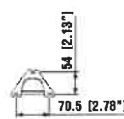


Fig. 1

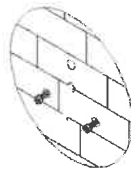


Fig. 2

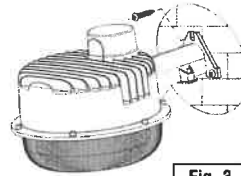


Fig. 3

Arm Mounting Instructions

1. Inspect components to ensure that male and female port threads and sealing surfaces are free of burs, nicks and scratches or any foreign material.
2. Inspect mounting arm; if split-arm is provided, use supplied nut and bolt to assemble arm as shown in Fig. 4.
3. Run extension wiring (by others) through the arm.
4. Follow General Wiring Diagram (page 3) for connecting extension wiring to luminaire. Make sure the power supply is disconnected before installing and be sure to secure any loose wiring connections safely inside wiring compartment.
5. Insert arm into the U-slot on luminaire. Use the two provided hex screws to secure arm, as shown in Fig. 5.
6. Secure clamp onto the base of the arm, as shown in Fig. 6. Ensure that the arm does not rotate.
7. Secure luminaire and arm to surface using four provided mounting screws, as shown in Fig. 7.
8. Using conduit connector (by others) and connection plug (by others), connect extension wiring to power supply.



Fig. 4



Fig. 5

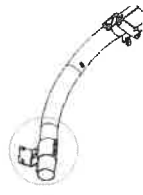


Fig. 6

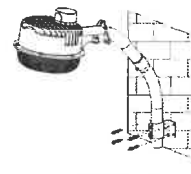


Fig. 7



LED Barn Light

Warranty

LIMITED FIVE-YEAR WARRANTY

Should this product fail to perform satisfactorily due to a defect or poor workmanship within FIVE YEAR from the date of purchase, return it to the place of purchase and it will be replaced, and free of charge. Incidental or consequential damages are excluded from this warranty.

Manufactured for Grainger International, Inc.
100 Grainger Pkwy., Lake Forest IL 60045 U.S.A.

Lea y guarde estas instrucciones. Lea con atención este manual del usuario antes de usar el producto. Protéjase a sí mismo y a los demás teniendo en cuenta las precauciones, advertencias y la información de seguridad. El incumplimiento de las instrucciones puede provocar lesiones personales o daños al producto o a la propiedad. Conserve estas instrucciones para referencia futura.



Luz LED de granero

Descripción

Luz de granero LED LumaPro con lentes prismáticos imita la forma y función de los aparatos de haluro de metal de 175 vatios o sodio de alta presión de 150 vatios y solo usa 34 vatios. La Luz de granero opera a 120-277 voltios y puede montarse en pared o cajas de conexión selladas. Es ideal para aplicaciones de luces al aire libre en áreas que requieran amplia distribución de luz, incluidos accesos, patios, propiedades y áreas de trabajo.



49WJ37

CONSTRUCCIÓN

- Incluye brazo de montaje y fotocontrol de 3 clavijas negro
- Reemplaza hasta 175W MH
- Calificado para $\geq 100,000$ horas TM-21 L70 de vida a 25°C
- Suministro eléctrico universal 120-277V
- Garantía de 5 años

Especificaciones y dimensiones

Modelo	Voltios	Vatios	CCT	Lúmenes	CRI	Dimensiones (pulgadas)		
						Alto"	Largo"	Profundidad"
49WJ37	120-277V	35W	5000K	3,325	78	7.67"	9.50"	14.76"



Luz LED de granero

Información general de seguridad

- Para reducir el riesgo de muerte, lesiones personales o daño a la propiedad debido a incendio, descargas eléctricas, piezas que se desprenden, cortes/abrasiones, y otros peligros, lea todas las advertencias e instrucciones incluidas en la caja de accesorios y en todas las etiquetas del aparato.
- Antes de instalar, realizar mantenimiento de servicio o de rutina en este equipo, siga estas precauciones generales.
- Instalación comercial, servicio y mantenimiento de luminarias deberán ser realizados por un electricista matriculado calificado.
- Para instalación residencial: Si no está seguro sobre la instalación o mantenimiento de las luminarias, consulte a un electricista matriculado calificado y verifique su código eléctrico local.
- ¡NO INSTALAR EL PRODUCTO SI ESTÁ DAÑADO!
- Este equipo es para conectar a una caja de conexión bien instalada y puesta a tierra y mencionada en la lista de UL.

ADVERTENCIA:

RIESGO DE DESCARGA ELÉCTRICA

- Desconecte la electricidad en la caja de fusibles o disyuntor antes de conectar el aparato a la fuente de alimentación.
- Desconecte la electricidad cuando realice mantenimiento.
- Verifique que el voltaje de suministro es correcto comparándolo con la información de la etiqueta de la luminaria.
- Realice todas las conexiones eléctricas y a tierra en conformidad con el Código Nacional de Electricidad y los requisitos de códigos locales aplicables.
- Todas las conexiones de cableado tendrán conectores de cableado aprobados por UL.

PRECAUCIÓN

RIESGO DE LESIONES

- Use guantes y gafas de seguridad en todo momento al quitar la luminaria del cartón, al instalar, hacer servicio o mantenimiento.
- Evite la exposición directa de los ojos a la fuente de luz cuando esté encendida.
- Contabilice las piezas pequeñas y destruya el material de embalaje, ya que puede ser peligroso para los niños.

PRECAUCIÓN

RIESGO DE INCENDIO

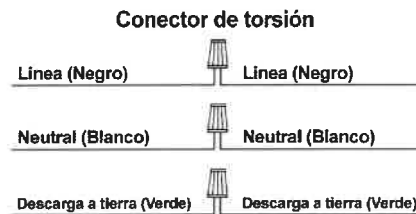
- Mantenga el combustible y otros materiales que puedan incendiarse lejos de la luminaria y lámpara/lentes.
- CONDUCTORES DE SUMINISTRO MIN 90°C.



Luz LED de granero

Diagrama de cableado general

PRECAUCIÓN: Desconecte la electricidad en el fusible o disyuntor antes de conectar el aparato al suministro eléctrico.

**Instrucciones para el montaje directo**

1. Inspeccione los componentes para asegurarse de que los cables de puerto macho y hembra y las superficies de sellado estén libres de rebabas, muescas y grietas o material extraño.
2. Perfore orificios de montaje para el aparato como lo muestra la Fig. 1.
3. Inserte dos tornillos (que vienen incluidos) en los dos lugares de orificio de montaje inferiores como lo muestra la Fig. 2. No ajuste totalmente los tornillos.
4. Enganche el aparato en los dos tornillos insertados y luego inserte y ajuste el tornillo superior como lo muestra la Fig. 3. Finalmente, ajuste los dos tornillos inferiores.
5. Remueva la cubierta del compartimento de cableado para acceder al enchufe de mango. Siga el Diagrama de cableado general anterior a modo de referencia. Asegúrese de que la electricidad esté desconectada antes de instalar y asegure bien toda conexión de cableado floja dentro del compartimiento de cableado.
6. Asegure el suministro eléctrico dentro del compartimiento de cableado con un conector de 1/2" (por otros).
7. Asegure la cubierta de compartimiento de cableado al aparato.

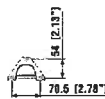


Fig. 1



Fig. 2

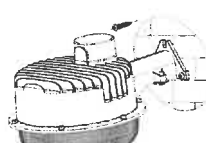


Fig. 3



Luz LED de granero

Instrucciones para el montaje con brazo

1. Inspeccione los componentes para asegurarse de que los cables de puerto macho y hembra y las superficies de sellado estén libres de rebabas, muescas y grietas o material extraño.
2. Inspeccione el brazo de montaje; si se suministra uno dividido, use el perno y tuerca suministrados para armar el brazo como lo muestra la **Fig. 4**.
3. Extienda el cableado (otros) por el brazo.
4. Siga el Diagrama de cableado general (**página 3**) para conectar los cables de extensión a la luminaria. Asegúrese de que el suministro eléctrico esté desconectado antes de la instalación y asegure las conexiones de cableado flojas dentro del compartimiento de cableado.
5. Inserte el brazo en la ranura U de la luminaria. Use los dos tornillos hexagonales suministrados para asegurar el brazo como lo muestra la **Fig. 5**.
6. Asegure la abrazadera a la base del brazo como lo muestra la **Fig. 6**. Asegúrese de que el brazo no gire.
7. Asegure la luminaria y brazo a la superficie con los cuatro tornillos de montaje incluidos, como lo muestra la **Fig. 7**.
8. Usando el conector conductor (otros) y el enchufe de conexión (otros), conecte el cable de extensión a la fuente de alimentación.



Fig. 4



Fig. 5

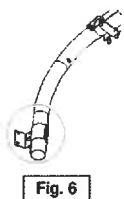


Fig. 6

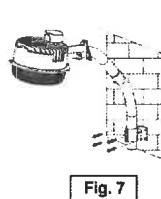


Fig. 7

Garantía

GARANTÍA LIMITADA A CINCO AÑOS

En caso de que este producto no tenga un rendimiento satisfactorio por fallas o errores de mano de obra dentro de los CINCO AÑOS de la fecha de compra, devuélvalo al lugar de la compra y lo reemplazarán sin cargo. Se excluyen de esta garantía los daños incidentales o emergentes.

Fabricado por Grainger International, Inc.
100 Grainger Pkwy., Lake Forest IL 60045 USA

Veillez lire et conserver ces instructions. Lisez attentivement ce manuel du propriétaire avant d'utiliser le produit. Protégez-vous et les autres en observant toutes les consignes de sécurité, les avertissements et les mises en garde. Le non respect de ces instructions peut entraîner des blessures et/ou des dommages au produit ou à la propriété. Veuillez garder ces instructions pour une référence future.



Luminaire pour étable DEL

Description

Le luminaire pour étable DEL de LumaPro et son diffuseur prismatique reproduit la forme et la fonction des luminaires au sodium haute pression de 150 Watts ou des halogénures métalliques de 175 Watts en n'utilisant que 34 Watts. Ce luminaire pour étable utilise un voltage de 120 à 277 volts et peut être installé sur un mur ou un boîtier de disjoncteur étanche. Idéal pour l'extérieur dans des zones nécessitant une forte luminosité notamment les allées, les cours et les jardins, les propriétés et les zones de travail.



49WJ37

FABRICATION

- Comprend un système de commande photosensible et un bras de support à 3 broches
- Remplace jusqu'à 175W MH
- Durée de vie évaluée à $\geq 100\,000$ heure TM-21 L70 à 25°C
- Alimentation universelle 120-277V
- Garantie de cinq ans

Spécifications et Dimensions

Modèle	Voltage	Watts	CCT	Lumens	CRI	Dimensions (po)
						H" x L" x P"
49WJ37	120-277V	35W	5000K	3,325	78	7.67" x 9.50" x 14.76"



Luminaire pour étable DEL

Consignes générales de sécurité

- Lire tous les avis et toutes les consignes, notamment ceux et celles qui se trouvent sur le boîtier et sur toutes les étiquettes du luminaire afin d'éviter tout risque de décès, de dommage corporel ou de dégâts matériels causés par un incendie, une décharge électrique, des pièces détachées, une coupure ou une abrasions et autres.
- Observer ces consignes générales pour toute installation et tout entretien, notamment les entretiens de routine de l'équipement
- Les installations et l'entretien commerciaux des luminaires doivent être effectués par un électricien professionnel qualifié
- Pour les installations résidentielles : en cas d'incertitude concernant l'installation ou de l'entretien des luminaires, contacter un électricien professionnel qualifié et consulter le Code local de l'électricité
- **NE PAS INSTALLER UN PRODUIT ENDOMMAGÉ!**
- Ce luminaire doit être connecter à une boîte de dérivation homologuée UL correctement installée et mise à la terre.

MISE EN GARDE:**RISQUE DE DÉCHARGE ÉLECTRIQUE**

- Couper l'alimentation au niveau du disjoncteur ou de la boîte à fusibles avant de brancher les câbles du luminaire à la source de courant.
- Couper le courant avant tout entretien
- Vérifier que la source de voltage est en adéquation avec les renseignements fournis sur l'étiquette du luminaire.
- Effectuer toutes les connexions électriques et les mises à la terre conformément au Code national de l'électricité et aux exigences des autres codes locaux en vigueur.
- Les câbles doivent être connectés à l'aide de connecteurs homologués UL.

MISE EN GARDE:**RISQUE DE BLESSURE**

- Utiliser des gants et des lunettes de sécurité à tout moment du retrait du luminaire du carton, de son installation et de son entretien.
- Éviter toute exposition directe à la lumière du luminaire lorsque ce dernier est allumé.
- Vérifier les petites pièces et jeter tout emballage. Ceux-ci sont dangereux pour les enfants.

AVERTISSEMENT:**RISQUE D'INCENDIE**

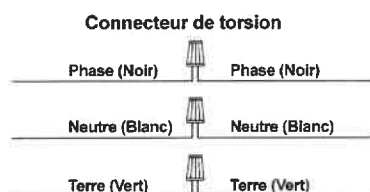
- Conserver toute substance et autres matériaux combustibles à l'écart du luminaire et des lampes/lentilles
- **CONDUCTEURS D'ALIMENTATION MIN 90°C.**



Luminaire pour étable DEL

Diagramme de câblage général

AVERTISSEMENT: Couper l'électricité au niveau des fusibles ou du disjoncteur avant de connecter le luminaire à une source de courant.



Instructions pour une installation directe

1. Inspecter les éléments et s'assurer que les raccords mâles et femelles et les surfaces d'installation sont sans entailles et bavures, et exempts de tout matériau.
2. Percer les trous de montage du luminaire comme en **Fig. 1**.
3. Insérer les vis (fournies) dans les deux trous du bas comme en **Fig. 2**. Ne pas les serrer entièrement.
4. Accrocher le luminaire aux deux vis insérées. Insérer et serrer la vis du dessus comme en **Fig. 3**. Terminer en serrant les deux vis du bas.
5. Retirer le couvre boîtier des câbles pour accéder à la prise d'installation. Suivre les instructions du diagramme de câblage général ci-dessus. S'assurer que l'électricité a été coupée avant toute installation et veiller à rentrer tout câble à l'intérieur du boîtier des câbles.
6. Fixer la source d'alimentation à l'intérieur du boîtier des câbles à l'aide d'un connecteur de 1/2" (non fourni).
7. Remplacer le couvre boîtier.

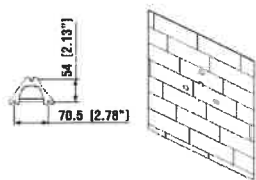


Fig. 1

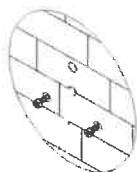


Fig. 2

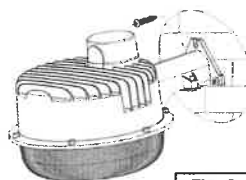


Fig. 3



Luminaire pour étable DEL

Instructions pour une installation à l'aide du bras de support

1. Inspecter les éléments et s'assurer que les raccords mâles et femelles et les surfaces d'installation sont sans entailles et bavures, et exempts de tout matériau.
2. Inspecter le bras de support; si un bras en deux parties a été fourni, utiliser les boulons et les écrous fournis pour assembler le bras comme le montre la **Fig. 4**.
3. Passer les câbles d'extension (non fournis) à travers le bras.
4. Pour connecter les câbles d'extension au luminaire, suivre les instructions du diagramme de câblage général (**page 3**). S'assurer que l'électricité a été coupée avant toute installation et veiller à rentrer tout câble à l'intérieur du boîtier des câbles.
5. Insérer le bras à l'intérieur de l'ouverture en U. Fixer le bras à l'aide des deux vis hexagonales comme en **Fig. 5**.
6. Fixer l'attache à la base du bras comme en **Fig. 6**. S'assurer que le bras n'ait aucun mouvement de rotation.
7. Fixer le luminaire et le bras à la surface à l'aide des quatre vis de montage fournies (**Fig. 7**).
8. À l'aide du raccord de conduit (non fourni) et de la prise de connexion (non fournie) connecter les câbles d'extension à la source d'alimentation.



Fig. 4



Fig. 5

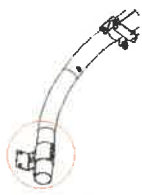


Fig. 6

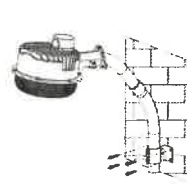


Fig. 7

Garantie**GARANTIE LIMITEE DE CINQ ANS**

Si ce produit ne fonctionne pas de manière satisfaisante en raison d'un vice ou d'une malfaçon dans les CINQ ANS de la date d'achat, veuillez le retourner au lieu d'achat et il sera remplacé gratuitement. Les dommages directs ou indirects sont exclus de cette garantie.

Fabriqué pour Grainger International, Inc.
100 Grainger Pkwy., Lake Forest IL 60045 USA

FLOOD LIGHT(MFD08)



DESCRIPTION

The MFD08 luminaire is a high performance LED lighting solution designed with optical versatility and a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, watertight LED driver compartment and high performance aluminum heat sinks. Markets include parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways.

SPECIFICATION FEATURES

Construction

- Housing, electrical compartment and fitter are all made from die cast aluminum that is pre-treated and powder-coated to meet the most rugged industry standards.
- Door frame features an integral accessory channel for the mounting of optional light control accessories.
- Vented housing isolates LED module from driver, maximizing product life and performance
- Door frame seals to housing with a continuous extruded silicone gasket.

Optics

- Optics(NEMA Type): 7H*6V, 4Hx4V.
- Scalable Lumen Packages from 1,950 to 50,000 Lumens.
- Provides the best combination of vertical and horizontal illumination while reducing light behind the poles.
- High performance acrylic optic securely attached to internal heat sink for maximum thermal dissipation

Electrical

- Universal 120-277 VAC or 347-480 VAC input voltage.
- Both drivers have a power factor > 90%, THD < 20%, and an expected life of 100,000 hours.
- Operating Temperature Range: -40°C - + 40°C (-40°F - + 104°F)

Lifespan

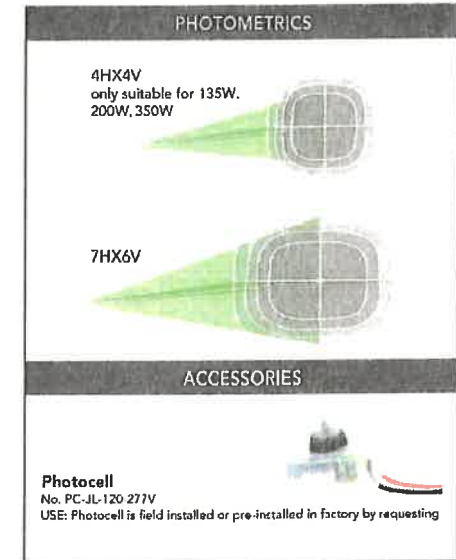
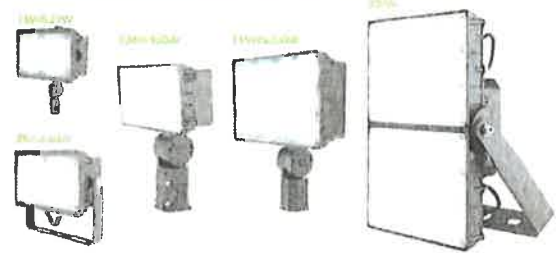
- Estimated 100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations

Warranty

- Five-year warranty.

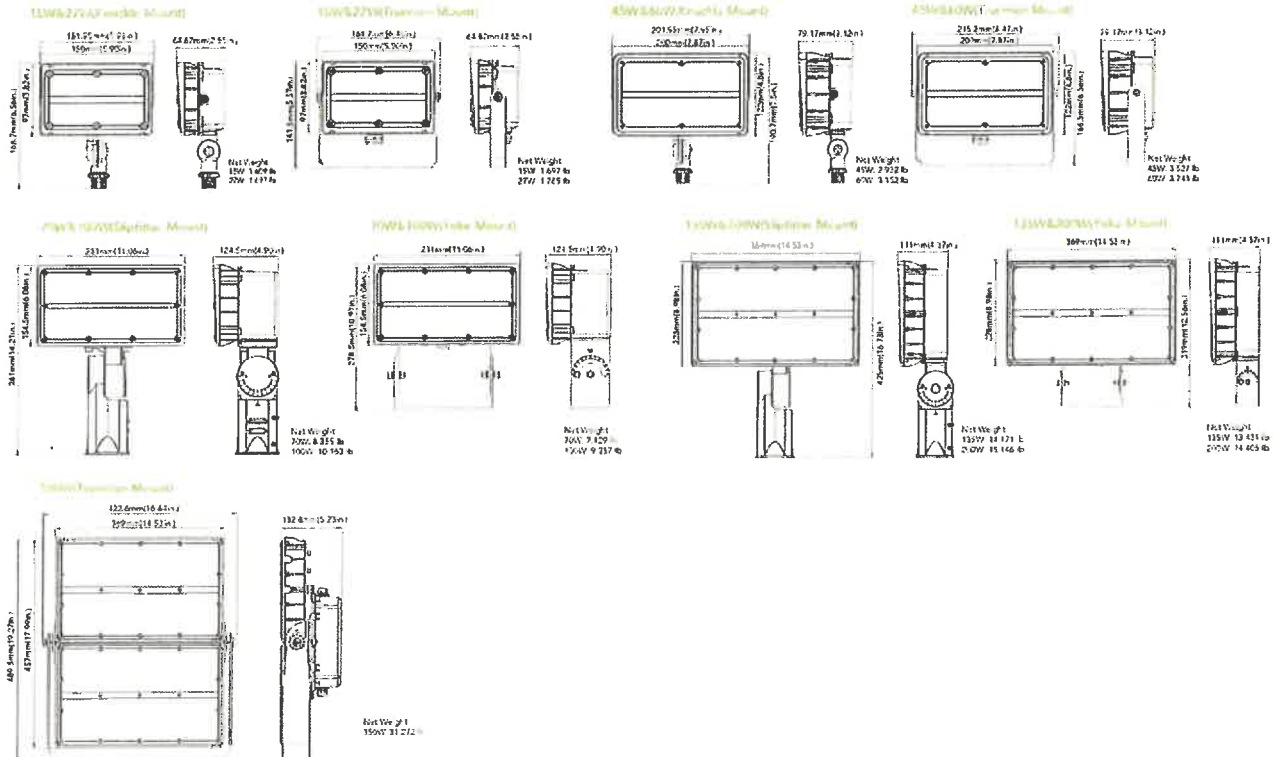
Certifications

- DesignLights Consortium™ Qualified.
- UL cUL wet location listed
- Note: DesignLights Consortium™ Qualified and classified for DLC Standard (all lumen packages), refer to www.designlights.org for details.



DIMENSIONS

unit: mm/inch



PERFORMANCE DATA

SYSTEM WATTS	VOLTAGE	DIST. TYPE	CRI	LUMENS (3000K)	LPW (3000K)	LUMENS (4000K)	LPW (4000K)	LUMENS (5000K)	LPW (5000K)
15W	120-277V	7Hx6V	70	1950lm	130 lm/W	2000lm	133 lm/W	2000lm	133 lm/W
27W	120-277V	7Hx6V	70	3500lm	130 lm/W	3600lm	133 lm/W	3600lm	133 lm/W
45W	120-277V	7Hx6V	70	5550lm	123 lm/W	5650lm	126 lm/W	5650lm	126 lm/W
60W	120-277V	7Hx6V	70	7250lm	121 lm/W	7450lm	124 lm/W	7450lm	124 lm/W
60W	347-480V	7Hx6V	70	7500lm	125 lm/W	7600lm	127 lm/W	7600lm	127 lm/W
70W	120-277V	7Hx6V	70	8700lm	124 lm/W	8900lm	127 lm/W	8900lm	127 lm/W
70W	347-480V	7Hx6V	70	9100lm	130 lm/W	9300lm	133 lm/W	9300lm	133 lm/W
90W	347-480V	7Hx6V	70	12000lm	133 lm/W	12400lm	138 lm/W	12400lm	138 lm/W
100W	120-277V	7Hx6V	70	13100lm	131 lm/W	13300lm	133 lm/W	13300lm	133 lm/W
135W	120-277V	4Hx4V	70	17500lm	130 lm/W	18000lm	133 lm/W	18000lm	133 lm/W
135W	347-480V	4Hx4V	70	17500lm	130 lm/W	18000lm	133 lm/W	18000lm	133 lm/W
135W	120-277V	7Hx6V	70	17500lm	130 lm/W	18000lm	133 lm/W	18000lm	133 lm/W
135W	347-480V	7Hx6V	70	17500lm	130 lm/W	18000lm	133 lm/W	18000lm	133 lm/W
200W	120-277V	4Hx4V	70	26000lm	130 lm/W	26500lm	133 lm/W	26500lm	133 lm/W
200W	347-480V	4Hx4V	70	26000lm	130 lm/W	26500lm	133 lm/W	26500lm	133 lm/W
200W	120-277V	7Hx6V	70	25300lm	127 lm/W	26200lm	131 lm/W	26200lm	131 lm/W
200W	347-480V	7Hx6V	70	25300lm	127 lm/W	26200lm	131 lm/W	26200lm	131 lm/W
350W	120-277V	4Hx4V	70	48000lm	137 lm/W	49500lm	141 lm/W	49500lm	141 lm/W
350W	347-480V	4Hx4V	70	48000lm	137 lm/W	49500lm	141 lm/W	49500lm	141 lm/W
350W	120-277V	7Hx6V	70	48000lm	137 lm/W	50000lm	143 lm/W	50000lm	143 lm/W
350W	347-480V	7Hx6V	70	48000lm	137 lm/W	50000lm	143 lm/W	50000lm	143 lm/W

ELECTRICAL DATA

Number Of Drivers	Driver Current (mA)	Nominal Power (W)	INPUT VOLTAGE (V)	CURRENT (Amps)
1	250	15	120	0.13
		15	208	0.07
		15	240	0.06
		15	277	0.05
1	430	27	120	0.23
		27	208	0.13
		27	240	0.11
		27	277	0.10
1	770	45	120	0.38
		45	208	0.22
		45	240	0.19
		45	277	0.16
1	920	60	120	0.50
		60	208	0.29
		60	240	0.25
		60	277	0.22
1	1600	60	347	0.17
		60	480	0.13
1	1750	70	120	0.58
		70	208	0.34
		70	240	0.29
		70	277	0.25
1	1850	70	347	0.20
		70	480	0.15
1	2600	100	120	0.83
		100	208	0.48
		100	240	0.42
		100	277	0.36
2	2400	90	347	0.26
		90	480	0.19
2	3500	135	120	1.13
		135	208	0.65
		135	240	0.56
		135	277	0.49
		135	347	0.39
		135	480	0.28
2	5000	200	120	1.67
		200	208	0.96
		200	240	0.83
		200	277	0.72
		200	347	0.58
		200	480	0.42
1	5600	350	120	2.92
		350	208	1.68
		350	240	1.46
		350	277	1.26
		350	347	1.01
		350	480	0.73

EPA

Item							
	1	2 @90°	2 @120°	2@180°	3 @90°	3 @120°	4 @90°
70W/100W	0.2885	0.6097	0.7475	0.577	0.8982	0.8196	0.8982
135W/200W	0.3868	0.8125	0.9973	0.7736	1.1993	1.0874	1.1993
350W	0.536	1.061	1.278	1.072	1.597	1.803	1.597

ORDERING GUIDE

Example:MFD0845W27V50KYYYYY

Fixture Type 	Wattage 	Voltage 	CCT 	Dimmable 	Finish 	Photocell (Option) 	Nema 	Mounting 	Internal Code 
MFD08 Flood Light series	15 15W 27 27W 45 45W 60 60W 70 70W 90 90W 100 100W 135 135W 200 200W 350 350W	27V 120-277V 48V 347-480V	30K 3000K 40K 4000K 50K 5000K	D 1-10VDIM Blank NO DIM	D Dark Bronze B Black W White	P0 With Photocell Blank Without Photocell	B44 4HX4V B76 7HX6V	TR Trunnion Mount KN Knuckle Mount YK Yoke SP Slipfitter Mount	Blank Alphanumeric

Note: 1. 15W,27W,45W,60W only suitable for non dimming.
2. 70W with dimming and non dimming options.
3. 90W,100W,135W,200W,350W only suitable for dimming.
4. Only 60W,70W,90W,135W,200W,350W suitable for 347-480V input voltage.
5. Only 135W,200W,350W optional for NEMA 4HX4V

MOUNTING

Knuckle Mount (15W/27W/45W/60W)



Trunnion Mount (15W/27W/45W/60W/350W)



Yoke Mount (70W/100W/135W/200W)



Slipfitter Mount (70W/100W/135W/200W)



Commercial Tamper-Resistant and/or Weather-Resistant GFCI Receptacles



Features

- Patented shutter design for tamper-resistant protection
- Tamper-Resistant/Weather-Resistant Series meets NEC® requirements for TR (517-18c) and WR (406.9), UV and corrosion resistance for harsh and damp applications
- Weather-Resistant Only Series meets NEC® requirements for weather resistance (406.9), UV and corrosion resistance for harsh and damp applications
- Patented CIRCUITPRO® self-test technology
- Protects against line and load reversal, no power to the face or downstream if device is miswired



Tamper-Resistant Weather-Resistant

Rating	Color	Standard	Isolated Ground
NEMA 5-15, 15A 125V 	Almond	GFTWRST15AL	GFTWRST15ALIG
	Black	GFTWRST15BK	GFTWRST15BKIG
	Brown	GFTWRST15	GFTWRST15IG
	Gray	GFTWRST15GY	GFTWRST15GYIG
	Ivory	GFTWRST15I	GFTWRST15IIG
	Light Almond	GFTWRST15LA	GFTWRST15LAIG
	Orange	—	GFTWRST15ORIG
	Red	GFTWRST15R	GFTWRST15RIG
	White	GFTWRST15W	GFTWRST15WIG
NEMA 5-20, 20A 125V 	Almond	GFTWRST20AL	GFTWRST20ALIG
	Black	GFTWRST20BK	GFTWRST20BKIG
	Brown	GFTWRST20	GFTWRST20IG
	Gray	GFTWRST20GY	GFTWRST20GYIG
	Ivory	GFTWRST20I	GFTWRST20IIG
	Light Almond	GFTWRST20LA	GFTWRST20LAIG
	Orange	—	GFTWRST20ORIG
	Red	GFTWRST20R	GFTWRST20RIG
	White	GFTWRST20W	GFTWRST20WIG



Hospital Grade • Tamper-Resistant Weather-Resistant

Rating	Color	Standard	Isolated Ground
NEMA 5-15, 15A 125V 	Almond	GFST82ALTR	GFST82ALIG
	Black	GFST82BKTR	GFST82BKIG
	Brown	GFST82TR	GFST82IG
	Gray	GFST82GYTR	GFST82GYIG
	Ivory	GFST82ITR	GFST82IIG
	Light Almond	GFST82LATR	GFST82LAIG
	Orange	—	GFST82ORIG
	Red	GFST82RTR	GFST82RIG
	White	GFST82WTR	GFST82WIG
NEMA 5-20, 20A 125V 	Almond	GFST83ALTR	GFST83ALIG
	Black	GFST83BKTR	GFST83BKIG
	Brown	GFST83TR	GFST83IG
	Gray	GFST83GYTR	GFST83GYIG
	Ivory	GFST83ITR	GFST83IIG
	Light Almond	GFST83LATR	GFST83LAIG
	Orange	—	GFST83ORIG
	Red	GFST83RTR	GFST83RIG
	White	GFST83WTR	GFST83WIG



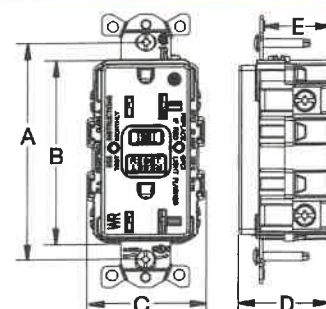
Weather-Resistant Only

Rating	Color	Standard
NEMA 5-15, 15A 125V 	Almond	GFWRST15AL
	Black	GFWRST15BK
	Brown	GFWRST15
	Gray	GFWRST15GY
	Ivory	GFWRST15I
	Light Almond	GFWRST15LA
	Red	GFWRST15R
	White	GFWRST15W
NEMA 5-20, 20A 125V 	Almond	GFWRST20AL
	Black	GFWRST20BK
	Brown	GFWRST20
	Gray	GFWRST20GY
	Ivory	GFWRST20I
	Light Almond	GFWRST20LA
	Red	GFWRST20R
	White	GFWRST20W



Product Dimensions Inches (mm)

GFCI Receptacle	
A	3.27" (83.1)
B	2.75" (69.8)
C	1.75" (44.5)
D	1.47" (37.4)
E	1.10" (27.9)



NEC® is a registered trademark of the National Fire Protection Association (NFPA).

[illegible]

SYN	DESCRIPTION	APPROVED	DATE
1	INITIAL RELEASE PER DCN # 20675	TFH	9-02-14
2	UPDATED MATERIALS PER DCN 21241	KP	5/25/15
3	ADDED CAT # GFTWRSTLSMP, GFTWRSTLSMP, GFTWRSTLSMP, GFTWRSTLSMP & GFTWRSTLSMP PER DCN 21918 JW	PJB PJS	2/5/16

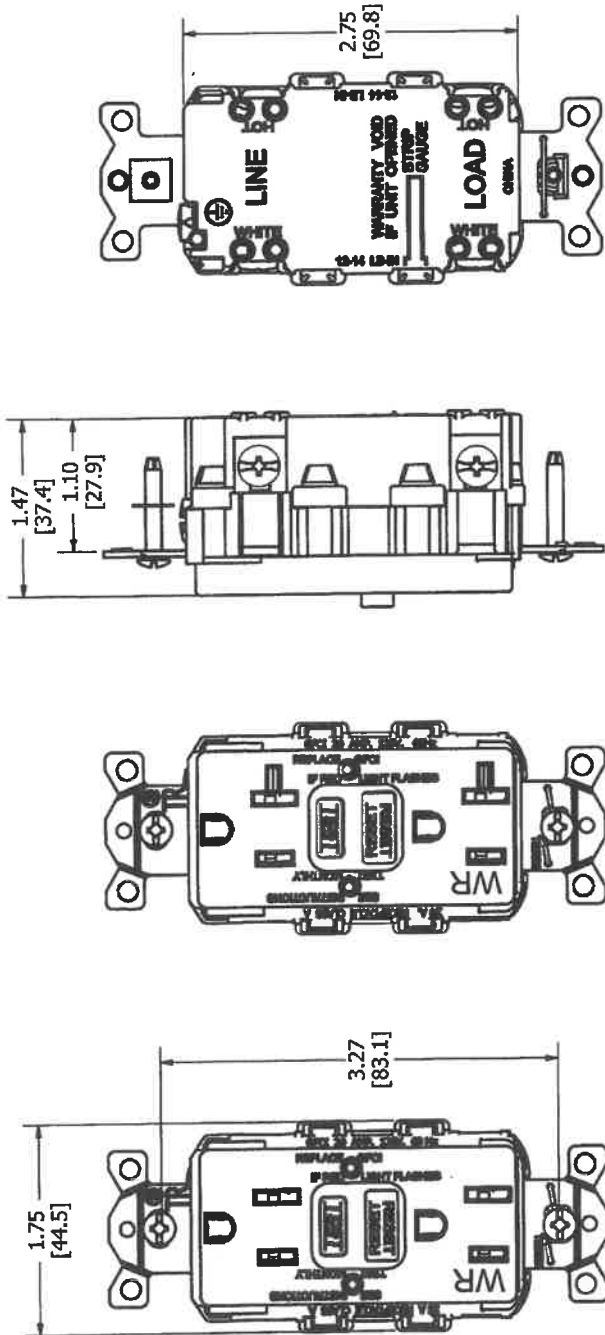
TITLE

**WIRING DEVICE-KELLEMS
CUBELL INCORPORATED
SHELTON, CT**

TOLERANCES UNLESS
OTHERWISE SPECIFIED

.xx =	±.01
.xxx =	±.005
ANGLES =	±2°

DR. BY	TFH	APP. BY	NB
TR. BY		SCALE	1:1
CHK'D BY	NB	DATE	9-02-14



BACK MARKINGS TYPICAL

(RANDOM UNIT CONFIGURATION SHOWN. SEE BOM FOR UNIT DETAIL & OTHER VARIATIONS)

TYPICAL HG/WR 20A DEVICE

TYPICAL HG/WR 15A DEVICE

GFCI SELF TEST B HOSPITAL GRADE TR/W/R									
	BROWN	TVORY	WHITE	GRAY	BLACK	RED	ALMOND	L.T. ALMOND	RATING
	GFTWRST82	GFTWRST82I	GFTWRST82W	GFTWRST82GY	GFTWRST82BK	GFTWRST82R	GFTWRST82AL	GFTWRST82LA	15A.125V
	GFTWRST15MP	GFTWRST15IMP	GFTWRST15WMP	-	GFTWRST15BKMP	-	-	GFTWRST15LAMP	15A.125V
	GFTWRST83	GFTWRST83I	GFTWRST83W	GFTWRST83GY	GFTWRST83BK	GFTWRST83R	GFTWRST83AL	GFTWRST83LA	20A.125V

CODE 74545

USG SHEETROCK® BRAND FIRECODE® X PANELS



DESCRIPTION

The original 5/8 in. Type X wallboards for interior walls and ceilings

- Provide additional fire resistance over regular panels
- Underwriters Laboratories Inc. (UL) Classification as to fire resistance, surface-burning characteristics and noncombustibility
- Comply with ASTM C1396 physical properties for 5/8 in. Type X gypsum wallboard
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)

USG Sheetrock® Brand Firecode® X Panels (UL Type SCX) are 5/8 in. Type X panels that feature a fire-resistant gypsum core encased in 100% recycled face and back papers that form a high strength composite design. The natural finish face paper is folded around the long edges to reinforce and protect the core, and the ends are cut square and even. The long edges of panels are tapered, allowing joints to be reinforced and concealed with USG Sheetrock® Brand joint treatment systems. USG Sheetrock® Brand Firecode® X Panels are UL Classified for fire resistance and can be used in any UL Design where Type SCX panels are listed. The UL Type Designation is printed with nonbleeding ink on the face along the long edge of each panel for easy identification by building inspectors.

INTENDED FOR

- Commercial or residential applications where 5/8 in. Type X panels are required
- New or repair and remodel construction
- Protection of load-bearing and non-load-bearing wood- or steel-framed fire-rated walls

LIMITATIONS

1. Avoid exposure to sustained temperatures exceeding 125 °F (52 °C).
2. Avoid exposure to excessive, repetitive or continuous moisture before, during and after installation. Eliminate sources of moisture immediately.
3. Maximum frame spacing for walls is 24 in. OC.
4. Must be stored off the ground and under cover in accordance with Gypsum Association's *Handling and Storage of Gypsum Panel Products* (GA-801-07).
5. Not for load-bearing design and not a structural panel.

INTERIOR INSTALLATION, FINISHING AND DECORATING INSTALLATION

Maximum Frame Spacing Drywall Construction

Direct Application	Panel Thickness	Location	Application Method ¹	Maximum Frame Spacing OC
Single-layer	5/8 in. (15.9 mm)	Ceilings	Perpendicular	24 in. (610 mm)
		Sidewalls	Parallel or perpendicular	24 in. (610 mm)
Double-layer	5/8 in. (15.9 mm)	Ceilings	Parallel or perpendicular	24 in. (610 mm) ²
		Sidewalls	Perpendicular	24 in. (610 mm) ²

Notes:

1. Long edge position relative to framing.
2. Maximum spacing 16 in. OC if fire rating required.

INTERIOR INSTALLATION, FINISHING AND DECORATING, CONT.

FINISHING AND DECORATING

For high-quality finishing results, USG recommends USG Sheetrock® Brand finishing products.

Painting products and systems should be used that comply with recommendations and requirements in Appendices of ASTM C840. For priming and decorating with paint, texture or wall covering, follow manufacturer's directions for materials used. Gypsum Association's *Recommended Specification for Levels of Gypsum Board Finish* (GA-214) should be referred to in order to determine the level of finishing needed to ensure a surface properly prepared to accept the final decoration.

All surfaces, including applied joint compound, must be thoroughly dry, dust-free and not glossy. Prime with USG Sheetrock® Brand First Coat™ Primer or with an undiluted, interior latex flat paint with high-solids content. Allow to dry before decorating.

To improve fastener concealment where gypsum panel walls and ceilings will be subjected to severe artificial or natural side lighting, or will be decorated with a gloss paint (eggshell, semigloss or gloss), the gypsum panel should be skim coated with joint compound. This equalizes suction and texture differences between the drywall face paper and the finished joint compound before painting. As an alternative to skim coating, or when a Level 5 finish is required, use USG Sheetrock® Brand Tuff-Hide™ Primer-Surfacer.

For more information, refer to USG literature *Finishing & Decorating Gypsum Panels White Paper* (J2010).

TEST DATA

Property		ASTM Test Method	ASTM C1396 Specification 5/8 in. Wallboard	UL Type SCX
Noncombustibility		E136	Pass	Pass
Surface-burning characteristics	Flame Spread	E84	Flame Spread Index, not greater than 25	15
	Smoke Developed	E84	Smoke Developed Index, not greater than 450	0
	Classification	E84	—	Class A
Core hardness (lbf)	Field	C473 (B)	Not less than 11	Meets or exceeds
	End	C473 (B)	Not less than 11	Meets or exceeds
	Edge	C473 (B)	Not less than 11	Meets or exceeds
Flexural strength (lbf)	Parallel	C473 (B)	Not less than 46	Meets or exceeds
	Perpendicular	C473 (B)	Not less than 147	Meets or exceeds
Humidified deflection (in.)		C473	Not greater than 5/8 in.	Less than
Nail pull resistance (lbf)		C473 (B)	Not less than 87	Meets or exceeds

PRODUCT DATA

	UL Type SCX
Thickness	5/8 in. (15.9 mm)
Lengths	8-16 ft. (2438-4267 mm)
Width ⁴	4 ft. (1219 mm), 54 in. x 12 ft. (1372 mm x 3658 mm)
Weight ⁴ , nominal	2.2 lb./sq. ft. (10.7 kg/sq. m.)
Edges	Tapered
Packaging	Two panels per bundle

Notes:

3. Other sizes available by special order. Check with your local USG representative for availability.

4. Represents approximate weight for design and shipping purposes. For specific product weight in your area, contact your local USG representative or call the Customer Service Center at 800 950-3839.

COMPLIANCE

- Meet or exceed ASTM C1396 Section 5 for 5/8 in. gypsum wallboard, Type X
- Classified as a Class A Interior Finish Material per Section 803.1 of the International Building Code® (IBC®)
- UL Classification as to fire resistance, surface-burning characteristics and core combustibility
- Achieved GREENGUARD Gold Certification and qualifies as a low VOC emitting material (meets CA 01350)

SUBMITTAL APPROVALS

Job Name	
Contractor	Date

PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

CAUTION

Dust may cause irritation to eyes, skin, nose, throat and upper respiratory tract. Cut and trim with a utility knife or hand saw to minimize dust levels. Power tools must be equipped with a dust collection system. Wear eye, skin and respiratory protection if necessary. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call a physician. Do not swallow. If swallowed, call a physician. For more information call Product Safety: 800 507-8899 or see the SDS at usg.com
KEEP OUT OF REACH OF CHILDREN.

TRADEMARKS

The trademarks USG, FIRECODE, FIRST COAT, SHEETROCK, TUFF-HIDE, IT'S YOUR WORLD. BUILD IT., the USG logo, the design elements and colors, and related marks are trademarks of USG Corporation or its affiliates. The trademarks IBC and INTERNATIONAL BUILDING CODE are trademarks of International Code Council, Inc..

NOTE

Products described here may not be available in all geographic markets. Consult your USG Company sales office or representative for information. The information in this document is subject to change without notice. USG Corporation assumes no responsibility for any errors that may inadvertently appear in this document.

NOTICE

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

SAFETY FIRST!

Follow good safety and industrial hygiene practices during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read Safety Data Sheets and related literature on products before specification and/or installation.

800 USG.4YOU
800 (874-4968)
usg.com

Manufactured by
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

WB2964-USA-ENG/6-17
© 2017 USG Corporation and/or
its affiliates. All rights reserved.
Printed in U.S.A.



RATIO FLOOD ULTRA COMPACT

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

Intended Use:

Ultra compact LED flood for lighting applications such as safety/security, accent, landscape, columns, or signs

Construction:

- Corrosion resistant, rugged die-cast aluminum housing with powder coat paint finish
- High impact UV stabilized acrylic outer lens protects LEDs and allows for cleaning and debris removal
- Diecast housing with hidden vertical heat dissipation while keeping a clean smooth outer surface

Optical/LED:

- 22 midpower LED's
- Ambient operating temperature -40°C to 40°C
- Stock Versions: 3000K and 4000K CCT

Electrical

- NEMA distribution: - Wide (7x7)
- 120-277V operation, 50/60Hz
- Driver IP66 and RoHS compliant

Installation:

- Traditional 1/2" x 14 NPS threaded adjustable knuckle mounting
- Easy maintenance access to electrical components with removal of 4 screws from back of fixture housing.

Listings:

- IP66
- Listed to UL1598 for use in wet locations

Warranty:

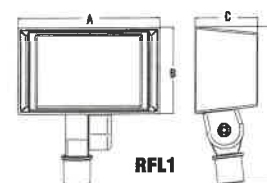
5 year limited warranty, for more information visit: <http://www.hubbelllighting.com/resources/warranty/>

PRODUCT IMAGE(S)



RFL1

DIMENSIONS



A	B	C	D
4.5"	2.7"	2.0"	5.0"
114 mm	69 mm	51 mm	127 mm

CERTIFICATIONS/LISTINGS



IP66

SHIPPING INFORMATION

Catalog Number	G.W(kg)/CTN	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
RFL1	1.25lbs(0.57kg)	4.72 (12.0)	4.13 (10.5)	3.14 (8.0)

ORDERING INFORMATION - STOCK CONFIGURATIONS

Catalog Description	Mounting	Distribution	Wattage	Voltage	CCT	Lumens	Weight LBS. (KG)	Finish
RFL1-3K	Knuckle	Wide	12.4W	120-277V	3000K	1,360	1.25 (.57)	Bronze
RFL1-4K	Knuckle	Wide	12.4W	120-277V	4000K	1,371	1.25 (.57)	Bronze

ACCESSORIES/REPLACEMENT PARTS - Order Separately

Catalog Number	Description
20750110264	Knuckle mount Dark Bronze finish. Contact factory for additional finishes
S-302	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; Gray
S-302-M51	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; Bronze
S-302-M52	Slipfits 1 1/2" or 2" pipe (1.9" OD or 2 3/8" OD) with 1/2" N.P.S.M. hub; White
TRN-XX ¹	Trunnion adaptor for 1/2" threaded knuckle mount

¹ Specify finish color to match fixture, e.g. DB - Bronze.



S-302-XXX



TRN-XX



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2019 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA February 21, 2019 2:48 PM RATIO-SPEC



TWP LED

LED Wall Luminaire



Catalog
Number

Notes

Type

For the complete technical specifications, visit www.lithonia.com

Introduction

The TWP LED offers a classic appearance and is powered by advanced LEDs. A one-piece polycarbonate cover delivers enhanced durability and is vandal resistant, making the TWP LED ideal for lower mounting heights or high-traffic areas. The new TWP LED luminaire is powerful yet energy efficient, capable of replacing up to a 250W metal halide luminaire while saving up to 83% in energy costs.

The new TWP LED features an Adjustable Light Output (ALO), that allows the contractor to set the light output, during installation, to a level perfectly suited for the job site. The feature allows one luminaire to replace anywhere from 70W to all the way up to 250W metal halide luminaire.

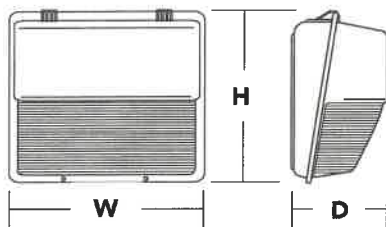
Specifications

Width: 16-1/8"
(41.0 cm)

Height: 15-1/2"
(39.4 cm)

Depth: 7-3/4"
(19.7 cm)

Weight: 15 lbs
(6.8kg)



Ordering Information

EXAMPLE: TWP LED ALO 50K T3M MVOLT DDBXD

TWP LED

Series	Power Package	Color temperature	Distribution	Voltage	Control Options	Other Options	Finish (required)
TWP LED	ALO	30K 40K 50K	T3M Type III Medium	MVOLT ¹ 120 208 240 277 347 480	Shipped installed PE Photoelectric cell, button type ²	Shipped installed SF Single fuse (120, 277, 347V) DF Double fuse (208, 240, 480V) TP Tamper proof screws SPD Separate surge protection	DDBXD Dark bronze DBLXD Black DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DWHGXD Textured white

Stock configurations are offered for shorter lead times:

Standard Part Number	Stock Part Number	CI Codes
TWP LED ALO 40K T3M MVOLT DDBXD	TWP LED ALO 40K	*265A1W
TWP LED ALO 50K T3M MVOLT DDBXD	TWP LED ALO 50K	*265A23

NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- The photocell is not voltage specific when ordering with MVOLT. It will operate from 120-277V. Not available with 480V.



One Lithonia Way • Conyers, Georgia 30012 • Phone: 800-705-SERV (7378) • www.lithonia.com
© 2012-2019 Acuity Brands Lighting, Inc. All rights reserved.

TWP LED 2018 UPGRADED
Rev. 8/7/19

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

FAO Setting	System Watts	30K (3000K, 70 CRI)		40K / 50K (4000K / 5000K, 70 CRI)		Replaces (Metal Halide)
		Lumens	LPW	Lumens	LPW	
Step 8 (default)	48	4,768	100	5,174	108	250W
Step 7	45	4,504	100	4,888	109	
Step 6	39	3,963	101	4,301	110	175W
Step 5	34	3,410	102	3,701	111	
Step 4	28	2,845	103	3,087	111	150W
Step 3	22	2,267	103	2,460	112	100W
Step 2	16	1,677	104	1,820	112	70W
Step 1	11	1,074	103	1,166	112	CFL

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient	Lumen Multiplier
0°C	1.05
10°C	1.03
20°C	1.01
25°C	1.00
30°C	0.99
40°C	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **TWP LED ALO (default setting)** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.00	1.00	0.98	0.93

Electrical Load

LEDs	System Watts	Current (A)					
		120	208	240	277	347	480
ALO (default setting)	48W	0.41	0.27	0.24	0.19	0.14	0.11

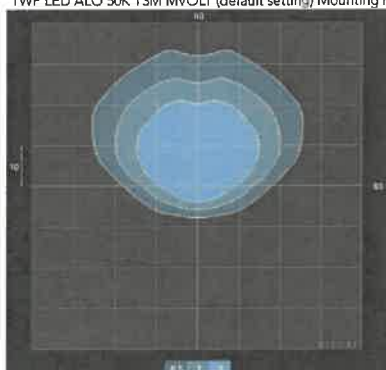
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [TWP LED homepage](#).
Tested in accordance with IESNA LM-79 and LM-80 standards

LEGEND

0.5 fc
1.0 fc
2.0 fc

TWP LED ALO 50K T3M MVOLT (default setting) Mounting height - 10'



FEATURES & SPECIFICATIONS

INTENDED USE

The energy savings, long life and easy-to-install design of the TWP LED make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION

Die-cast aluminum rear housing has an impact-resistant, UV-stabilized polycarbonate front housing and refractor that is fully gasketed. Modular design allows for ease of maintenance. The LED driver is mounted to the front casting to thermally isolate it from the light engine for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS

Protective glass lens covers the light engine's precision-molded proprietary acrylic lenses. Light engines are available in 3000K, 4000K and 5000K configurations.

ELECTRICAL

Light engine(s) consist of 72 high-efficacy LEDs mounted to a metal-core circuit board and integral aluminum heat sink to maximize heat dissipation and promote long life (L93/100,000 hrs at 25°C). The electronic driver has a power factor of >90%, THD <20%, and a minimum 6 KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

Top 3/4" threaded wiring access. Back access through removable 3/4" knockout. Feed-thru wiring can be achieved by using a conduit tee. Mount on any flat, vertical surface.

LISTINGS

UL listed for use in the US and Canada. Suitable for use in wet locations. Rated for -40°C minimum operating temperature.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/DQL to confirm which versions are qualified.

WARRANTY

5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



EXTERIOR PAINT

1. Exterior paint includes concrete exterior walls.
2. Colors to be used shall match the original colors of the structure¹.
 - a. Paint Work includes cleaning of the Surface (careful attention shall be given to historic structures, in order to not affect its integrity), eliminating paint partially detached, primer application, and application of paint in compliance with established scope of work in this document.
 - b. Paint samples shall be provided for approval by the Engineering Department of the Autonomous Municipality of Ponce.

3. PREPARACIÓN

- a. General:
 - i. Clean and prepare surfaces to be painted in accordance with manufacturer's written instructions for each particular substrate condition and as specified. Existing glossy surfaces shall be dulled by sanding to create a grip surface.
 - ii. Mix and prepare paint in accordance with manufacturer's written instructions. Stir paint thoroughly before applying and frequently during application to maintain color consistency.
- b. Masonry - Concrete:
 - i. Roughen slick poured or precast concrete and remove sealers by chemical cleaning or abrasive method such as sand-sweeping. Rinse thoroughly with water and allow drying.
 - ii. Surfaces must be sound, clean, dry, free of oil, grease, curing agents or sealers, efflorescence, loose aggregate and other foreign matter.
 - iii. Pressure washes all exterior walls and ceilings with 2,000 to 3,000 psi.
 - iv. In all cases, investigate and eliminate the source of moisture causing the development of mold and efflorescence.
- c. Exterior concrete Light Surface Restoration:
 - i. Apply primer to hairline cracks to assure Elastomeric Caulk adhesion, use as necessary.



- ii. Correct all cracks with Elastomeric Caulk “Anvil Elastomeric patch” in cracks greater than 1/16”. This product has extraordinary performance expanding and contracting with structural movements, while sealing water and moisture penetration. Its finish has a grainy texture, similar to the cement plaster.

4. Products to be used Will be the following **or their approved similar or equal in other brands:**

Surfaces Paint Exterior and Interior System:

EXTERIOR AREAS

- A. Exterior Primer for Concrete Walls, Ceiling, Masonry
One (1) Coat: 4-603XI Perma-Crete Alkaline Primer
- B. Metals Primers
One (1) Coat: Devoe Enamel Coating
- C. Exterior Finish for Metals
One (1) Coat: 4308-100 Devoe Enamel Coating
- D. Concrete Walls and Masonry
Two (2) Coat: 6-610XI Speedhide 100% Acrylic Paint Flat
- E. Wood Windows Finish
Two (2) Coat: 4308-xxxx DevGuard Enamel Coating

Specific details or any other questions shall be clarified and coordinated, previous to commencing the work to be performed.

SELLADO DE TECHO

1. Limpieza general y remoción de material existente que sea necesario para proveer una garantía requerida en el proyecto. Las superficies a trabajar se lavarán a presión, se removerá toda materia suelta y sucio, se removerá corrosión en áreas de metal, se sellarán juntas, grietas, empates, áreas de tornillos, entradas de tuberías y alrededor de los desagües con material sellante adecuado para el sistema a utilizar. El sistema se aplicará sobre áreas secas y limpias.
2. Para el sellado del techo considerar una combinación de material 100% silicona en color gris y aplicado en spray. Se solicita considerar las especificaciones incluidas con este documento.
3. Se proveerá y certificará una garantía de al menos cinco (5) años, comenzados a partir del día de la entrega y aceptación del proyecto.
4. Se deberá considerar las siguientes especificaciones de los siguientes productos:
5. Para las áreas que necesiten reparación se solicita considerar un producto sellante igual o similar a "Uniflex One Flash Sealant, KST051920"
6. Para las áreas con corrosión se solicita considerar un producto igual o similar a "Uniflex Rust Inhibitive Metal Primer Red, KST034520"
7. Para el sistema en silicone considerar un sellador 100% silicone igual o similar a "Tundra Silicone KS0064920"
8. El contratista someterá para evaluación las especificaciones de los productos a utilizar.



FEMA

RUST-OLEUM®

AS5400 SYSTEM ANTI-SLIP ONE STEP EPOXY

DESCRIPTION AND USES

A single-component epoxy-based anti-slip floor coating.

This coating is designed for use on concrete floors, aisles, walkways, stairs, areas around machinery, or doorways subject to heavy foot or light vehicle traffic, where a coarse anti-slip safety finish is desired. It may also be used on metal stairs or other metal surfaces where safety is a concern. Its ridged profile offers aggressive anti-slip characteristics in a one-component, one-step application.

This product complies with USDA FSIS regulatory sanitation performance standards for food establishment facilities. This coating is impervious to moisture and easily cleaned and sanitized.

APPEARANCE

Flat, textured, anti-slip finish

PRODUCTS

AS5444	Safety Yellow
AS5471	Dunes Tan
AS5482	Silver Gray
AS5468	Tile Red
AS5479	Black
AS5486	Navy Gray

RECOMMENDED PRIMER

For metal substrates, use 9100 System DTM Epoxy Mastic.

PACKAGING

1-gallon containers

PRODUCT APPLICATION

SURFACE PREPARATION

NEW, UNCOATED CONCRETE: Remove oil, dirt, grease and other chemical contaminants by cleaning with Pure Strength 3599 Industrial Cleaner/Degreaser, detergent, or other suitable cleaner. Rinse with water. Etch concrete with 108 Cleaning & Etching Solution. Rinse thoroughly, and allow to dry.

New concrete should be allowed to cure for 30 days before application of any coating. If there is any doubt about the dryness of the concrete, conduct a test by simply placing a weighted rubber mat, plastic sheet or other nonporous material on the surface for 24 hours. Check the underside of the mat and concrete for signs of moisture. The substrate will be darker if damp. If moisture is found, allow additional drying time (10-14 days) and repeat test. If moisture persists, the concrete surface cannot be coated.

PRODUCT APPLICATION (cont.)

Very dense, nonporous or chemically treated concrete may require abrasive blasting to assure proper coating adhesion. Determine porosity by pouring one ounce of water onto the concrete. If water soaks in, the surface is porous enough for coating. If water beads up on the concrete, the surface is not porous and treatment is warranted. The presence of laitance (fine white particles) will also require abrasive blasting or abrading to assure removal.

PREVIOUSLY COATED CONCRETE: Remove loose dirt, dust and paint by sweeping or vacuum cleaning. Remove grease, oil, floor compound or wax with Pure Strength 3599 Industrial Cleaner/Degreaser. Rinse with water and allow to dry.

PREVIOUSLY COATED WITH AS5400: Clean with Pure Strength 3599 Industrial Cleaner/Degreaser. Rinse with water and allow to dry.

METAL: Remove oil, dirt, grease and other chemical contaminants by cleaning with Pure Strength 3599 Industrial Cleaner/Degreaser, detergent, or other suitable cleaner. Rinse thoroughly with water and allow to dry. Loose rust, mill scale and deteriorated previous coatings must be removed by Hand Tool (SSPC-SP-2) or Power Tool (SSPC-SP-3) cleaning. A brush-off abrasive blast (SSPC-SP-7) may be used as an alternative to scraping and wire brushing. Heavily rusted areas may require a Commercial Grade Blast (SSPC-SP-6) to assure maximum coating performance. Prime the surface with 9100 System DTM Epoxy Mastic (must use the 9101 Activator). Allow 16-72 hours for the system to cure. Apply the desired AS5400 System finish coat.

APPLICATION

Apply only when air and surface temperatures are between 50°-100°F and surface is at least 5°F above dew point. Thoroughly mix contents of the can with a mechanical mixer, such as a pneumatic drill motor with a Hanson mixing blade, until mixed material assumes a uniform color and appearance. Use of a phenolic core roller, such as Rust-Oleum roller 6697005, will expose the maximum amount of anti-slip aggregate, resulting in a highly ridged, irregular profile. If this is not achieved, the coating may become slippery when wet.

**TECHNICAL DATA****AS5400 SYSTEM ANTI-SLIP ONE STEP EPOXY****PRODUCT APPLICATION (cont.)**

Pour the product on the surface in a long stripe approximately 2' long and 6" wide. Roll material in one direction only, pulling material toward you in slow, straight strokes with a moderate amount of pressure. Do NOT over-roll or press down too heavily on the roller in an attempt to create a smooth appearance; this will adversely affect the creation of the appropriate ridged profile and the desired anti-slip characteristics. Roll across welds, not along them. Material applied too thickly may not properly cure. Dry time may be adversely affected by high or low temperatures or high relative humidity. Protect applications from moisture for 12 to 24 hours. Protect from heavy or extended exposure to water, oil and chemicals for 5 to 7 days.

CLEANUP

Use 160 Thinner for cleanup only. Do not thin this product.

SURFACE MAINTENANCE

Maintain a clean surface to ensure that the anti-slip safety performance is maximized.

For general purpose cleaning, use 3500 System Pure Strength Cleaner/Degreaser, detergent, or other suitable cleaner. Scrub the surface with a stiff-bristled brush, broom, or use a floor machine. Rinse with clean water and allow to dry. Periodic touch up may be necessary in heavy traffic areas.



TECHNICAL DATA

AS5400 SYSTEM ANTI-SLIP ONE STEP EPOXY

PHYSICAL PROPERTIES

AS5400 SYSTEM ANTI-SLIP ONE STEP EPOXY		
Resin Type		Epoxy ester
Pigment Type		Varies with color
Solvents		Xylene and Propylene Glycol Monomethyl Ether
Weight	Per Gallon	12.2-13.2 lbs.
	Per Liter	1.46-1.58 kg
Solids	By Weight	70.9-72.4%
	By Volume	48.6-49.2%
Volatile Organic Compounds		Less than 440 g/l (3.66 lbs/gal)
Recommended Dry Film Thickness (DFT) Per Coat		16-20 mils (400-500 μ)
Wet Film to Achieve DFT		32-40 mils (800-1,000 μ)
Practical Coverage at Recommended DFT (assumes 15% material loss)		40-50 sq.ft./gal (0.98-1.23 m ² /l) NOTE: coverage will be reduced when applying over porous concrete.
Coefficient of Friction		Dry: 1.17, Wet: 1.00
Dry Times at 70°F (21°C) and 50% Relative Humidity	Heavy Traffic	24 hours
	Recoat	Minimum of 12 hours
Shelf Life		2 years minimum. (A partially used container may be resealed and saved for future use.)
Flash Point		81°F (27°C)
Safety Information		WARNING! FLAMMABLE. VAPOR HARMFUL. CAUSES NOSE, THROAT, EYE AND SKIN IRRITATION. MAY AFFECT THE BRAIN OR NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA.MAY CAUSE ALLERGIC SKIN REACTION. FOR INDUSTRIAL OR COMMERCIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.SEE THE PRODUCT MATERIAL SAFETY DATA SHEET (MSDS) FOR ADDITIONAL SAFETY INFORMATION

Calculated values are shown and may vary slightly from the actual manufactured material.

The technical data and suggestions for use contained herein are correct to the best of our knowledge, and offered in good faith. The statements of this literature do not constitute a warranty, express, or implied, as to the performance of these products. As conditions and use of our materials are beyond our control, we can guarantee these products only to conform to our standards of quality, and our liability, if any, will be limited to replacement of defective materials. All technical information is subject to change without notice.



Rust-Oleum Corporation
11 Hawthorn Parkway
Vernon Hills, Illinois 60061
An RPM Company

Phone: 877-385-8155
www.rustoleum.com/industrial

Form: 2077990
Rev.: 041514

Sunmodule® Protect SW 270 mono



TUV Power controlled:
Lowest measuring tolerance in industry



Exceptional weather resistance
and robustness



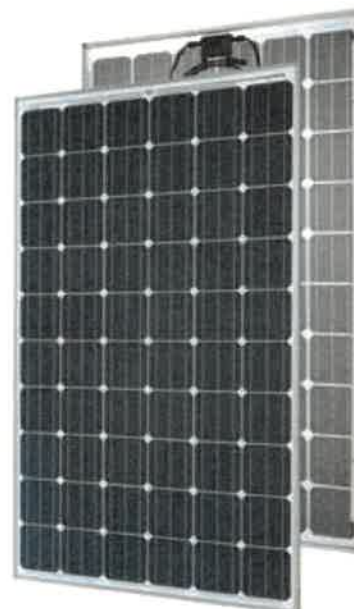
Designed to withstand heavy
accumulations of snow and ice



Sunmodule Protect:
Positive performance tolerance



Glass with anti-reflective coating



World-class quality

Fully-automated production lines and seamless monitoring of the process and material ensure the quality that the company sets as its benchmark for its sites worldwide.

Innovative glass technologies make extremely weather-resistant and robust solar modules possible. The Sunmodule Protect offers higher mechanical resilience and a longer service life, and still weighs the same as the Sunmodule Plus.

The positive power tolerance guarantees utmost system efficiency. Only modules achieving or exceeding the designated nominal power in performance tests are dispatched. The power tolerance ranges between -0 Wp and +5 Wp.

SolarWorld is setting new standards with the ground-breaking 30-year linear performance guarantee: a maximum degradation of just 0.35% p.a. provides guaranteed module performance of 90% after 21 years, and 86.85% after 30 years.



- Qualified, IEC 61215
- Safety tested, IEC 61730
- Periodic Inspection
- Blowing sand resistant



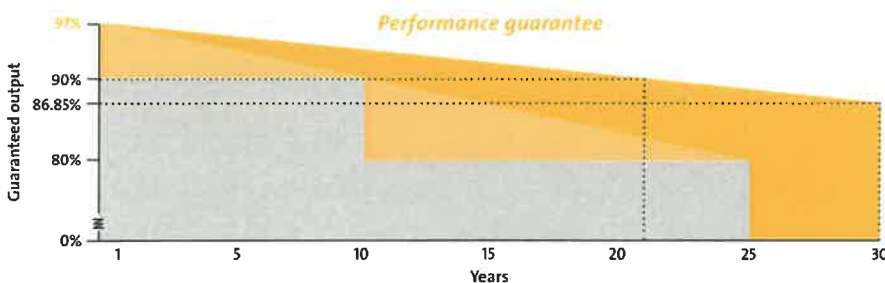
- Ammonia resistance tested
- Periodic Inspection
- Power Controlled



ISO 9001
ISO 14001
Certified

Linear performance guarantee

- Linear performance guarantee for SolarWorld Sunmodule Protect
- Linear performance guarantee for SolarWorld Sunmodule Plus
- Competitor's tiered performance guarantee



*in accordance with the applicable SolarWorld Limited Warranty at purchase.
www.solarworld.com/warranty

solarworld.com



We turn sunlight into power.

Sunmodule® Protect SW 270 mono

PERFORMANCE UNDER STANDARD TEST CONDITIONS (STC)*

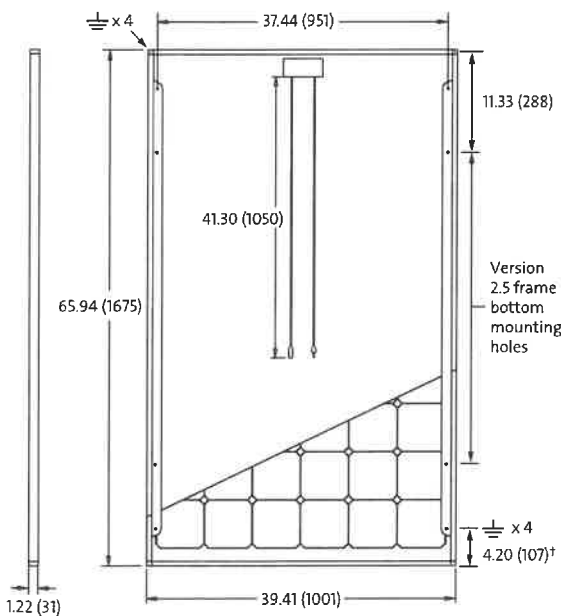
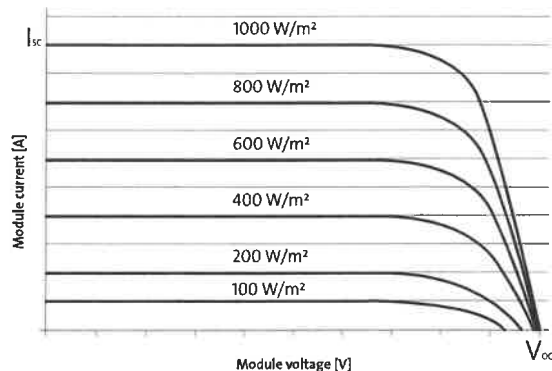
Maximum power	P_{max}	270 Wp
Open circuit voltage	V_{oc}	39.2 V
Maximum power point voltage	V_{mpp}	30.9 V
Short circuit current	I_{sc}	9.44 A
Maximum power point current	I_{mpp}	8.81 A

*STC: 1000 W/m², 25°C, AM 1.5.

1) Measuring tolerance (P_{max}) traceable to TUV Rheinland: +/-2% (TUV Power Controlled)

THERMAL CHARACTERISTICS

NOCT	46 °C
TC I_{sc}	0.04 %/°C
TC V_{oc}	-0.30 %/°C
TC P_{mpp}	-0.45 %/°C
Operating temperature	-40°C to 85°C



PERFORMANCE AT 800 W/m², NOCT, AM 1.5

Maximum power	P_{max}	201.3 Wp
Open circuit voltage	V_{oc}	35.9 V
Maximum power point voltage	V_{mpp}	28.3 V
Short circuit current	I_{sc}	7.63 A
Maximum power point current	I_{mpp}	7.12 A

Minor reduction in efficiency under partial load conditions at 25°C: at 200 W/m², 100% (+/-2%) of the STC efficiency (1000 W/m²) is achieved.

COMPONENT MATERIALS

Cells per module	60
Cell type	Mono crystalline
Cell dimensions	6.14 in x 6.14 in (156 mm x 156 mm)
Front	Tempered glass (EN 12150)
Frame	Clear anodized aluminum
Weight	46.7 lbs (21.2 kg)

SYSTEM INTEGRATION PARAMETERS

Maximum system voltage IEC	SC II	1000 V
Maximum system voltage UL		1000 V
Maximum reverse current		16 A
Number of bypass diodes		3
UL Design Loads*	Two rail system	113 psf downward 64 psf upward
UL Design Loads*	Three rail system	170 psf downward 64 psf upward
IEC Design Loads*	Two rail system	113 psf downward 50 psf upward

*Please refer to the Sunmodule installation instructions for the details associated with these load cases.

ADDITIONAL DATA

Power sorting ¹	-0 Wp / +5 Wp
J-Box	IP65
Module leads	PV wire per UL4703 with H4 connectors
Module efficiency	16.10 %
Fire rating (UL 790)	Class C
Glass	Low iron tempered with ARC

NEW!

Independently created PAN files now available.
Ask your account manager for more information.

*All units provided are imperial. SI units provided in parentheses.
SolarWorld AG reserves the right to make specification changes without notice.

PRODUCT DESCRIPTION

KOOL-SEAL Tundra is a premium, silicone rubber roof coating ideal for ponding water.

FEATURES AND BENEFITS

- Limited Lifetime Warranty
- 100% silicone
- High solids
- Superior finish with excellent leveling
- Outstanding adhesion to most roofing material

RECOMMENDED USES

- Metal, single ply, smooth BUR, APP, SBS, modified bitumen, polyurethane foam, cured concrete, existing asphaltic and elastomeric roof coatings and other approved surfaces.
- NOT for use on roof shingles.
- EPDM rubber roofs must be primed with bonding primer designed for EPDM roofs. Other roof substrates including TPO, PVC, metal or asphalt may require primer before application. An adhesion peel test should be performed to determine if a primer is needed. A basecoat will be needed for asphalt surfaces to reduce asphalt bleed and to ensure they get two full coats for warranty purposes.

ORDERING INFORMATION

Part Number	Color/Size
KS0064920-20	Gray (5-Gallon Pail)
KS0064920-27	Gray (55-Gallon Drum)

PRODUCT CHARACTERISTICS

Technology	100% Silicone
Color	Gray
Volume Solids	95%
Weight Solids	95%
VOC	≤10 g/L
Drying Time	Dry to recoat six hours; full cure 72 hours at 70 °F and 50% relative humidity at two gallons per square foot; dry times will be accelerated by higher temperatures and higher humidity; cooler weather, thicker films, poor air flow and low humidity can slow dry time.
Dry time is temperature, humidity and film thickness dependent.	

COVERAGE RATES

On most smooth roofing substrates, product will cover at a rate of 50 square feet/gallon per coat, at a dry film thickness of 30 mils. Textured, porous and worn surfaces may require more product to cover. For metal, it will cover approximately 50 square feet/gallon per coat.

SURFACE PREPARATION

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in U.S.) or contact your local health authority.

All surfaces should be clean and dry. Application to a wet or damp surface will compromise adhesion. Treat rust with proper primer. If mildew is present, surfaces should be cleaned with a proper bleach solution (one part bleach to 2 parts water). It is necessary to pressure wash all surfaces (using a wide spray tip, minimum 2000 psi) before applying this roof coating. A peel test sample should be done on all roofs to verify proper long term adhesion. Asphalt-bleed blocking primer is recommended over asphalt substrates to limit staining and discoloration. Repair cracks and damaged areas with Kool Seal® Silicone Sealant, and reinforce with a layer of Kool Seal Storm Patch® Polyester Fabric. Allow all sealants and primers to fully cure per manufacturer directions prior to topcoating.

APPLICATION

Ideal application is when surface and air temperatures are between 45 °F and 99 °F. Do not apply to roofs when air temperatures exceed 120 °F. Surface must be completely dry (including free of dew or frost) before applying. Apply on a clear, dry day with an optimal humidity level of 70%; hotter temperatures and higher humidity causes product to cure more quickly. KEEP FROM FREEZING.

NOTE: Stir 5-gallon pail of product on jobsite prior to pouring onto roof. DO NOT have pails shaken at store. Pour product onto roof surface and spread using a roof brush or notched squeegee to achieve a wet thickness of 30 mils. Backroll with a 3/4" nap roller to fill voids and create a uniform finish. Avoid excessive rolling. Coating application options: If one coat application is desired, apply one coat at 50 sq. ft. per gallon. If applying in two coats, apply each coat at one gallon per 100 sq. ft. Finished coverage will be the same at covering 250 sq. ft. of roof surface per five gallon bucket. DO NOT apply if heavy dew or rain is expected within two to four hours.

CLEANUP

Clean tools immediately with mineral spirits.

CAUTIONS

For exterior use only. Protect building inlets from product vapors or fumes. DO NOT allow product to freeze. Protective clothing, gloves and eyewear should be used during application of these products. When transporting this product, ensure that lid is tight and pail is secure and upright. DO NOT allow pail to tumble as this may cause lid to loosen and leakage to occur. Do not transport on passenger seats or inside the passenger compartment of any vehicle. Seal container when not in use. Do not walk on coating until fully cured.

The contents of this container are reactive with moisture in the air. Curing starts immediately upon opening and opened product cannot be returned. Use all contents within one day of opening.

DO NOT reuse empty containers.

Ponding water creates excessive weight on roofs and may compromise structural integrity leading to a potential collapse hazard. Always follow the National Roofing Contractors Association guidelines to remove ponding water from roof surfaces. SLIP WARNING: Use extreme caution when walking or working on silicone-coated surfaces and apply traction promoting particles in coating if needed for walkway areas. If there will be foot traffic on roof after installation (and cured), embed 40-60 lbs. of #11 ceramic granules per 100 sq. ft. into top layer of coating to create a nonskid finish. Surfaces without granules are slippery when damp or wet. Use OSHA-approved fall protection when on roof surfaces.

Applications to TPO, EPDM and Hypalon require an appropriate primer.

LIMITED LIFETIME WARRANTY

From date of purchase, if this product fails to perform in accordance with the product specifications, when applied according to label directions and product data sheet, as your sole and exclusive remedy, upon proof of purchase, we will, at our option, replace the product at no cost or refund the original purchase price. Labor or costs associated with labor not included. This warranty is made to the original purchaser only and is not transferable. This warranty excludes failure due to improper surface preparation, structural defects, or failure of other products. THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY REGARDING THE KOOL SEAL TUNDRA PRODUCT AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, WHICH ARE ALL DISCLAIMED AND/OR LIMITED IN DURATION TO THE EXTENT PERMITTED BY LAW. IN NO EVENT SHALL WE BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS) FROM ANY CAUSE WHATSOEVER, INCLUDING BREACH OF WARRANTY, NEGLIGENCE OR ANY OTHER THEORY OF LIABILITY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

TECHNICAL SERVICES

The information and recommendations set forth in this Product Data Sheet are based upon tests conducted by or on behalf of KST Coatings and The Sherwin-Williams Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your KST or Sherwin-Williams® representative to obtain the most recent Product Data Sheet.

Project Name

Location

Prepared By



NUVO 65-656

40W LED SMALL WALL PACK

Notes

General

Status	Active
Fixture Type	Wall Pack
Finish	Bronze
Wattage	40W
Lumen Output	4200L-5000L
CCT (Kelvin)	3000K/4000K/5000K
Temperature	Warm to Cool White
IP Rating	IP65
Indoor or Outdoor Fixture	Outdoor

Specifications

Technology	LED
CRI	70+
Voltage	120V-277V
Beam Angle	80
Rated Hours	50000
Operating Temperature	-40C (-40F) to a maximum of +45C (+113F)
Dimmable	Non-Dimmable
Photocell	Yes - Bypassable
Surge Protection	Built-in surge protection - 2.5KV
Weight (lb.)	5.08
Material	Aluminum / Polycarbonate (PC)

Dimensions

Height (in.)	8.44
Width (in.)	8.50
Extension (in.)	7.45

Compliance

Safety Listing	cULus
Location Rating	Wet
Energy Star	No
DLC Approved	Yes
DLC ID	PL23HJ5W5EK3
California Status	California T24 Compliant
California Prop 65	Lead
RoHS Compliant	Yes
FCC Compliant	Yes

Additional Information

Additional Information	IK10 Lens
Warranty	5 Year Limited - Fixtures