



Description

Cambria 203 is an ultra-compact MR16 low voltage halogen fixture. It is available with a fully adjustable side swivel stem (203, 203-FL), an adjustable center rear swivel (203-CRS) or stationary rear flush mount (203-FM). Various lenses, louvers and color or dichroic filters can be combined up to three at once - to create multiple lighting effects. Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

A Material

Housing, hood and mounting stem are precision-machined from corrosion-resistant 6061-T6 aluminum billet, brass, bronze, copper or stainless steel.

B Finish Painted

Fixtures constructed from 6061 T6 aluminum are double protected by a chromate conversion undercoating and polyester powdercoat paint finish surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

G Mounting Stem

Model 203 and 203-FL include fully adjustable side-mounted swivel stem, providing 340° tilt and 360° rotation for easy aiming. Center rear swivel (203-CRS) or stationary rear flush mount (203-FM) models are also available. All models include 1/2" NPS threaded male fittings. Stainless steel locking mechanisms are standard (not available on 203 FM). Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

H Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

I Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

J Electrical

Remote 12V transformer required (not included). Available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details.

K Lamp

Not included. Available from Lumière as an accessory - see reverse side of this page.

L Labels & Approvals

UL and cUL listed, standard wet label. IP65 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made. Approved by New York City Dept. of Buildings, Bureau of Electrical Control for use in NYC, NY.

M Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

C Brass, Bronze, Copper or Stainless Steel

Fixtures constructed from brass, bronze, copper or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

D Hood

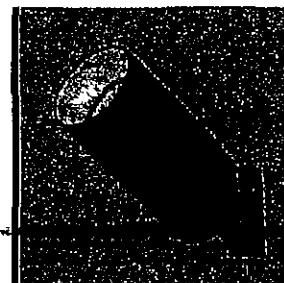
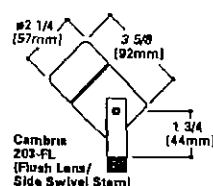
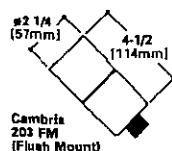
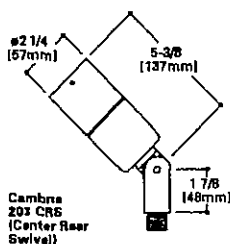
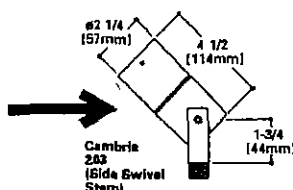
Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects. Model 203, 203-CRS & 203-FM. Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position. Model 203 FL. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

E Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.



CAMBRIA

203

50W (max) MR16

Halogen

Low Voltage

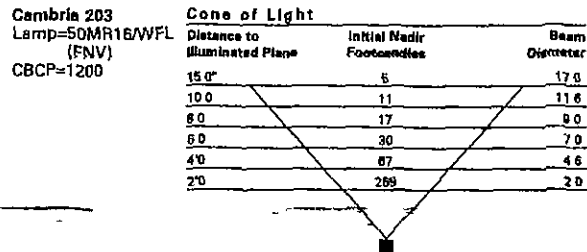
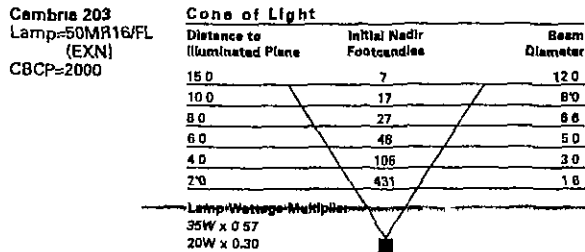
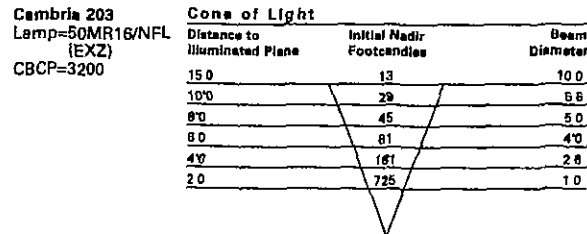
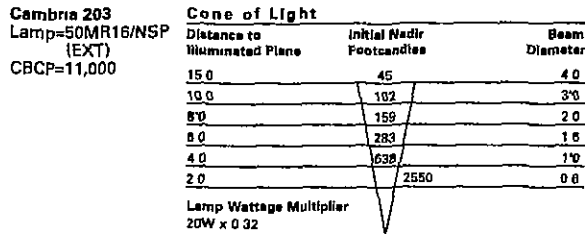
Accent/Flood

IP65

TYPE "DB"
SAME AS "DA"
MOUNTED ON A
RECTANGULAR
J-BOX & WHITE
FINISH

PHOTOMETRIC DATA

CAMBRIA 203



LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
50MR16/NSP	EXT	50	12°	11 000	3050	4000	GU5.3 bi-pin	12
50MR16/NFL	EXZ	50	25°	3200	3050	4000	GU5.3 bi-pin	12
50MR16/FL	EXN	50	40°	2000	3050	4000	GU5.3 bi-pin	12
50MR16/WFL	FNV	50	60°	1200	3050	4000	GU5.3 bi-pin	12

NOTE: Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot
- Footcandle values are initial. Apply appropriate light loss factors where necessary
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps

ORDERING INFORMATION

Sample Number: 203-CR2-50MR16-12-42

Series 203 MR16 Cambria Accent Fixture	Voltage 12 12V	Accessories Filters F71 Peach Dichroic Filter 2.00" Dia F72 Amber Dichroic Filter 2.00" Dia F73 Green Dichroic Filter 2.00" Dia F74 Yellow Dichroic Filter 2.00" Dia F75 Dark Blue Dichroic Filter 2.00" Dia F76 Neutral Density Dichroic Filter 2.00" Dia F77 Red Color Filter 2.00" Dia F78 Green Color Filter 2.00" Dia F79 Mercury Vapor Color Filter 2.00" Dia Optical Lenses L81 Linear Spread Lens (alongside standard beam spread) 2.00" Dia L82 Diffused Lens (provides even illumination) 2.00" Dia Optical Louvers L83 Hex Cell Louver (reduce glare) 2.00" Dia Lenses E2K 20W MR16 GU5.3 Bi-Pin Very Narrow Spot E2B 20W MR16 GU5.3 Bi-Pin Flood E2A 35W MR16 GU5.3 Bi-Pin Spot EXT 50W MR16 GU5.3 Bi-Pin Narrow Spot EXN 50W MR16 GU5.3 Bi-Pin Flood
Construction Standard Side Swivel Stem 1/2" NPS CR2 Center Rear Swivel Stem 1/2" NPS FM Rear Flush Mount 1/2" NPS FL Flush Lens Side Swivel Stem 1/2" NPS	Finish Polished BK Black BZ Bronze CS City Silver VE Verde WT White Material NBR Brass NBZ Bronze NCP Copper NSS Stainless Steel	F72 Amber Dichroic Filter 2.00" Dia F74 Yellow Dichroic Filter 2.00" Dia F75 Dark Blue Dichroic Filter 2.00" Dia F76 Neutral Density Dichroic Filter 2.00" Dia F77 Red Color Filter 2.00" Dia F78 Green Color Filter 2.00" Dia F79 Mercury Vapor Color Filter 2.00" Dia L81 Linear Spread Lens (increase beam spread) 2.00" Dia L82 Diffused Lens (provides even illumination) 2.00" Dia L83 Hex Cell Louver (reduce glare) 2.00" Dia E2K 20W MR16 GU5.3 Bi-Pin Narrow Spot E2B 20W MR16 GU5.3 Bi-Pin Flood E2A 35W MR16 GU5.3 Bi-Pin Spot EXT 50W MR16 GU5.3 Bi-Pin Narrow Flood EXN 50W MR16 GU5.3 Bi-Pin Very Wide Flood
Source Halogen 50MR16 50W Max Halogen MR16 GU5.3 Base		

- Notes:
- Lamp not included
 - 12V remote transformer required, not included.
 - See ACCESSORIES & TECHNICAL DATA section of the Luminaire catalog for Mounting Accessories, Low Voltage Cable & Transformer
 - Consult your Cooper Lighting representative for additional options and finishes

SUPPLY WITH T-60 WIRE IN ELECTRONIC 12V TRANSFORMER. FIXTURE MOUNTS TO J-BOX TRANSFORMER TO BE WIRED INTO J-BOX



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Commercial Decorating

- C7 C9 1000ft Roll String
- C7 - C9 Bulbs
- Commercial Decorating Bulbs
- Commercial Icicles- Nets- Curtains
- Commercial Mini Lights
- Commercial Tree Lighting
- LED OPEN Sign
- Perimeter Lighting
- << Tree Lot Lighting >>

2-WIRE 18" SOCKET STEADY BURN HEAVY DUTY WHITE BELT LIGHT

Item # 201BL DNSB18W

Place Order

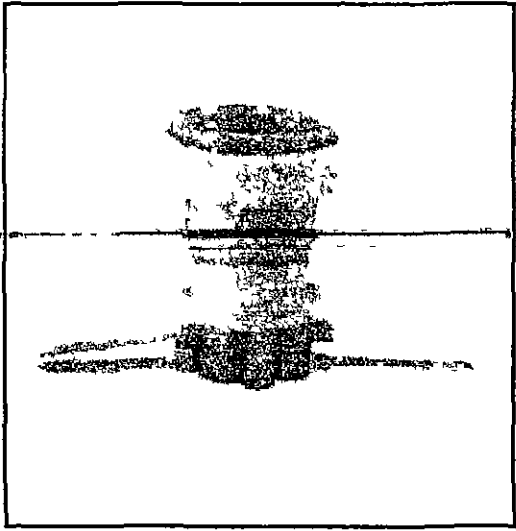
Quantity units

ADD TO CART

~~Price \$67.61 / Roll/65ft~~

Quantity Discount Pricing

- 1-4 \$67.61 / Roll/65ft
- 5+ \$57.47 / Roll/65ft



Product Description

2-WIRE 18" SOCKET STEADY BURN HEAVY DUTY WHITE BELT LIGHT
65 FOOT ROLL 2 WIRE NON-CHASING 13 AMP CAPACITY E-27 Base
A excellent lighting solution for indoor or outdoor lighting applications for Restaurants, Building Outlines, Gazebo & Patio Lighting and any permanent or temporary lighting applications

Features

- 18 inch socket space
- Weatherproof seals
- Commercial grade
- Surface mount
- Back mount for sign applications
- Custom cuttable for in the field applications
- Case pack 4 roll
- 65' Per Roll
- 1 roll minimum
- Case weight 46 Pounds
- Measurements 14 X 17 X 24 inches
- Maximum run with
 - 7.5 Watt bulbs 300 Feet
 - 11 Watt Bulbs 200 Feet
 - 25 Watt Bulbs 100 Feet

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PURCHASE AND INSTALLATION NOTES

ALLOW 200' OF 2 WIRE SOCKET STEADY BURN WHITE BELT LIGHT PER RUN OF TYPE "QA"

**E.C. ORDER WIRE WITH 30' OF PLAIN LEAD TO THE FIRST WET LOCATION RATED
SOCKET WITH A TOTAL OF 14 SOCKETS ON 12' CENTERS**

WIRE RUN SHALL, BE TERMINATED IN A WET LOCATION OUTDOOR RECEPTACLE

**E C SHALL SECURE BELT LIGHT TO TREE LIMBS BETWEEN TREES SO THAT THE
SOCKET HANGS AT 7'6" ABOVE TERRACE DECK AND THE SOCKET IS CENTERED
BETWEEN TREE TRUNKS.**

~~SLACK WIRE SHALL BE NEATLY GATHERED AT EACH TREE TO ALLOW FOR TREE GROWTH~~

**ONCE THE "QA" WIRE RUN IS SECURED TO TREES THE E C SHALL SECURE
DECORATIVE GLASS SHADE TO BELT LIGHT**

CATALOG NO _____

TYPE NO _____ JOB NAME _____

Stonco

5-1

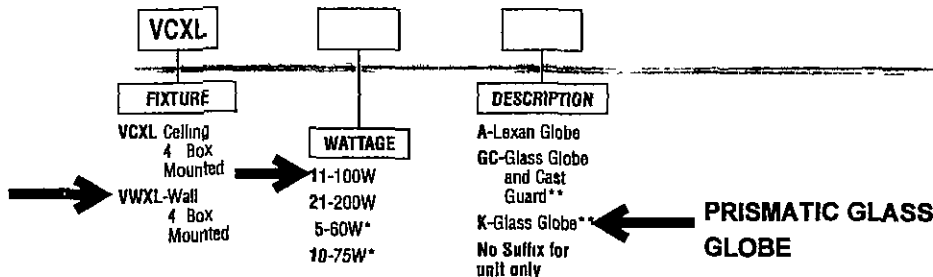
ROUGHLYTE™ Series

SUPPLY FIXTURE WITH PRISMATIC GLASS GLOBE E C TO WIRE FIXTURE WITH 3' OF CORD AND 3 PRONG EDISON PLUG AND MOUNT FIXTURE TO 12" SQ PIECE OF PLYWOOD TO ALLOW FIXTURE TO BE MOVED INTO POSITION AND PLUGGED INTO A FLOOR MOUNTED QUAD RECEPTACLE



ORDERING INFORMATION

Catalog Number Example VCXL11GC



*60W and 75W available with lexan globe only **For use with 100W and 200W units only

PRODUCT SPECIFICATIONS

- VCXL Roughlyte fixtures are for use on ceilings and canopies
- VWXL Roughlyte fixtures are for use on walls and columns
- Roughlyte fixtures guard against moisture and debris in exterior applications (for globe down mounting only)

Not recommended for use in hazardous locations

- Complete with 4" die-cast aluminum box, four side and top hole tapped 1/2" NPT (four plugs included)
- Heat and shock resistant glass or polycarbonate globe
- Cast aluminum bayonet guard with allen head security screws
- Sockets are pre-wired with extra long 1/2" stripped leads
- To use VCXL units with 3/4" conduit use VK Series with VXL13 universal box
- To use VWXL units with 3/4" conduit, use VW Series with VXL13 universal box
- Patented

ACCESSORIES

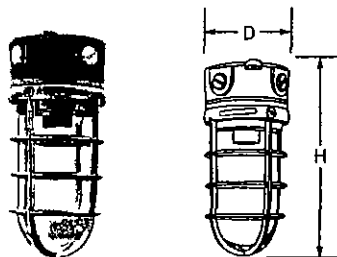
Accessories - See page 5-A

TECHNICAL INFORMATION

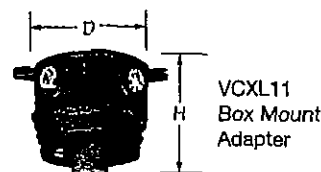
All incandescent Roughlyte ceiling and wall fixtures are not supplied with a lamp. This fixture requires a medium base incandescent A lamp. The lamp can be clear or coated

DIMENSIONS

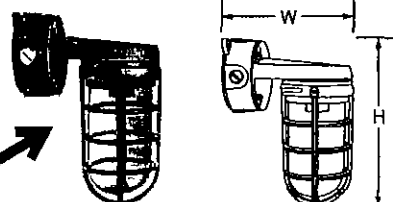
Catalog No	Height (H)	Dia (D)
VCXL11	3-3/4"	4 1/4"
VCXL21	3 3/4"	5 1/8"
VCXL11K	8 5/8"	4 1/4"
VCXL21K	0 3/8"	5 1/8"
VCXL11GC	9 1/8"	4 1/4"
VCXL21GC	10 7/8"	5 1/4"
VCXL5A	8-5/8"	4 1/4"
VCXL10A	10 3/8"	5-1/8"
VWXL	12-3/4"	7"
VWXL11	4-1/4"	7-1/8"
VWXL21	4-1/4"	7 7/16"
VWXL11K	9 1/4"	7 1/8"
VWXL21K	10 7/8"	7 7/16"
VWXL11GC	9-3/4"	7-1/4"
VWXL21GC	11 3/8"	7-1/2"
VWXL5A	9-1/4"	7-1/8"
VWXL10A	10 7/8"	7-7/16"



VCXL11GC

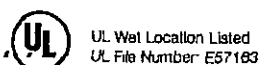


VCXL11 Box Mount Adapter



VWXL

Roughlyte is a registered trademark of Stonco and is not for use in hazardous areas.



7/04

CrescentStonco

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SHEET 1 OF 1



Description

Cambria 203 is an ultra compact MR16 low voltage halogen fixture. It is available with a fully adjustable side swivel stem (203, 203-FL), an adjustable center rear swivel (203-CRS) or stationary rear flush mount (203-FM). Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

A Material

Housing, hood and mounting stem are precision machined from corrosion-resistant 6061-T6 aluminum billet, brass, bronze copper or stainless steel.

B Finish Painted

Fixtures constructed from 8061 T6 aluminum are double protected by a chromate conversion undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

C Brass, Bronze, Copper or Stainless Steel

Fixtures constructed from brass, bronze copper or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

D Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects. Model 203, 203-CRS & 203-FM. Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position. Model 203-FL. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

E Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F Lens

Tempered glass lens factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

G Mounting Stem

Model 203 and 203 FL include fully adjustable side-mounted swivel stem providing 340° tilt and 360° rotation for easy aiming. Center rear swivel (203 CRS) or stationary rear flush mount (203-FM) models are also available. All models include 1/2" NPS threaded male fitting. Stainless steel arm locking mechanisms are standard (not available on 203 FM). Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

H Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

I Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

J Electrical

Remote 12V transformer required (not included). Available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details.

K Lamp

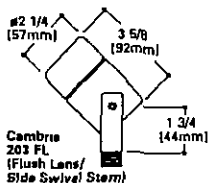
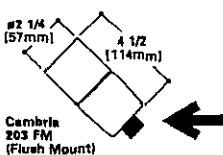
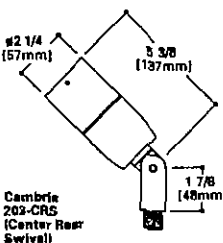
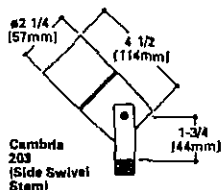
Not included. Available from Lumière as an accessory - see reverse side of this page.

L Labels & Approvals

UL and cUL listed standard wet label IP65 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made. Approved by New York City Dept. of Buildings Bureau of Electrical Control for use in NYC, NY.

M Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.



CAMBRIA

203

50W (max) MR16
Halogen
Low Voltage

Accent/Flood

IP65

PHOTOMETRIC DATA

CAMBRIA 203

Cambria 203
Lamp=50MR16/NSP
(EXT)
CBCP=11 000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	45	4.0
10.0	102	3.0
8.0	159	2.0
6.0	283	1.6
4.0	638	1.0
2.0	2650	0.6

Lamp Wattage Multiplier
20W x 0.32



Cambria 203
Lamp=50MR16/NFL
(EXZ)
CBCP=3200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	13	10.0
10.0	29	8.6
8.0	45	5.0
6.0	81	4.0
4.0	181	2.6
2.0	725	1.0



Cambria 203
Lamp=50MR16/FL
(EXN)
CBCP=2000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	7	12.0
10.0	17	8.0
8.0	27	6.6
6.0	48	5.0
4.0	106	3.0
2.0	431	1.6

Lamp Wattage Multiplier
35W x 0.57
20W x 0.30



Cambria 203
Lamp=50MR16/WFL
(FNV)
CBCP=1200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	5	17.0
10.0	11	11.6
8.0	17	9.0
6.0	30	7.0
4.0	67	4.6
2.0	269	2.0



LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
50MR16/NSP	EXT	50	12°	11 000	3050	4000	GU5.3 bi-pin	12
50MR16/NFL	EXZ	50	25°	3200	3050	4000	GU5.3 bi-pin	12
50MR16/FL	EXN	50	40°	2000	3050	4000	GU5.3 bi-pin	12
50MR16/WFL	FNV	50	60°	1200	3050	4000	GU5.3 bi-pin	12

NOTE: Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot
- Footcandle values are initial. Apply appropriate light loss factors where necessary
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps

ORDERING INFORMATION

Sample Number: 203-CRS-50MR16-12-BZ

Series 203 MR16 Cambria Accent Fixture Construction Standard Side Swivel Stem 1/2" NPS CRS Center Rear Swivel Stem 1/2" NPS FR Rear Flush Mount 1/2" NPS FL Flush Lens Side Swivel Stem 1/2" NPS Source Halogen 50MR16 50W Max Halogen MR16 GU5.3 Base	Voltage 12V 12V Finish Polished BK Black BZ Bronze CS City Silver VE Verde WT White Metal NBR Brass NBZ Bronze NCP Copper NSS Stainless Steel	Accessories Eliteza F71 Peach Dichroic Filter 2.00" Dia F73 Green Dichroic Filter 2.00" Dia F75 Yellow Dichroic Filter 2.00" Dia F77 Dark Blue Dichroic Filter 2.00" Dia F79 Neutral Density Dichroic Filter 2.00" Dia F82 Red Color Filter 2.00" Dia F84 Green Color Filter 2.00" Dia F86 Mercury Vapor Color Filter 2.00" Dia Optical Lenses LSL Linear Spread Lens (elongate standard beam spread) 2.00" Dia DLF Diffused Lens (provide even illumination) 2.00" Dia Optical Lens LVR Hex Cell Louver (reduce glare) 2.00" Dia Lenses EXX 20W MR16 GU5.3 Bi-Pin Very Narrow Spot BAR 20W MR16 GU5.3 Bi-Pin Flood FLA 35W MR16 GU5.3 Bi-Pin Spot EXT 50W MR16 GU5.3 Bi-Pin Narrow Spot EXN 50W MR16 GU5.3 Bi-Pin Flood	F72 Amber Dichroic Filter 2.00" Dia F74 Medium Blue Dichroic Filter 2.00" Dia F76 Red Dichroic Filter 2.00" Dia F78 Light Blue Dichroic Filter 2.00" Dia F80 Magenta Dichroic Filter 2.00" Dia F83 Blue Color Filter 2.00" Dia F85 Yellow Color Filter 2.00" Dia DSL Overall Spread Lens (increase beam spread) 2.00" Dia ESX 20W MR16 GU5.3 Bi-Pin Narrow Spot FRB 35W MR16 GU5.3 Bi-Pin Narrow Spot FNR 35W MR16 GU5.3 Bi-Pin Flood EXZ 50W MR16 GU5.3 Bi-Pin Narrow Flood FNV 50W MR16 GU5.3 Bi-Pin Very Wide Flood
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- Notes:
- Lamp not included.
 - 12V remote transformer required - not included.
 - See ACCESSORIES & TECHNICAL DATA section of the Luminaire catalog for Mounting Accessories, Low Voltage Cable & Transformer.
 - Consult your Cooper Lighting representative for additional options and finishes.

**SUPPLY WITH T-60 WIRE IN ELECTRONIC 12V
TRANSFORMER. FIXTURE MOUNTS TO J-BOX.
TRANSFORMER TO BE WIRED INTO J-BOX**

LUMIÈRE®

DESCRIPTION

Hollywood 1781 is an ultra-compact HID Image projector for use with a PAR20 ceramic metal halide lamp source. Its rugged construction, petite scale and contemporary design make it ideal for indoor or outdoor image projection applications. The precision ground lens/condenser system projects clear, crisp images. It accepts industry standard Micro-E steel gobos. The fully adjustable mounting yoke utilizes a unique clutch locking mechanism for easy, precise aiming. Lumiere's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

A Material

Housing and hood are precision machined from corrosion resistant 6081-T6 aluminum billet. Heavy duty mounting yoke is fabricated from corrosion resistant silicone aluminum.

B Finish

Fixtures are double protected by a chromate conversion undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

C Hood

Hood is removable for easy relamping. The flush lens design minimizes debris collection and prevents water and mineral stains from collecting on the lens. Optional factory installed safety chain prevents hood assembly from falling during relamping (specify option -SCH).

D Lamp Housing

Lamp housing includes captive, quick-release fasteners for easy relamping without disturbing aim or focus of fixture.

E Gasket

Housing and hood are sealed with a high temperature silicone o ring gasket to prevent water intrusion.

F Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

G Mounting Yoke

Fully adjustable mounting yoke utilizes a unique clutch locking mechanism for easy, precise aiming. Stainless steel aim-locking mechanisms are standard.

H Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

I Socket

Ceramic socket with 250° C Teflon® coated lead wires and medium base.

J Electrical

Remote core & coil ballast/housing assembly is standard (120/208/240/277/347V). Maximum remote mounting distance is 50'. Remote electronic ballast (120/277V) is available as an option (specify option -EL). Maximum remote mounting distance is 15'.

K Lamp

Not included. Available from Lumiere as an accessory see reverse side of this page.

L Gobos

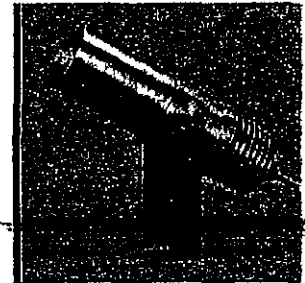
Industry standard Micro E steel gobos provided by others. Standard or custom gobos can be purchased from Rosco Laboratories (800 767 2669 / www.rosco.com).

M Labels & Approvals

UL and cUL listed, standard wet label IP65 rated. Manufactured to ISO 9001-2000 Quality Systems. Standard IBEW union made. Suitable for outdoor wall or ground mounting. Also suitable for indoor wall or ceiling mounting.

N Warranty

Lumiere warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

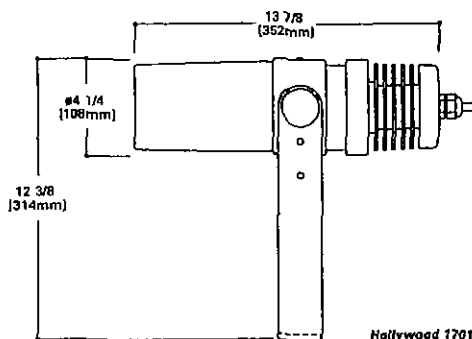


HOLLYWOOD 1701

39W (max) PAR20
Metal Halide

Projector

IP65



Hollywood 1701

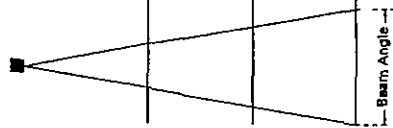
PHOTOMETRIC DATA

HOLLYWOOD 1701

Test No H45035
1701
Lamp= CDM39PAR20/SP
CBCP=23,000

Cone of Light

Peak Focus	18fc	8fc	5fc
Beam Diameter	4.6	7	8
Distance	10	15	20



NOTES

For Beam Diameter at a specific distance multiply distance by beam multiplier

Beam angle	Beam multiplier
32	0.45

LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
CDM39PAR20/SP	M130KK-39	39	10°	23,000	3000	9000	medium	12

NOTE Inferior quality lamps may adversely affect the performance of this product Use only name brand lamps from reputable lamp manufacturers

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half foot
- Footcandle values are initial Apply appropriate light loss factors where necessary

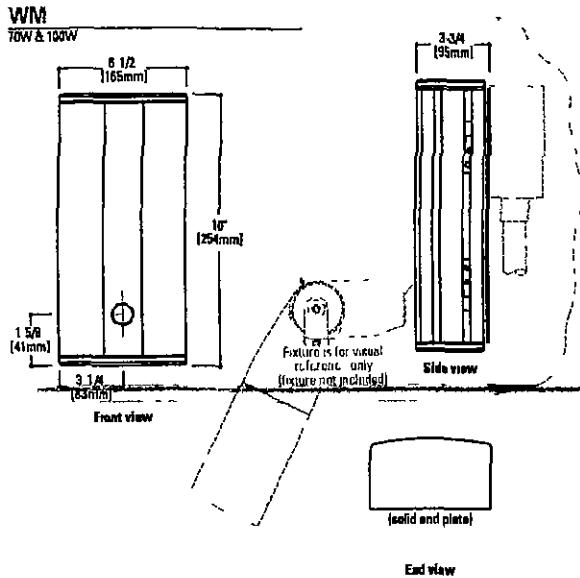
ORDERING INFORMATION

Sample Number 1701-MH39PAR20-277 WM BZ

Series 1701 39W PAR20 Metal Halide Hollywood Projector	Voltage 120 120V 277 277V 208 208V 240 240V 247- 347V	Finish Painted BK Black BZ Bronze CS City Silver VE Verde WT White	Options SC Safety Chain	Accessories Filters F71 Peach Dichroic Filter 2.00" Dia F72 Amber Dichroic Filter 2.00" Dia F73 Green Dichroic Filter 2.00" Dia F74 Medium Blue Dichroic Filter 2.00" Dia F75 Yellow Dichroic Filter 2.00" Dia F76 Red Dichroic Filter 2.00" Dia F77 Dark Blue Dichroic Filter 2.00" Dia F78 Light Blue Dichroic Filter 2.00" Dia F79 Neutral Density Dichroic Filter 2.00" Dia F80 Magenta Dichroic Filter 2.00" Dia F82 Red Color Filter 2.00" Dia F83 Blue Color Filter 2.00" Dia F84 Green Color Filter 2.00" Dia F85 Yellow Color Filter 2.00" Dia F86 Mercury Vapor Color Filter 2.00" Dia Optical Lenses LSL Linear Spread Lens (elongate standard beam spread) 2.00" Dia OSL Overall Spread Lens (increase beam spread) 2.80" Dia DIF Diffused Lens (provide even illumination) 2.00" Dia Optical Lensing LVH Hex Cell Lens (reduces glare) 2.00" Dia Lenses MHPross-SP 39W PAR20 Metal Halide Spot MHPross-FL 39W PAR20 Metal Halide Flood
Source Metal Halide MH39PAR20 39W Metal Halide PAR20 Medium Base	Ballast Standard Core and Coil Ballast EL Electronic Ballast ELM Electronic Ballast, Mini Housing ¹	Mounting MB Fixture mounts to inground ballast container MBR Fixture mounts to flat surface remote inground ballast container SM Fixture mounts to wall mounted ballast housing bottom conduit entry WM Fixture mounts to wall mounted ballast housing over J-box WR Fixture mounts to flat surface remote ballast housing TS Fixture mounts to ballast housing strapped to tree bottom conduit entry TSR Fixture strapped to tree remote inground ballast container TSR2 Fixture strapped to tree remote ballast housing strapped to tree		

- Notes: 1 ELM Ballast available with WM SM & TS Mounting only
- Lamp not Included
 - Consult your Cooper Lighting representative for additional options and finishes

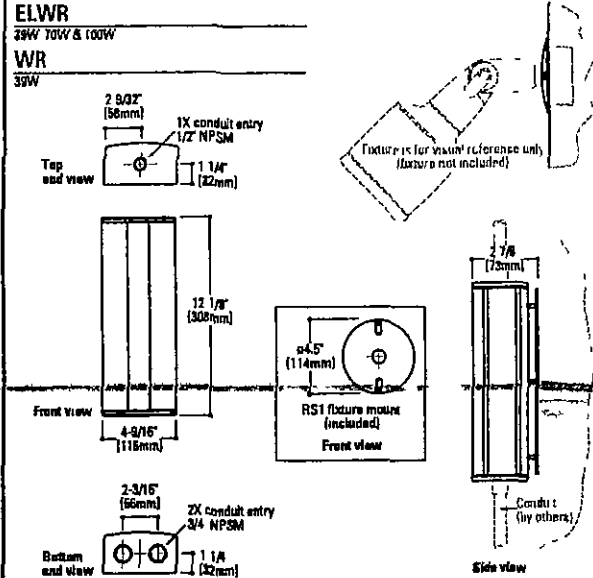
HID BALLAST/MOUNTING ASSEMBLIES
ACCENT/FLOOD FIXTURES



DESCRIPTION WM
70-watt or 100-watt (specify) HID fixture (not included) mounts to wall-mounted core & coil ballast/housing over J box (120/208/240/277/347V).

Specify voltage.

CONSTRUCTION
Housing is constructed from extruded aluminum. Specify finish (BK, BZ, CS, VE, WT).

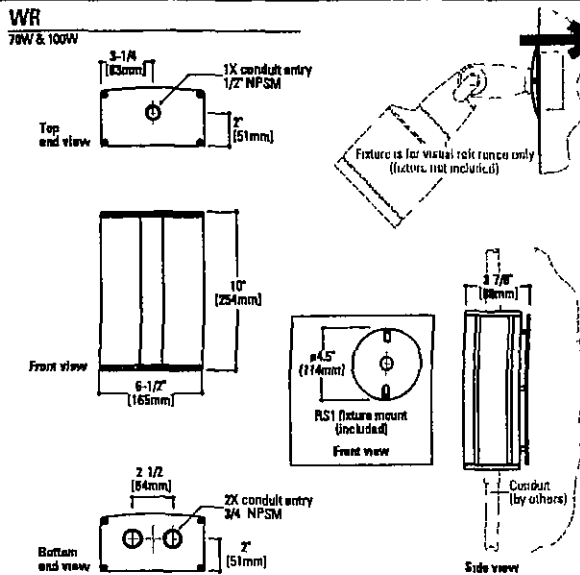


DESCRIPTION ELWR
39-watt, 70-watt or 100-watt (specify) HID fixture (not included) mounts to flat surface (any orientation) remote electronic ballast/housing (120/277V).

DESCRIPTION WR
39-watt HID fixture (not included) mounts to flat surface (any orientation) remote core & coil ballast/housing (120/208/240/277/347V).

Specify voltage.

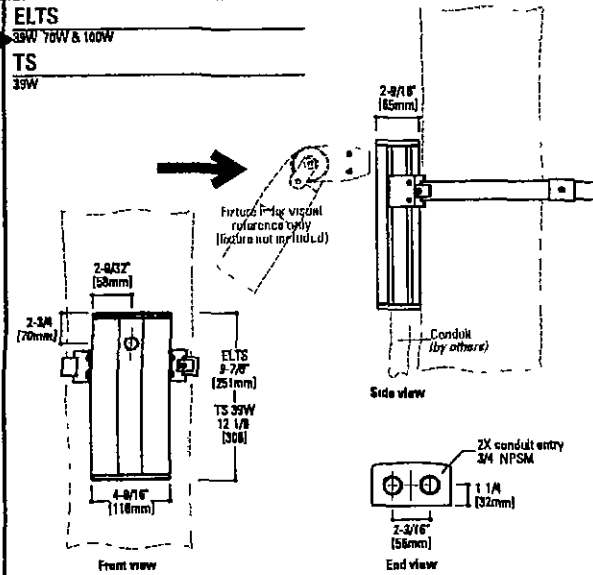
CONSTRUCTION
Housing is constructed from extruded aluminum. Specify finish (BK, BZ, CS, VE, WT).



DESCRIPTION WR
70-watt or 100-watt HID fixture (not included) mounts to flat surface (any orientation) remote core & coil ballast/housing (120/208/240/277/347V).

Specify voltage.

CONSTRUCTION
Housing is constructed from extruded aluminum. Specify finish (BK, BZ, CS, VE, WT).



DESCRIPTION ELTS
39-watt, 70-watt or 100-watt (specify) HID fixture (not included) mounts to electronic ballast/housing strapped to tree (120/277V).

DESCRIPTION TS
39-watt HID fixture (not included) mounts to core & coil ballast/housing strapped to tree (120/208/240/277/347V).

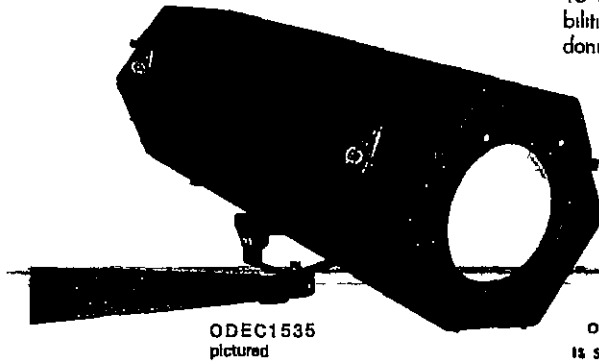
Specify voltage.

CONSTRUCTION
Housing is constructed from extruded aluminum. Specify finish (BK, BZ, CS, VE, WT).

Specifications and dimensions subject to change without notice

THEMED ARCHITECTURAL LIGHTING
Catalog Numbers
ODEC1535

Fixture Type



The Altman ODEC is the first fully functioning affordable outdoor ellipsoidal with 15-35-degree zoom focus, framing shutters, glass/steel pattern projection capabilities and internal/external accessory mounting options for color media, louver, donut, scroller or douser. The ODEC's removable lid allows for maximum accessibility during installation and for lamp and lens adjustments. Two stainless steel safety cables hold the lid securely when the fixture is opened. The lid is secured to the body with four side mount link-lock latches that provide a water-tight seal. Padlocks of appropriate size can be added for security.

The ODEC is designed and engineered with a number of innovative features enhancing versatility and efficiency without sacrificing performance. The proprietary highly polished reflector is engineered for use with 70- or 150-watt G12 ceramic discharge metal halide (CDM) lamps and provides for maximum light output. The lens focus is modified by means of Teflon® guides that are simple to adjust throughout the focusing range. Focus is secured by way of brass thumb screws. The instrument comes complete with pattern holder. An optional single gobo rotator with speed and polarity control is available. The Altman Outdoor Ellipsoidal is state of the art in design, function, and efficiency.

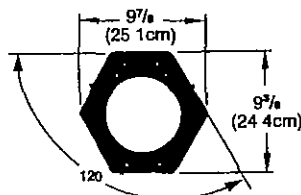
Specifications subject to change without notice

**70/150 WATT
OUTDOOR ELLIPSE-CDM
Features**

- Compact, rugged welded aluminum fabrication
- Low-friction Teflon® lens glides
- Utilizes 12,000 hour CDM lamp with high color rendering index
- Low-noise, high efficiency electronic ballast
- Easily adjustable Type 321 gauge stainless steel shutters
- Accessory slot accepts single gobo rotator, or metal or glass pattern holder
- 15-35° zoom
- Easy operating lamp centering knob and peak or flat field adjustment knob
- U.L. and c.U.L. listed for wet locations
- Made in the USA

Features (External Housing)

- Aluminum and stainless steel construction
- Link-Lock latches for security
- Designed for indoor/outdoor applications
- Cable entry glands and mounting holes located on bottom of enclosure

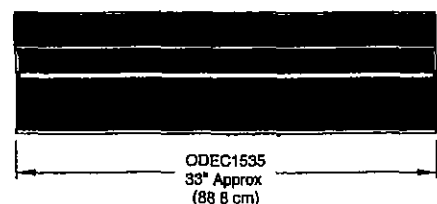


15-35°

Lid off



Lid on



ALTMAN
Lighting, Inc
BRINGING IMAGINATION TO LIGHT

70/150 WATT OUTDOOR ELLIPSE

Catalog Numbers
ODEC1535

Specifications

Materials Construction employs all corrosion resistant materials and hardware

Head Welded aluminum fabrication

Rating 120 volt AC operation, 50/60Hz 58 amps with 70W lamp and 70W ballast, 1.25 amps with 150W lamp and 150W ballast 240 and 277 VAC units are available

Lamp/Socket 70W or 150W UV Black G12 Ceramic Metal Halide lamp 5kV pulse rated socket

Lamp Alignment Fully adjustable in 3 axis with the use of two heat resistant concentric knobs

Lens Crown Glass (white plate) with anti reflector coated surfaces

Reflector Proprietary curve, specular aluminum

Focusing Lens movement contained within body, adjustable with brass thumb screws

Accessories Internal accessory slot accepts color filters or glass filters External accessory slot accepts 7/8" accessories

Weight Approx 35 lbs (15.9 Kg)

ORDERING INFORMATION:

Part Number	Model	Lens	Voltage	Wattage	Color
	ODEC	1535	110 277	70	(B)lack White Silver (X) custom

Specifications (External Housing)

Construction 1/4" heavy gauge aluminum construction (body and lid)

Viewing Window Glass, 0.25 inch (6.35 mm) thick, 6 1/4" diameter

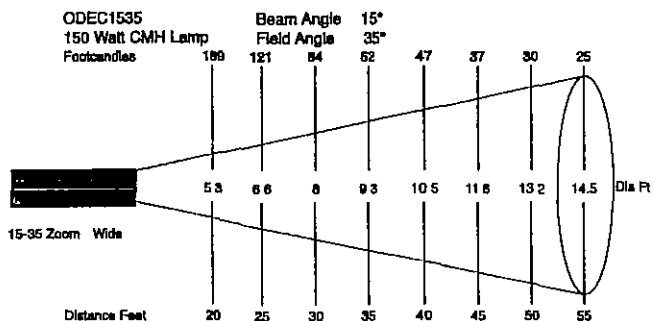
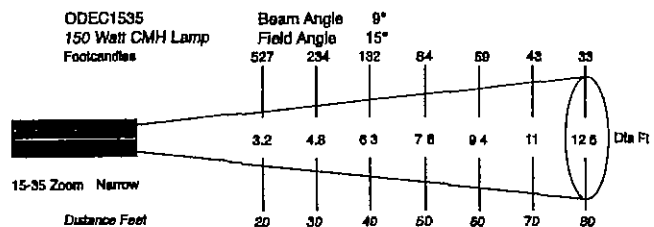
Environment Indoor/Outdoor, -10° to 120°F (23° to 49°C)

Latches Link lock No. 3, stainless steel, can be secured with padlocks (not supplied)

Mounting Per specification

Accessories Installed with locking external slot

Finish Black TGIC polyester powdercoat White and silver also available



ADDITIONAL ACCESSORIES	
ODE MDWM	Medium duty wall mount Max load 40lb (18.1 kg)
ODE PMA	Pole mount adapter for ODE-MDWM, Minimum pole diameter 1.5" (3.8 cm) Stainless steel straps supplied Strap length 28.5' (72.39cm)
ODE SGR	Single Gobo Rotator
80 70CDMT6/830	70 Watt CDM Lamp 3000K-12,000 Hr
90-70CDMT6/842	70 Watt CDM Lamp 4000K-12,000 Hr
90 150CDMT6/830	150 Watt CDM Lamp 3000K 12 000 Hr
90 150CDMT6/842	150 Watt CDM Lamp 4000K 6 000 Hr
90 150CDMSA/842	150 Watt CDM Lamp 4200K 6 000 Hr Short Arc

LAMP DATA

Lamp Type	Watts	Efficiency	Color Temp (K)	Rated Life (Hours)	Rated Lumens	Color Rendering Index	Burn Position
CDM 70/T6/830	70	>82 LPW	3000	12 000	6 600	82	Any
CDM 70/T6/842	70	>82 LPW	4000	12 000	6,600	92	Any
CDM 150/T6/830	150	>83 LPW	3000	12 000	14 000	85	Any
CDM 150/T6/842	150	>85 LPW	4000	6 000	12 700	95	Any
CDM SA150/T6/842	150	>88 LPW	4200	5 000	12 900	96	Any

ACCESSORIES SUPPLIED WITH LUMINAIRE	
ODE MDPM	Medium duty pedestal mount Max load 40lb (18.1 kg)
SC 18 BK	Black Safety Cable, 18"

Conversion Factor
70 Watt Lamp = f.c x .48
Lux = f.c x .0929



An Acuity Brands Company

SUITABLE FOR WET LOCATIONS IP68 $\frac{V}{3M}$

M9410/M9430 SERIES MODULAR IN-GRADE LUMINAIRE SINGLE LENS

DESCRIPTION

Hydrel's M9410/M9430 Series modular in grade lights are multi purpose units designed for uplighting architectural and landscape features. These units can be flush mounted into a variety of substrates or landscape materials.

The M9410/M9430 consists of a factory sealed, thermally protected lamp module and encapsulated power module. The components are secured inside a heavy-duty polymer rough-in housing designed with channeled convective cooling, an integral junction box, and finish door trim assembly.

FEATURES & SPECIFICATIONS

DOOR MATERIAL. Cast Aluminum, cast bronze, cast aluminum or bronze with stainless perforated trim insert or Stainless Steel. Available in round or square door finish.

ROUGH IN SECTION. Injection molded polymer with integral junction box for thru branch wiring. The housing is UV stabilized, impact and corrosion resistant for use in all types of environments. The rough in has a cylinder or side-car configuration and houses the lamp and power module components and top door finishing section.

LAMP MODULE. Stainless steel housing, factory sealed and purged of all moisture for longer component life. Lens is sealed with silicone gasket and stainless steel clamp band assembly with single fastener. Electrical connection to lamp module is done through a submersible quick pull plug connector with gold plated contacts. Unit is thermally protected. **LAMP INCLUDED**

LAMP TYPE Low Voltage, MR-16 bi-pin base, 75 Watt max., PAR-36 screw terminal base, 75 Watt max., Incandescent, T-4 quartz halogen mini can or B15d base, 100 Watt max., Fluorescent, Triple tube CFL 4-pin base, 32 Watt max., HID T-4 or T 8 bi-pin base, 70 Watt max., PAR-20 or PAR-30 medium or E27 base, 70 Watt max., Color Corrected Metal Halide.

If a specific lamp is desired, specify manufacturer's lamp number, most lamps can be supplied. **LAMP INCLUDED**

VOLTAGE See ordering guide

LIGHT DISTRIBUTION See ordering guide

FINISHING SECTION. Single lens design includes door assembly with 360° Aim-Lock™ lamp module support ring. Module indexing provides easy maintenance and relamping without re-aiming. Active optical lenses are also available. Door trim locks into position with two stainless steel captive tamper-resistant fasteners.

POWER MODULE. Ballast /Transformer is encapsulated in a custom designed heat-dissipating epoxy resin that also eliminates all moisture intrusion to the ballast. Module is provided with submersible rated cord leads for connection to integral junction box and lamp module. Standard ballast is high power factor low starting temperature fluorescent electronic or HID magnetic. HID electronic ballast also available.

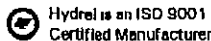
CONDUIT ENTRIES. Two (2) bottom or side entries available. Box suitable for thru branch wiring. Splicing volume is 25 in³ (410 cm).

NOTE: Potting compound (PC21) recommended for junction box splices. PC21 sold separately.

ACCESSORIES See ordering guide

FINISH. Finish is natural aluminum or bronze. Stainless steel door is brushed finish. Aluminum doors may be painted. See ordering guide for color options.

LISTING UL, CE



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11/15/05
M9410_M9430

12881 Bradley Ave
Sylmar CA 91342
Phone 818 362 9465

TYPE		JOB NAME	
PART NUMBER			
Model Material Lamp Type Voltage Distribution Lens Conduit Entries Accessories Options Lamp Finish List			
 Bronze or Aluminum Round		 Stainless Steel Round	
 9" DIA (229)		 10" DIA (254)	
 9" SQ (229)		 10" SQ (254)	
 Incandescent & Fluorescent Rough In Housing		 HID Rough-In Housing	
APPROVALS			



SUITABLE FOR WET LOCATIONS IP68



M9410/M9430 ORDERING INFORMATION

60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs

PART NO

EXAMPLE

M9410	SS	70CMT6	120	NSP	FLC10	34B	ISS	SF	LP
Material ☐ A Aluminum ☐ B Bronze ☐ ASP Alum Stainless Perf ☐ BBP Bronze Bronze Perf ☐ BSP Bronze Stainless Perf ☐ SS Stainless Steel									
Voltage ☐ 12V ☐ 120 ☐ 208 ☐ 220 ☐ 240 ☐ 277 ☐ 347 ☐ MVOLT									
Distribution⁶ ☐ NSP Narrow Spot ☐ SP Spot ☐ NFL Narrow Flood ☐ MFL Medium Flood ☐ FL Flood ☐ WFL Wide Flood ☐ WWD Wall Wash ☐ Distribution ☐ ASY Asymmetric									
Conduit Entry ☐ 12B 1/2 NPT bottom ☐ 12S 1/2 NPT side ☐ 34B 3/4 NPT bottom ☐ 34S 3/4 NPT side									
Options Fusing ☐ SF Single Fuse ☐ DF Double Fuse Ballasting⁷ ☐ GEB Electronic Ballast ☐ MLEBAD Analog Dimming Ballast									
Accessories Internal¹¹ ☐ IHL Honeycomb Louver ☐ ISS Source Shield ☐ LSF Linear Spread Filter ☐ CFAMB Color Filter Amber ☐ CFBLU Color Filter Blue ☐ CFGRN Color Filter Green ☐ CFPED Color Filter Red ☐ WWL Wall Wash Louver External¹¹ ☐ GS Glare Shield ☐ LC Lexan Cover ☐ LS Light Shield ☐ RG Rock Guard Trim¹² ☐ BTR Bronze Round ☐ BTS Bronze Square ☐ STR Stainless Round ☐ STS Stainless Square									
Lamp ☐ LP Lamp Installed									
Finish¹³ ☐ B1 Black ☐ B2 Bronze ☐ DDB Dark Bronze ☐ DNA Natural Alum ☐ GN Green ☐ GR Gray ☐ SND Sand ☐ STG Steel Gray ☐ TVG Terra Verde Green ☐ WH White ☐ CF Custom Finish									
Model ☐ M9410 Round ☐ M9430 Square									
Lamp Type Low Voltage ☐ M50 MR16, GX5.3 base ☐ M75 MR16, GX5.3 base ☐ P350ILV PAR36, screw terminal base ☐ P3575ILV PAR36, screw terminal base Incandescent⁴ ☐ P2050I PAR20, med. base ☐ P3050I PAR30, med. base ☐ P3075I PAR30, med. base ☐ T00Q T4, mini can base Fluorescent ☐ 18TRT Triple Tube, GX24q2 base ☐ 26TRT Triple Tube, GX24q3 base ☐ 32TRY Triple Tube, GX24q3 base MH ☐ 20CMT4 T4, G8.5 base ☐ 35CMT4 T4, G8.5 base ☐ 35CMT6 T6, G12 base ☐ 70CMT4 T4, G8.5 base ☐ 70CMT6 T6, G12 base ☐ P2035CM PAR20 med. base ☐ P3035CM PAR30 med. base ☐ P3070CM PAR30, med. base									
Lens ☐ FLC Flat Lens Clear ☐ FLC5 Flat Lens Clear, 5° axial ☐ FLC10 Flat Lens Clear, 10° tilt ☐ FLC20 Flat Lens Clear, 20° tilt ☐ FLF Flat Lens Frosted ☐ FLF5 Flat Lens Frosted, 5° axial ☐ FLCAS Flat Lens Clear Anti-Slip ☐ CLC Convex Lens Clear ☐ CLF Convex Lens, Frosted									

M9400 Series Assembly M9430 Rough In Housing consists of the following MFS94 Finishing Section individual component MACS Lamp Module parts M9430 Ballast Module

Notes

- Not Available with M9430 square model
- Incandescent models available with 120 Volt only
- Lamps available with GEB or MLEBAD electronic MVOLT (120V-277V) ballast only
- Available for Low Voltage lamps only Remote 12V power supply required (sold separately)
- MVOLT is standard on all Fluorescent lamps and MH lamps with GEB or MLEBAD ballast option
- Not all distributions are valid with all lamp types, consult lamp manufacturers specifications
- WWD distribution available with T4 G8.5 base MH T4 mini-can base Incandescent, or Fluorescent lamps only
- ASY distribution available with Fluorescent lamps only
- FLC5 lens standard with WWD distribution using Fluorescent lamps
- FLF5 lens standard with WWD distribution using MH or incandescent lamps

- Accessories are mutually exclusive, choose one only
- ISS available with T6 and T4 lamps only Not available with WWD distribution
- Not available with CLC or CLF convex lens
- Accessory not available with SS door material
- SF available with 120 277 or 347 supply voltages on MH fixtures only
- DF available with 208 220 or 240 supply voltages on MH fixtures only
- Ballast options available with MH lamps only
- 0 10 Volt remote analog powered dimmer system with additional supply wiring required (by others)
- Door material finish is natural cast aluminum (A) or cast bronze (B) unless specified Stainless steel (SS) door available with brushed finish standard

Hydrel is an ISO 9001 Certified Manufacturer

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10/19/05
M9410, M9430

12881 Bradley Ave
Sylmar CA 91342
Phone 818-362-9485
Fax 818-362-8548

HYDREL

An Authority Brands Company

M9720/M9740 SERIES MODULAR IN-GRADE LUMINAIRE DOUBLE LENS

DESCRIPTION

Hydrel's M9720/M9740 Series modular in-grade lights are multi-purpose units designed for uplighting of architectural and landscape features. These adjustable units can be flushed mounted into a variety of substrates or landscape materials. The M9720/M9740 consists of a factory sealed, thermally protected lamp module and encapsulated power module. The components are secured inside a heavy-duty polymer rough-in housing designed with channelled convective cooling, an integral junction box and finish door trim assembly.

These double lens units offer lamp module aiming, featuring Aim-Lock adjustment to allow for maintenance and relamping without re-aiming.

FEATURES & SPECIFICATIONS

DOOR MATERIAL: Cast Aluminum, cast bronze, cast aluminum or bronze with stainless perforated trim insert or Stainless Steel. Available in round or square door trim.

ROUGH-IN SECTION: Injection molded polymer with integral junction box for three-branch wiring. The housing is UV stabilized, impact and corrosion resistant for use in all types of environments. The rough-in houses the lamp and power module components and top door finishing section.

LAMP MODULE: Stainless steel housing, factory-sealed and purged of all moisture for longer component life. The lamp module is suspended below the top door lens in a surface adjustable 15° tilt mechanism. The insulating air layer helps to reduce surface temperatures. Active optical lenses are also available. Lens is sealed with silicone gasket and stainless steel clamp band assembly with single fastener. Electrical connection to lamp module is done through a submersible quick pull plug connector with gold-plated contacts. Unit is thermally protected. **LAMP INCLUDED**

LAMP TYPE: Incandescent PAR38 or T4 quartz halogen, 250 W max.
Fluorescent: Compact fluorescent, 42 W max.
HID: Par 38, T6 or E17, 175 W max.

If a specific lamp is desired, specify manufacturer's lamp number, most lamps can be supplied. **LAMP INCLUDED**

VOLTAGES: See ordering guide

LIGHT DISTRIBUTIONS: See ordering guide

FINISHING SECTION: Double lens design includes door assembly with 360° Aim Lock™ module support and tilt ring. Module indexing provides easy maintenance and relamping without re-aiming. Door trim locks into position with two stainless steel captive tamper resistant fasteners.

POWER MODULE: Ballast is encapsulated in a custom designed heat-dissipating epoxy resin that also eliminates all moisture intrusion to the ballast. Module is provided with submersible rated cord leads for connection to integral junction box and lamp module. Standard ballast is thermally protected, high power factor, fluorescent electronic or HID magnetic.

CONDUIT ENTRIES: Two (2) bottom or side entries available. Box suitable for through-branch wiring. Splicing volume is 25 in3 (410 cm3).

ACCESSORIES: See ordering guide

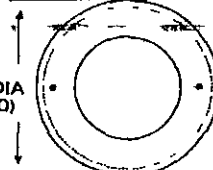
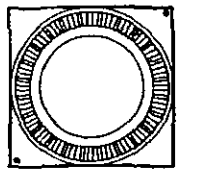
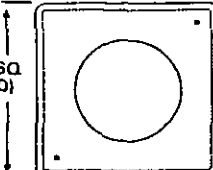
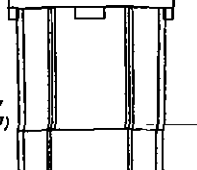
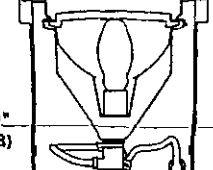
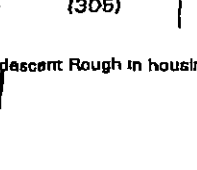
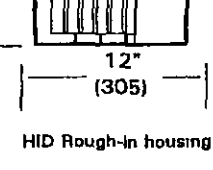
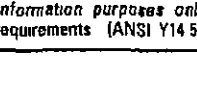
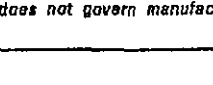
FINISH: Finish is natural aluminum or bronze. Stainless steel door is brushed finish. Aluminum doors may be painted. See ordering guide.

LISTING: UL CE

Hydrel is an ISO 9001
Certified Manufacturer

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7/13/06
M9720_M9740

SUITABLE FOR WET LOCATIONS IP68   

TYPE		JOB NAME	
PART NUMBER			
Model	Material	Lamp Type	Voltage
Conduit Entry	Accessories	Options	Lamp
			Finishes
			Listing
 Bronze or Aluminum Round		 13" Stainless Steel Round	
 12" DIA (305)		 13" DIA (330)	
 12" Bronze or Aluminum Square		 13" Stainless Steel Square	
 12" SQ (305)		 13" SQ (330)	
 16" (407)		 20" (508)	
 Incandescent Rough in housing		 HID Rough-in housing	
NOTE: HYDREL RESERVES THE RIGHT TO MODIFY SPECIFICATION WITHOUT NOTICE. Any dimension on this sheet is to be assumed as a reference dimension. Used for information purposes only. It does not govern manufacturing or inspection requirements. (ANSI Y14.5 1973)			
APPROVALS			

12881 Bradley Ave
Sylmar, CA 91342
Phone 818-362-9485



M9720/9740 ORDERING INFORMATION

60 Hz Application

Choose the boldface catalog nomenclature that best suits your needs

PART NO

EXAMPLE

M9720	SS	150CMT6	120	NSP	FLC10	34B	ISS	SF	LP	BZ
Model		Lamp Type	Voltage		Conduit Entry		Options			
☐ M9720 Round ☐ M9740 Square		Incandescent¹ ☐ P38100I PAR38, med base ☐ P38150I PAR38, med base ☐ 100Q T4 mini-con ☐ 150Q T4 mini-con ☐ 250Q T4 mini-con Fluorescent² ☐ 35CMT6 T6 G 12 base ☐ 70CMT6 T6 G 12 base ☐ 150CMT6 T6 G 12 base ☐ 50M E17, med base ☐ 70M E17, med base ☐ 70CM E17, med base ☐ 100M E17, med base ☐ 100CM E17, med base ☐ 150M E17, med base ☐ 175M E17, med base ☐ P3870M PAR38, med base ☐ P3870CM PAR38, med base ☐ P38100M PAR38, med base ☐ P38100CM PAR38, med base ☐ P38150CM PAR38, med base HPS ☐ 50S E17, med base ☐ 70S E17, med base ☐ 100S E17, med base ☐ 150S E17, med base	☐ 120 ☐ 208 ☐ 220 ☐ 240 ☐ 277 ☐ 347 ☐ MVOLT ³		☐ 12B 1/2" NPT bottom ☐ 12S 1/2" NPT side ☐ 34B 3/4" NPT bottom ☐ 34S 3/4" NPT side		☐ PC2112 Potting Compound Fusing ☐ SF ¹² Single Fuse ☐ DF ¹³ Double Fuse Ballasting¹⁴ ☐ GEB ¹⁵ Electronic Ballast			
Material ☐ A Aluminum ☐ B Bronze ☐ SS Stainless Steel ☐ ASP ¹ Alum Stainless Perf ☐ BBP ¹ Bronze Brass Perf ☒ BSP ¹ Bronze Stainless Perf		Distribution¹ ☐ NSP ¹ Narrow Spot ☐ SP ¹ Spot ☐ NFL Narrow Flood ☐ MFL Medium Flood ☐ FL ¹ Flood ☐ WFL ¹ Wide Flood ☐ WWD ¹ Wall Wash ☐ ASY ¹ Asymmetric		Accessories Internal ☐ IHL Honeycomb Louver ☐ ISS ¹ Source Shield ☐ LSF Linear Spread Filter ☐ WWL Wall Wash Louver ☐ CFAMB Color Filter Amber ☐ CFBLU Color Filter Blue ☐ CFSRN Color Filter Green ☐ CFRED Color Filter Red External¹⁶ ☐ GS Glare Shield ☐ LC Lexan Cover ☐ LS Light Shield ☐ RG ¹¹ Rock Guard Trim Ring¹⁷ ☐ BTR Brass Round ☐ BTS Brass Square ☐ STR Stainless Round ☐ STS Stainless Square Ring & Mask ☐ PRN Protective Ring Round ☐ PRS Protective Ring Square ☐ GM Grout Mask			Lamp ☐ CLP Lamp included			
		Lens ☐ FLC Flat Lens Clear ☐ FLC5 Flat Lens Clear, 5° axial ☒ FLC10 Flat Lens Clear, 10° tilt ☐ FLC20 Flat Lens Clear, 20° tilt ☐ FLF Flat Lens Frosted ☐ FLCAS Flat Lens Clear, Anti Slip ☐ CLC Convex Lens Clear ☐ CLF Convex Lens Frosted					Finish¹⁸ ☐ BL Black ☒ BZ Bronze ☐ ODB Dark Bronze ☐ DNA Natural Alum. ☐ GN Green ☐ GR Gray ☐ SND Sand ☐ STG Steel Gray ☐ TVG Terra Verde Green ☐ WH White ☐ CF Custom Finish			

Notes

- ¹ Not Available with M9740 square model
- ² Incandescent models available with 120 Volt only
- ³ Fluorescent models available with 347 or MVOLT (120-277) only
- ⁴ MVOLT (120-277V) available with fluorescent lamps or GEB ballast only
- ⁵ NSP only available with T4 or T8 lamps
- ⁶ Not available with T6 lamps
- ⁷ ASY only available with fluorescent lamps
- ⁸ PAR38 lamps only available with SP or FL distributions
- ⁹ ISS not available with WWD distribution and P38 Lamp type
- ¹⁰ These accessories are not available with the SS door
- ¹¹ RG not available with CLC or CLF lenses
- ¹² SF is only available with 120, 277 or 347 volts on HID only
- ¹³ DF is only available with 208, 220 or 240 volts on HID only
- ¹⁴ Electronic ballasts are only available with MH lamps to 150 Watt and MVOLT voltage
- ¹⁵ Finishes are only available on the Aluminum doors
- ¹⁶ If AREB chosen lamp module will be less Thermal Protector

Hydrel is an ISO 9001 Certified Manufacturer

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7/13/06
M9720_M974

12881 Bradley Ave
Sylmar CA 91342
Phone 818-362-9485
Fax 818-362-6548



Description

Cambria 203 is an ultra compact MR16 low voltage halogen fixture. It is available with a fully adjustable side swivel stem (203-203 FL) an adjustable center rear swivel (203-CRS) or stationary rear flush mount (203-FM). Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

A Material

Housing, hood and mounting stem are precision machined from corrosion-resistant 6061-T6 aluminum billet. Brass, bronze copper or stainless steel.

B Finish Painted

Fixtures constructed from 6061-T6 aluminum are double protected by a chromate conversion undercoating and polyester powdercoat paint finish surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

C Brass, Bronze, Copper or Stainless Steel

Fixtures constructed from brass, bronze, copper or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

D Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects. Model 203-203 CRS & 203 FM. Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position. Model 203 FL. The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

E Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

G Mounting Stem

Model 203 and 203-FL include fully adjustable side mounted swivel stem, providing 340° tilt and 360° rotation for easy aiming. Center rear swivel (203 CRS) or stationary rear flush mount (203 FM) models are also available. All models include 1/2" NPS threaded male fitting. Stainless steel locking mechanisms are standard (not available on 203 FM). Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

H Hardware

Stainless steel hardware is standard to provide maximum corrosion resistance.

I Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

J Electrical

Remote 12V transformer required (not included). Available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details.

K Lamp

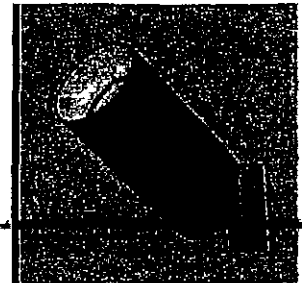
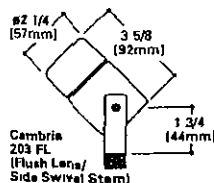
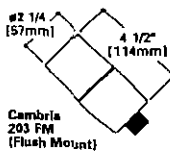
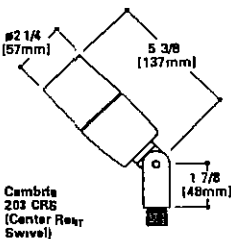
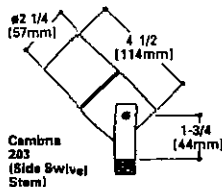
Not Included. Available from Lumière as an accessory - see reverse side of this page.

L Labels & Approvals

UL and cUL listed, standard wet label. IP65 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made. Approved by New York City Dept. of Buildings, Bureau of Electrical Control for use in NYC, NY.

M Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.



CAMBRIA 203

50W (max) MR16
Halogen
Low Voltage

Accent/Flood

IP65

PHOTOMETRIC DATA

CAMBRIA 203

Cambria 203
 Lamp=50MR16/NSP
 (EXT)
 CBCP=11 000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15 0	45	4 0
10 0	102	3 0
8 0	159	2 0
6 0	283	1 6
4 0	638	1 0
2 0	2550	0 6

Lamp Wattage Multiplier
 20W x 0 32

Cambria 203
 Lamp=50MR16/NFL
 (EXZ)
 CBCP=3200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15 0	13	10 0
10 0	29	6 6
8 0	45	5 0
6 0	81	4 0
4 0	181	2 6
2 0	725	1 0

Cambria 203
 Lamp=50MR16/FL
 (EXN)
 CBCP=2000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15 0	7	12 0
10 0	17	8 0
8 0	27	6 6
6 0	48	5 0
4 0	106	3 0
2 0	431	1 6

Lamp Wattage Multiplier
 35W x 0 57
 20W x 0 30

Cambria 203
 Lamp=50MR16/WFL
 (FNV)
 CBCP=1200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15 0	5	17 0
10 0	11	11 6
8 0	17	9 0
6 0	30	7 0
4 0	67	4 6
2 0	269	2 0

LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
50MR16/NSP	EXT	50	12°	11 000	3050	4000	GU5 3 bi pin	12
50MR16/NFL	EXZ	50	25°	3200	3050	4000	GU5 3 bi pin	12
50MR16/FL	EXN	50	40°	2000	3050	4000	GU5 3 bi pin	12
50MR16/WFL	FNV	50	60°	1200	3050	4000	GU5 3 bi-pin	12

NOTE: Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half-foot
- Footcandle values are initial. Apply appropriate light loss factors where necessary
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps

ORDERING INFORMATION

SUPPLY WITH REMOTE 12V MAGNETIC TRANSFORMERS AS REQUIRED

Sample Number: 203-CRS-50MR16-12 BZ

Series 203 MR16 Cambria Accent Fixture	Voltage 12 12V	Accessories Filters F71 Peach Dichroic Filter 2.00" Dia F73 Green Dichroic Filter 2.00" Dia F76 Yellow Dichroic Filter 2.00" Dia F77 Dark Blue Dichroic Filter 2.00" Dia F79 Neutral Density Dichroic Filter 2.00" Dia F82 Red Color Filter 2.00" Dia F84 Green Color Filter 2.00" Dia F86 Mercury Vapor Color Filter 2.00" Dia Optical Lenses LBL Lower Spread Lens (elongate standard beam spread) 2.00" Dia DIF Diffused Lens (provide even illumination) 2.00" Dia Optical Lensing LVR Hex Cell Louver (reduce glare) 2.00" Dia Lenses EXX 20W MR16 GU5.3 Bi-Pin Very Narrow Spot SAB 20W MR16 GU5.3 Bi-Pin Flood FNA 35W MR16 GU5.3 Bi-Pin Spot EXT 50W MR16 GU5.3 Bi-Pin Narrow Spot EXN 50W MR16 GU5.3 Bi-Pin Flood
Construction Standard Side Swivel Stem 1/2" NPS CRS Center Rear Swivel Stem 1/2" NPS FNM Rear Flush Mount 1/2" NPS FL Flush Lens Side Swivel Stem 1/2" NPS	Finish Painted BK Black BZ Bronze CS City Silver VE Verde WT White Metal NBR Brass NBZ Bronze NCP Copper NSS Stainless Steel	F72 Amber Dichroic Filter 2.00" Dia F74 Medium Blue Dichroic Filter 2.00" Dia F78 Red Dichroic Filter 2.00" Dia F79 Light Blue Dichroic Filter 2.00" Dia F80 Magenta Dichroic Filter 2.00" Dia F83 Blue Color Filter 2.00" Dia F85 Yellow Color Filter 2.00" Dia GBL Oval Spread Lens (increase beam spread) 2.00" Dia EXX 20W MR16 GU5.3 Bi-Pin Narrow Spot FNB 35W MR16 GU5.3 Bi-Pin Narrow Spot FNA 35W MR16 GU5.3 Bi-Pin Flood EXZ 50W MR16 GU5.3 Bi-Pin Narrow Flood FNV 50W MR16 GU5.3 Bi-Pin Very Wide Flood
Source Halogen 50MR16 50W Max Halogen MR16 GU5.3 Base		

- Notes:**
- Lamp not included.
 - 12V remote transformer required not included
 - See ACCESSORIES & TECHNICAL DATA section of the Luminaire catalog for Mounting Accessories Low Voltage Cable & Transformers
 - Consult your Cooper Lighting representative for additional options and finishes



Accessories

Ground Mounting Accessories for Low Voltage Fixtures

DESCRIPTION

Lumière offers a variety of ground mounting accessories for its low voltage fixtures. See the chart on the following page to confirm that the desired mounting accessory is available for use with the desired fixture.

 AR1 7/8" x 1/2" (22mm x 13mm) Adaptor/reducer (brass). Allows MR8 fixtures with 1/2-13 UNC threaded male stem to adapt to standard 1/2" NPS female threaded mounting accessories.	 GS05 1 7/8" x 17 1/4" (48mm x 438mm) Ground spike with 2" 13" height adjustment (back polycarbonate). Enables fixture to be elevated as foliage grows (requires fixture with extended length lead wires).	 TA02 1/2" x 2" (13mm x 51mm) 2 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 AR2 7/8" x 1 1/4" (22mm x 32mm) Adaptor/reducer w/ set screw (brass). Adapts and grips GS02 or GS15 adjustable spikes to GS13 ground spike.	 GS06 2" x 10 1/2" (51mm x 267mm) Spiral ground spike provides extra holding power in unstable soil (plated steel/brass). Accepts 1/2" NPS threaded hubs.	 TA06 1/2" x 6" (13mm x 25mm) 6 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 GB01 2 7/8" x 5" (73mm x 127mm) Anti rotation blade (stainless steel). Adapts to GS07 or GS14 ground spike to prevent rotation.	 GS07 1' 1/8" x 12" (29mm x 305mm) Ground spike (white PVC). Accepts 1/2" NPS threaded hubs.	 TA09 1/2" x 9" (13mm x 229mm) 9 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 GS01 1 1/2" x 6 3/4" (38mm x 171mm) Ground spike with feed through hole for wiring (cast zinc). Accepts 1/2" NPS threaded hubs.	 GS08 1 7/8" x 8" (48mm x 203mm) Ground spike with integral side or bottom wire way (black ABS). Accepts all 1/2" NPS threaded hubs.	 TA12 1/2" x 12" (13mm x 305mm) 12 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 GS02 1/2" x 36" (13mm x 914mm) Adjustable ground spike (extruded aluminum). Elevates/connects fixture 200RS or 2000RS to GS13 ground spike (requires AR2 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).	 GS13 3 3/4" x 4 1/2" (95mm x 114mm) 3 prong ground spike (brass/stainless steel). Accepts 1/2" NPS male threaded hubs.	 TA18 1/2" x 18" (13mm x 457mm) 18 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 GS03 2 3/8" x 6 5/8" (60mm x 168mm) Ground spike with integral 12V wiring compartment (aluminum). Accepts 1/2" NPS threaded hubs. Specify finish (BK, BZ, CS, VE, WT).	 GS14 7/8" x 12" (29mm x 305mm) Ground spike (stainless steel). Accepts 1/2" NPS male threaded hubs.	 TA24 1/2" x 24" (13mm x 610mm) 24 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).
 GS04 1" x 16 1/2" (25mm x 419mm) Adjustable ground spike with integral 12V wiring compartment (aluminum). Accepts 1/2" NPS threaded hubs. Specify finish (BK, BZ, CS, VE, WT).	 GS15 1/2" x 24" (13mm x 610mm) 24" adjustable ground spike (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS13 ground spike (requires AR2 adaptor/reducer). Specify finish (BK, BZ, CS, VE, WT).	

ORDERING INFORMATION Sample Number GS03 BK

Order low voltage ground mounting accessories as separate line items. Specify quantities and (if applicable) finish. See chart on the following page to confirm that the desired mounting accessory is available for use with desired fixture.

WWW.COOPERLIGHTING.COM

COOPER Lighting
ADL032778

LUMIÈRE®

DESCRIPTION

Cambria 213 is an ultra compact MR16 low voltage halogen fixture. It features a unique hanging design that allows placement where standard mounting methods are not possible. Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			

SPECIFICATION FEATURES

A Material

Housing and hood are precision-machined from corrosion-resistant 6061 T6 aluminum billet, brass or copper. Mounting ring is die-cast zinc with brass mounting collar, both finished to match housing and hood.

B Finish Painted

Fixtures constructed from 6061-T6 aluminum are double protected by a chromate conversion undercoating and polyester powdercoat paint finish, surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

C Brass or Copper

Fixtures constructed from brass or copper are left unpainted to reveal the natural beauty of the material and will patina naturally over time.

D Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects.

E Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

G Hardware

Stainless steel hardware is standard to provide maximum corrosion-resistance.

H Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

I Electrical

Remote 12V transformer required (not included). Available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details.

J Lamp

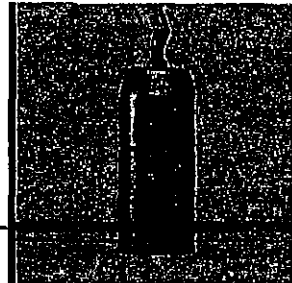
Not included. Available from Lumière as an accessory - see reverse side of this page.

K Labels & Approvals

UL and cUL listed, standard wet label IP65 rated. Manufactured to ISO 9001-2000 Quality Systems Standard. IBEW union made. Approved by New York City Dept. of Buildings. Bureau of Electrical Control for use in NYC, NY.

L Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.



CAMBRIA

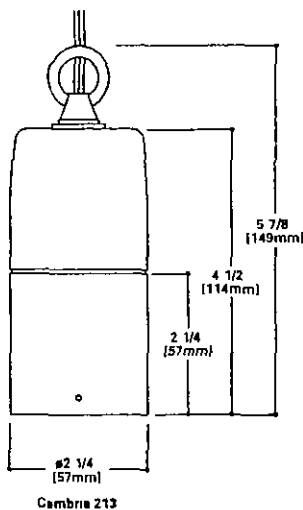
213

50W (max) MR16

**Halogen
Low Voltage**

Accent/Flood

IP65



PHOTOMETRIC DATA

CAMBRIA 213

Cambria 213
Lamp=50MR16/NSP
(EXT)
CBCP=11,000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
2.0	2550	0.6
4.0	638	1.0
6.0	283	1.6
8.0	159	2.0
10.0	102	3.0
15.0	45	4.0

Lamp Wattage Multiplier
20W x 0.32

Cambria 213
Lamp=50MR16/FL
(EXN)
CBCP=2000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
2.0	431	1.6
4.0	108	3.0
6.0	48	5.0
8.0	27	6.6
10.0	17	8.0
15.0	7	12.0

Lamp Wattage Multiplier
20W x 0.30
35W x 0.57

LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
50MR16/NSP	EXT	50	12°	11,000	3050	4000	GU5.3 bi-pin	12
50MR16/FL	EXN	50	40°	2000	3050	4000	GU5.3 bi-pin	12

NOTE: Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles, rounded to the nearest half foot
- Footcandle values are initial. Apply appropriate light loss factors where necessary
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps

ORDERING INFORMATION

Sample Number: 213-50MR16-12-EZ

Series 213 MR16 Cambria Hanging Downlight		Voltage 12 12V		Accessories	
Source Halogen 50MR16 50W Max Halogen MR16 GU5.3 Base		Finish Painted BK Black BZ Bronze CS City Silver VE Verde WT White MNL Metal NBR Brass NCP Copper		Filters F71: Peach Dichroic Filter 2.00" Dia F72: Green Dichroic Filter 2.00" Dia F73: Yellow Dichroic Filter 2.00" Dia F77: Dark Blue Dichroic Filter 2.00" Dia F78: Neutral Density Dichroic Filter 2.00" Dia F22: Red Color Filter 2.00" Dia F44: Green Color Filter 2.00" Dia F66: Mercury Vapor Color Filter 2.00" Dia Optical Lenses CEL: Linear Spread Lens (elongate standard beam spread) 2.00" Dia DIF: Diffused Lens (provide even illumination) 2.00" Dia Optical Louver LVR: Hex Cell Louver (reduce glare) 2.00" Dia Lamps EZX: 20W MR16 GU5.3 BI-Pin Very Narrow Spot BAS: 20W MR16 GU5.3 BI-Pin Flood FRA: 35W MR16 GU5.3 BI-Pin Spot EXT: 50W MR16 GU5.3 BI-Pin Narrow Spot EXN: 50W MR16 GU5.3 BI-Pin Flood F74: Amber Dichroic Filter 2.00" Dia F75: Medium Blue Dichroic Filter 2.00" Dia F76: Red Dichroic Filter 2.00" Dia F79: Light Blue Dichroic Filter 2.00" Dia F80: Magenta Dichroic Filter 2.00" Dia F83: Blue Color Filter 2.00" Dia F85: Yellow Color Filter 2.00" Dia CEL: Overall Spread Lens (increase beam spread) 2.00" Dia EBX: 20W MR16 GU5.3 BI-Pin Narrow Spot FRB: 35W MR16 GU5.3 BI-Pin Narrow Spot FRW: 35W MR16 GU5.3 BI-Pin Flood EXB: 50W MR16 GU5.3 BI-Pin Narrow Flood FRV: 50W MR16 GU5.3 BI-Pin Very Wide Flood	

Notes:

- Lamp not included.
- 12V remote transformer required, not included.
- See ACCESSORIES & TECHNICAL DATA section of the Lumière catalog for Low Voltage Cable & Transformers
- Consult your Cooper Lighting representative for additional options and finishes



Tetra™ LED System



TETRA™ XL COMPONENT LIST

Ideal Neon Replacement
System for Signage, Border & Accent
Lighting, and Architectural applications

1 Tetra™ Strip, 6 LEDs/foot ~20 LEDs/meter

SKU	Description	Dominant Wavelength	Package
GERDXLS1	Red Tetra XL Strip	626nm	200 ft (60.96m)/spool
GERDXLSWA1	Red Tetra XL Strip, 140° wide angle	622nm	200 ft (60.96m)/spool
GEYGXLS1	Goldenrod Tetra XL Strip	595nm	200 ft (60.96m)/spool
GEGLXLS1	Green Tetra XL Strip	525nm	200 ft (60.96m)/spool
GESBXLS1	Sky Blue Tetra XL Strip	482nm	200 ft (60.96m)/spool
GEBLXLS1	Blue Tetra XL Strip	470nm	200 ft (60.96m)/spool
GEWHXLS1	White Tetra XL Strip	6500K	200 ft (60.96m)/spool

2 Tetra™ Strip, 5 LEDs/foot ~17 LEDs/meter

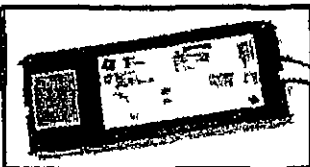
SKU	Description	Dominant Wavelength	Package
GERDXLS5	Red Tetra XL Strip	626nm	240 ft (73.15m)/spool
GERDXLSWA5	Red Tetra XL Strip, 140° wide angle	622nm	240 ft (73.15m)/spool

3 Power Supplies

GEXLPS20

GEXLPS21

AS REQUIRED



Conforms to the following
safety standards



- Supports all colors
- Remote mounted
- Indoor/dry location only
- 2 load banks

- Supports all colors
- Self-contained or remote mounted
- Damp location rated
- 1 load bank

4 System Components

AS REQUIRED

GECLSC2-Box of 50

GECLSW1-500ft (152.40m)/spool

GECLC1-Box of 100



Splice Connector

Supply Wire

End Caps

6180 Halle Drive • Valley View Ohio 44125-4635

P 216 606 6693 • F 216 606 6556 • W www.gelcore.com • E tetra@gelcore.com



3 Competitive Comparison Chart

Attributes	YES	NO	Attribute Importance
Low Energy Consumption	☒	☐	Typical load of 1.08 watts or 1.50 watts (color dependent) per foot provides up to 80% energy savings in comparison to neon
User Friendly Installation	☒	☐	Patent-pending design uses both adhesive and mechanical attachments allowing for faster installation in new & retrofit applications in a variety of fonts. No special installation tools required
Thermal Management	☒	☐	The Tetra XL LED module is designed with an IDC socket that acts as a heat sink to draw heat away from the LED. Tetra XL LEDs operate below the maximum operating current of 70mA which maximizes LED life and minimizes lumen depreciation
Remote Mounting (Series-Parallel)	☒	☐	All Tetra XL modules and splice connectors have positive locking devices to ensure permanent attachment and increased reliability over time. Remote mounting GEXLPS20 up to 150 feet (45m) of the 12 volt power supply provides a steady stream of uniform light
Corrosion Protection	☒	☐	The Tetra XL system is manufactured using similar metals connected via a multi-strand, individually coated, 16-gauge wire which protects against system life reduction through galvanic corrosion
UL Recognized System UL Classified System CSA Approved System CE Approved System C-tick Approved System	☒	☐	Tetra XL is the first LED system to achieve UL Classified status. UL Classified systems must be used in retrofit applications to maintain the UL listing of the installed sign. The Tetra XL system also carries UL Recognition for US, CSA for Canada, CE for Europe and C-tick for Australia
GE System Warranty	☒	☐	GELcore offers a limited system warranty with five (5) years on the power supply and up to five years on the Tetra strip
Neon Parity Performance	☒	☐	Tetra's forward facing design provides equal intensity to neon with a 1:1 stroke. Other systems may require more strokes or reflective coating on the inside of the can to achieve the same intensity as neon
Regulated Power Supply	☒	☐	The power supplies are Class II rated and are inherently limited to provide overload protection. All power supplies regulate output voltage to provide optimal LED performance over run lengths up to 96 ft (29.26m) per bank and 192 ft (58.52m) total

4 Technical Specifications

Technical Specifications	
LED Colors	Red, Goldenrod, Green, Sky Blue, Blue & White
LEDs Per Foot	6 LEDs/ft, 5 LEDs/ft (Red only)
Typical Power Usage	1.08 or 1.50 watts per foot (color dependent)
Power Supply	UL Recognized, UL Classified, CE, CSA and C-tick approved, IP66 damp location rated (GEXLPS21 only)
Typical Output Voltage	12 VDC
Input Voltage	96 to 254 VAC and 50/60 Hz
Input Current	1.5 A to 3.0 A
Operating Environment	Power Supply: -20°C to +50°C (GEXLPS20), -40°C to +60°C (GEXLPS21) Tetra XL Strip: -40°C to +85°C
Certification	Tetra™ XL LED Lighting System UL Recognized # E219167 UL Classified # E229508 CSA Approved # 216319 CE, C-tick



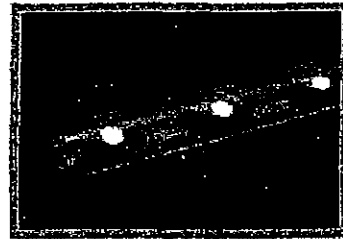
6180 Halle Drive • Valley View, Ohio 44125 4635

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Tetra™ LED System



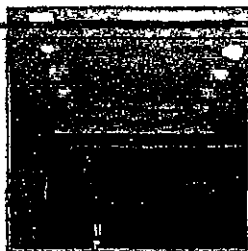
TETRA™ CANOPY DATA & COMPONENT SHEET

1 Applications

** C-Store/Gas Station * Casino * Restaurant * Accent * Hospitality*



Gas Station



Casino



Architectural Wash



Accent

2 Benefits

WEATHER PROTECTION. The Tetra™ Canopy pre-manufactured clamshell enclosure is designed to protect the Tetra™ XL, CL and Power White LED Lighting Systems from the environment when illuminating outdoor/indoor features. The modular system design allows for quick installation and can be cut to size for a custom fit.

OUTDOOR/INDOOR ILLUMINATION. Great for broad areas of illumination—gas station canopies, architectural accent, indoor cove and landscape lighting. Up to 50,000 hours life for our white LED products and up to 100,000 hours life on the red LED products.

SIMPLE INSTALLATION. The Tetra™ Canopy System clamshell design has a UV resistant clear acrylic lens, with a flexible hinge attached to an UV resistant base that is field cuttable and easily connects to cam-locking building mounts for a quick and simple installation. Comes standard in 8 ft (2.44 m) lengths.

REDUCED MAINTENANCE AND SERVICE. Tetra™ Canopy's durable, impact resistant construction provides long life, while contributing to the system's superior cold weather operation and performance compared to neon lighting. This long life advantage and the system's low voltage operation help reduce maintenance costs.

ENERGY EFFICIENT. Tetra™ Canopy system houses the Tetra™ CL, XL or Power White LED Strip and offers up to 80% energy efficiency over neon.



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13 Technical Specifications

Technical Specifications	
Acceptable LED Systems	Tetra™ XL, Tetra™ CL & Tetra™ Power White Systems
Operating Environment	-40°C to +65°C (Housing and Tetra™ LED Strips)
Dimensions	(HxWxL) 1.45 inches (3.68 cm) x 1.62 inches (4.11 cm) x 96.00 inches (244.00cm)

24 Component List

SKU	Description	Quantity	Additional Information
GECPLE	Housing	16/box	Standard 8 ft (2.44 m) lengths - field cuttable
GECPLE	Lens Connector	20/box	Clear Snap over Connector
GECPLE	Lens End Cap	10/bag	Clear push-on End Cap
GEPTCL	Cam Lock	50/bag	Use 4 to 5 per 8 ft (2.44 m) length
GEPTCL	Base connector	50/bag	Used to align two sections together

15 System Components



Housing installed
with Tetra™ CL



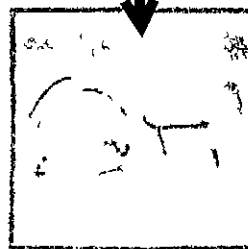
Housing installed
with Tetra™ XL



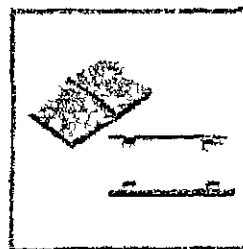
Housing installed with
Tetra™ Power White



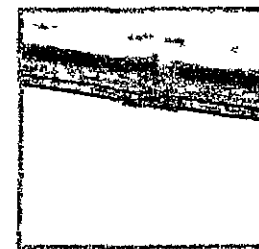
Cam Lock



Lens End Cap



Base Connector



Lens Connector

Any color LED of the Tetra™ CL, XL, or Power White systems can be used behind the clear lens



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Publication No SIGN029 Rev 1/17/06 • GELcore LLC is a joint venture between GE Lighting and EMCORE Corporation



For Remote Transformers
See Sheets TRSS Series, TR Series,
Power Pipe, Power Pipe II or Power
Canopy in Accessory Section

CATALOG NUMBER LOGIC

EXAMPLE VS - 5 - BZW - 9 - 11

Series

Lamp Type

- 0 - By Others
- 1 - ESX(20W), 12° Spot
- 2 - BAB(20W), 40° Flood
- 3 - FRB(35W), 12° Spot
- 4 - FRA(35W), 23° N Flood
- 5 - FMW(35W), 40° Flood
- 15 - EYR(42W), 12° Spot
- 16 - EYS(42W), 25° N Flood
- 17 - EYP(42W), 40° Flood
- 6 - EXT(50W), 13° Spot
- 7 - EXZ(50W), 26° N Flood
- 8 - EXN(50W), 40° Flood
- 9 - FNV(50W), 80° W Flood

Finish

Powdercoat	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	---
Verde	---	VER

Lens Type

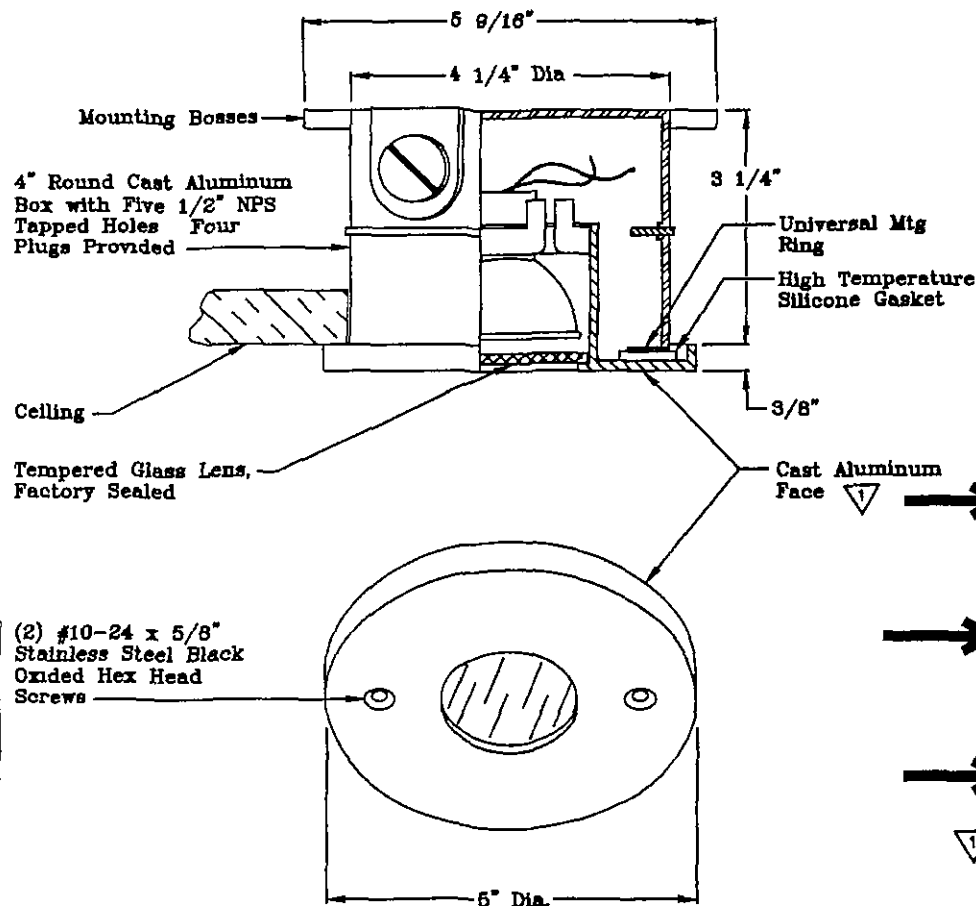
- 9 - Clear (Standard)
- 10 - Spread
- 12 - Soft Focus
- 13 - Rectilinear

Shielding

- 11 - Honeycomb Baffle



Available in Machined Brass Prefix Series Designation
With 'B', Specify 'NAT' for Natural Brass,
'POL' for Polished Brass, 'MIT' for Mitique Brass
or Powdercoat Color in Finish Section of the
Catalog Number See the 'B-K Brass' Brochure
for Additional Details



VERSA STAR™

10/03 B-K LIGHTING, INC. DRAWING NUMBER SUB-1018-04

Description

Cambria 203 is an ultra compact MR16 low voltage halogen fixture. It is available with a fully adjustable side swivel stem (203, 203 FL), an adjustable center rear swivel (203 CRS) or stationary rear flush mount (203-FM). Various lenses, louvers and color or dichroic filters can be combined - up to three at once - to create multiple lighting effects. Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

A Material

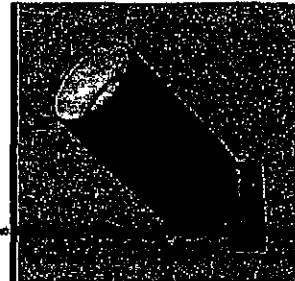
Housing, hood and mounting stem are precision machined from corrosion-resistant 6061-T6 aluminum billet, brass, bronze, copper or stainless steel.

B Finish Painted

Fixtures constructed from 6061-T6 aluminum are double protected by a chromate conversion undercoating and polyester powdercoat paint finish surpassing the rigorous demands of the outdoor environment. A variety of standard colors are available.

G Mounting Stem

Model 203 and 203-FL include fully adjustable side mounted swivel stem, providing 340° tilt and 360° rotation for easy aiming. Center rear swivel (203-CRS) or stationary rear flush mount (203-FM) models are also available. All models include 1/2" NPS threaded male fitting. Stainless steel arm locking mechanisms are standard (not available on 203-FM). Lumière's exclusive Siphon Protection System (S P S) prevents water from siphoning into the fixture through its own lead wires.

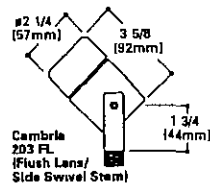
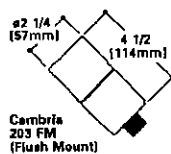
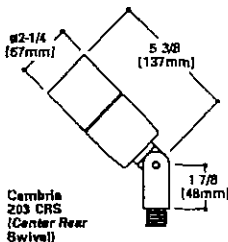
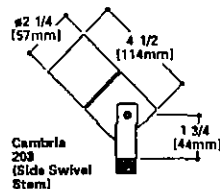


**CAMBRIA
203**

50W (max) MR16
Halogen
Low Voltage

Accent/Flood

IP65



C Brass Bronze Copper or Stainless Steel

Fixtures constructed from brass, bronze, copper or stainless steel are left unpainted to reveal the natural beauty of the material. Brass, bronze and copper will patina naturally over time.

D Hood

Hood is removable for easy relamping and accepts up to three internal accessories at once (lenses, louvers, filters) to achieve multiple lighting effects. Model 203, 203-CRS & 203-FM: Weep holes prevent water and mineral stains from collecting on the lens, even in the straight-up position. Model 203-FL: The flush lens design reduces fixture length, minimizes debris collection and prevents water and mineral stains from collecting on the lens.

E Gasket

Housing and hood are sealed with a high temperature silicone o-ring gasket to prevent water intrusion.

F Lens

Tempered glass lens, factory sealed with high temperature adhesive to prevent water intrusion and breakage due to thermal shock.

H Hardware

Stainless steel hardware is standard to provide maximum corrosion resistance.

I Socket

Ceramic socket with 250° C Teflon® coated lead wires and GU5.3 bi-pin base.

J Electrical

Remote 12V transformer required (not included). Available from Lumière as an accessory - see the Accessories & Technical Data section of this catalog for details.

K Lamp

Not included. Available from Lumière as an accessory - see reverse side of this page.

L Labels & Approvals

UL and cUL listed, standard wet label. IP65 rated. Manufactured to ISO 9001:2000 Quality Systems Standard. ISEW union made. Approved by New York City Dept. of Buildings, Bureau of Electrical Control for use in NYC, NY.

M Warranty

Lumière warrants its fixtures against defects in materials & workmanship for three (3) years. Auxiliary equipment such as transformers, ballasts and lamps carry the original manufacturer's warranty.

PHOTOMETRIC DATA

CAMBRIA 203

Cambria 203
Lamp=50MR16/NSP
(EXT)
CBCP=11 000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	45	4.0
10.0	102	3.0
8.0	159	2.0
6.0	283	1.6
4.0	638	1.0
2.0	2590	0.6

Lamp Wattage Multiplier
20W x 0.32

Cambria 203
Lamp=50MR16/NFL
(EXZ)
CBCP=3200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	13	10.0
10.0	29	6.6
8.0	45	5.0
6.0	81	4.0
4.0	181	2.6
2.0	725	1.0

Cambria 203
Lamp=50MR16/FL
(EXN)
CBCP=2000

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	7	12.0
10.0	17	8.0
8.0	27	6.6
6.0	48	5.0
4.0	106	3.0
2.0	431	1.6

Lamp Wattage Multiplier
35W x 0.57
20W x 0.30

Cambria 203
Lamp=50MR16/WFL
(FNV)
CBCP=1200

Cone of Light

Distance to Illuminated Plane	Initial Nadir Footcandles	Beam Diameter
15.0	5	17.0
10.0	11	11.6
8.0	17	9.0
6.0	30	7.0
4.0	67	4.6
2.0	269	2.0

LAMP INFORMATION

Lamp	ANSI Code	Watts	Beam Spread	CBCP	*K	Life (hrs)	Base	Volts
50MR16/NSP	EXT	50	12°	11,000	3050	4000	GU5.3 bi-pin	12
50MR16/NFL	EXZ	50	25°	3200	3050	4000	GU5.3 bi-pin	12
50MR16/FL	EXN	50	40°	2000	3050	4000	GU5.3 bi-pin	12
50MR16/WFL	FNV	50	60°	1200	3050	4000	GU5.3 bi-pin	12

NOTE Inferior quality lamps may adversely affect the performance of this product. Use only name brand lamps from reputable lamp manufacturers.

NOTES AND FORMULAS

- Beam diameter is to 50% of maximum footcandles rounded to the nearest half-foot
- Footcandle values are initial. Apply appropriate light loss factors where necessary
- Bare lamp data shown. Consult lamp manufacturers to obtain detailed specifications for their lamps

ORDERING INFORMATION

SUPPLY WITH REMOTE 12V MAGNETIC TRANSFORMERS AS REQUIRED

Sample Number: 203-CRS-50MR16-12-BZ

Series	Voltage	Accessories
203 MR16 Cambria Accent Fixture	12 12V	Filters F71: Peach Dichroic Filter 2.00" Dia F72: Green Dichroic Filter 2.00" Dia F73: Yellow Dichroic Filter 2.00" Dia F77: Dark Blue Dichroic Filter 2.00" Dia F78: Neutral Density Dichroic Filter 2.00" Dia F72: Red Color Filter 2.00" Dia F44: Green Color Filter 2.00" Dia F45: Mercury Vapor Color Filter 2.00" Dia Optical Lenses LSL: Linear Spread Lens (elongate standard beam spread) 2.00" Dia DLF: Diffused Lens (provide even illumination) 2.00" Dia Optical Louvers LVR: Hex Cell Louver (reduce glare) 2.00" Dia Lenses ESX: 20W MR16 GU5.3 Bi-Pin Very Narrow Spot FAS: 20W MR16 GU5.3 Bi-Pin Flood FRA: 35W MR16 GU5.3 Bi-Pin Spot EXT: 50W MR16 GU5.3 Bi-Pin Narrow Spot EXN: 50W MR16 GU5.3 Bi-Pin Flood
Construction Standard Side Swivel Stem 1/2" NPS CRS Center Rear Swivel Stem 1/2" NPS FM Rear Flush Mount 1/2" NPS FL Flush Lens Side Swivel Stem 1/2" NPS Source Halogen 50MR16 50W Max Halogen MR16 GU5.3 Base	Finish Painted BK Black BZ Bronze CS City Silver VE Verde WT White Material NBR Brass NBZ Bronze NCP Copper NSS Stainless Steel	F72: Amber Dichroic Filter 2.00" Dia F74: Medium Blue Dichroic Filter 2.00" Dia F76: Red Dichroic Filter 2.00" Dia F78: Light Blue Dichroic Filter 2.00" Dia F80: Magenta Dichroic Filter 2.00" Dia F33: Blue Color Filter 2.00" Dia F58: Yellow Color Filter 2.00" Dia OSL- Overall Spread Lens (increase beam spread), 2.00" Dia ESX: 20W MR16 GU5.3 Bi-Pin Narrow Spot FRB: 35W MR16 GU5.3 Bi-Pin Narrow Spot FMW: 35W MR16 GU5.3 Bi-Pin Flood EXZ: 50W MR16 GU5.3 Bi-Pin Narrow Flood FNV: 50W MR16 GU5.3 Bi-Pin Very Wide Flood

- Notes:
- Lamp not included
 - 12V remote transformer required, not included
 - See ACCESSORIES & TECHNICAL DATA section of the Lumiere catalog for Mounting Accessories, Low Voltage Cables & Transformers
 - Consult your Cooper Lighting representative for additional options and finishes

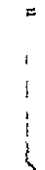
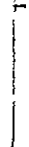


Accessories

Ground Mounting Accessories for Low Voltage Fixtures

DESCRIPTION

Lumière offers a variety of ground mounting accessories for its low voltage fixtures. See the chart on the following page to confirm that the desired mounting accessory is available for use with the desired fixture.

 AR1 7/8 x 1/2 (22mm x 13mm) Adaptor/reducer (brass). Allows MR8 fixtures with 1/2-13 UNC threaded male stem to adapt to standard 1/2" NPS female threaded mounting accessories.	 GS05 1 7/8 x 17 1/4 (48mm x 438mm) Ground spike with 2" 13" height adjustment (back polycarbonate). Enables fixture to be elevated as foliage grows (requires fixture with extended length lead wires).	 TA02 1/2 x 2 (13mm x 51mm) 2 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 AR2 7/8 x 1 1/4 (22mm x 32mm) Adaptor/reducer w/ set screw (brass). Adapts and grips GS02 or GS15 adjustable spikes to GS13 ground spike.	 GS06 2" x 10 1/2 (51mm x 267mm) Spiral ground spike provides extra holding power in unstable soil (plated steel/brass). Accepts 1/2" NPS threaded hubs.	 TA06 1/2 x 6 (13mm x 25mm) 6 threaded adaptor rod (extruded aluminum). Elevates/ connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 GB01 2 7/8 x 5 (73mm x 127mm) Anti-rotation blade (stainless steel). Adapts to GS07 or GS14 ground spike to prevent rotation.	 GS07 1' 1/8" x 12" (29mm x 305mm) Ground spike (white PVC). Accepts 1/2" NPS threaded hubs.	 TA09 1/2 x 9" (13mm x 229mm) 9 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 GS01 1 1/2" x 6 3/4 (38mm x 171mm) Ground spike with lead through hole for wiring (cast zinc). Accepts 1/2" NPS threaded hubs.	 GS08 1 7/8 x 8 (48mm x 203mm) Ground spike with integral side or bottom wire way (black ABS). Accepts all 1/2" NPS Threaded hubs.	 TA12 1/2 x 12 (13mm x 305mm) 12 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 GS02 1/2 x 36 (13mm x 914mm) Adjustable ground spike (extruded aluminum). Elevates/connects fixture 200RS or 2000RS to GS13 ground spike (requires AR2 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>	 GS13 3 3/4 x 4 1/2 (95mm x 114mm) 3 prong ground spike (brass/stainless steel). Accepts 1/2" NPS male threaded hubs.	 TA18 1/2 x 18" (13mm x 457mm) 18 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 GS03 2 3/8 x 6 5/8 (60mm x 168mm) Ground spike with integral 12V wiring compartment (aluminum). Accepts 1/2" NPS threaded hubs. <i>Specify finish (BK, BZ, CS, VE, WT)</i>	 GS14 7/8" x 12" (29mm x 305mm) Ground spike (stainless steel). Accepts 1/2" NPS male threaded hubs.	 TA24 1/2 x 24 (13mm x 610mm) 24 threaded adaptor rod (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS07, GS14 or GS13 (requires AR1 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>
 GS04 1 x 16 1/2 (25mm x 419mm) Ground spike with integral 12V wiring compartment (aluminum). Accepts 1/2" NPS threaded hubs. <i>Specify finish (BK, BZ, CS, VE, WT)</i>	 GS15 1/2 x 24" (13mm x 610mm) 24" adjustable ground spike (extruded aluminum). Elevates and connects fixture 200RS or 2000RS to GS13 ground spike (requires AR2 adaptor/reducer). <i>Specify finish (BK, BZ, CS, VE, WT)</i>	

ORDERING INFORMATION Sample Number GS02 BK

Order low voltage ground mounting accessories as separate line items. Specify quantities and (if applicable) finish. See chart on the following page to confirm that the desired mounting accessory is available for use with desired fixture.

WWW.COOPERLIGHTING.COM

COOPER Lighting
ADL03277#

USHIO

MR-16 REFLECTOR LAMPS

POPSTAR SERIES



POPSTAR - MR-16 with COLORED DICHROIC LENS FOR GENERAL LIGHTING

USHIO Popstar lamps allow colors to be added to your design without the added expense of colored filters and gels. The highest quality dichroic coatings are applied to the front cover glass of these MR-16 lamps to provide deep color saturation. Computer controlled alignment of the axial filaments in the Popstar lamps allow precise beam control. All of the Popstar lamps have UV protecting quartz used for the bulb wall to protect both the dichroic filter and the illuminated subject.

Available in colors Red, Orange, Yellow, Green, Blue and Magenta

FEATURES AND BENEFITS

- 4000 Hours Average Life
- Integrated Dichroic Colored Front Glass Cover
- 50Watt, 12Volt
- Dimmable
- GU5 3 Base
- Universal Burn Position
- UV Protection
- Cool Beam



APPLICATIONS

- | | |
|------------------|---------------|
| ● Archi-tainment | ● Night Clubs |
| ● P O P Displays | ● Landscape |
| ● Retail | ● Waterscape |
| ● Theme Parks | |

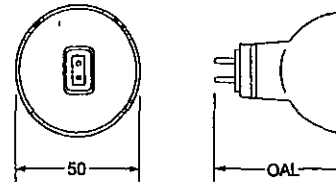
USHIO

CHARACTERISTICS AND SPECIFICATIONS

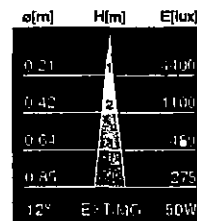
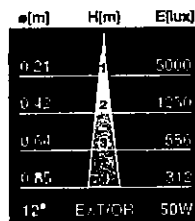
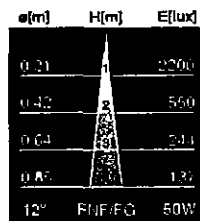
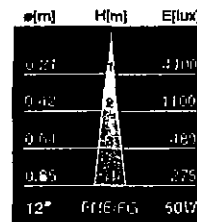
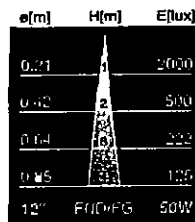
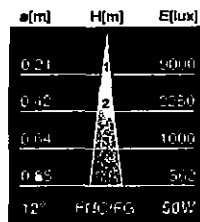
Chromaticity Coordinates

50W	Yellow	x = 520	y = 471
	Red	x = 686	y = 307
	Blue	x = 135	y = 307
	Green	x = 286	y = 681
	Orange	x = 618	y = 378
	Magenta	x = 577	y = 312

All dimensions are in millimeters



Base GU5.3



Watts (W)	Ushio Ordering Code	Ushio Lamp Code	Voltage (V)	Dimension OAL (mm)	Color	Beam Angle	Luminous Intensity (cd)	Avg Life (h)
50	1000580	FNC/FG	12	45.2	Yellow	12°	9000	4000
50	1000582	FND/FG	12	45.2	Red	12°	2000	4000
50	1000584	FNE/FG	12	45.2	Green	12°	4400	4000
50	1000586	FNF/FG	12	45.2	Blue	12°	2200	4000
50	1003132	EXT/OR	12	45.2	Orange	12°	5000	4000
50	1003200	EXT/MG	12	45.2	Magenta	12°	4400	4000



Popstar lamps are manufactured under ISO 9001 guidelines ensuring quality and security for the purchaser

Distributed by

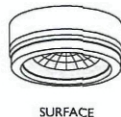
Form No. S-MR16PS-0701 The specifications on this sheet supersede all previously published specifications and may be subject to change for design and specification improvement without prior notice.

USHIO America, Inc. • www.ushio.com

PUKLIGHT® LENSED



RECESSED



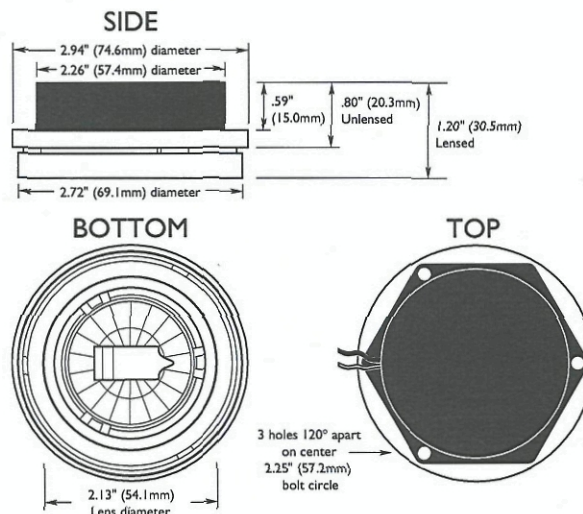
SURFACE

PRODUCT SPECIFICATION

Catalog No.	Finish	Lamp
LPK-12-10-W	Matte white	Quartz halogen, 12v 10w Max
LPK-12-10-B	Matte black	Quartz halogen, 12v 10w Max
LPK-12-10-C	Satin chrome	Quartz halogen, 12v 10w Max
LPK-12-10-G	Satin brass	Quartz halogen, 12v 10w Max

(see reverse side for complete list of Puklight Catalog Nos.)

LOW VOLTAGE MINI-DOWNLIGHT



GENERAL DESCRIPTION

Low voltage palm-size lighting fixture with unique twist-on lens retainer. It can accommodate (1) lens accessory only. A 12v 10w maximum bi-pin G4 base quartz halogen lamp is standard. Relamping is done from front of fixture after 1/4 turn and removal of lens retainer. Fixture can be recessed or surface mounted. Clear or frosted lens available.

MOUNTING

If recessed, the fixture is mounted in a hole 2 1/4" in diameter and 5/8" deep using three screws through the mounting holes provided.

MATERIAL

Housing and trim are high temperature injection molded thermoplastic. Reflector is plated die cast metal. Lens is tempered glass. Wire is teflon coated high temperature stranded wire.

FINISH

Matte White
Matte Black
Satin Chrome
Satin Brass

LABEL

U.L. Listed Class II. File No. E141044, when ordering a lensed Puklight with a plug-in transformer. ETL Listed Class II when ordering a lensed Puklight with a wire-in transformer.

ELECTRICAL

Fixture is pre-wired with 18 AWG 200°C wire exiting from the side of the fixture. 6" pig-tails are provided for easy connections.

OPTIONS

Fixture available in ready-to-install kits of 1 to 6 Puklights. Kits include: 10w quartz halogen lamps and one 12v 60w wire-in or plug-in electronic transformer. Transformers are Class II U.L. Approved. Accessories include black honeycomb louver and colored lenses. Bi-pin xenon 12v 10w maximum lamp in clear or frosted also available. (refer to reverse side for ordering information).

PATENTS

U.S. and foreign patents.

LUCIFER
LIGHTING COMPANY

414 Live Oak Street
San Antonio, Texas 78202
Phone 210 227-7329
FAX 210 227-4967
www.luciferlighting.com

©2002 Lucifer Lighting Company
As part of its policy of continuous research and product development, the Company reserves the right to change or withdraw specifications without prior notice.

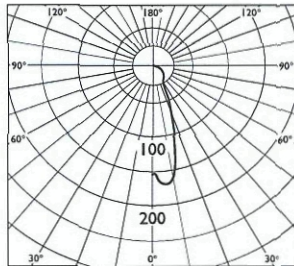
0971-0502

PUKLIGHT® **LENSED**

PHOTOMETRICS - PUKLIGHT with Clear Lens

CANDLEPOWER SUMMARY		
Angle	Across	Output Lumens
0	158	15
5	170	
10	157	26
15	104	
20	55	15
25	36	
30	28	12
35	24	
40	21	13
45	19	
50	18	12
55	14	
60	8	4
65	1	
70	1	1
75	0	
80	1	1
85	1	
90	0	

Efficiency = 71.1% SPMH = .6 SC = .6

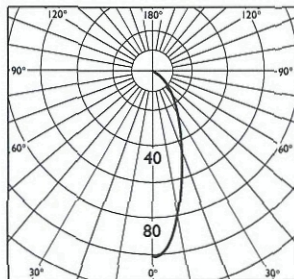


50% Beam width = 30.8		
Distance (ft.)	Footcandles	Beam Dia. (ft.)
0.5	630.0	0.28
1.0	158.0	0.55
1.5	70.2	0.83
2.0	39.8	1.10
2.5	25.3	1.38
3.0	17.6	1.65
3.5	12.9	1.93
4.0	9.9	2.20
4.5	7.8	2.48
5.0	6.3	2.78
5.5	5.2	3.03
6.0	4.4	3.31

PHOTOMETRICS - PUKLIGHT with Frosted Lens

CANDLEPOWER SUMMARY		
Angle	Across	Output Lumens
0	101	9
5	97	
10	83	18
15	64	
20	47	16
25	36	
30	28	14
35	23	
40	19	11
45	15	
50	12	8
55	9	
60	6	4
65	4	
70	3	2
75	2	
80	1	1
85	1	
90	0	

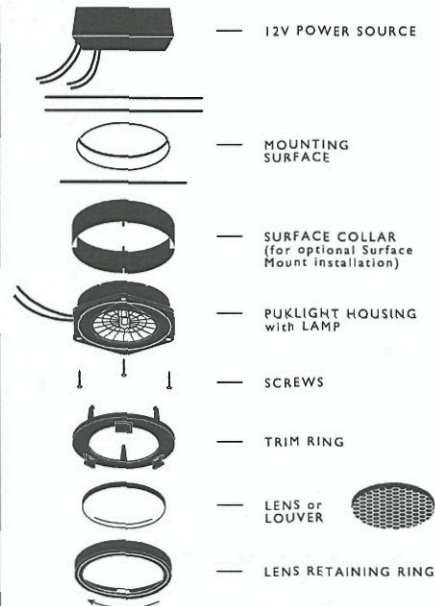
Efficiency = 59.2% SPMH = .6 SC = .6



50% Beam width = 36.6		
Distance (ft.)	Footcandles	Beam Dia. (ft.)
0.5	404.0	0.33
1.0	101.0	0.66
1.5	44.9	0.99
2.0	25.3	1.32
2.5	16.2	1.65
3.0	11.2	1.98
3.5	8.2	2.32
4.0	6.3	2.65
4.5	5.0	2.98
5.0	4.0	3.31
5.5	3.3	3.64
6.0	2.8	3.97

Photometrics by Lighting Sciences, Inc., Scottsdale, Arizona, a nationally recognized testing facility serving the illumination industry, in accordance with current IES published procedures. Beam width to 50% maximum candlepower. To convert to meters and lux, multiply feet x .3048 and footcandles x 10.75.

INSTALLATION



ORDERING

PUKLIGHT with Clear Lens

Catalog No.

Description

LPK-12-10-*

Recessed Puklight housing, trim ring with clear glass lens, and 12v 10w halogen lamp

LPK-SC-12-10-*

Surface Puklight housing, trim ring with clear glass lens, surface mount collar, and 12v 10w halogen lamp

PUKLIGHT CLEAR LENS KITS
with clear lens, surface mount collar, and 12v, 10w halogen lamps

LPKT-1-*

1 fixture & 1 12v 60w wire-in electronic transformer

LPKT-2-*

2 fixtures & 1 12v 60w wire-in electronic transformer

LPKT-3-*

3 fixtures & 1 12v 60w wire-in electronic transformer

LPKT-4-*

4 fixtures & 1 12v 60w wire-in electronic transformer

LPKT-5-*

5 fixtures & 1 12v 60w wire-in electronic transformer

LPKT-6-*

6 fixtures & 1 12v 60w wire-in electronic transformer

Note: To substitute 12v 60w plug-in electronic transformer, use **LPKP** prefix instead of **LPKT** prefix

PUKLIGHT with Frosted Lens

FPK-12-10-*

Recessed Puklight housing, trim ring with frosted glass lens and 12v 10w halogen lamp

FPK-SC-12-10-*

Surface Puklight housing, trim ring with frosted glass lens, surface mount collar, and 12v 10w halogen lamp

PUKLIGHT FROSTED LENS KITS
with frosted lens, surface mount collar, and 12v, 10w halogen lamps

FPKT-1-*

1 fixture & 1 12v 60w wire-in electronic transformer

FPKT-2-*

2 fixtures & 1 12v 60w wire-in electronic transformer

FPKT-3-*

3 fixtures & 1 12v 60w wire-in electronic transformer

FPKT-4-*

4 fixtures & 1 12v 60w wire-in electronic transformer

FPKT-5-*

5 fixtures & 1 12v 60w wire-in electronic transformer

FPKT-6-*

6 fixtures & 1 12v 60w wire-in electronic transformer

Note: To substitute 12v 60w plug-in electronic transformer, use **FPKP** prefix instead of **FPKT** prefix

LAMP OPTIONS

12-05-XH-**

12 volt, 5 watt, bi-pin xenon lamp

12-10-XH-**

12 volt, 10 watt, bi-pin xenon lamp

ACCESSORIES

FGL-3

Frosted glass lens

CGL-3

Clear glass lens

HCL-3

Honeycomb louver (black) - 45° glare cut off

GL-B

Glass lens - blue

GL-G

Glass lens - green

GL-R

Glass lens - red

(Louvers and colored lens accessories for use with a lensed Puklight only)

WMC-1/10

Wire mounting clip - to fasten wire to wall or surface - 10 per pack

WC-1/10

Wire connector and splice adapter - 10 per pack

W-18/2-10

Installation wire - 18 gauge/2 conductors - 10 ft. length

* Specify one color per catalog number: **W** - Matte white **B** - Matte black **C** - Satin chrome **G** - Satin brass

** Specify: **CL** - Clear **FR** - Frosted

WP SYSTEM

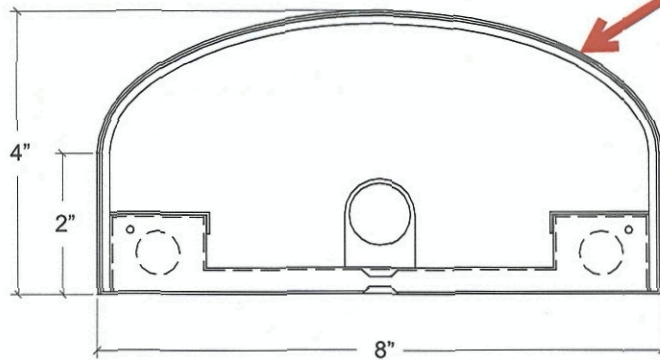
WP SYSTEM

WP-T8-MH-AC

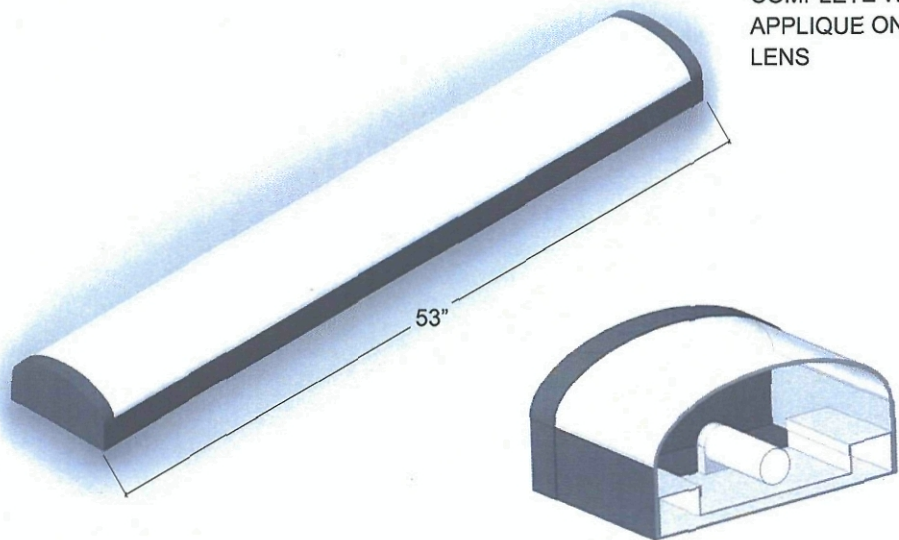
ROUNDED CORNER RECTANGULAR WALL SCONCE

T8 LINEAR LAMP

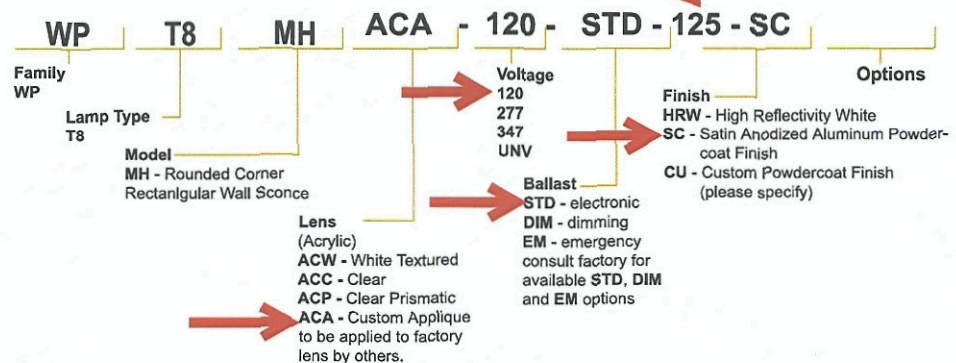
- 20 gauge steel construction
- variety of acrylic covers are available
- T8 lamps are standard however other T5 fluorescent lamp, T5HO lamp and High Lumen Twin Tube models are available
- standard ballasts are integral electronic, consult the factory for available types of regular, dimming and emergency ballasts
- removable end cap allows for ease of lamp replacement.
- standard finish is High Reflectivity White powder coat done post production, decorative Large Pattern Galvanize and other custom colors and finishes are also available.
- all WP System fixtures are treated with a multi-stage phosphate process which ensures proper finish bonding and inhibits rust
- UL and C-UL Listed for Dry and Damp Locations



CUSTOM DECORATIVE APPLIQUE FOR THE BIRCHWOOD SUPPLIED LENS TO BE SEPARATELY PRICED BY DIGITAL PLUS (TEL: 212-533-7224 CONTACT: GEORGE UENISHI) FIXTURE SHALL BE SHIPPED TO THE SITE BY BIRCHWOOD COMPLETE WITH THE APPLIQUE ON THE LENS



(1) 25 WATT T-8 LAMP



Job Information

Type **GB-1**

Job Name
Mondrian Hotel

Location
Scottsdale, AZ

BIRCHWOOD LIGHTING

rev 0706
v.2

714.550.7118 • fax 714.550.7151 • www.BirchwoodLighting.com

NOTE: Specifications and dimensions are subject to change without notice.

SHEET 1 OF 1

JEFFREY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

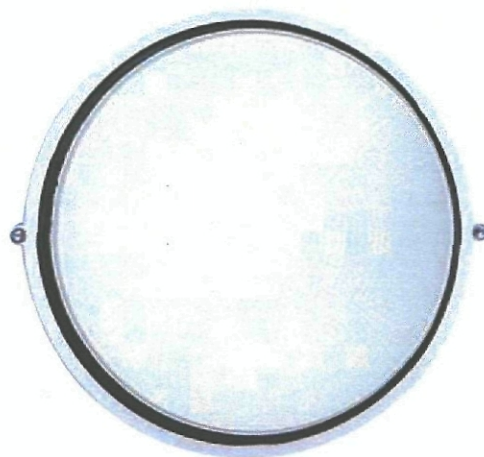
TYPE:
GB-1



JEFFREY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

TYPE:



ø8"
wall projection 5"

SMALL ROUND ALUMINUM BULK HEAD

Wall or ceiling mounted die cast luminaire. Features sanded glass, stainless steel screws, and rustproof durable powder coat. Fully gasketed and ETL listed for wet location.

choose your model #.

model	lamp	color	type
5140C	A19 1x60W	white	incandescent
5140CBZ	A19 1x60W	black	incandescent
5147C	A19 1x60W	gray	incandescent

 **LBL Lighting**

Recessed wall luminaires
- low voltage - stainless steel

Type:
BEGA Product #:
Project:
Voltage:
Color:
Options:
Modified:

Housing: Constructed of die cast aluminum with integral wiring compartment.

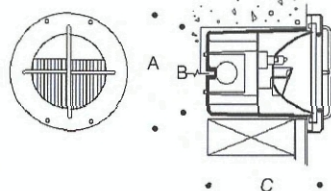
Enclosure: Spun, .035" stainless steel faceplate, secured by four (4) socket head, stainless steel, captive screws threaded into stainless steel inserts in the housing casting. $\frac{3}{16}$ " thick, tempered glass spread lens with 14 linear prisms per inch and translucent ceramic mask. Continuous high temperature silicone rubber O-ring gasket for weather tight operation.

Electrical/Optical: All components are assembled together on a removable gear tray incorporating a G4 (20W), bi-pin lampholder with ceramic insulator and high temperature leads. Integral electronic 120V/11.6V transformer. For dimming refer to page 326 of catalog. An internal thermal protection device is provided. Reflector is semi-specular anodized aluminum. Available in 120V only.

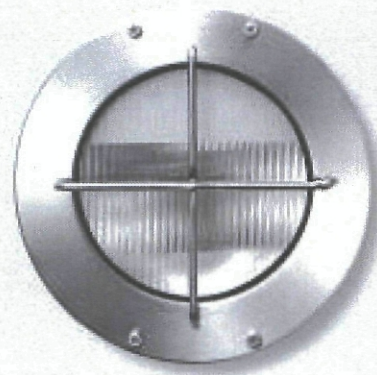
Through Wiring: Maximum of four (4) No. 12 AWG conductors (plus ground) suitable for 90°C. Two $\frac{7}{8}$ " knockouts provided for $\frac{1}{2}$ " conduit.

Finish: #4 brushed stainless steel. Stainless steel requires regular cleaning and maintenance, much like household appliances, to maintain its luster and to prevent tarnishing or the appearance of rust like stains.

U.L. listed, suitable for wet locations and for installation within 3 feet of ground. Suitable for all types of construction including poured concrete. Type non-IC. Protection class: IP 64.



Brushed stainless steel trim with guard. Tempered ribbed glass lens with mask. Asymmetrical reflector. Integral 120V-11.6V electronic transformer. Lamp supplied with luminaire. U.L. listed, suitable for wet locations. IP 64. Opening: $3\frac{1}{16}$ " ϕ x 4"



		Lamp		Lumen	A	B	C
1121	W/Guard	ADA	1 20W T3 G4,12V	320	4 $\frac{3}{4}$	3 $\frac{5}{8}$	4
500	CPC, Concrete Protection Cover						

#20009084

VISION 3SQ

Lightology
Architectural
Collection



Description: Vision 3SQ wall comes in satin aluminum finish. Plaster kit, housing, and transformer included. 50 watt 12 volt halogen bipin lamp included.
Vision 3SQ (WOH) - without housing is for furniture. It comes without a plaster kit or steel housing and transformer must be ordered separately. ETL listed.

Body Finish: Satin aluminum

Lamp: BIPIN / GY6.35 / 50W / 12V

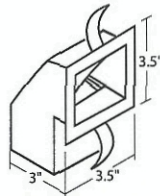
Wattage: 50W

Dimmer: KIT - Low voltage electronic

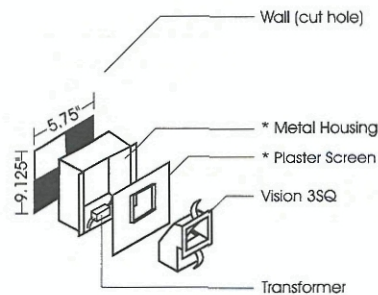
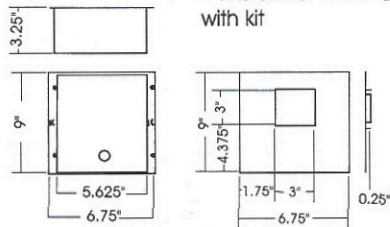
Dimensions: 3.5"W 3.5"H 3"D

Weight: 2 lbs

Specification subject to change without notice - 5.1.03



Recessed Housing, Plaster Screen and Transformer included with kit



*Not required when installing in furniture

Specification Guide:

Lightology vendor code	Department	Description	Size	Lamp	Shade Color	Body Finish
1200	WR	VISION3	KIT	H1	00	SA
	-WR-wall recessed		-KIT-complete -WOH-with out housing kit	-H1-halogen		-SA-satin aluminum

COMPANY:		FIXTURE TYPE:		DATE:	
PROJECT:		APPROVED BY:			

fax: 312.642.6605
fax: 773.883.6131

phone: 312.944.1000
phone: 773.883.6111

Chicago, IL 60610
Chicago, IL 60614

Showroom: 215 W. Chicago Ave.
Corporate: 1718 W. Fullerton

www.lightology.com

INSTALLATION INSTRUCTIONS FOR

VISION 3 SQ

- This product is ETL listed.□
- This product is suitable for in indoor dry locations only.□
- This product is for new construction jobs.□
- This product can be dimmed with a low voltage electronic dimmer.

CAUTION-RISK OF FIRE

This product requires installation by a qualified electrician.□
Before installing, be sure to read all instructions and□
TURN THE POWER TO THE ELECTRICAL BOX OFF.

STEP 1□

Before putting up the dry wall mount the aluminum box provided to the wall stud. Run the 120v supply wire from one box to the next. Using the screws provided mount the plaster screen onto the aluminum box. Next measure and then cut the dry wall appropriately so that the square hole on the plaster screen is not covered. The metal edges coming out should be the border for the hole in the dry wall.



STEP 2□

Next, after the dry wall is properly installed and the 120v wires are run, make the connections to the transformer. The wires coming from the fixture should be connected to the blue 12v wires coming out of the transformer. The 120v supply wires should be connected to the black and white wires on the transformer. The 120v hot supply wire should be connected to the black transformer wire, and the 120v neutral supply wire should be connected to the white wire coming out of the transformer.



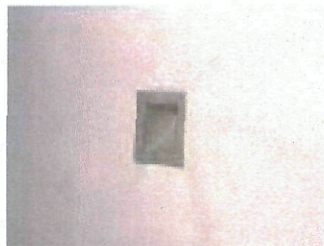
STEP 3□

Carefully put the transformer and the wire into the aluminum box. To install fixture carefully, slide the top piece in first.



STEP 4□

Then carefully insert the bottom by pushing up the bottom spring clip and sliding it into the dry wall and electrical box.



fax: 312.642.6605
fax: 773.883.6131

phone: 312.944.1000
phone: 773.883.6111

Chicago, IL 60610
Chicago, IL 60614

Showroom: 215 W. Chicago Ave.
Corporate: 1718 W. Fullerton

www.lighttology.com

JEFFREY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

TYPE:

SERIES #805 - CONTINUOUS REFLECTOR LAMP LINEAR SPREAD LENS WALL GRAZING SYSTEM

805MR

TYPE: _____

JOB: _____

SPECIFICATIONS

HOUSING - Heavy gauge extruded aluminum
(material of corrosion resistant alloy.) CRS end plates.

ELECTRICAL - MR-11, remote transformer required,
sold separately.

SOCKET - Precision die formed aluminum socket
plate. G-4/G-6 with 250°C 600v Teflon coated lead
wires.

MOUNTING - Recessed.

LABELS - UL, C-UL -Dry Location.

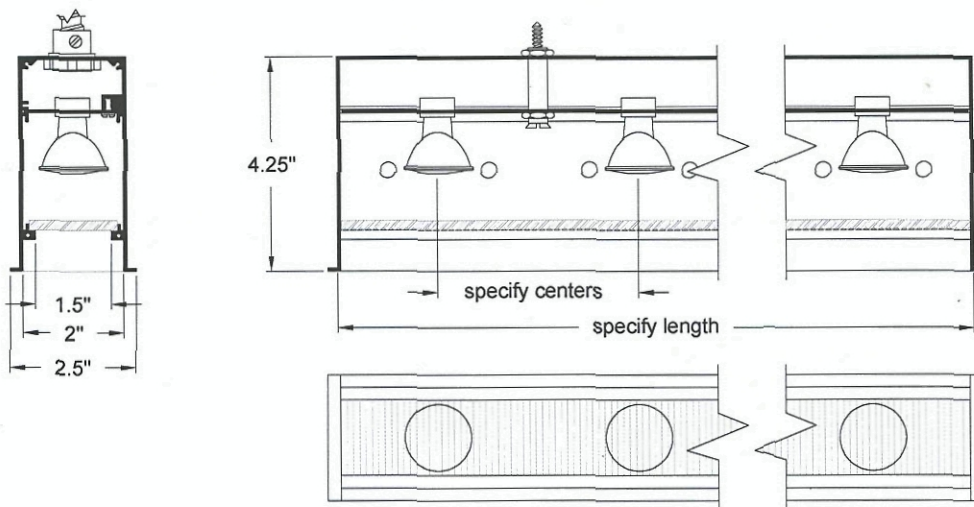
LAMP - MR-11, 12v, 20w (narrow spot recommended) - by
others.

LENS - Supertex borosilicate glass. Others available consult
factory.

FINISH - Powder paint on all surfaces. RAL colors standard,
consult factory for custom finishes.

APPLICATIONS

Miniature profile, recessed, intended to highlight surface texture in brick, stone, stucco, tile, textured paint, fabric and wood
panels. Can also be used for continuous linear downlighting.



ORDERING INFORMATION

FIXTURE	LAMP SPACING	LENGTH	FINISH
#805MR			
Recessed linear wall grazing system	4 = 4" 6 = 6" 8 = 8"	specify exact length	WHT = White BLK = Black XXXX = RAL # CST = Custom (must supply chip)



SPECIALTY LIGHTING
INDUSTRIES, INC. © 2004

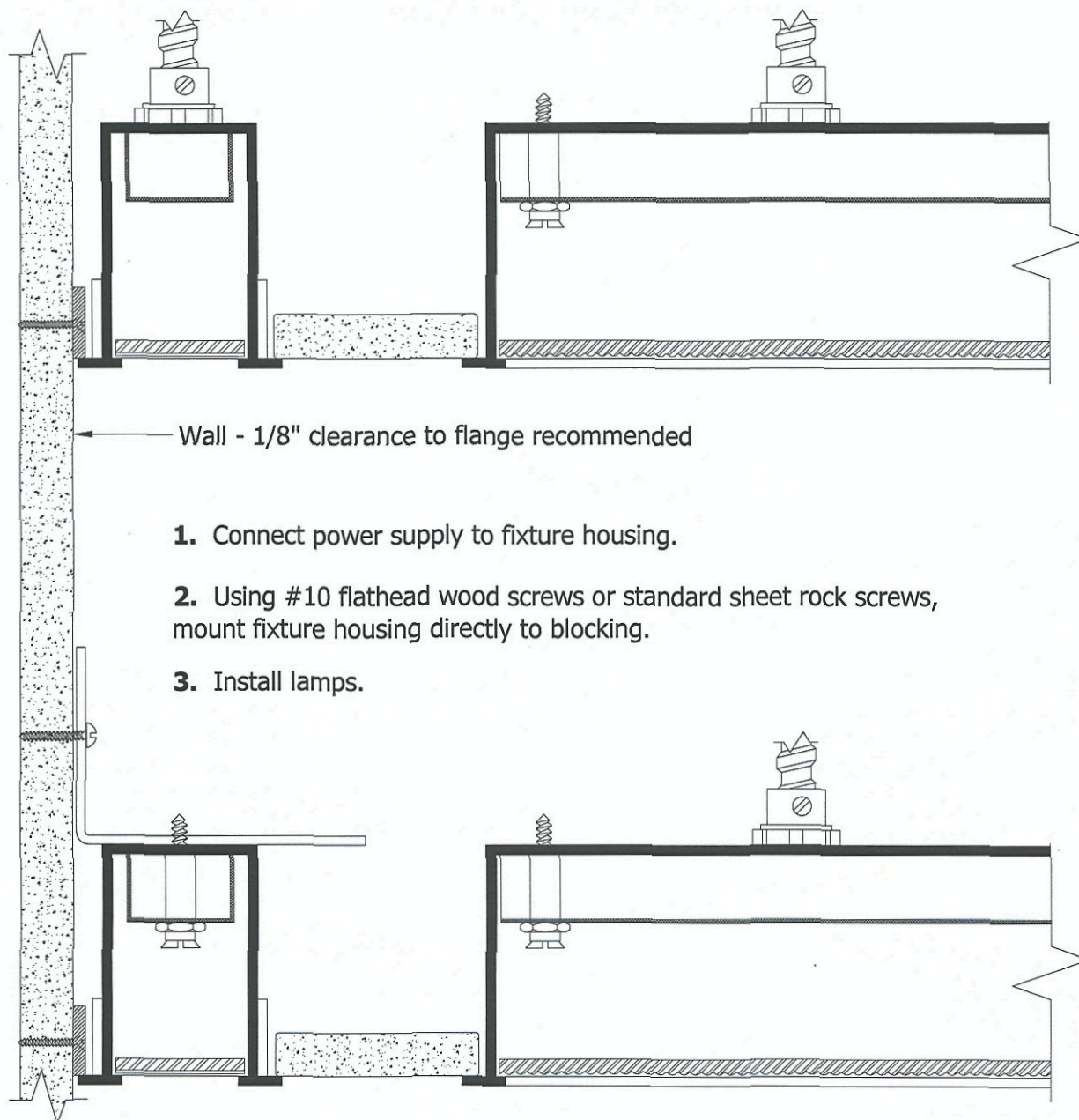
1306 DORIS AVENUE, OCEAN, NJ 07712 USA

800.462.7812 732.517.0800 FAX 732.517.0971

www.specialtylightingindustries.com

These specifications subject to change without notice.

INSTALLATION



SPECIALTY LIGHTING
INDUSTRIES, INC. © 2004

1306 DORIS AVENUE, OCEAN, NJ 07712 USA

800.462.7812

www.specialtylightingindustries.com

732.517.0800 FAX 732.517.0971

These specifications subject to change without notice.

Twiste'R™

PL752 Series Datasheet

12Vdc LED Lighting System

PERMIGHT

The Twiste'R channel letter LED lighting system features the company's patented (U.S. Patent US 6,578,986 and 6,846,093 and 6,712,486) thermal management technology coupled together with a wide beam angle of 180° allowing for "any orientation mounting" - on a back wall or side wall—and can fit channel letters under 6" and with strokes as narrow as 1/8". Additionally, the excellent diffusion of Twiste'R allows for halo lit letters to be mounted as close as 1/4" from the mounting surface while ensuring uniform light distribution.

When it comes to reliability, Twiste'R features a new corrosion resistant technology that makes it an ideal solution for applications where low maintenance and reliability are an issue. The Twiste'R Series is UL Recognized for use in wet locations and is listed in the Sign Accessories Manual (<http://www.permight.com/pdf/PermilightinSAM.pdf>). The Twiste'R also features ultra long lifetime LED technology with lumen depreciation of less than 10% over 30,000 hours.

Twiste'R modules are wired together so that 3 Twiste'R modules = 1 linear foot and is designed to replace 1 foot of neon. Each module comes with pre-applied VHB tape and a mechanical fastening section to adhere to your sign with a rivet or screw if needed.



By using Twiste'R, you will be able to bend and twist light into places you could not fit any other neon or LED system before. Its performance will make you want to dance, and its power and flexibility will blow away competing sign designs. Twiste'R is now available in a complete set of colors.

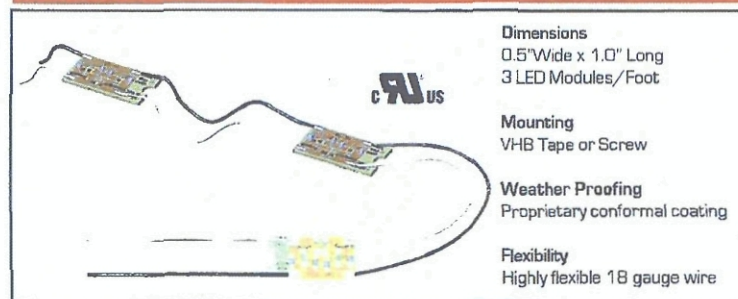
Features/Benefits

- Suitable for indoor and outdoor use
- Provides up to 50,000 hours of maintenance free operation
- Ideal for low cost small signs
- Pre-applied VHB tape, Peel-n-stick
- Low Voltage 12Vdc, UL Recognized

Applications

- Small channel letters
- Small Halo lit signs/letters

Mechanical Data



Dimensions
0.5" Wide x 1.0" Long
3 LED Modules/Foot

Mounting
VHB Tape or Screw

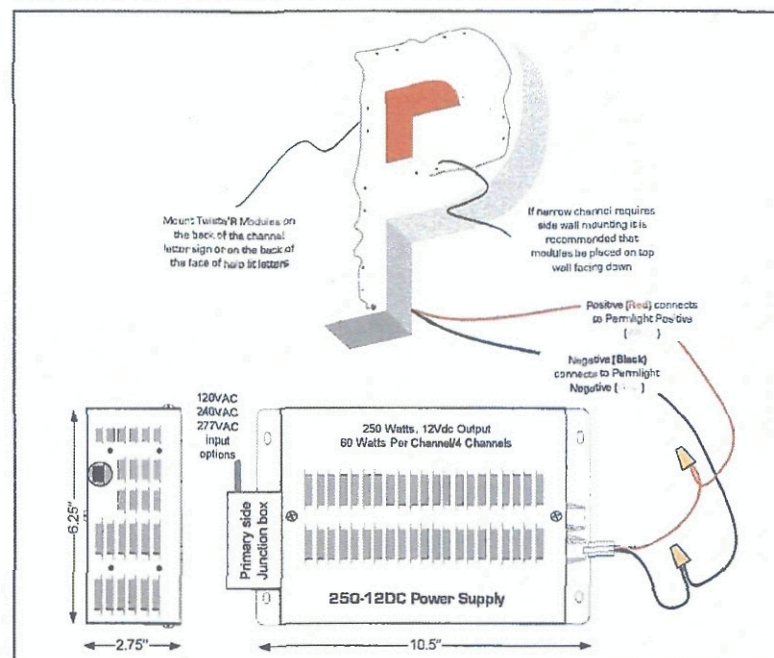
Weather Proofing
Proprietary conformal coating

Flexibility
Highly flexible 18 gauge wire

Selector Guide

Twiste'R Part Number	Color Chart	Power Supplies				
		Electrical		12-120-ADV	25-120-ADV	60-120
		Per Module	12 Watts	25 Watts	60 Watts	250 Watts (4X 60Watts)
		Vdc	Watts	# Modules	# Modules	# Modules
752-WHT-B	White (5600-6500K)	12	0.8	15	30	75
752-INCAN	Warm White (2700-3200K)	12	0.8	15	30	75
752-R630	Ruby Red	12	0.8	15	30	75
752-G525	Green	12	0.8	15	30	75
752-B470	Blue	12	0.8	15	30	75
752-A590	Amber	12	0.8	15	30	75
752-N605	Orange	12	0.8	15	30	75
752-Yellow	Yellow	12	0.8	15	30	75

Typical Installation Diagram



PERMIGHT

PL752 Series Rev. D

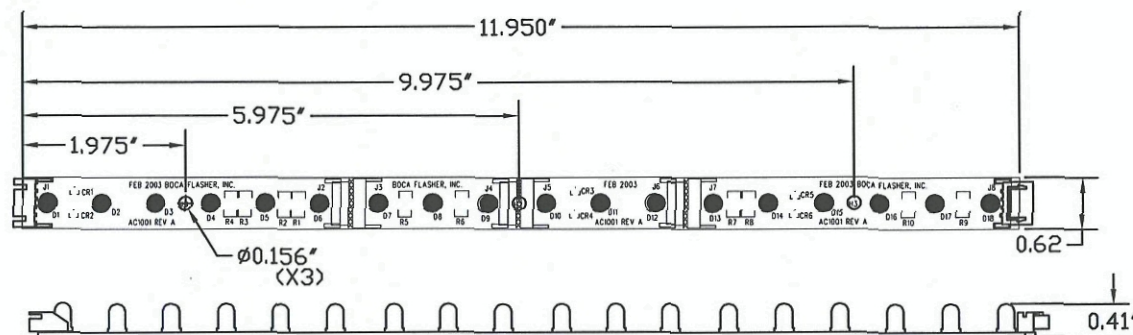
Warranty Notes:

Twiste'R Series is warranted for 5 years with a useable lifetime of up to 10 years depending on ambient temperature and operational use. Permilight does not warrant its Twiste'R PL752-WHT White from color shifting or light output degradation.

JERRY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

TYPE:



PRODUCT EQUALS EXACTLY 12.00" WHEN
CONNECTED WITH ANOTHER STRIP.

OPTIONS:

1. COLORS OF RED, ORANGE, AMBER, GREEN, BLUE, AND WHITE (3K, 5K, OR 8K COLOR TEMPERATURES)
2. SAND-BLASTING THE LEDS
3. 12" OR 6" LENGTHS AVAILABLE FOR RED, ORANGE, AND AMBER
4. 12", 8", OR 4" LENGTHS AVAILABLE FOR GREEN, BLUE, AND WHITE
5. CONFORMAL COATING OF STRIP FOR WATER RESISTANCE
6. POLYCARBONATE TUBING CUT TO LENGTH TO HOUSE PRODUCT.

ACCESSORIES:

MALE TO FEMALE CABLES (BF-CABL2-MFXX) TO JUMPER BETWEEN STRIP.
FEMALE TO FEMALE CABLES (BF-CABL2-FFXX) TO CONNECT BETWEEN POWER RUN OF STRIP AND DISTRIBUTION SYSTEM.

INPUT VOLTAGE: 24VAC OR 24VDC
INPUT CURRENT: 100mA
MAXIMUM OF 40FT OF PRODUCT PER POWER RUN.

NOTE: THIS DOCUMENT IS PROTECTED BY
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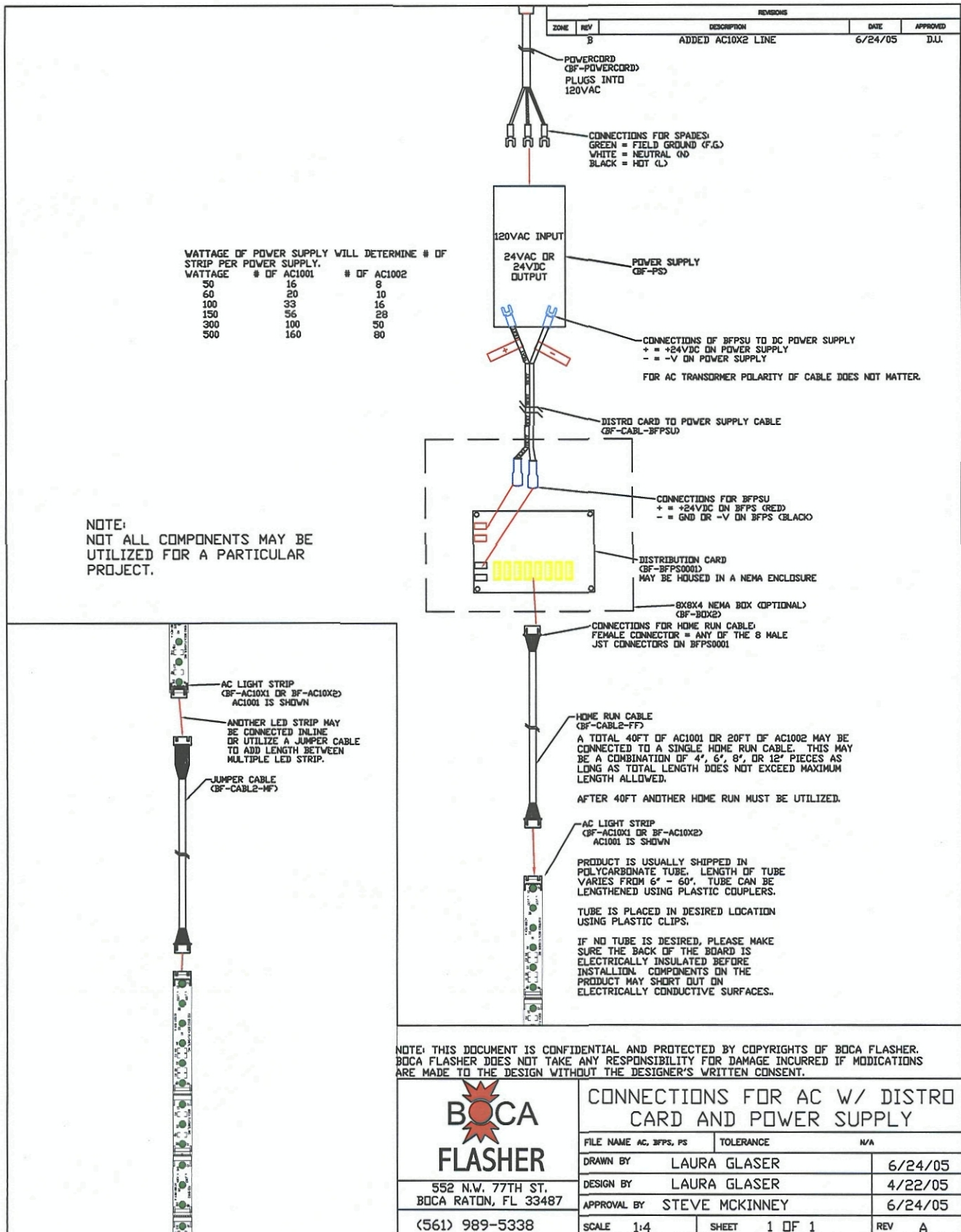
552 N.W. 77TH ST
BOCA RATON, FL 33487

(561) 989-5338

DRAWN BY: LAURA GLASER

AC LIGHT STRIP
BF-AC10X1

SCALE 2:1 1/5/05 SHEET 1 OF 1 REV A



HOW TO SPECIFY

SPECIFY BY CATALOG NUMBER

AV-3-101-LNS

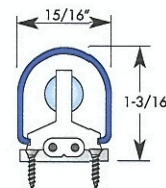
CODE	LAMP SPACING	CODE	LAMP STYLE	OPTIONAL	CODE	OPTIONS
2.4	2.4" O.C.	101	5 Watt		LNS	Lens Cover
3	3" O.C.	102	8.5 Watt		MC	Mounting Channel
4	4" O.C.	103	3 Watt		SR	Symmetrical Reflector
6	6" O.C.				AR	Asymmetrical Reflector
					BK	Black Finish

Options

Lens Covers

For applications where lamps need to be protected from direct contact, we offer a clear polycarbonate lens to shield each lamp. The ends of each lens are open, allowing the heat to vent. For use with 3 and 5 watt lamps only.

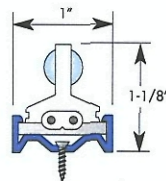
PART#: AV-LNS



Mounting Channel

A rigid high-temperature plastic channel is available for applications with straight runs. The channel is screwed in place, and the lamp sockets snapped in. This ensures perfect linear integrity of the fixture and reduces installation time.

PART#: AV-MC



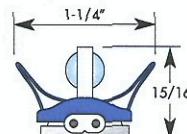
Symmetrical Reflector

For applications where a more concentrated beam of light is needed. These reflectors easily snap on to our existing sockets, with or without mounting channels, increasing light output toward the centerline of the fixture.

PART#: AVWH-REF-S (White)

PART#: AVBK-REF-S (Black)

*NOT FOR USE WITH 2.4" LAMP SPACING



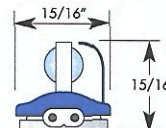
Asymmetrical Reflector

For shelves and cabinets where a more directional beam of light is needed. These reflectors also snap on to our existing sockets and channels, helping to deflect heat and reduce glare.

PART#: AVWH-REF-A (White)

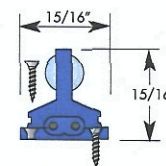
PART#: AVBK-REF-A (Black)

*NOT FOR USE WITH 2.4" LAMP SPACING



Black Finish

Although most Advantage is concealed behind moldings and ledges, there are many places where it also looks great exposed. We offer Advantage in a high-tech black finish to complement such applications.



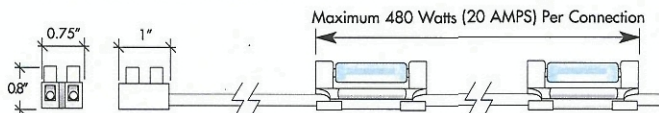
ACCESSORIES

Connectors

Terminal Block Connectors

PART#: AV-CONN

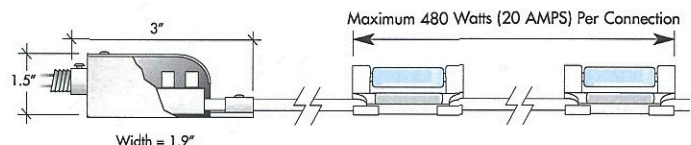
One end of this connector screws directly to the end of the Advantage fixture. The other end accepts AWG# 14, 12, or 10 wire. A hole is provided in the center of the connector for secure mounting.



Mini Junction Box Connectors

PART#: AV-JBOX

If installation involves running wire through a building structure, special wiring methods to the fixture may be required by code. A miniature junction box is available with a 1/2" Ø knockout for use with conduit fittings.

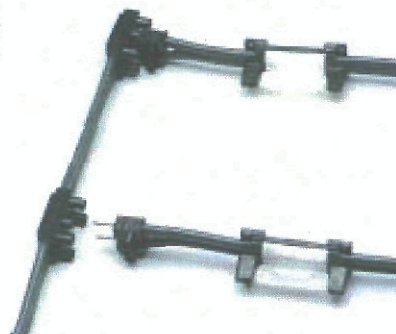
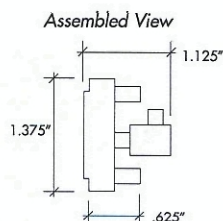
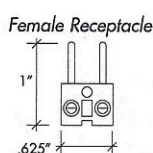
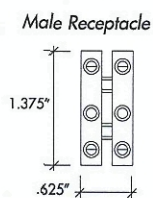


T-Connect System

PART#: AVWH-T-CONN (White)

Here's a great convenience for applications in shelf, cabinet and showcase lighting. A main wiring harness can feed multiple fixtures (up to 480 watts) with the use of our T-connect system. Harnesses can be custom ordered with predetermined connector spacings, or easily created on site to exacting dimensions.

PART#: AVBK-T-CONN (Black)

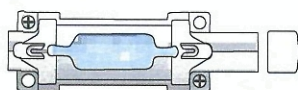


End Caps

Each length of Advantage is provided with a vinyl end cap as a protective insulation over the conductors at the end of a run.

PART#: ECD-WH (White)

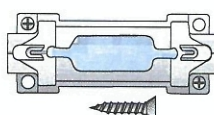
PART#: ECD-BK (Black)



Mounting Screws

Each lamp socket has four mounting holes. Use two screws in opposing corners for secure mounting.

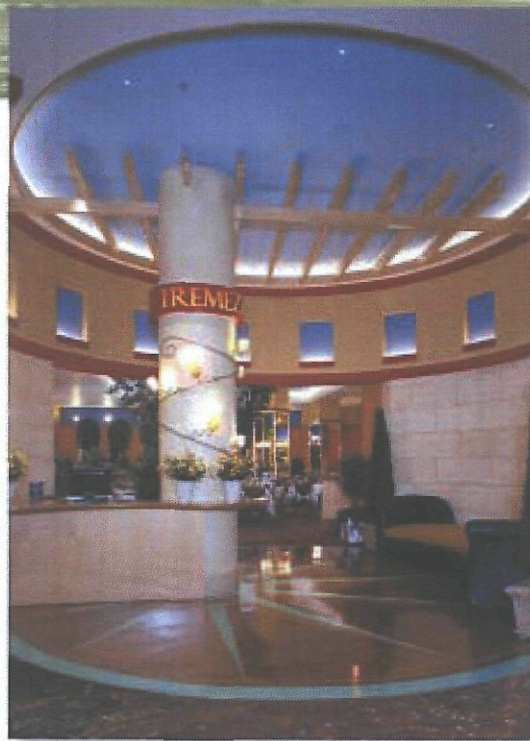
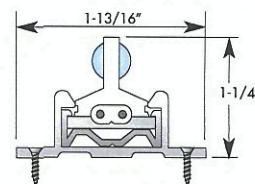
PART#: AV-MS



Channel Clamps

These clamps are for use with our AV-MC mounting channel. The clamps screw in place, and the channel snaps in.

PART#: AV-CL



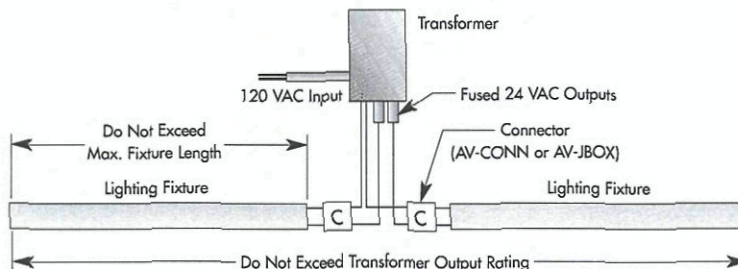
SYSTEM LAYOUT & TRANSFORMERS

System Layout

When designing an Advantage Lighting System, consideration must be given to:

1. Maximum fixture length
2. Load of each transformer output
3. Total load of transformer

Longer runs of product can be operated by centrally locating the transformer and feeding fixtures to either side.



Maximum Fixture Size

The maximum capacity of a fixture must not exceed 20 amps (480 watts @ 24 volts). Run lengths exceeding these limitations will be provided in multiple fixtures, each requiring an independent feed running to the transformer. Additionally, fixtures using 3 watt lamps 4" and 6" O.C. are further restricted in size to prevent excessive voltage drop.

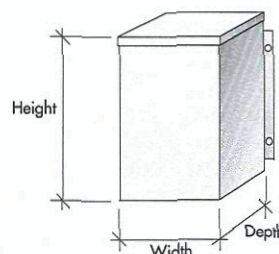
	Watts/Lamp Code		
	5 Watt/101	8.5 Watt/102	3 Watt/103
Maximum Lamps/Circuit	96 Lamps	56 Lamps	160 Lamps
Lamp Spacing	Maximum Lengths		
2.4" O.C.	19.2 FT.	11.2 FT.	32 FT.
3" O.C.	24 FT.	14 FT.	40 FT.
4" O.C.	32 FT.	18.6 FT.	48 FT.
6" O.C.	48 FT.	28 FT.	60 FT.

Transformers

Magnetic Transformers

Transformers are ETL Listed for use with lighting fixtures. These transformers are for use with 120 VAC/60 Hz input. The 24 volt secondary outputs are protected by inherent fuses, with a maximum rating of 20 amps. To determine the proper transformer, multiply the number of lamps by the watts per lamp. For larger transformers (T24-750 & T24-1000), consideration should be given to the maximum capacity of each fused output. Capacities shown are derated by 20%.

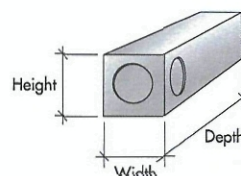
Part#	Output(s)	Approximate Sizes and Weight			
		Depth	Height	Width	Weight
T24-100	1 @ 80 Watts	5"	7"	5"	10 lbs.
T24-150	1 @ 120 Watts	5"	7"	5"	12 lbs.
T24-250	1 @ 200 Watts	5"	7"	5"	16 lbs.
T24-300	1 @ 240 Watts	5"	7"	6"	16 lbs.
T24-500	1 @ 400 Watts	5 1/2"	8"	7"	20 lbs.
T24-600	1 @ 480 Watts	5 1/2"	8"	7"	20 lbs.
T24-750	2 @ 300 Watts	7"	9"	7"	28 lbs.
T24-1000	2 @ 400 Watts	7"	9 1/2"	9"	32 lbs.



Electronic Transformers

Ideal for use where space is limited, we offer two sizes of electronic transformers. These feature auto-reset electronic and short circuit protection, and can be used with a standard incandescent dimmer. Electronic transformers require a minimum load of 50 watts.

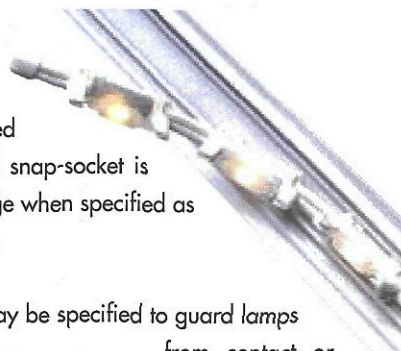
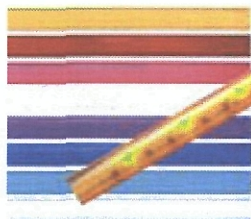
Part#	Output(s)	Approximate Sizes and Weight			
		Depth	Height	Width	Weight
T24-150-E	1 @ 150 Watts	6.5"	1.4"	1.5"	1 lbs.
T24-300-E	1 @ 300 Watts	9.4"	1.4"	1.6"	1.5 lbs.



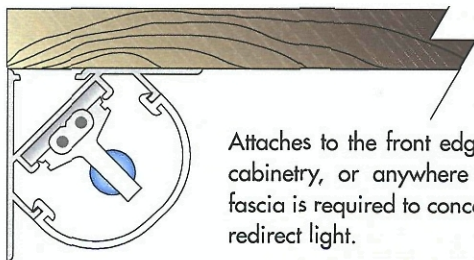
AV CHANNELS

Tokistar's AV Channels are a perfect complement to our popular indirect lighting system. These aluminum profiles offer a convenient and attractive means to expand applications of Advantage in both concealed and exposed applications. A special snap-socket is supplied with Advantage when specified as an AV Channel System.

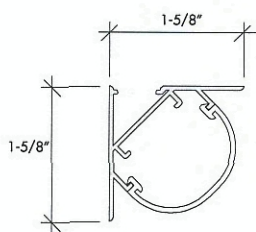
Optional lens covers may be specified to guard lamps from contact or add color. A kelvin-boosting lens is used to increase color temperature. Lens covers are for use with three and five watt lamps only.



AVL Series Channel



Attaches to the front edge of shelving, cabinetry, or anywhere a decorative fascia is required to conceal lamps and redirect light.



AVL Series End Caps

PART #	COLOR
AV-LEC-BK	BLACK
AV-LEC-WH	WHITE
AV-LEC-SV	SILVER

HOW TO SPECIFY

AV - LCH - SA - 4 - 101 - CL

CODE

LCH
CH

MODEL

With Fascia
Without Fascia

CODE

SA
WH
PA
PG

FINISH

Satin Aluminum
Powder-coat White
Polished Aluminum
Polished Gold

CODE

3
4
6

LAMP SPACING

3" O.C.
4" O.C.
6" O.C.

CODE

CL
WH
RD
BL
TL
GL
RS
LV
KB

LENS COVER COLOR

Clear
White
Red
Blue
Teal
Gold
Rose
Lavender
Kelvin Booster

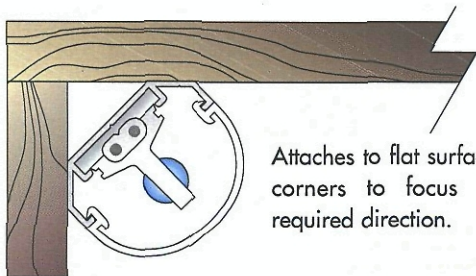
CODE

101
103

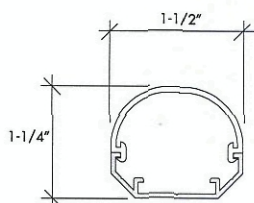
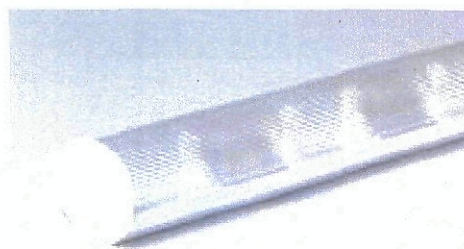
LAMP STYLE

5 WATT
3 WATT

AVC Series Channel



Attaches to flat surfaces, or in 90° corners to focus light in the required direction.



AVC Series End Caps

PART

AV-EC-BK
AV-EC-WH
AV-EC-SV

COLOR

BLACK
WHITE
SILVER

AV CHANNELS

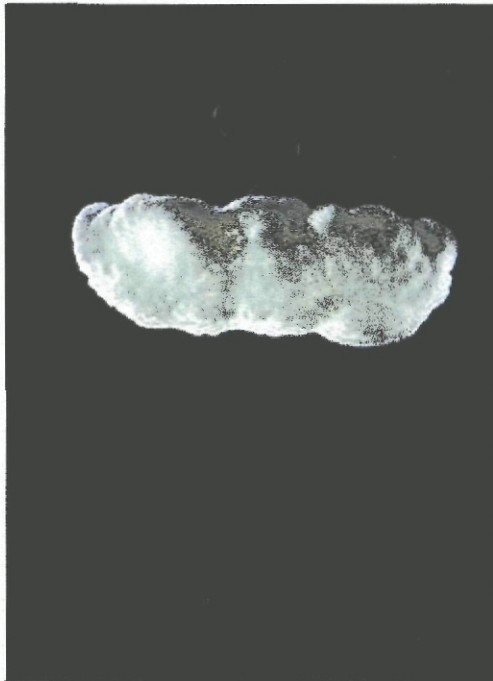
JEFFREY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

TYPE:



STUDIO ITALIA DESIGN USA
 1155 NW 159th Drive
 Miami, FL 33169
 TEL (305) 621 9602
 FAX (786) 513 3721
 www.sid-usa.com



NUVOLA PL

Ceiling mounted luminous life-like cloud made of soft washable and fireproof fabric. This large cloud, illuminated from the inside, softly undulates (resembling a real cloud) powered by four mechanical arms and an internal engine.

LAMPING

 8x230W Dulux Fluorescent A19 MEDIUM BASE

CERTIFICATION



NOTES

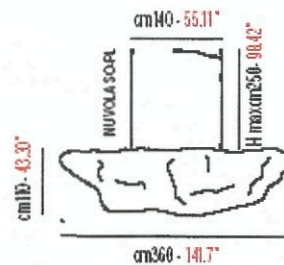
- Mounts to standard 4" junction box
- Lamp not included
- Oversize - Special shipping requirements

FINISH & GLASS

FRAME



PRODUCT DIAGRAM



<http://www.sid-usa.com>

Printed From: www.sid-usa.com

JEFFREY NATHAN LIGHTING DESIGN

399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255

Fax: 347-405-8955

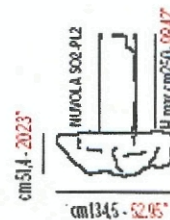
TYPE:

STUDIO ITALIA DESIGN USA
1155 NW 159th Drive
Miami, FL 33169
TEL (305) 621 9602
FAX (786) 513 3721
www.sid-usa.com**NUVOLA PL1**

Ceiling mounted luminous life-like cloud made of soft washable and fireproof fabric. This large cloud, illuminated from the inside, softly undulates (resembling a real cloud) powered by four mechanical arms and an internal engine.

LAMPING
 6x230W Dulux Fluorescent A19 MEDIUM BASE
CERTIFICATION**NOTES**

- Mounts to standard 4" junction box
- Lamp not included
- Oversize - Special shipping requirements

FINISH & GLASS**FRAME****PRODUCT DIAGRAM**
<http://www.sid-usa.com>
Printed From: www.sid-usa.com

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399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255

Fax: 347-405-8955

TYPE:



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1155 NW 159th Drive
Miami, FL 33169
TEL (305) 621 9602
FAX (786) 513 3721
www.sid-usa.com

**NUVOLA PL2**

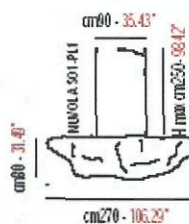
Ceiling mounted luminous life-like cloud made of soft washable and fireproof fabric. This large cloud, illuminated from the inside, softly undulates (resembling a real cloud) powered by four mechanical arms and an internal engine.

LAMPING

4x230W Dulux Fluorescent A19 MEDIUM BASE

CERTIFICATION**NOTES**

- » Mounts to standard 4" junction box
- » Lamp not included
- » Oversize - Special shipping requirements

FINISH & GLASS**FRAME****PRODUCT DIAGRAM**

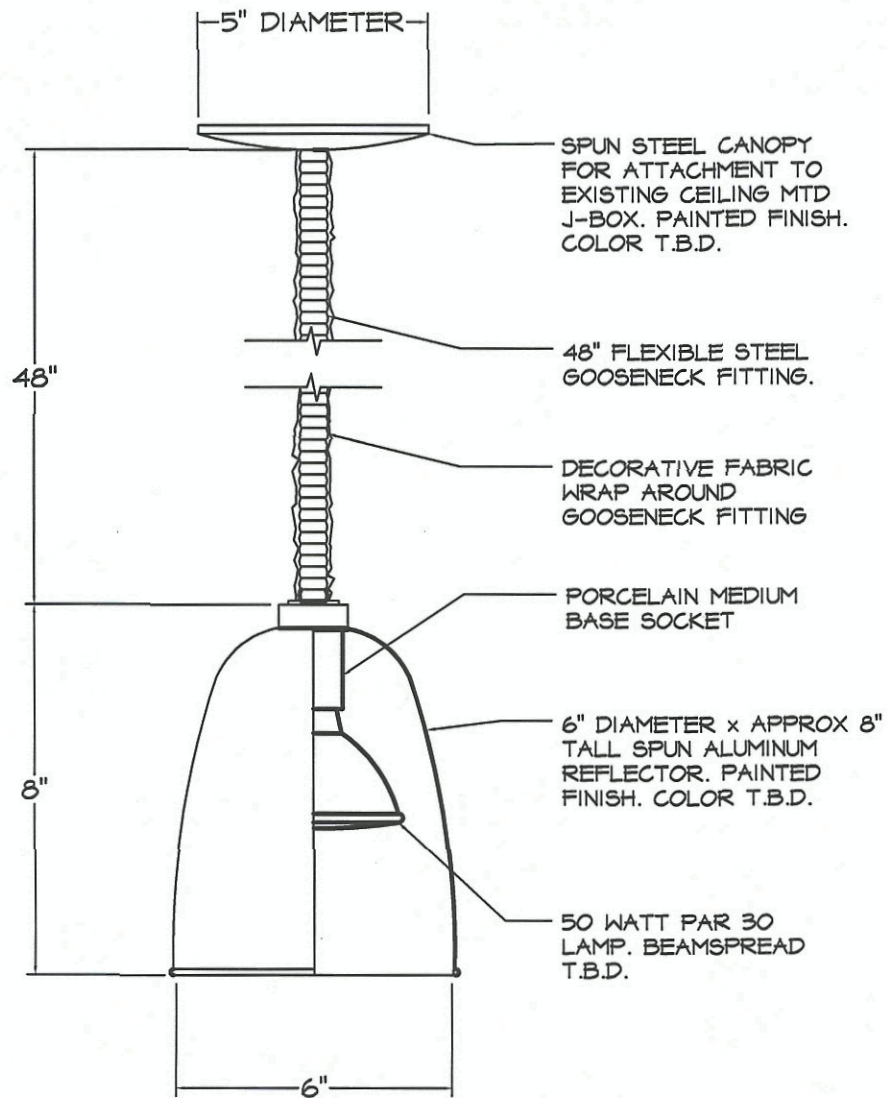
<http://www.sid-usa.com>

Printed From: www.sid-usa.com

JEFFREY NATHAN LIGHTING DESIGN
399 EAST 4th STREET
BROOKLYN, NY 11218

Tel: 718-686-0255
Fax: 347-405-8955

TYPE:



JEFFREY NATHAN
LIGHTING DESIGN LLC

399 East 4th Street
Phone: 718-686-0255 Fax: 347-405-8955
Brooklyn N.Y.
11218

DATE:
7-14-06

SCALE:
3" = 1' 0"

ISSUE:
DD SET

TITLE: PROPOSED GYM GOOSENECK LAMP

PROJECT: MONDRIAN HOTEL - SCOTTSDALE AZ.

DRAWING:

PG



Random Light . Bertjan Pot . 2002



Photographer: Maarten van Houten

A resin drained yarn is randomly coiled around an inflatable mould creating a magic translucent 3-d fabric.

"The random light just happened. Previously I had been knitting with glass fiber which I reinforced with epoxy resin. This didn't work that well because to make something strong you need to create a structure that can guide forces, straight lines for instance. A knitting is made out of hundreds of tiny loops, so knitted glass fiber was not that strong. I had all the materials lying around in my studio and one day I decided to coil the fiber around a big balloon in straight lines. Later I found out that there had been designs for lighting quite similar in the 1970's. This never bothered me. Back then they used PVAg glue and ordinary string. My design is just a turn of the century translation of that. In 30 years glue has been replaced by epoxy resin, string by glass fiber and also the balloons grew quite a bit over 30 years."

material;
epoxy and fibreglass
light fitting;
1 x E27 lightbulb matt
type ø95mm
max 100 Watt

for indoor use

white



dimensions in cm

