



OUTDOOR HIGH PERFORMANCE FLOOD-LIGHTING



Contrast R
Pages 2-4



Contrast C
Pages 5-8



**Contrast
Pinpoint**
Pages 9-11



Qba
Pages 12-13



Band
Pages 14-15



CSI
Pages 16-18



Mundial
Pages 19-21



Champion
Pages 22-25



Orus
Pages 26-27

THORN

Contrast R

THORN

A high performance symmetrical floodlight available in three sizes with a wide selection of front glasses, refractors and attachments (UL/CSA listed for indoor/outdoor use, wet location)

Design:

- Neat appearance retained across range, with integral ballast for lamps from 39W to 400W
- Wide selection of attachments, which can be used in combination, allows for a variety of beam distributions
- Front glasses and refractors can be rotated to give alignment of the beam profile to suit the application
- Aiming simplified by indicator on yoke, with facility to lock memory position
- Yoke mount allows base support or suspension
- Hinged frame for easy access to light source. Lamp replacement possible without disturbing aiming angle or removing attachments
- Brackets available to offer mounting on vertical surface and retain full adjustment in both planes



Size 0



Size 1



Size 2

Materials/Finish

Body: Copper free die-cast aluminum, textured grey powder coated finish (close to RAL 9007). Alternative RAL colors on request.
Front lenses: 0.15" tempered glass.
Attachment retaining screws: nickel plated brass.
Reflector: specular MH or satin HPS anodized aluminum.

Installation/Mounting

Floodlight is fully adjustable on a short yoke. Yoke fixed to mount by central bolt hole 0.86" Ø, and 2 x 0.59" Ø holes at 3.93" either side of centre. Aiming simplified by indicator on yoke, locked via central 0.31" Ø Allen screw. Easy access to lamp via two Allen screws. Lamp replacement possible without removing attachments. Ballast compartment, with rear access panel, fixed below body. Entry via two Allen screws. Cable gland for 0.29"-0.51" Ø cable. Additional knock out provided for through wiring.

Specification

To specify state:
Symmetrical distribution floodlight, in choice of 3 sizes to accommodate 39W to 400W lamps, IP65 protected, integral ballast, and optional control attachments. As Thorn Contrast R.



Griffith Observatory

Photography: Mark Dell'Aquila

Prismatic Glasses



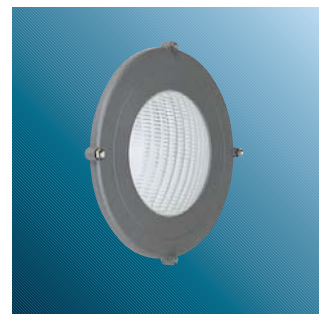
OMS—Stippled glass with narrow symmetrical beam



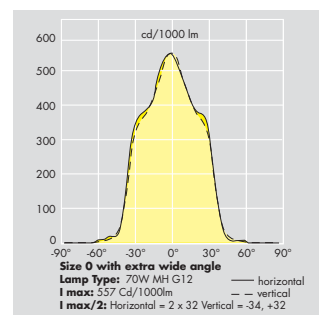
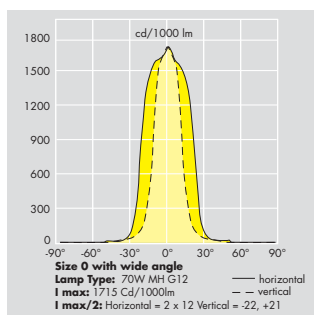
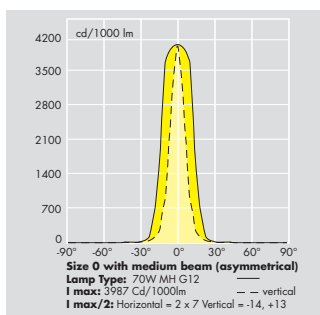
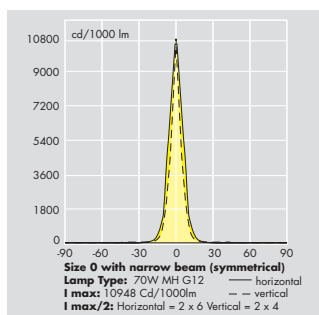
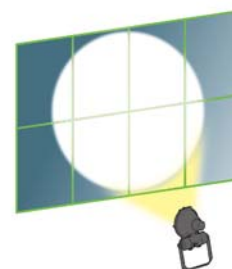
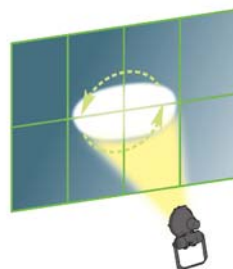
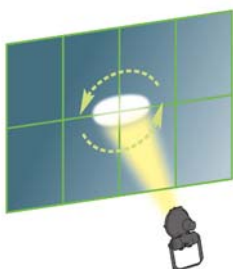
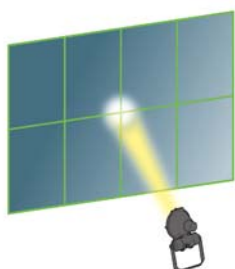
OMP—Prismatic glass with medium asymmetrical beam



OMW—Prismatic glass with wide angle asymmetrical beam



OME—Prismatic glass with extra wide angle symmetrical beam



Ordering Guide (Size 0 Small)

Description	Size Small	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	R0	39	MH	G12	96002487
CON	R0	50	MH	G12	96002487
CON	R0	70	MH	G12	96002487
CON	R0	50	MH	MED	96002487
CON	R0	70	MH	MED	96002487
CON	R0	39	HPS	MED	96002487
CON	R0	50	HPS	MED	96002487
CON	R0	70	HPS	MED	96002487

Note: HPS fixtures available with medium base only.

Ordering Guide (Size 1 Medium)

Description	Size 1 Medium	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	R1	70	MH	G12	96002441
CON	R1	100	MH	G12	96002441
CON	R1	150	MH	G12	96002441
CON	R1	70	MH	MED	96002441
CON	R1	100	MH	MED	96002441
CON	R1	150	MH	MED	96002441
CON	R1	175	MH	MED	96002441
CON	R1	200	MH	MED	96002441
CON	R1	70	HPS	MED	96002441
CON	R1	100	HPS	MED	96002441
CON	R1	150	HPS	MED	96002441

Ordering Guide (Size 2 Large)

Description	Size 2 Large	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	R2	70	MH	MOG	9600214
CON	R2	100	MH	MOG	9600214
CON	R2	150	MH	MOG	9600214
CON	R2	175	MH	MOG	9600214
CON	R2	250	MH	MOG	9600214
CON	R2	400	MH	MOG	9600214
CON	R2	150	HPS	MOG	9600214
CON	R2	200	HPS	MOG	9600214
CON	R2	250	HPS	MOG	9600214
CON	R2	400	HPS	MOG	9600214

Refractors



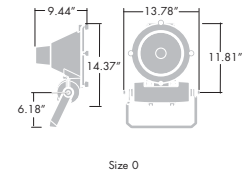
R1 Vitro ceramic glass with medium wide asymmetric



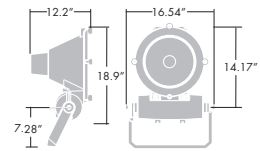
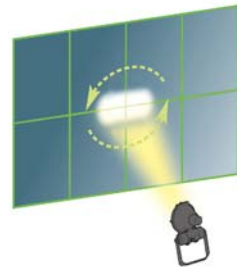
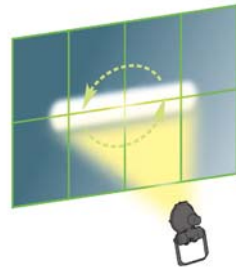
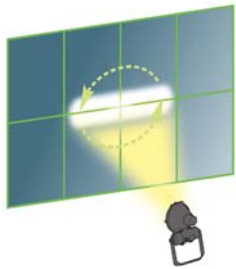
R2 Tempered glass with wide angle asymmetric beam



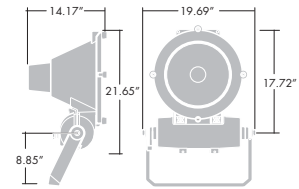
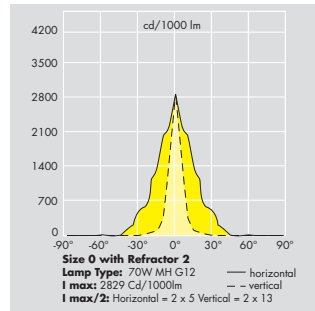
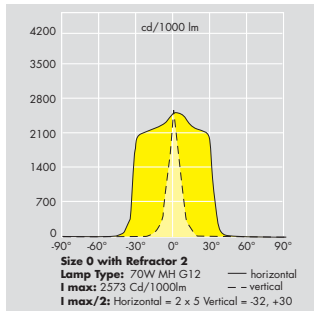
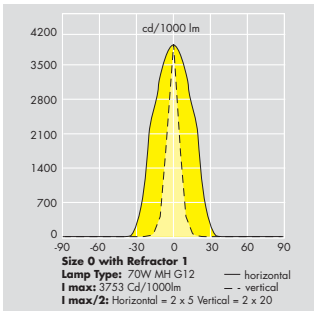
R3 Tempered glass with narrow/medium asymmetric beam



Size 0



Size 1



Size 2

Ordering Guide Lamps to be ordered separately. For complete fitting please order ballast tray, floodlight and attachment

Attachments							
Description		Size 0 Wt (lb)	Size 0 SAP Code	Size 1 Wt (lb)	Size 1 SAP Code	Size 2 Wt (lb)	Size 2 SAP Code
Color Filters							
CON R FILTER/BLU	BLUE	1.98	96002493	2.64	96002455	3.53	96002420
CON R FILTER/GRN	GREEN	1.98	96002494	2.64	96002456	3.53	96002419
CON R FILTER/RED	RED	1.98	96002495	2.64	96002458	3.53	96002421
CON R FILTER/YEL	YELLOW	1.98	96002496	2.64	96002457	3.53	96002422
Consult factory for custom colors							
Refractors							
CON R1	NO 1	2.2	96002500	3.08	96002462	4.18	96001962
CON R2	NO 2	2.2	96002501	3.08	96002463	4.18	96002417
CON R3	NO 3	2.2	96002502	3.08	96002464	4.18	96001964
Prismatic Glasses							
CON R (OMS)	NARROW	2.2	96002503	3.08	96002465		
CON R (OMP)	MEDIUM	2.2	96002504	3.08	96002466		
CON R (OMW)	WIDE	2.2	96002505	3.08	96002467		
CON R (OME)	EXTRA WIDE	2.2	96002506	3.08	96002468		
CON C AGS (x1)**	BARN DOOR**	0.66	96002507	1.32	96002471	1.32	96002438
CON R LV	FIXED LOUVRE	1.54	96002508	2.2	96002469	2.2	96002415
CON R LV/AJ	ADJUSTABLE LOUVRE	1.54	96005841	2.2	96005838	2.2	96005839
CON R WG	WIRE GUARD	1.54	96002511	2.42	96002473	3.08	96002431
CON R FILTER/FR	SAND BLASTED GLASS	1.98	96002512	3.08	96002474	3.96	96002418
CON R VS	VISOR	0.88	96002516	1.32	96002518	1.76	96002520
Accessories							
CONTRAST BRA LG	LONG YOKE (984" - SIZE 0, 11.81" - SIZE 1 and 13.78" - SIZE 2)		96216177		96216176		96216178

** SAP No - Cat.No. supplies one baffle (for four baffles order four Barn doors)

Contrast C

THORN

A high performance asymmetrical floodlight available in three sizes with two types of reflector and a wide selection of refractors and accessories (UL/CSA listed for indoor/outdoor use, wet location)

Design:

Additional options are available for sports, wide building façades and street lighting.

- Neat appearance retained across range, with integral ballast for lamps from 39W to 400W
- Front glasses and refractors can be rotated to give alignment of the beam profile to suit the application
- Aiming simplified by indicator on yoke, with facility to lock memory position
- Yoke mount allows base support or suspension
- Hinged frame for easy access to light source. Lamp replacement possible without disturbing aiming angle or removing attachments
- Brackets available to offer mounting on vertical surface and retain full adjustment in both planes
- All accessories are stackable



Size 2



Size 1



Size 0

Materials/Finish

Body: Copper free die-cast aluminum, textured grey powder coated finish (close to RAL 9007). Alternative RAL colors on request. Front lenses: 0.16" tempered glass. Attachment retaining screws: Nickel plated brass. Reflector: Specular MH or satin HPS anodized aluminum.

Installation/Mounting

Floodlight is fully adjustable on a short yoke. Aiming simplified by indicator on yoke, locked via central 0.31" Ø Allen screw. Easy access to lamp via two Allen screws. Lamp replacement possible without removing attachments.

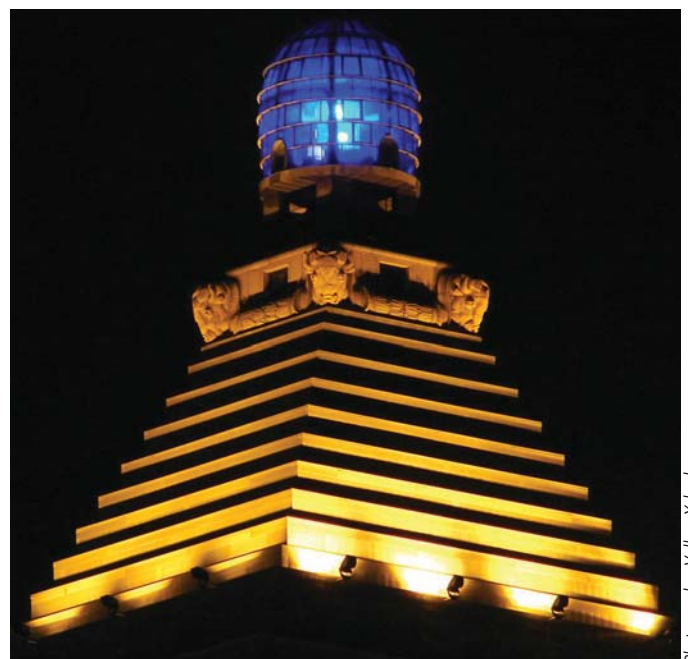
Ballast compartment, with rear access panel, fixed below body. Entry via two Allen screws. Cable gland for 0.29"-0.51" Ø cable. Additional knock out provided for through wiring.

Specification

To specify state. Asymmetrical distribution floodlight, in choice of 3 sizes to accommodate 39W to 400W lamps, IP65 protected, integral ballast, and optional control attachments. As Thorn Contrast C.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



Britannica Building

Lighting Design: Shuler Shook

Photography: Volkan Yuktisel

Refractors



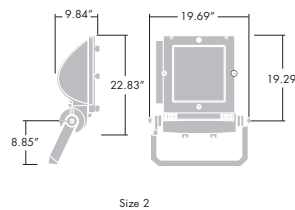
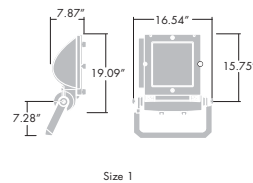
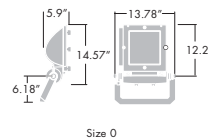
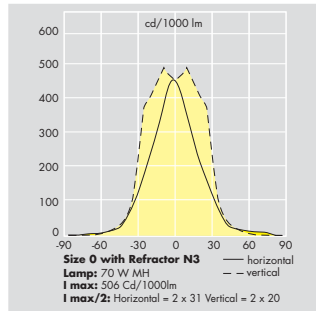
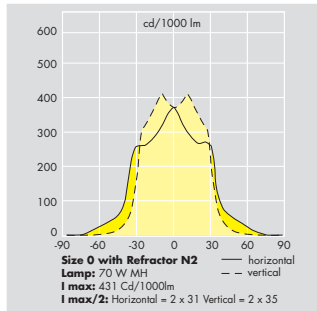
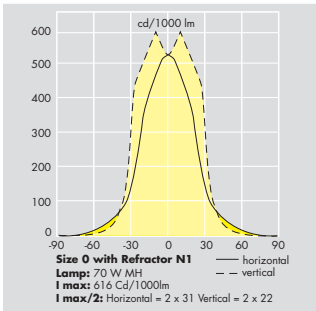
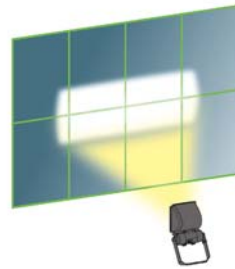
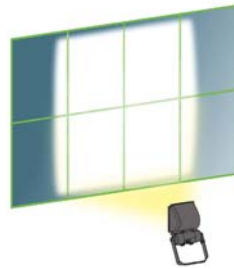
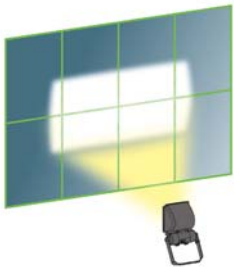
No.1



No.2



No.3



Ordering Guide (Size 0 Small)

Description	Size 0 Small	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	C0	39	MH	G12	96005832 Symmetric
CON	C0	50	MH	G12	96005832 Symmetric
CON	C0	70	MH	G12	96005832 Symmetric
CON	C0	39	MH	MED	96005832 Symmetric
CON	C0	50	MH	MED	96005832 Symmetric
CON	C0	70	MH	MED	96005832 Symmetric
CON	C0	39	MH	G12	96005830 Asymmetric
CON	C0	50	MH	G12	96005830 Asymmetric
CON	C0	70	MH	G12	96005830 Asymmetric
CON	C0	39	MH	MED	96005830 Asymmetric
CON	C0	50	MH	MED	96005830 Asymmetric
CON	C0	70	MH	MED	96005830 Asymmetric
CON	C0	39	HPS	MED	96005832 Symmetric
CON	C0	50	HPS	MED	96005832 Symmetric
CON	C0	70	HPS	MED	96005832 Symmetric
CON	C0	39	HPS	MED	96005830 Asymmetric
CON	C0	50	HPS	MED	96005830 Asymmetric
CON	C0	70	HPS	MED	96005830 Asymmetric

Note: HPS fixtures available with medium base only.

Ordering Guide (Size 1 Medium)

Description	Size 1 Small	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	C1	70	MH	G12	9600244 Symmetric
CON	C1	100	MH	G12	9600244 Symmetric
CON	C1	150	MH	G12	9600244 Symmetric
CON	C1	70	MH	G12	96002448 Asymmetric
CON	C1	100	MH	G12	96002448 Asymmetric
CON	C1	150	MH	G12	96002448 Asymmetric
CON	C1	70	MH	MED	9600244 Symmetric
CON	C1	100	MH	MED	9600244 Symmetric
CON	C1	150	MH	MED	9600244 Symmetric
CON	C1	70	MH	MED	96002448 Asymmetric
CON	C1	100	MH	MED	96002448 Asymmetric
CON	C1	150	MH	MED	96002448 Asymmetric
CON	C1	70	HPS	MED	9600244 Symmetric
CON	C1	100	HPS	MED	9600244 Symmetric
CON	C1	150	HPS	MED	9600244 Symmetric
CON	C1	70	HPS	MED	96002448 Asymmetric
CON	C1	100	HPS	MED	96002448 Asymmetric
CON	C1	150	HPS	MED	96002448 Asymmetric

Ordering Guide (Size 2 Large)

Description	Size Small	Wattage	Lamp Type	Base	Fixture Shell SAP Code
CON	C2	175	MH	MOG	96005827 Symmetric
CON	C2	250	MH	MOG	96005827 Symmetric
CON	C2	400	MH	MOG	96005827 Symmetric
CON	C2	175	MH	MOG	96005824 Asymmetric
CON	C2	250	MH	MOG	96005824 Asymmetric
CON	C2	400	MH	MOG	96005824 Asymmetric
CON	C2	150	MH	MOG	96005827 Symmetric
CON	C2	250	MH	MOG	96005827 Symmetric
CON	C2	400	MH	MOG	96005827 Symmetric
CON	C2	150	MH	MOG	96005824 Asymmetric
CON	C2	250	MH	MOG	96005824 Asymmetric
CON	C2	400	MH	MOG	96005824 Asymmetric

Attachments		Size 0		Size 1		Size 2	
		Weight (lb)	SAP Code	Weight (lb)	SAP Code	Weight (lb)	SAP Code
Color Filters							
CONTRAST C FILTER/BLU	BLUE	1.1	96002491	2.86	96002451	3.75	96002428
CONTRAST C FILTER/GRN	GREEN	1.1	96002492	2.86	96002452	3.75	96002427
CONTRAST C FILTER/RED	RED	1.1	96005835	2.86	96002454	3.75	96002429
CONTRAST C FILTER/YEL	YELLOW	1.1	96005834	2.86	96002453	3.75	96002430
Refractors							
CONTRAST C R1	NO 1	1.98	96002497	2.86	96002459	4.2	96002423
CONTRAST C R2	NO 2	2.2	96002498	3.53	96002460	4.85	96002424
CONTRAST C R3	NO 3	1.1	96002499	3.08	96002461	4.85	96002425
CONTRAST C AGS (x1)*	BARN DOOR*	0.66	96002507	1.32	96002471	1.32	96002438
CONTRAST C LV	FIXED LOUVRE	0.44	96002509	2.2	96002470	2.65	96002416
CONTRAST C LV/AJ	ADJUSTABLE LOUVRE	1.1	96005836	2.2	96005842	2.2	96005829
CONTRAST C WG	WIRE GUARD	1.1	96002510	2.421	96002472	1.1	96002432
CONTRAST C FILTER/FR	SAND BLASTED GLASS	2.2	96002513	3.08	96005823	4.41	96002426
CONTRAST C VS	VISOR	0.66	96002515	1.54	96002517	2.2	96002519
Accessories							
CONTRAST I BRA LG	LONG YOKE		96216177		96216176		96216178

*SAP No/Cat.No. supplies one baffle (for four baffles order four Barn doors).

Contrast C Wide Angle

Floodlight based on Contrast C size 2, with an optical system to give extra wide distribution, for illumination of façades

(UL/CSA listed for indoor/outdoor use, wet location)

- Optic adapted to give extra wide angle beam for façade lighting
- Optic design allows wide coverage of façade from close off-set positions
- High uniformity

Materials/Finish

Body: Copper free die cast aluminum, textured grey powder coated finish (close to RAL 9007). Alternative RAL colors on request.
Front lenses: 0.16" tempered glass.
Attachment retaining screws: Nickel plated brass.
Reflector: Specular MH or satin HPS anodized aluminum.

Installation/Mounting

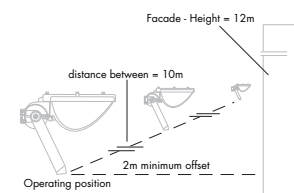
Floodlight is fully adjustable on a short yoke. Aiming simplified by indicator on yoke, locked via central 0.31" Ø Allen screw. Easy access to lamp via two Allen screws. Lamp replacement possible without removing attachments. Control ballast compartment, with rear access panel, fixed below body.

Specification

To specify state:
Asymmetrical floodlight with optic to give extra wide distribution, IP65 protected, 150W integral ballast, and optional control attachments. As Thorn Contrast C Wide Angle.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



Ordering Guide

New Description	Socket	Wt (lb)	SAP Code
			Floodlight
CONTRAST C2/EXT 150W MH	G12	33.33	96002414
CONTRAST C2/EXT 150W MH	MOG	33.33	96002413
CONTRAST C2/EXT 150W HPS	MOG	33.33	96002413

Contrast Pinspot

THORN

A precision floodlight for halogen and metal halide lamps with a selection of glasses and attachments

- Ideal for precise lighting of sculptures, plants, trees or signage, or the emphasis of architectural detail
- Sealed to IP65
- Glasses and attachments can be used in combination for a variety of beam distributions
- Surface or stem mounting
- Large base houses transformer or control ballast



Pinspot small base with glass refractor and louvre (SBRA-Short Stem) (SPL-Small Base)



Large base (LPL)



11.8" stem (LBRA)

Materials/Finish

Body: Copper free die-cast aluminum, textured grey powder coated finish (close to RAL 9007). Alternative RAL colors on request.

Front lenses: .15" tempered glass.

Attachment retaining screws: nickel plated brass.

Ground spike: recyclable polypropylene. Fixing bolts and screws: stainless steel.

Installation/Mounting

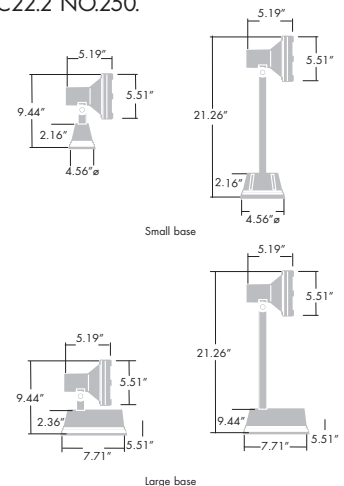
Floodlight rotates 360° around its axis. Locked by two .15" Ø screws. Easy access to lamp via four screws which fix the protective glass. Fixing to wall or surface by two screw holes in the base. After installing ballast plate the body fixes (by three Allen screws) giving automatic electrical connection.

Specification

To specify state. Small surface or stem mounting mains voltage floodlight, IP65 protected, integral ballast, and with choice of color filters and beam control attachments. As Thorn Contrast Pinspot.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



Ordering Guide

Lamps to be ordered separately

New Description	Socket	Weight (lb)	SAP Code
PINSPOT SBRA 50/75W QPAR16 SPL QUARTZ HALOGEN	GU10	6.6	96002714
PINSPOT LBRA 50/75W QPAR16 SPL QUARTZ HALOGEN	GU10	7.72	96002715
PINSPOT SBRA 75/100W QPAR30 SPL QUARTZ HALOGEN	Med.	6.6	96005818
PINSPOT LBRA 75/100W QPAR30 SPL QUARTZ HALOGEN	Med.	7.72	96005815
PINSPOT SBRA 50W 12V QR-CB51 LPL QUARTZ HALOGEN	GU5.3	9.48	96005817
PINSPOT LBRA 50W 12V QR-CB51 LPL QUARTZ HALOGEN	GU5.3	10.58	96005814
PINSPOT SBRA 50W 12V QR70 LPL QUARTZ HALOGEN	Ba15d	9.26	96002712
PINSPOT LBRA 50W 12V QR70 LPL QUARTZ HALOGEN	Ba15d	10.36	96002713
PINSPOT SBRA 35W HIPAR20 LPL MH	Med.	9.48	96002716
PINSPOT LBRA 35W HIPAR20 LPL MH	Med.	10.58	96002717

Note: SBRA - short stem, LBRA - long 300mm stem, SPL - small base, LPL - large base

Attachments

Color Filters

PINSPOT FILTER/BLU	0.79	96002478
PINSPOT FILTER/GRN	0.79	96002481
PINSPOT FILTER/RED	0.79	96002479
PINSPOT FILTER/YEL	0.79	96002480

Prismatic Glasses and Accessories

PINSPOT GL A/S SINT (OMP)	MEDIUM GLASS	0.11	96002724*
PINSPOT GL A/S EXT (OMW)	WIDE GLASS	0.11	96002725*
PINSPOT AGS (x4)	BARN DOORS (1 PIECE)	0.22	96002475
PINSPOT LV	FIXED LOUVRES	0.33	96002476
PINSPOT VS	VISOR	0.33	96002477
PINSPOT MGS	GROUND SPIKE	1.1	96002718

* Substitute for existing glass, retaining existing gasket.

Contrast Mini Pinspot

THORN

A miniature floodlight for 20W metal halide, halogen capsule lamps or LED cluster with a selection of glasses and attachments (UL/CSA listed for indoor/outdoor use, wet location)



Large base (LPL)

- Ideal for precise lighting of sculptures, plants, trees or signage, or the emphasis of architectural detail
- Sealed to IP65
- Glasses and attachments can be used in combination for a variety of beam distributions
- Surface mounting
- Large base houses electronic ballast
- Choice of reflectors, (intensive): 6° (extensive): 14°
- LED version with 3 x 1W LED PCB cluster in choice of five colors - white, blue, green, red and yellow

Consult factory for RGB network DMX

Materials/Finish

Body: Copper free die-cast aluminum, textured grey powder coated finish (close to RAL 9007) Alternative RAL colors on request
 Front lenses: 0.15" toughened glass
 Attachment retaining screws: nickel plated brass
 Reflector: for narrow or wide beams
 Ground spike: recyclable polypropylene
 Fixing bolts and screws: stainless steel

Installation/Mounting

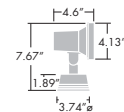
Floodlight rotates 360° around its axis. Locked by two 0.15" Ø screws. Easy access to lamp via four screws which fix the protective glass. Fixing to wall or surface by two screw holes in the base. After installing ballast plate the body locates (by three Allen screws) giving automatic electrical connection. Cable gland for 0.31" - 0.39" Ø cable. Additional knockout provided for through wiring on large base only.

Specification

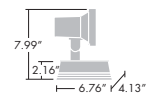
To specify state. Miniature surface mounting mains voltage floodlights, with choice of reflector (intensive/extensive), integral ballast, IP65 protection, and with choice of color filters and beam control attachments. As Thorn Contrast Mini Pinspot.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



Small base



Large base

Ordering Guide

Lamps to be ordered separately, except LED versions

New Description	Weight (lb)	SAP Code
MINIPIN 20W HID-TC-CE L INT INTENSIVE METAL HALIDE	2.82	96009852
MINIPIN 20W HID-TC-CE L EXT EXTENSIVE METAL HALIDE	2.82	96009853
MINIPIN 25/40W QT14CL S INT QUARTZ HALOGEN	1.83	96009854
MINIPIN 25/40W QT14CL S EXT QUARTZ HALOGEN	1.83	96009855
MINIPIN 35W 12V QT12 S INT QUARTZ HALOGEN	1.94	96009856
MINIPIN 35W 12V QT12 S EXT QUARTZ HALOGEN	1.94	96009857
MINIPIN ROT 3W 3LED WHI S INT	2.05	96200738
MINIPIN ROT 3W 3LED BLU S INT	2.05	96200735
MINIPIN ROT 3W 3LED RED S INT	2.05	96200734
MINIPIN ROT 3W 3LED GRN S INT	2.05	96200736
MINIPIN ROT 3W 3LED YEL S INT	2.05	96200737

L - Large rectangular base, S - Small round base
 INT - Intensive reflector, EXT - Extensive reflector
 WHI - White, BLU - Blue, GRN - Green, YEL - Yellow

Attachments			
New Description		Weight (lb)	SAP Code
MINIPIN GL/FR	ETCHED FROSTED GLASS	0.11	96009858*
MINIPIN GL (OMW)	OMW WIDE LENS	0.13	96009859*
MINIPIN GL (OMP)	OMP MEDIUM LENS	0.13	96009860*
MINIPIN MGS	GROUND SPIKE	0.31	96009861
MINIPIN FILTER/BLU	BLUE FILTER	0.13	96009862
MINIPIN FILTER/GRN	GREEN FILTER	0.13	96009864
MINIPIN FILTER/RED	RED FILTER	0.13	96009863
MINIPIN FILTER/YEL	YELLOW FILTER	0.13	96009865

* Substitute for existing glass, retaining existing gasket.

Contrast Attachments

THORN

Contrast offers a large choice of attachments with a clever fixing system, allowing them to superimpose one on the other and combine with the refractor glasses to offer a variety of lighting effects

Fixture Mounting

All attachments are supplied with a mounting frame which attaches via 2 or 4 nickel plated or stainless steel screws arranged symmetrically on the face of the frame. These allow any number of attachments to be mounted together, one on the other. Note: Where louvre attachments are required for use with Contrast

R floodlights employing Prismatic glasses two 'empty' attachment frames are required, select either size 0: CONROAF size 1: CONR1AF

Spill Shields

Anti-light spill shields are available, to fit between body and accessory frames, for very sensitive areas. Cat. No./SAP Code supplies 2 shields.

Pinspot/Mini Pinspot



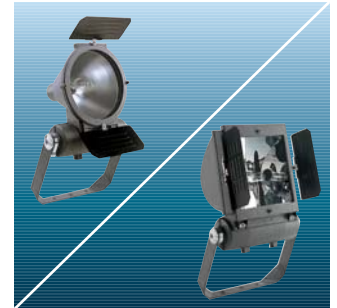
Louvre



Visor



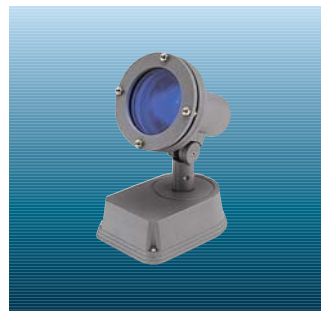
Sand Blasted Glass - Provides 'softer', more diffused lighting effect



Barn Doors - To cut-off the intensity in the horizontal or vertical plane. Adjustable and lockable



Anti-Glare Louvres - Adjustable louvre for Contrast R and C



Color Filter



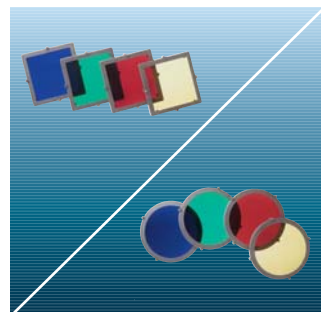
Ground Spike



90° Fixed Louvre for all versions



Wire Guard - Grill protecting glass against shocks



Color Filters - Selection in blue, red, yellow and green. Supplied mounted in fixing frame



Aluminum visor. Can be mounted in four positions

Ordering Guide

New Description	Size 0 SAP Code	Size 1 SAP Code	Size 2 SAP Code
Spill Shields			
Contrast R ASC	96216220	96216221	96012353
Contrast C ASC	96216222	96216223	96216224

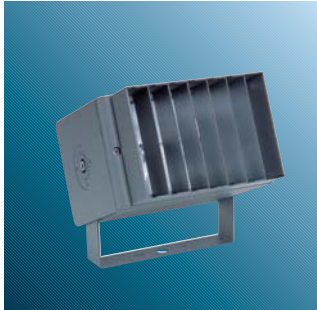
Qba

THORN

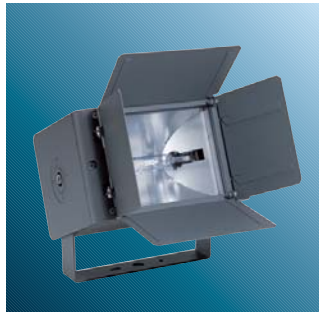
A compact discharge floodlight for architectural lighting, available in two sizes, with a choice of beam patterns, and a full range of accessories



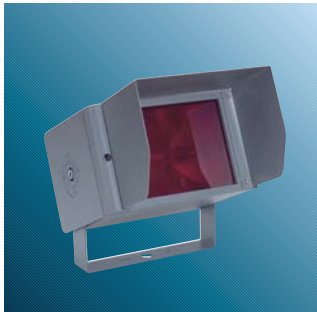
Wire guard



Louvre



Barn doors



Red filter + visor

- Rectangular compact projector with smooth edges and concealed yoke, in die-cast aluminum
- Two body sizes
- All versions have integral ballast
- Two available beam patterns, produced by precision reflector systems: circular reflector in intensive or extensive symmetrical distributions, and linear cylindrical parabolic reflector in asymmetrical or double asymmetrical distributions
- Aiming simplified by indicator on yoke
- Choice of light sources: metal halide or high pressure sodium
- Wide selection of attachments, which can be superimposed one on the other to offer a variety of lighting effects
- Two new refractor versions available to enlarge the beam horizontally and vertically
- Easy access to lamp, without removing attachments

Custom RAL colors available

Materials/Finish

Body: die-cast aluminum, grey powder coated close to RAL 9007.

Body screws: stainless steel.

Front lenses: 0.16" tempered glass.

Attachment retaining screws: nickel plated brass.

Installation/Mounting

Floodlight is fully adjustable on a short yoke. Aiming simplified by indicator on yoke, locked via central 0.31" Ø Allen screw.

Easy access to lamp via two Allen screws. Lamp replacement possible without removing attachments. Cable gland for 0.29"-0.51" Ø cable. Additional knockout provided for through wiring.

Specification

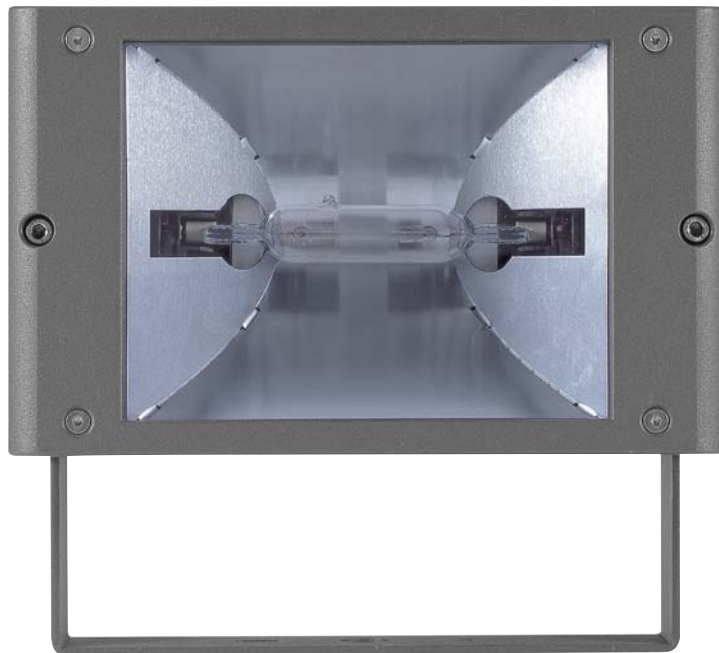
To specify state:

Rectangular, compact floodlight with concealed yoke, in die-cast aluminum with asymmetric/symmetric/intensive optical system for 39W/70W/150W MH G12 or Rx7 double ended lamps. Sealed to IP66. As Thorn Qba.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.

Electronic Ballast

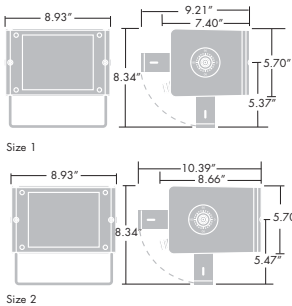


Ordering Guide Lamps to be ordered separately.

New Description		Socket	Weight (lb)	SAP Code
Size 1				
QBA 1 39W MH R/S EXT	WIDE DISTRIBUTION	G12	10.36	96012216
QBA 1 39W MH R/S INT	NARROW DISTRIBUTION	G12	10.36	96012218
QBA 1 70W MH R/S EXT	WIDE SYMMETRIC DISTRIBUTION	G12	10.8	96012212
QBA 1 70W MH R/S INT	NARROW DISTRIBUTION	G12	10.8	96012214
QBA 1 70W MH-DE A/S	ASYMMETRIC DISTRIBUTION	RX7	10.8	96012208
QBA 1 70W MH-DE S/S	SYMMETRIC DISTRIBUTION	RX7	10.8	96012210
QBA 1 70W MH-DE A/S	ASYMMETRIC DISTRIBUTION	RX7	10.8	96012204
QBA 1 70W MH-DE S/S	SYMMETRIC DISTRIBUTION	RX7	10.8	96012206
Size 2				
QBA 2 150W MH R/S EXT	ASYMMETRIC DISTRIBUTION	G12	13.9	96012220
QBA 2 150W MH R/S INT	SYMMETRIC DISTRIBUTION	G12	13.9	96012222
QBA 2 150W MH-HST-DE A/S	WIDE DISTRIBUTION	RX7	13.9	96012224
QBA 2 150W MH-HST-DE S/S	NARROW SYMMETRIC DISTRIBUTION	RX7	13.9	96012226

*Note: Size 1 and 2 projectors have same size face, therefore attachments fit either version

New Description		SAP Code
Attachments		
QBA AGS (X4)	BARN DOOR (SET OF 4)	96012230
QBA BLUE FILTER		96012232
QBA GREEN FILTER		96012234
QBA RED FILTER		96012233
QBA YELLOW FILTER		96012235
QBA LV	LOUVRE	96012231
QBA VS	VISOR	96012228
QBA SHORT YOKE		96012236
QBA WG	WIRE GUARD	96012229
QBA FILTER REFR 555B H	REFRACTOR RIBBED HORIZONTALLY	96220098
QBA FILTER REFR 555B V	REFRACTOR RIBBED VERTICALLY	96220097



NSW Rural Fire HQ, Rosehill, NSW



FR © Didier Morel

Band Linear LED

THORN

A miniature one dimensional row of LED's emitting a razor sharp light, ideal for illuminating walls

- Slim linear LED luminaire
 - Superb uniform broad band illumination
 - Innovative unique optical reflector system to give high output and uniformity
 - Weatherproofed to IP67
 - Choice of color light output
 - 'RGB' color change technology to order
 - Two mounting options - surface mounting, supplied with wall brackets, offers angular adjustment for façade lighting and recessed mounting, supplied with housing, for guidance lighting applications
 - Tempered glass enclosure
- Adjustments on site have to be defined with high precision to ensure the light distribution is linear.



Copyright: Patrick Rimoux

Materials/Finish

Body/Frame: extruded aluminum textured grey powder coated finish (close to RAL 9007). Other powder coated RAL colors available on request.
 Reflector: bandoxal aluminum.
 End caps: aluminum (wall versions) or injected aluminum (recessed versions).
 Glass: tempered glass 6mm.
 Gasket: silicone.
 Brackets: galvanized steel, finished in textured grey powder coated paint (close to RAL 9007).
 Recessed housing (for ground versions): stainless steel.

Installation/Mounting

Suitable for surface, recessed ground or recessed ceiling.
 1 glanded cable entry. Through wiring possible.
 Surface installation: product supplied with 2 tiltable brackets which slide along the length of the body and fix the luminaire on to the wall with 2 M4 screws.
 Possible adjustment of the distance between luminaire and wall. Transformer fixed with a support and 2 M4 screws, either beneath, on the side or back of the floodlight.

Recessed ground installation: the transformer can be installed in the recessed housing kit supplied with the floodlight.

Specification

To specify state: Linear design outdoor application, wall surface or ground/ceiling recessed installation LED luminaire, sealed to IP67. With a choice of color or RGB employing LED light source.

Certification

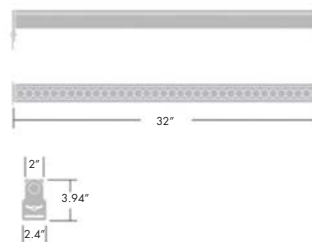
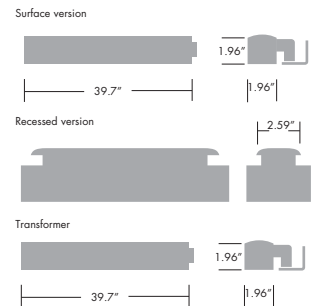
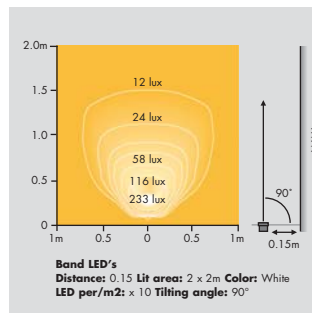
Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



Ordering Guide

New Description	Weight (lb)	SAP Code
Surface Version		
BAND MWA WHI 1m (5500K)	5.51	96200712
BAND MWA BLU 1m	5.51	96200713
BAND MWA RED 1m	5.51	96200714
BAND MWA YEL 1m	5.51	96200715
BAND MWA GRN 1m	5.51	96200716
Recessed Version		
BAND MRE WHI 1m (5500K)	11.24	96200717
BAND MRE BLU 1m	11.24	96200718
BAND MRE RED 1m	11.24	96200719
BAND MRE YEL 1m	11.24	96200720
BAND MRE GRN 1m	11.24	96200721

WHI - white, BLU - blue, RED - red, YEL - yellow, GRN - green
 RGB versions available to order



CSI Sunspot (150W G12 MH)

THORN

A narrow beam, high intensity projector for feature lighting employing metal halide or tungsten halogen lamps

(ETL listed and certified for UL 1598 and CSA C22.2 No. 250.0 standards)



- Particularly suitable for lighting bridges, statues, towers, flag poles, churches and signs
- Variation in beam achieved by a choice of front glass

- Metal halide version supplied with warm white 3000K color temperature lamp. Also suitable for 4000K 150W MH
- Integral ballast (except 1000W version)

Materials/Finish

Two-part body: Copper free cast aluminum, finished black
 Metal halide wiring box: cast aluminum
 Tungsten halogen wiring box: black moulded plastic
 Yoke: galvanised steel
 Front glass retaining ring: aluminum
 Front lenses: glass

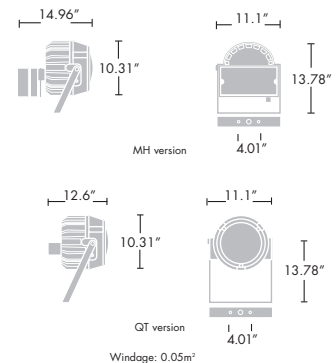
Installation/Mounting

Floodlight is fully adjustable on yoke. Fixes via central 0.86" Ø hole. Two additional 0.43" Ø holes at 4.01" centers. Rear section is removable for relamping without disturbing aiming angle. Combined gland/cord grip for 0.35"-0.47" Ø cable in 7/38" entry. Floodlight must be mounted at least 7/38' from any combustible material. Metal halide version has a cast aluminum box with integral control ballast fixed to rear of floodlight.

Note: Metal halide floodlight should not be operated without a front glass. All versions must order front glass separately.

Specification

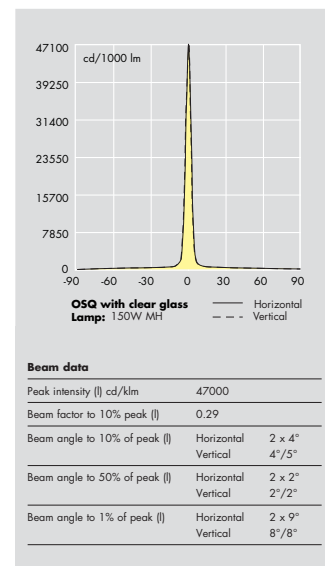
To specify state:
 Enclosed narrow beam exterior floodlight with cast aluminum body for single ended 150W MH.
 As Thorn CSI Sunspot.



C&D Bridge, Dover Delaware

Photography: James T. O'Brien

New Description		Socket	Wt (lb)	SAP Code
Floodlight				
CSI 150 150W MH G12	FLOODLIGHT WITH BALLAST, YOKE AND LAMP. LESS FRONT GLASS	G12	24.25	96006340
CSI 500 500W QT/GY9.5/NL	FLOODLIGHT WITH YOKE FOR M38(300W) OR M40 (500W) TUNGSTEN HALOGEN LAMP (NOT SUPPLIED). LESS FRONT GLASS	G12	16.09	96004169
Front Glasses				
CSI (OMC)	CLEAR GLASS - SYMMETRIC			96002556
CSI (OMS)	STIPPLED GLASS - SYMMETRIC		1.98	96002557
CSI (OMP)	PRISMATIC GLASS - DI-SYMMETRIC			96005275
CSI (OMW)	WIDE GLASS - DI-SYMMETRIC			96002144
CSI (OME)	EXTRA WIDE GLASS			96002145
Attachments				
CSI Hood	HOOD		1.1	96006339
CSI VS 20cm	CYLINDRICAL VISOR 20CM LENGTH		1.3	96006331
CSI VS 30cm	CYLINDRICAL VISOR 30CM LENGTH		1.98	96006332
CSI VS 50cm	CYLINDRICAL VISOR 50CM LENGTH		3.08	96006333



CSI 1000

THORN

Compact high intensity floodlight for PAR64 sealed beam lamps

(ETL listed and certified for UL 1598 and CSA C22.2 No. 250.0 standards)



- Primarily designed for high tower installations where powerful illumination with excellent color rendering is required, as in sports stadia
- Also suitable for feature lighting where a narrow, high-intensity beam is required
- Sealed beam lamp keeps integral reflector clean
- Choice of 5 front glasses to vary beam distribution
- Lamp replacement possible without disturbing aiming angle
- Colored dichroic lenses and holder available to special order
- Remote ballast assembly

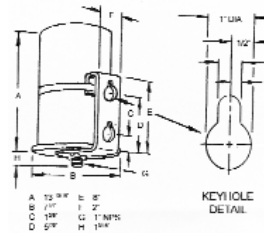
Materials/Finish

Body: two-part LM6 copper free aluminum casting
Body housing toggles: stainless steel
Retaining ring gasket: silicone
Front glass retaining ring: aluminum
Front lenses: glass

Installation/Mounting

Choice of single yoke or four-way bracket. Yoke fixes via central .86" Ø hole. Two additional .43" Ø holes at 4.01" centers. Cable entry gland. Wiring box fixed to rear of body, contains ignitor (three-wire version).

Note: This includes a spark gap canister which should be changed when replacing a failed lamp. Aluminum body has removable lamp housing assembly, secured by three toggles.



Specification

To specify state:
Enclosed floodlight with LM6 copper free aluminum body for HIR sealed beam compact source iodide lamp, with ignitor in wiring box and remote ballast assembly.
As Thorn CSI 1000.

Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.

Ballast Mounting
Weatherproof ballasts must be mounted vertically with the nipple facing downwards.

A horizontal spacing of 6" and a vertical spacing of 12" must be maintained between the ballasts to prevent overheating.

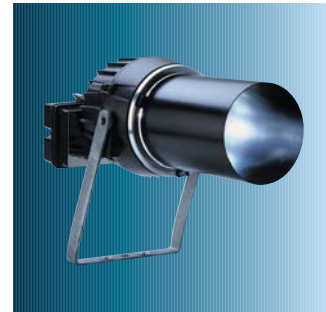


United Center, Chicago



Morongo Casino, Cabazon, CA

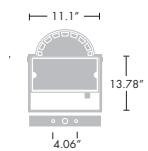
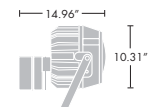
Lighting Design: Visual Terrain Photography: Tom Paiva



Visor



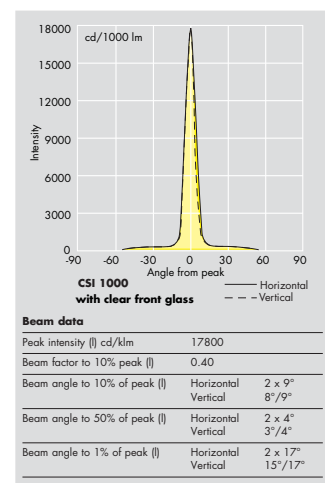
Front glasses, clockwise from top left:
Prismatic/wide, clear, extra wide and stippled



Windage: 0.05m²

New Description		Socket	Weight (lb)	SAP Code
Floodlight				
CSI 1000 1KW 1000W MH	FLOODLIGHT WITH 3 -WIRE IGNITOR	G38	23.37	96002077
Front glasses				
CSI (OMC)	CLEAR GLASS - SYMMETRIC BEAM		1.1	96002556
CSI (OMS)	STIPPLED GLASS - SYMMETRIC BEAM		1.1	96002557
CSI (OMP)	PRISMATIC GLASS - DI-SYMMETRIC BEAM		1.1	96005275
CSI (OMW)	WIDE GLASS - DI-SYMMETRIC BEAM		1.1	96002144
CSI (OME)	EXTRA WIDE GLASS - DI-SYMMETRIC BEAM		1.1	96002145
Accessories				
CSI SPARE YOKE (OQA)	YOKE FOR SINGLE FLOODLIGHT		4.4	96004207
CSI OGB4 4WAY MOUNTG BRKT	FOUR WAY MOUNTING BRACKET		5.07	96007385
CSI HOOD	HOOD		1.1	96006339
CSI VS 20cm	CYLINDRICAL VISOR 20CM LENGTH		1.32	96006331
CSI VS 30cm	CYLINDRICAL VISOR 30CM LENGTH		1.98	96006332
CSI VS 50cm	CYLINDRICAL VISOR 50CM LENGTH		3.08	96006333

Colored lenses and holder to order



Mundial (2000W MH)

THORN

A high specification, high performance discharge floodlight ideal for sports field and stadium lighting, both indoor and outdoor

(ETL listed and certified for UL 1598 and CSA C22.2 No. 250.0 standards)

- Computer optimized optical systems - choice of asymmetric distribution for side lighting (Mundial C), or circular reflector giving a symmetric distribution for long-throw applications (Mundial R)
- MUNC available in standard and "extensive" extra wide distribution. MUNR available in intensive, and also optional 2 x 8° and 2 x 10° distribution
- Low glare, low spill light, internal baffle prevents up light
- Easy installation and maintenance with rear access and automatic power interruption
- IP65 dust tight and waterproof
- Hot restrike versions available
- 3 variable lampholder positions enable choice of distribution



Mundial C
MUN 2000 DEPM
(96009880)

Materials/Finish

Body and frame: copper free die-cast aluminum
Front glass: thermal resistant 0.15" clear glass
Yoke: unpainted galvanized steel
Hood and louvre: black aluminum

Installation/Mounting

Yoke fixed by single M20 bolt through 0.86" Ø central hole, or twin bolts through 0.59" Ø holes.
Ignitor mounted on floodlight.
Ballast to be mounted remotely.
Hood accessory fixes via 4 stainless steel screws.

Optical Systems

Mundial C versions: cylindrical parabolic reflector with baffle and three lamp positions for range of lamps.
Mundial R versions: spun circular reflector, with baffle, and three-position lampholder for variable distribution.

Specification

To specify state:
Standard/Hot restrike 2/kW linear metal halide lamps, in die-cast aluminum with asymmetric/symmetric optical system including baffle with three lamp positions (narrow, medium and wide photometric distribution).
Rear access to the lamp with automatic power interruption. IP65.
As Thorn Mundial.



Mundial C with cylindrical parabolic reflector, asymmetric



Mundial R with spun circular reflector, symmetric



Mundial Hot Restrike (HR) versions



Integral ignitor



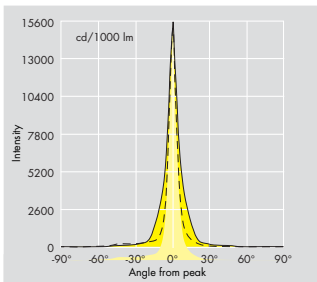
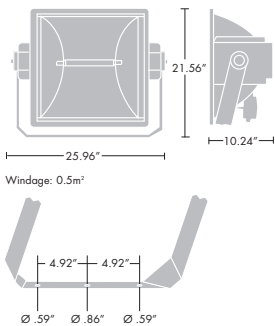
Integral precision aiming device



Lamp positioning

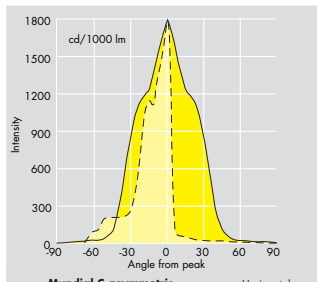


Lamp replacement



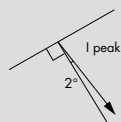
Mundial R symmetric with intensive beam
Lamp: 2kW HGL-TS

Beam data		
Peak intensity (I) cd/klm		15400
Beam factor to 10% peak (I)		0.41
Beam angle to 10% of peak (I)	Horizontal	2 x 15°
	Vertical	8°/9°
Beam angle to 50% of peak (I)	Horizontal	2 x 4°
	Vertical	3°/3°
Beam angle to 1% of peak (I)	Horizontal	2 x 31°
	Vertical	22°/47°



Mundial C asymmetric
Lamp: 2kW MH-NLA
Position 2

Beam data		
Peak intensity (I) cd/klm		1800
Beam factor to 10% peak (I)		0.67
Beam angle to 10% of peak (I)	Horizontal	2 x 42°
	Vertical	6°/53°
Beam angle to 50% of peak (I)	Horizontal	2 x 29°
	Vertical	3°/20°
Beam angle to 1% of peak (I)	Horizontal	2 x 55°
	Vertical	69°/66°



© A.M. Oberlé

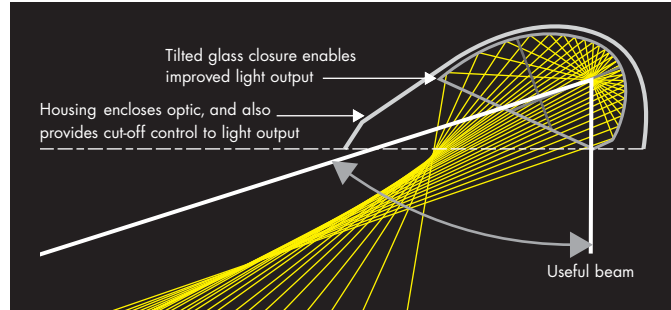
Ordering Guide For complete package order floodlight and ballast set. Lamps to be ordered separately.

New Description		Projected Area Area (ft ²)	Socket	Weight (lb)	SAP Code
Mundial C, Asymmetric floodlight					
MUNDIAL 2KW S/S WB WI MHN-LA	FOR PHILIPS LAMP	0.85	Cable connections	3704	96009880
MUNDIAL 2KW S/S WB WI MBIL/H	FOR GE (SPL) OR VENTURE LAMP	0.85	Cable connections	36.38	96011294
MUNDIAL 2KW S/S WB WI HQI-TS	FOR OSRAM OR SYLVANIA (HSI/TD) LAMP	0.85	Cable connections	35.49	96002378
MUNDIAL 2KW S/S EXT WB WI MHN-LA	WITH EXTENSIVE DISTRIBUTION FOR PHILIPS LAMP	0.85	Cable connections	3704	96012046
MUNDIAL HR 2KW S/S WB WI HQI-TS	WITH HOT RE-STRIKE IGNITOR FOR OSRAM OR SYLVANIA (HSI/TD) LAMP	0.85	Cable connections	50.7	96012168
Mundial R, Symmetric floodlight					
MUNDIAL 2KW R/S INT WB WI HQI-TS	WITH INTENSIVE BEAM, FOR OSRAM LAMP	0.85	Cable connections	35.71	96002553
MUNDIAL HR 2KW HQI-TS R/S INT WB WI	WITH INTENSIVE BEAM AND HOT RE-STRIKE IGNITOR FOR OSRAM LAMP	0.85	Cable connections	50.70	96012169
MUNDIAL 2KW R/S 8D WB WI HQI-TS	WITH 8 DEGREE BEAM FOR OSRAM LAMP	0.85	Cable connections	34.39	96011346
MUNDIAL 2KW R/S 10D WB WI HQI-TS	WITH 10 DEGREE BEAM FOR OSRAM LAMP	0.85	Cable connections	34.39	96011349
All above Mundial projectors include ignitor, except where indicated					
Attachments (for use with Mundial C versions only)					
MUNDIAL VS	HOOD ATTACHMENT FOR MUNDIAL ASYMMETRIC FLOODLIGHT				96011307
MUNDIAL LV	HOOD/LOUVRE ATTACHMENT FOR MUNDIAL ASYMMETRIC FLOODLIGHT				96008489

Champion (2000W MH)

THORN

Our number one solution to floodlighting small sports stadia and general areas where the control of obtrusive light is critical



- Asymmetric floodlight for 2 kW lamps, incorporating an innovative design concept which takes the performance of asymmetric floodlights to the next level
- Champion combines many of the performance features of classic 'projectors' (high levels of light output) with those of 'flat glass' projectors (control of obtrusive light)
- Instead of having a true 'flat glass' construction, which can limit the efficiency of a flood light, Champion's front glass is inclined inside the floodlight
- The front of the body acts as a cowl for full-cut-off and provides a 'virtual' light emitting surface which remains parallel to the ground
- The optical design of Champion is unique and sets new standards for providing 'on-pitch' performance whilst minimising the number of flood lights required and the contributions to obtrusive light
- Each lamp option has a minimum of 4 lamp positions, adjustable on-site, to provide different photometries from just one installed position
- Excellent color appearance and color rendering can be achieved through the use of Metal Halide lamps*
- Excellent glare control is provided through Champion's unique optical construction
- Additional accessories for increased control of obtrusive light available
- The inherent design features of Champion make installation and maintenance both simple and safe
- A simple 'aiming sight' is supplied with each floodlight to enable aiming in azimuth





Accessories/Attachments

- Lux Guillotine (front and sides)
- Lux Guillotine (rear) also known as 'adjustable visor'
- Wire guard
- Reverse mounting Yoke (required for certain mounting positions)

Materials/Finish

Body: copper free die-cast aluminum (ENAB 44300), unpainted
 Glass: 0.16" tempered.
 Screws: stainless steel.

Installation/Mounting

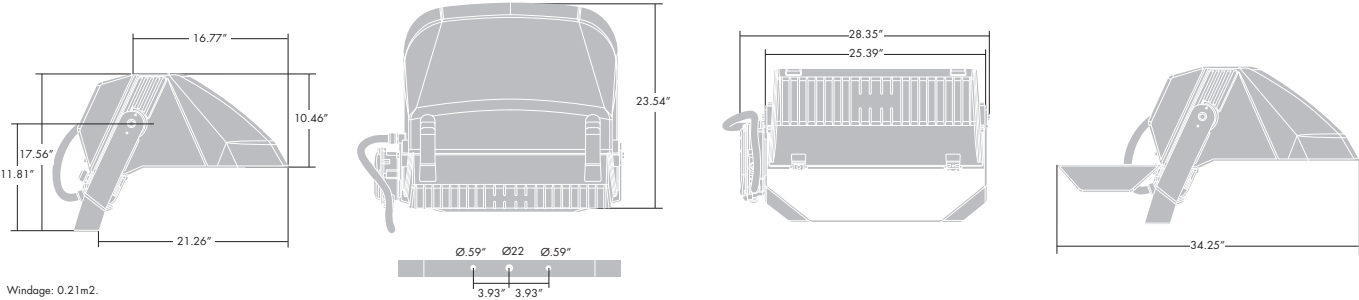
Rear access to lamp.
 Automatic power interruption on opening of rear access door.
 Yoke fixed by M20 bolt through 0.86" diameter hole, or through 0.59" diameter holes.
 Ballast and capacitors to be mounted separately.

Specification

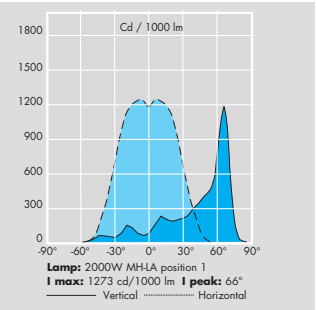
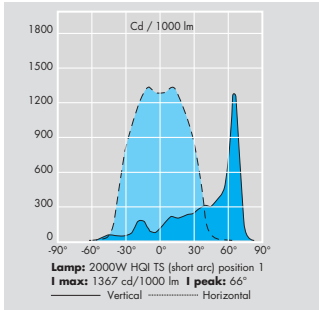
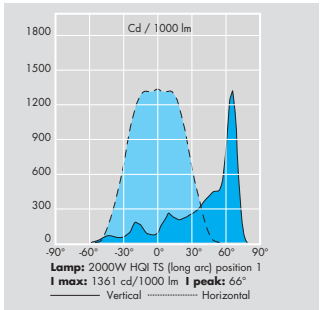
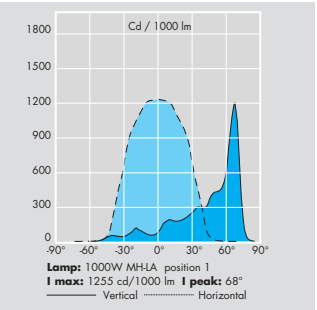
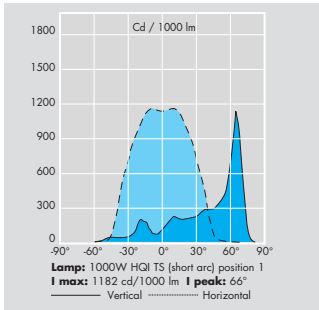
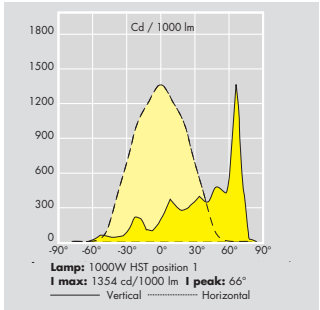
To specify state:
 copper free die cast aluminum asymmetric floodlight for 2kW lamps, IP66 rated, rear lamp access, adjustable lamp position with internally inclined front glass and integral front cowl.
 As Thorn Champion.

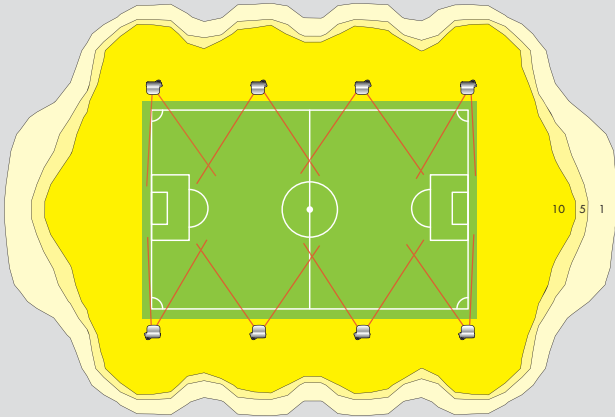
Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.



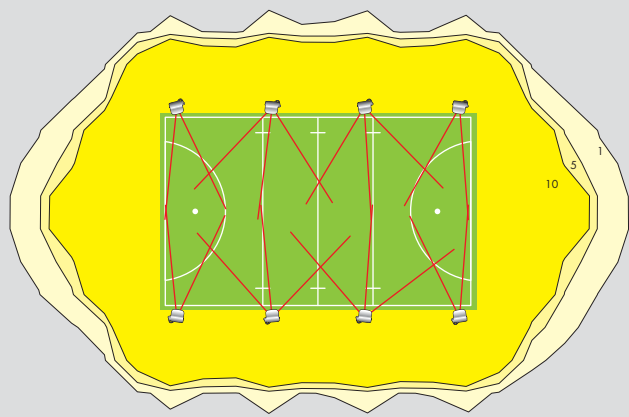
Windage: 0.21m2.





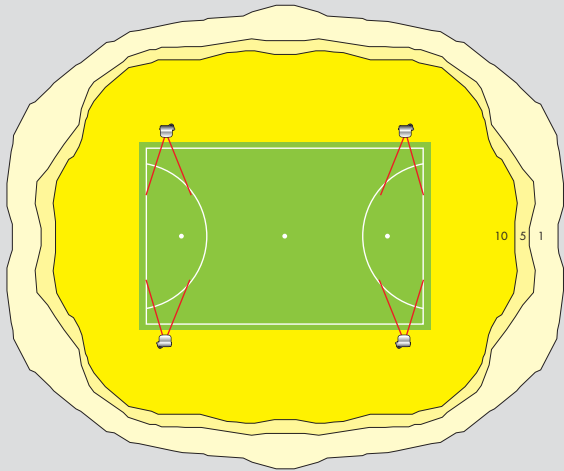
Football/Rugby Pitch (Standard used: Sport England)

Pitch dimensions	100m x 65m	Lamp type	2KW HQITSWNL		Required	Achieved
		Initial lamp lumens	22500	Maintained Average Illuminance	200 lux	200.16lux
		No of floodlights	16	Uniformity	0.6	0.7
		No of columns	8			
		Mounting height	15m			



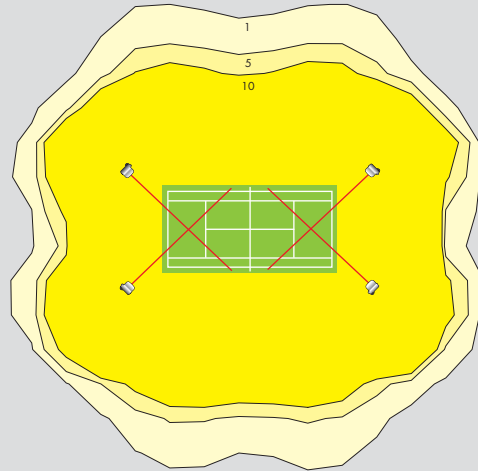
Hockey Pitch (Standard used: Sport England)

Pitch dimensions	55 x 91.4m	Lamp type	2KW HQITSL		Required	Achieved
		Initial lamp lumens	22500	Maintained Average Illuminance	350 lux	354 lux
		No of floodlights	20	Uniformity	0.7	0.76
		No of columns	8			
		Mounting height	16m			



MUGA Pitch 60m x 40m (Standard Sport of England, Class II)

Pitch dimensions	60m x 40m	Lamp type	2KW HQITSWNL		Required	Achieved
		Initial lamp lumens	22000	Maintained Average Illuminance	200 lux	242 lux
		No of floodlights	4	Uniformity	0.6	0.77
		No of columns	4			
		Mounting height	10m			



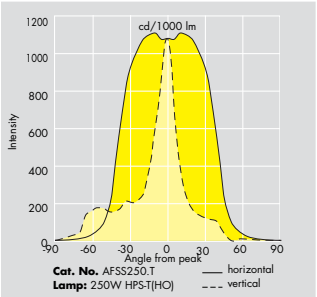
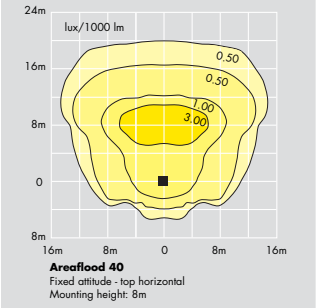
Tennis Court (Standard ITA)

Pitch dimensions	32.1x12.1m	Lamp type	2KW HQITSWNL		Required	Achieved
PPA	32.1x12.1m	Initial lamp lumens	22500	Maintained Average Illuminance	500 lux	565lux
TPA	36.6x15.85m	No of floodlights	4	PPA	0.7	0.77
Arrangement	Single	No of columns	4	TPA	0.6	0.71
		Mounting height	10m			

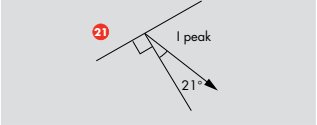
Ordering Guide

New Description		Socket	Weight (kg)	SAP Code
Champion floodlight with internal ignitor				
CHAMPION 1KW HST E40 WI	ALL	E40	20.6	96012471
CHAMPION 1KW HQI - TSS OS WI	FOR OSRAM (SHORT ARC) LAMP	CABLE	20.6	96012473
CHAMPION 1KW MHN - LA PH WI	FOR PHILIPS (LONG ARC) LAMP	CABLE	20.6	96012474
CHAMPION 2KW HQI - TSL OS WI	FOR OSRAM (LONG ARC) LAMP	CABLE	20.6	96012475
CHAMPION 2KW HQI - TSS OS WI	FOR OSRAM (SHORT ARC) LAMP	CABLE	20.6	96012476
CHAMPION 2KW MHN - LA PH WI	FOR PHILIPS (LONG ARC) LAMP	CABLE	20.6	96012477
Champion hot restrike floodlight with internal ignitor				
CHAMPION HR 1KW HQI - TSS OS WI	FOR OSRAM (SHORT ARC) LAMP	CABLE	24.6	96012478
CHAMPION HR 2KW HQI - TSS OS WI	FOR OSRAM (SHORT ARC) LAMP	CABLE	24.6	96012479
Accessories				
CHAMPION WG	WIRE GUARD		1.8	96012480
CHAMPION REVERSE YOKE	REVERSE YOKE ACCESSORY		4.4	96012481
CHAMPION AJ VS FRONT	ADJUSTABLE FRONT AND SIDE VISOR		1.7	96012482
CHAMPION AJ VS REAR	ADJUSTABLE REAR VISOR		0.9	96012483

Floodlight Data



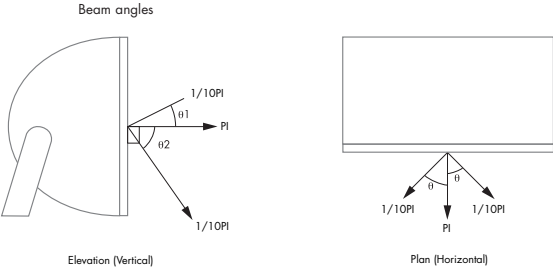
Beam data	
Peak intensity (I) cd/klm	1110
Beam factor to 10% peak (I)	0.74
Beam angle to 10% of peak (I)	Horizontal 2 x 50° Vertical 36°/66°
Beam angle to 50% of peak (I)	Horizontal 2 x 39° Vertical 7°/13°
Beam angle to 1% of peak (I)	Horizontal 2 x 67° Vertical 49°/89°



This data is for floodlighting design.

• Intensity curve
Multiply the intensity by F/1000, where F is the bare lamp lumens for the intensity in candelas. The solid curve denotes the intensity in the horizontal plane. The dashed line denotes the intensity in the vertical plane, positive angles are above the peak intensity.

- Section of luminaire
The direction of the peak intensity is shown relative to the normal at the centre of the front glass.
- Beam data
The beam is the cone of light from the spotlight that is bounded by a luminous intensity that is a fixed percentage of the peak intensity.
- Peak intensity
Values shown are absolute based on lamp lumens from manufacturer.
- Beam factor to 10% peak intensity.
The ratio of the flux contained within the beam to 10% peak intensity divided by the total lamp flux.
- Beam angle to a percentage of peak intensity.
The horizontal angle is doubled because the angle is either side of the central peak intensity. The first vertical angle is above the peak intensity and the second vertical angle is below the peak.



Orus (39W MH G12, or, 70W MH G12)

THORN

An advanced road lighting luminaire with innovative Flat Beam® technology for low level mounting providing a unique light distribution; excellent uniformity with no glare; low energy and above all a mounting height of 2.95'

- Because Orus is a radical departure from standard luminaires, its characteristics are equally innovative
- It projects light transversally to the road 36' in a single sided arrangement
- The optimised mounting height is 2.95' to ensure that no direct light enters the vehicle
- Optimum spacing is between 26'-49'
- Road and sidewalk optics for choice in distribution, with the road optic directing light entirely on the road and the sidewalk optic creating a circle of light around the luminaire enabling drivers to detect a pedestrian's whole body also increasing security by enabling face recognition
- Constructed from high quality materials and engineered for low maintenance and a long operating life
- Easy to handle and delivered complete and ready to install in one box



Certification

Luminaire shall be certified for Indoor/Outdoor use, wet location, to meet UL 1598 standards and CSA Std. C22.2 NO.250.

Materials/Finish

Bollard: 376" steel powder coated grey (RAL 9006)
Enclosure: UV stabilised polycarbonate protected against graffiti and with extra scratch resistant treatment Reflector: pure aluminum with high reflectance coating Tamper-proof screws and bolts: stainless steel
Gaskets: silicon
Yoke: die-cast aluminum

Installation/Mounting

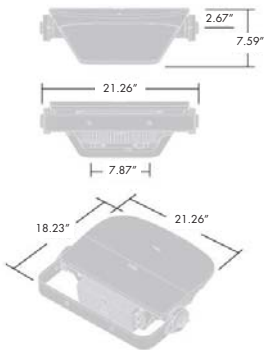
Recommended mounting height of 2.95" while offset should be 6.5' for optimum results. Plug and socket connections. Rear access to lamp via 2 tamper proof Allen screws. Tolerance of 5° is allowed. Delivered complete, ready to install. Yoke version: Rear access to ballast components. Ready for through wiring. 180° rotating yoke. Bollard version: Inside bollard access to ballast components Flange mounting. Head fixed to bollard through 2 x M10 tempered bolts.

Specification

To specify state: Innovative road lighting luminaire for 39 or 70W MH lamps, incorporating Flat Beam® technology, in die-cast aluminum reaching lighting standards at 2.95' high. Sealed to IP66 with unique lighting distribution and choice of mounting options. As Thorn Orus.

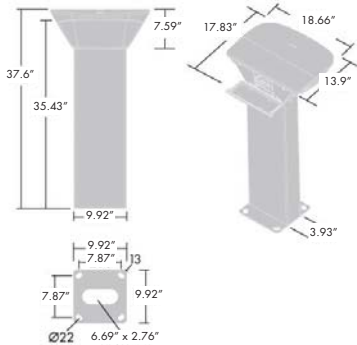


Grenoble Bridge, Nice, France



Ordering Guide

Description	Socket	Weight (lb)	SAP Code
Bollard version			
ORUS 39W MH DGE CL1 BOL ROAD	G12	52.25	96250919
ORUS 39W MH DGE CL1 BOL SIDEWALK	G12	52.25	96250921
ORUS 70W MH DGE CL1 BOL ROAD	G12	52.69	96250923
ORUS 70W MH DGE CL1 BOL SIDEWALK	G12	52.69	96250925
Yoke version			
ORUS 39W MH DGE CL1 MFX ROAD	G12	19.4	96231244
ORUS 39W MH DGE CL1 MFX SIDEWALK	G12	19.4	96250912
ORUS 70W MH DGE CL1 MFX ROAD	G12	19.4	96231242
ORUS 70W MH DGE CL1 MFX SIDEWALK	G12	19.4	96250914
Accessories			
ORUS ANTIVANDAL KEY SET		0.11	96251374



THORN

