

12 February 2010 DT: 5040

Mirvac Level 26 60 Margaret Street SYDNEY NSW 2000

Attention: Mr Adrian Checchin

Dear Sir

BIG W DC AND DICK SMITH DC HOXTON PARK NSW EXTERIOR LIGHTING AND SIGNAGE

We refer to the above project, and as required for the Part 3A submission for the site, we provide the following information detailing what the design will be based on for the external lighting to the Big W and Dick Smith Electronics sites and the proposed illuminated signage, based on the current sketch designs and proposed signage locations.

1. The standards that will be used for the exterior lighting designs are:-

AS/NZS 1158.3.1:2005 Lighting for roads and public spaces Part3.1: Pedestrian area (Category P) lighting – Performance and design requirements

AS 4282:1997 Control of the obtrusive effects of outdoor lighting

- 2. The design of the lighting and resultant calculated lighting levels will be determined using the lighting design software program Lumen Micro Designer
- The external lighting will be broken into four main areas:
 - a) Truck dock areas (pedestrians and trucks mix)
 - b) Truck only movement areas (no pedestrians)
 - c) Staff/visitor carpark bay areas (pedestrians and vehicles mix)
 - d) Car entry/exit areas (no pedestrians)
- The relevant applicable lighting subcategory for each of the above four areas from the Australian Standard AS/NZS 1158.3.1:2005 would be:
 - a) Lighting subcategory P6
 - b) Lighting subcategory P11c
 - c) Lighting subcategory P11b
 - d) Lighting subcategory P11c

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R.W. Butt B. Kennedy D.A. Taylor K.F. Murray

P.W. Matthews

- 5. The relevant recommended lighting levels from the Australian Standard AS/NZS 1158.3.1:2005 for the four areas is:
 - a) Average horizontal illuminance 21 lux
 - b) Average horizontal illuminance 3.5 lux
 - c) Average horizontal illuminance 7 lux
 - d) Average horizontal illuminance 3.5 lux
- 6. The Australian Standard AS 4282:1997 recommends the maximum illuminance in the vertical plane at any nearby residential properties from a commercial area as:
 - a) Pre-curfew hours 25 lux
 - b) Curfewed hours 4 lux

As the residential properties in the area adjacent to the site are a distance away from the proposed buildings, the lighting level requirement for the obtrusive effects of outdoor lighting listed above will be complied to.

- 7. The light fittings proposed for the site are generally metal halide pole mounted or building mounted luminaires complete with symmetrical or asymmetric beams and designed to minimise glare to the trucks and vehicles manoeuvring around the site. Details of the proposed luminaries to be used are attached with this report.
- 8. Building signage is proposed for both the Big W building and the Dick Smith Building. The illuminated signs proposed are illuminated by LED light sources and the estimated brightness of the sign face measured in candela per metre squared is 150-300 cd/m2. This level is well below the 2,500 cd level allowable under AS 4287:1997.

Having regard to the proposed external lighting, including signage and relevant Australian Standards to be complied with, Shelmerdines are of the opinion that the proposed development will not generate any adverse light spill exceeding the limits allowable under the relevant standards.

Please find attached the following documents to be referenced with the above information:-

- Sketch design of Big W external lighting (Prepared by Shelmerdines Consulting Engineers)
- Sketch design of Dick Smith external lighting (Prepared by Beca Pty Ltd)
- Sketch layout of proposed illuminated signage
- Catalogue information and photometric data details of the proposed external luminaires

Please do not hesitate to contact the undersigned should you require any further information.

Yours faithfully SHELMERDINES

ord Taylor

David Taylor DIRECTOR



Project Number 5040

Luminaire Type Type "T" 250 Watt Wall Mounted Luminaire

Luminaire Name Aviator Medium Type III - Wall Mount

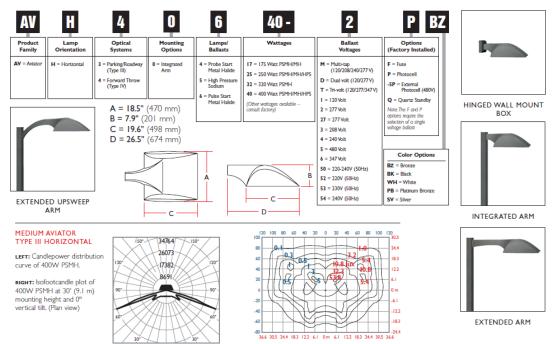
Description Metal Halide Wall Mounted Full Cutoff Medium Area Light

Fitting Size See Below

Manufacturer RUUD

Catalogue Number See Below

Notes Complete with Area Cutoff Reflector Cat No. AVH30625-MBK











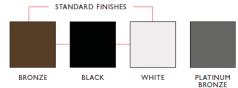


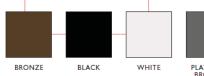
SBL-AVI BACKLIGHT SHIELD

AVRP-I ROUND POLE ADAPTOR

WM-5 EXTENDED ARM

a wide range of color options for your consideration and is covered by a full 7-year warranty.











QUICK-CONNECT BALLAST TRAY easing both installation and maintenance.



EASY ACCESS HINGE AND LENS One-piece, field replaceable electrical ballast The luminaire door is attached to the housing tray allows for quick connect and disconnect, with a patented internal hinge assembly allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).



PREMIUM OPTICS Horizontal lamp with premium reflector materials in a segmented reflector design.

This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.



TOOL-LESS ENTRY Proprietary door-frame latching system allows easy access and servicing of lamp for normal



Project Number 5040

Luminaire Type "U" 320 Watt Wall/Awning Mounted Luminaire

Luminaire Name Aviator Medium Type IV - Wall Mount

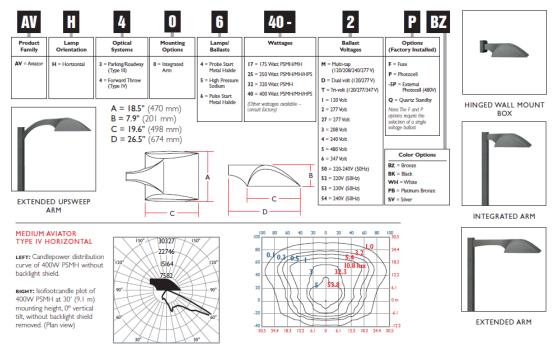
Description Metal Halide Wall Mounted Full Cutoff Medium Area Light

Fitting Size See Below

Manufacturer RUUD

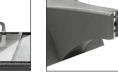
Catalogue Number See Below

Notes Complete with Forward Throw Reflector Cat No. AVH40632-MBK











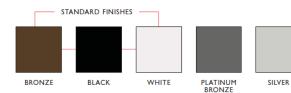


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a wide range of color options for your consideration and is covered by a full 7-year warranty.







QUICK-CONNECT BALLAST TRAY easing both installation and maintenance.



EASY ACCESS HINGE AND LENS One-piece, field replaceable electrical ballast The luminaire door is attached to the housing tray allows for quick connect and disconnect, with a patented internal hinge assembly allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).



PREMIUM OPTICS Horizontal lamp with premium reflector materials in a segmented reflector design.

This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.



TOOL-LESS ENTRY Proprietary door-frame latching system allows easy access and servicing of lamp for normal



Project Number 5040

Luminaire Type Type "W" 400 Watt Wall Mounted Luminaire

Luminaire Name Aviator Medium Type IV - Wall Mount

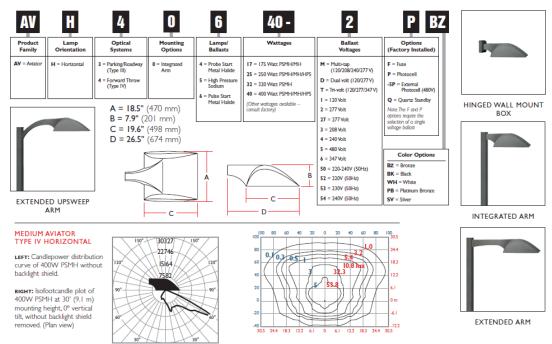
Description Metal Halide Wall Mounted Full Cutoff Medium Area Light

Fitting Size See Below

Manufacturer RUUD

Catalogue Number See Below

Notes Complete with Forward Throw Reflector











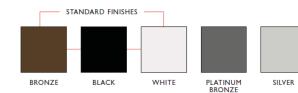


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AVRP-I ROUND POLE ADAPTOR

WM-5 EXTENDED ARM

a wide range of color options for your consideration and is covered by a full 7-year warranty.











EASY ACCESS HINGE AND LENS allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).



PREMIUM OPTICS Horizontal lamp with premium reflector materials in a segmented reflector design.

This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.



TOOL-LESS ENTRY Proprietary door-frame latching system allows easy access and servicing of lamp for normal



Project Number 5040

Luminaire Type Type "Y" 250 WattWall Mounted Luminaire

Luminaire Name Aviator Medium Type IV - Pole Mount

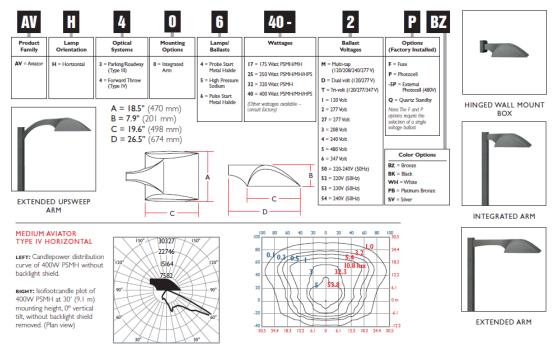
Description Metal Halide Pole Mounted Full Cutoff Medium Area Light

Fitting Size See Below

Manufacturer RUUD

Catalogue Number See Below

Notes Complete with Forward Throw Reflector











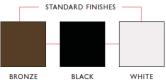




SBL-AVI BACKLIGHT SHIELD

The Aviator's unique Colorfast DeltaGuard™ paint and finish system delivers

a wide range of color options for your consideration and is covered by a full 7-year warranty.







DIE-CAST, SINGLE-PIECE HOUSING

The low-copper aluminum housing with integrated mounting arm helps the luminaire resist corrosion.





QUICK-CONNECT BALLAST TRAY One-piece, field replaceable electrical ballast tray allows for quick connect and disconnect, easing both installation and maintenance.



EASY ACCESS HINGE AND LENS The luminaire door is attached to the housing with a patented internal hinge assembly allowing for easy removal of the doorframe, if required. A high temperature silicone gasket seals the optical system from dirt and debris (IP65).

polyester topcoat



PREMIUM OPTICS Horizontal lamp with premium reflector materials in a segmented reflector design. This combination delivers excellent streetside efficiency, superior backlight control and greatly improved uniformity demanded by lighting specifiers.



rating. UL, C-UL and CE listed for wet locations.

Other approvals and certifications are also available; consult your local affiliate.

TOOL-LESS ENTRY Proprietary door-frame latching system allows easy access and servicing of lamp for normal maintenance.



Project Number 5040

Luminaire Type Type "Z" 1000 Watt Pole Mounted Luminaire

Luminaire Name Aviator Large Type III - Pole Mount

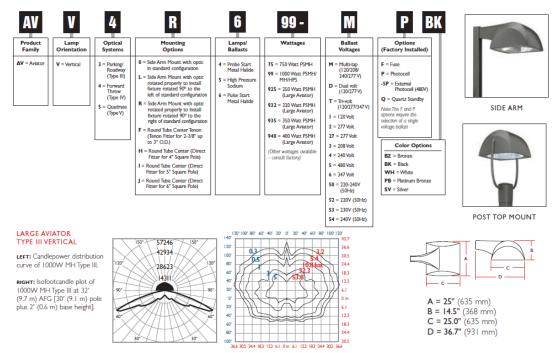
Description Metal Halide Pole Mounted Full Cutoff Large Area Light

Fitting Size See Below

Manufacturer RUUD

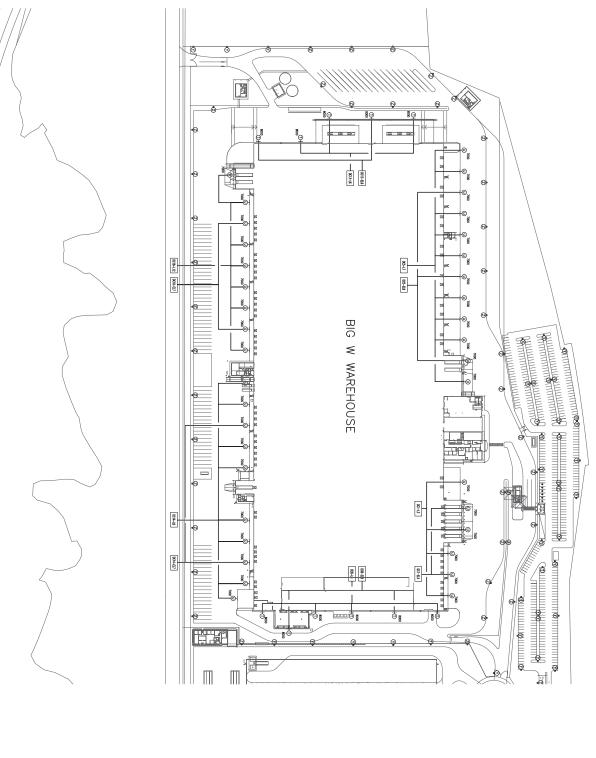
Catalogue Number See Below

Notes Complete with Forward Throw Reflector









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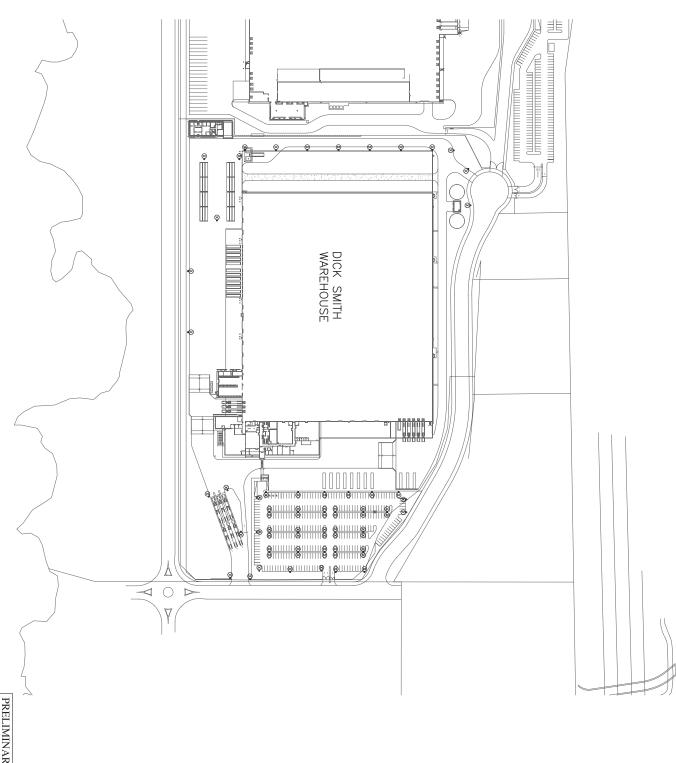
Shelmerdines
Consulting Engineers

Telephone: [DR] 9438 3081 Facelande: [DR] 9438 8708 Brost : multiphetracrohes.co

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EXTERNAL LIGHTING LAYOUT

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Shelmerdines
Consulting Engineers

dick smith



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