



Test Report

DATE ISSUED: 8 November 2013

ITEM(S) TESTED: Cosydome, generic recessed luminaire barrier

CLIENT'S NAME: Cosydome
PO Box 30095
St Martins
Christchurch 8246

Attention: Paul Hill

CLIENT'S REFERENCE: Email Dated 23 October 2013

TEST SPECIFICATION: AS/NZS 5110:2011. Recessed Luminaire Barriers including Amendment No.1 (AS/NZS 5110/Amdt 1/2013-02-25)

DATE OF TEST COMPLETION: 7 November 2013

SUMMARY OF RESULTS: The sample barriers tested complied with the requirements of the standard.

Powelab Signatory: G I Dix

Checked By: K Manson



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Section 1 Scope and General

Section	Comment	Result
1.1	General	Noted
1.2	Normative references	Noted
1.3	Definitions	Noted

Section 2 Classification of Barriers

Section	Comment	Result
2.1	General	Complies
2.2	Depth classification	Complies
2.2.1	200mm not covered	
2.2.2	Not applicable (NA)	
2.2.3	Not classified as coverable	
2.3	Ingress classification	Complies
2.3.1	Low ingress protection	
2.3.2	NA	
2.3.3	NA	
2.3.4	Low ingress protruding protection	
	Applicable up to rated 70mm luminaire penetration area with Dynamic Valve part fitted.	
2.4	Not used	Noted
2.5	Installation classification	Complies
2.5.1	Installation from above	
2.5.2	NA	
2.6	Impact classification	Complies
2.6.1	Light Impact – withstood test.	
2.6.2	Medium impact – withstood test.	
2.6.3	NA	
2.7	Insulation classification	Complies

2.7.1 NA

2.7.2 Unrestricted

2.8 Luminaire Suitability classification

Complies

2.8.1 NA

2.8.2 NA

2.8.3 Generic

2.8.3.2 Applicable

2.8.3.3 Applicable

2.9 Protrusion classification

Complies

2.9.1 Protruding

2.9.2 Semi-protruding

2.9.3 NA

Section 3 Marking

Section	Comment	Result
3.1	General	Noted
3.2	Marking on barriers	Complies
	(a) COSYDOME	
	(b) DYNAMIC -RLB	
	(c) Moulded line provided	
	(d) DO NOT COVER	
	(e) NA	
	(f) NA	
	(g) NA	
	(h) Suitable for direct abutment to normally flammable building elements or insulation depth of 200mm	
	(i) NA	
	(j) Provided in promotional material	
	(k) Not used	
	(l) Not used	
	(m) NA	
	(n) NA	
	(o) LOW INGRESS, PROTRUDING PROTECTION	
	(p) GENERIC BARRIER 125mm-105W max. 90mm-50W max	
3.3	Additional information	Complies
3.3.1	Caution information provided	
3.3.2	NA	
3.3.3	NA	
3.3.4	Generic barrier information provided	
3.4	Compliance	Complies

Section 4 Construction

Section	Comment	Result
4.1	General	Noted
4.2	Means of attachment Mounting tabs which can make use of screw or glue are provided. Refer to clause 5.4 below.	complies
4.3	Prevention of ingress of flammable materials Refer to clause 5.5 below.	Complies
4.4	Screws and connections (mechanical) None, not applicable.	Noted
4.5	Electrical connection/components None, not applicable.	Noted
4.6	Generic barrier clearance The diameter of the generic luminaires is less than the internal diameter of the assessed barrier (approximately 230 mm) by at least 20mm.	Complies
4.7	Low ingress protruding barrier (a) Top 75mm above and 80% open for rated sizes. (b) Designed 10mm can be maintained (refer to 4.6 above)	Complies

Section 5 Testing

Section	Comment	Result
5.1 General		Noted
5.2 Marking Durability test		Complies
	The marking is moulded in plastic, withstood tests.	
5.3 Preconditioning		Complies
	Preconditioned as specified.	
5.4 Mechanical Strength test		Noted
	The mounted as specified barrier withstood the 1J and 5J impact tests required for low impact and medium impact classifications.	
5.5 Ingress test		Complies
	The 5.6mm diameter probe for the low ingress protection could not contact the specified surfaces.	
5.6 Thermal test – Normal operation		Complies
	A luminaire per figure 4 was incorporated in a test box per figure 3 and a lamp per Clause 5.6.1.1 was operated until temperatures stabilized.	
	Note per Client's instruction: the barrier was offset such that the luminaire was close to the internal surface of the barrier (worst case refer to paragraph 3 clause 5.4.3 of the specification).	
	Temperature on barrier outside surface: 94 °C	
	Temperature on the mounting surface: 91 °C	
	Allowed maximum temperature: 90+5 °C	
	No damage such as scorching, deforming or melting occurred. No thermal cutout/protective devices operated.	
5.7 Thermal test – Abnormal operation		Complies
	A luminaire per figure 4 was incorporated in a test box per figure 3 completely filled with insulation and a lamp per Clause 5.6.1.1 was operated until temperatures stabilized.	

Note per Client's instruction: the barrier was offset such that the luminaire was close to the internal surface of the barrier.

Temperature on barrier outside surface: 105 °C

Temperature on the mounting surface: 113 °C

Allowed maximum temperature: 130+5 °C

No damage such as scorching, deforming or melting occurred.
No thermal cutout/protective devices operated.

5.8 Resistance to Flame and Ignition

Complies

Requirement is that all flames should extinguish within 30s after removal of the glow wire tip and flaming droplets shall not ignite the tissue paper.

Results

Part tested	Glowwire/Needle Flame	Flame / Extinguish on removal of glow wire tip or needle flame	Droplets	Tissue Ignition
Main body	750°C	Yes / Yes	No	NA
	960°C	Yes / Yes	No	NA
	Needle Flame	No / NA	No	NA
Valve Cap Lid	750°C	Yes / Yes	No	NA
	960°C	Yes / Yes	No	NA
	Needle Flame	Yes / Yes	No	NA
Valve Cap Frame	750°C	Yes / Yes	No	NA
	960°C	Yes / Yes	No	NA
	Needle Flame	Yes / Yes	No	NA

5.9 Accelerated Ageing test

Noted

No test specified.

Photographs



