

LIGHT IS OUR FRIEND

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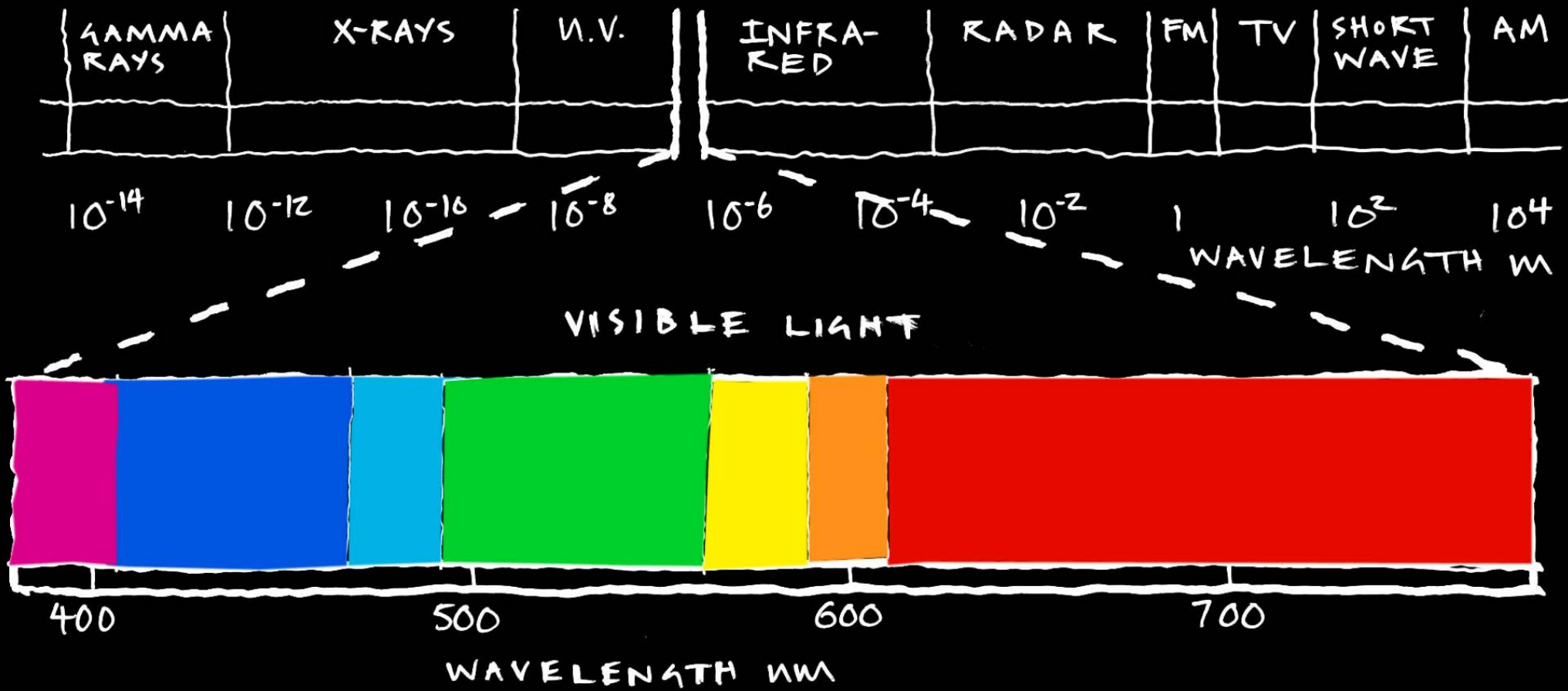
LIGHT IS OUR FRIEND

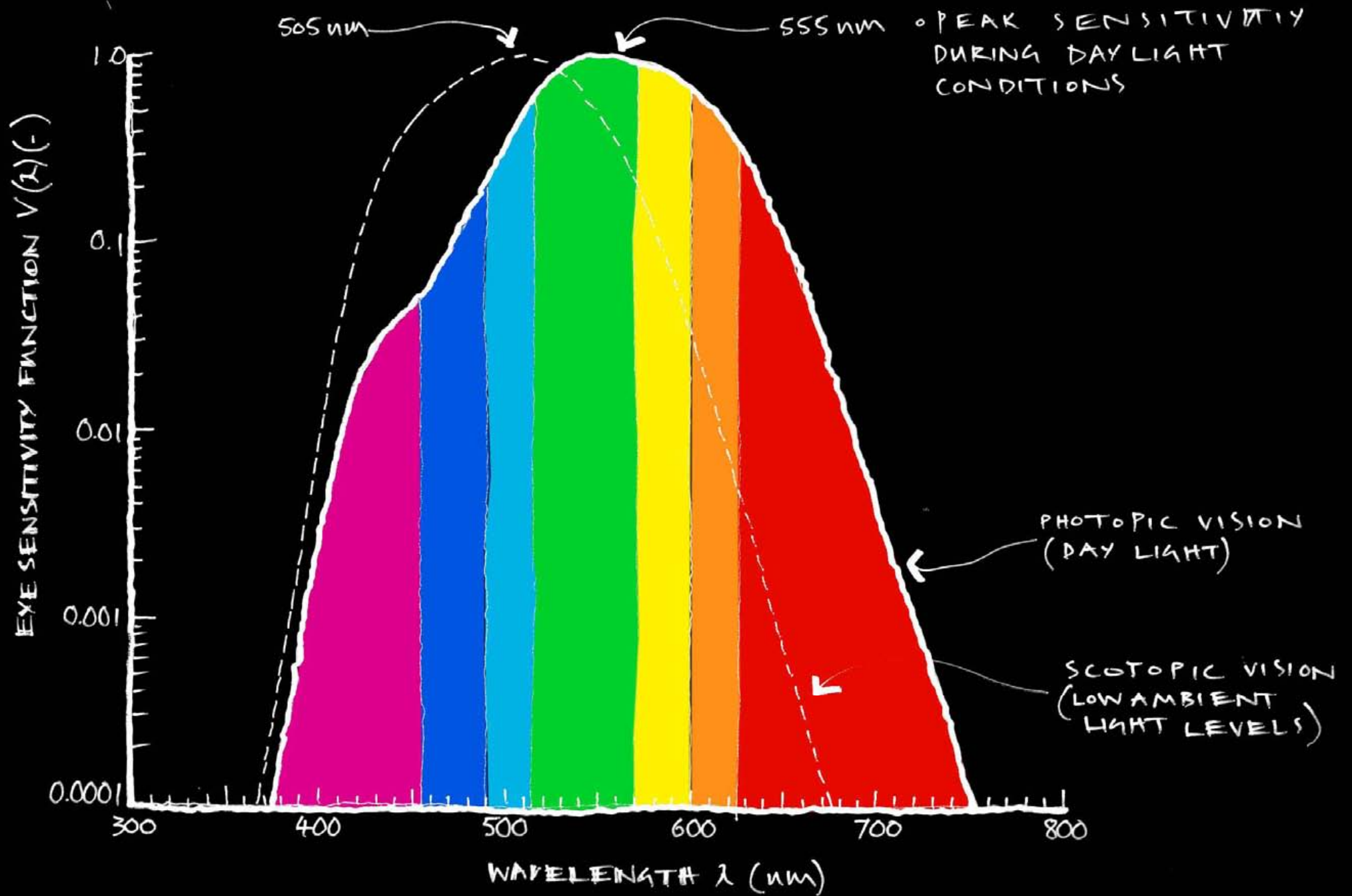
LIGHT IS OUR FRIEND

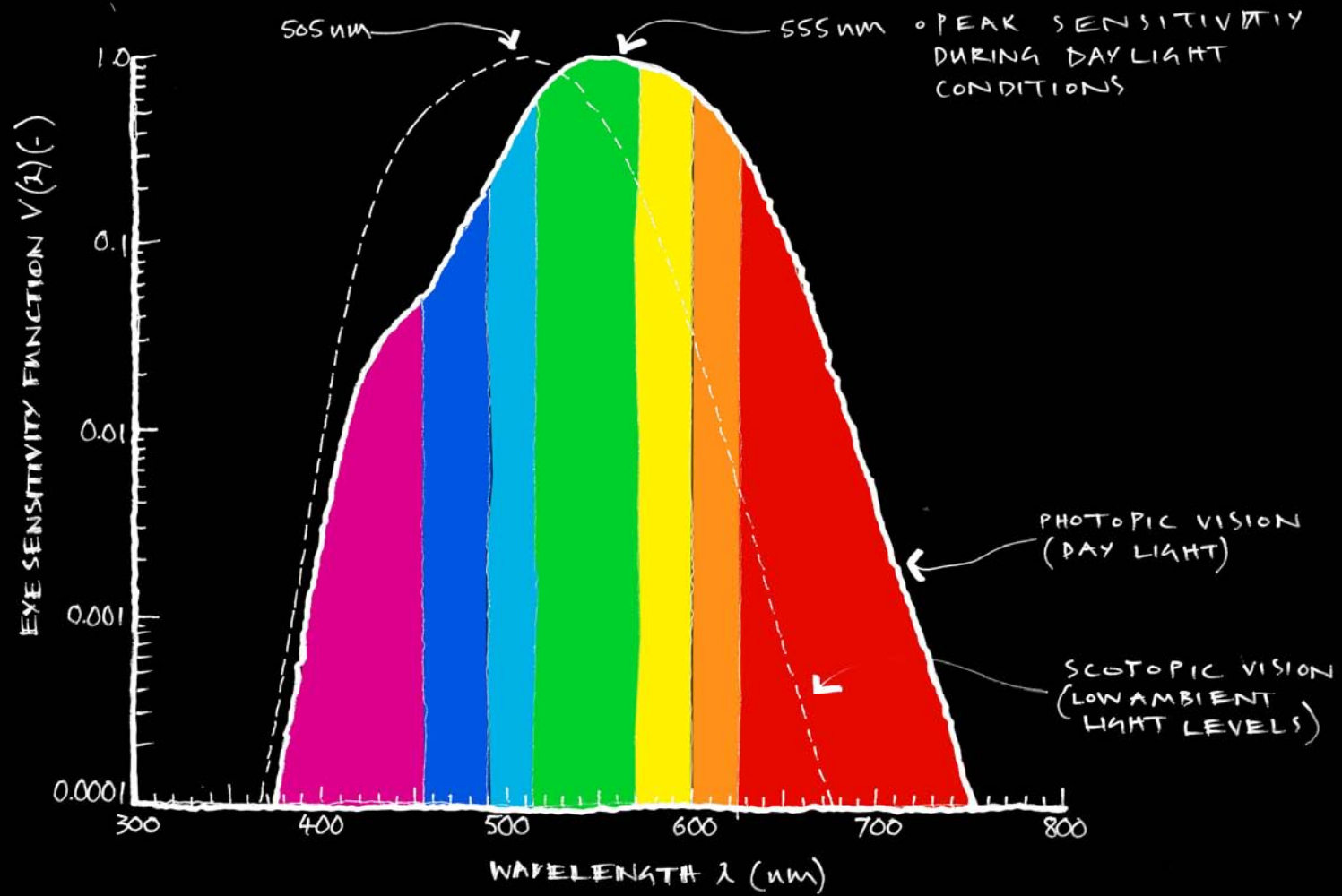
LIGHT IS OUR FRIEND

TECHNICAL SUMMARY
LIGHTING TECHNIQUES
CASE STUDIES

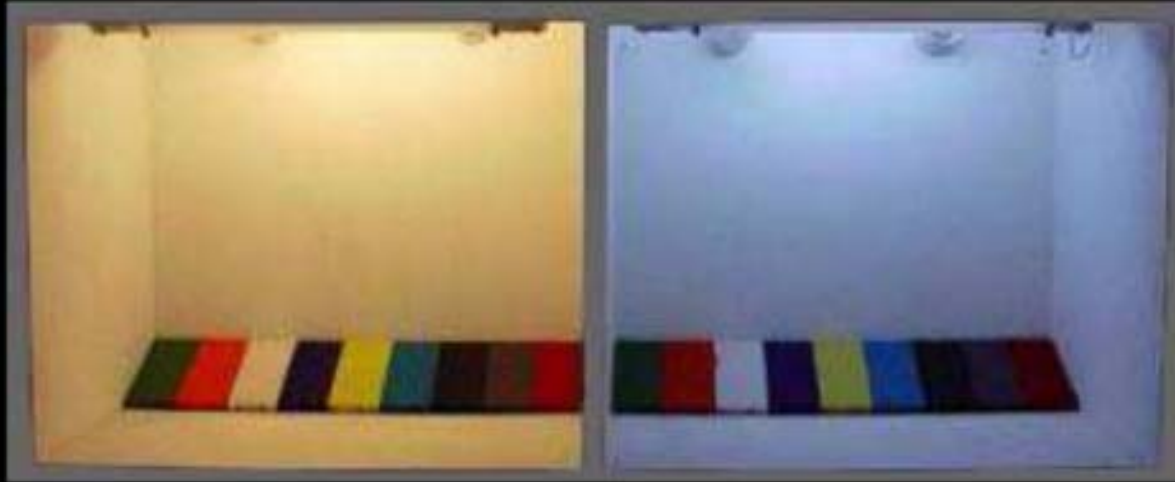
WHAT IS LIGHT?





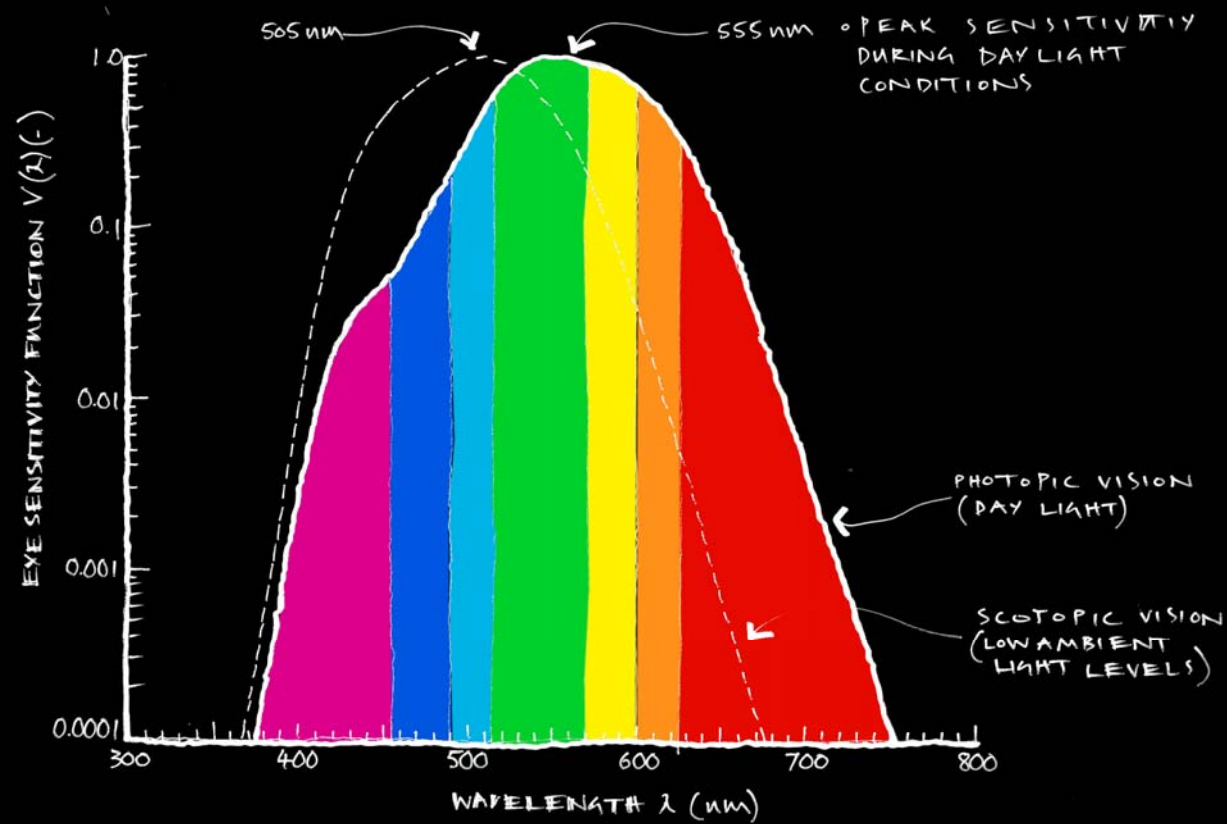


COLOUR RENDERING

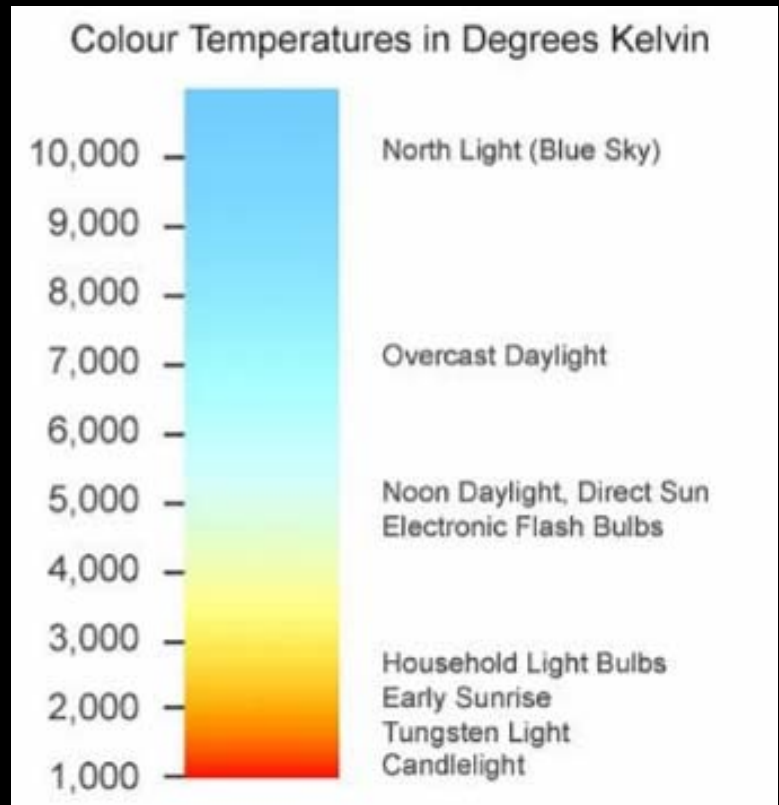


HIGH COLOUR RENDERING

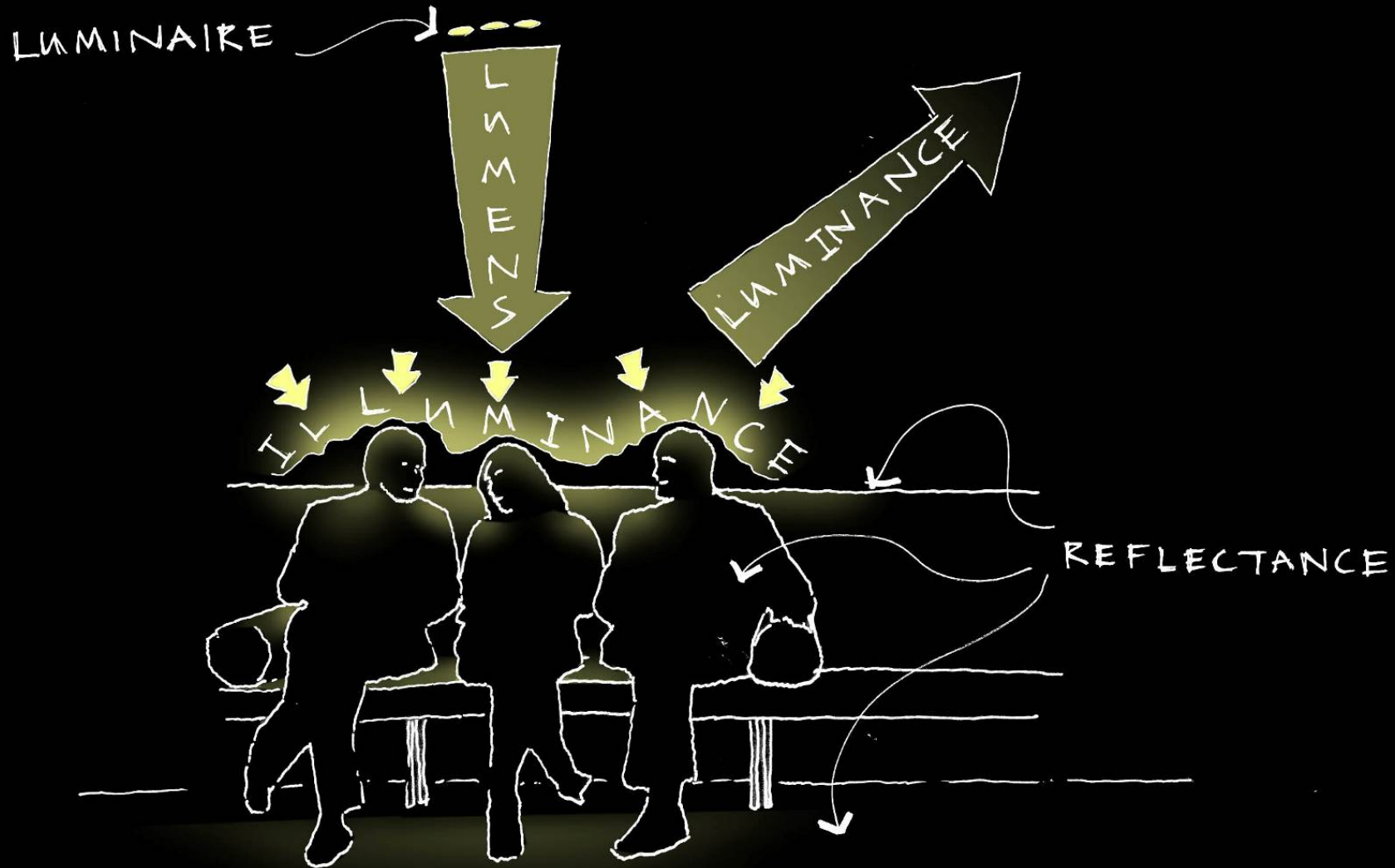
LOW COLOUR RENDERING



COLOUR APPEARANCE



LIGHTING JARGON



LUMENS = LIGHT OUT
 ILLUMINANCE = LIGHT ON = LUX
 LUMINANCE = LIGHT OFF = cdm^{-2}
 (A.K.A. BRIGHTNESS)

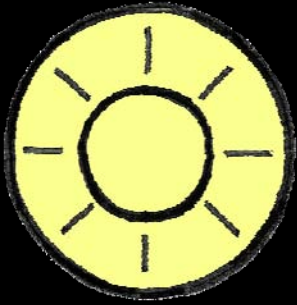
Candle	100W GLS	Sun
		
1 cd	110 cd	3×10^{27} cd

LUMINANCE/BRIGHTNESS



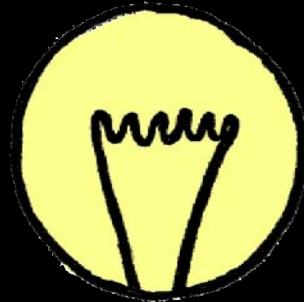
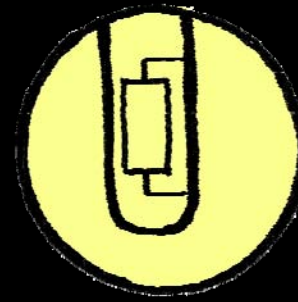
LIGHT SOURCES

NATURAL

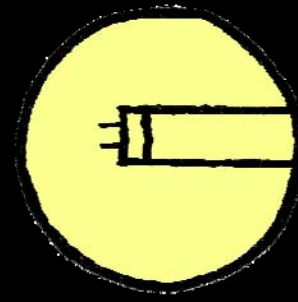


CLEAR/DIFFUSE SKY

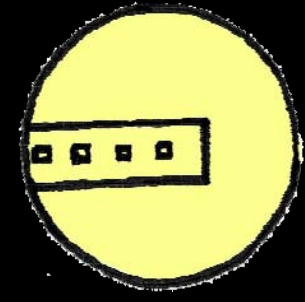
ELECTRIC



FILAMENT

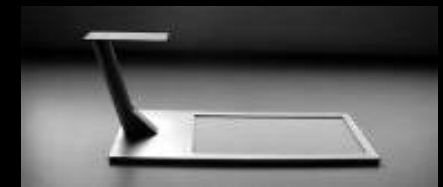
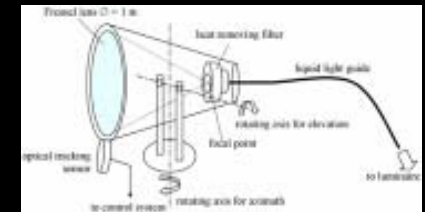
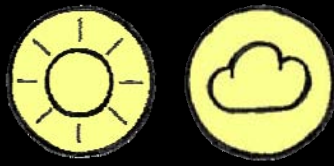


DISCHARGE



LED

NATURAL LIGHT

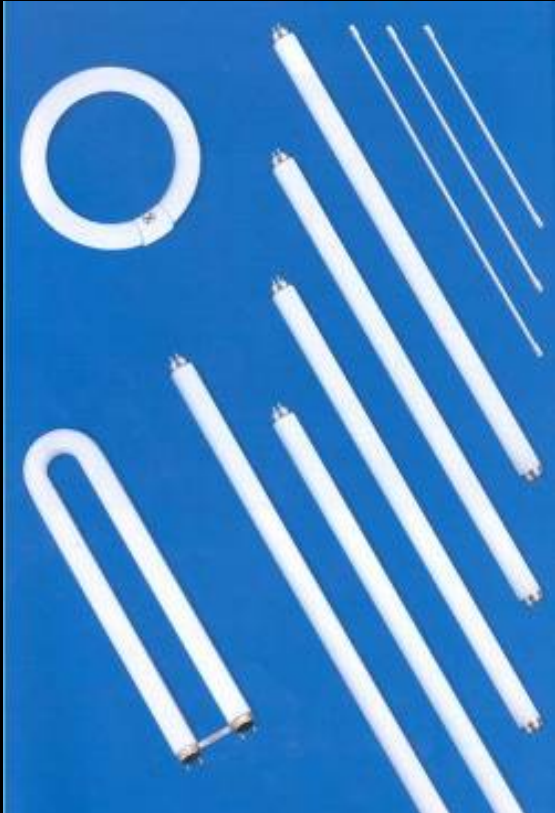
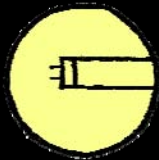




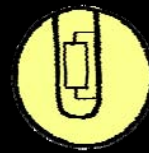
TUNGSTEN FILAMENT



DISCHARGE - FLUORESCENT



DISCHARGE - HIGH PRESSURE



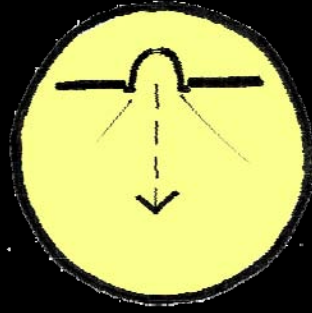
LED



LIGHTING TECHNIQUES



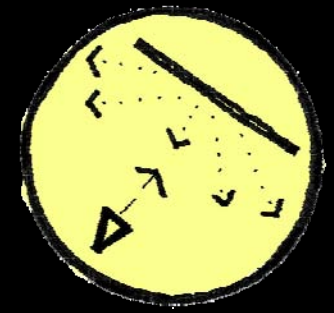
CONCEALED



DIRECT



EMMITER



INDIRECT

CONCEALED



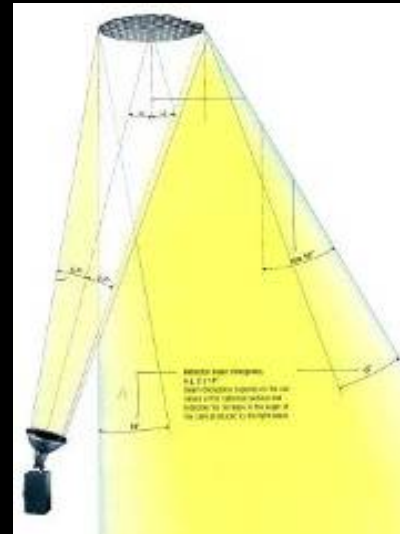
DIRECT



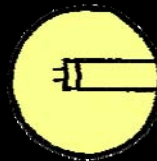
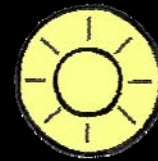
EMITTER

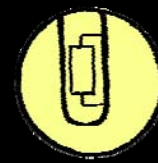
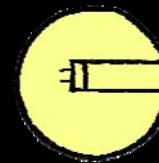


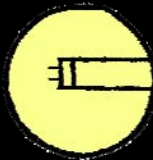
INDIRECT



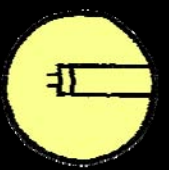
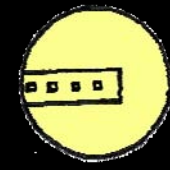
EXAMPLES











CONSULTANCY

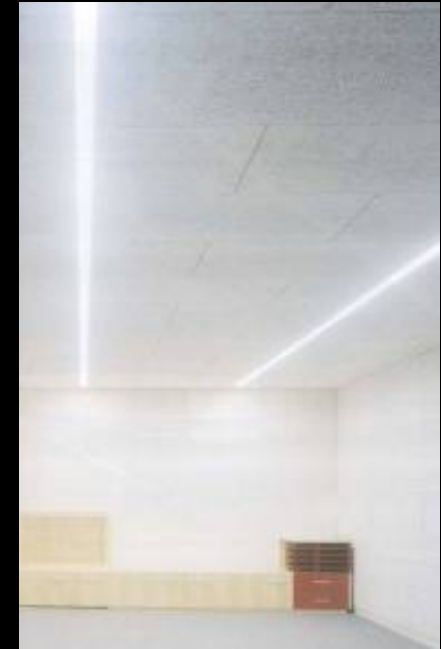
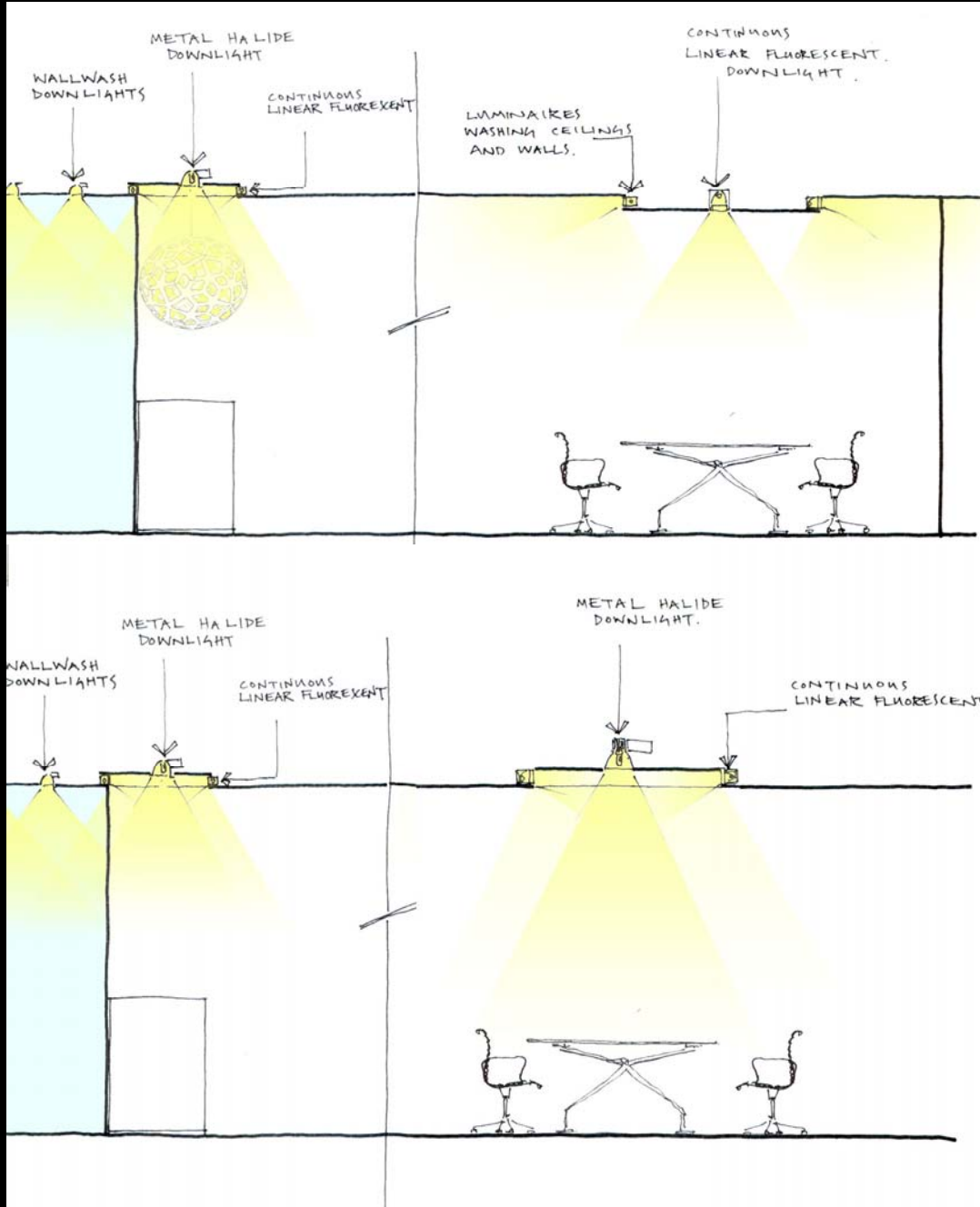
BARCLAYS GLOBAL INVESTORS

BGI Grosvenor Place

Typical AV Solution

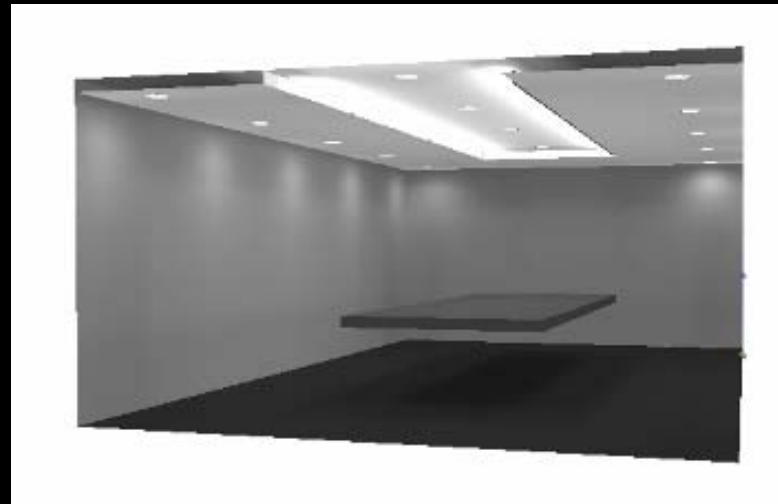
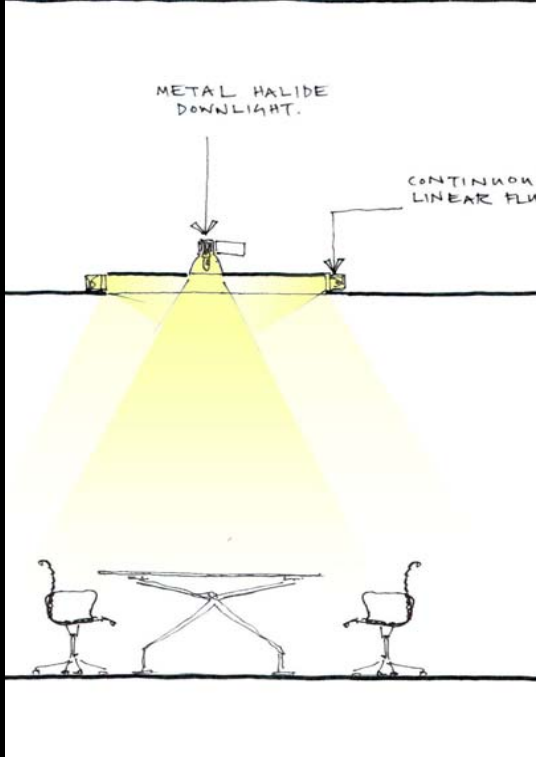
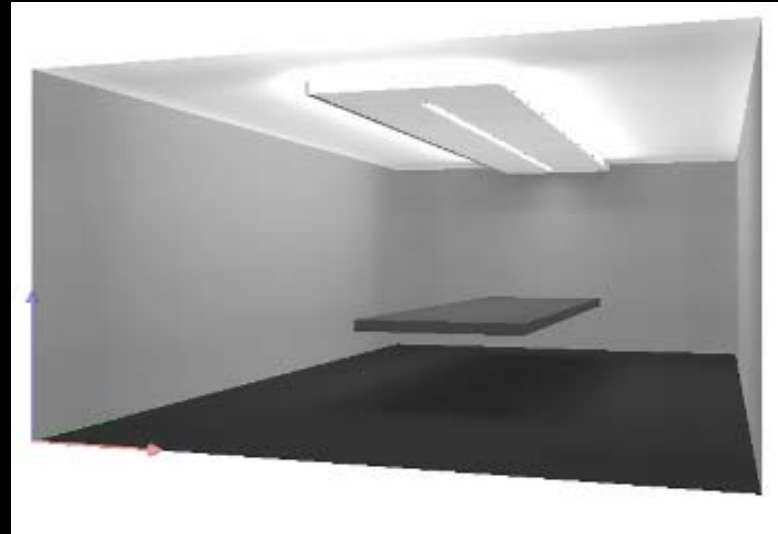
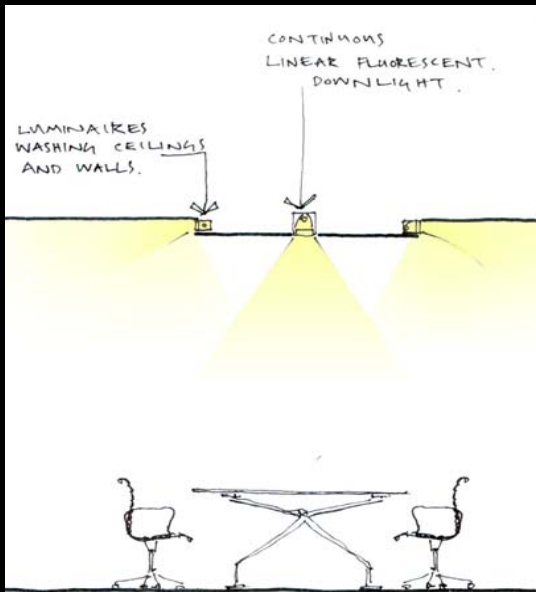


BGI Grosvenor Place
Mini Coffer vs Mini Downstand



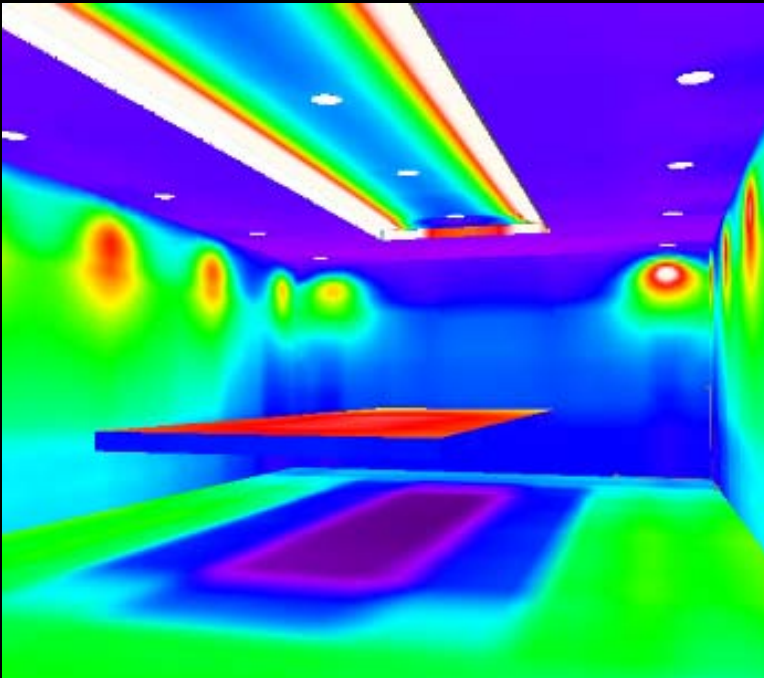
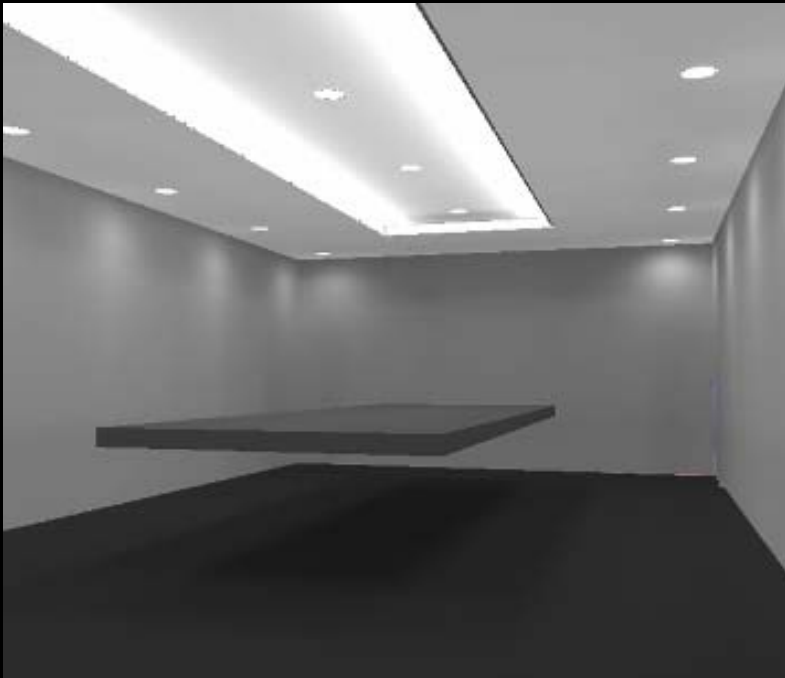
BGI Grosvenor Place

Mini Coffer vs Mini Downstand – Calc Models

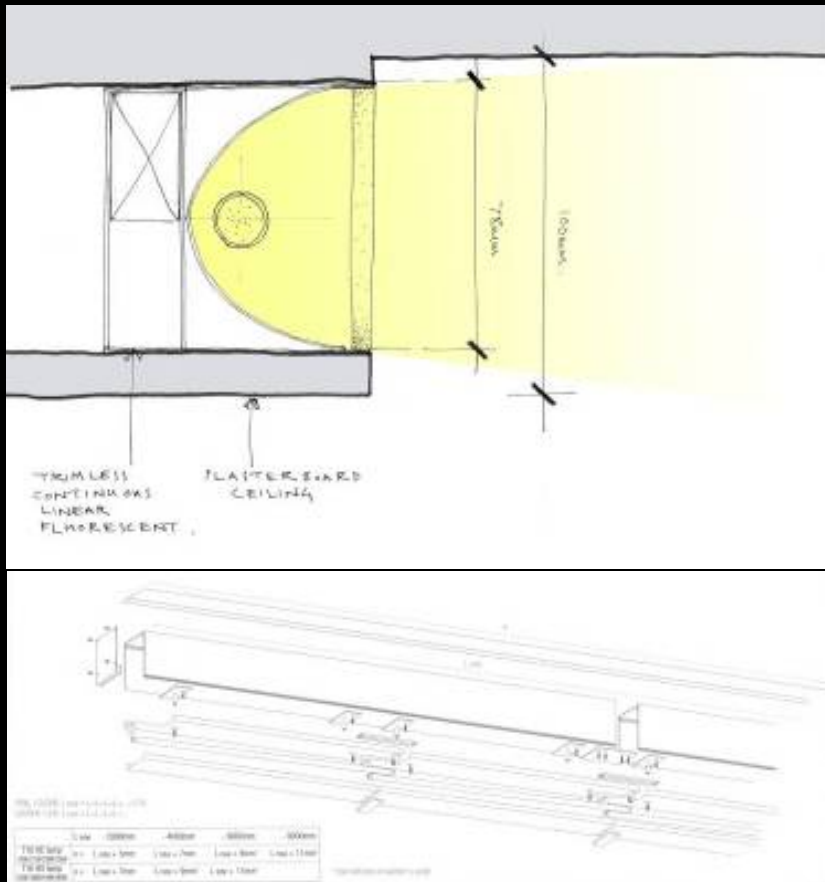


BGI Grosvenor Place

Reception – Meeting Room Option 1 Calculation Model



BGI Grosvenor Place
Reception Coffin Detail



Job Title:	Barclay Global Investors	Luminaire Reference:	G-1
Job Number:	86113-20	Revision:	
Purpose of Issue:	For Construction	Date:	July 2007

DESCRIPTION

Xal Minimal 60 System Continuous trimless linear fluorescent system with overlapping T-5 lamps and DSI dimmable ballasts. Various wattages of lamp to be used, see manufacturers details for lamp specification. System to produce continuous lit effect.

Contact Xal: Hamish Little: 0413 848104

APPEARANCE



LUMINAIRE

Manufacturer: Xal
 Product number: OB 8769
 Catalogue number: See manufacturer for full component specification
 Finish: Opal Diffuser

LIGHT SOURCE

Type: Linear fluorescent
 Designation: T-5
 Wattage: Various
 Lamp CCT: 3000K

CONTROL GEAR / TRANSFORMER

Type: DSI Electronic
 Dimmable: Yes
 Location: Integral

ACCESSORIES

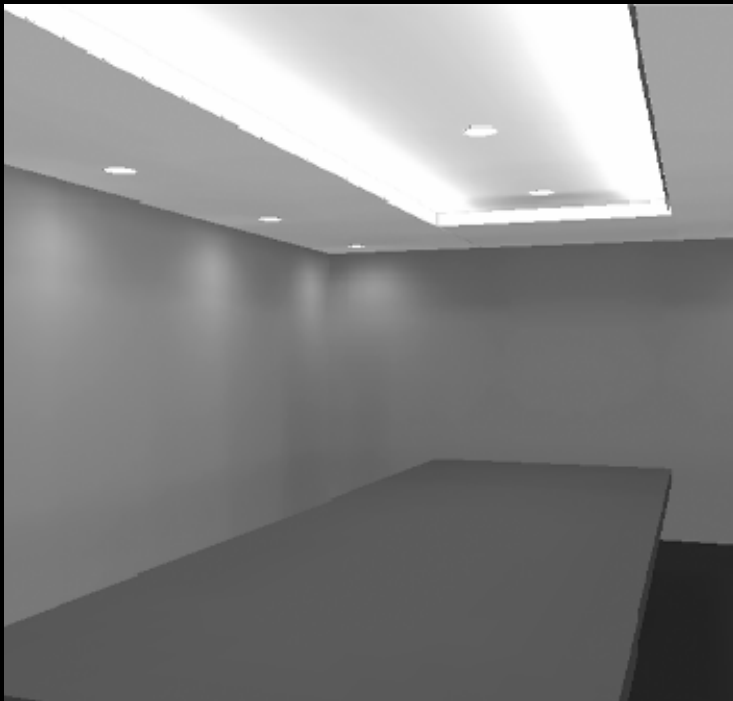
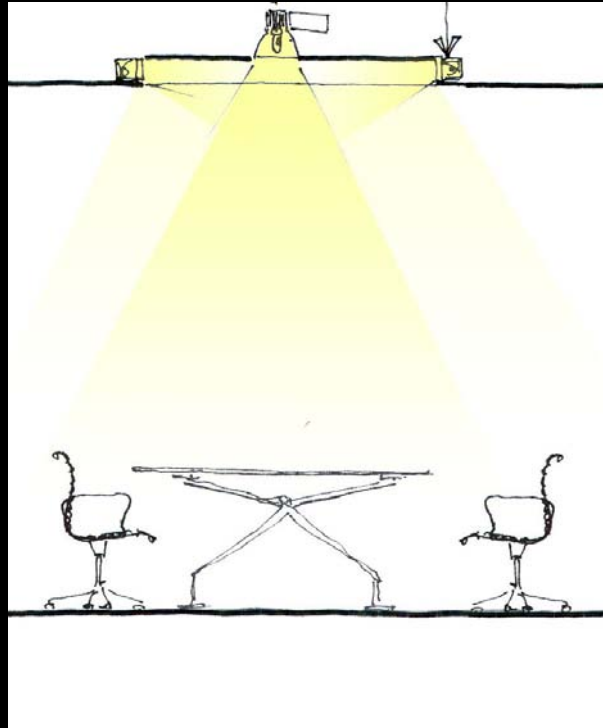
Filter: N/A
 Lens: N/A
 Other: N/A

ADDITIONAL INFORMATION

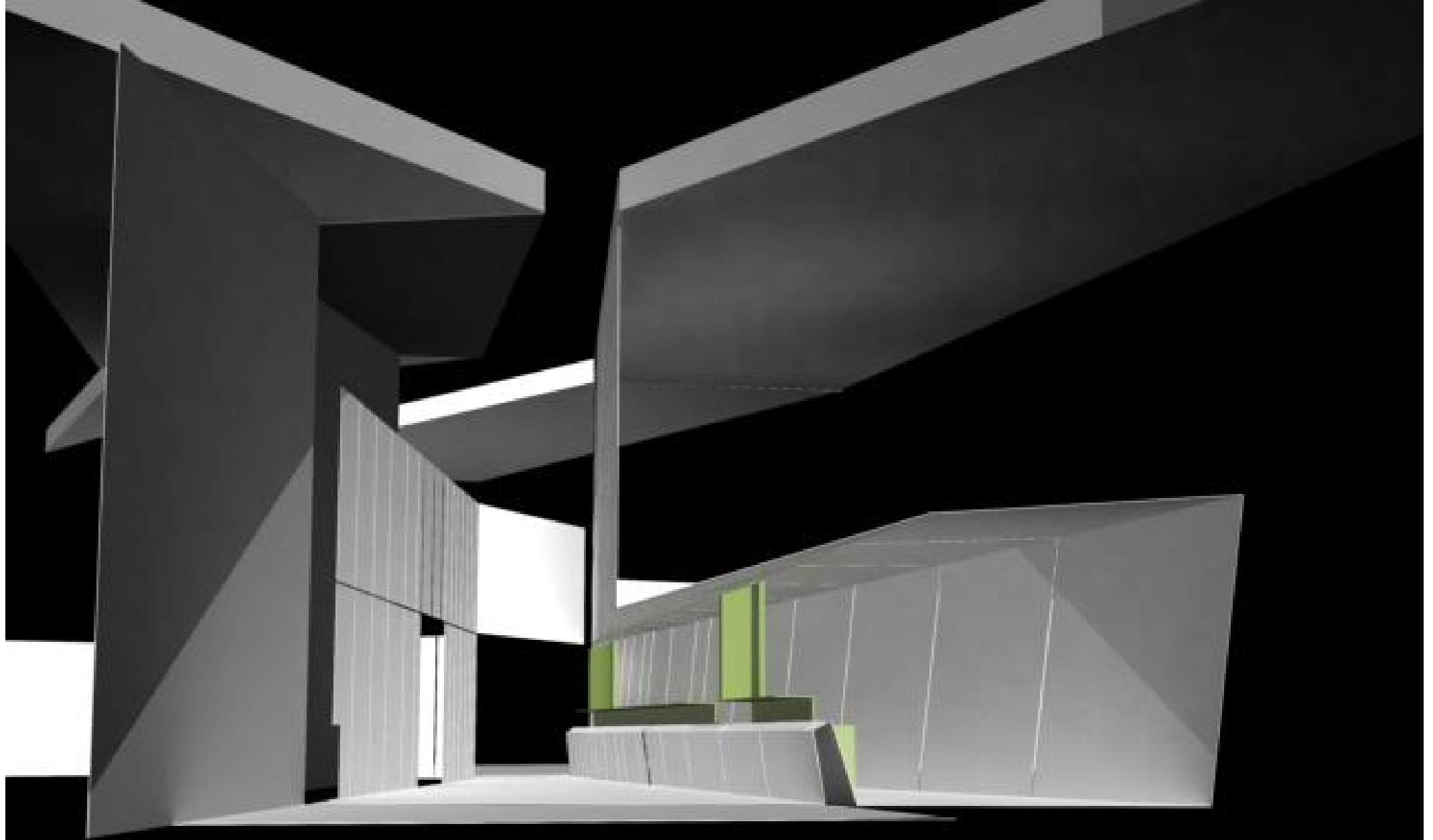
1. Sectional Dimensions 60mm width x 60mm depth
2. Luminaire systems to be mounted sideways in coffer details. See Arup lighting layouts for details
- 3.
- 4.

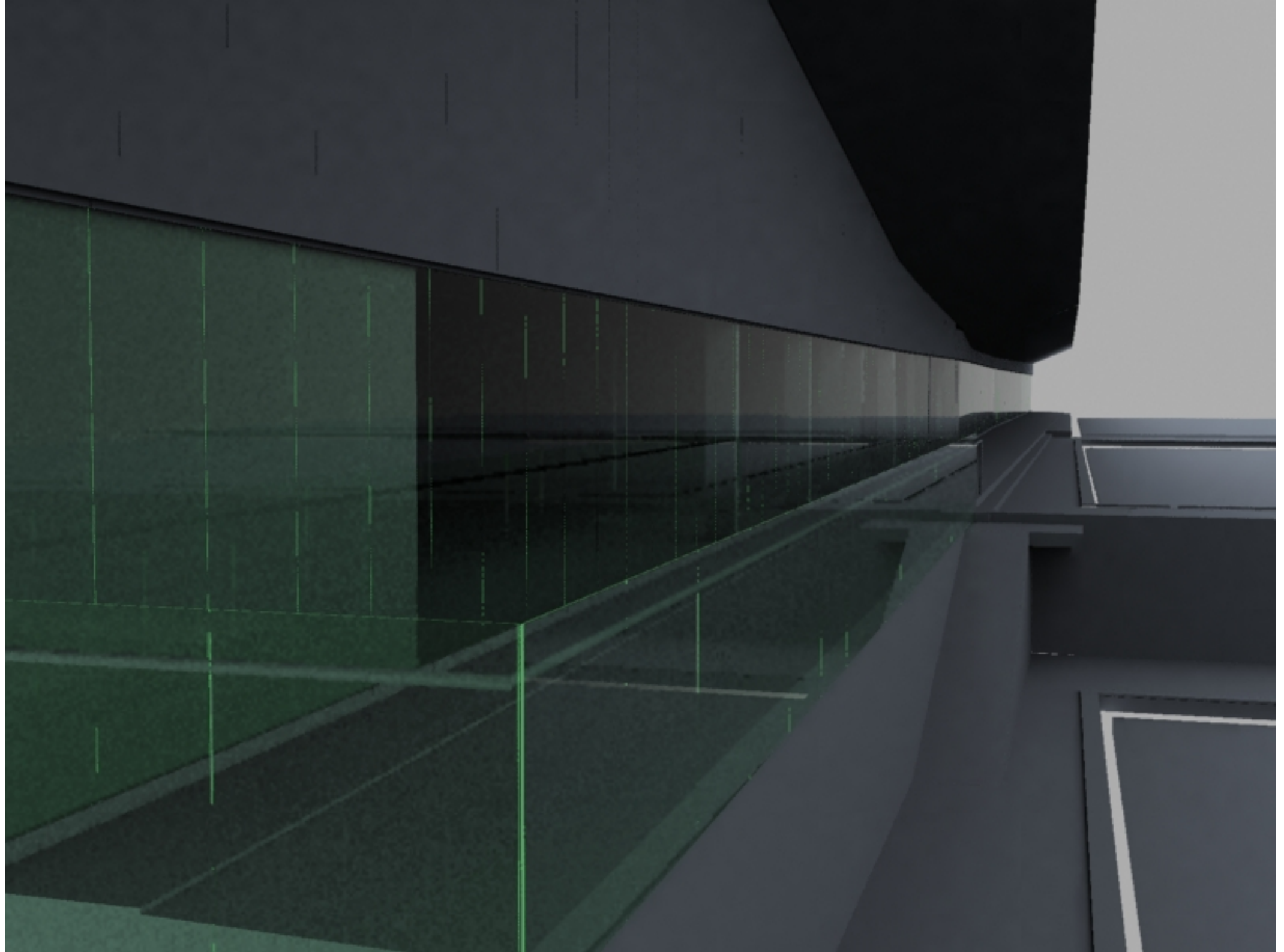


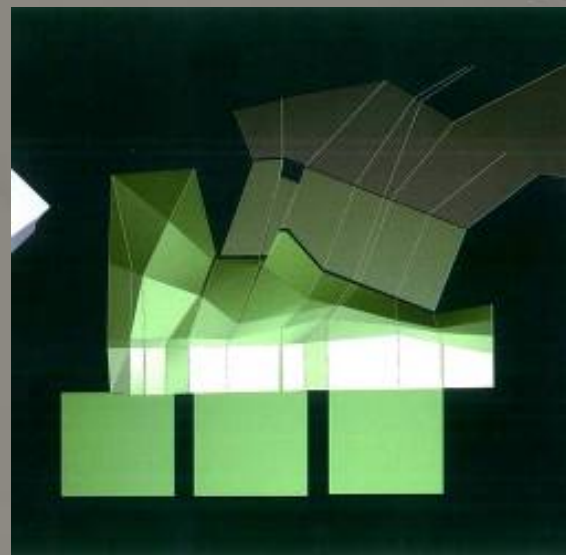
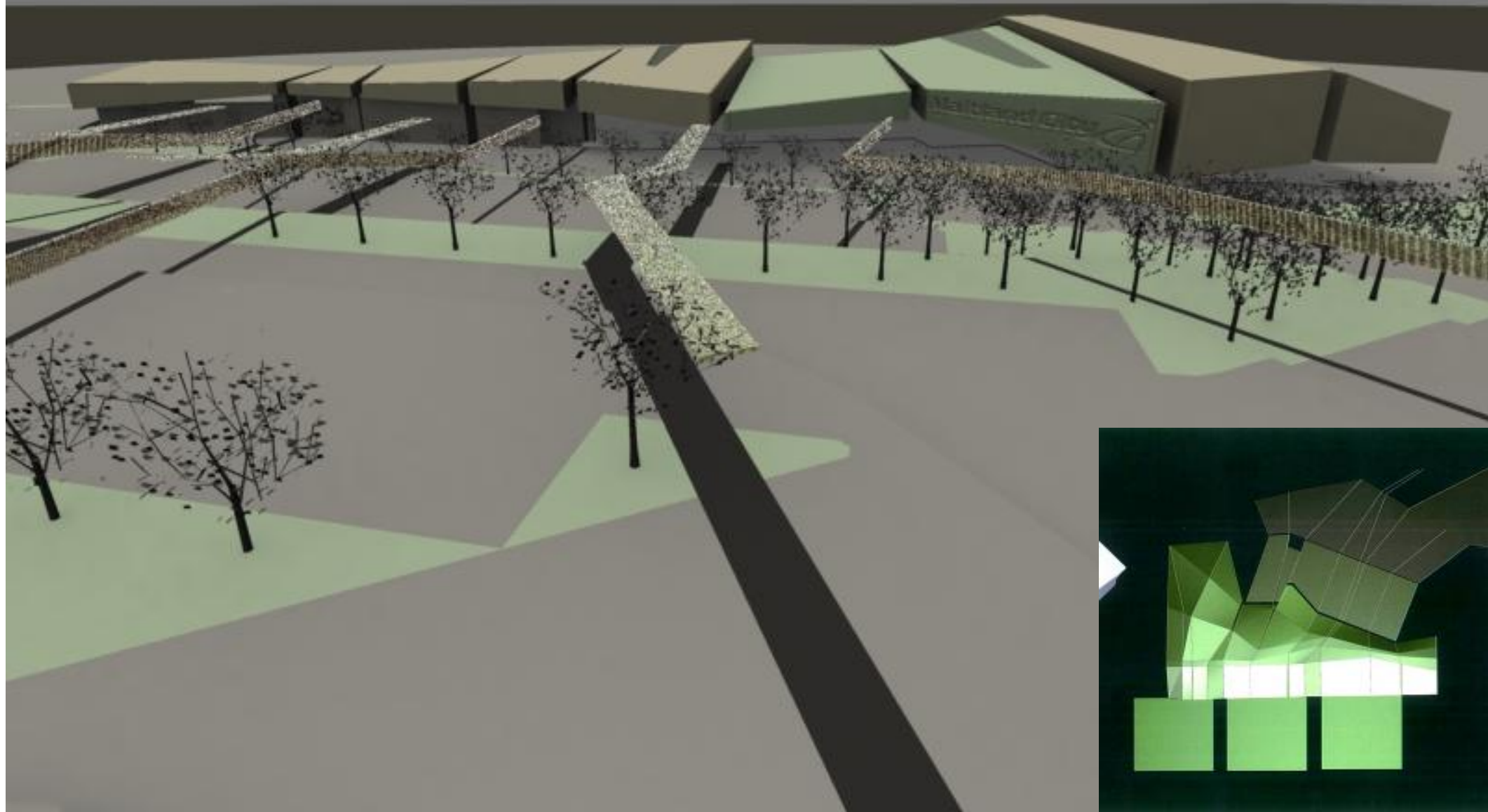




MAITLAND CITY BOWLING









Maitland City Bowling

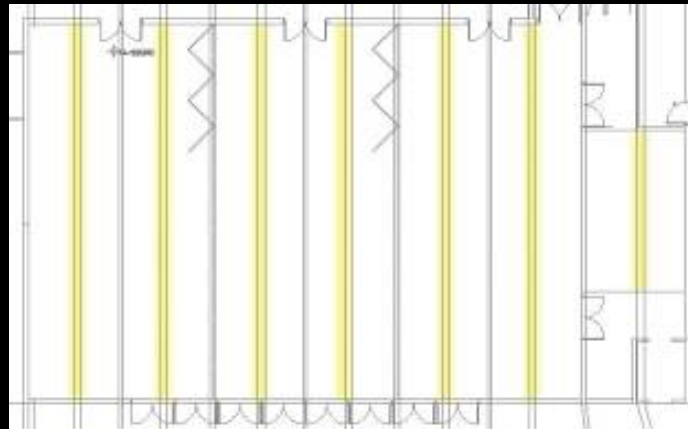
Lighting Concepts

Maitland City Bowling Club

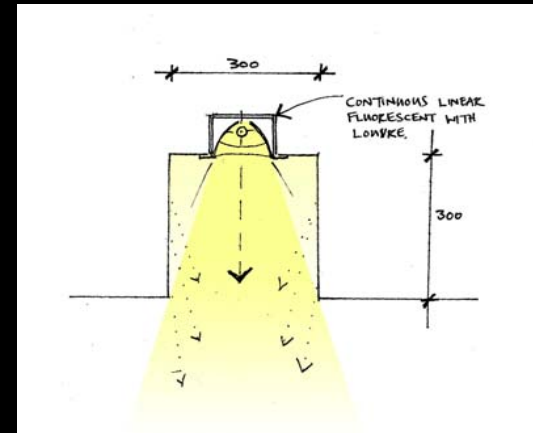
Multipurpose Room



Calculation Model



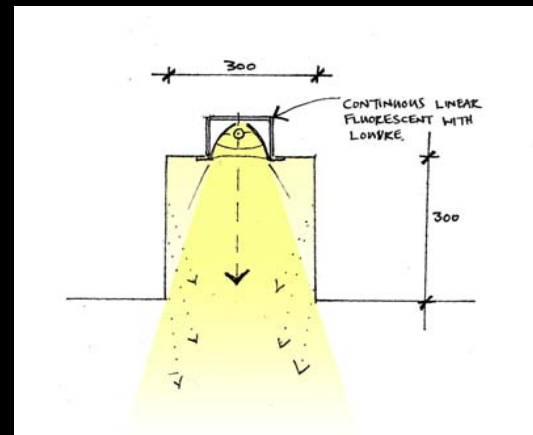
Lighting in alternate cuts



Recessed continuous 1x35W T-5 linear fluorescent luminaire with reflector and louver

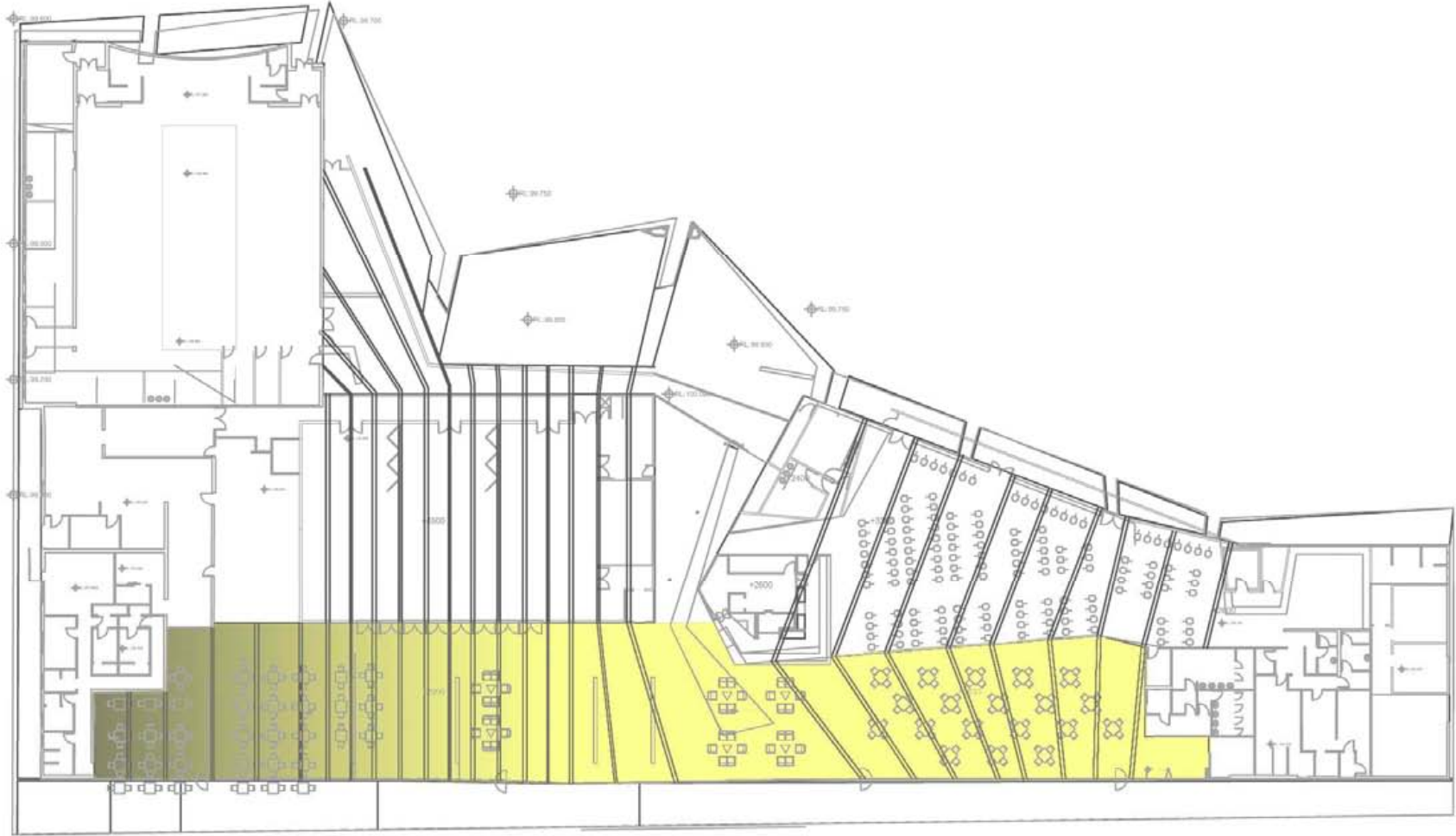


Maitland City Bowling Club
High Ceiling Corridor



Recessed continuous 1x35W T-5 linear fluorescent luminaire with reflector and louver

Maitland City Bowling Club
Main Area – Brightness Overview



More Intimate



Greater Contrast

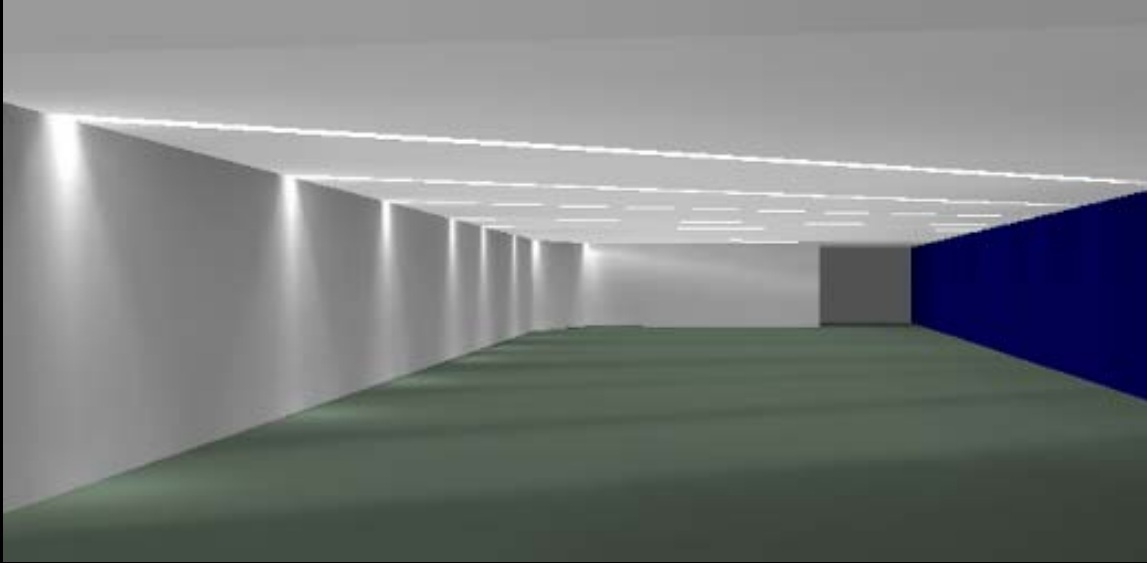
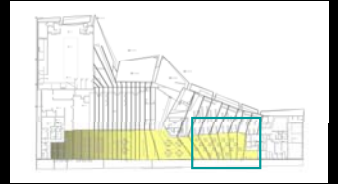


Higher General Brightness

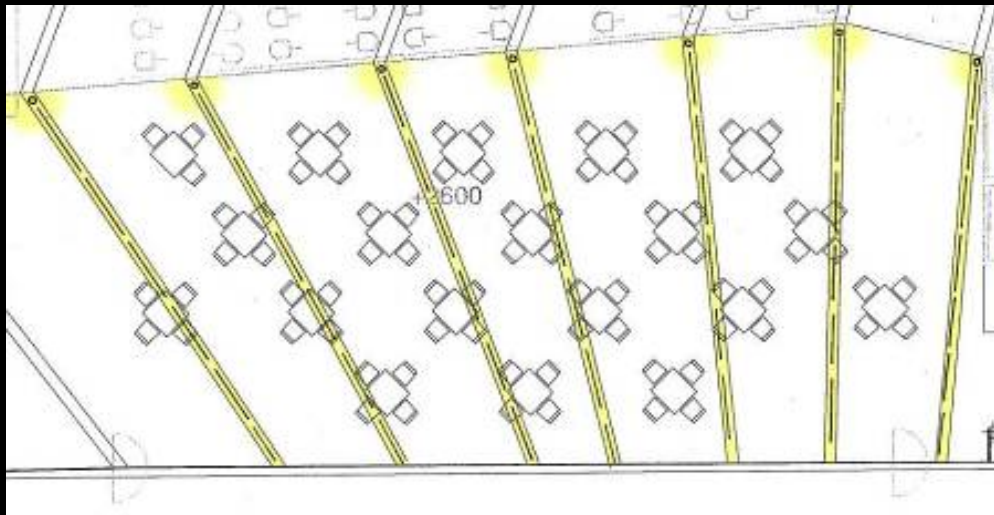
All lighting within the main area to be controlled with simple scene setting and dimming facilities

Maitland City Bowling Club

Main Area

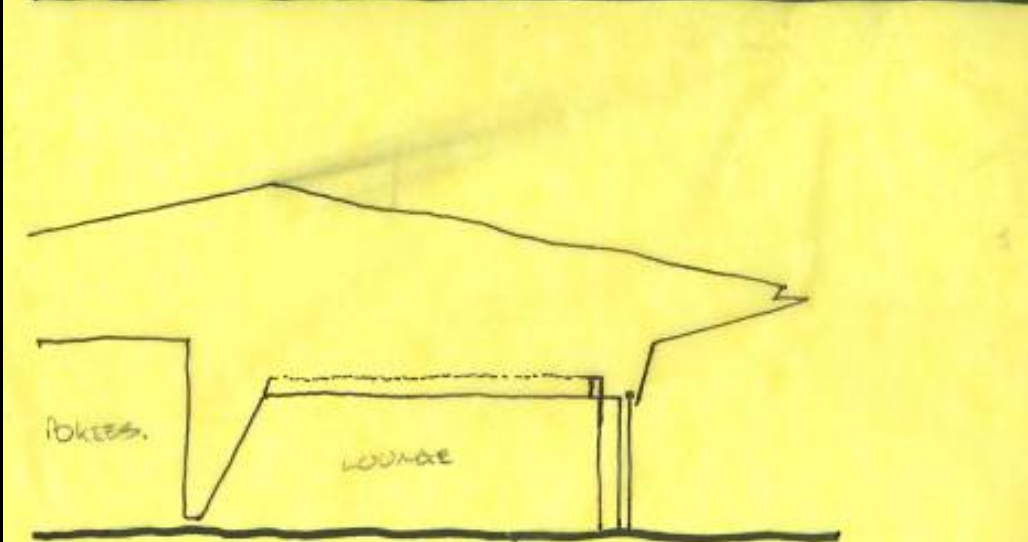
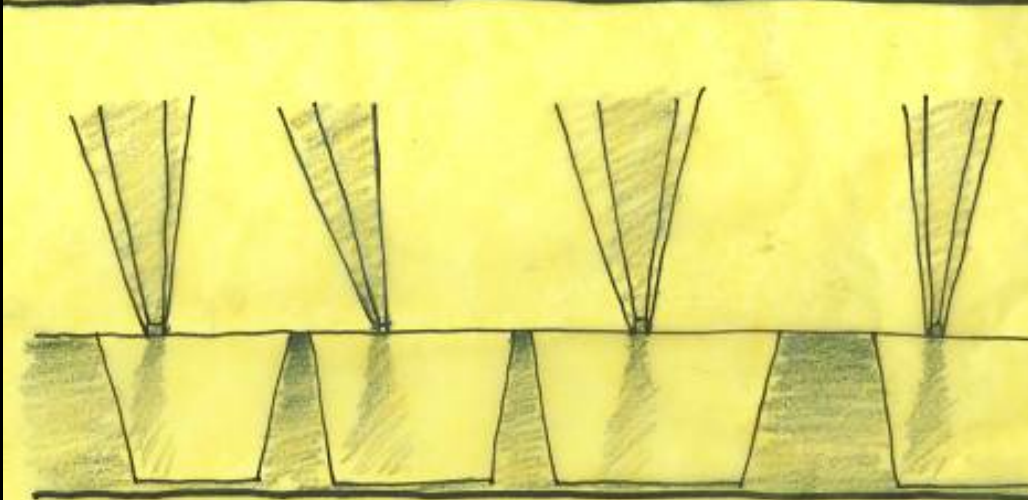
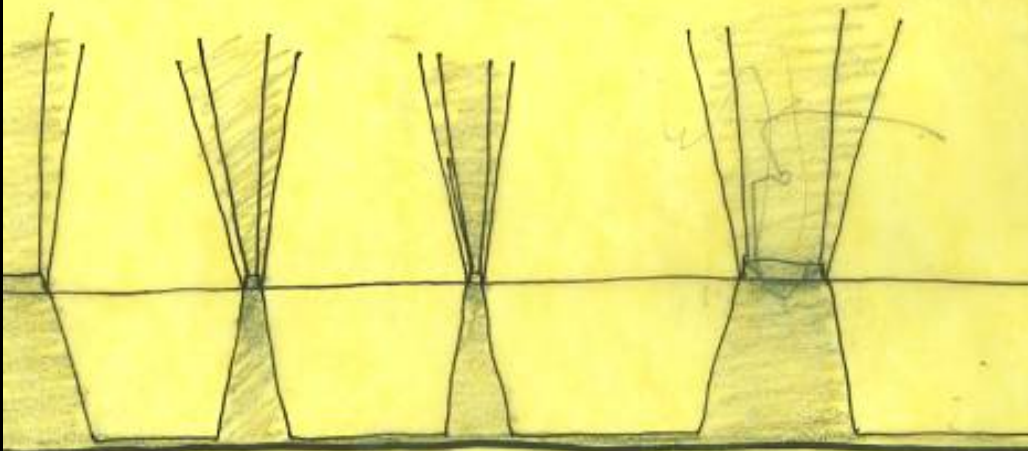


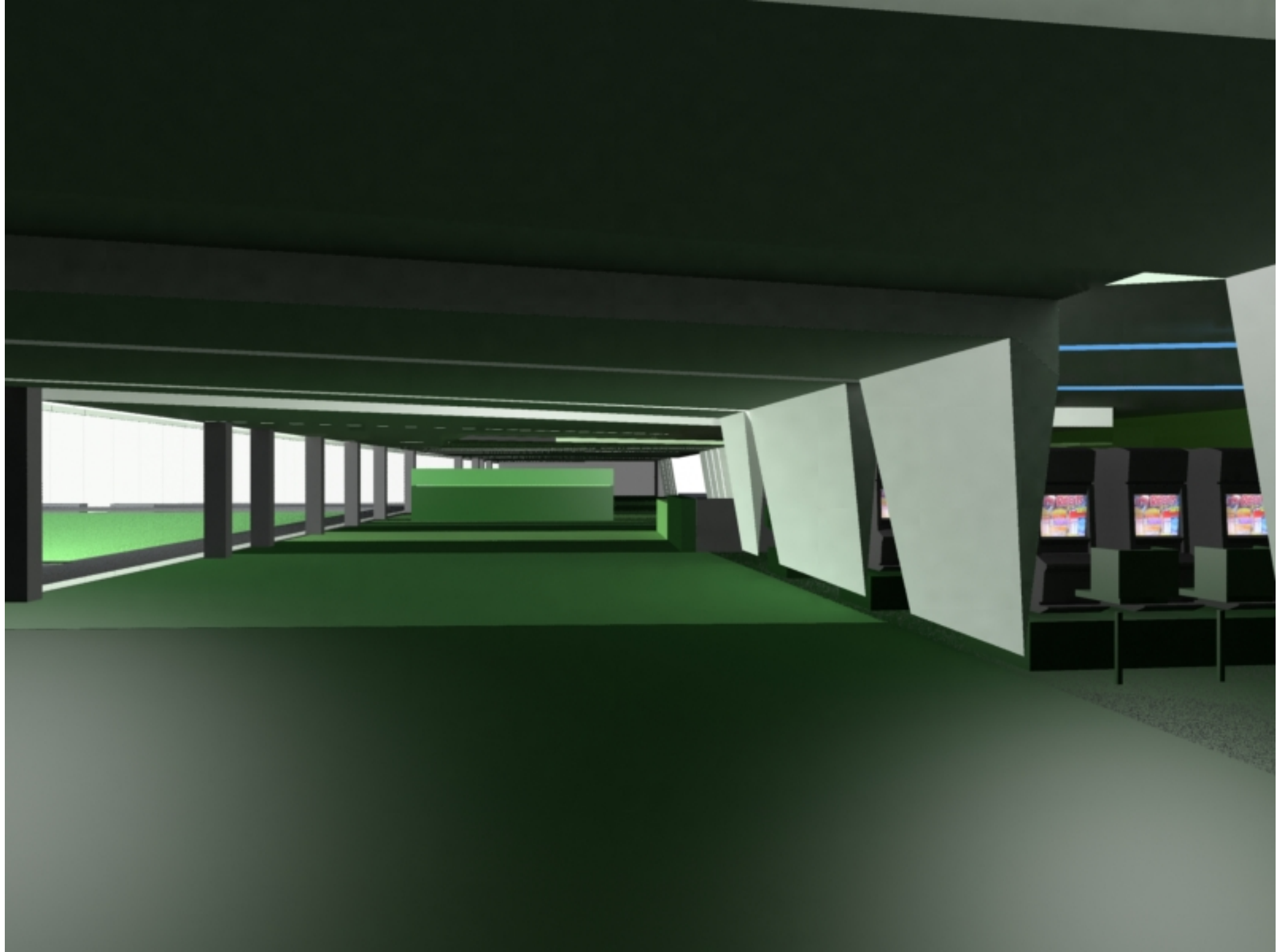
Linear fluorescent lighting in cuts with compact fluorescent wall washing

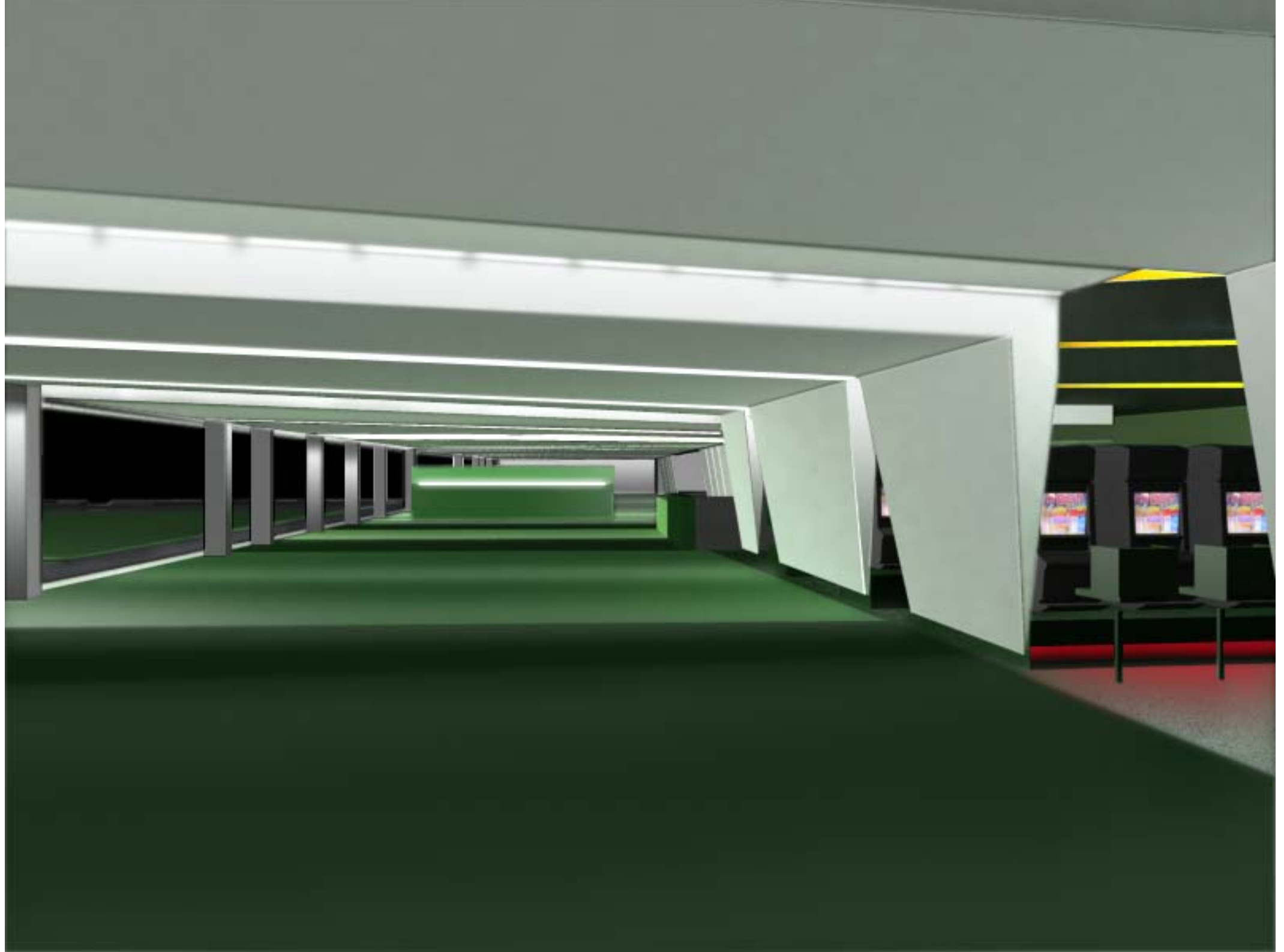


Lighting in each cut

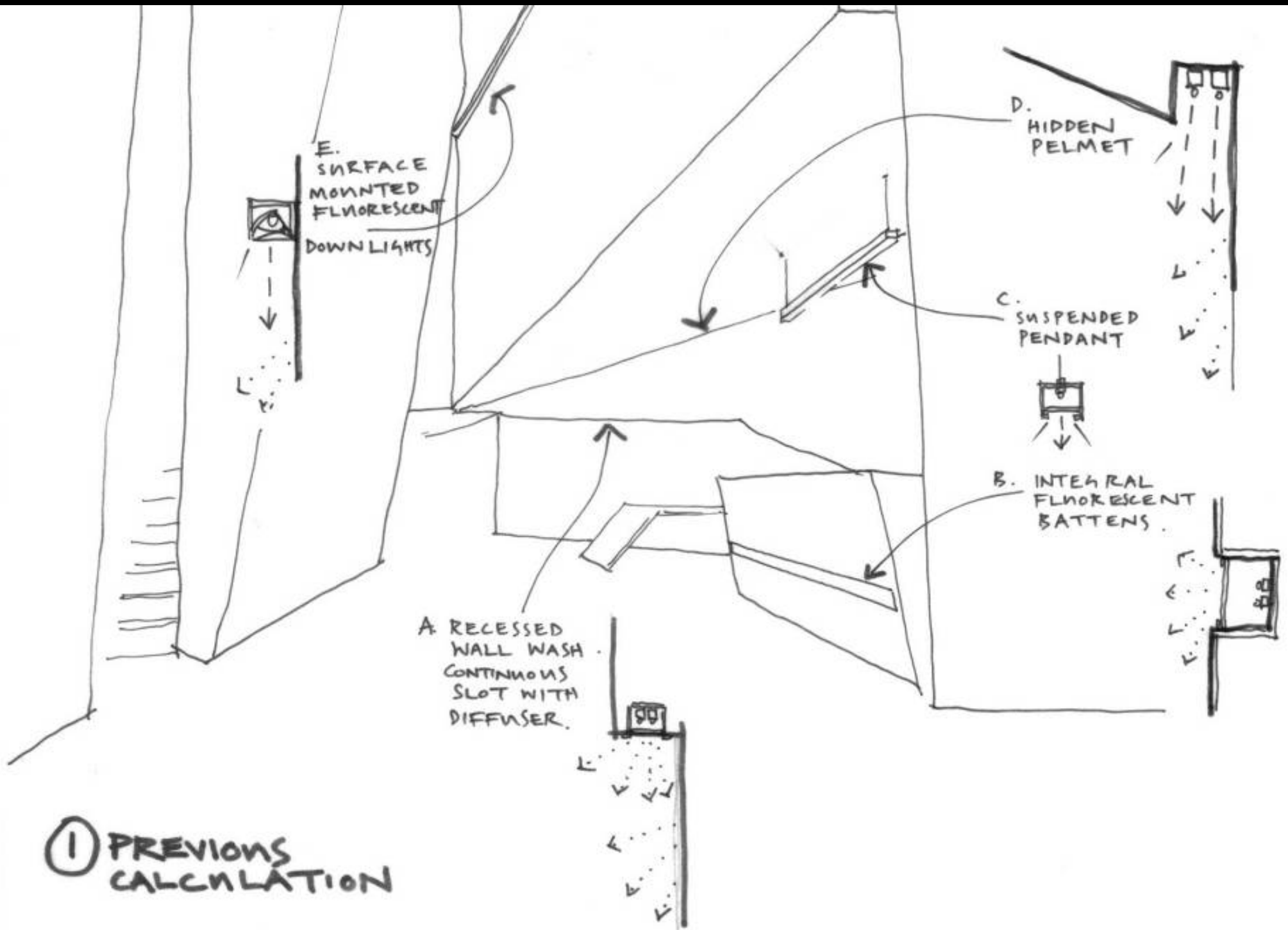
GAMING



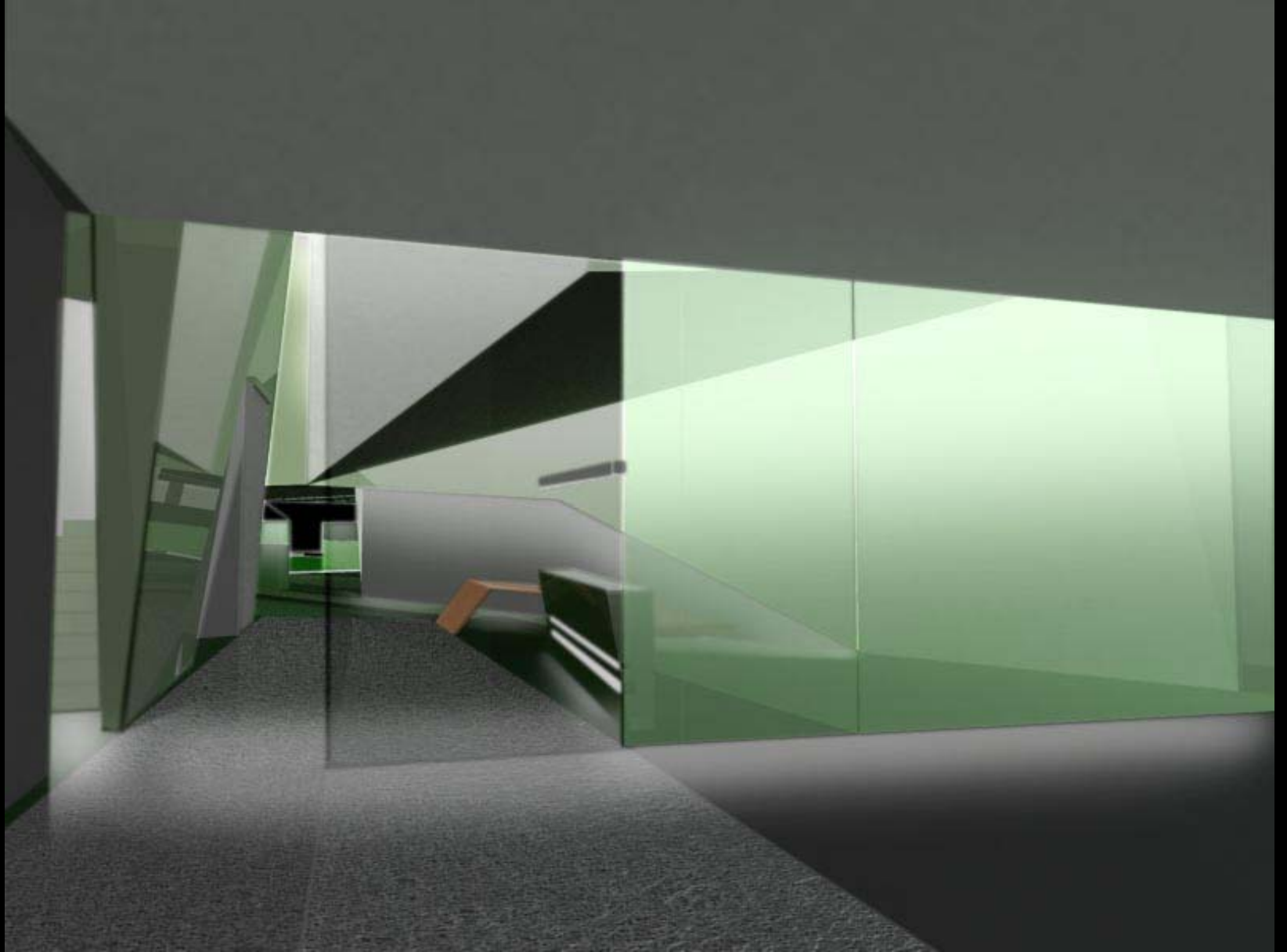
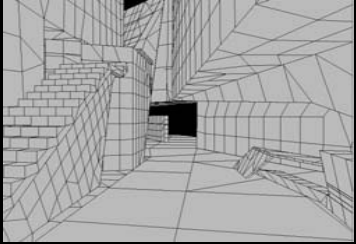


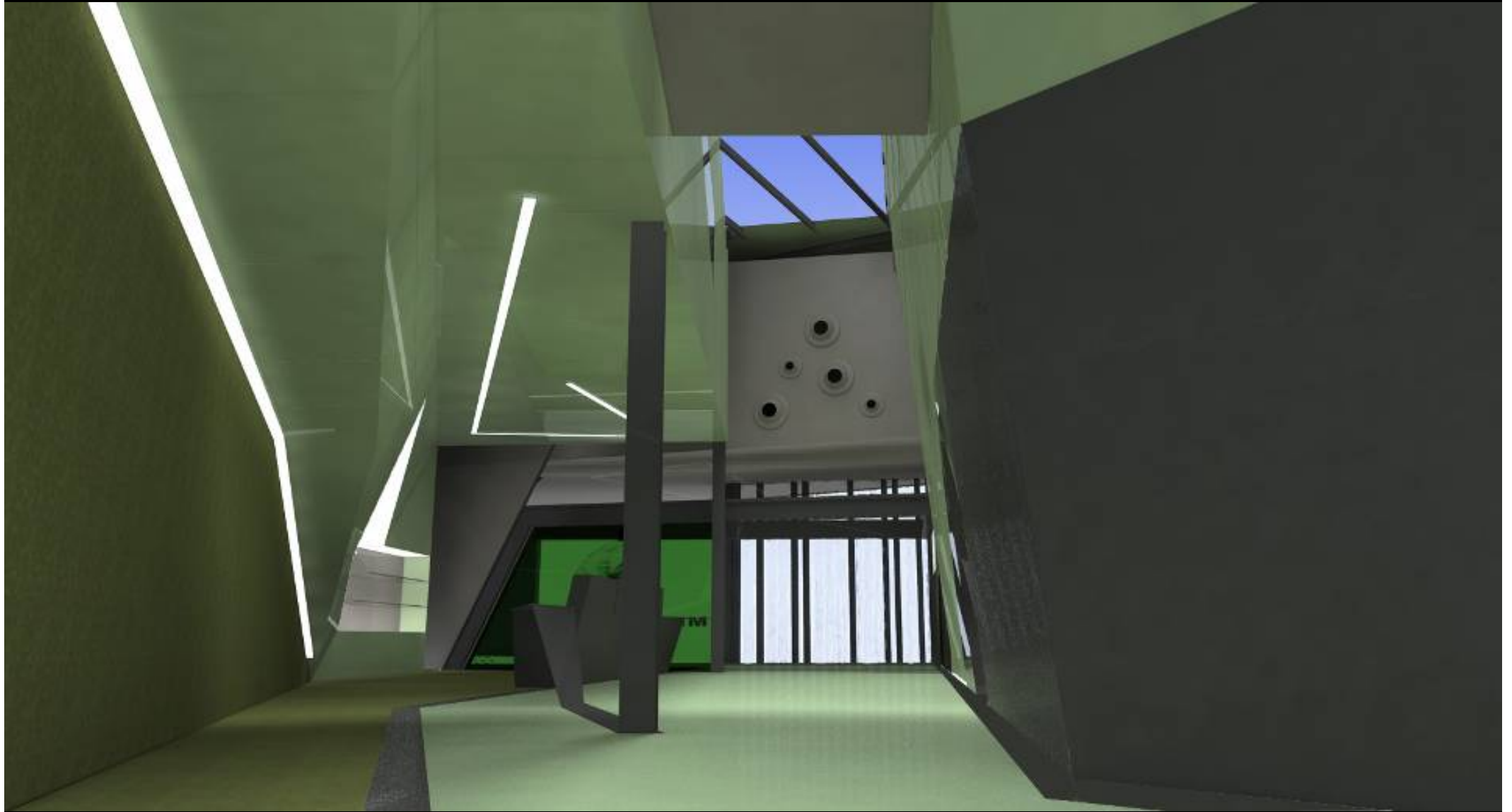


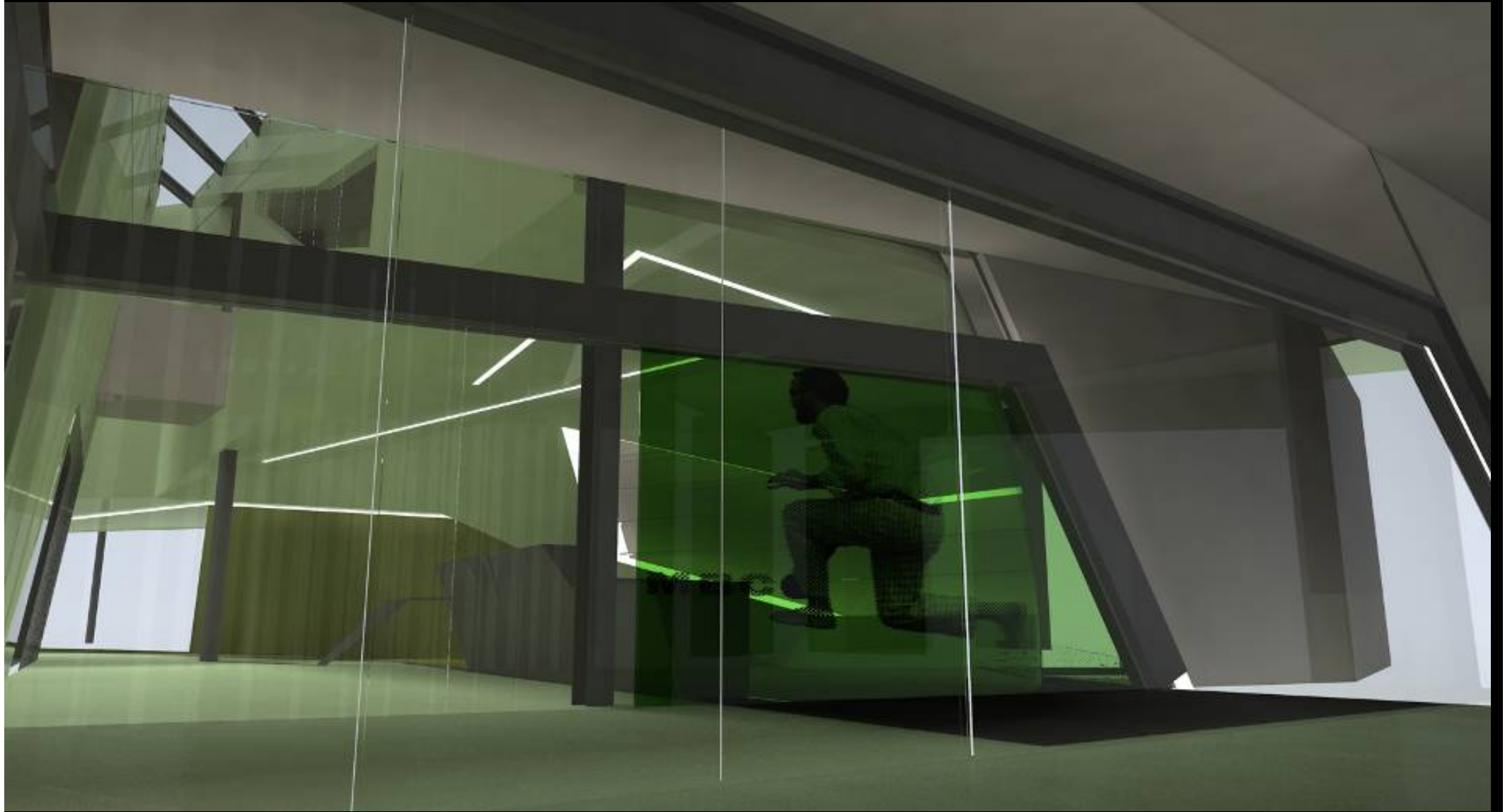




① PREVIOUS CALCULATION

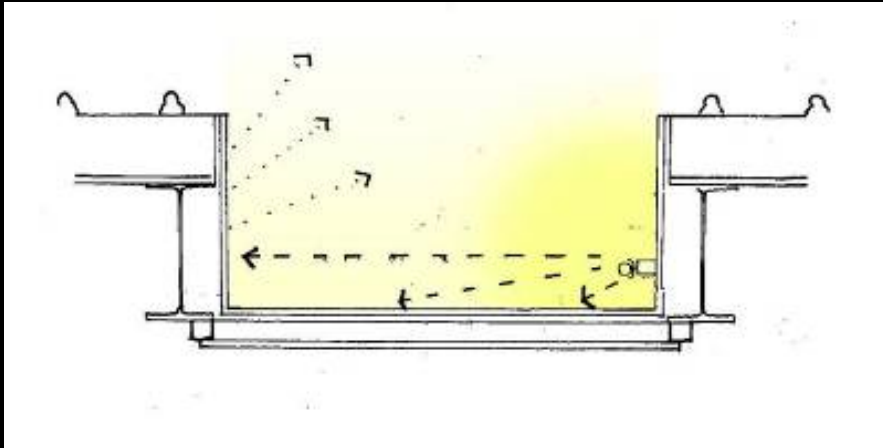






Maitland City Bowling Club

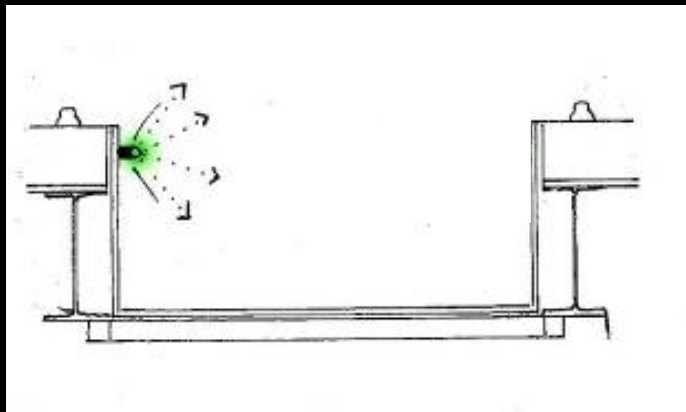
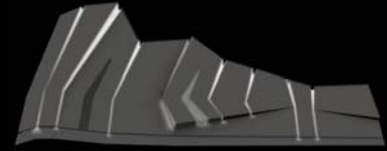
Roof Feature



Interior of gutter lit with cold cathode



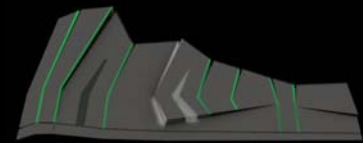
Cold cathode body



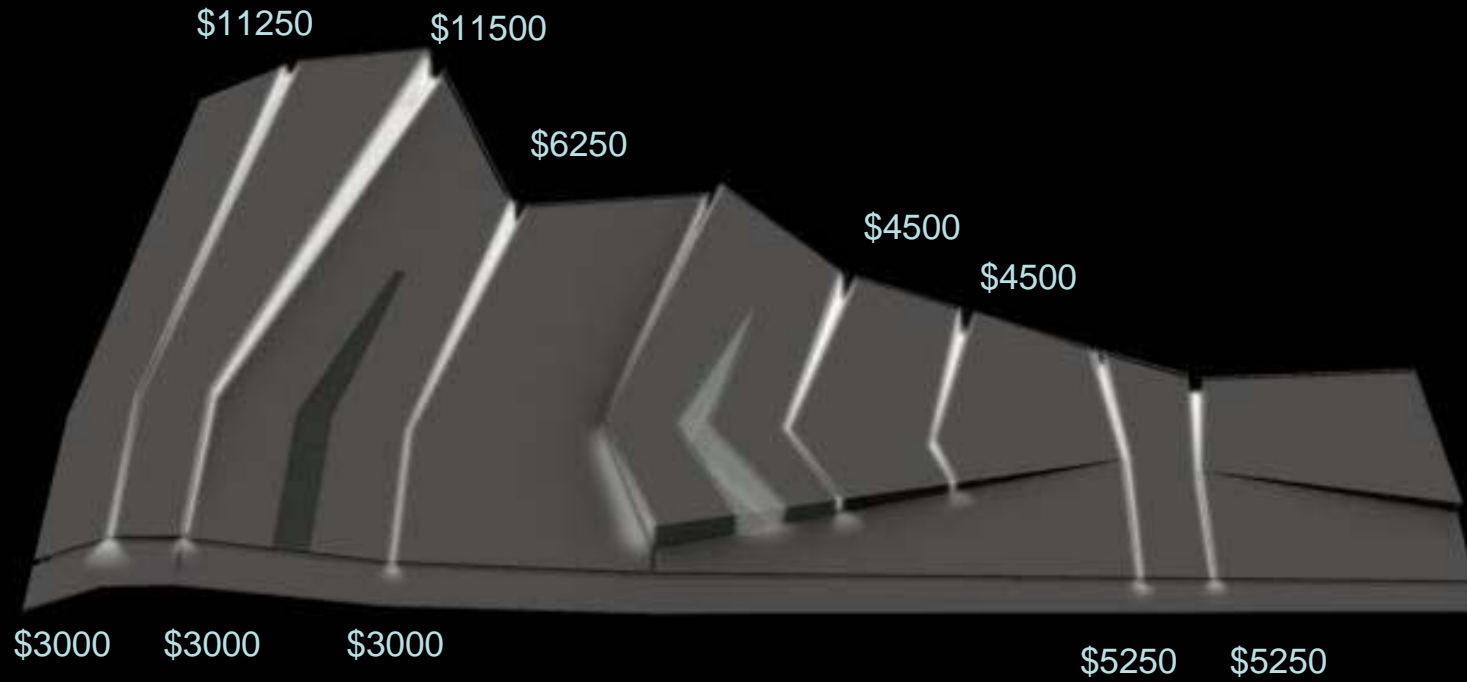
Line of gutter denoted by LED strip



Detail of LED mounting

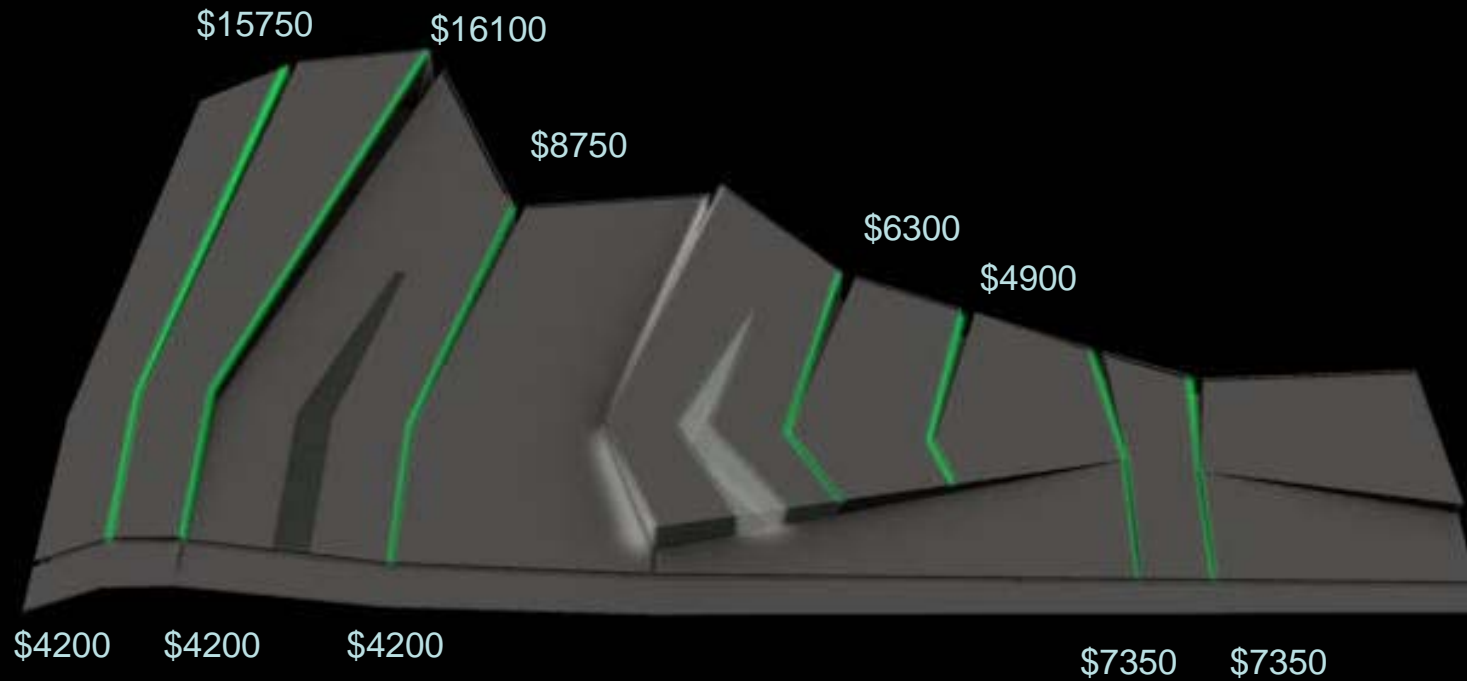


Maitland City Bowling Club
Roof Feature Budget Costing Cold Cathode



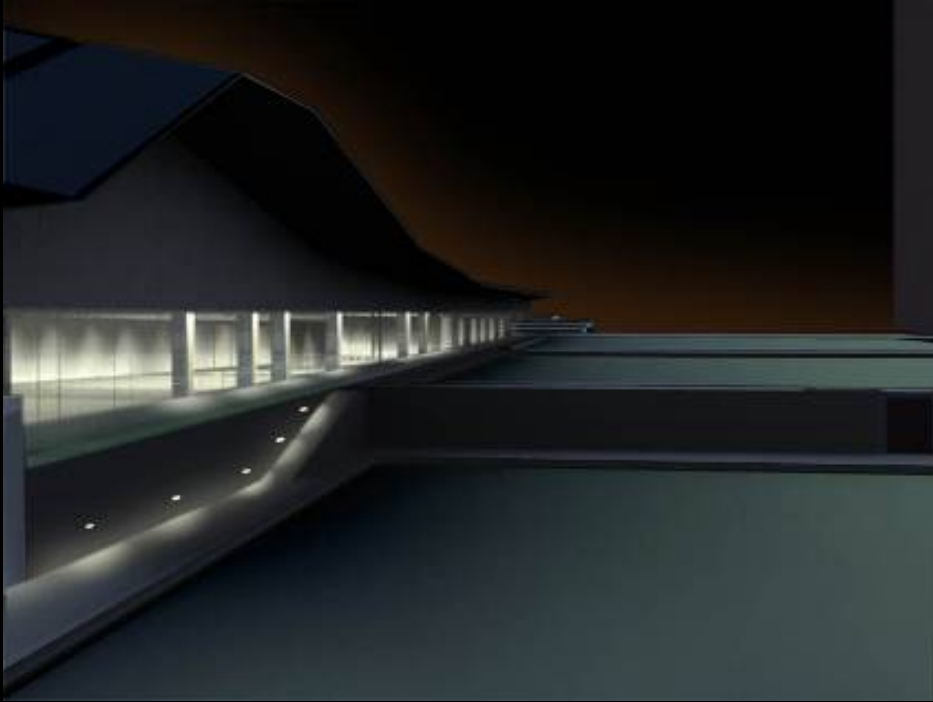
Total Budget Costing **\$57,500**

Maitland City Bowling Club
Roof Feature Budget Costing LED's

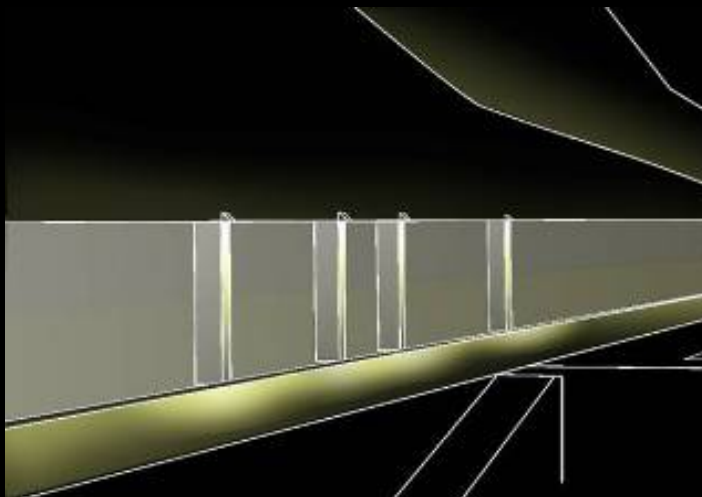


Total Budget Costing **\$79,100**

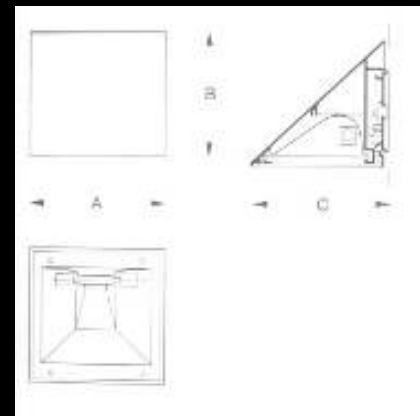
Maitland City Bowling Club
Eastern Elevation



Exterior lighting provided by wall mounted downlights

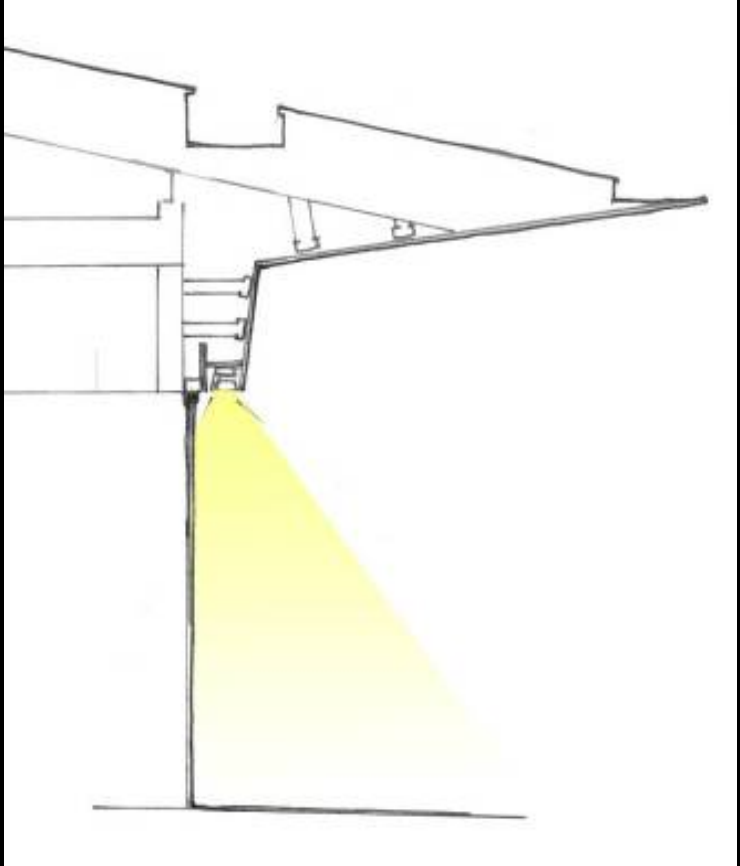


Luminaires mounted in relation to columns

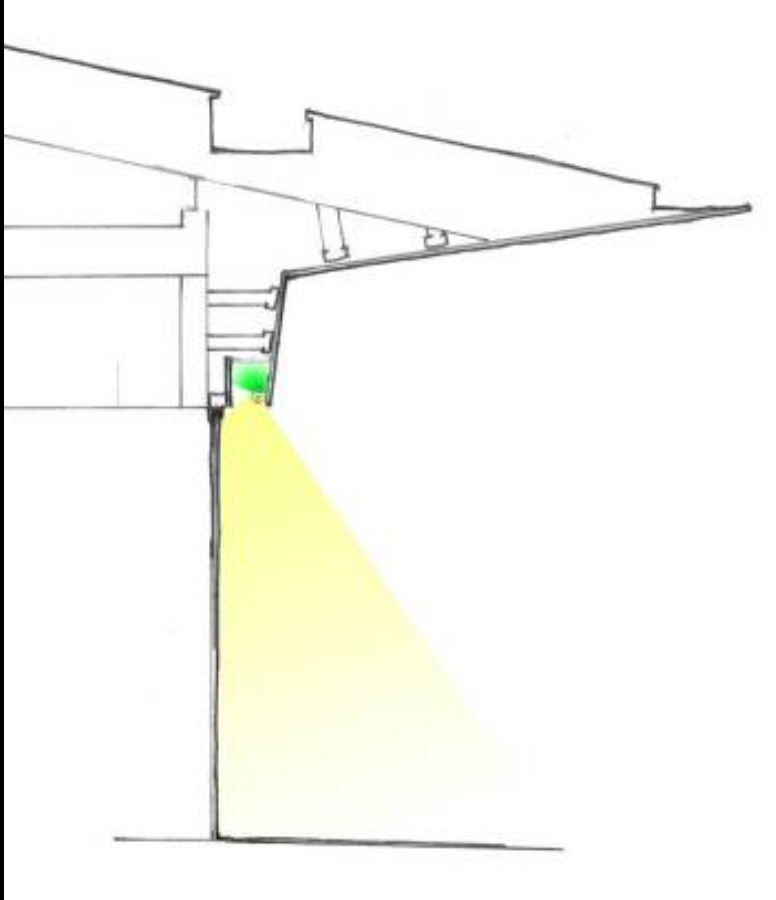


A= 260mm x B = 225 x C=240

Maitland City Bowling Club
Eastern Elevation



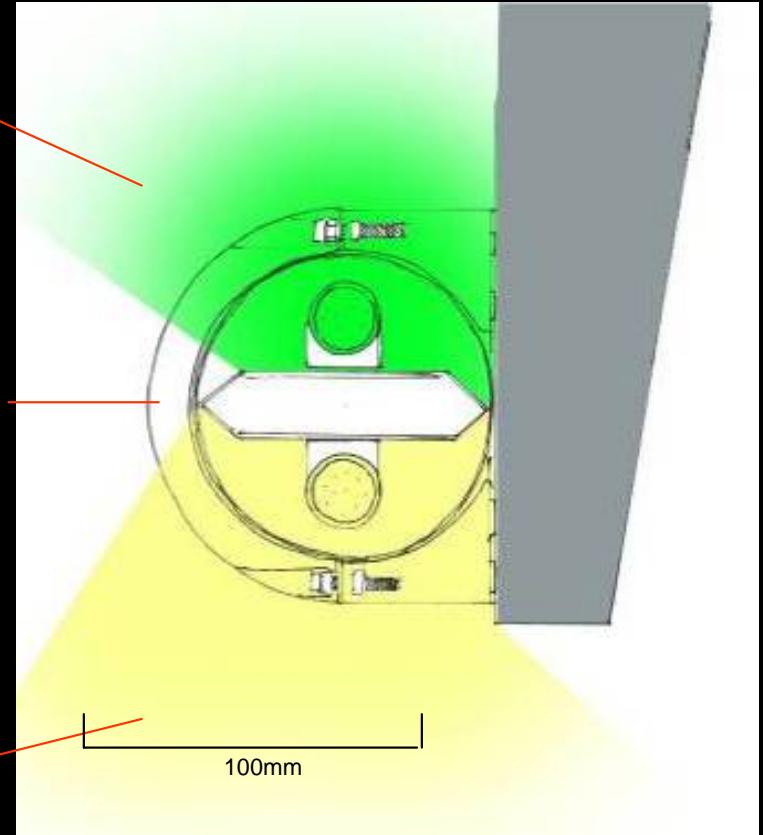
Maitland City Bowling Club
Eastern Elevation



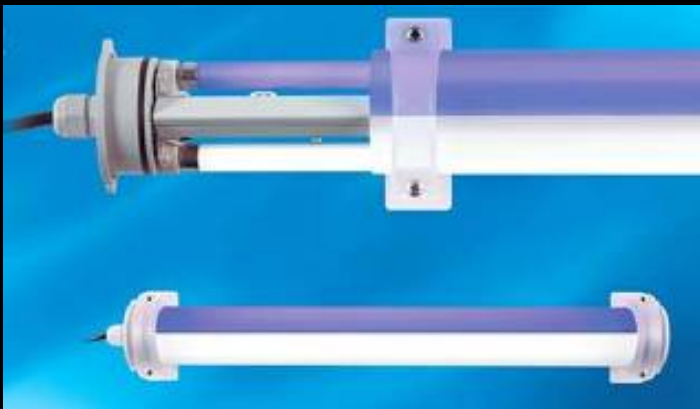
GREEN LIGHT
UPWARDS

ENCAPSULITE UP/DOWN
LINEAR FLUOPRESCENT

WHITE LIGHT
DOWNWARDS



100mm



ENCAPSULITE 360 2X35W T-5 LINEAR
FLUORESCENT WITH COLOURED
UPLIGHT















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