

## From the Chapter President

Hi Everyone,

The Christmas season is upon us. Our amazing Editor has been chasing me to get this article to him so he can get the Varda to you before you take off on holiday. If it missed you because you left early – please accept our apologies.

The Christmas break is a great time to spend time appreciating your family and friends, reviewing the year that was, and making plans for the year that's coming. This year has been quite a busy one for the NZ Chapter, and for the Society as a whole. We've run 18 Technical Events around the country starting in January 2019 until now. We've also had 12 entrants in the NZ Chapter lighting awards programme, run a very successful gala dinner in October and had two of last year's entries win Excellence in our "cross society" international lighting awards. This will be our sixth VARDA for the year, and we've also put on some supplier trade shows and had the odd Christmas party as well. And that's just in NZ!

As a Society, we've also put together a successful lighting conference and I've been told that 28 of us Kiwi's made it across the ditch to the conference – thank you very much for your support. I hope you got lots out of that conference and now have a long reading list to work through during the Christmas break. One of the important points to note out of the presentations made is that there is more to the story than you saw there – so now having had your eyes opened, do the research and fill in the gaps! Make use of the new IES-NA resources available to you through our Global Affiliate Membership. This provides you with access to IES-NA's recorded webinars, technical documents, standards and more. Details are available from the member resources page on our website.



### THIS ISSUE

From the Chapter President	1-2	Lighting Awards Results	14-16
Conference Reports	4-9	Chapter Management Committee	18
Technical Events	10		
Education	12		
Standards & Qualifications Report	13		

Volunteers are what make the Society turn round and as I look across all of the chapters I'm thankful we are blessed with lots of them here in New Zealand. Thank you first and foremost to those that have volunteered their time on the Chapter Management Committee and the various city tech event support teams. Thank you to our Gala Dinner sponsors – without which we would not be able to run a majority of our tech events through the year and do the things we do. I call this lot our support team and they're fantastic.

Finally – thank you all for your support. We need it. More members mean that the load for running the society can be shared much more evenly, and it helps with the finances too. I hope you can see just some of the value you get from your membership and I'm sure there are a bunch of friends, family and especially colleagues that are not (yet) members that could both benefit and contribute to the Society. I would love for NZ to have a larger membership base than the Auzzies (yes there's a bit of competition!) so become our ambassadors and spread the word (no pressure it's the Christmas Holidays!)...

Have a great holiday and look forward to our Tech Events, we have got lots happening in February and are now booking up March too! (see page 9 for more details). Have a think about what entries you can put into the lighting awards programme next year and save the date for our next Gala Dinner – 6th November 2020, in Queenstown!!!

Warm regards,  
Greg





A huge thank you to our sponsors of this years  
IESANZ New Zealand Chapter  
**LIGHTING AWARDS 2019**

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# IESANZ

LIGHT IN FOCUS

## IESANZ Conference 2019 Reports

### Report by Josh Duckett

What a fantastic event put on by the IESANZ! It's been more than 10 years since a conference has been held by the IESANZ, the last being down in Queenstown.

The aim was to create an event where ANZ members are able to come together and hear from the industries top minds without having to travel at least 10 hours. This was successfully achieved with the outstanding national & international speakers that gave some very thought-provoking talks around the hot topic of human centric lighting. Well done and thank you to those who helped create this conference.

For those who didn't attend, it was well worth the trip over the ditch and I strongly encourage you all to attend the recently announced 2021 conference (Location TBC). New Zealand showed up strong and made sure those Aussies knew we were there. Our official count was 28 New Zealanders. Including representatives from BECA, NDY Light, LDP, Connetics & Powell Fenwick. Energy Light / OSIN, MHL, Zumtobel & Impressions Lighting also had representative's attending. The New Zealand CMC also showed up in force with Greg Williams, Martin Granese, Tracy Bronlund & myself all attending.

There were many highlights for myself which are difficult to put into words. To truly grasp the topics requires going into detail that gets rather lengthy, but let's look at a couple.



Josh Duckett  
Hamilton Liaison



Your local  
lighting experts

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### **Mariana G. Figueiro, Ph.D – Director at Lighting Research Centre**

Circadian Lighting and the misconception of colour temperature being the be all and end all of achieving a “correct” Circadian lighting system.

She showed that with the correct spectral make up you can achieve a Circadian Lighting system that only alters colour temperature by 500K.

Her work with the LRC produced a Circadian Stimulus Calculator where by simply entering the SPD and lux level will tell you if your lighting system is performing properly. It is quite inspiring and I would recommend looking up her and Mark Rea’s research. Essentially, it shows that just because it’s “Tunable White” doesn’t mean it actually helps.

### **Kit Cuttle**

Pretty much everyone knows who Kit is, a man who has given so much of his life to promoting better lighting & has played a huge part in IESANZ, especially the NZ Chapter. Kit’s talk around vertical illumination and how to light a space based on how you want it to feel was very challenging, especially when you consider the way lighting designs for the majority of projects today are completed. His presentation essentially threw that process out the window. He has plenty of information that can be downloaded online if you are wanting to have a look at this further.

There was an over whelming consensus from all speakers that the V Lambda curve alone isn’t enough and that spaces need to be lit considerably brighter than current standards. The question is... What will we do about it?

Come along to 2021! You won’t be disappointed...

Josh Duckett TechIES  
Impressions Lighting & CMC member

## IESANZ Conference 2019 Report

### Light in Focus

#### Report by Kate Conway

A strong contingent from the New Zealand Chapter, joined our Illumination colleagues from Australia and international guests speakers at IESANZ Light in Focus 2019 Human-Centred Design in Melbourne. Guest speakers from around the world and a little closer to home presented an jam packed program over the 2 day conference, covering a diverse range of topics.

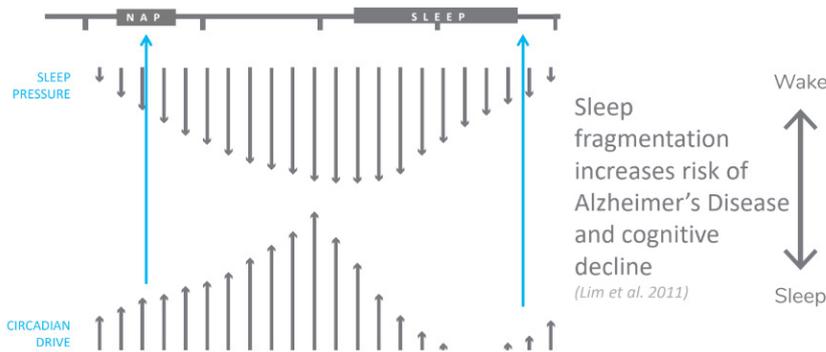
A particular highlight were the presentations from Lighting Research Centre, with Dr Mark Rea presented 'Human Centric Lighting Will Not Happen Until We Understand' kicking off the keynote presentations, Dr Mariana G. Figuerio featured on day two presented 'Human Centric Lighting : Does it Really Have to be Blue-Enriched and Tunable?'



First LED light aboard NASA's ISS (Credit: nasa.gov)

If you ever wondered how circadian rhythm is regulated on the International Space Station? Well, Robert Soler is definitely the right person to ask presenting 'Biologically Focused Lighting – The Truth About Circadian Lighting' the session was informative and a trip back to basics which made it relevant for everyone. Discussing that sleep is a two step process model of both wake an sleep and how this model is different for every person an example below is given for early birds.

## EARLY BIRDS

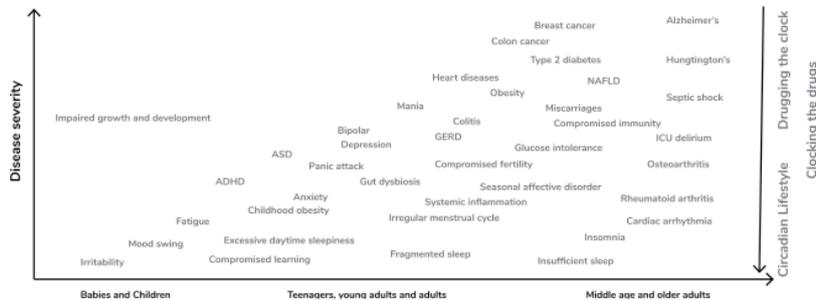


Further looking at what factors influence circadian disruption

## CONSEQUENCES OF CIRCADIAN DISRUPTION

### CIRCADIAN DISRUPTION AND DISEASES ACROSS LIFESPAN

Manoogian et al. 2018



**87% of non-shift workers have some form of social jet lag (Ronneberg and Marrow, 2016)**

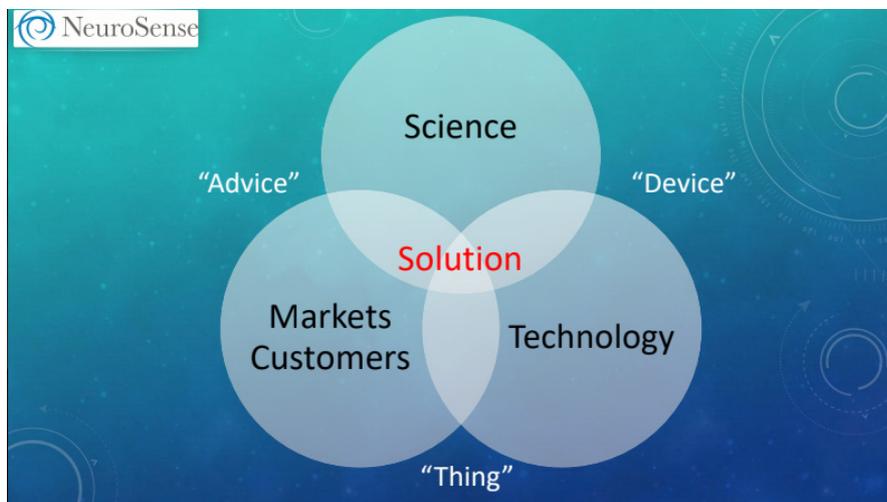
Our very own Dr Christopher 'Kit' Cuttle with 'The Lighting Design Objectives (LiDOs) Procedure "The aim is to generate an illumination hierarchy, in which a balance of direct and indirect (ambient) illumination creates a structured distribution of illumination brightness" discussing projects which have now been completed using the design tool.

The conference concluded with a panel discussion featuring the keynote presenters moderated by Trevor Stork (VIC/TAS chapter), a big thank you to the sponsors who made it possible to collate such high calibre international speakers.

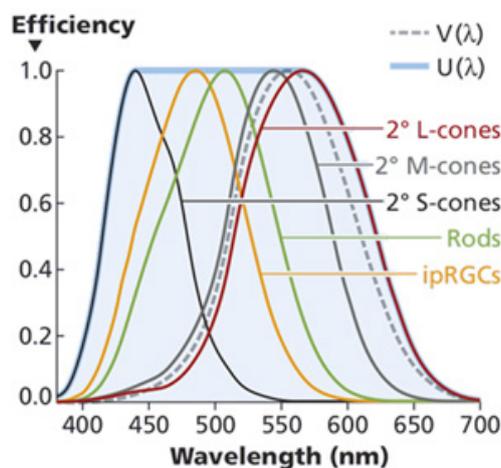
If you missed this conference be sure to catch the next one, as it was a fantastic event.

**Top 5 points to take away:**

- 5. Where, Light = x, what light is not =  $\infty - x$ , Dr Emrah Baki Ulas, Steensen Varming
- 4. When ipRGC is removed circadian rythum fails, Dr. Mariana G. Figuero, Rensselaer Polytechnic Institute, USA.
- 3. "Humen-Centric lighting is an outcome not a system" Dr Douglas Steel, NeuroSense, USA



- 2. What is value?, Dr Mark Rea, Rensselaer Polytechnic Institute, USA.  
Value per watt?  
Value per \$?  
Value of  $U(\lambda)$



- 1. "Think beyond the ceiling" Dr. Mariana G. Figuero, Rensselaer Polytechnic Institute, USA.

## Technical Events

### SAVE THE DATES 2020!

#### Measuring the Effect of the Light Distribution on Spatial Brightness

29 January 2020 – Wellington

James Sullivan - PhD Candidate, VUW

Sponsored by IESANZ

#### TM-30 (Colour) Presentation

11 February 2020 – Christchurch

12 February 2020 – Wellington

13 February 2020 – Auckland

David Ho, the Engineering Manager of Unios, will be presenting on the limitations on CRI and the TM-30 standard in a digestible way.

Sponsored by MHL

#### IES New Zealand Maintenance Factor Presentation

25 February 2020 - Auckland

26 February 2020 - Wellington

27 February 2020 - Christchurch

Summary:

Q: "What did you use for a Maintenance Factor?"

A: "I used .8 Your Honour"

Q: "How did you calculate that?"

A: "It's what I've always used Your Honour"

(Advice – Best check your PI Insurance is up to date)

Ian Johnson MIES, RMIT University

Sponsored by Fagerhult



#### Venues to be advised

Please RSVP to [nzevents@iesanz.org](mailto:nzevents@iesanz.org) to stay in the loop.

# ZUMTOBEL Group

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**Thorn Lighting has been manufacturing and distributing lighting products in New Zealand for over 80 years.**

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## Education

It was great to see Ross Farrell on stage at the lighting awards to receive this year's student design prize. Ross is our fourth recipient of the award, which was first presented in Christchurch's Cardboard Cathedral in 2016. I thought I'd give a little background on how Ross got to that point.

The student award is based on coursework that is completed by second-year students of the IESANZ-accredited lighting course at Massey University. Every year their final design assignment is a technically-challenging architectural project; maybe there's a tricky sloping roof, or exposed concrete surfaces that prohibit recessed lights or cables. This year students were tasked with providing light for "St Lucy's Church", a fictitious chapel in a fictitious town.

Given the plans and a brief, each student was required to illuminate the church's structure and surrounds in a way that was sympathetic to its architecture and functional needs. They wrote this up in a concept report and then presented their ideas to the class in a five-minute presentation. Our two finalists, Ross Farrell and Vanessa Cooper, were then selected to produce posters for display at the awards evening. Given that this occurs at a busy end-of-year period, it's always a scramble to get the posters done in time. The final step is to award the prize. It's a nervous wait, as the students find out at the same time as the rest of the audience at the awards dinner.

Congratulations again to Ross for receiving the award and to Vanessa for making it to the finals. I hope that you can use the skills that you learnt as you move on with your professional lives.

Kind regards,  
Susan



## Standards & Qualifications Report

As the new S&Q coordinator for the NZ Chapter, I'm here to help you with your applications for membership. As well as NZ having a new coordinator, we also have an updated set of guidelines in our recently revised Guide to Membership. Emphasis has been placed on Continuing Professional Development, with MIES applicants expected to show a minimum of 15 CPD points per annum. It's a good reminder for us all to keep our CPD records up to date, as we continue to upskill in our rapidly-changing world of lighting.

I encourage those eligible to consider upgrading to MIES (or even FIES) in the new year. As noted by the membership guide:

*"Obtaining a membership status of TechIES is only the start of a journey, and members are encouraged to strive for the higher memberships where they can."*

If that sounds like you, then please contact me for a "starter" guide to help you along the journey.

Wishing you a very happy Christmas.

Kind regards,

Susan Mander  
s.mander@massey.ac.nz



## **Congratulations to all our Winners of our Lighting Awards for 2019!**

**Waterview Southern**  
- Laurie Cook of BECA



**Lighting Design Award (LiDA)**  
**- EXCELLENCE**

**Lyttleton Timeball Station**  
- Kevin Cawley of Total Lighting Ltd



**Lighting Design Award (LiDA)**  
**- EXCELLENCE**

**RASNZ Dark Sky Award**  
**- EXCELLENCE**

**Tauranga Crossing Stage 2, Visitor Experience**  
- Kate Conway & Nic Burnham of NDYLIGHT



**Lighting Design Award (LiDA)**  
**- Commended**

**Peoples Choice Award 2019**

## Auckland Harbour Bridge

- Andy Collins , Tony Raper of WSP Opus



**RASNZ Dark Sky Award  
- HIGH Commendation**

**Lighting Design Award (LiDA)  
- Commendation**

## Fowlds Park

- Glen Wright, Sean McCrum,  
Barthelemy Rives of S & T



**Lighting Design Award (LiDA)  
- Commendation**

## Rawhiti Estate

- Team Cabling



**Lighting Design Award (LiDA)  
- Commendation**

### SO Hotel Restaurant

- Ewen Thomas, Debbie Quy of ECC



**Lighting Design Award (LiDA)  
- Commendation**

### Bowen House

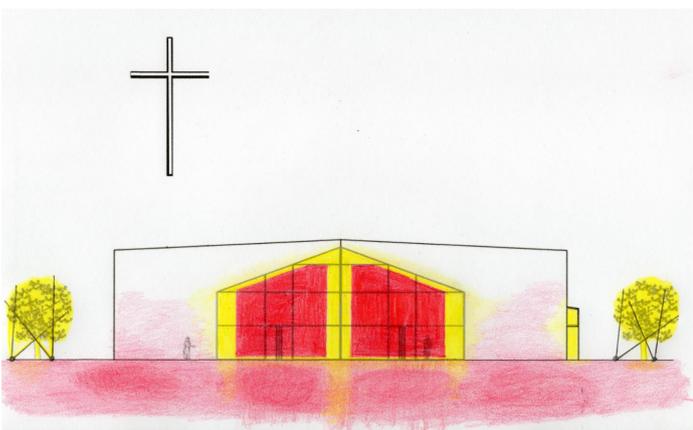
- Tim Edmonds & Barthelemy Rives of S & T



**Lighting Design Award (LiDA)  
- Commendation for ENERGY  
EFFICIENCY**

### St Lucy's Catholic Church

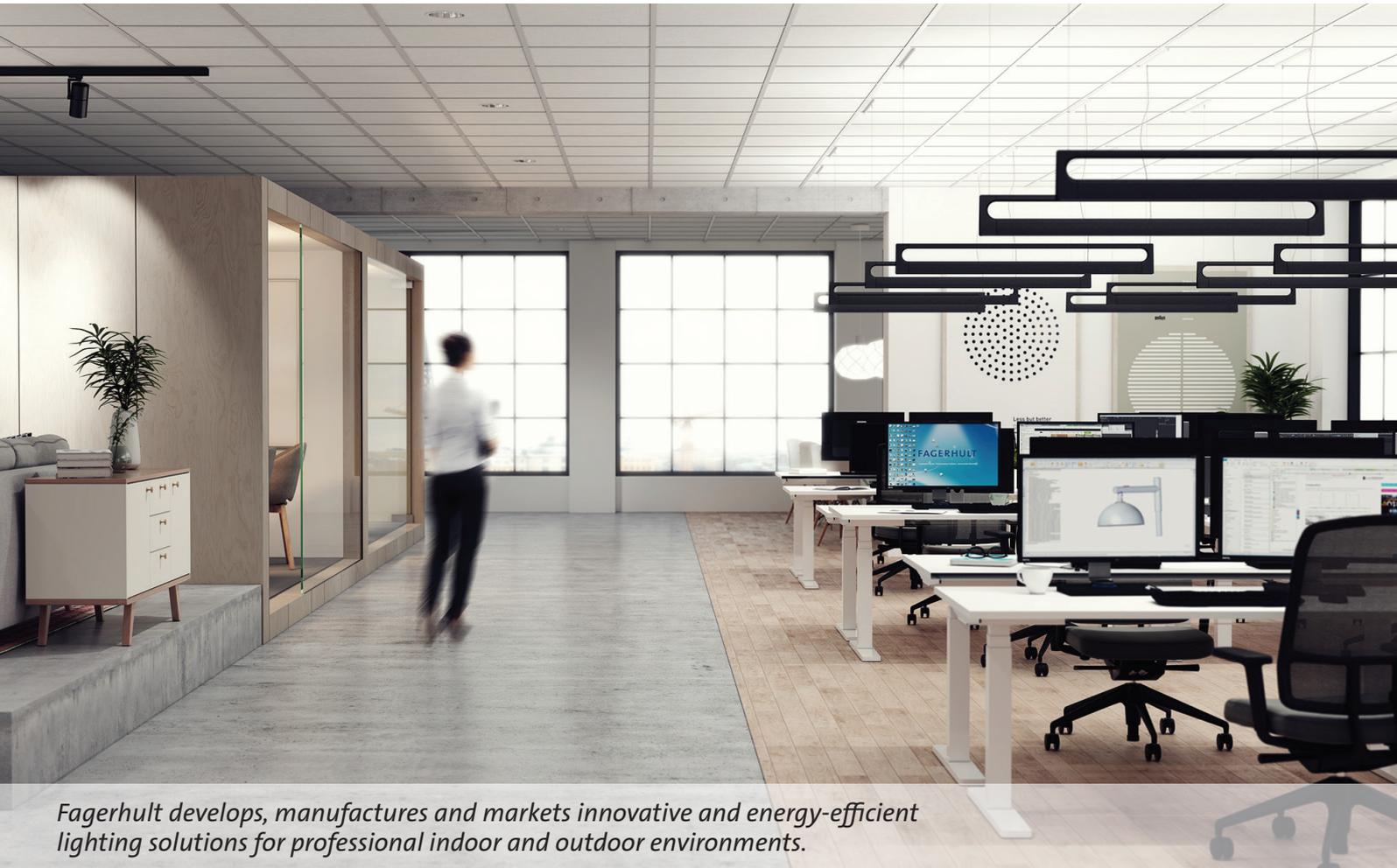
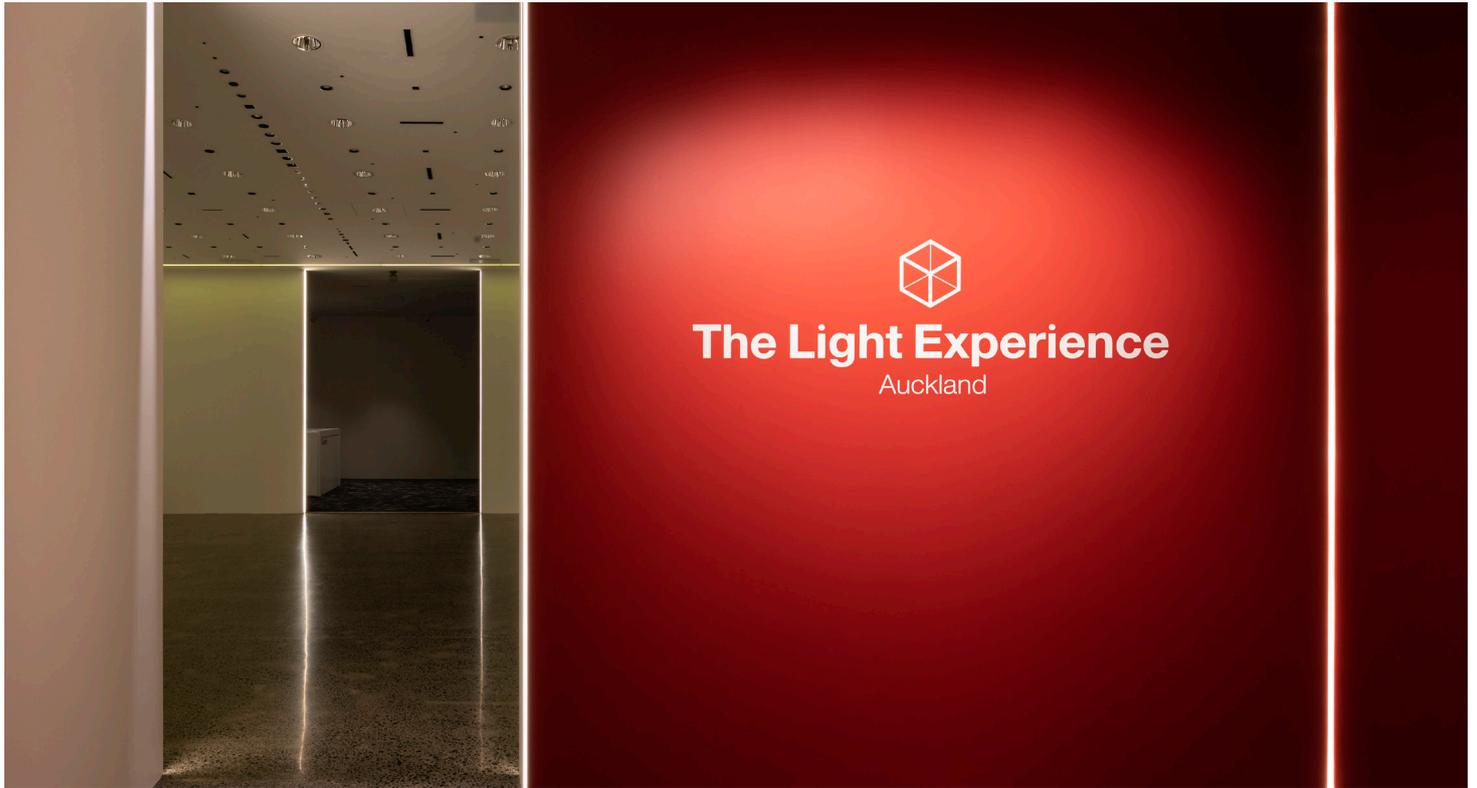
- Ross Farrell of Ektor Emergency Lighting



**Student Lighting Design Award**

**Access all the photos from the evening via the link below!**

<https://www.flickr.com/photos/167793444@N04/albums/72157711475766206>



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