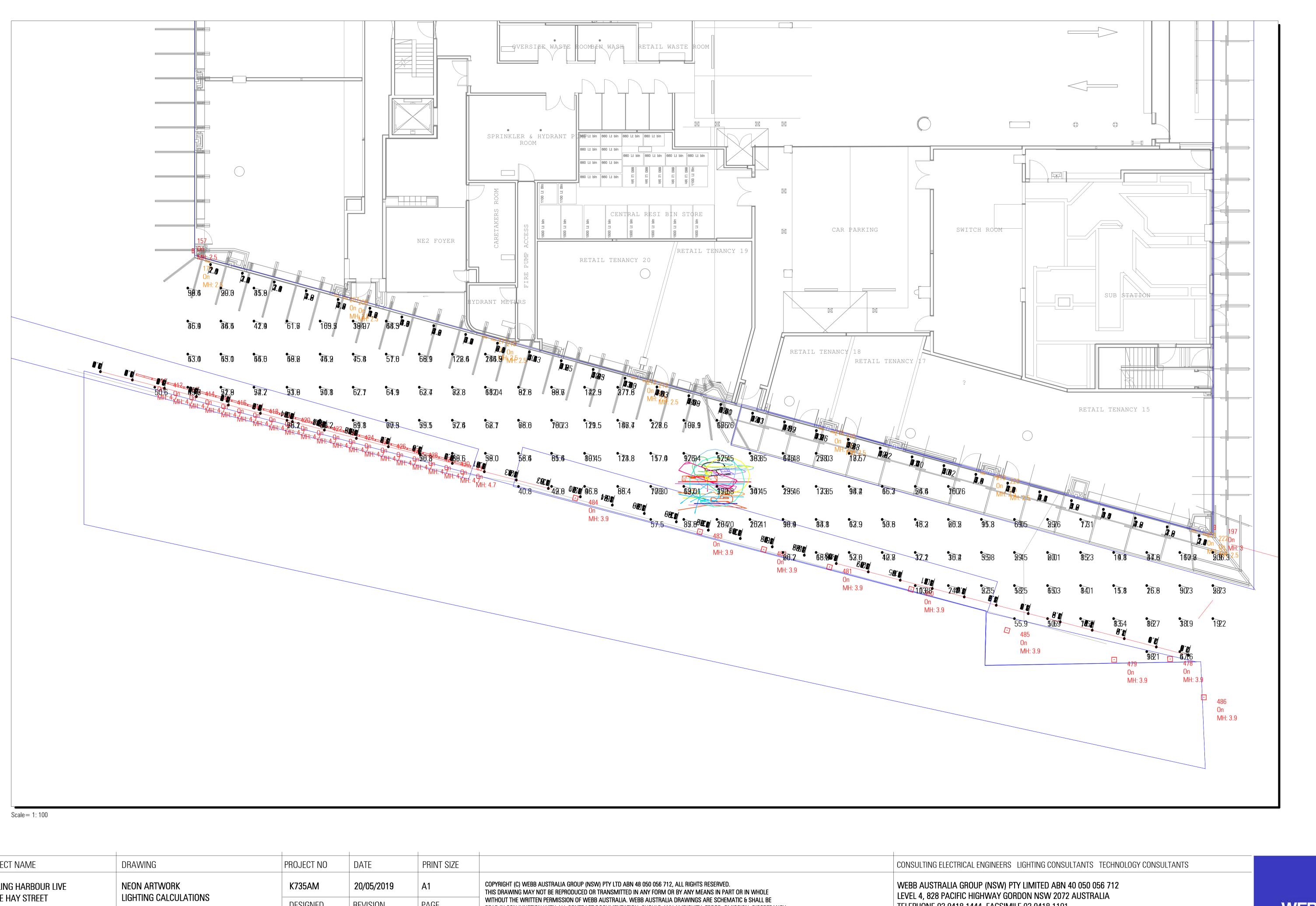
(Building S	ervices	& or	Services Desig Components) lia Evidence of suitability		ement				
Name of Proje	ct		Darling Square –	North East Plot Pu	ublic Realr	n			
Name of Head	Contracto	or	Lend Lease Buildi	Lend Lease Building Pty Ltd					
Address of Pro	oject		Darling Square Lo	ot 1 DP827982					
Development	Consent n	0.	SSD 6626	Authority / Council		City of Sydney Council			
Construction (	Certificate	no.							
			r			7			
TYPE OF CE	ERTIFICA	TE	(Tick □)	✓ Design		Installation			
Description / S work	_		truction Certificate	Requirements L	_ist: Publi	c Realm			
	a of works CertifiedElectrical Serviceswing numbers andLittle Hay Street Obtrusive Lighting Calculation Reports dated 20/05/2019,					eports dated 20/05/2019			
specifications			/2018,		Sulation is				
Ι,	Simon C	hiu			Λ	lame			
of	Webb Au	ustralia	Group (NSW) Pty	/ Ltd	li	nsert Company			
	Level 4 8	828 Pa	cific Highway Goro	rdon NSW 2072 Insert Address					
All outdoor Pedestrian Lighting. De	r lighting v Area (Cat etails demo	vithin t tegory onstration	P) Lighting and AS ng compliance with and a set of the set of	d will comply with 64282: 1997 Con these requiremen	h the rele trol of the ts are encl	vant, AS/NZS 1158.3.1: 1999 Obtrusive Effects of Outdoor			
Signed	Ind.	A			Date	21 May 2019			
Engineering qu			В	DesSc(Illuminat E (Electrical) (U <sup>1</sup> IIEAust		n) (USYD)			
Accreditation / I			-						
Accredited by (	e.g. Depar	tment c	of Fair Trading)						

## Appendix A – Electrical Engineering Services

DA Condition	BCA / AS reference
Control of the Obtrusive Effects of Outdoor Lighting The light spill from the suspended catenary neon lighting artwork are within the recommended maximum values of AS 4282:1997 Control of the Obtrusive Effects of Outdoor Lighting, at the boundary of commercial and residential areas during pre-curfew hours. The neon art works will be switched off during curfewed hours.	AS 4282: 1997 – Control of the obtrusive effects of outdoor lighting



PROJECT NAME	DRAWING	PROJECT NO	DATE	PRINT SIZE
DARLING HARBOUR LIVE	NEON ARTWORK	K735AM	20/05/2019	A1
LITTLE HAY STREET	LIGHTING CALCULATIONS	DESIGNED	REVISION	PAGE
		AM	A	1 OF 3

	CONSULTING ELECTRICAL ENGINEER
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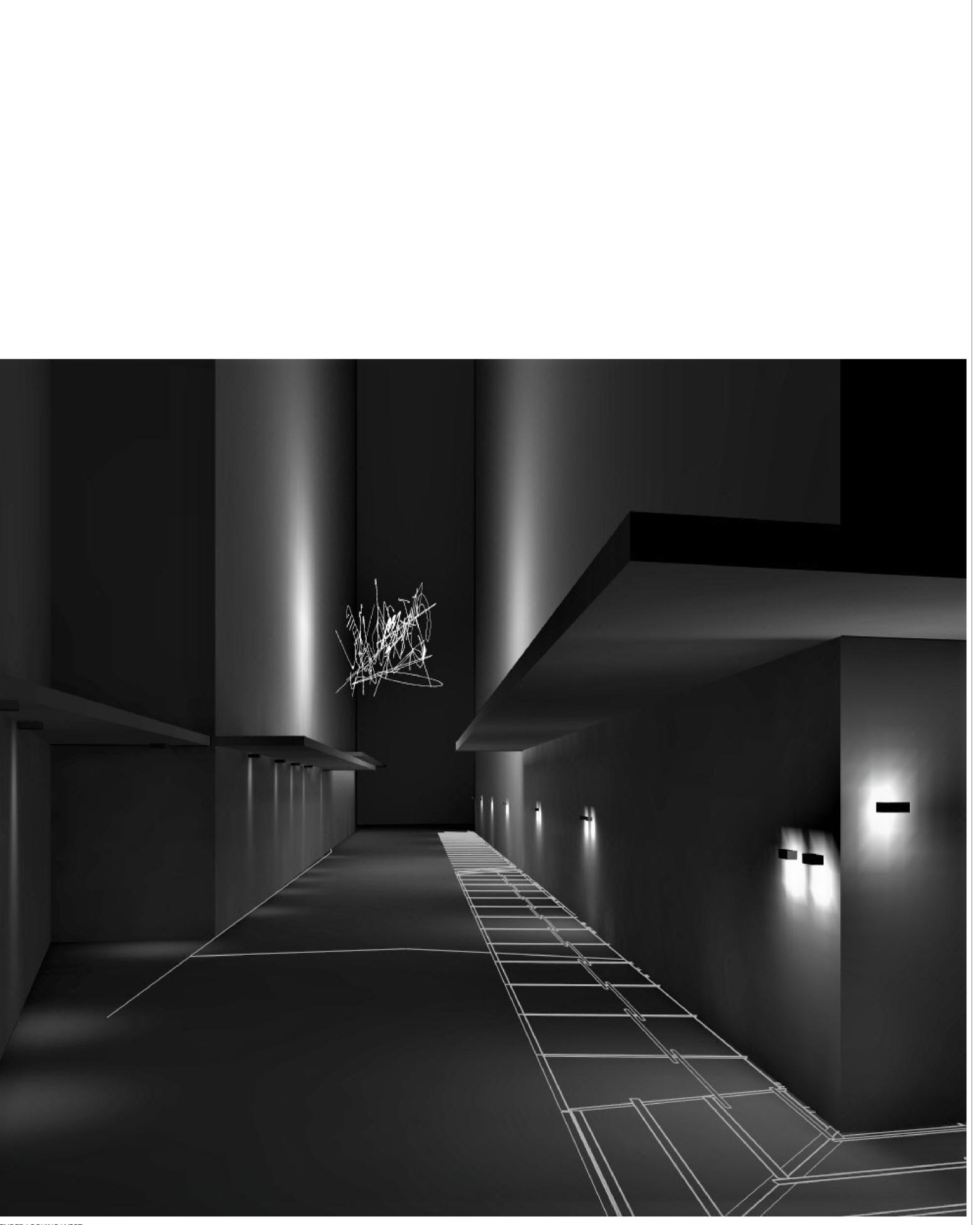
SIMILE 02 9418 1191 om.au





RENDER LOOKING EAST

PROJECT NAME	DRAWING	PROJECT NO	DATE	PRINT SIZE	
DARLING HARBOUR LIVE	NEON ARKWORK LIGHTING CALCULATIONS	K735AM	20/05/2019	A1	
LITTLE HAY STREET		DESIGNED	REVISION	PAGE	
		AM	A	2 OF 3	



RENDER LOOKING WEST

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WEBB AUSTRALIA GROUP (NSW) PTY LIMITED ABN 40 050 056 712 LEVEL 4, 828 PACIFIC HIGHWAY GORDON NSW 2072 AUSTRALIA TELEPHONE 02 9418 1444 FACSIMILE 02 9418 1191 EMAIL sydney@webbaustralia.com.au



Luminaire Sch	nedule					
Symbol	Qty	Label	LLF	Description	Lum. Lumens	Lum. Watts
->	2	ROTALIANA - INOUT	1.000	E-2017-0032	2264	29
ŀ	21	LED Profile 18x13mm 3000K 9_6	1.000	6917086_5A302810	541	9.6
<b>+</b>	9	S6618W	1.000	S6618W_14	297	6
·	13	Rotaliana-Inout-Down-181057PH	1.000	24102452	2153	29.14

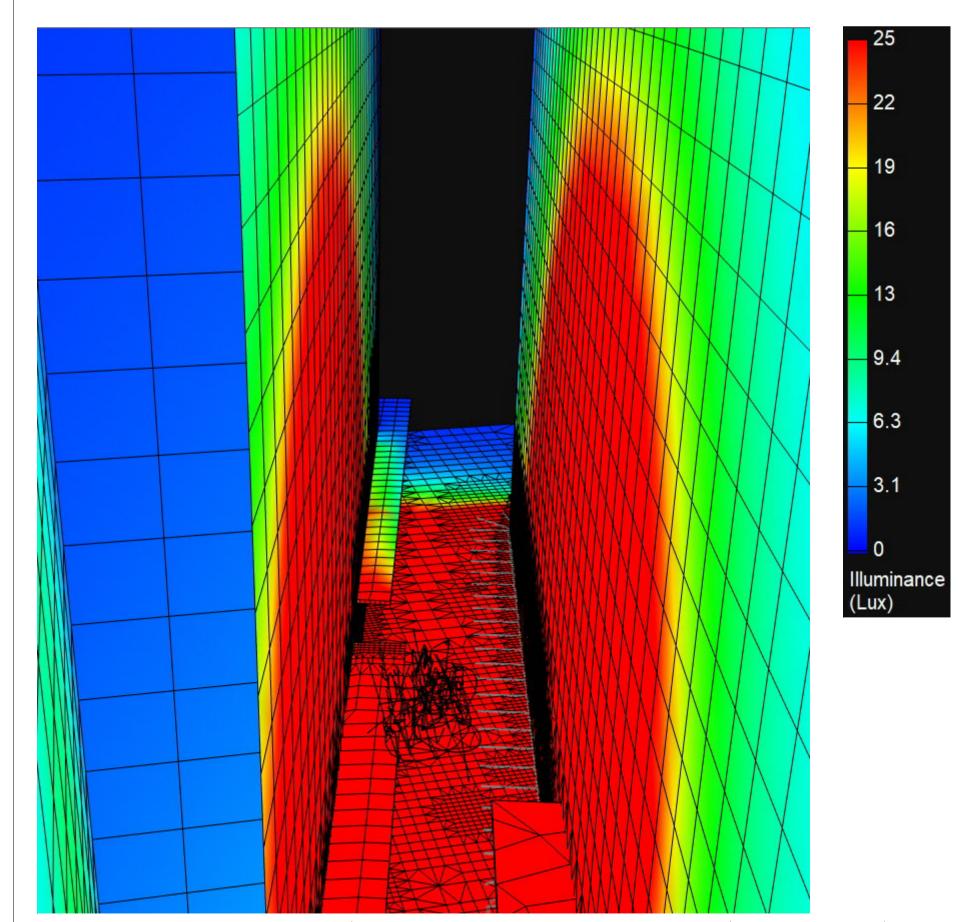
Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Max/Avg	PtSpcLr	PtSpc
Little Hay St Eh	Illuminance	Lux	83.36	286.9	10.9	3.44	2	2
Little Hay St Ev E	Illuminance	Lux	47.65	377.6	1.2	7.92	2	2
Little Hay St Ev W	Illuminance	Lux	45.22	242.3	6.4	5.36	2	2
ObtrusiveLight_NE_III_Seg1	Obtrusive Light - III	Lux	N.A.	15.3	1.0	N.A.	2	2
ObtrusiveLight_SE_III_Seg1	Obtrusive Light - III	Lux	N.A.	17.6	0.6	N.A.	2	2

NEON ARTWORK LIGHT OUTPUT ASSUMED TO BE 130lm/m AVERAGE. NEON ASSUMED TO BE 15mm DIA AND RUN @ 30mA.

LITTLE HAY STREET COMPLIES WITH CATEGORY P2 OF AS1158.3.1

OBTRUSIVE LIGHITNG COMPLIES WITH AS4282-1997. PRECURFEW - IN COMMERCIAL AREAS ARTWORK TO BE SWITCHED OFF AT 11PM.

VERTICAL CALCULATION POINTS ON NE & SE BUILDINGS WHERE THERE ARE NO RESIDENTIAL DWELLINGS HAVE BEEN DELETED FOR THE SAKE OF THE CALCULATIONS.



PSEUDO COLOUR PROJECT NAME	DRAWING	PROJECT NO	DATE	PRINT SIZE		CONSULTING ELECTRICAL ENGINEERS
DARLING HARBOUR LIVE	NEON ARTWORK	K735AM	20/05/2019	A1	COPYRIGHT (C) WEBB AUSTRALIA GROUP (NSW) PTY LTD ABN 48 050 056 712, ALL RIGHTS RESERVED. THIS DRAWING MAY NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS IN PART OR IN WHOLE	WEBB AUSTRALIA GROUP (NSW) P LEVEL 4, 828 PACIFIC HIGHWAY GOF
LITTLE HAY STREET	LIGHTING CALCULATIONS	DESIGNED	REVISION	PAGE	WITHOUT THE WRITTEN PERMISSION OF WEBB AUSTRALIA. WEBB AUSTRALIA DRAWINGS ARE SCHEMATIC & SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTATION. SHOULD ANY AMBIGUITY, ERROR, OMISSION, DISCREPANCY,	TELEPHONE 02 9418 1444 FACSIMI
		AM	A	3 OF 3	INCONSISTENCY OR OTHER FAULT APPEAR TO EXIST IN THE DOCUMENTS, IMMEDIATELY NOTIFY WEBB IN WRITING.	EMAIL sydney@webbaustralia.com.

10 0000 C								
Description	AS 4282-1997	Lighting Zone	Commercial		•	Application Condition	<sup>s</sup> Pre-Curfew	
	AS 4282-1997, Commercia	al, Pre-Curfew						
🔽 Illuminance	.:	25		Lux				
🔽 Luminous I	ntensity Per Luminaire:	2500 - Small Area, L	.evel 1	-	🔲 Show /	All Luminaires		
Controlling	Angle	80 - Small Area						
🗖 Luminous I	ntensity At Vertical Planes:	N.A.						
Threshold I		20		 ] %				
Total Offsit		]20		] │ % Of Total Site Lum	en Limit			
	umens Per Area (Sq.m.)	5.38						
	ase Lumens Per Site	0						
Additional /	Allowance			-				
	aste Light Ratio (UWLR)			-	e Worksheet			
				%				
- Test Results -	usive Light - Co							
Calculat Calculat Obtrusiv	nance m Allowable Value: 25 ions Tested (2): ion Label eLight_NE_III_Seg1 eLight_SE_III_Seg1	Lux	Test Results PASS PASS	Max. <u>Illum.</u> 15.3 17.6				
Maximu Control /	ous Intensity (Cd m Allowable Value: 25 Angle: 80 Degrees re Locations Tested (4 sults: PAS	5)	3					
64282 COMPLIANCE						Today 10-	22 444 55	