

ROAD LIGHTING CERTIFICATION

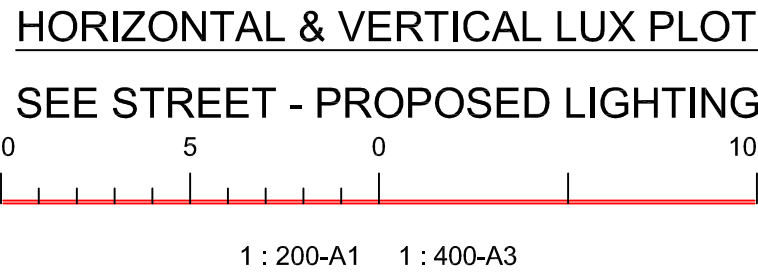
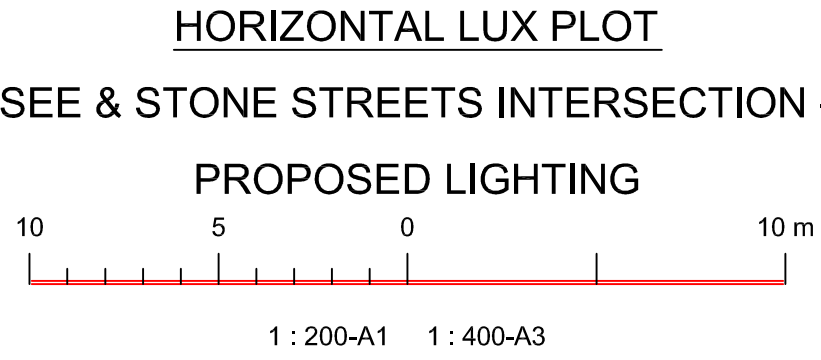
THE CALCULATIONS HAVE BEEN PRODUCED BY JHA AND IS CERTIFIED TO COMPLY WITH THE DESIGN BRIEF AND THE RELEVANT CURRENT SECTIONS OF AS1158.

- 1. CALCULATED RESULTS SHOWN ARE SUBJECT TO PRACTICAL TOLERANCES SUCH AS PHOTOMETRIC MEASUREMENT, MANUFACTURING VARIATION, CONTROL GEAR/LAMP CHARACTERISTICS, SUPPLY VOLTAGE AND FREQUENCY VARIATIONS ETC.
- 2. THE COMPLIANCE OF THE DESIGN IS DEPENDENT UPON THE LUMINAIRE MANUFACTURER SUPPLYING LUMINARIES THAT ARE REPRESENTATIVE OF THE DATA CONTAINED WITHIN THE APPROPRIATE REGISTERED LABORATORY PHOTOMETRIC TEST REPORT, AS NOMINATED IN THE FILE NUMBER LISTED IN THE LUMINAIRE SCHEDULE CONTAINED IN THE DESIGN.
- 3. WHERE EXISTING LUMINARIES HAVE BEEN INCLUDED IN THIS ASSESSMENT FOR COMPLIANCE, UNLESS STATED OTHERWISE, THE DATA USED FOR CALCULATIONS IS FOR NEW LUMINARIES OF CURRENT MANUFACTURE, AND IS NOT NECESSARILY THE PERFORMANCE OF THE EXISTING LUMINARIES.
- 4. IN PRODUCING THE DESIGN, NO ACCOUNT HAS BEEN TAKEN BY JHA FOR SLOPING TERRAIN/CARRIAGEWAYS, CRESTS, VEHICULAR BARRIERS, TREES AND VEGETATION, OR ANY OBJECT THAT INTERFERES WITH THE STREET LIGHTING DESIGN.
- 5. THE DESIGN IS PREDICATED UPON THE ADOPTION OF A MAINTENANCE REGIME THAT WILL MAINTAIN THE PERFORMANCE OF THE LUMINARIES TO A LEVEL EQUAL TO OR ABOVE THE MAINTENANCE FACTORS USED IN THE DESIGN.
- 6. CALCULATIONS ARE BASED ON COMPUTER MODELING PROGRAM AGI32. JHA CANNOT BE HELD RESPONSIBLE FOR LOGARITHMIC CALCULATIONS.

STREET LIGHTING LEVEL FOR THE AREA OF INTEREST:

ROADWAY:
COMPLIES WITH AS1158 (2020) SUBCATEGORY PR5

PATHWAYS:
HAS MINOR NON-COMFORMANCE WITH AS1158 (2020) SUBCATEGORY PP5;
- MIN. AVERAGE HORIZONTAL ILLUMINANCE OF 0.85 LUX REQUIRED, ACHIEVES 0.53 LUX
- MIN. VERTICAL ILLUMINANCE OF 0.02 LUX REQUIRED, ACHIEVES 0.01 LUX



Item ID	Luminaire Type		Pole		Outreach		Luminaire Height (m)	Maintained By	Design Calculation Parameters			
	Label	Status	Type	Status	Length (m)	Status			I-Table	Design Lumens	Maintenance Factor	Tilt
EL1	Suburban Eco 42W CFL	Removed	Timber	Existing	2	Existing	6.3	Ausgrid	206230	3200	0.7	5
EL2	GE Evolve 25W LED	Existing	Timber	Existing	2	Existing	6.5	Ausgrid	CTLED15E07443_IESNA2002	2488	0.8	5
EL3	StreetLED 17W LED	Existing	Timber	Existing	0.5	Existing	5.7	Ausgrid	216026	2147	0.8	5
NL1	StreetLED 17W LED	Proposed	Timber	Existing	2	Proposed	6.8	Ausgrid	216026	2147	0.8	5
NL2	StreetLED 17W LED	Proposed	Timber	Existing	2	Proposed	7.2	Ausgrid	216026	2147	0.8	5
NL3	StreetLED 17W LED	Proposed	Timber	Existing	0.5	Proposed	5.5	Ausgrid	216026	2147	0.8	5
NL4	StreetLED 17W LED	Proposed	Timber	Existing	2	Existing	6.3	Ausgrid	216026	2147	0.8	5

Calculation Summary - Roadway - Horizontal							
Label	CalcType	Units	Avg	Max	Min	Max/Avg	
See St - Hori	Illuminance	Lux	1.76	8.10	0.30	4.60	
See & Stone Sts Intersection - Hori	Illuminance	Lux	2.00	8.20	0.50	4.10	
PR5 Requirements (AS1158 - 2020)		Illuminance	Lux	>= 0.85	N.A.	>= 0.14	<= 10

Calculation Summary - Pathway - Horizontal							
Label	CalcType	Units	Avg	Max	Min	Max/Avg	
Pathway - Hori 1	Illuminance	Lux	1.85	7.80	0.17	4.22	
Pathway - Hori 2	Illuminance	Lux	0.53	1.24	0.30	2.34	
PP5 Requirements (AS1158 - 2020)		Illuminance	Lux	>= 0.85	N.A.	>= 0.14	<= 5

Calculation Summary - Pathway - Vertical							
Label	CalcType	Units	Avg	Max	Min	Max/Avg	
Pathway - Vert 1	Illuminance	Lux	N.A.	3.36	0.01	N.A.	
Pathway - Vert 2	Illuminance	Lux	N.A.	4.73	0.12	N.A.	
Pathway - Vert 3	Illuminance	Lux	N.A.	1.21	0.03	N.A.	
Pathway - Vert 4	Illuminance	Lux	N.A.	0.95	0.14	N.A.	
PP5 Requirements (AS1158 - 2020)		Illuminance	Lux	N.A.	N.A.	>= 0.02	N.A.

REVISIONS / AMENDMENTS				REVISIONS / AMENDMENTS			
Rev	Date	Description	Verified	Rev	Date	Description	Verified
A	14.12.20	FOR APPROVAL	R.P.				
B	3.02.21	FOR APPROVAL	R.P.				
C	7.05.21	FOR APPROVAL	R.P.				

All dimensions to be verified on site prior to commencement of on-site work and/or off-site prefabrication. Figured dimension to be taken in preference to scaled dimensions. This drawing is copyright and remains the property of JHA Consulting Engineers. Reproduction in whole or part of these drawings without written consent constitutes an infringement of copyright.

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PROJECT

TAFE MEADOWBANK
PUBLIC DOMAIN

PROPOSED MTDTH BUILDING

TITLE

STREET LIGHTING LEVELS
ISOLUX DIAGRAM

PROPOSED LIGHTING
SEE STREET

FOR APPROVAL

NOT TO BE USED FOR CONSTRUCTION

DRAWN	R.P.	SCALE @ A1 1:200
CHECKED	B.B.	
APPROVED	R.P.	
CREATED	DEC 2020	
JOB No.	DRAWING No.	REV
200131	L002	C