

DATE: 14 November 2023
DESIGNER: Karol Drapala
PROJECT No: KE/RE/TCC/01
PROJECT NAME: An Tamnaigh Clonakilty Cork Rev1



Lighting to IS EN 13201:2 - 2015
Estate lighting to Class P3
3000k colour temp. Dimming to U14 regime
A) Phillips Lumistreet gen 2 Micro BGP291 730 DW50 4.60klm
B) Phillips Lumistreet gen 2 Micro BGP291 730 DX51 4.20klm
C) Phillips Lumistreet gen 2 Micro BGP291 730 DRXN1 1.60klm
c/w nema 7 pin socket & photocell
6m columns

Outdoor Lighting Report

PREPARED BY: Karol Drapala
Lighting Designer

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Layout Report

General Data

Dimensions in Metres Angles in Degrees
 Grid Origin 537391.0m x 541479.0m
 Area 105.9m x 154.8m
 Sample Spacing 1.49m x 1.49m

Luminaires



Luminaire A Data

Supplier	Philips
Type	BGP291 DW50
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	4.60
File Name	LumiStreet Gen2 Micro_BGP291_DW50_4600_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	609.4, 39.0, 0.0
No. in Project	8



Luminaire B Data

Supplier	Philips
Type	BGP291 DX51
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	4.20
File Name	LumiStreet Gen2 Micro_BGP291_DX51_4200_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	480.9, 32.0, 0.0
No. in Project	5



Luminaire C Data

Supplier	Philips
Type	BGP291 DRXN1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	1.60
File Name	LumiStreet Gen2 Micro_BGP291_DRXN1_1600_6LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	1155.3, 26.3, 0.0
No. in Project	1

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	537431.44	541522.03	6.00	10.00	0.00	0.00	0.00			
2	A	537451.37	541531.15	6.00	197.00	0.00	0.00	0.00			
3	A	537425.63	541546.09	6.00	10.00	0.00	0.00	0.00			
4	B	537446.92	541557.75	6.00	193.00	0.00	0.00	0.00			
5	B	537416.55	541560.02	6.00	282.00	0.00	0.00	0.00			
6	A	537433.51	541574.18	6.00	195.00	0.00	0.00	0.00			
7	B	537421.50	541583.65	6.00	10.00	0.00	0.00	0.00			
8	B	537413.08	541592.84	6.00	66.00	0.00	0.00	0.00			
9	A	537398.81	541605.67	6.00	60.00	0.00	0.00	0.00			
10	A	537432.96	541604.11	6.00	282.00	0.00	0.00	0.00			



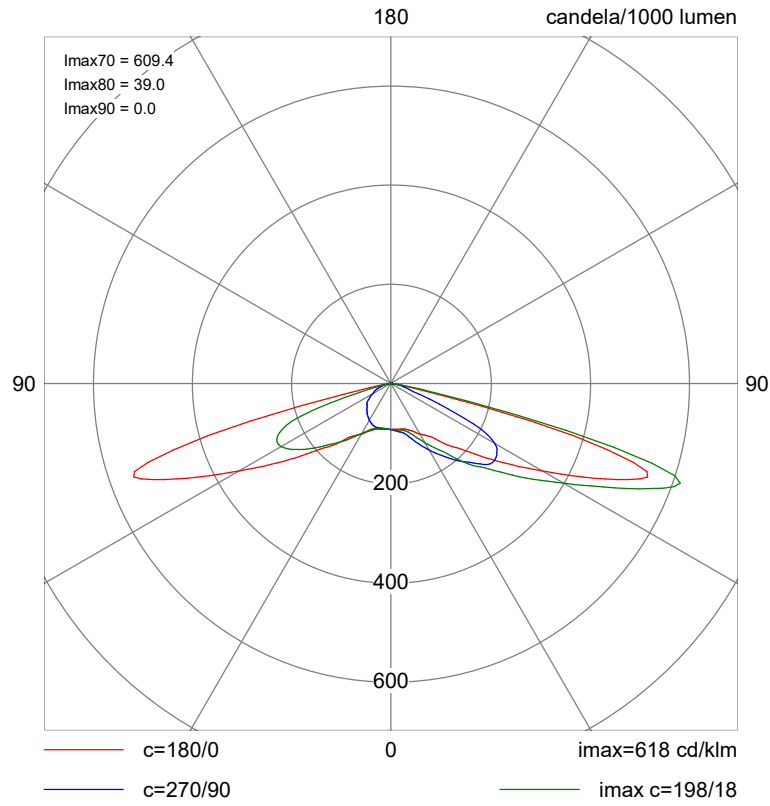
Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
11	C	537408.36	541577.99	6.00	193.00	0.00	0.00	0.00			
12	A	537456.71	541506.63	6.00	244.00	0.00	0.00	0.00			
13	A	537478.79	541488.27	6.00	46.00	0.00	0.00	0.00			
14	B	537403.12	541551.25	6.00	12.00	0.00	0.00	0.00			

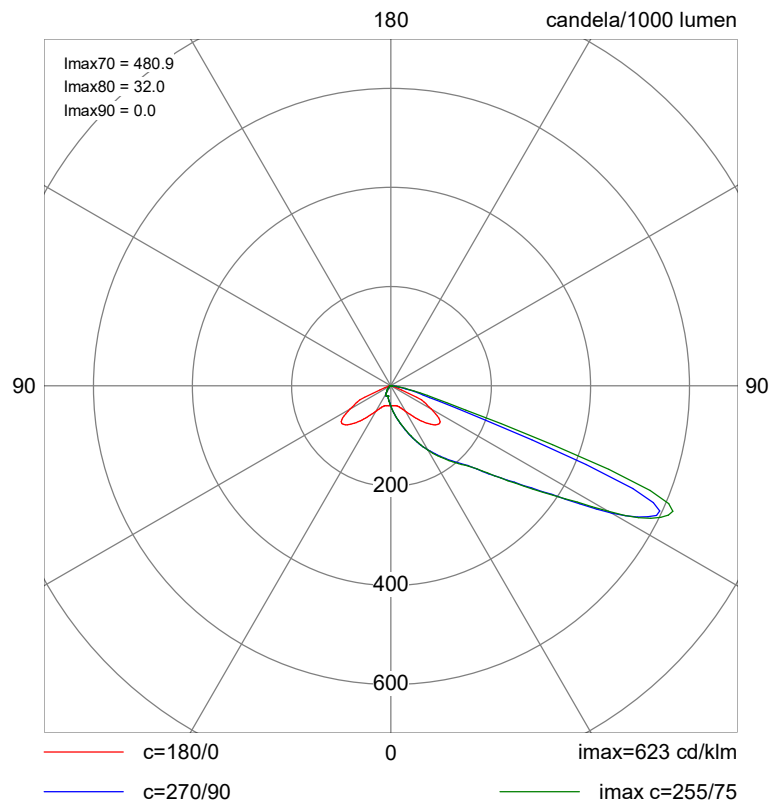


Polar Diagrams

Luminaire A BGP291 DW50



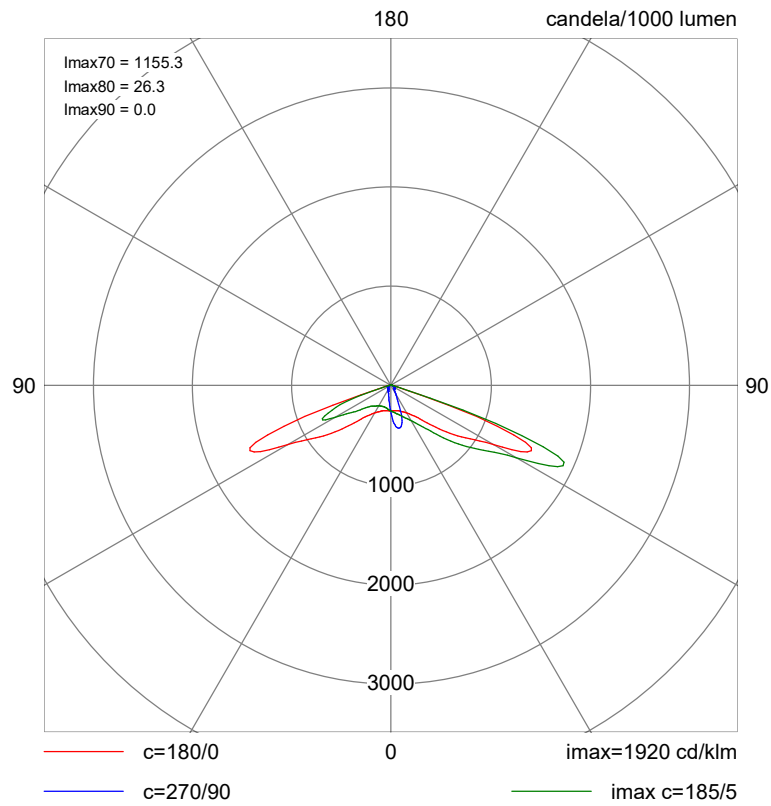
Luminaire B BGP291 DX51





Polar Diagrams Continued

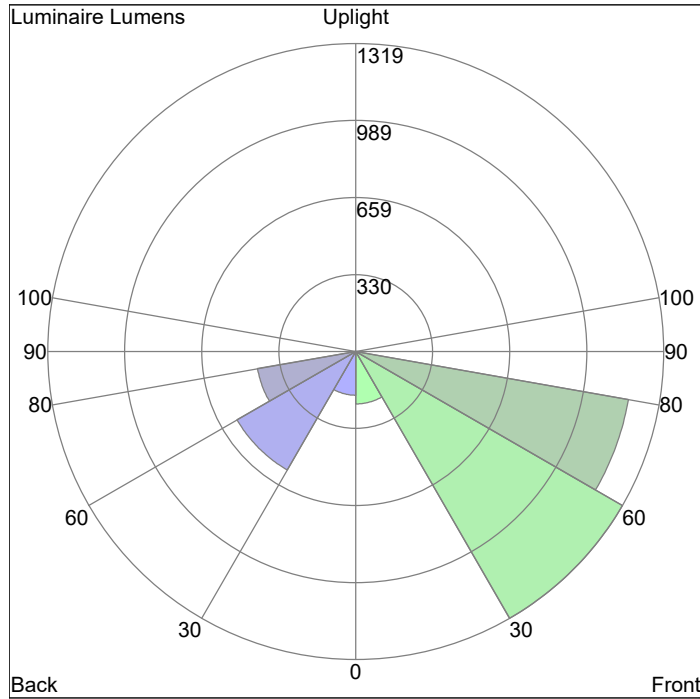
Luminaire C BGP291 DRXN1





Luminaire Classification System (LCS) Graphs

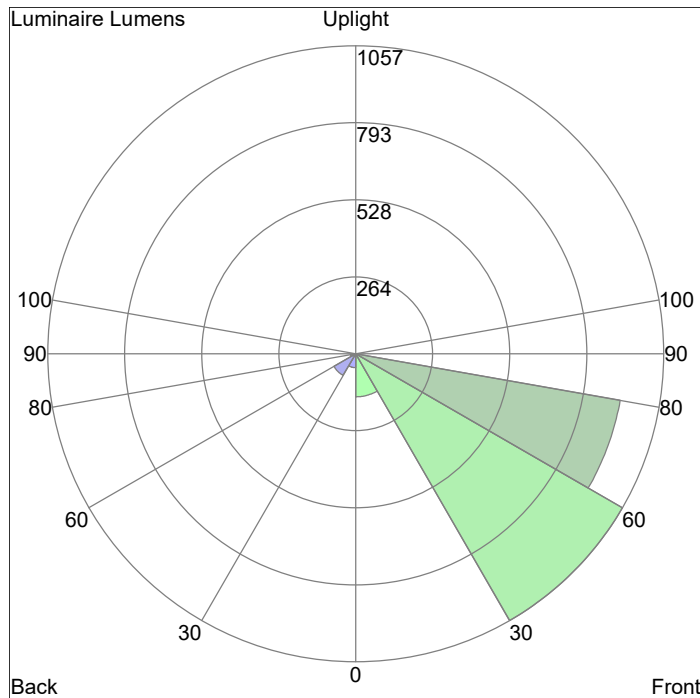
Luminaire A BGP291 DW50



LCS	Lumens	%Lamp	%Lum
FL	225.1	4.9	5.7
FM	1318.6	28.7	33.4
FH	1185.6	25.8	30.1
FVH	10.1	0.2	0.3
BL	187.7	4.1	4.8
BM	585.4	12.7	14.8
BH	425.8	9.3	10.8
BVH	4.5	0.1	0.1
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	3943.1	85.7	100.0

BUG rating=B2-U0-G1

Luminaire B BGP291 DX51



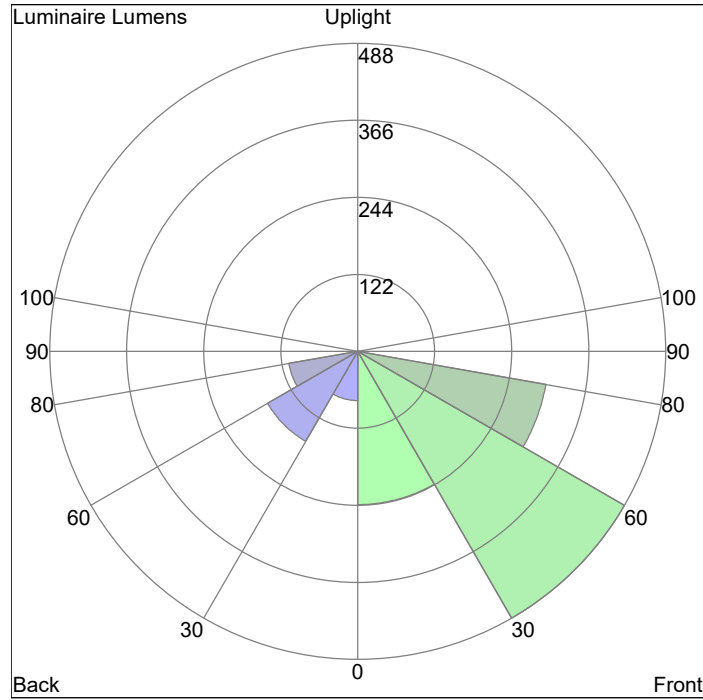
LCS	Lumens	%Lamp	%Lum
FL	148.3	3.5	6.5
FM	1056.7	25.2	46.2
FH	921.4	21.9	40.3
FVH	5.7	0.1	0.3
BL	48.1	1.1	2.1
BM	86.1	2.0	3.8
BH	17.7	0.4	0.8
BVH	0.5	0.0	0.0
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	2285.3	54.4	100.0

BUG rating=B0-U0-G1



Luminaire Classification System (LCS) Graphs Continued

Luminaire C BGP291 DRXN1

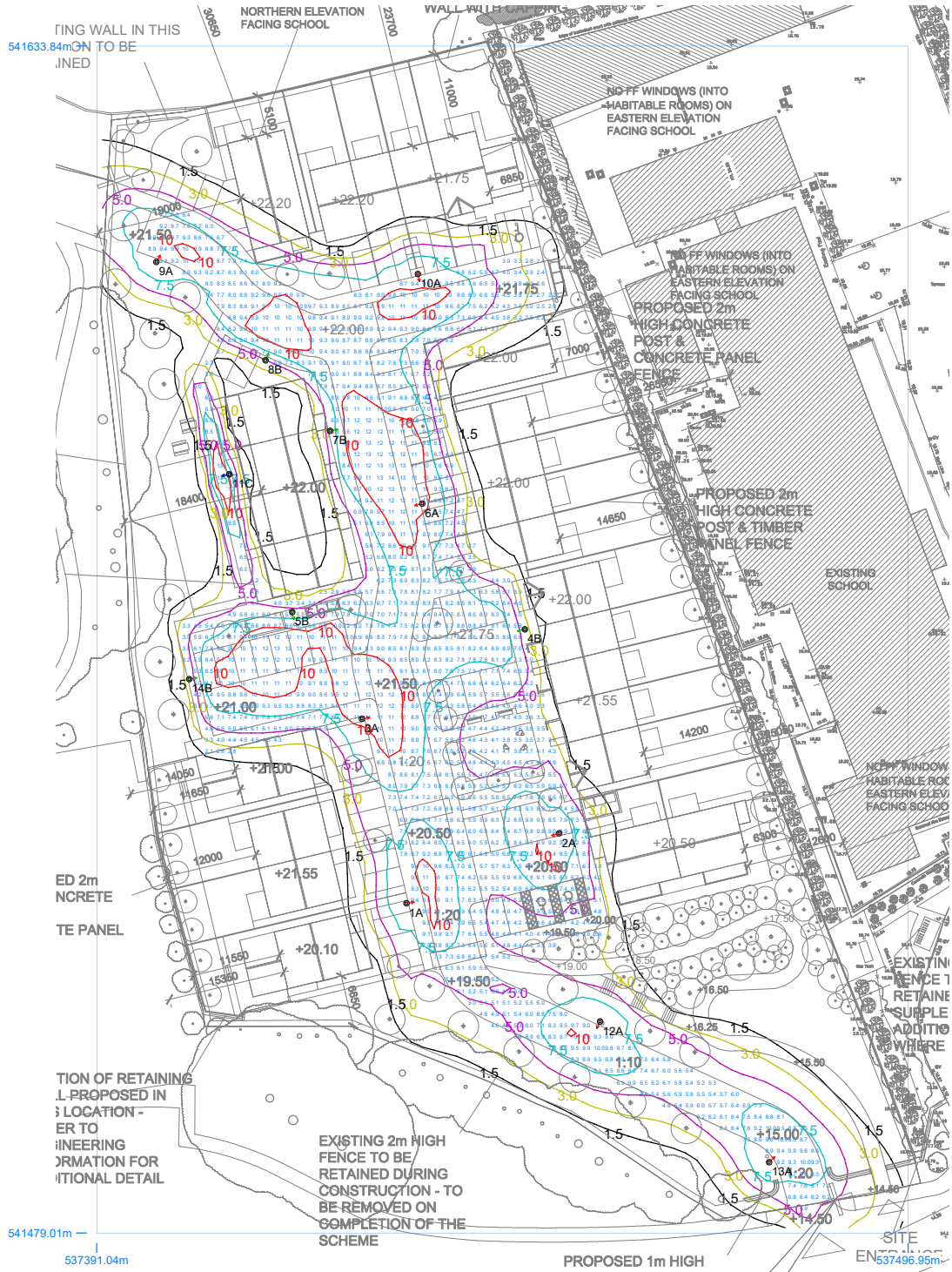


LCS	Lumens	%Lamp	%Lum
FL	243.0	15.2	17.4
FM	488.1	30.5	35.0
FH	302.8	18.9	21.7
FVH	3.7	0.2	0.3
BL	78.2	4.9	5.6
BM	164.6	10.3	11.8
BH	110.6	6.9	7.9
BVH	2.3	0.1	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	1393.2	87.1	100.0

BUG rating=B1-U0-G1

Horizontal Illuminance (lux)

Estate



Results

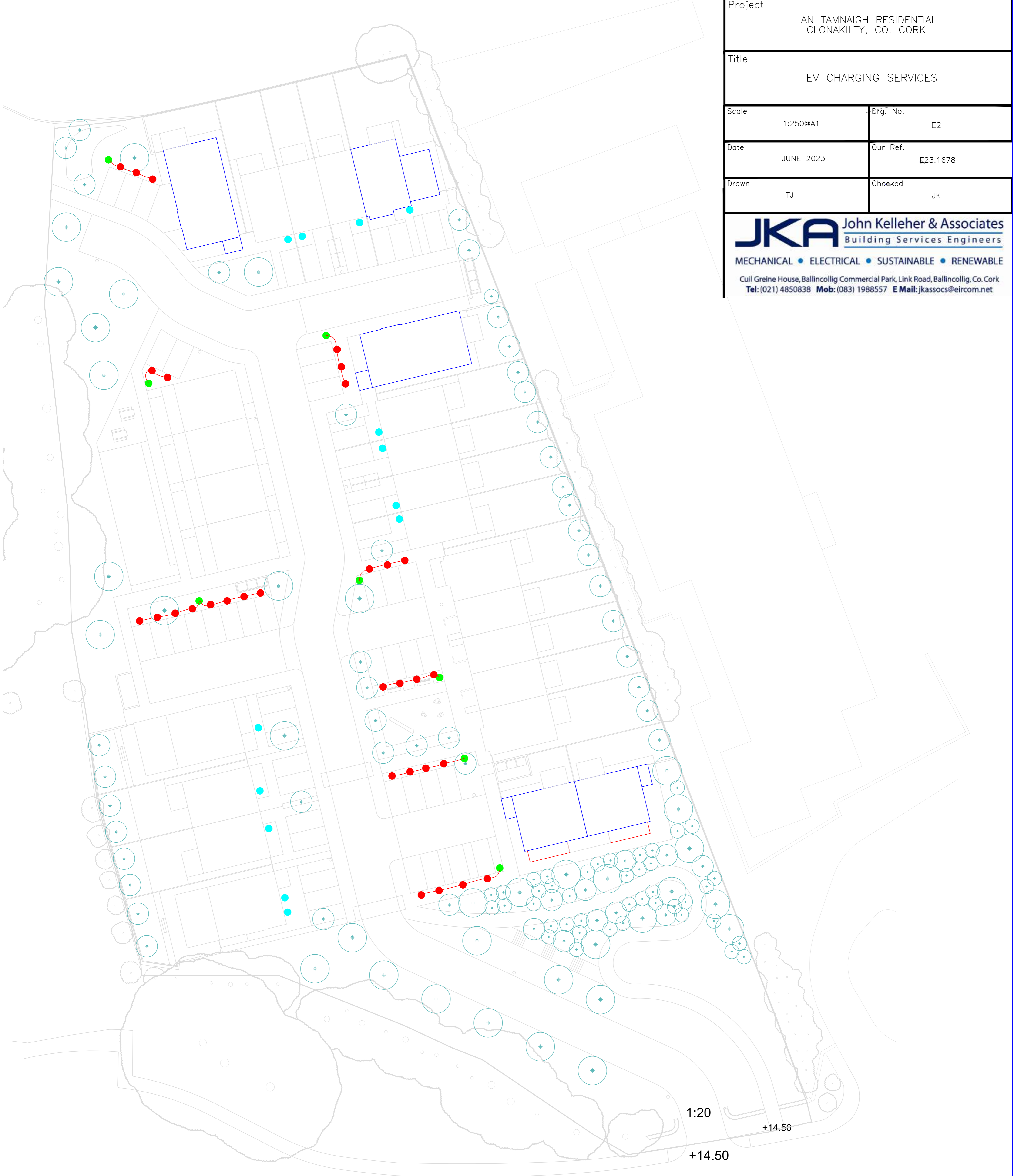
Eav	7.66
Emin	2.02
Emax	13.54
Emin/Emax	0.15
Emin/Eav	0.26

A		ISSUED FOR COUNCIL APPROVAL	
Issue	Revision		
Client			
CORK COUNTY COUNCIL			
Project			
AN TAMNAIGH RESIDENTIAL CLONAKILTY, CO. CORK			
Title			
EV CHARGING SERVICES			
Scale	1:250@A1	Dwg. No.	E2
Date	JUNE 2023	Our Ref.	€23.1678
Drawn	TJ	Checked	JK

JKA John Kelleher & Associates
Building Services Engineers

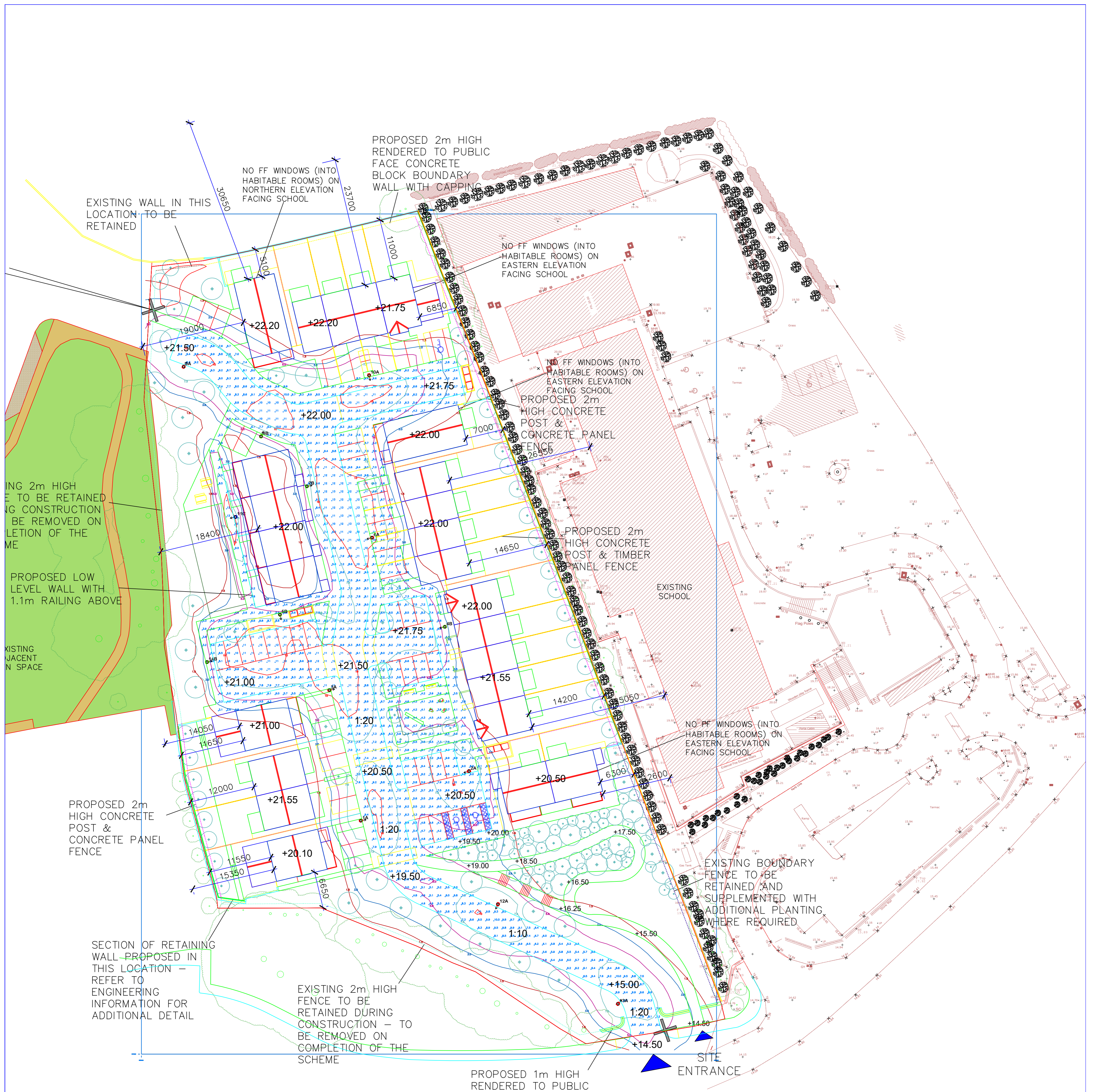
MECHANICAL • ELECTRICAL • SUSTAINABLE • RENEWABLE

Cuil Greine House, Ballincollig Commercial Park, Link Road, Ballincollig, Co. Cork
Tel: (021) 4850838 Mob: (083) 1988557 E Mail: jkassoc@eircom.net



- FUTURE EV CHARGER ON PRIVATE PARKING SPACE TO BE WIRED BACK TO DISTRIBUTION BOARD WITHIN DWELLING
- 100mmØ UPSTAND FOR FUTURE EV CHARGING POINT
- 100mmØ UPSTAND TO FUTURE ESb MINI PILLAR LOCATION (MAXIMUM 8 SPACES)
- 100mmØ RED UNDERGROUND DUCT FOR FUTURE EV CHARGER CABLING

*All of the above in accordance with TGD part L Section 1.4.6
 **All of the external upstands to be capped and suitably labelled



Estate
 Results – Horizontal Illuminance (lux)
 Eav= 7.66
 Emin= 2.02
 Emax= 13.54
 Emin/Emax= 0.15
 Emin/Eav= 0.26
 Emax/Eav= 1.77

Luminaire Data
 Luminaire A BGP291 DW50
 Lamp LED-HB 5.2S 730 MF 0.76
 Luminaire B BGP291 DX51
 Lamp LED-HB 5.2S 730 MF 0.76
 Luminaire C BGP291 DRXN1
 Lamp LED-HB 5.2S 730 MF 0.76

- Key
- Luminaire A Column
 - Luminaire B Column
 - Luminaire C Column
 - Beam Aiming Target
 - Photometric Centre

B	ISSUED FOR COUNCIL APPROVAL
A	ISSUED FOR COUNCIL APPROVAL
Issue	Revision
Client	CORK COUNTY COUNCIL
Project	AN TAMNAIGH RESIDENTIAL CLONAKILTY, CO. CORK
Title	PUBLIC LIGHTING SERVICES
Scale	1:500@A2
Drg. No.	E1
Date	JUNE 2023
Our Ref.	€23.1678
Drawn	TJ
Checked	JK