

DATE: 1 November 2024
DESIGNER: Alex Naper
PROJECT No: SES 10024 Rev D
PROJECT NAME: Knockrabo Phase 2 - Knockrabo Investments DAC



Residential area designed in accordance with EN13201-2:2015 Category P4.

Step sections designed in accordance with I.S.EN17210-2021 with illuminance levels as per the recommendations of BS8300-1:2018 Table 5 Stairways and ramps (open) in the external environment.

MF derived from: 0.92×0.90 (LMF (Low pollution environment & 72 month cleaning cycle) \times LLMF) LLMF value @ 100,000 hours & 25 degrees C Ta.

Rev A: Updated Client name.
Rev B: Updated landscape layout.
Rev C: Updated redling boundary.
Rev D: Revised site layout.

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
Unit 11,
Bellview Industrial Estate,
Tolka Valley Road,
Dublin 11
D11 VN59
Phone Number: 01 8110875
Contact: Graham Sheehan
eMail: graham@sabrelighting.ie

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	718194.88	728446.63	256.25	248.31	1.50	1.50
2	Grid 2 Steps	718267.15	728556.74	2.45	1.67	0.17	0.56
3	Grid 3 Steps	718308.13	728586.88	3.97	1.15	0.31	0.38

Luminaires

Luminaire A Data

Supplier	
Type	BGP701 DX10 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	3.00
File Name	Luma Gen2 Nano_BGP701_DX10 BL1_3000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	503.9, 72.3, 0.0
No. in Project	1

Luminaire B Data

Supplier	
Type	BGP701 DW50 BL1
Lamp(s)	LED-HB 5.2S 722
Lamp Flux (klm)	4.00
File Name	Luma Gen2 Nano_BGP701_DW50 BL1_4000_20LED_5.2S_CLO_L90_722.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	581.9, 40.5, 0.0
No. in Project	8

Luminaire C Data

Supplier	
Type	BGP701 DM12 BL1
Lamp(s)	LED-HB 5.2S 722
Lamp Flux (klm)	2.60
File Name	Luma Gen2 Nano_BGP701_DM12 BL1_2600_20LED_5.2S_CLO_L90_722.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	687.6, 73.3, 0.0
No. in Project	8

Luminaire D Data

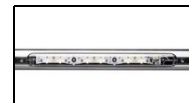
Supplier	
Type	BGP701 DRXN0
Lamp(s)	LED-HB 5.2S 722
Lamp Flux (klm)	0.80
File Name	Luma Gen2 Nano_BGP701_DRXN0_800_6LED_5.2S_CLO_L90_722.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	1419.1, 20.0, 0.0
No. in Project	13

Luminaire E Data

Supplier	Acrospire
Type	Chelsea SCL 12-300mA 730
Lamp(s)	LED
Lamp Flux (klm)/Colour	1.82 3000/>70
File Name	Chelsea SCL 12-300mA 730.Idt
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	808.8, 1043.2, 38.6
No. in Project	2

Luminaire F Data

Supplier	Urbis Schreder
Type	ALINEA Handrail 5117 - 3 LED 350mA WW Profilled Poly Clear, Sm
Lamp(s)	3 LEDs WW
Lamp Flux (klm)	0.37
File Name	ALINEA Handrail 5117 3 LED 350mA WW Profilled Poly Clear Smooth WO7312.Idt
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	681.0, 51.7, 4.1
No. in Project	4



Luminaires

Luminaire G Data

Supplier	
Type	BGP701 DX10 BL1
Lamp(s)	LED-HB 5.2S 722
Lamp Flux (klm)	3.00
File Name	Luma Gen2 Nano_BGP701_DX10 BL1_3000_20LED_5.2S_CLO_L90_722.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	503.9, 72.3, 0.0
No. in Project	1

Luminaire H Data

Supplier	
Type	BGP701 DM10 BL1
Lamp(s)	LED-HB 5.2S 722
Lamp Flux (klm)	1.20
File Name	Luma Gen2 Nano_BGP701_DM10 BL1_1200_6LED_5.2S_CLO_L90_722.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	523.2, 53.0, 0.0
No. in Project	4

Layout

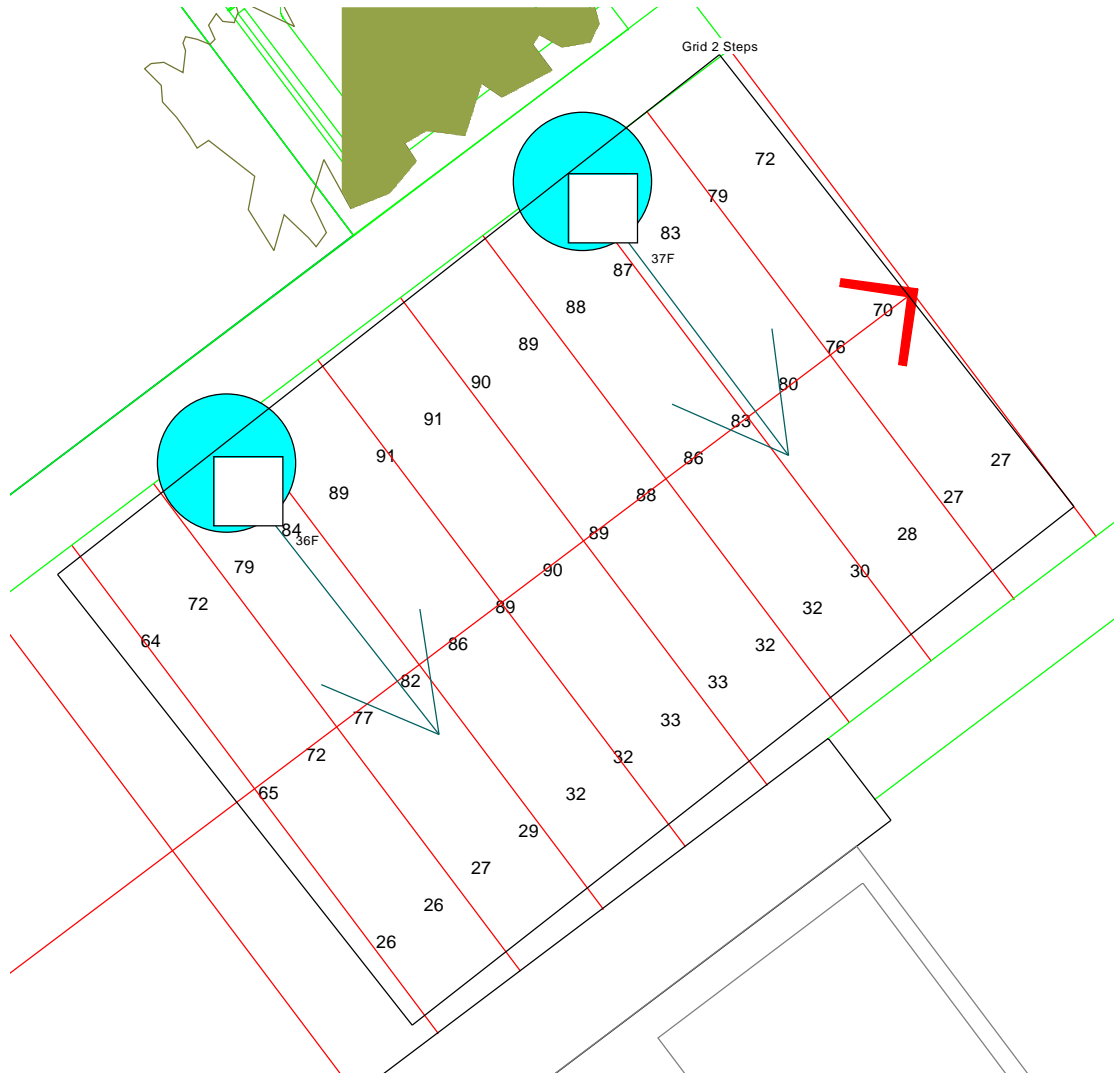
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	A	718364.63	728658.66	6.00	216.00	0.00	0.00	0.40	100%			
2	B	718334.67	728646.40	6.00	301.00	5.00	0.00	0.40	100%			
3	B	718314.72	728614.94	6.00	119.00	5.00	0.00	0.40	100%			
4	B	718278.18	728603.65	6.00	304.00	5.00	0.00	0.40	100%			
5	C	718262.40	728560.29	6.00	216.00	0.00	0.00	0.40	100%			
6	B	718260.51	728575.65	6.00	124.00	5.00	0.00	0.40	100%			
7	C	718292.75	728543.77	6.00	309.00	5.00	0.00	0.40	100%			
8	C	718320.56	728564.95	6.00	305.00	5.00	0.00	0.40	100%			
9	C	718332.51	728554.09	6.00	122.00	5.00	0.00	0.40	100%			
10	C	718279.60	728537.53	6.00	216.00	0.00	0.00	0.40	100%			
11	B	718315.50	728584.65	6.00	36.00	0.00	0.00	0.40	100%			
12	B	718336.31	728585.95	6.00	221.00	5.00	0.00	0.40	100%			
13	B	718318.65	728608.91	6.00	216.00	5.00	0.00	0.40	100%			
14	D	718303.72	728575.96	5.00	126.00	0.00	0.00	0.40	100%			
15	D	718384.06	728604.73	5.00	305.00	0.00	0.00	0.40	100%			
16	D	718278.20	728567.48	5.00	307.00	0.00	0.00	0.40	100%			
17	D	718300.21	728584.08	5.00	307.00	0.00	0.00	0.40	100%			
18	D	718349.64	728577.62	5.00	307.00	0.00	0.00	0.40	100%			
19	D	718366.37	728590.28	5.00	299.00	0.00	0.00	0.40	100%			
20	E	718359.69	728597.87	5.00	214.00	0.00	0.00	0.00	50%			
21	E	718345.49	728601.94	5.00	36.00	0.00	0.00	0.00	50%			
22	C	718354.24	728518.48	6.00	226.00	5.00	0.00	0.40	100%			
23	C	718373.54	728496.58	6.00	205.00	5.00	0.00	0.40	100%			
24	C	718343.17	728529.61	5.00	316.00	0.00	0.00	0.40	100%			
25	D	718367.93	728549.89	5.00	206.00	0.00	0.00	0.40	100%			
26	D	718362.74	728539.25	5.00	304.00	0.00	0.00	0.40	100%			
27	D	718383.21	728494.13	5.00	116.00	0.00	0.00	0.40	100%			
28	D	718402.93	728510.99	5.00	134.00	0.00	0.00	0.40	100%			
29	D	718422.82	728526.26	5.00	122.00	0.00	0.00	0.40	100%			
30	B	718430.34	728538.36	5.00	302.00	0.00	0.00	0.40	100%			
31	D	718356.87	728527.57	5.00	131.00	0.00	0.00	0.40	100%			
32	D	718281.72	728559.20	5.00	126.00	0.00	0.00	0.40	100%			
33	G	718406.03	728555.39	6.00	32.00	5.00	0.00	0.40	100%			
34	F	718310.07	728584.21	1.00	38.00	0.00	0.00	0.10	100%			
35	F	718308.76	728585.98	1.00	38.00	0.00	0.00	0.10	100%			
36	F	718266.61	728558.38	1.00	308.00	0.00	0.00	0.10	100%			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
37	F	718267.65	728559.20	1.00	307.00	0.00	0.00	0.10	100%			
38	H	718268.39	728527.71	5.00	34.00	0.00	0.00	0.40	100%			
39	H	718253.53	728547.43	5.00	32.00	0.00	0.00	0.40	100%			
40	H	718242.20	728562.55	5.00	32.00	0.00	0.00	0.40	100%			
41	H	718268.28	728527.55	5.00	214.00	0.00	0.00	0.40	100%			

Horizontal Illuminance (lux)

Grid 2 Steps

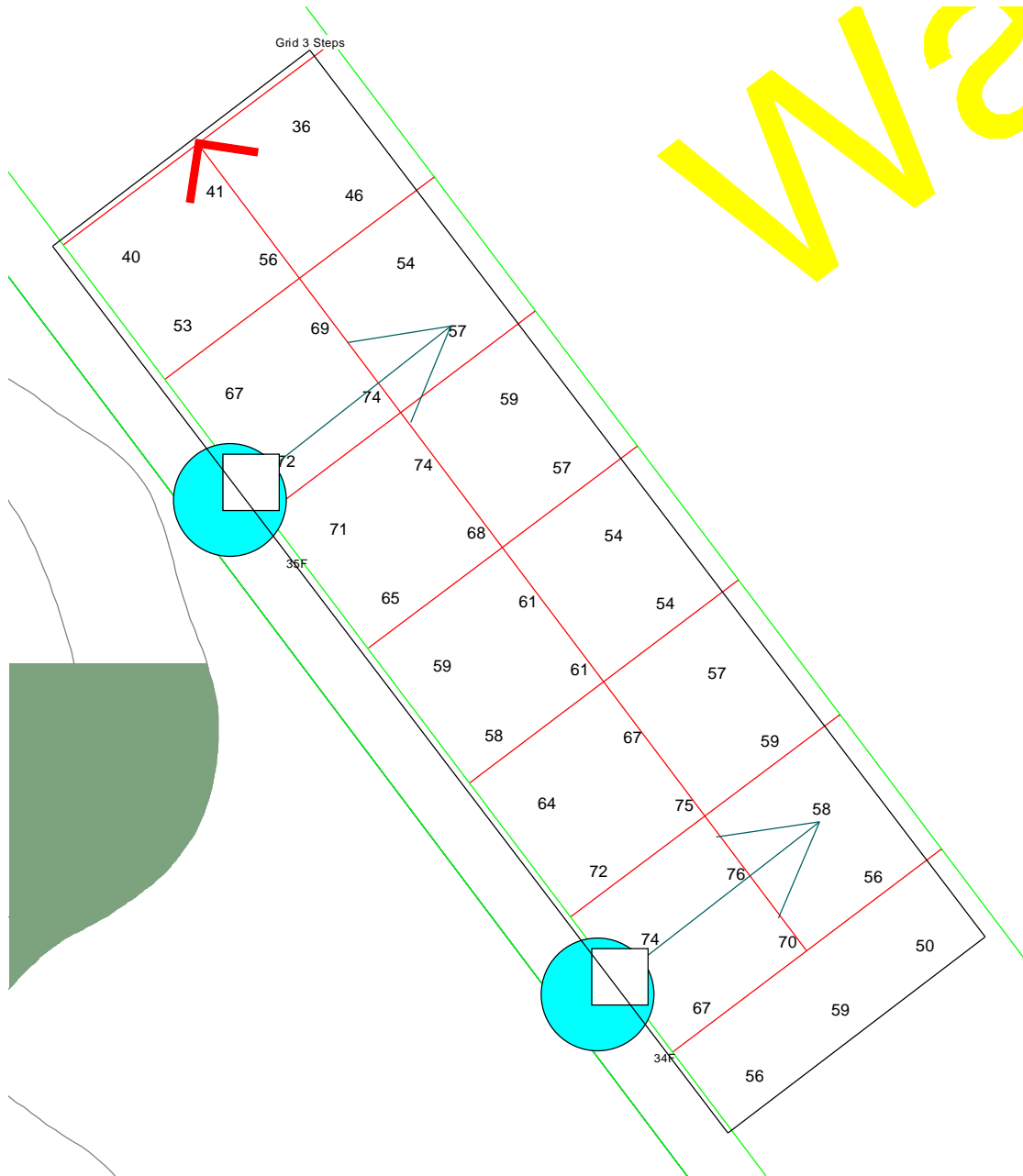


Results

Eav	64.42
Emin	25.71
Emax	91.10
Emin/Emax	0.28
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 3 Steps



Results

Eav	60.61
Emin	36.13
Emax	75.80
Emin/Emax	0.48
Emin/Eav	0.60