

DATE: 8 May 2026
DESIGNER: DFL
PROJECT No: 4242
PROJECT NAME: Kingfisher Grove



Location: Kingfisher Grove
Environmental Zone: E3

GN01: 1.0lx Maximum Vertical Illuminance
GN08: 0.4lx Maximum Vertical Illuminance

Lighting parameters taken from ILP Guidance documents
GN01.2021 - The reduction of Obtrusive Light and GN08.2023 - Bats
and Artificial Lighting at Night.

4242-DFL-HLG-XX-CA-EO-13002-S3-P01

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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	PSER001 - South of Site	470836.97	167110.70	164.42	5.00	0.66	0.50
2	PSER002 - East of Site	471013.98	167131.30	162.53	5.00	0.65	0.50
3	PSER003 - West of Site	470858.09	167186.41	69.37	5.00	0.50	0.50
4	PSER003 - West of Site	470856.75	167257.86	75.36	5.00	0.50	0.50
5	PSER003 - West of Site	470877.00	167332.17	74.64	5.00	0.50	0.50
6	PHAR001 - O/S Plot 7/8	470980.13	167367.92	12.26	5.00	0.51	0.50
7	PHAR002 - O/S Plot 15/16	470942.12	167303.86	12.29	5.00	0.51	0.50
8	PHAR003 - O/S Plot 46/47	470926.54	167359.94	10.39	5.00	0.52	0.50
9	PHAR004 - O/S Plot 1/2	470955.51	167419.80	12.06	5.00	0.50	0.50

Luminaires



Luminaire A Data

Supplier	Philips
Type	BGP702 DM10
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.00
File Name	Luma Gen2 Micro_BGP702_DM10_2000_10L ED_5.2S_CLO_L90_730.ies
Maintenance Factor	1.00
Imax70,80,90(cd/klm)	523.4, 90.0, 0.0
No. in Project	25

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	470944.53	167473.29	6.00	194.00	0.00	0.00	0.40			
2	A	470945.74	167440.45	6.00	191.00	0.00	0.00	0.40			
3	A	470953.34	167411.49	6.00	203.00	0.00	0.00	0.40			
4	A	470958.64	167382.64	6.00	28.00	0.00	0.00	0.40			
5	A	470981.07	167355.35	6.00	198.00	0.00	0.00	0.40			
6	A	470947.17	167380.71	5.00	116.00	0.00	0.00	0.40			
7	A	470915.08	167406.03	5.00	58.00	0.00	0.00	0.40			
8	A	470977.23	167335.34	6.00	2.00	0.00	0.00	0.40			
9	A	470968.23	167308.17	6.00	333.00	0.00	0.00	0.40			
10	A	470952.36	167279.05	6.00	336.00	0.00	0.00	0.40			
11	A	470944.52	167244.66	6.00	2.00	0.00	0.00	0.40			
12	A	470947.15	167213.81	6.00	350.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
13	A	470934.75	167201.89	6.00	273.00	0.00	0.00	0.40			
14	A	470897.24	167202.61	6.00	268.00	0.00	0.00	0.40			
15	A	470880.85	167213.92	6.00	171.00	0.00	0.00	0.40			
16	A	470938.73	167297.87	5.00	246.00	0.00	0.00	0.40			
17	A	470910.51	167301.80	5.00	70.00	0.00	0.00	0.40			
18	A	470879.95	167253.04	6.00	350.00	0.00	0.00	0.40			
20	A	470888.21	167281.84	6.00	339.00	0.00	0.00	0.40			
21	A	470911.70	167325.53	6.00	147.00	0.00	0.00	0.40			
22	A	470925.01	167360.95	6.00	160.00	0.00	0.00	0.40			
23	A	470936.43	167395.73	6.00	160.00	0.00	0.00	0.40			
24	A	470917.65	167377.46	5.00	338.00	0.00	0.00	0.40			
25	A	470902.98	167343.92	5.00	339.00	0.00	0.00	0.40			
26	A	470896.03	167307.28	6.00	342.00	0.00	0.00	0.40			

Illuminance (lux)

PSER001 - South of Site



Results

Eav	0.00
Emin	0.00
Emax	0.00
Emin/Emax	0.00
Emin/Eav	0.00

PSER001 - South of Site

PSE001 - Solu

Illuminance (lux)

PSER002 - East of Site



Results

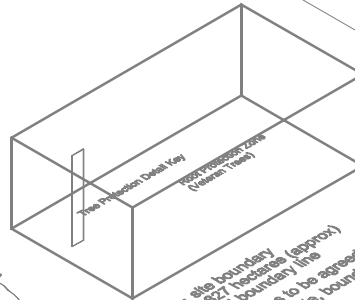
Eav	0.00
Emin	0.00
Emax	0.00
Emin/Emax	0.00
Emin/Eav	0.00

Vertical Illuminance (lux)

Observer direction = 0 deg. Height = 0.00

PSER002 - East of Site

DETAIL KEY
SUBSISTENCE
100% E
100% P
100% P
Air Source HP Location
(Inclusive 100%)



Full site area = 5.827 hectares (approx)
as shown within red boundary line
Final boundary positions to be agreed / confirmed
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Illuminance (lux)

PSER003 - West of Site



Results

Eav	0.01
Emin	0.00
Emax	0.03
Emin/Emax	0.00
Emin/Eav	0.00

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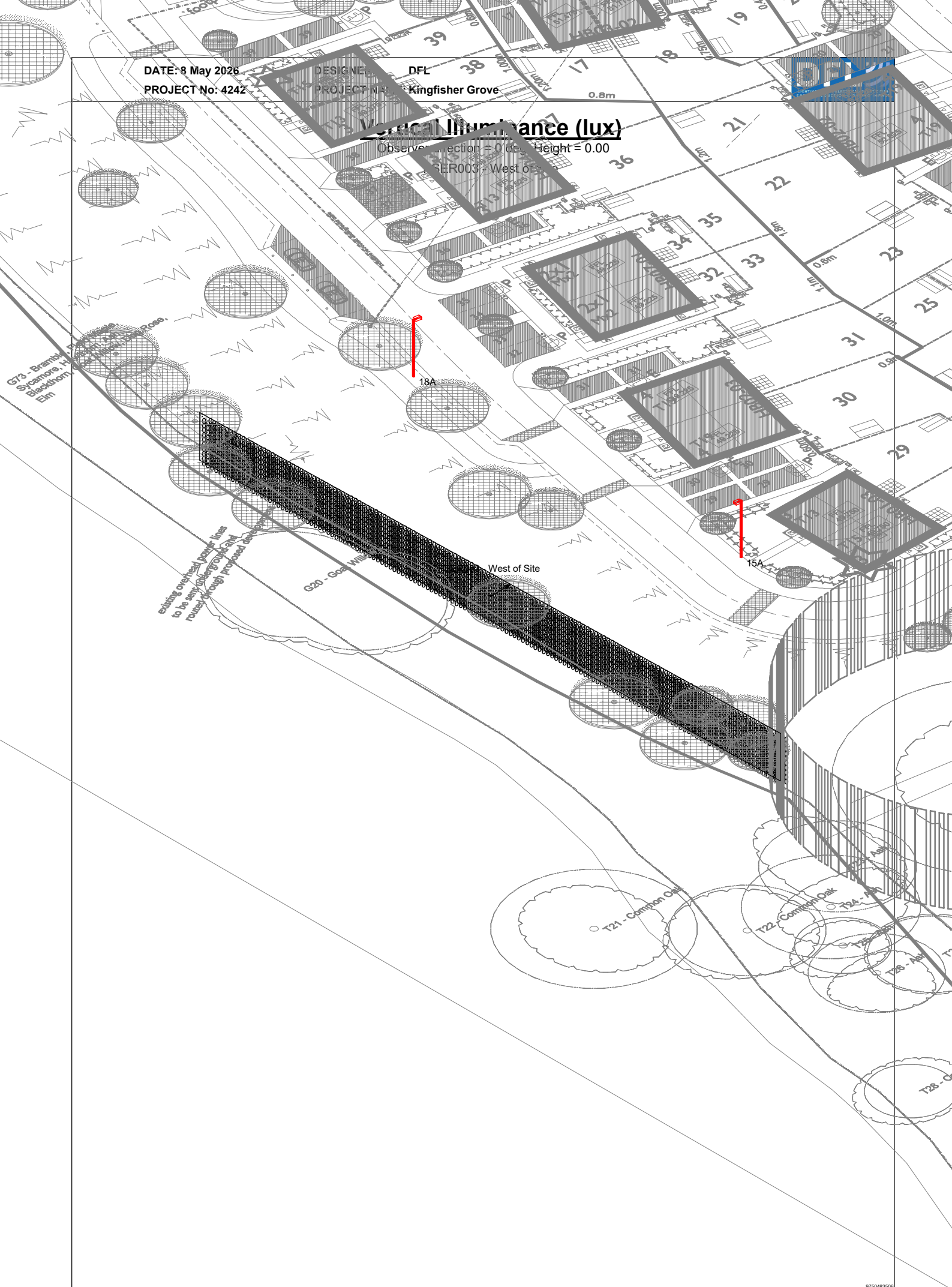
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Vertical Illuminance (lux)

Observer direction = 0 deg, Height = 0.00

Observer 003 - West of



Illuminance (lux)

PSER003 - West of Site



Results

Eav	0.01
Emin	0.00
Emax	0.03
Emin/Emax	0.00
Emin/Eav	0.00

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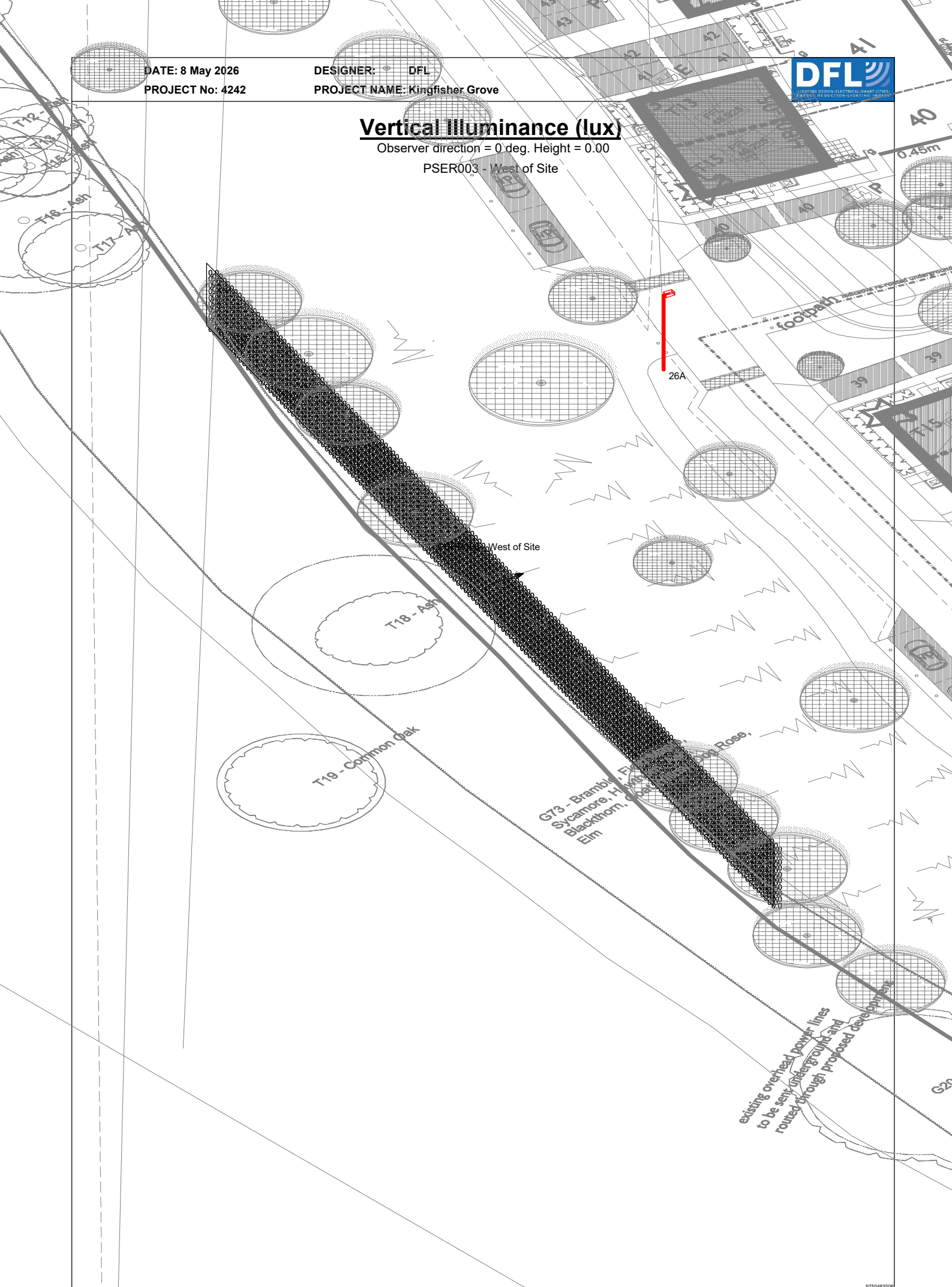
DESIGNER: DFL
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Vertical Illuminance (lux)

Observer direction = 0 deg. Height = 0.00

PSER003 - West of Site



Illuminance (lux)

PSER003 - West of Site

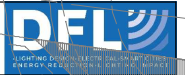


Results

Eav	0.01
Emin	0.00
Emax	0.13
Emin/Emax	0.00
Emin/Eav	0.00

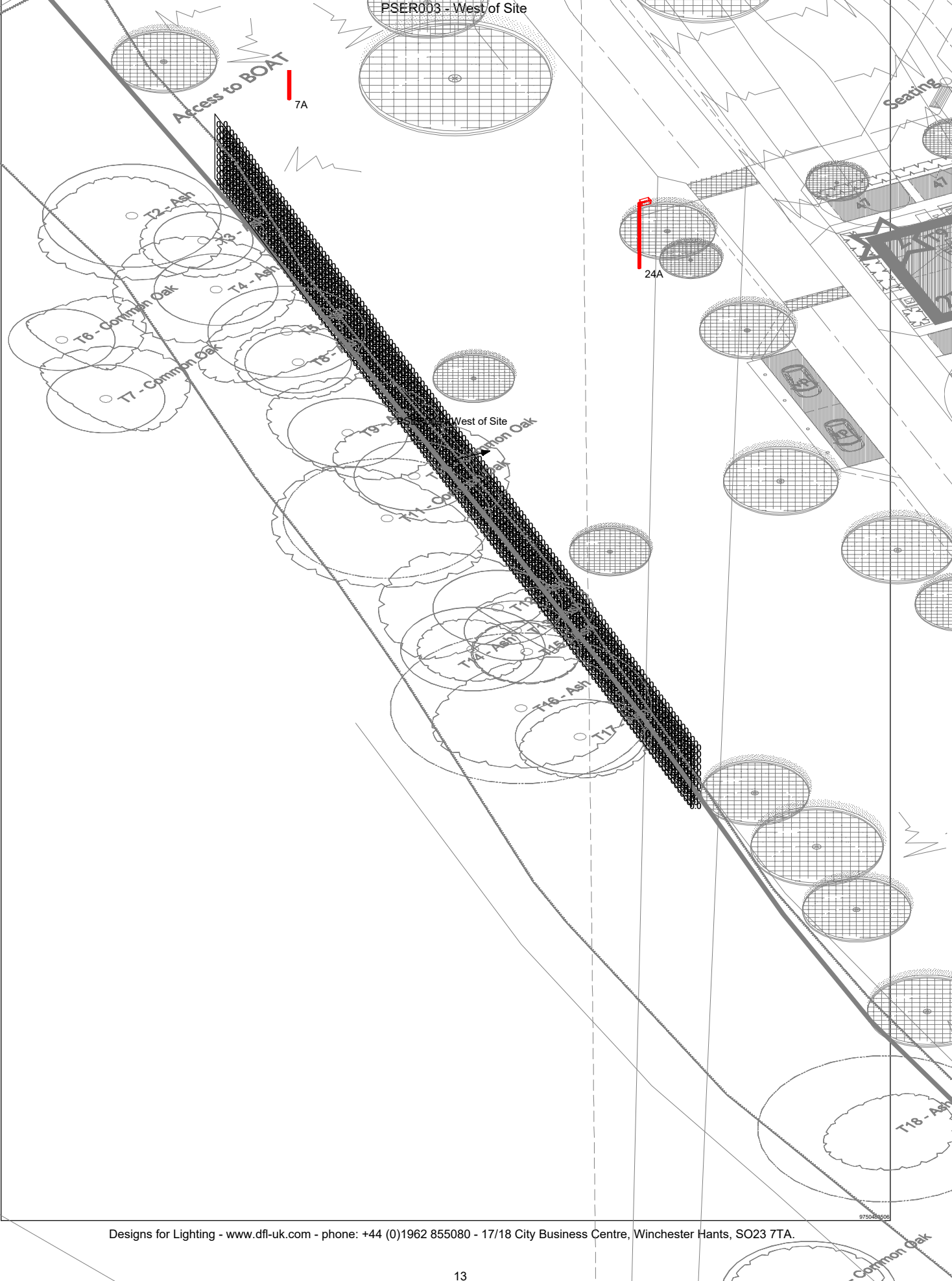
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Vertical Illuminance (lux)

Observer direction = 0 deg. Height = 0.00
PSER003 - West of Site



Illuminance (lux)

PHAR001 - O/S Plot 7/8

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.2	1.2
0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.7	1.7
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.7	1.9	1.9	2.0	2.0
0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.3	1.6	1.8	1.9	2.0	2.0	2.0
0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.2	1.4	1.6	1.9	2.0	2.0	2.0	2.0
0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.0	1.1	1.3	1.4	1.7	1.9	1.9	1.9	2.0	2.0
0.5	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.2	1.3	1.4	1.5	1.7	1.9	1.9	2.0	2.0	2.0
0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.7	1.7	1.9	2.0	2.1	2.1	2.2	2.2
0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.0	2.2	2.3	2.4	2.4	2.5	2.6	2.6
0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.8	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.9	2.9	3.0	3.0

Results

Eav	1.01
Emin	0.01
Emax	3.02
Emin/Emax	0.00
Emin/Eav	0.01

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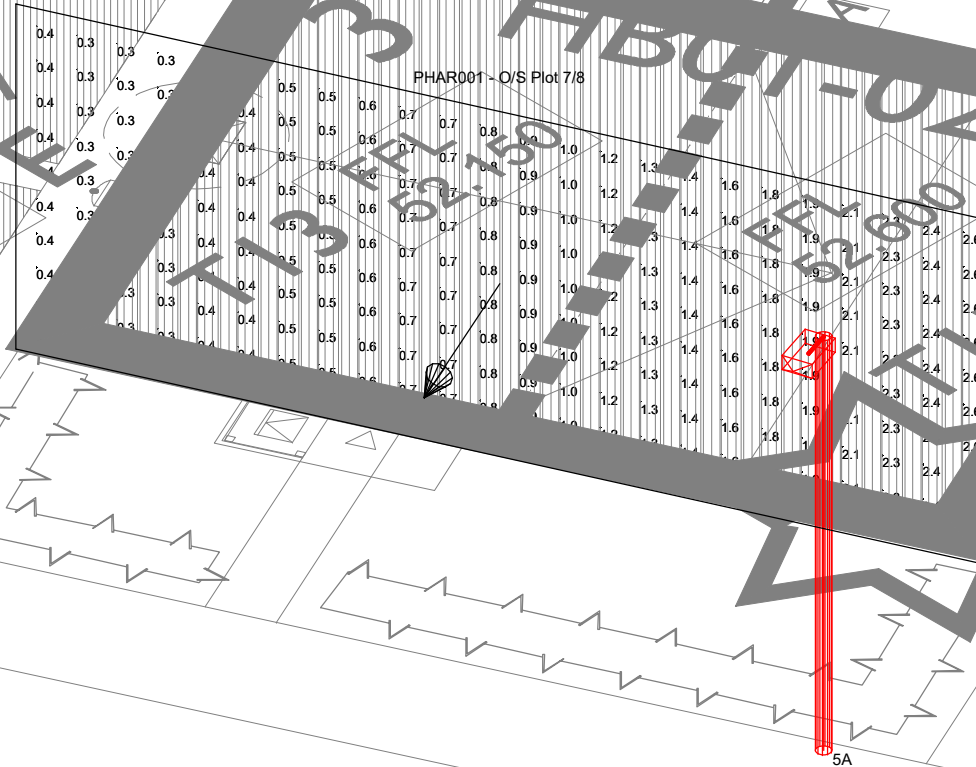
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Vertical Illuminance (lux)

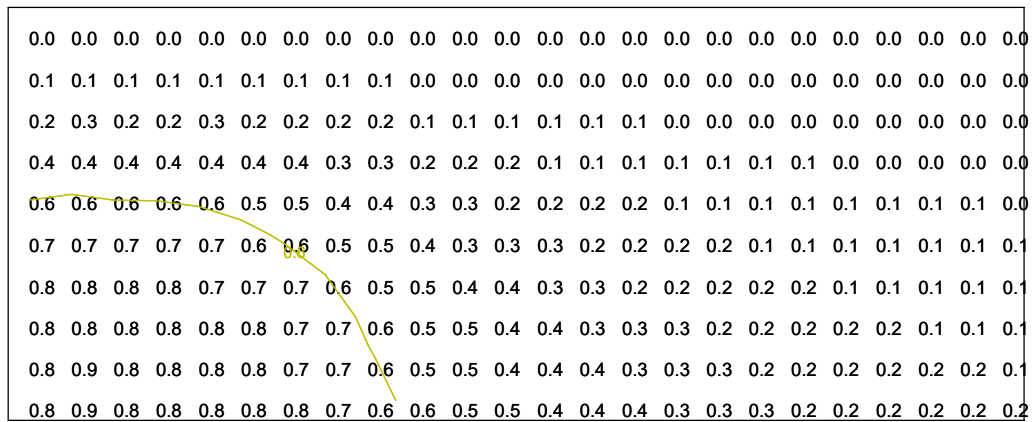
Observer direction = 0 deg. Height = 0.00

PHAR001 - O/S Plot 7/8



Illuminance (lux)

PHAR002 - O/S Plot 15/16



Results

Eav	0.28
Emin	0.00
E _{max}	0.86
Emin/E _{max}	0.00
Emin/Eav	0.01

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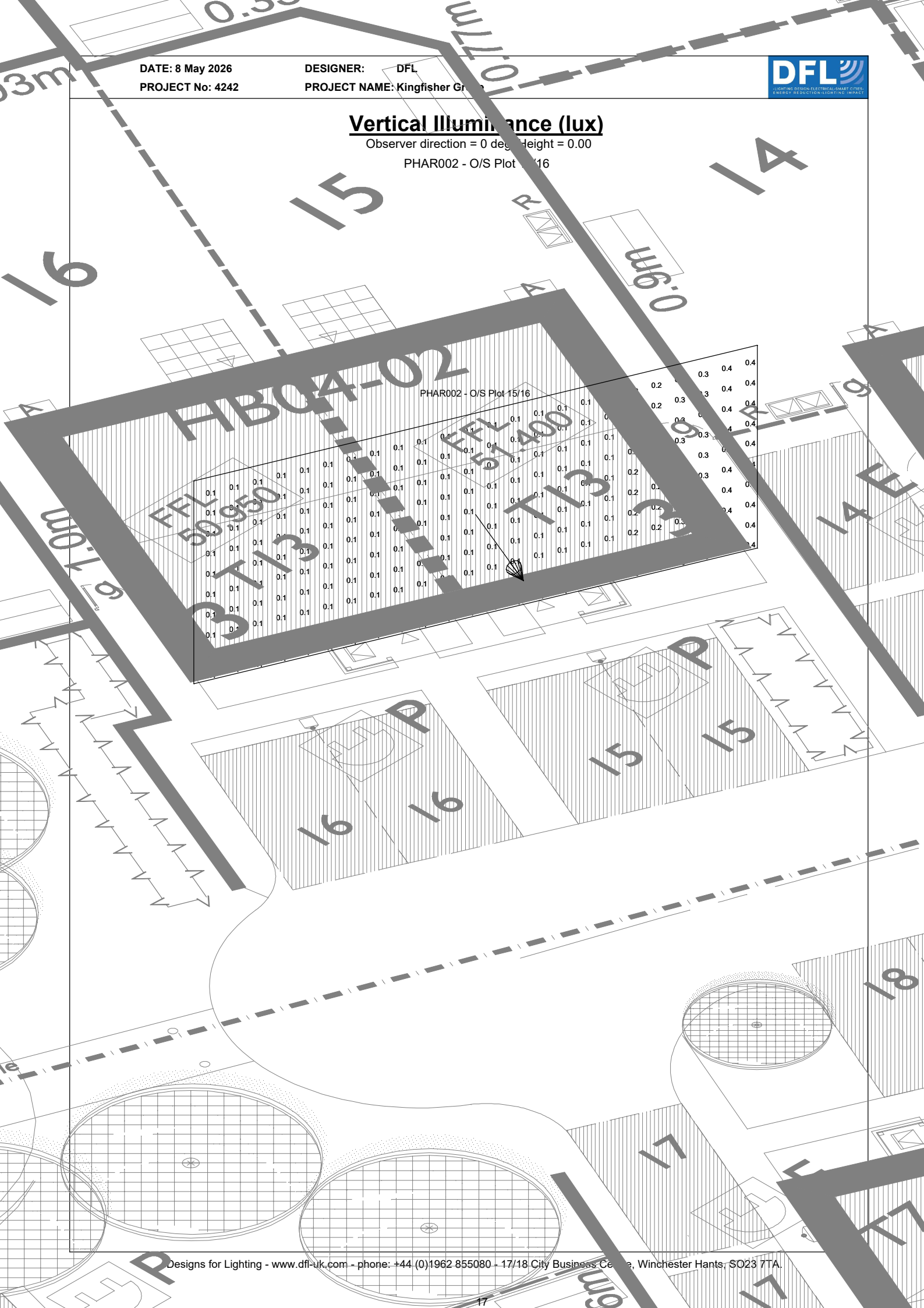
DESIGNER: DFL
PROJECT NAME: Kingfisher Gr



Vertical Illuminance (lux)

Observer direction = 0 deg Height = 0.00

PHAR002 - O/S Plot 15/16



Illuminance (lux)

PHAR003 - O/S Plot 46/47

8.9	8.6	7.3	4.9	3.3	2.1	1.4	0.9	0.6	0.4	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
8.3	8.1	7.5	5.3	3.8	2.7	2.1	1.7	1.4	1.2	0.9	0.7	0.5	0.4	0.3	0.2	0.2	0.2	0.1	0.1
7.9	7.7	6.6	5.4	4.3	3.7	3.3	2.8	2.4	2.0	1.6	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.3	0.2
9.8	9.6	8.3	7.1	6.0	5.2	4.4	3.8	3.3	2.8	2.3	1.9	1.6	1.3	1.1	0.9	0.7	0.6	0.5	0.4
9.9	9.8	8.8	7.8	6.7	5.8	4.9	4.2	3.6	3.0	2.6	2.2	1.9	1.6	1.4	1.2	1.0	0.9	0.8	0.6
8.7	8.6	7.9	7.2	6.3	5.5	4.8	4.1	3.5	3.0	2.5	2.2	1.9	1.6	1.4	1.2	1.1	1.0	0.9	0.8
7.0	6.9	6.5	6.0	5.4	4.8	4.2	3.7	3.2	2.8	2.4	2.1	1.8	1.6	1.4	1.2	1.1	1.0	0.9	0.8
5.5	5.4	5.2	4.9	4.5	4.1	3.6	3.2	2.9	2.5	2.2	1.9	1.7	1.5	1.3	1.2	1.1	1.0	0.9	0.8
4.3	4.3	4.2	4.0	3.7	3.4	3.1	2.8	2.5	2.3	2.0	1.8	1.6	1.4	1.3	1.1	1.0	0.9	0.9	0.8
3.5	3.5	3.4	3.2	3.1	2.9	2.6	2.4	2.2	2.0	1.8	1.6	1.5	1.3	1.2	1.1	1.0	0.9	0.9	0.8

Results

Eav	2.86
Emin	0.02
Emax	9.93
Emin/Emax	0.00
Emin/Eav	0.01

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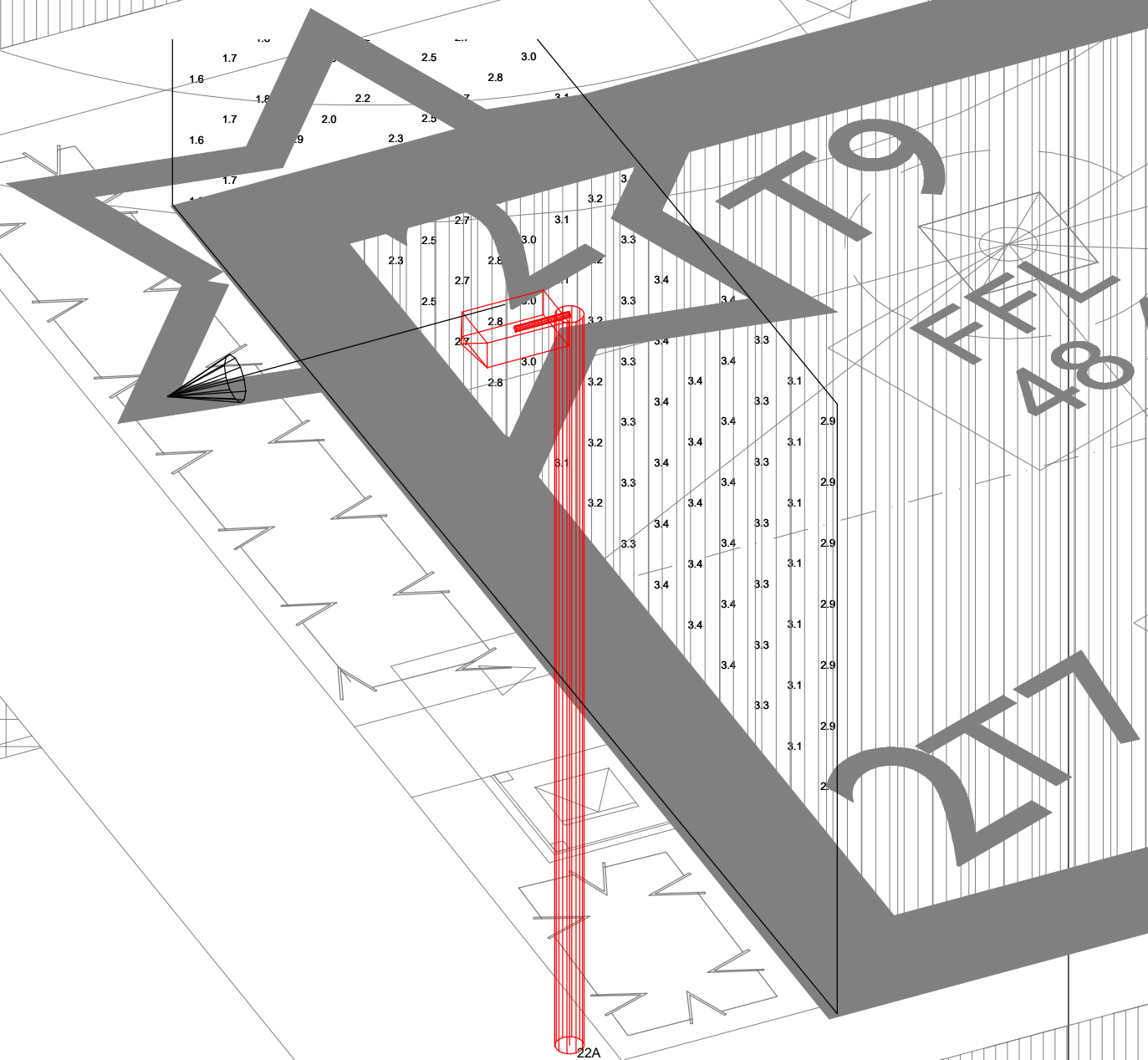
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Vertical Illuminance (lux)

Observer direction = 0 deg. Height = 0.00

PHAR003 - O/S Plot 46/47



Illuminance (lux)

PHAR004 - O/S Plot 1/2

0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2
0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.3	0.2
0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.1	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.3
0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.2	1.3	1.3	1.3	1.2	1.1	1.1	0.9	0.8	0.7	0.6	0.5	0.4
0.3	0.4	0.4	0.5	0.6	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.7	0.6	0.5	0.5
0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5
0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.9	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.1	0.9	0.8	0.7	0.6	0.6
0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	0.9	0.8	0.7	0.7	0.6
0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.1	1.0	0.9	0.8	0.7	0.7	0.6
0.6	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.8	0.8	0.7	0.7

Results

Eav	0.77
Emin	0.07
E _{max}	1.33
Emin/E _{max}	0.06
Emin/Eav	0.10

PHAR004 - O/S Plot 1/2

