



BREEAM New Construction 2018 (UK)

40872 Helmsley House Care Home, Bartons Road Havant

CO ₂ Calculation For A Year													
Colour Temperature (K)	Qty	Range	Light Source	Luminaire Lumens (lm)	Watt (W)	lm/W	LOR	Total Lumens	UOLR	Upward Lumens	CRI	** ART Hour Per Day	CO ₂ (tonnes) Kwh/Year
2700	14	Quarto 2.0	7.5w LED ST	671	8	83.41	100%	9398	0.0%	0	>70	12	0.10 459.90
2700	9	Quarto 2.0	7.5w LED OC	688	8	86.75	100%	6193	0.0%	0	>70	12	0.06 295.45
2700	21	Klou-K 180	14w LED One Way	618	14	44.11	100%	12988	3.4%	467	>70	12	0.27 1287.72
2700	7	Viva City PRO	20w LED FWD/O	1855	20	92.75	100%	12985	0.0%	0	>70	12	0.13 631.20
2700	2	Viva City PRO	20w LED A18/O	1329	20	75.95	100%	3028	0.0%	0	>70	12	0.04 175.20

CMR1 - 2018

Table 3 Compliance

Environmental Zone E3

Sky Glow	Target	Achieved	Status
	5.00%	1.00%	Pass

Source Intensity (Candelas)	Pre-Curfew	Post-Curfew	Status
	55,000	46	Pass
	1,000	46	Pass

Light Trespass Into Windows (lux)	Pre-Curfew	Post-Curfew	Status
	30	0	Pass
	2	0	Pass

Building Luminance (cd/m²)	Pre-Curfew	Post-Curfew	Status
	30		Pass

Note - we have not been able to calculate this as no housing is shown on the drawing

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Total Installation Lumens 46275.76 Total Upward Light 0.0%

Total CO₂ Per Year (Tonnes) 0.80

Total Electric Consumption (kwh) 0.65

Total Electric Consumption Per Year (kwh) 2831.67

Average Luminaire Lumens Per Circuit Watt 70.83

Compliance Status

Reduction Of Night Time Light Pollution Pass

Glare (Internal And External Lighting Levels) Pass

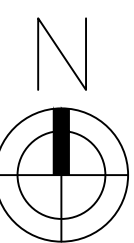
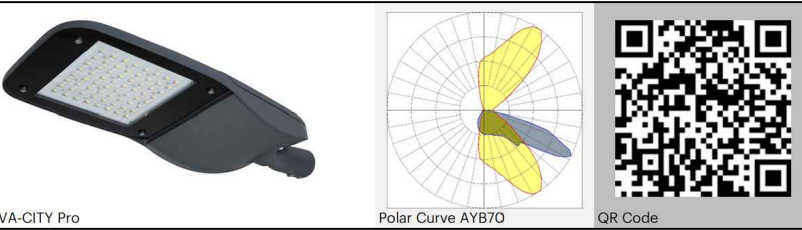
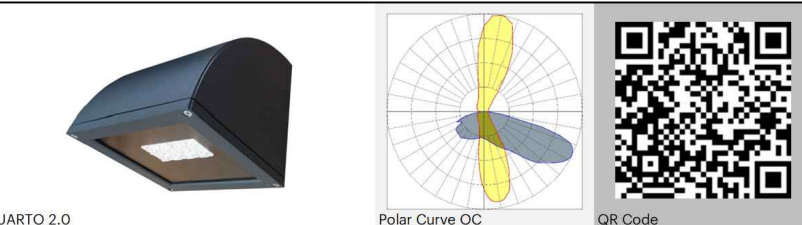
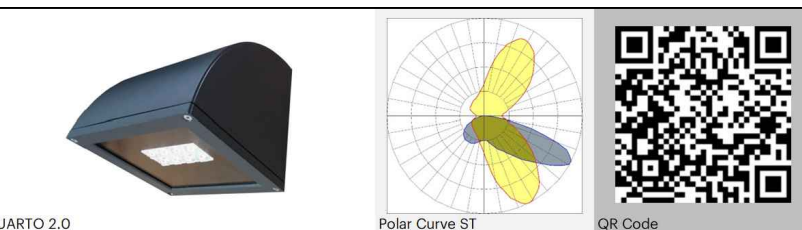
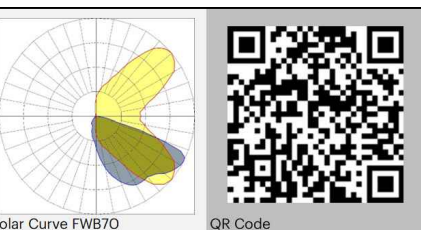
Note: HEAD in this report only applies to exterior lighting
** ART - (Average Room Time)

Date 08/02/2024

Label	CalcType	Units	Avg	Max	Min	Uniformity (Min/Avg)	Diversity (Min/Max)	Meter Type	Description
Access Road	Illuminance	Lux	6.67	11	2	0.30	0.18	Horizontal	
Car Park	Illuminance	Lux	10.18	28	3	0.29	0.11	Horizontal	
Cycle Parking	Illuminance	Lux	9.00	14	4	0.44	0.29	Horizontal	
Paths	Illuminance	Lux	19.41	218	5	0.26	0.02	Horizontal	
Surrounding Houses Verticals_Cd	Obstrusive - Cd	N.A.	26.98	41	0	0.00	0.00	Vert-PerpCW	
Surrounding Houses Verticals_Cd	Obstrusive - Cd	N.A.	25.62	40	3	0.12	0.08	Vert-PerpCW	
Surrounding Houses Verticals_Cd	Obstrusive - Cd	N.A.	19.01	42	0	0.00	0.00	Vert-PerpCW	
Surrounding Houses Verticals_Cd	Obstrusive - Cd	N.A.	22.39	46	1	0.04	0.02	Vert-PerpCW	
Surrounding Houses Verticals_II	Obstrusive - II	Lux	0.00	0	0	N.A.	N.A.	Vert-PerpCW	
Surrounding Houses Verticals_II	Obstrusive - II	Lux	0.00	0	0	N.A.	N.A.	Vert-PerpCW	
Surrounding Houses Verticals_II	Obstrusive - II	Lux	0.00	0	0	N.A.	N.A.	Vert-PerpCW	
Surrounding Houses Verticals_II	Obstrusive - II	Lux	0.00	0	0	N.A.	N.A.	Vert-PerpCW	

Luminaire Schedule

Symbol	Qty	Label	Arrangement	LLF	Description	UWLK
	14	C	SINGLE	0.900	7.5w LED 2700K Quarto 2.0 250mA bulkhead with street optic wall mounted at 3m.	N.A.
	9	D	SINGLE	0.900	7.5w LED 2700K Quarto 2.0 250mA bulkhead with cycle optic wall mounted at 2.8m & 3m.	N.A.
	21	E	SINGLE	0.900	2 x 5.5w 2700K LED Klou K180 with 180° Distribution	0.10
	7	F	SINGLE	0.900	20W LED 2700K VIVA-CITY Pro 80mA with FWD/O forward throw optic Column mounted 5m	0.00
	2	G	SINGLE	0.900	20W LED 2700K VIVA-CITY Pro 80mA with A18/O street optic Column mounted 5m	0.00



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Scale 1:250 at A1 Project Number D40872D



For our LED lighting designs a 0.9mf has been used. If this differs from the maintenance period for this project then you must advise us accordingly

Date 8 February 2024 Drawing No. D40872/AE/D

Lighting Designer : A Eldred

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