



Project No: 2537

Project: Barchester, Copthorne

External Lighting Calculations

Document Ref: 2537-HCL-ZZ-XX-CA-E-0003

Issue Status: For Information

Revision Details				
Rev	Date	Description	By	Checked
P01	17/03/2025	Issued for information	JR	TB
P02	08/07/2025	Planning comments included	JR	TB

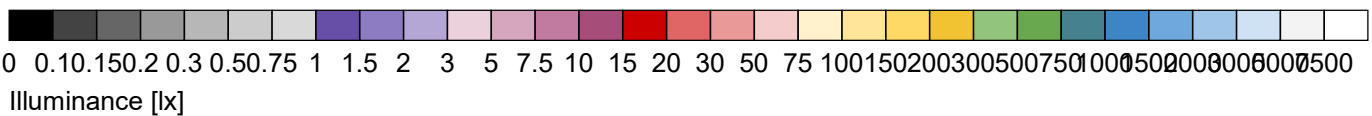
Object :
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1 External

1.1 Summary, External

1.1.1 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	2.01 m
Maintenance factor	0.80
Total luminous flux	60395 lm
Total power	495 W
Total power per area (8519.93 m²)	0.06 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	6 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	333 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1240 (0)
Diversity U_d	E_{min}/E_{max}	1:64400 (0)

Type No. \ Make

Luceco PLC	
1 9 x	Order No. : VCYP-AY70-4.3-15D
	Luminaire name : Kingfisher - Viva City Pro
	Equipment : 1 x LED 15 W / 1983 lm
2 6 x	Order No. : DEC15
	Luminaire name : Kingfisher - Deco Bollard
	Equipment : 1 x LED 15 W / 1500 lm

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1 External

1.1 Summary, External

1.1.1 Result overview, Measuring area 1

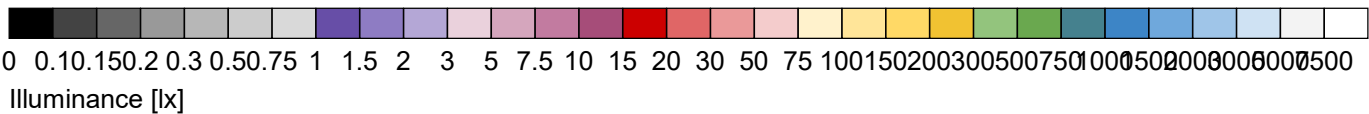
Ansell		
4	31 x	Order No. : AWOLF/MINI/BLK/SM3 (CW 8W)
		Luminaire name : BULKHEADS - Wolf Mini Black 4000K
		Equipment : 1 x LED single 840 8 W / 990 lm
5	2 x	Order No. : AGALED (11W 3000K)
		Luminaire name : DOWNLIGHTS - Galaxy
		Equipment : 1 x LED 11 W / 1429 lm

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1.1 Summary, External

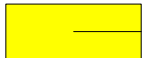
1.1.2 Result overview, Measuring area 2



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	60395 lm
Total power	495 W
Total power per area (8519.93 m²)	0.06 W/m²

Illuminance		
Average illuminance	$\bar{E}_m$	7.9 lx
Minimum illuminance	E_{min}	0.1 lx
Maximum illuminance	E_{max}	55.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:75.1 (0.01)
Diversity U_d	E_{min}/E_{max}	1:527 (0)

Type No.\Make

		Luceco PLC	
1	9 x	Order No.	: VCYP-AY70-4.3-15D
		Luminaire name	: Kingfisher - Viva City Pro
		Equipment	: 1 x LED 15 W / 1983 lm
2	6 x	Order No.	: DEC15
		Luminaire name	: Kingfisher - Deco Bollard
		Equipment	: 1 x LED 15 W / 1500 lm

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1.1 Summary, External

1.1.2 Result overview, Measuring area 2

Ansell		
4	31 x	Order No. : AWOLF/MINI/BLK/SM3 (CW 8W)
		Luminaire name : BULKHEADS - Wolf Mini Black 4000K
		Equipment : 1 x LED single 840 8 W / 990 lm
5	2 x	Order No. : AGALED (11W 3000K)
		Luminaire name : DOWNLIGHTS - Galaxy
		Equipment : 1 x LED 11 W / 1429 lm

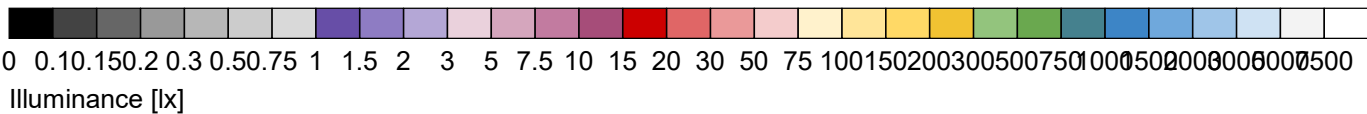
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1.1 Summary, External

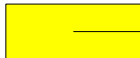
1.1.3 Result overview, Measuring area 4



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.01 m
Maintenance factor	0.80
Total luminous flux	60395 lm
Total power	495 W
Total power per area (8519.93 m²)	0.06 W/m²

Illuminance		
Average illuminance	$\bar{E}_m$	25.2 lx
Minimum illuminance	E_{min}	21.3 lx
Maximum illuminance	E_{max}	27.3 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:1.19 (0.84)
Diversity U_d	E_{min}/E_{max}	1:1.28 (0.78)

Type No.\Make

		Luceco PLC	
1	9 x	Order No.	: VCYP-AY70-4.3-15D
		Luminaire name	: Kingfisher - Viva City Pro
		Equipment	: 1 x LED 15 W / 1983 lm
2	6 x	Order No.	: DEC15
		Luminaire name	: Kingfisher - Deco Bollard
		Equipment	: 1 x LED 15 W / 1500 lm

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1.1 Summary, External

1.1.3 Result overview, Measuring area 4

		Ansell	
4	31 x	Order No.	: AWOLF/MINI/BLK/SM3 (CW 8W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 8 W / 990 lm
5	2 x	Order No.	: AGALED (11W 3000K)
		Luminaire name	: DOWNLIGHTS - Galaxy
		Equipment	: 1 x LED 11 W / 1429 lm

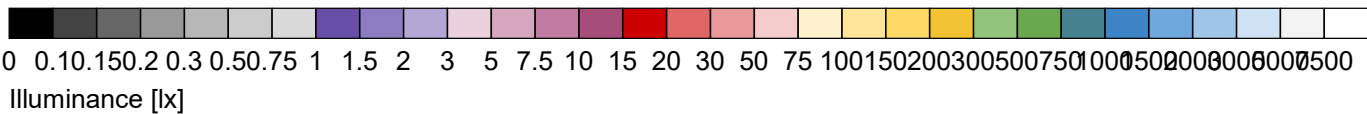
-please put your own address here-

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1.1 Summary, External

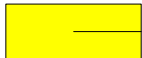
1.1.4 Result overview, Measuring area 5



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.01 m
Maintenance factor	0.80
Total luminous flux	60395 lm
Total power	495 W
Total power per area (8519.93 m²)	0.06 W/m²

Illuminance	
Average illuminance	$\bar{E}_m$ 23.9 lx
Minimum illuminance	E_{min} 18.7 lx
Maximum illuminance	E_{max} 27.5 lx
Uniformity U_o	$E_{min}/\bar{E}_m$ 1:1.28 (0.78)
Diversity U_d	E_{min}/E_{max} 1:1.48 (0.68)

Type No.\Make

1		Luceco PLC	
	9 x	Order No.	: VCYP-AY70-4.3-15D
		Luminaire name	: Kingfisher - Viva City Pro
		Equipment	: 1 x LED 15 W / 1983 lm
2			
	6 x	Order No.	: DEC15
		Luminaire name	: Kingfisher - Deco Bollard
		Equipment	: 1 x LED 15 W / 1500 lm

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1.1 Summary, External

1.1.4 Result overview, Measuring area 5

		Ansell	
4	31 x	Order No.	: AWOLF/MINI/BLK/SM3 (CW 8W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 8 W / 990 lm
5	2 x	Order No.	: AGALED (11W 3000K)
		Luminaire name	: DOWNLIGHTS - Galaxy
		Equipment	: 1 x LED 11 W / 1429 lm

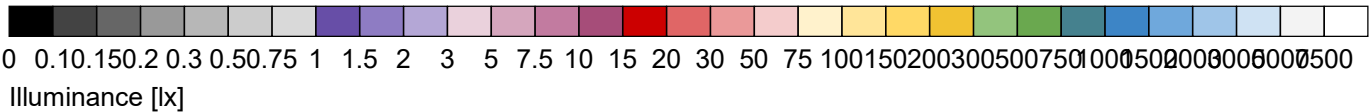
-please put your own address here-

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1.1 Summary, External

1.1.5 Result overview, Vertical Measuring Area - Nearest Window



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	60395 lm
Total power	495 W
Total power per area (8519.93 m²)	0.06 W/m²

Illuminance	
Average illuminance	$\bar{E}_m$ 0.54 lx
Minimum illuminance	E_{min} 0.53 lx
Maximum illuminance	E_{max} 0.55 lx
Uniformity U_o	$E_{min}/\bar{E}_m$ 1:1.02 (0.98)
Diversity U_d	E_{min}/E_{max} 1:1.04 (0.96)

Type No. Make

		Luceco PLC	
1	9 x	Order No.	: VCYP-AY70-4.3-15D
		Luminaire name	: Kingfisher - Viva City Pro
		Equipment	: 1 x LED 15 W / 1983 lm
2	6 x	Order No.	: DEC15
		Luminaire name	: Kingfisher - Deco Bollard
		Equipment	: 1 x LED 15 W / 1500 lm

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1.1 Summary, External

1.1.5 Result overview, Vertical Measuring Area - Nearest Window

		Ansell	
4	31 x	Order No.	: AWOLF/MINI/BLK/SM3 (CW 8W)
		Luminaire name	: BULKHEADS - Wolf Mini Black 4000K
		Equipment	: 1 x LED single 840 8 W / 990 lm
5	2 x	Order No.	: AGALED (11W 3000K)
		Luminaire name	: DOWNLIGHTS - Galaxy
		Equipment	: 1 x LED 11 W / 1429 lm

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