Ashley Road

Installation :

Project number	:	DN-SE-0923-002
Customer	:	
Processed by	:	ASD
Date	:	10.11.2023

Project description:
Standard reflectances @ 80:70:30
Maintenance factor 0.8

Luminiares Designed With 3000K

BS5489 Refers To BS EN 13201-2 P Classes
P4 - Average - 5 Lux To 7.5 Lux - Min 1 Lux

Column Mounted Luminaires - 5m
Wall Mounted - 3m

Final lighting levels are to be confirmed using customer risk assessments.

These plots represent specific ASD products under given conditions. Changes to environment, calculation software accuracy and on site measurement mean real installations may differ from these predictions.

This design information constitutes guidance only.
Common design parameters have been used in order to carry out all calculations. If any part of the scheme or subsequent luminaires used within the scheme is deemed to be inappropriate, please contact us in order for re-calculations to be carried out, prior to an order being placed.

Please ensure that this lighting scheme complies with all requirements, and if further details/ calculations are required please contact ASD Lighting.
Final quantities are to be confirmed prior to an order/installation.

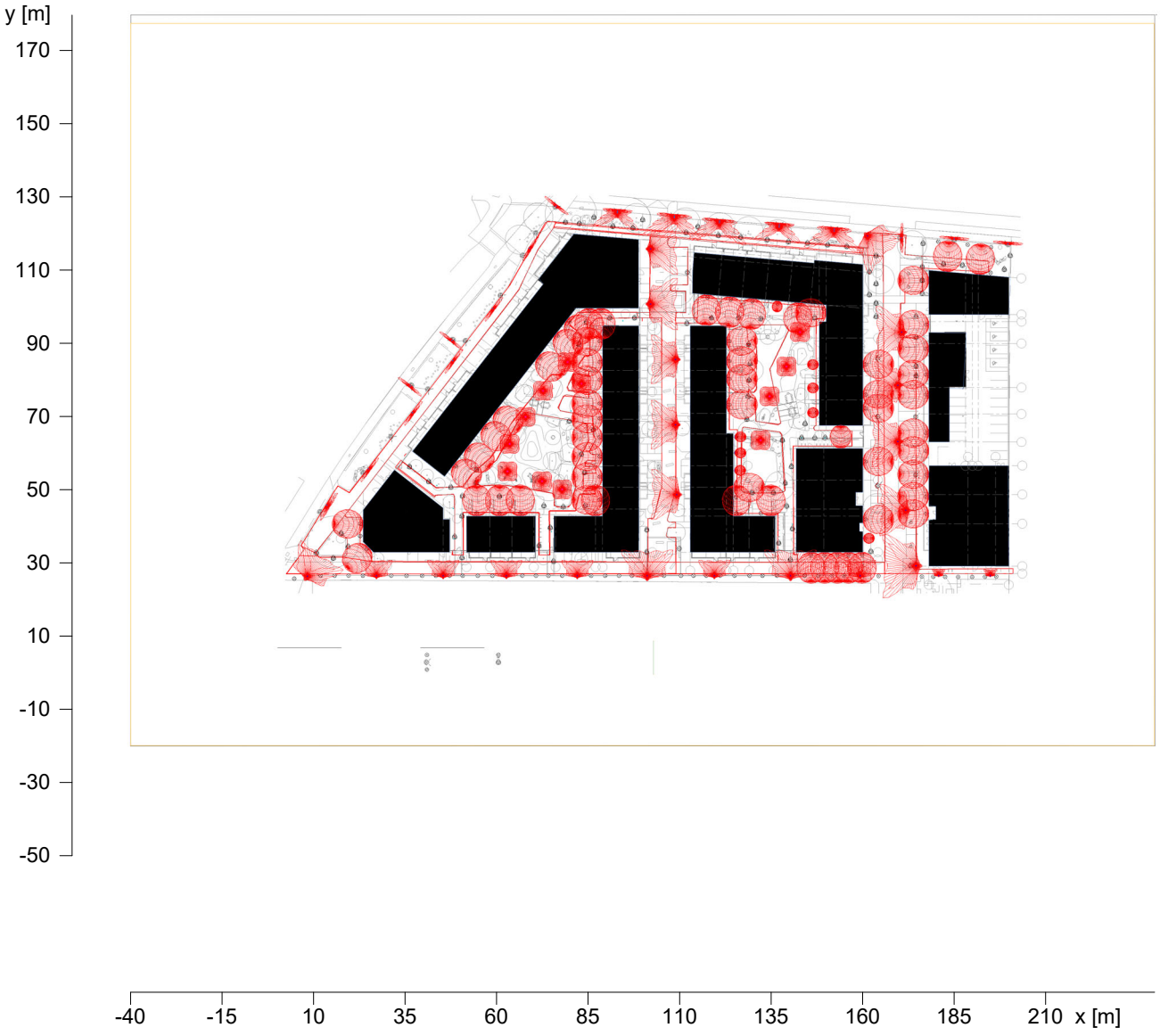
The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

1 Exterior PD05

1.1 Description, Exterior PD05

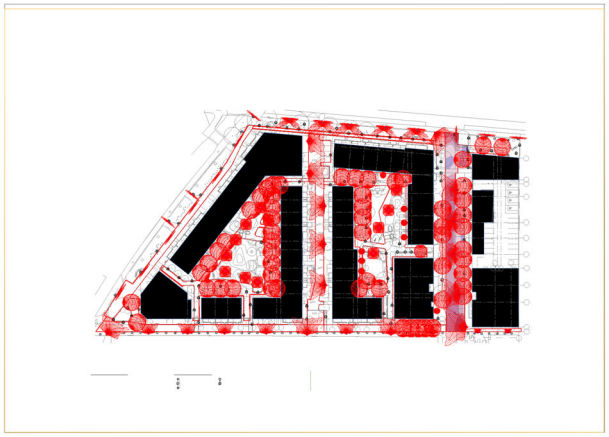
1.1.1 Floor plan



1 Exterior PD05

1.2 Summary, Exterior PD05

1.2.1 Result overview, RP4



-40 -15 10 35 60 85 110 135 160 185 210 x [m]

0 0.2 0.5 0.75 1 2 3 5 7.5 10 15 20 30 50 75 100 150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	7.1 lx
Minimum illuminance	E_{min}	1.9 lx
Maximum illuminance	E_{max}	17.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.73 (0.27)
Diversity U_d	E_{min}/E_{max}	1:9.29 (0.11)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

Object : Ashley Road
Installation :
Project number : DN-SE-0923-002
Date : 10.11.2023

1 Exterior PD05

1.2 Summary, Exterior PD05

1.2.1 Result overview, RP4

20 67 x

Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x

Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

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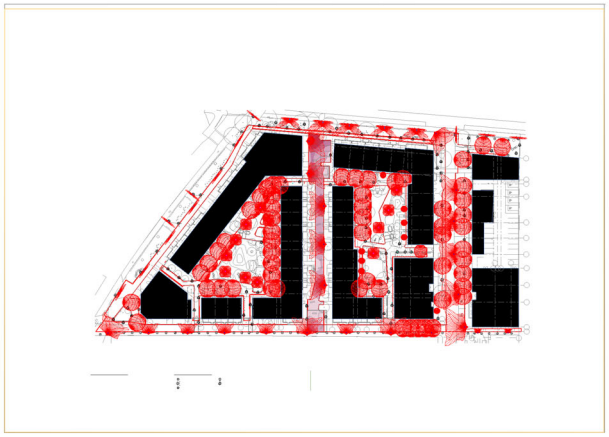
13 12 x

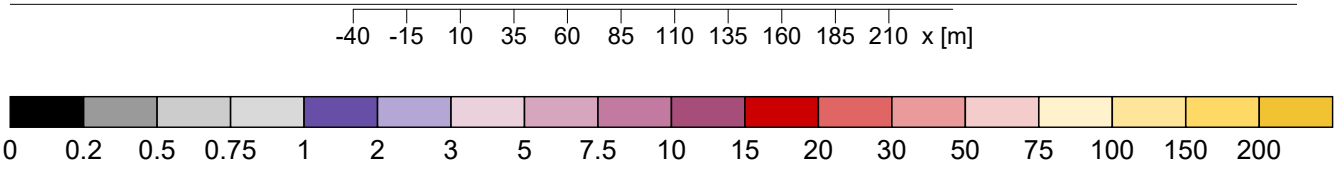
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

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1.2 Summary, Exterior PD05

1.2.2 Result overview, CP4





General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	7.2 lx
Minimum illuminance	E_{min}	3.3 lx
Maximum illuminance	E_{max}	19.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.19 (0.46)
Diversity U_d	E_{min}/E_{max}	1:5.81 (0.17)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.2 Result overview, CP4

20 67 x

Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x

Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

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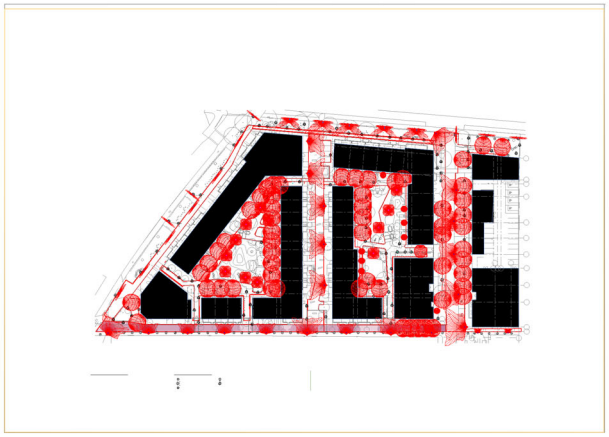
13 12 x

Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

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1.2 Summary, Exterior PD05

1.2.3 Result overview, SP4



-40 -15 10 35 60 85 110 135 160 185 210 x [m]

0 0.2 0.5 0.75 1 2 3 5 7.5 10 15 20 30 50 75 100 150 200

Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	7.7 lx
Minimum illuminance	E_{min}	2.9 lx
Maximum illuminance	E_{max}	15.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.68 (0.37)
Diversity U_d	E_{min}/E_{max}	1:5.42 (0.18)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.3 Result overview, SP4

20 67 x 
Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x 
Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

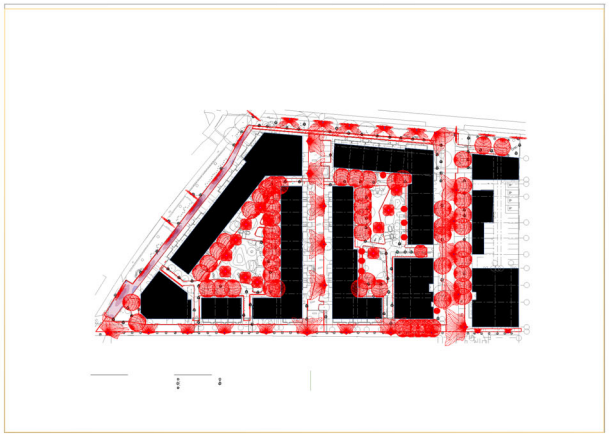
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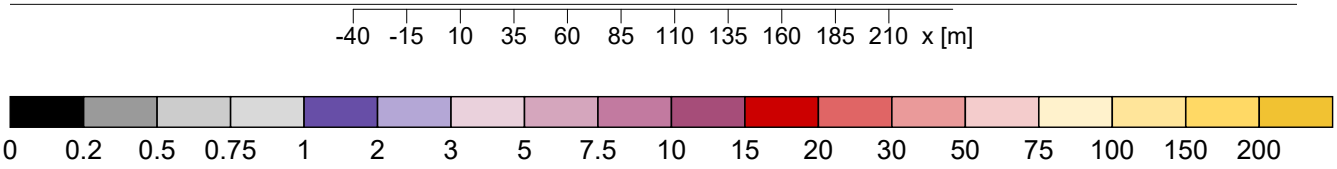
13 12 x 
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

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1.2 Summary, Exterior PD05

1.2.4 Result overview, LP4





General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	6.1 lx
Minimum illuminance	E_{min}	1.7 lx
Maximum illuminance	E_{max}	14.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.52 (0.28)
Diversity U_d	E_{min}/E_{max}	1:8.47 (0.12)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.4 Result overview, LP4

20 67 x 
Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x 
Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

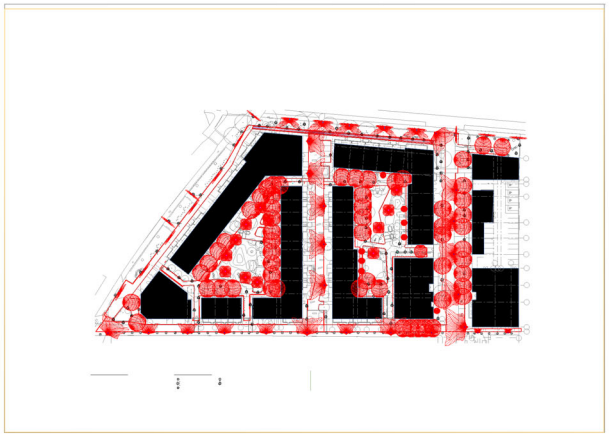
Neri Spa

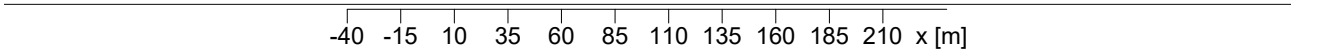
13 12 x 
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

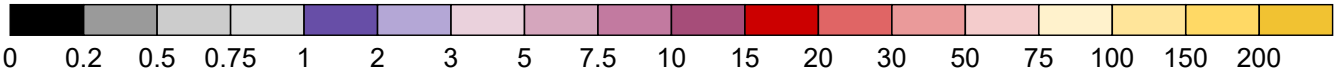
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1.2 Summary, Exterior PD05

1.2.5 Result overview, NP4







Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.01 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	6.7 lx
Minimum illuminance	E_{min}	2.2 lx
Maximum illuminance	E_{max}	12.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.14 (0.32)
Diversity U_d	E_{min}/E_{max}	1:5.93 (0.17)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.5 Result overview, NP4

20 67 x

Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x

Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

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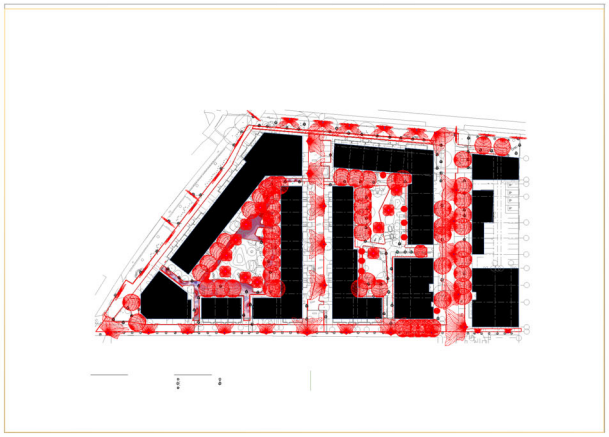
13 12 x

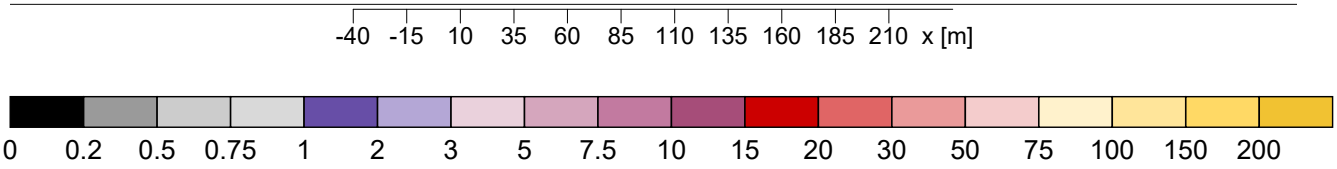
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

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1.2 Summary, Exterior PD05

1.2.6 Result overview, IN1





General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	7.5 lx
Minimum illuminance	E_{min}	1.9 lx
Maximum illuminance	E_{max}	26.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.02 (0.25)
Diversity U_d	E_{min}/E_{max}	1:14.2 (0.07)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.6 Result overview, IN1

20 67 x

Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x

Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

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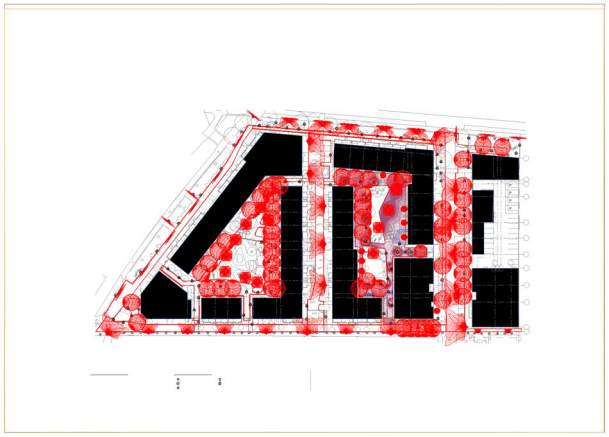
13 12 x

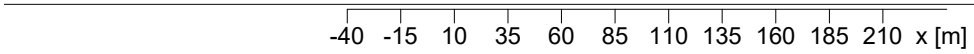
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

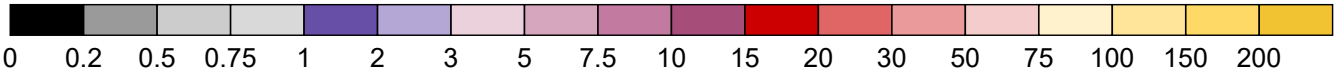
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1.2 Summary, Exterior PD05

1.2.7 Result overview, IN2







Illuminance [lx]

General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	7.3 lx
Minimum illuminance	E_{min}	2 lx
Maximum illuminance	E_{max}	24.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.61 (0.28)
Diversity U_d	E_{min}/E_{max}	1:12 (0.08)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.7 Result overview, IN2

20 67 x 
Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x 
Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

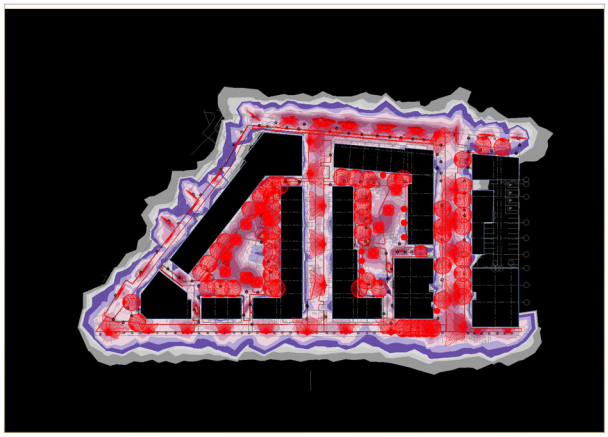
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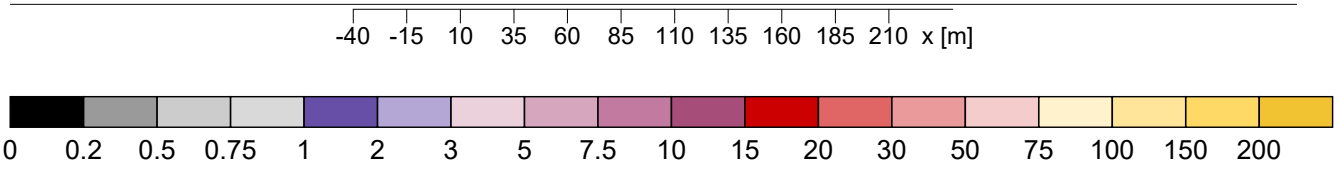
13 12 x 
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

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1.2 Summary, Exterior PD05

1.2.8 Result overview, OB





General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux	118344.203 lm
Total power	1580.2 W
Total power per area (55803.89 m²)	0.03 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	1.4 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	19.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:--- (---)
Diversity U_d	E_{min}/E_{max}	1:--- (---)

Type No.\Make

ASD Lighting PLC

10 17 x
Order No. : HWD2-#4K450-N3
Luminaire name : HWD2-#3K04 500-N3 Gen 5
Equipment : 4 x LED / 188.825 lm

11 22 x
Order No. : HWD2-#4K1635-F0
Luminaire name : HWD2-#3K16 350-F0 Gen 5
Equipment : 16 x LED / 129.331 lm

17 19 x
Order No. : LHR-B1PF3LED35
Luminaire name : Litehouse bollard root LED Fresnel lens 3000K 350
Equipment : 1 x LED 14 W / 927 lm

1.2 Summary, Exterior PD05

1.2.8 Result overview, OB

20 67 x 
Order No. : HR2-BLE3LED600
Luminaire name : HORIZON 283mm BLACK OPAL 3000K LED600 EYELID
Equipment : 1 x LED 7.37 W / 219 lm

21 5 x 
Order No. : HWD2-#3K12 500-M2.
Luminaire name : HWD2-#3K12 500-M2 Gen 7
Equipment : 12 x LED / 161.558 lm

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13 12 x 
Order No. :
Luminaire name : SNN03L PRI
Equipment : 1 x LED 740 10.5 W / 1500 lm

1 Exterior PD05

1.3 Calculation results, Exterior PD05

1.3.1 3D luminance, View 1

