

Installation : Swanage Toilet Refurbishment Works

Project number :

Customer : James Lee - Dorset County Council - Dorchester

Processed by : Chris Burt

Date : 01.09.2017

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

Object :
Installation : Swanage Toilet Refurbishment Works
Project number :
Date : 01.09.2017

1 Luminaire data

1.1 Dextra Group PLC, A (AMC L30 WO R25E C84)

1.1.1 Data sheet

Manufacturer: Dextra Group PLC

AMC L30 WO R25E C84 ceiling mounted luminaire A

AMC L30 BO HF - AMENITY 2487 luminaire lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray. Stainless steel diffuser fixing screws.

Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (244 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 115.67 lm/W
Classification : A41 ↓94.2% ↑5.8%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 23.0 / 23.0
Control gear : electronic ballast
System power : 21.5 W
Diameter : 300 mm
Height : 91 mm

Equipped with

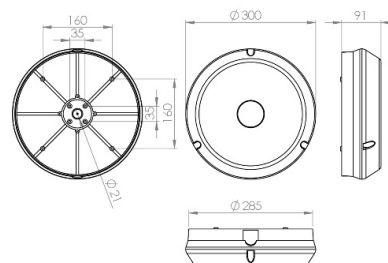
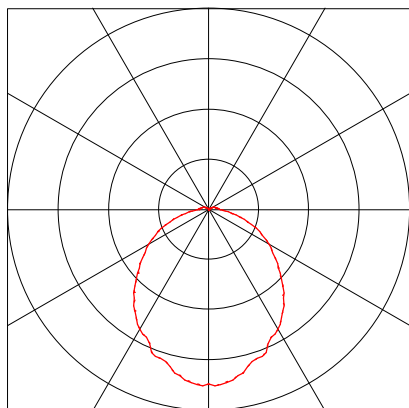
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 2487 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.1 Dextra Group PLC, A (AMC L30 WO R25E C84)

1.1.1 Data sheet



Object :
Installation : Swanage Toilet Refurbishment Works
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Date : 01.09.2017

1 Luminaire data

1.2 Dextra Group PLC, AE (AMC L30 WO R25E M3 C84)

1.2.1 Data sheet

Manufacturer: Dextra Group PLC

AMC L30 WO R25E M3 C84 ceiling mounted luminaire AE

AMC L30 BO HF - AMENITY 2487 luminaire lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray. Stainless steel diffuser fixing screws.
Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (244 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 115.67 lm/W
Classification : A41 ↓94.2% ↑5.8%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 23.0 / 23.0
Control gear : electronic ballast
System power : 21.5 W
Diameter : 300 mm
Height : 91 mm

Equipped with

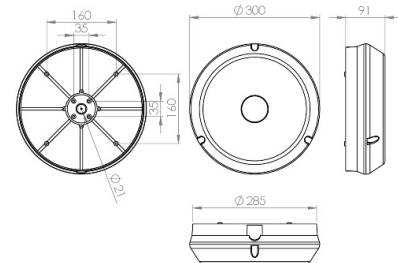
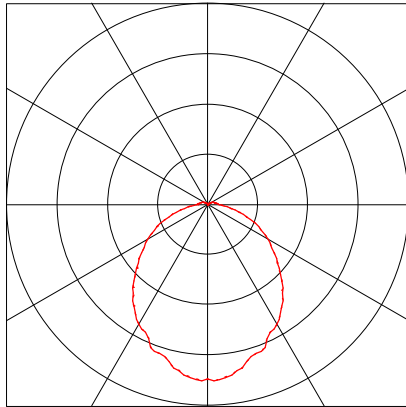
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 2487 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.2 Dextra Group PLC, AE (AMC L30 WO R25E M3 C84)

1.2.1 Data sheet



Object :
Installation : Swanage Toilet Refurbishment Works
Project number :
Date : 01.09.2017

1 Luminaire data

1.3 Dextra Group PLC, B (AMC L20 WO R25E C84)

1.3.1 Data sheet

Manufacturer: Dextra Group PLC



AMC L20 WO R25E C84 ceiling mounted luminaire B

AMC L20 WO HF - AMENITY 1660 luminaire lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray.

Stainless steel diffuser fixing screws.

Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (244 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 102.47 lm/W
Classification : A41 ↓ 94.2% ↑ 5.8%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 21.6 / 21.6
Control gear : electronic ballast
System power : 16.2 W
Diameter : 300 mm
Height : 91 mm

Equipped with

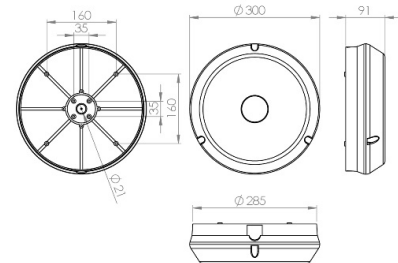
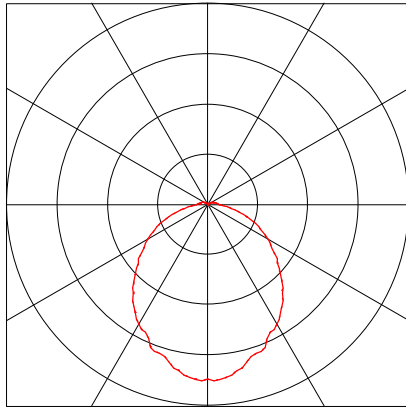
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 1660 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.3 Dextra Group PLC, B (AMC L20 WO R25E C84)

1.3.1 Data sheet



Object :
Installation : Swanage Toilet Refurbishment Works
Project number :
Date : 01.09.2017

1 Luminaire data

1.4 Dextra Group PLC, BE (AMC L20 WO R25E M3 C84)

1.4.1 Data sheet

Manufacturer: Dextra Group PLC

AMC L20 WO R25E M3 C84 ceiling mounted luminaire BE

AMC L20 WO HF - AMENITY 1660 luminaire lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray.

Stainless steel diffuser fixing screws.

Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (244 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 102.47 lm/W
Classification : A41 ↓ 94.2% ↑ 5.8%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 21.6 / 21.6
Control gear : electronic ballast
System power : 16.2 W
Diameter : 300 mm
Height : 91 mm

Equipped with

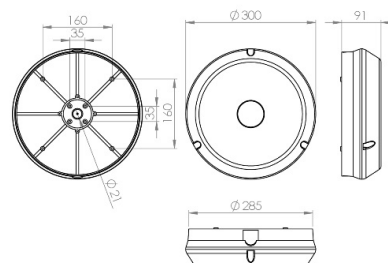
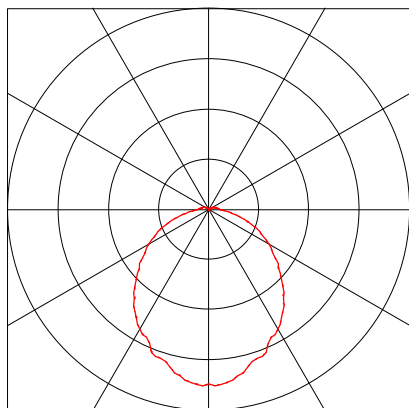
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 1660 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.4 Dextra Group PLC, BE (AMC L20 WO R25E M3 C84)

1.4.1 Data sheet



Object :
Installation : Swanage Toilet Refurbishment Works
Project number :
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1 Luminaire data

1.5 Dextra Group PLC, C (AMC L15 WO R25E C84)

1.5.1 Data sheet

Manufacturer: Dextra Group PLC

AMC L15 WO R25E C84 ceiling mounted luminaire C

AMC L15 BO HF - AMENITY 1500 source lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray. Stainless steel diffuser fixing screws.
Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (215 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 113.82 lm/W
Classification : A41 ↓93.9% ↑6.1%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 20.6 / 20.6
Control gear : electronic ballast
System power : 11 W
Diameter : 300 mm
Height : 91 mm

Equipped with

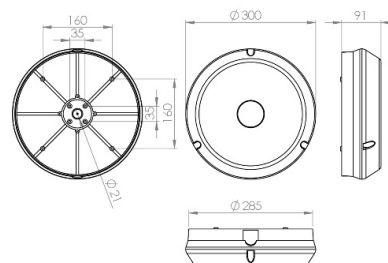
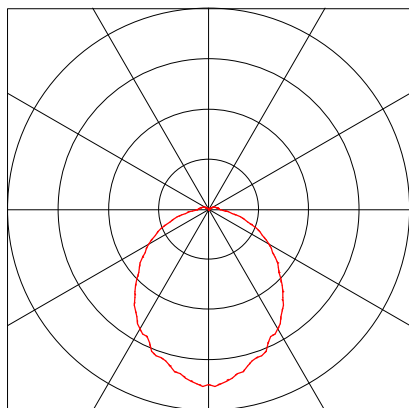
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 1252 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.5 Dextra Group PLC, C (AMC L15 WO R25E C84)

1.5.1 Data sheet



Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.6 Dextra Group PLC, CE (AMC L15 WO R25E M3 C84)

1.6.1 Data sheet

Manufacturer: Dextra Group PLC

AMC L15 WO R25E M3 C84 ceiling mounted luminaire CE

AMC L15 BO HF - AMENITY 1500 source lumens LED IP65 circular surface mounted luminaire with smooth non-grip (anti-vandal) housing, white polycarbonate base with opal diffuser. Hinged self retained PBT gear tray. Stainless steel diffuser fixing screws.
Silicone closed cell gasket between diffuser and back body.

Installation options include:

Central BESA entry hole (20mm).

Direct mount to solid ceiling (4 No. 6mm dia. holes).

Multi-point surface conduit cable entry option.

Optional extras:

M3 - Emergency control gear (215 lumens)

ST3 - Self Test Emergency

AT3 - Autotest Emergency

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E Reacta 25, On/Off (Microwave Presence / Daylight Brightout Sensor)

R25C* Reacta 25, Corridor Mode (Microwave Presence / Brightout Sensor)

*Bi-Level Dimming. Will only dim the luminaire to 10% during absence and brightout, it will not turn the luminaire off. A manual switch must be used within the electrical circuit to enable the lights to be manually turned off

PH - Photocell (Dawn to Dusk switching photocell)

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 113.82 lm/W
Classification : A41 ↓93.9% ↑6.1%
CIE Flux Codes : 47 76 93 94 100
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 20.6 / 20.6
Control gear : electronic ballast
System power : 11 W
Diameter : 300 mm
Height : 91 mm

Equipped with

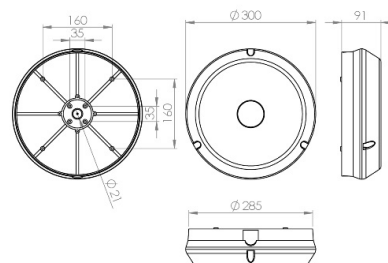
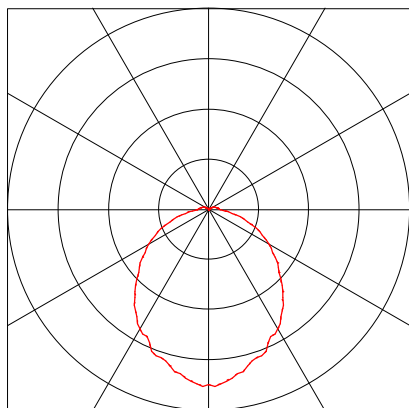
Quantity : 1
Designation : Dextra
Colour : nw/4000K
Luminous flux : 1252 lm
Colour reproduction : 1B

Object :
Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.6 Dextra Group PLC, CE (AMC L15 WO R25E M3 C84)

1.6.1 Data sheet



Object :
 Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.7 Dextra Group PLC, D (AMEX L16 R25E EB C84)

1.7.1 Data sheet

Manufacturer: Dextra Group PLC

AMEX L16 R25E EB C84 wall-mounted luminaire D

AMEX L16 EB C84 - Amenity exterior 1600 lumen LED luminaire, surface mounted (wall or ceiling). IP65 rated, die cast aluminium body with eyelid, finished in black powder coat paint, opal polycarbonate diffuser. Electronic LED driver, with optional 3 hour maintained integral emergency control gear.

Optional extras:

M3 - Emergency control gear (435 lumens)

ST3 - Self test

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E - R25 On/Off – High Frequency

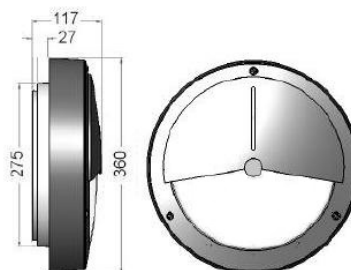
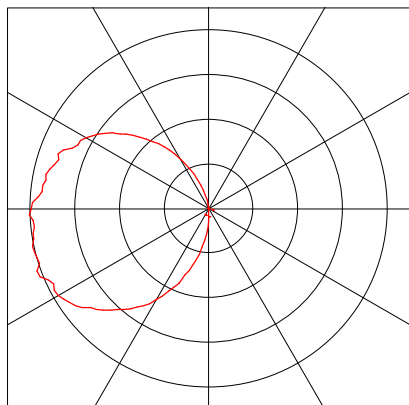
R25C - R25 Bi-Level Dimming (manual switch off)

Luminaire data

Luminaire efficiency : 47.4%
 Luminaire efficacy : 61.16 lm/W
 Classification : C11 ↓ 56.7% ↑ 43.3%
 CIE Flux Codes : 16 41 71 57 48
 UGR 4H 8H (20%, 50%, 70%)
 C0 / C90 : <10.0 / 18.2
 Control gear : electronic ballast
 System power : 12.4 W
 Diameter : 360 mm
 Height : 117 mm

Equipped with

Quantity : 1
 Designation : Dextra
 Colour : nw/4000K
 Luminous flux : 1600 lm
 Colour reproduction : 1B



Object :
 Installation : Swanage Toilet Refurbishment Works
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1 Luminaire data

1.8 Dextra Group PLC, DE (AMEX L16 R25E M3 EB C84)

1.8.1 Data sheet

Manufacturer: Dextra Group PLC

AMEX L16 R25E M3 EB C84 wall-mounted luminaire DE

AMEX L16 EB C84 - Amenity exterior 1600 lumen LED luminaire, surface mounted (wall or ceiling). IP65 rated, die cast aluminium body with eyelid, finished in black powder coat paint, opal polycarbonate diffuser. Electronic LED driver, with optional 3 hour maintained integral emergency control gear.

Optional extras:

M3 - Emergency control gear (435 lumens)

ST3 - Self test

S - Switch Dimming

D - Digital Dimming (DSI)

A - Digital Addressable Lighting Interface (DALI)

C - Bi-Level Dimming (Corridor Function) available; please contact our sales team for advice)

R25E - R25 On/Off – High Frequency

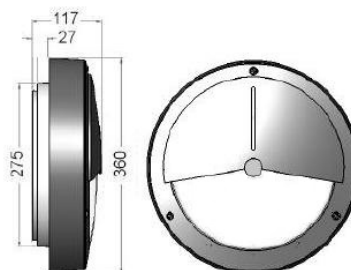
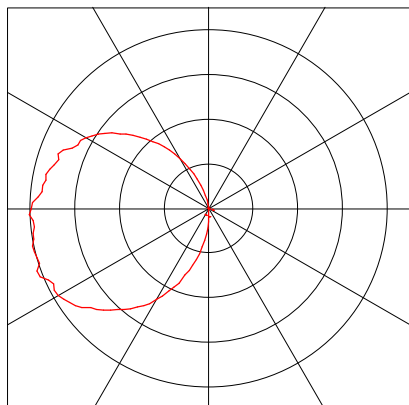
R25C - R25 Bi-Level Dimming (manual switch off)

Luminaire data

Luminaire efficiency : 47.4%
 Luminaire efficacy : 61.16 lm/W
 Classification : C11 ↓ 56.7% ↑ 43.3%
 CIE Flux Codes : 16 41 71 57 48
 UGR 4H 8H (20%, 50%, 70%)
 C0 / C90 : <10.0 / 18.2
 Control gear : electronic ballast
 System power : 12.4 W
 Diameter : 360 mm
 Height : 117 mm

Equipped with

Quantity : 1
 Designation : Dextra
 Colour : nw/4000K
 Luminous flux : 1600 lm
 Colour reproduction : 1B

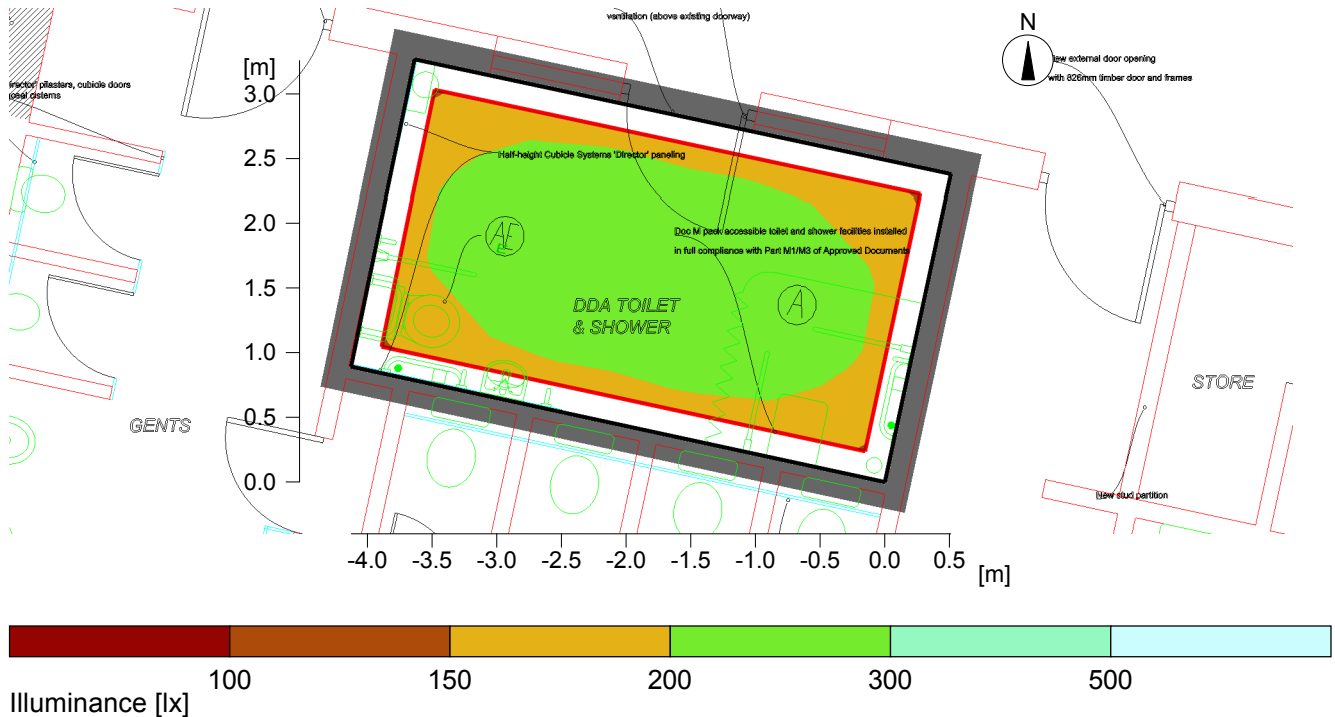


Object :
 Installation : Swanage Toilet Refurbishment Works
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2 King Georges Toilet Block - DDA Toilet & Shower

2.1 Summary, King Georges Toilet Block - DDA Toilet & Shower

2.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.42 m
 0.90

Total luminous flux of all lamps
 Total power
 Total power per area (10.24 m²)

4974 lm
 43.0 W
 4.20 W/m² (1.98 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 212 lx
 Emin 180 lx
 Emin/Eav (Uo) 0.85
 Emin/Emax (Ud) 0.76
 Position 0.00 m

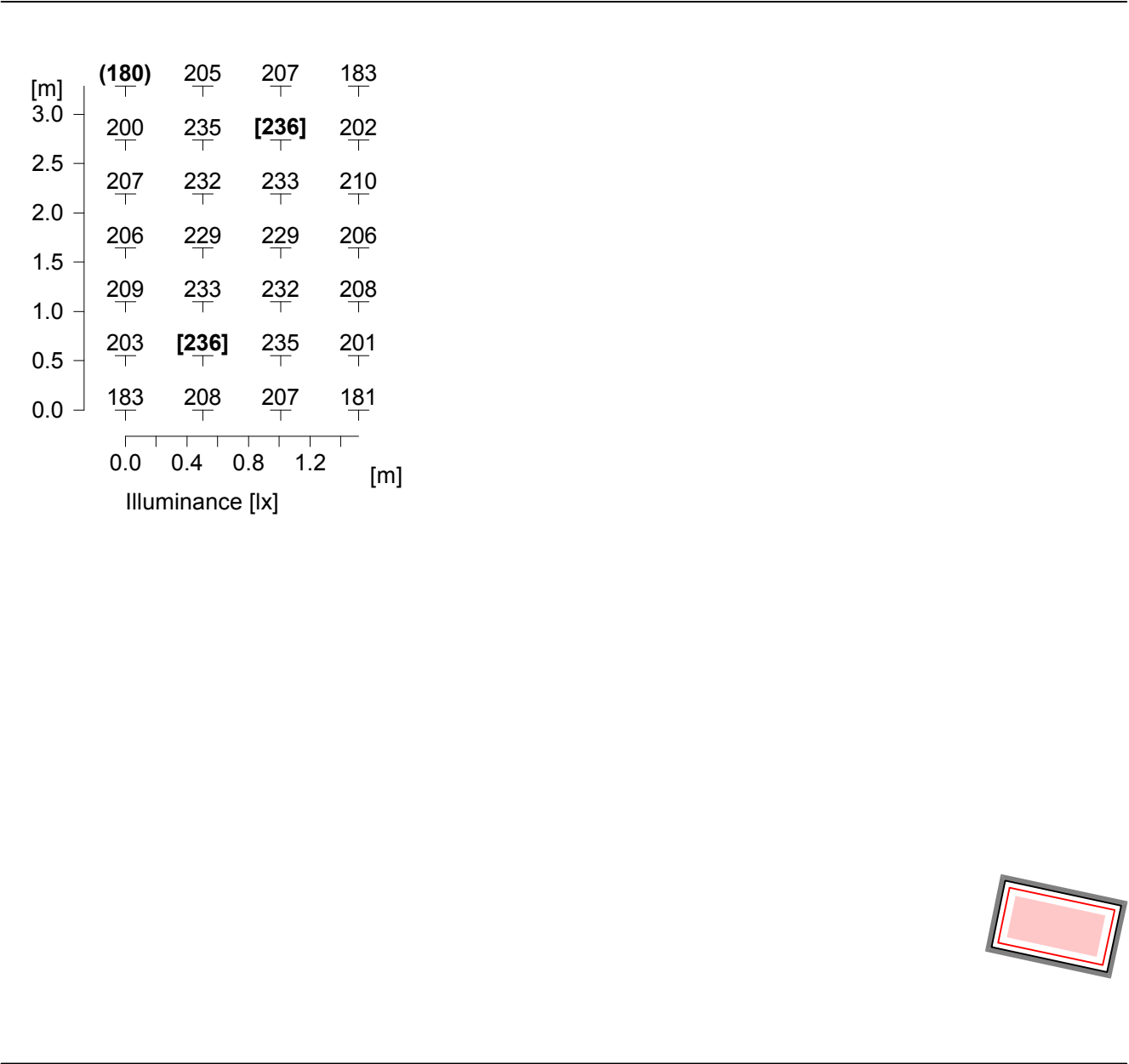
Type No.\Make

Dextra Group PLC		
1	1	Order No. : AMC L30 WO R25E C84
		Luminaire name : A
		Equipment : 1 x Dextra / 2487 lm
2	1	Order No. : AMC L30 WO R25E M3 C84
		Luminaire name : AE
		Equipment : 1 x Dextra / 2487 lm

2 King Georges Toilet Block - DDA Toilet & Shower

2.2 Calculation results, King Georges Toilet Block - DDA Toilet & Shower

2.2.1 Table, Reference plane 1.1 (E)

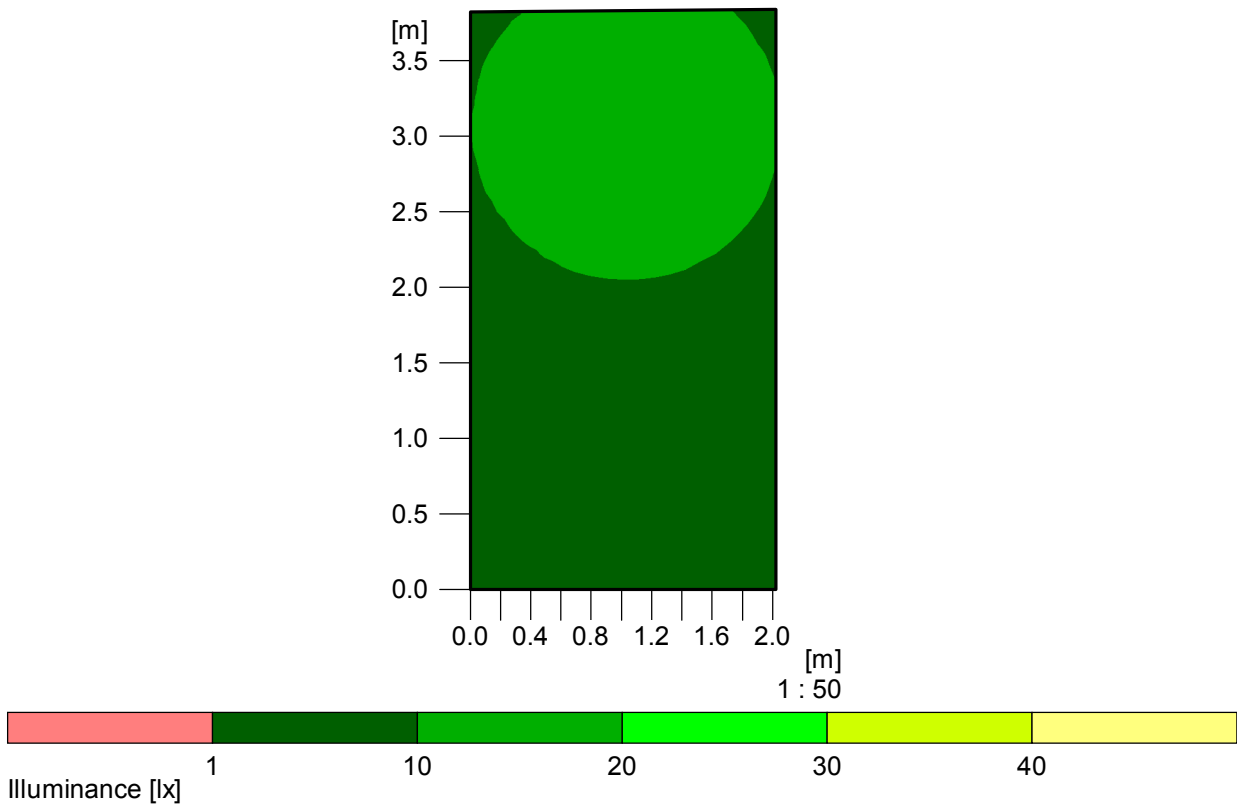


Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 212 lx
Minimum illuminance	Emin	: 180 lx
Maximum illuminance	Emax	: 236 lx
Uniformity Uo	Emin/Eav	: 1 : 1.18 (0.85)
Diversity Ud	Emin/Emax	: 1 : 1.31 (0.76)

2 King Georges Toilet Block - DDA Toilet & Shower

2.3 Calculation results, King Georges Toilet Block - DDA Toilet & Shower

2.3.1 Boundary line, Reference plane for emergency lighting 1 (E)



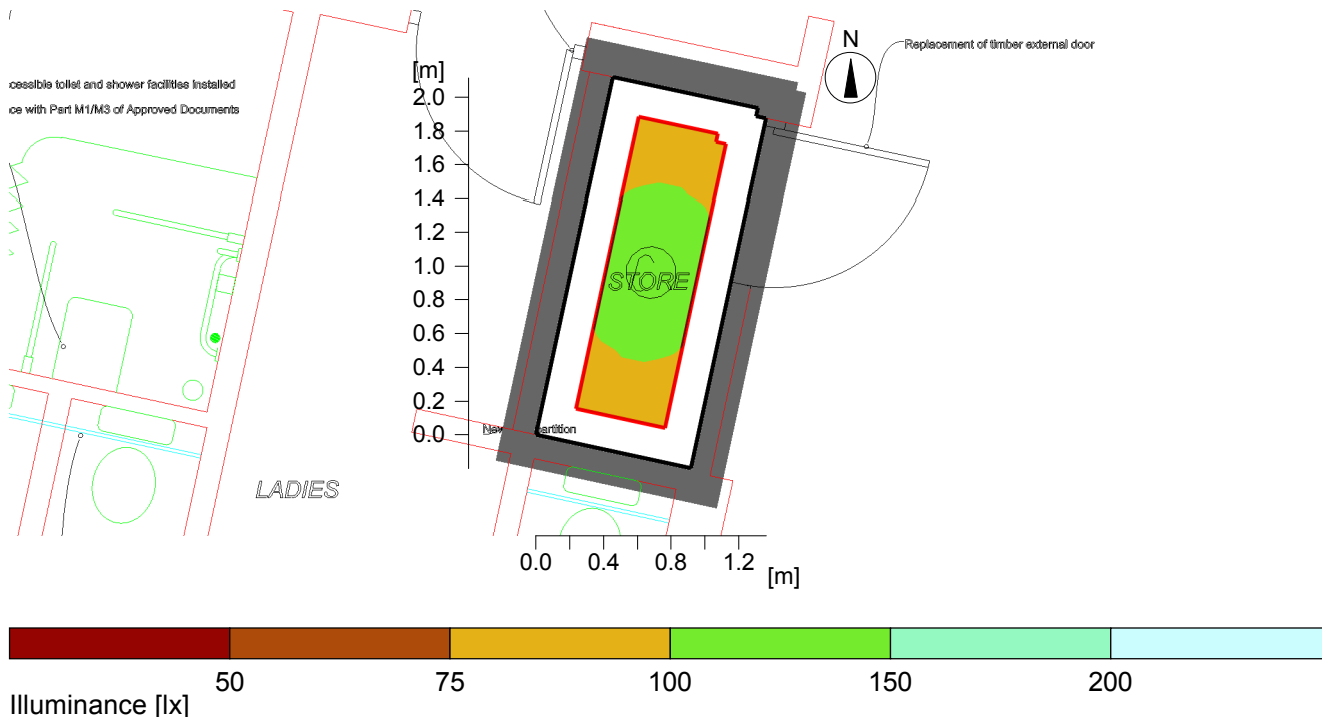
Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 1.5 lx
Maximum illuminance	Emax	: 15 lx
Uniformity	Emin/Emax	: 1 : 10.30 (0.10) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

Object :
 Installation : Swanage Toilet Refurbishment Works
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 Date : 01.09.2017

3 Store

3.1 Summary, Store

3.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.42 m
 0.90

Total luminous flux of all lamps
 Total power
 Total power per area (2.03 m²)

1252 lm
 11.0 W
 5.43 W/m² (5.42 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 100 lx
 Emin 86 lx
 Emin/Eav (Uo) 0.86
 Emin/Emax (Ud) 0.77
 Position 0.00 m

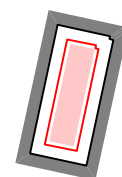
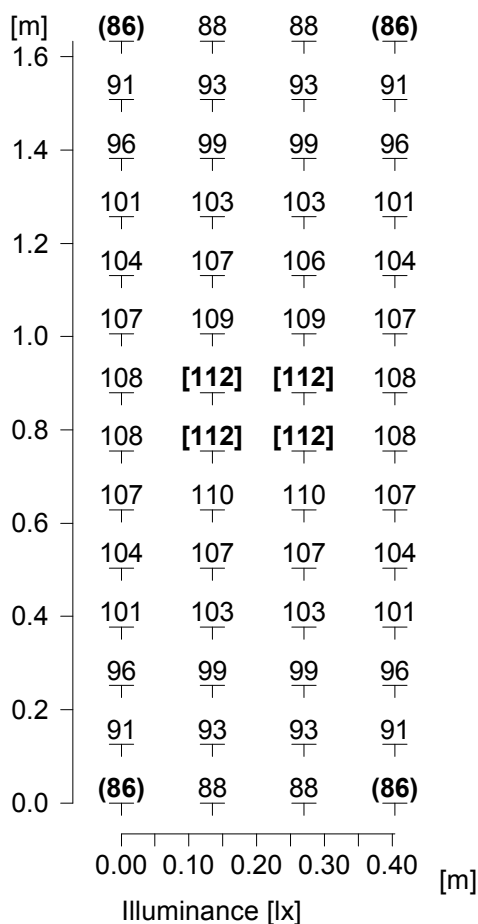
Type No.\Make

5 1 **Dextra Group PLC**
 Order No. : AMC L15 WO R25E C84
 Luminaire name : C
 Equipment : 1 x Dextra / 1252 lm

3 Store

3.2 Calculation results, Store

3.2.1 Table, Reference plane 1.1 (E)

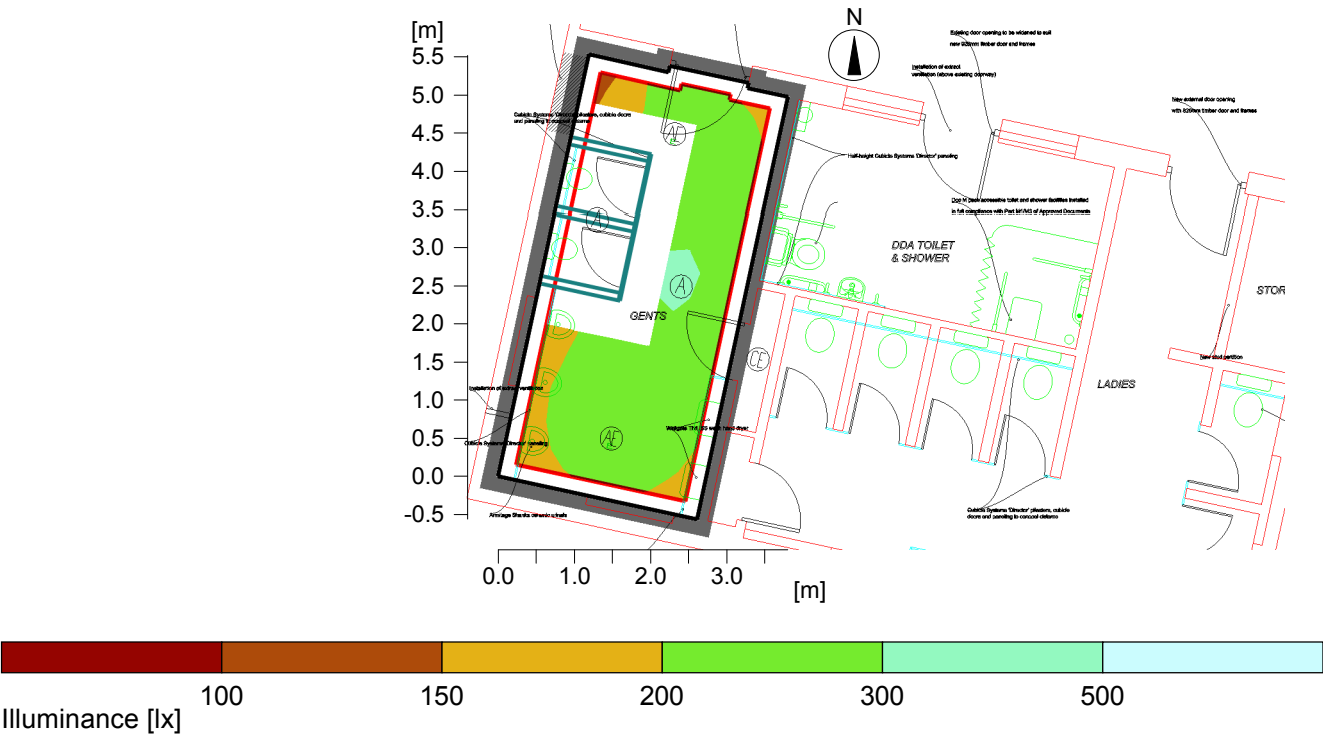


Height of the reference plane	: 0.00 m
Average illuminance	Eav : 100 lx
Minimum illuminance	Emin : 86 lx
Maximum illuminance	Emax : 112 lx
Uniformity Uo	Emin/Eav : 1 : 1.16 (0.86)
Diversity Ud	Emin/Emax : 1 : 1.29 (0.77)

4 Gents

4.1 Summary, Gents

4.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.42 m
Maintenance factor	0.90
Total luminous flux of all lamps	9948 lm
Total power	86.0 W
Total power per area (15.15 m²)	5.67 W/m² (2.36 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	240 lx
Emin	151 lx
Emin/Eav (Uo)	0.63
Emin/Emax (Ud)	0.50
Position	0.00 m

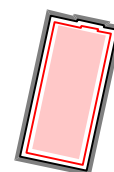
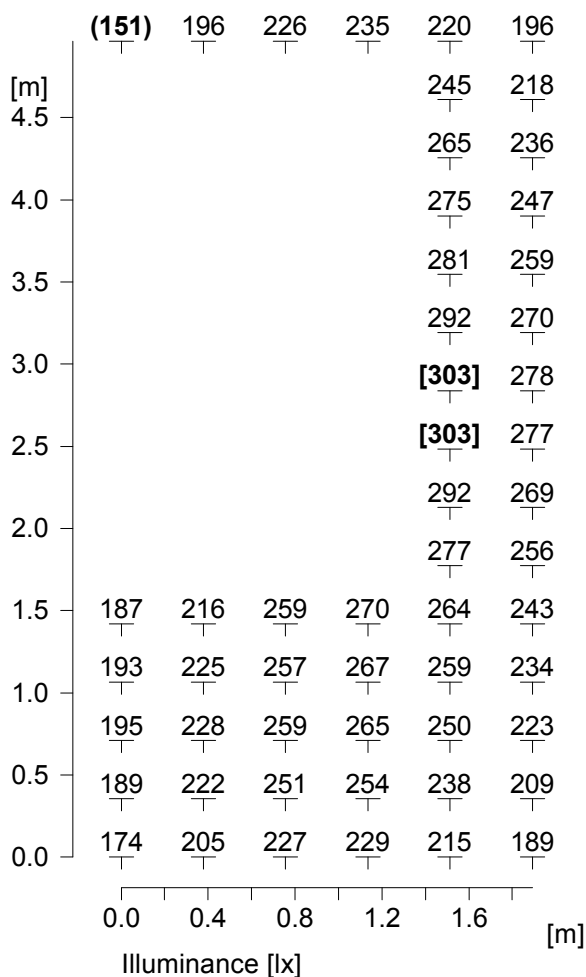
Type No.\Make

Dextra Group PLC		
1	2	Order No. : AMC L30 WO R25E C84
		Luminaire name : A
		Equipment : 1 x Dextra / 2487 lm
2	2	Order No. : AMC L30 WO R25E M3 C84
		Luminaire name : AE
		Equipment : 1 x Dextra / 2487 lm

4 Gents

4.2 Calculation results, Gents

4.2.1 Table, Reference plane 1.1 (E)

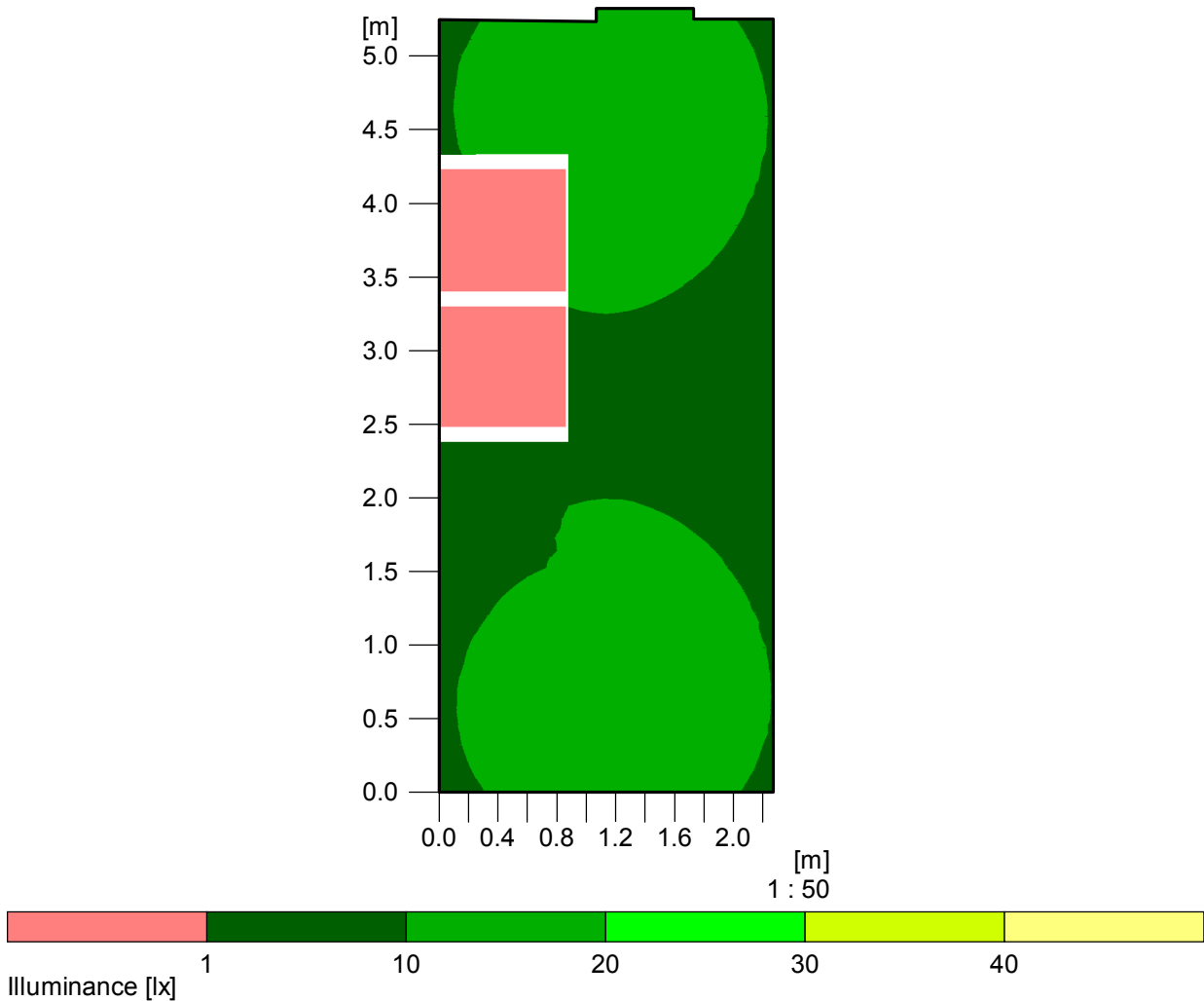


Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 240 lx
Minimum illuminance	Emin	: 151 lx
Maximum illuminance	Emax	: 303 lx
Uniformity Uo	Emin/Eav	: 1 : 1.59 (0.63)
Diversity Ud	Emin/Emax	: 1 : 2.00 (0.50)

4 **Gents**

4.3 **Calculation results, Gents**

4.3.1 **Boundary line, Reference plane for emergency lighting 1 (E)**

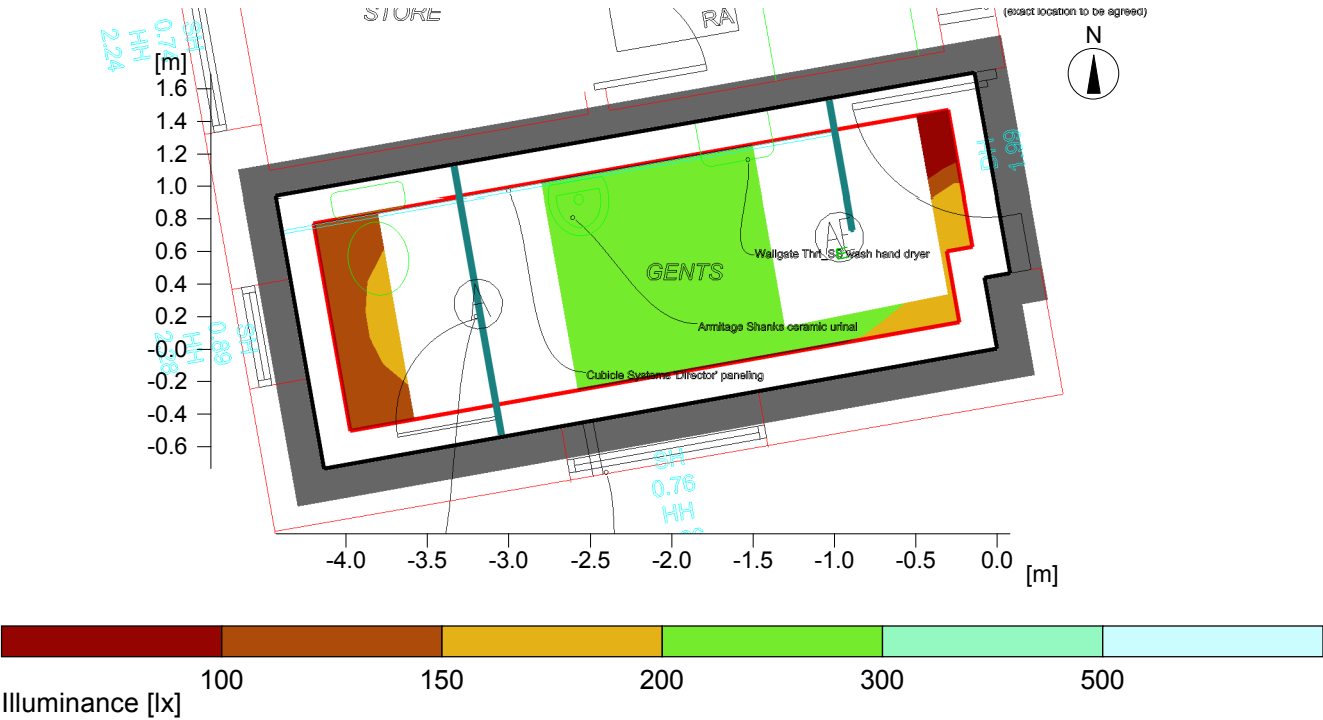


Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 16 lx
Uniformity	Emin/Emax	: --- (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

5 Mermond Place Toilet Block - Gents WC

5.2 Summary, Mermond Place Toilet Block - Gents WC

5.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height of luminaire plane	2.54 m
Maintenance factor	0.90
Total luminous flux of all lamps	4974 lm
Total power	43.0 W
Total power per area (7.30 m²)	5.89 W/m² (3.00 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Em	Horizontal
Emin	196 lx
Emin/Eav (Uo)	44 lx
Emin/Emax (Ud)	0.23
Position	0.19
	0.00 m

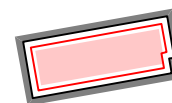
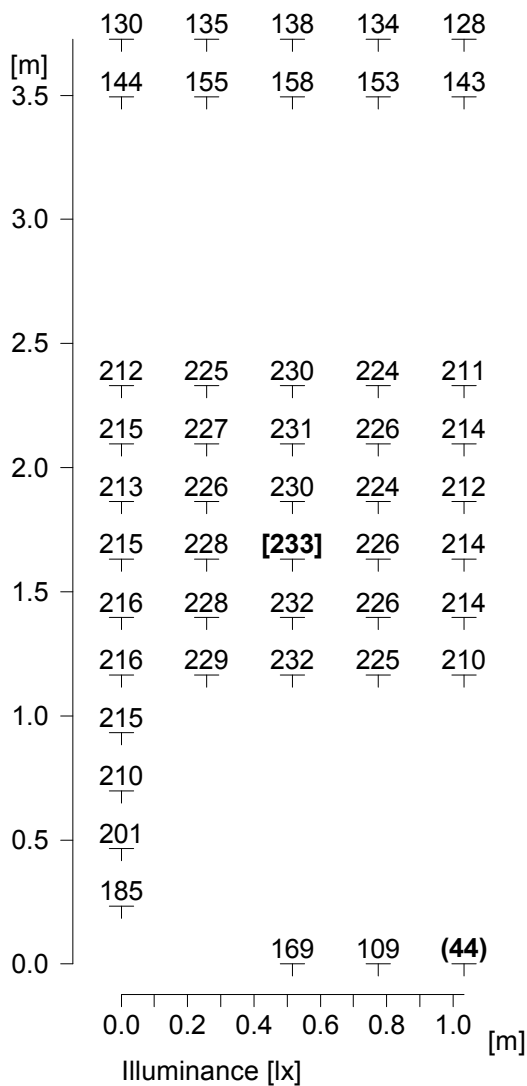
Type No.\Make

		Dextra Group PLC
1	1	Order No. : AMC L30 WO R25E C84
		Luminaire name : A
		Equipment : 1 x Dextra / 2487 lm
2	1	Order No. : AMC L30 WO R25E M3 C84
		Luminaire name : AE
		Equipment : 1 x Dextra / 2487 lm

5 Mermond Place Toilet Block - Gents WC

5.3 Calculation results, Mermond Place Toilet Block - Gents WC

5.3.1 Table, Reference plane 1.1 (E)

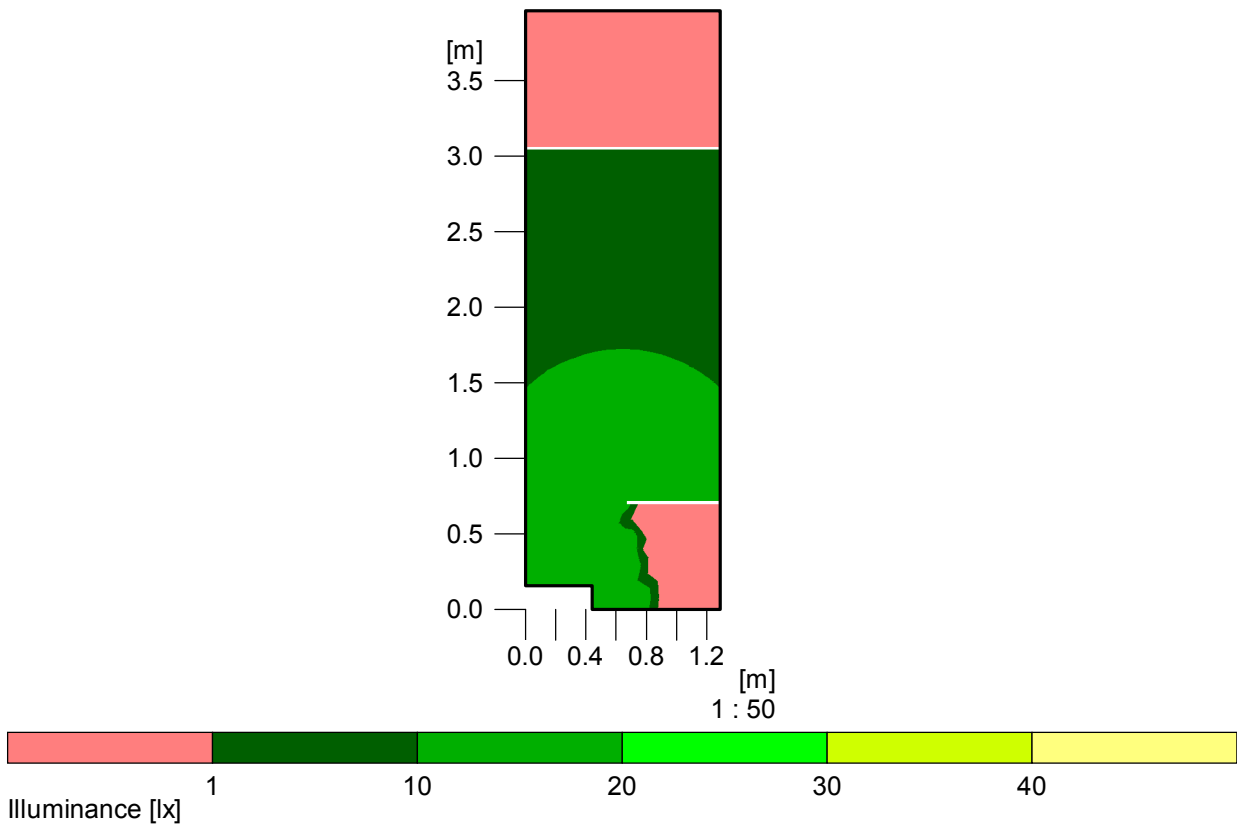


Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 196 lx
Minimum illuminance	Emin	: 44 lx
Maximum illuminance	Emax	: 233 lx
Uniformity Uo	Emin/Eav	: 1 : 4.42 (0.23)
Diversity Ud	Emin/Emax	: 1 : 5.24 (0.19)

5 Mermond Place Toilet Block - Gents WC

5.4 Calculation results, Mermond Place Toilet Block - Gents WC

5.4.1 Boundary line, Reference plane for emergency lighting 1 (E)



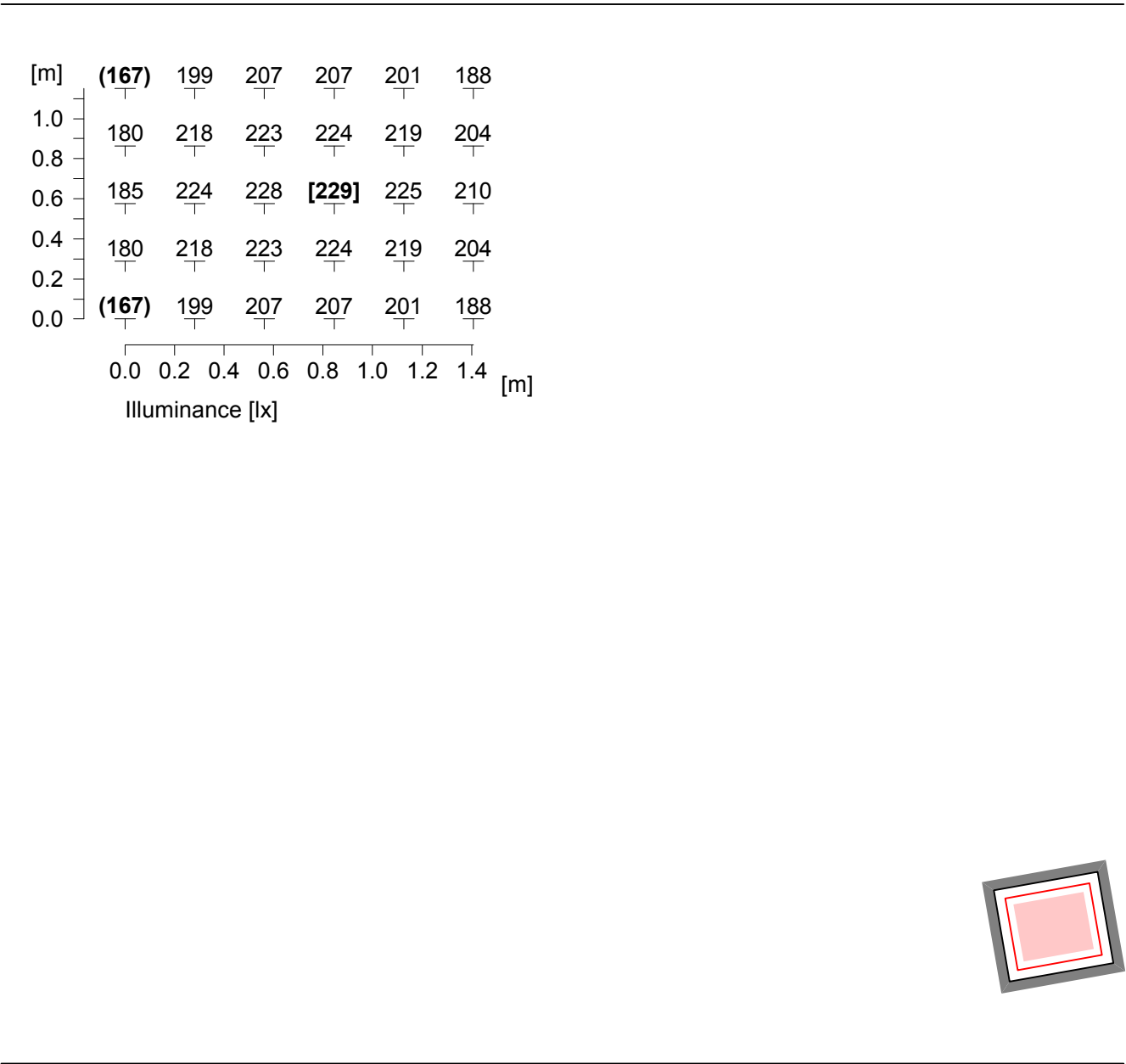
Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 14 lx
Uniformity	Emin/Emax	: --- (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

Dextra
GROUP PLC

6 DDA Toilet

6.2 Calculation results, DDA Toilet

6.2.1 Table, Reference plane 1.1 (E)

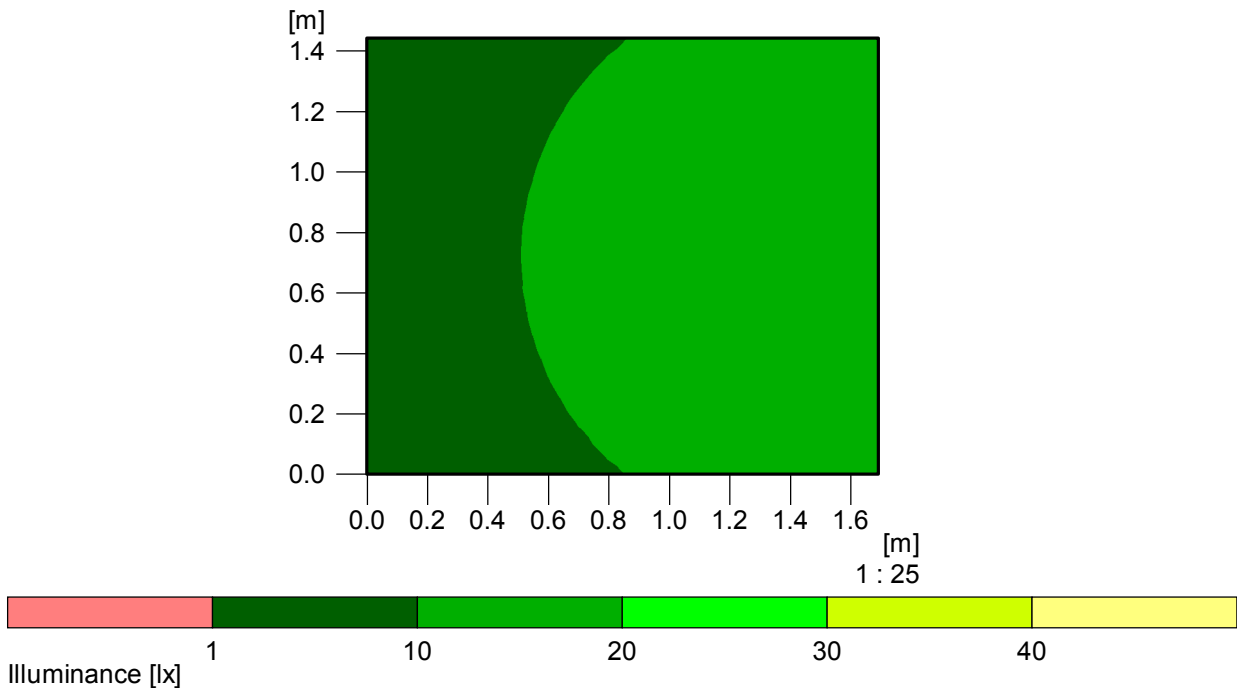


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 206 lx
Minimum illuminance	Emin	: 167 lx
Maximum illuminance	Emax	: 229 lx
Uniformity Uo	Emin/Eav	: 1 : 1.23 (0.81)
Diversity Ud	Emin/Emax	: 1 : 1.37 (0.73)

6 DDA Toilet

6.3 Calculation results, DDA Toilet

6.3.1 Boundary line, Reference plane for emergency lighting 1 (E)

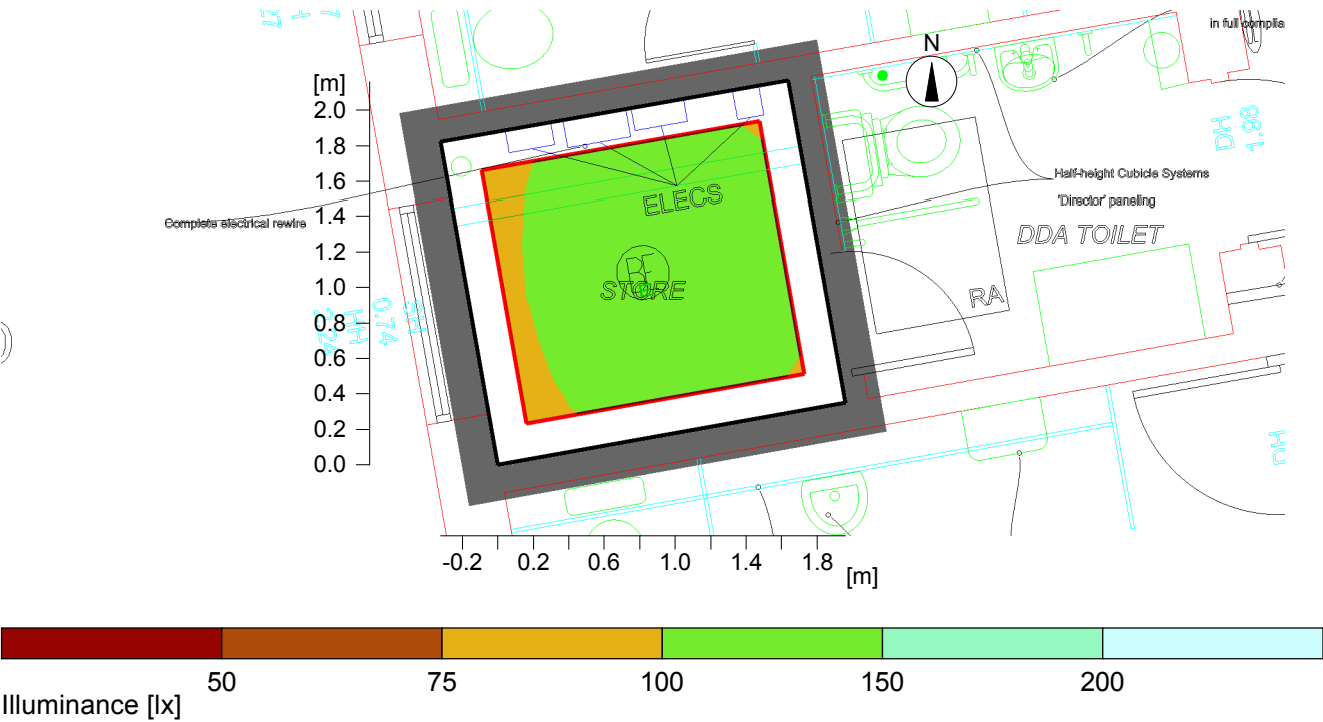


Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 6.2 lx
Maximum illuminance	Emax	: 14 lx
Uniformity	Emin/Emax	: 1 : 2.22 (0.45) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

7 Store

7.1 Summary, Store

7.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used	High indirect fraction
Maintenance factor	0.90
Total luminous flux of all lamps	1660 lm
Total power	16.2 W
Total power per area (3.66 m²)	4.42 W/m² (3.76 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	118 lx
Emin	93 lx
Emin/Eav (Uo)	0.79
Emin/Emax (Ud)	0.69
Position	0.00 m

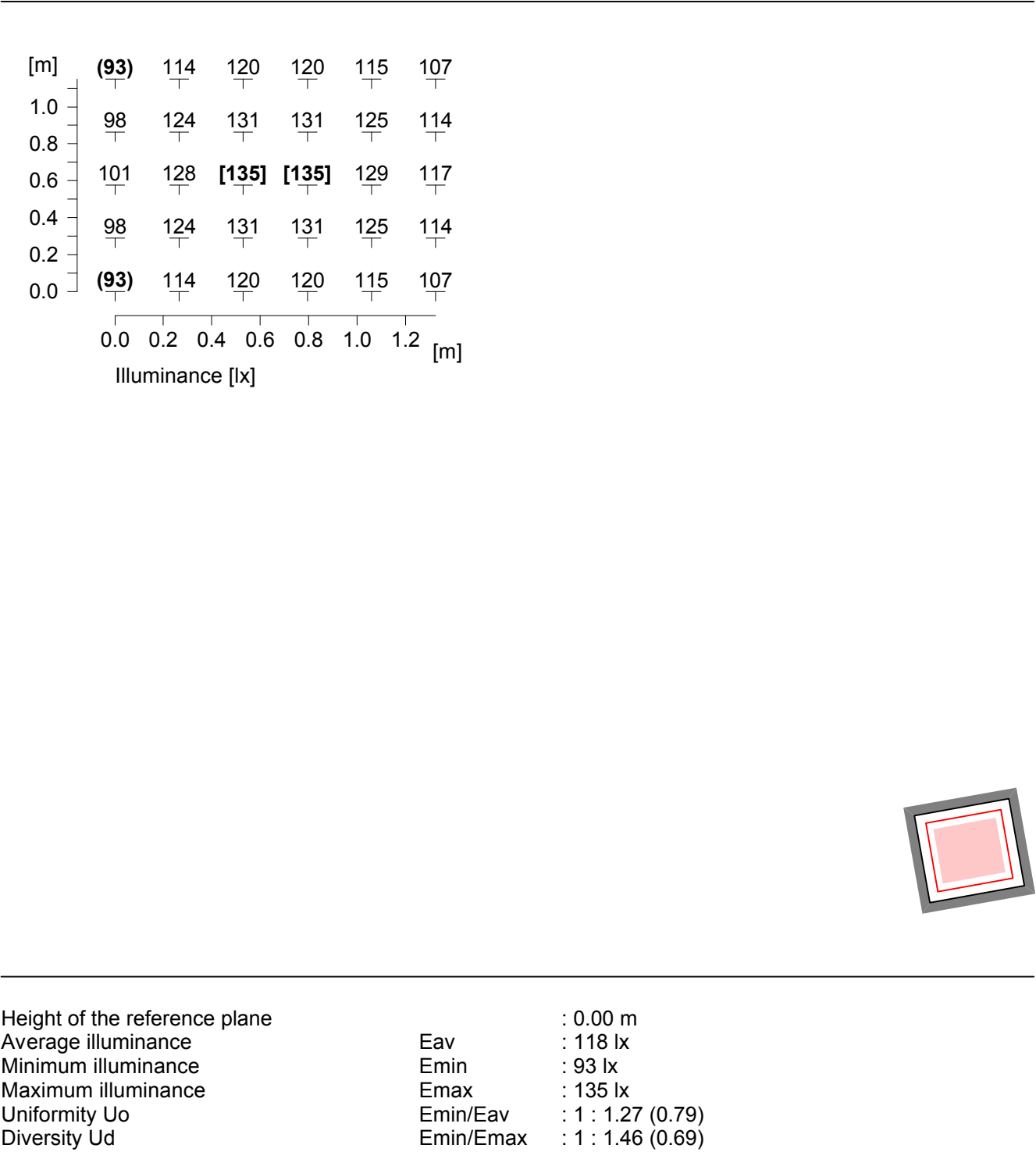
Type No.\Make

4	1	Dextra Group PLC
		Order No. : AMC L20 WO R25E M3 C84
		Luminaire name : BE
		Equipment : 1 x Dextra / 1660 lm

7 Store

7.2 Calculation results, Store

7.2.1 Table, Reference plane 1.1 (E)

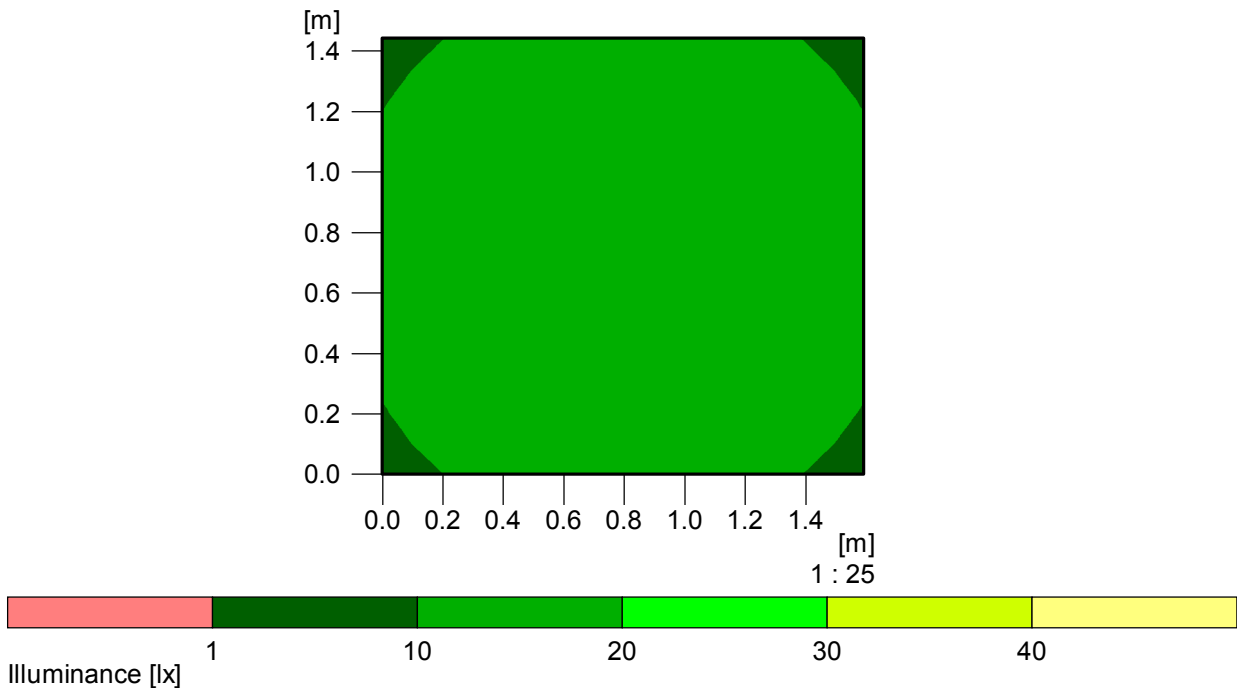


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 118 lx
Minimum illuminance	Emin	: 93 lx
Maximum illuminance	Emax	: 135 lx
Uniformity Uo	Emin/Eav	: 1 : 1.27 (0.79)
Diversity Ud	Emin/Emax	: 1 : 1.46 (0.69)

7 Store

7.3 Calculation results, Store

7.3.1 Boundary line, Reference plane for emergency lighting 1 (E)

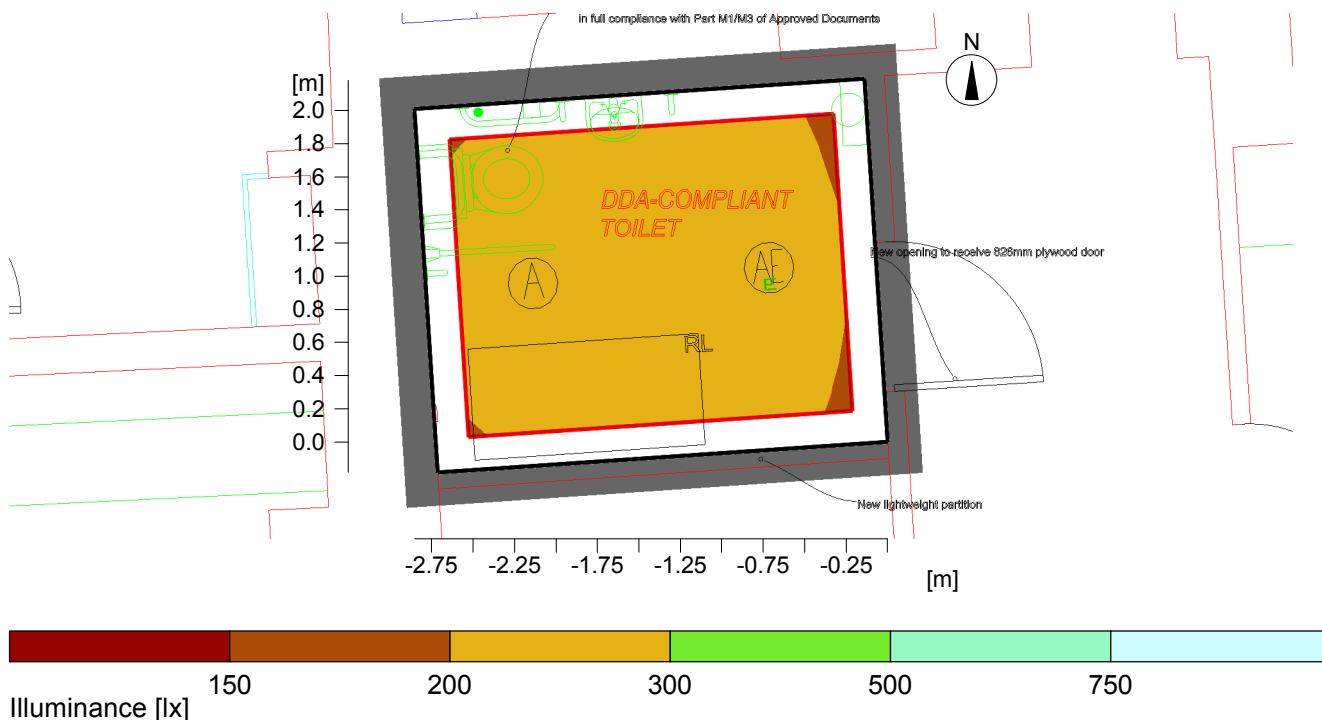


Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 9.1 lx
Maximum illuminance	Emax	: 14 lx
Uniformity	Emin/Emax	: 1 : 1.51 (0.66) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

8 Swange Town Hall - DDA-Compliant Toilet

8.1 Summary, Swange Town Hall - DDA-Compliant Toilet

8.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.66 m
 0.90

Total luminous flux of all lamps
 Total power
 Total power per area (5.95 m²)

4974 lm
 43.0 W
 7.23 W/m² (2.83 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 255 lx
 Emin 218 lx
 Emin/Eav (Uo) 0.85
 Emin/Emax (Ud) 0.75
 Position 0.00 m

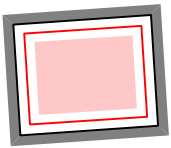
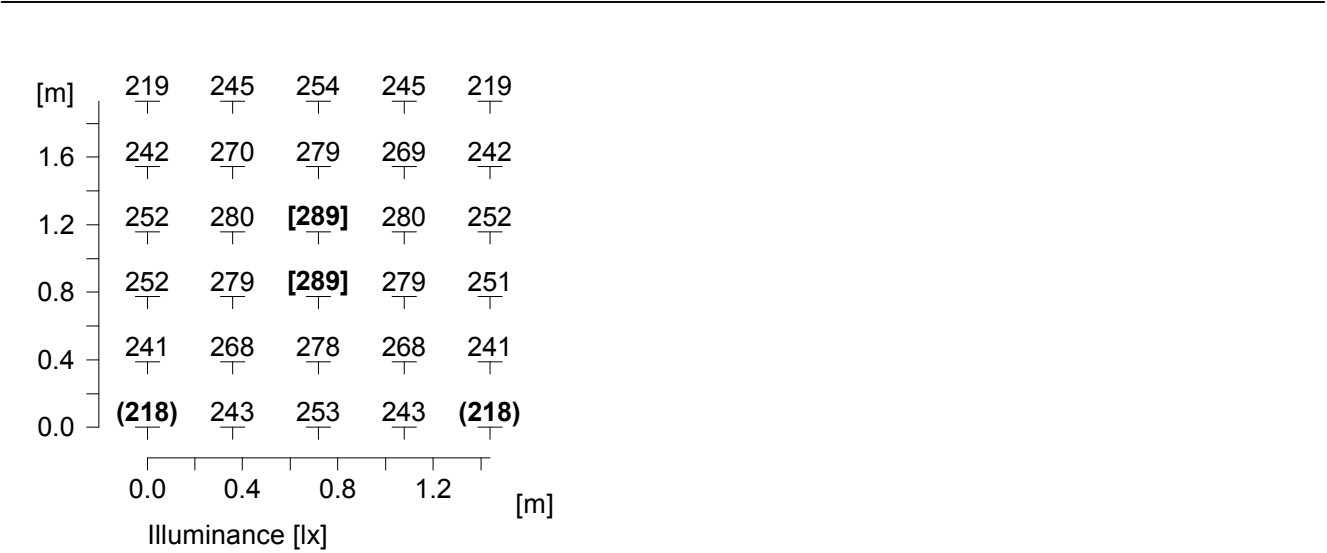
Type No.\Make

Dextra Group PLC		
1	1	Order No. : AMC L30 WO R25E C84
		Luminaire name : A
		Equipment : 1 x Dextra / 2487 lm
2	1	Order No. : AMC L30 WO R25E M3 C84
		Luminaire name : AE
		Equipment : 1 x Dextra / 2487 lm

8 Swange Town Hall - DDA-Compliant Toilet

8.2 Calculation results, Swange Town Hall - DDA-Compliant Toilet

8.2.1 Table, Reference plane 1.1 (E)

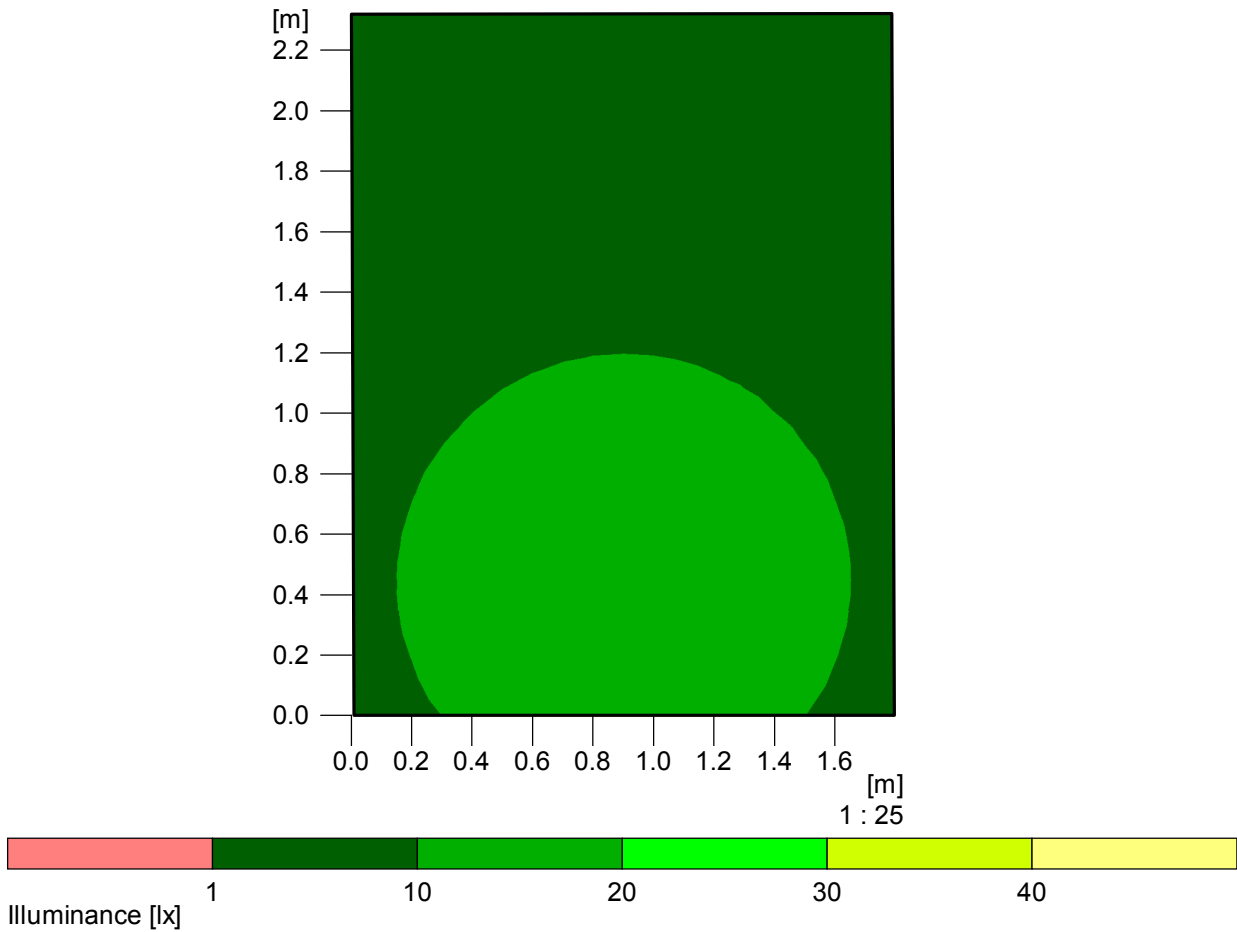


Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 255 lx
Minimum illuminance	Emin	: 218 lx
Maximum illuminance	Emax	: 289 lx
Uniformity Uo	Emin/Eav	: 1 : 1.17 (0.85)
Diversity Ud	Emin/Emax	: 1 : 1.33 (0.75)

8 Swange Town Hall - DDA-Compliant Toilet

8.3 Calculation results, Swange Town Hall - DDA-Compliant Toilet

8.3.1 Boundary line, Reference plane for emergency lighting 1 (E)



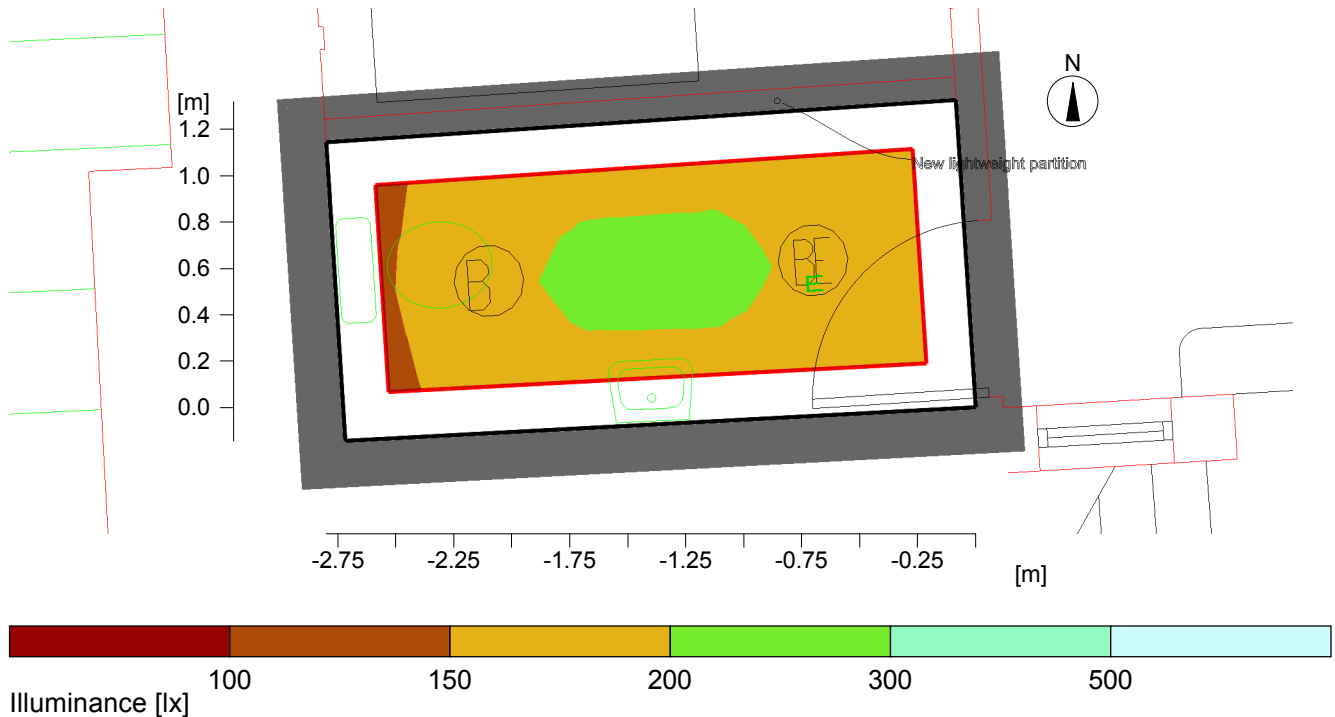
Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 4.1 lx
Maximum illuminance	Emax	: 13 lx
Uniformity	Emin/Emax	: 1 : 3.03 (0.33) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component

Object :
 Installation : Swanage Toilet Refurbishment Works
 Project number :
 Date : 01.09.2017

9 WC

9.1 Summary, WC

9.1.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Height of luminaire plane
 Maintenance factor

Average indirect fraction
 2.66 m
 0.90

Total luminous flux of all lamps
 Total power
 Total power per area (3.54 m²)

3320 lm
 32.4 W
 9.15 W/m² (4.88 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 187 lx
 Emin 146 lx
 Emin/Eav (Uo) 0.78
 Emin/Emax (Ud) 0.71
 Position 0.00 m

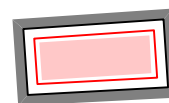
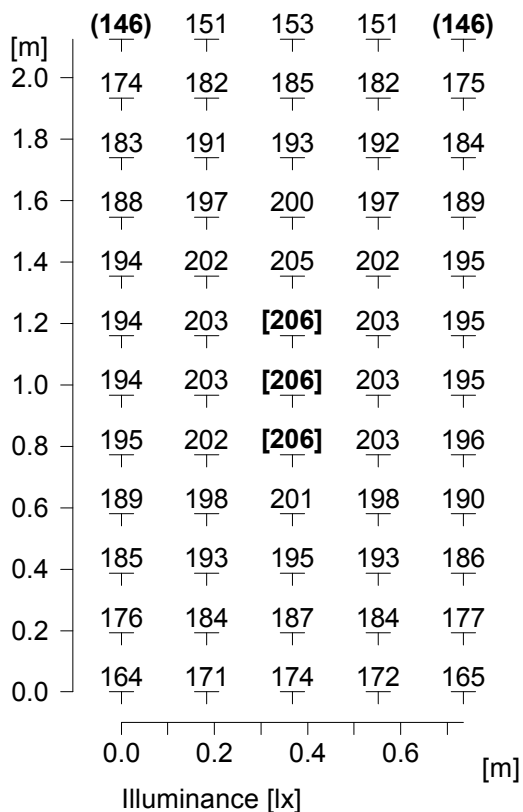
Type No.\Make

Dextra Group PLC		
3	1	Order No. : AMC L20 WO R25E C84
		Luminaire name : B
		Equipment : 1 x Dextra / 1660 lm
4	1	Order No. : AMC L20 WO R25E M3 C84
		Luminaire name : BE
		Equipment : 1 x Dextra / 1660 lm

9 WC

9.2 Calculation results, WC

9.2.1 Table, Reference plane 1.1 (E)

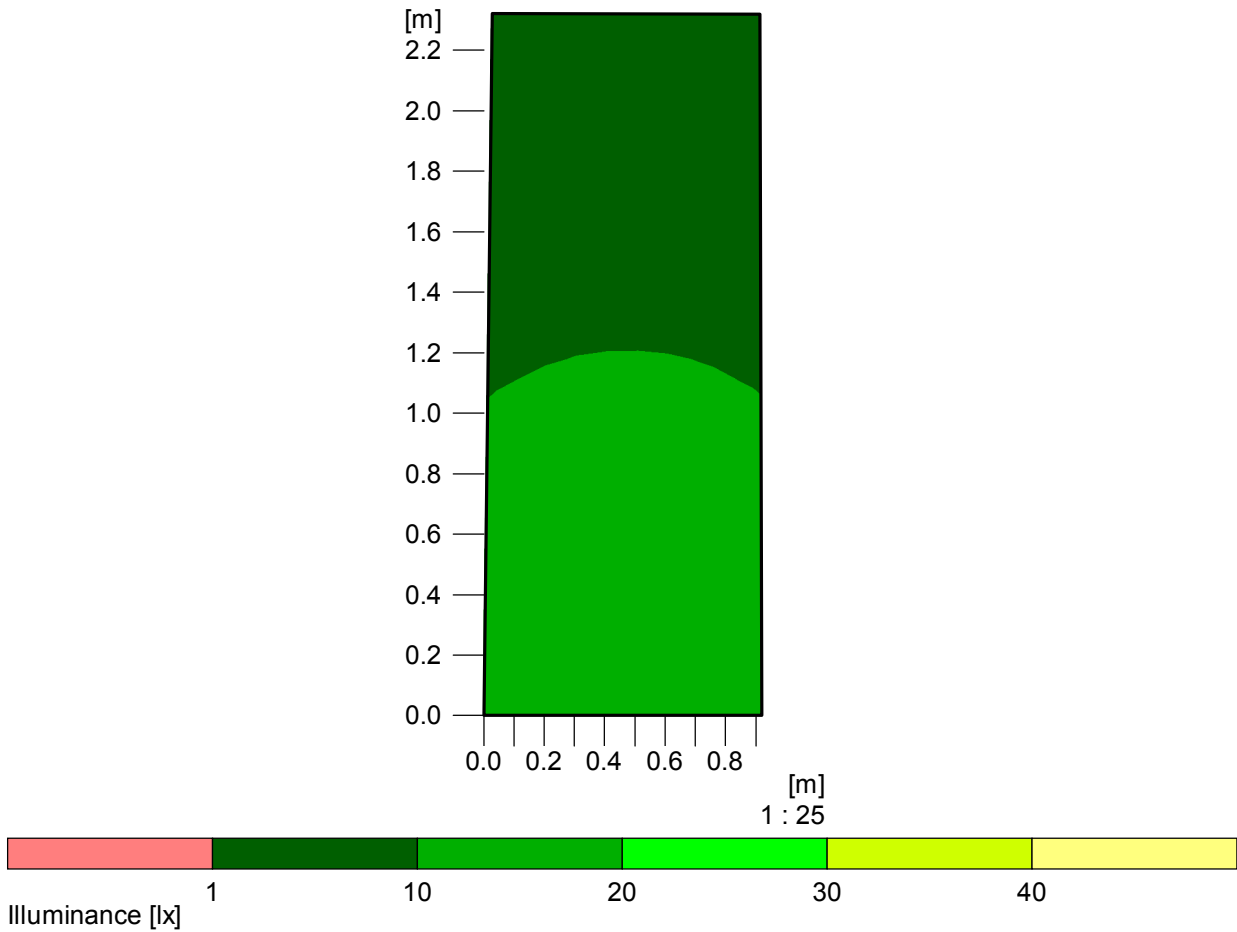


Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 187 lx
Minimum illuminance	Emin	: 146 lx
Maximum illuminance	Emax	: 206 lx
Uniformity Uo	Emin/Eav	: 1 : 1.29 (0.78)
Diversity Ud	Emin/Emax	: 1 : 1.41 (0.71)

9 WC

9.3 Calculation results, WC

9.3.1 Boundary line, Reference plane for emergency lighting 1 (E)



Required minimum illuminance		: 1 lx
Minimum illuminance	Emin	: 4.7 lx
Maximum illuminance	Emax	: 13 lx
Uniformity	Emin/Emax	: 1 : 2.67 (0.38) (Threshold value 1:40)
Height		: 0 m
Calculation algorithm used		: Direct component