



Audi Terminal - Worthing

Installation : Exterior Lighting

Project number : CRM 6500182217
Customer : PJR Services (Mr. B. Bevan)
Processed by : Andrew Smith on behalf of Jason Vaughan
Date : 06.03.2017

Project description:

Revision 01 - 27-03-17

2x Bespoke columns removed from the design and the entrance and building surround calculation grid adjusted accordingly.

15x Audi_LED Edge Column. 7.5m, 47.3Watts (x2), LED 4272lm (x2), 4000K_Type D.2.

Revision 00
17x Audi_LED Edge Column. 7.5m, 47.3Watts (x2), LED 4272lm (x2), 4000K_Type D.2.LED

Design has been compiled using the 7.5m high column and on the 18m x 18m grid pattern for the used car sales area and slightly reduced spacings for the building perimeter.

MF - 0.85

Please note.
These calculations have been compiled using the standard Audi luminaire insert and not the luminaire insert with the special solution light reduction cover. If this is required then it must be requested with the initial order as these covers cannot be retrofitted at a later date.

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.

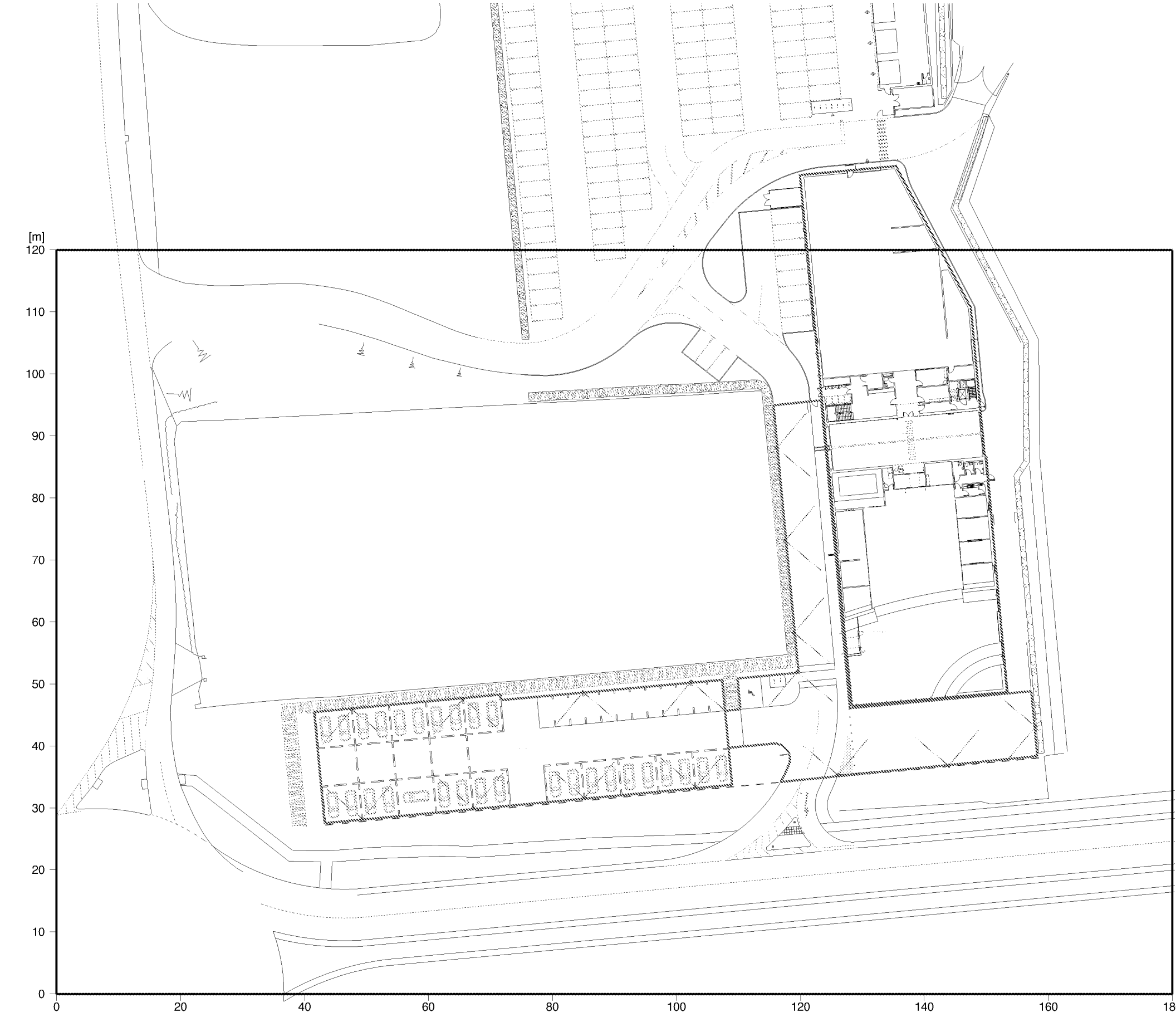
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Exterior 1

Description, Exterior 1

Floor plan



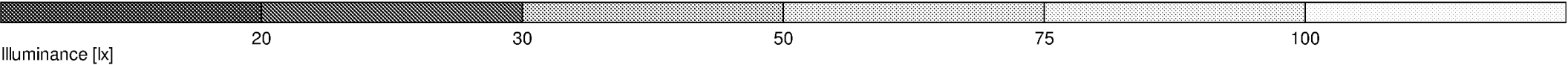
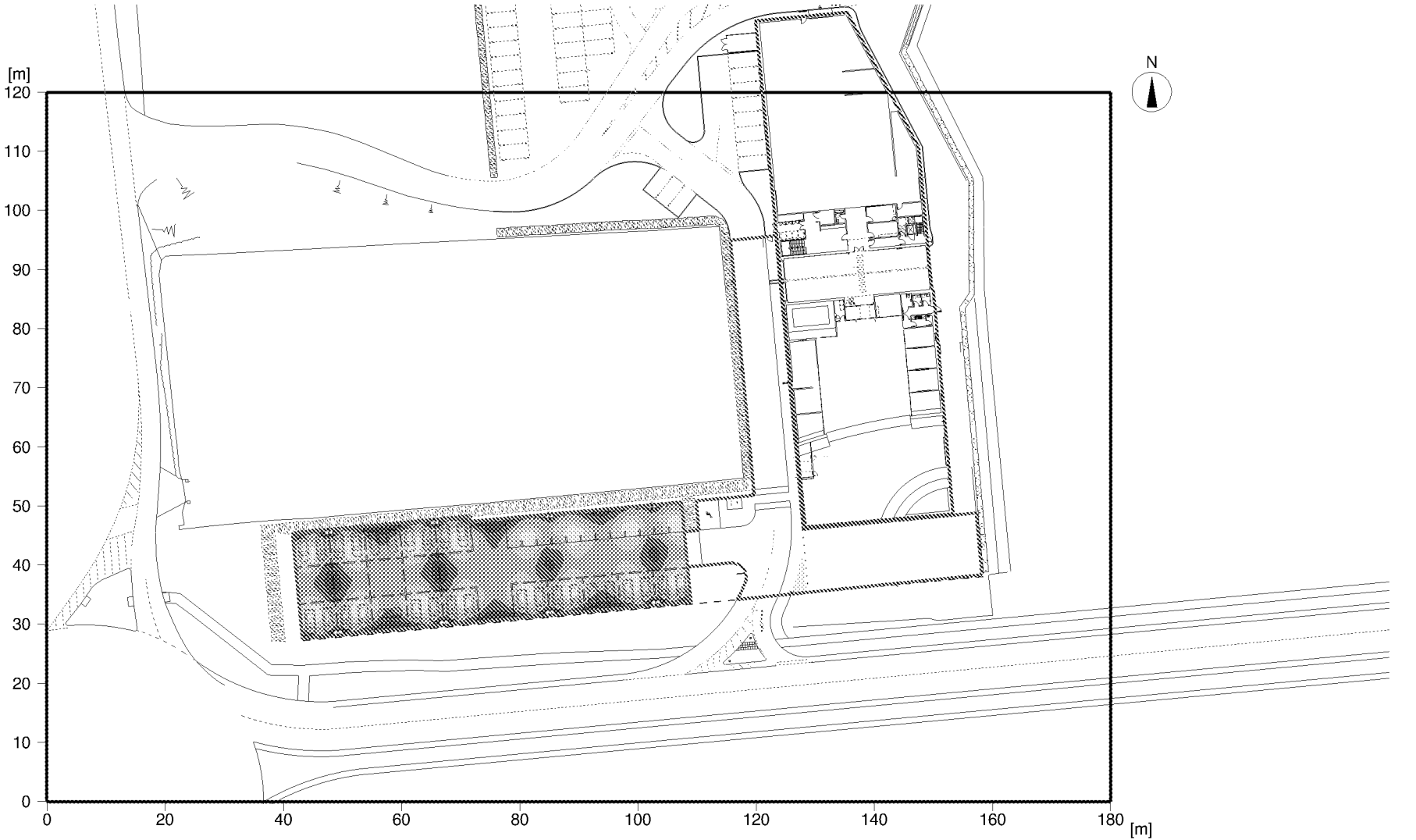
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Exterior 1

Summary, Exterior 1

Result overview, Used Car Sales Area @ 0.1m



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.10 m
Maintenance factor	0.85
Total luminous flux of all lamps	128160 lm
Total power	1419 W
Total power per area (21600.00 m²)	0.07 W/m²

Illuminance		
Average illuminance	Eav	44.5 lx
Minimum illuminance	Emin	4.3 lx
Maximum illuminance	Emax	94.2 lx
Uniformity Uo	Emin/Em	1:10.3 (0.1)
Diversity Ud	Emin/Emax	1:21.8 (0.05)

Type No.\Make

1 30		SiTECO
		Order No. : !5XA299LEDUK0035
		Luminaire name : AUDI LED_4.272 lm / 4.000K, 47.3Watt 03-2014
		Equipment : 1 x LED 4000K / CRI >= 80 47.3 W / 4272 lm

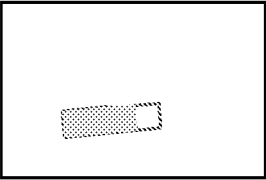
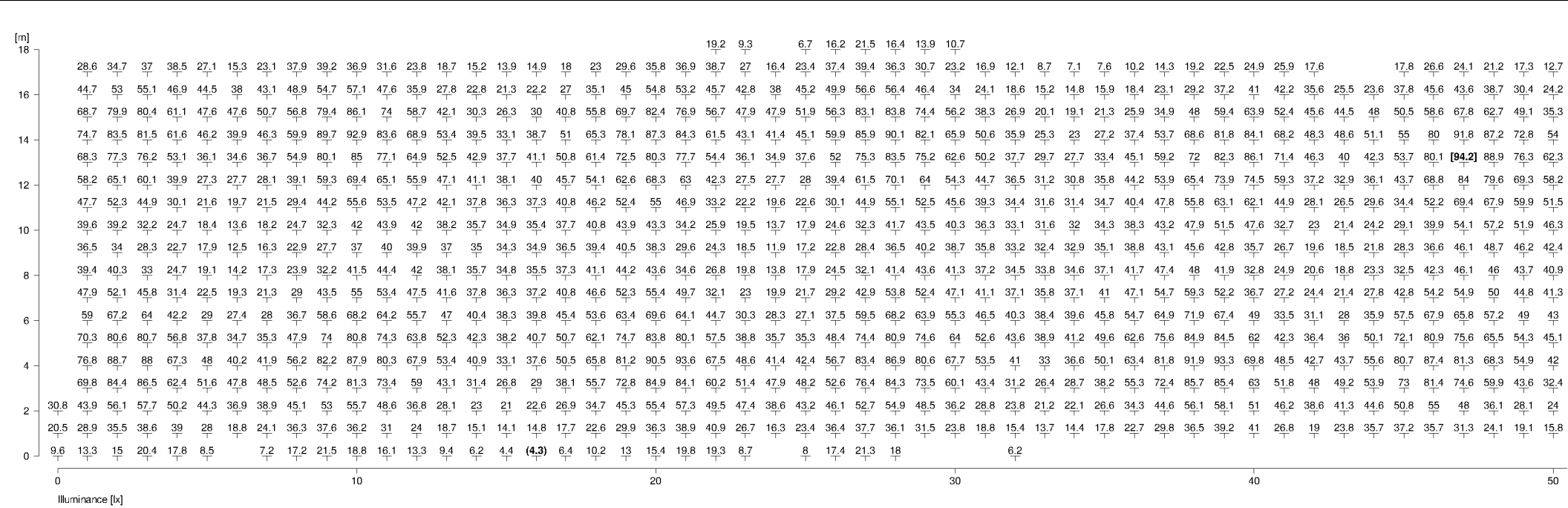
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Exterior 1

Calculation results, Exterior 1

Table, Used Car Sales Area @ 0.1m (E)



Height of the reference plane

Average illuminance	Eav	: 0.10 m
Minimum illuminance	Emin	: 44.5 lx
Maximum illuminance	Emax	: 4.3 lx
Uniformity Uo	Emin/Eav	: 94.2 lx
Diversity Ud	Emin/Emax	: 1 : 10.33 (0.10)
		: 1 : 21.85 (0.05)

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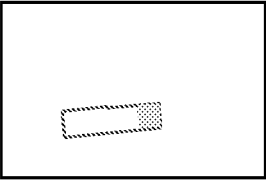
Exterior 1

Calculation results, Exterior 1

Table, Used Car Sales Area @ 0.1m (E)

9.5	8.3	9.5	12.7	17.4	21.6	24.6	26.5	22.4	12.3		12.6	23	26.2	23.2	20.2
20.3	19	19.3	22	27.1	34	40.1	41.2	41.8	30.4	22.7	32.4	41.3	43.8	41.7	33.7
28.3	25.6	27.3	33	43.6	55.1	64.1	61.8	47.1	45.5	42.6	51	51.9	62	67	55.7
38.9	32.8	36.3	48	64.8	79.1	86.3	82.8	57.1	45.8	46.1	50	63.6	90.3	90.9	79.2
47.9	41.6	45.4	56.1	68.5	79.9	86.6	82.7	57.1	41.4	39.5	46.4	66.6	92	92.4	81.5
49.2	45.1	46	53.3	63.1	72.6	78.3	72.5	47.8	32.8	34.3	37.5	54.5	80.3	81.6	73.7
45.5	43.3	43.9	48.3	55.2	62.3	65.5	56.9	35.7	24.9	27.4	30	40.4	60.2	68	62.9
42.6	41.2	41.7	44.8	48.7	53	52.3	41.7	28	19.8	20.7	25.1	33.8	45.5	55.1	53.2
40.3	39.8	40.6	43.7	46.4	47.5	42.1	32.8	25	17.7	17.7	23.2	29.7	38.2	46.2	46.7
39.4	39.4	41.3	45	49.4	49.4	41.4	31	24.5	18.6	17.6	24	32.4	41.9	45.5	44.6
39.7	40.4	43.7	49.4	55.4	59	51.5	35.6	26.8	22.7	20.6	28.1	42.7	53.6	53	46.9
40.7	42.2	47.7	55.9	65.2	72.3	68.2	47.5	32.8	29.6	26.9	35.1	58.1	67.3	63.5	53.7
40.1	42.4	52.1	63.5	75.7	84.9	84.1	61.2	41	35.6	35	47.3	73.1	79.9	73	61.4
34.5	38.3	50.8	66.4	81.2	92.1	93	69.3	48.7	41.9	43.6	54.7	81.9	85.9	79.2	65.6
27	30	38.9	55.3	70.8	85.8	84.1	64.2	51.5	49	48	54.6	75.9	82.3	73	57.7
21.8	22.6	27.1	33.5	45.9	56.2	56.6	49.6	47.2	38.8	41.4	45.8	53.8	56.5	47.4	35.5
14.4	15	17.9	22.2	30.3	36.8	39.6	41.6	28.1	16	23.6	36.3	37.6	35.8	31.3	23.6

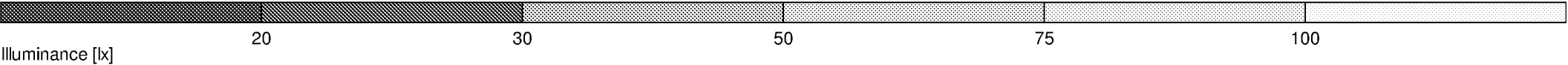
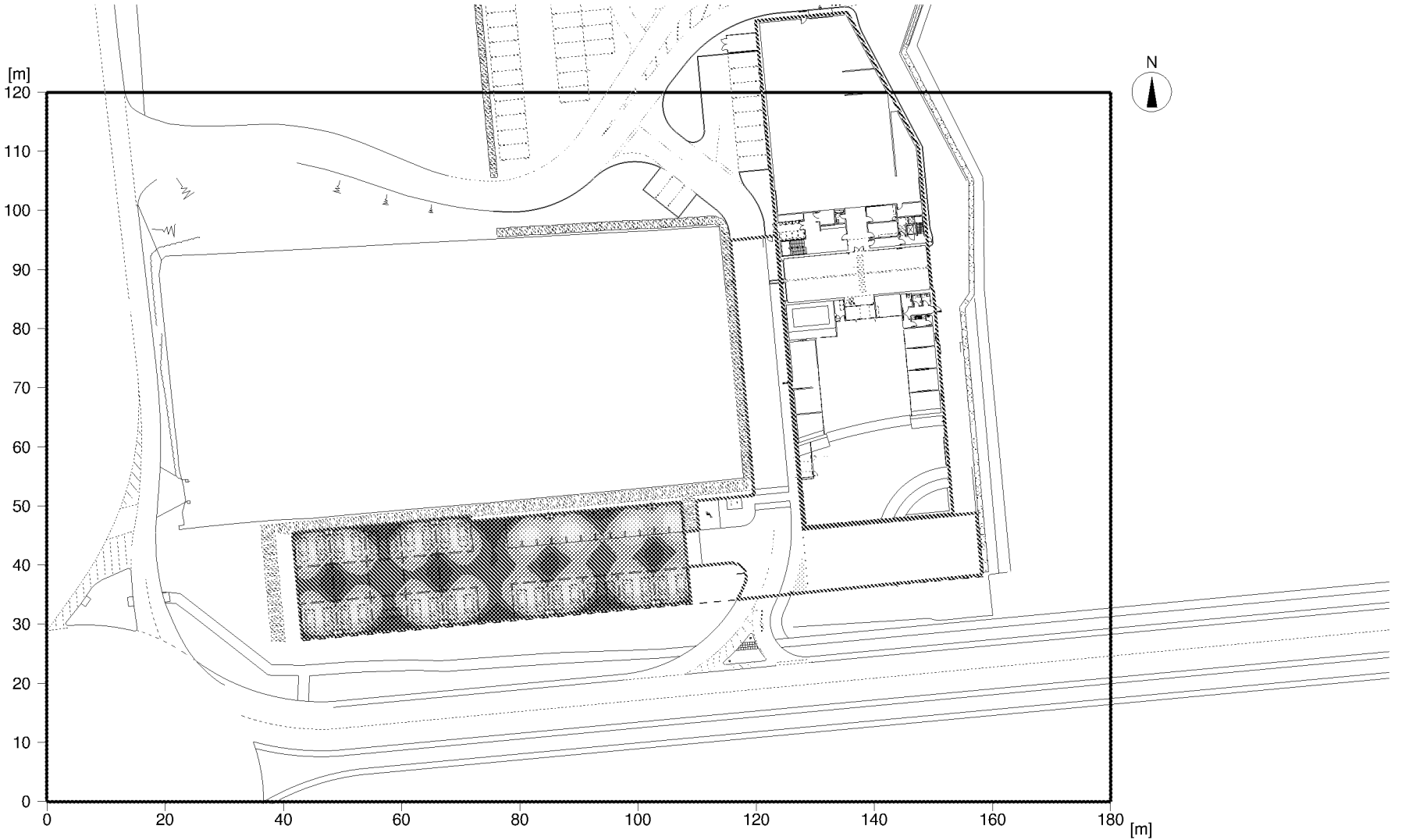
60 [m]





Summary, Exterior 1

Result overview, Used Car Sales Area @ 1.0m



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.00 m
Maintenance factor	0.85
Total luminous flux of all lamps	128160 lm
Total power	1419 W
Total power per area (21600.00 m²)	0.07 W/m²

Illuminance		
Average illuminance	Eav	46 lx
Minimum illuminance	Emin	2 lx
Maximum illuminance	Emax	123 lx
Uniformity Uo	Emin/Em	1:20.9 (0.05)
Diversity Ud	Emin/Emax	1:56.3 (0.02)

Type No.\Make

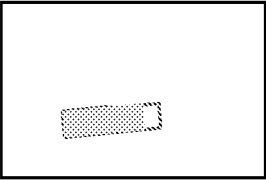
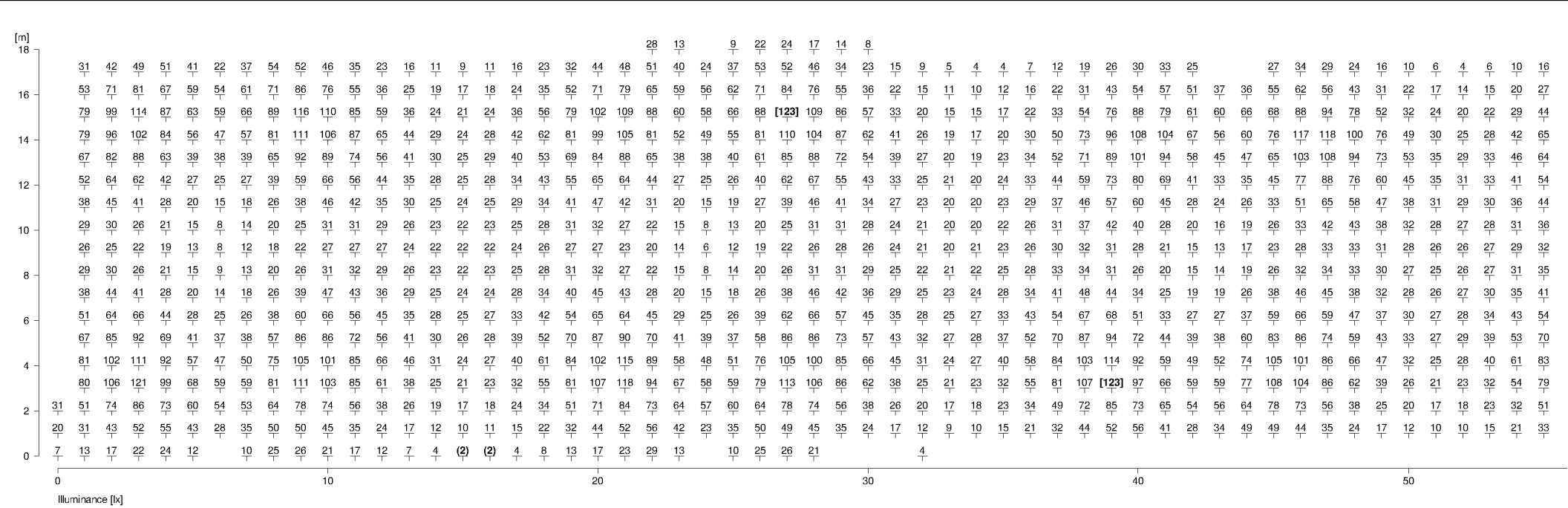
1 30		SiTECO
		Order No. : !5XA299LEDUK0035
		Luminaire name : AUDI LED_4.272 lm / 4.000K, 47,3Watt 03-2014
		Equipment : 1 x LED 4000K / CRI >= 80 47.3 W / 4272 lm

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Calculation results, Exterior 1

Table, Used Car Sales Area @ 1.0m (E)



Height of the reference plane		: 1.00 m
Average illuminance	Eav	: 46 lx
Minimum illuminance	Emin	: 2 lx
Maximum illuminance	Emax	: 123 lx
Uniformity Uo	Emin/Eav	: 1 : 20.89 (0.05)
Diversity Ud	Emin/Emax	: 1 : 56.33 (0.02)

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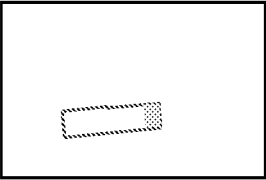


Calculation results, Exterior 1

Table, Used Car Sales Area @ 1.0m (E)

24	29	33	30	17		18	32	33	28	21
38	51	56	55	45	34	51	60	60	51	36
65	85	90	67	61	58	68	75	95	87	64
88	105	112	83	56	54	63	99	120	110	86
82	97	101	74	48	45	52	85	110	102	82
68	80	80	53	34	35	37	62	88	82	67
53	61	56	35	24	22	27	39	58	61	51
41	42	35	24	17	14	22	30	37	43	40
34	31	26	20	12	12	18	24	28	33	33
35	31	25	20	12	13	19	26	32	33	32
48	44	32	24	16	18	25	38	46	43	36
67	68	49	31	26	27	36	61	67	57	44
87	94	72	43	38	37	57	86	86	72	55
103	114	93	58	49	51	74	104	101	85	64
106	117	100	67	60	61	78	105	104	86	60
72	85	72	65	55	56	62	79	76	57	37
44	52	56	42	23	35	50	50	46	35	24

60 [m]

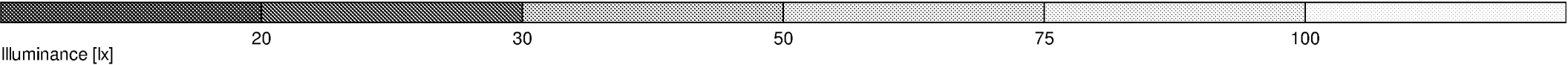
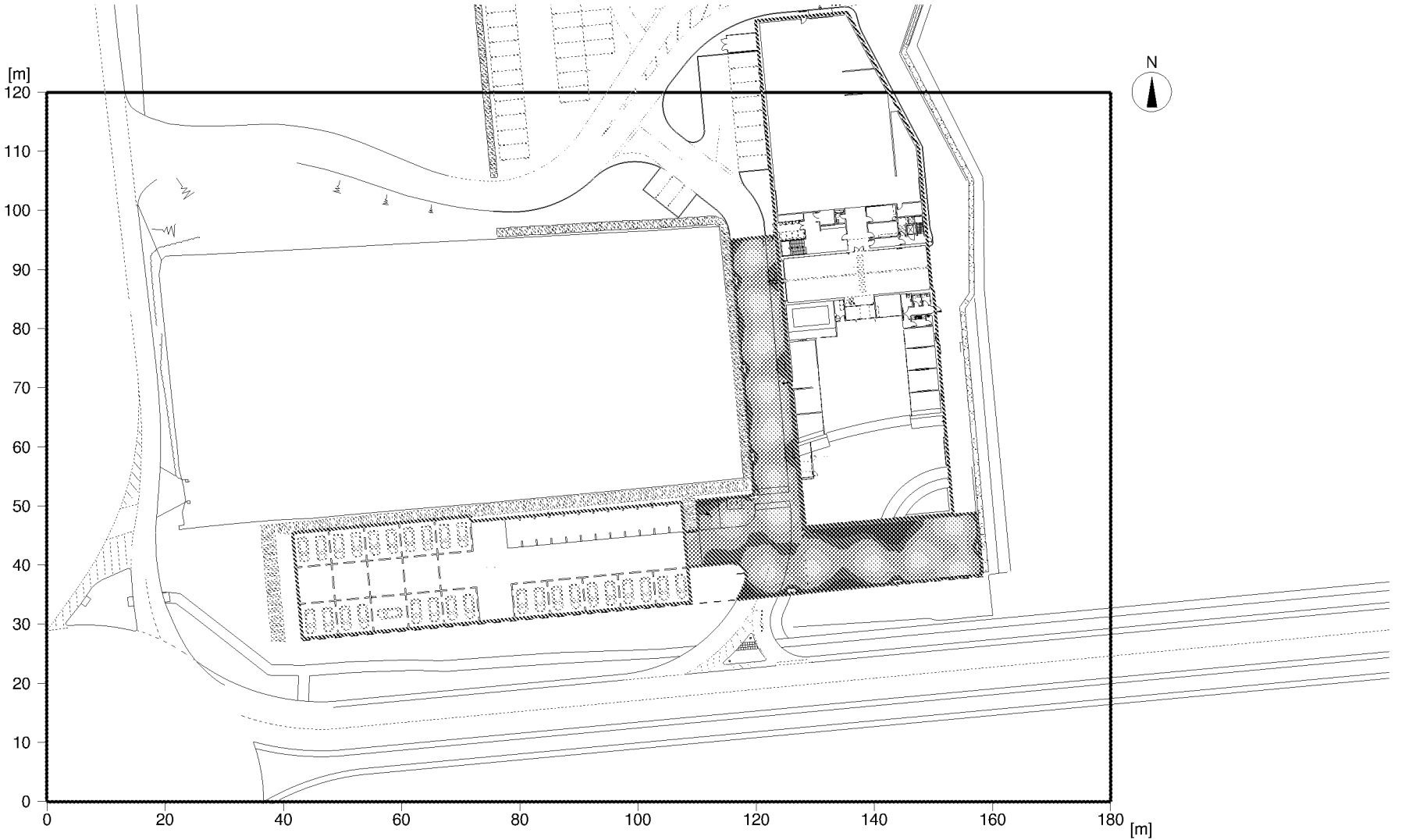


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Summary, Exterior 1

Result overview, Entrance and Building Surround @ 0.1m



General	
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.10 m
Maintenance factor	0.85
Total luminous flux of all lamps	128160 lm
Total power	1419 W
Total power per area (21600.00 m²)	0.07 W/m²

Illuminance		
Average illuminance	Eav	47 lx
Minimum illuminance	Emin	6 lx
Maximum illuminance	Emax	105 lx
Uniformity Uo	Emin/Em	1:8.48 (0.12)
Diversity Ud	Emin/Emax	1:18.8 (0.05)

Type No. Make

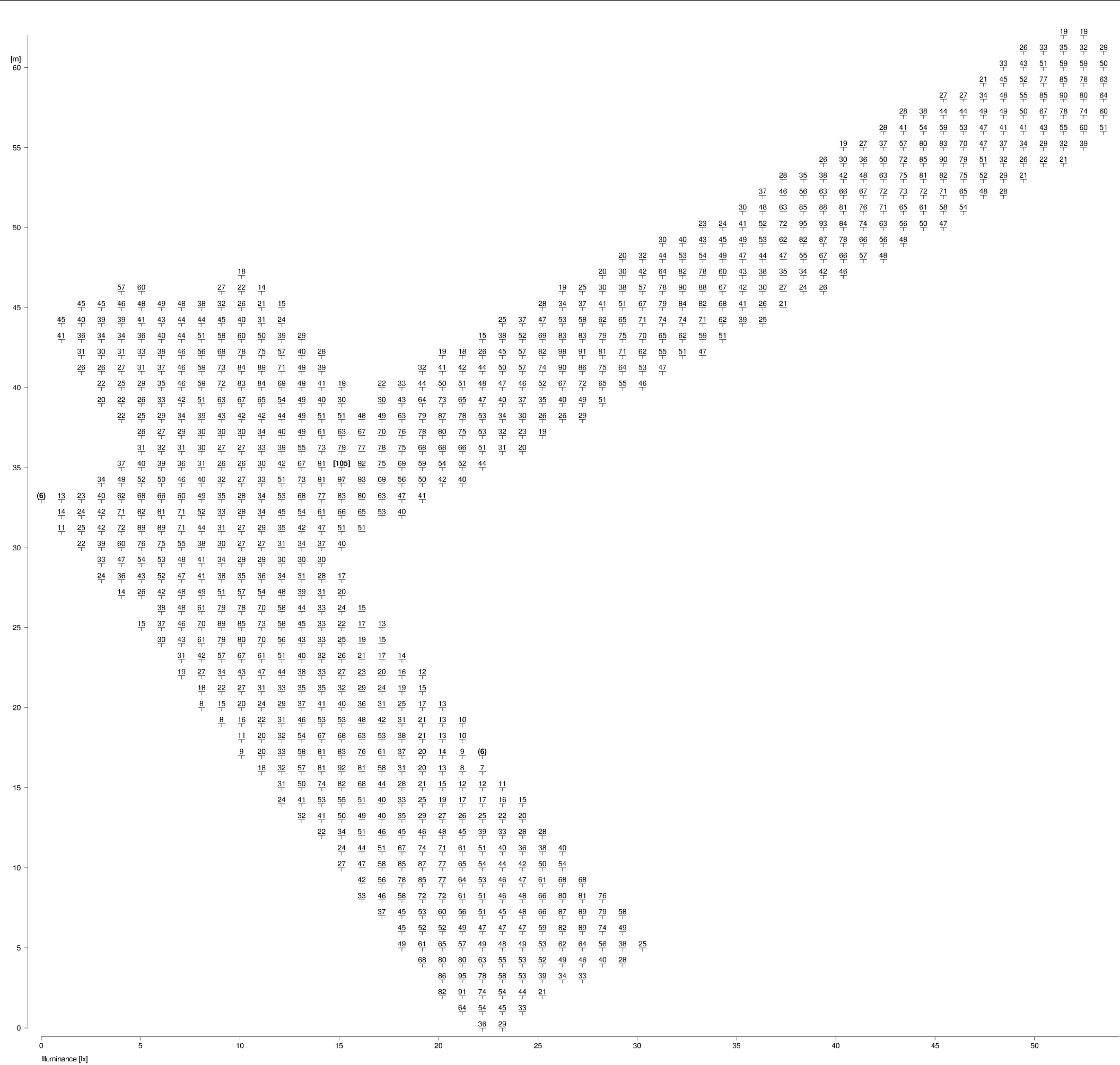
1		SiTECO	
30		Order No.	: !5XA299LEDUK0035
		Luminaire name	: AUDI LED_4.272 lm / 4.000K, 47.3Watt 03-2014
		Equipment	: 1 x LED 4000K / CRI >= 80 47.3 W / 4272 lm

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Calculation results, Exterior 1

Table, Entrance and Building Surround @ 0.1m (E)



Part1

Height of the reference plane

	: 0.10 m
Average illuminance	Eav : 47 lx
Minimum illuminance	Emin : 6 lx
Maximum illuminance	Emax : 105 lx
Uniformity Uo	Emin/Eav : 1 : 8.48 (0.12)
Diversity Ud	Emin/Emax : 1 : 18.75 (0.05)



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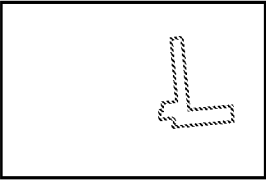


Calculation results, Exterior 1

Table, Entrance and Building Surround @ 0.1m (E)

47
47 33
45 32
40

55 [m]



Part2

Object : Audi Terminal - Worthing
Installation : Exterior Lighting
Project number : CRM 6500182217
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Luminaire data

SiTECO, AUDI LED_4.272 lm / 4.0... (!5XA299LEDUK0035)

Data sheet

Manufacturer: SiTECO

!5XA299LEDUK0035 AUDI LED_4.272 lm / 4.000K, 47,3Watt 03-2014

Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 90.32 lm/W
Classification : ↓100.0% ↑0.0%
CIE Flux Codes : 98 100 100 100 100
UGR 4H 8H : 38.7 / 32.5
Power : 47.3 W
Luminous flux : 4272 lm

Dimensions : Ø10 mm x 10 mm

Equipped with

Quantity : 1
Designation : LED 4000K / CRI >= 80
Colour :
Luminous flux : 4272 lm

