Birstall Exterior

Installation : Frank Belshaw

Project number	:	9900
Customer	:	Frank Belshaw - Birstall Exterior
Processed by	:	Chiara Lighting
Date	:	22.01.2025

Project description:
Reflectances:

Ceiling Height:

Additional notes supplied in the accompanying email.

All room/ exterior dimensions to be checked on site prior to ordering.

Emergency Lighting Design (If Provided) has been designed in accordance to BS5266/EN1838/I.S. 3217 where applicable. The emergency lighting must be checked and approved by a fire control officer and approved by the building owner prior to order. Furthermore if a risk assessment has not been provided, the design is based on assumptions and would need checking and amending to reflect the exact requirements stated on the risk assessment.

The emergency lighting calculation does not take into account location of Reception telephone, First Aid Points, Extinguisher points, call points, push bars, fire panels, etc. As these have not been provided on the drawings supplied.

It is the responsibility of the customer to ensure any scheme provided by Chiara Lighting meets all the requirements of the end user.

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.

Table of contents

First Page 1
Table of contents 2
1 Luminaire data
1.1 NORTHCLIFFE, Auva LED1x4500 J008 T740 LSS2 ()
1.1.1 Data sheet 3
1.1.2 Glare Rating (RUG) 4
2 Exterior 1
2.1 Description, Exterior 1
2.1.1 Luminaire data/Room elements 5
2.1.2 Floor plan 8
2.2 Summary, Exterior 1
2.2.1 Result overview, Evaluation area 1 9
2.3 Calculation results, Exterior 1
2.3.1 Table, Reference plane 1.1 (E) 10

1 Luminaire data

1.1 NORTHCLIFFE, Auva LED1x4500 J008 T740 LSS2 ()

1.1.1 Data sheet

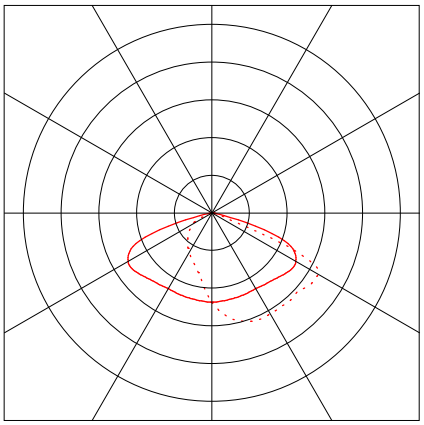
Manufacturer: NORTHCLIFFE

Auva LED1x4500 J008 T740 LSS2

Luminaire data		
Luminaire efficiency	:	100%
Luminaire efficacy	:	156.33 lm/W
Classification	:	A30 ↓100.0% ↑0.0%
CIE Flux Codes	:	35 70 98 100 100
Glare	:	G*3 / D6
Power	:	28.9 W
Luminous flux	:	4518 lm

Equipped with		
Quantity	:	1
Designation	:	LED
Colour	:	4000
Luminous flux	:	4518 lm
Colour reproduction	:	70

Dimensions : 525 mm x 205 mm x 102 mm



1.1 NORTHCLIFFE, Auva LED1x4500 J008 T740 LSS2 ()

1.1.2 Glare Rating (RUG)

RUG tabular method not applicable.

2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Luminaire data/Room elements

Product data:

Type No.\Make

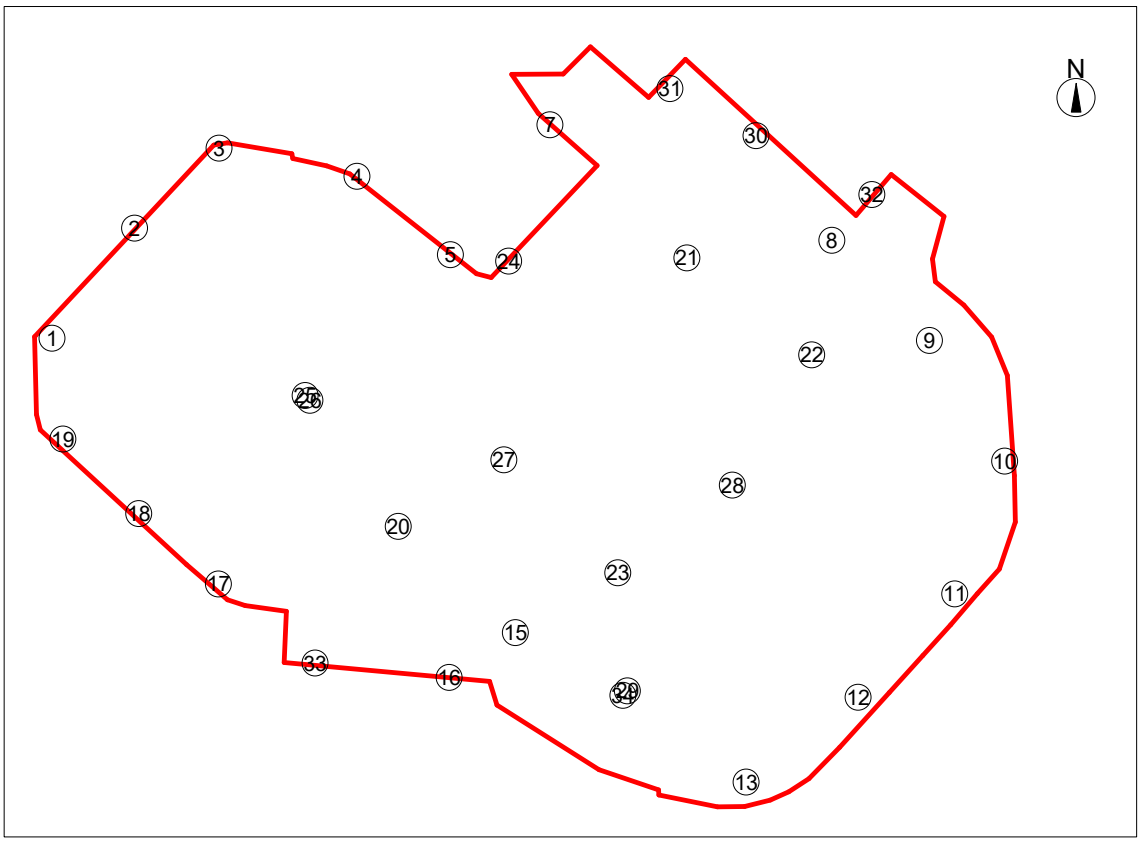
		NORTHCLIFFE	
1	32 x	Order No.	:
		Luminaire name	: Auva LED1x4500 J008 T740 LSS2
		Equipment	: 1 x LED 28.9 W / 4518 lm

2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Luminaire data/Room elements

Floor with luminaire and sensor positions:



2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Luminaire data/Room elements

	Centre point			Rotation angle			Target coordinates		
No.	X [m]	Y [m]	Z [m]	Z [°]	C0 [°]	C90 [°]	Xa [m]	Ya [m]	Za [m]
NORTHCLIFFE Auva LED1x4500 J008 T740 LSS2									
1	-36.97	70.30	5.95	255.00	0.00	0.00	-27.41	67.74	0.00
2	-29.93	79.71	5.95	226.59	0.00	0.00	-22.74	72.91	0.00
3	-22.72	86.53	5.95	191.98	0.00	0.00	-20.67	76.85	0.00
4	-10.95	84.11	5.95	143.93	0.00	0.00	-16.78	76.11	0.00
5	-2.97	77.45	5.95	138.61	0.00	0.00	-9.52	70.02	0.00
24	1.99	76.90	5.95	226.78	0.00	0.00	9.21	70.12	0.00
7	5.53	88.51	5.95	319.58	0.00	0.00	11.90	96.00	0.00
8	29.59	78.67	5.95	49.58	0.00	0.00	22.06	85.08	0.00
32	33.00	82.56	5.95	229.58	0.00	0.00	40.50	76.10	0.00
30	23.13	87.60	5.95	139.58	0.00	0.00	16.71	80.06	0.00
31	15.77	91.60	5.95	229.58	0.00	0.00	23.31	85.19	0.00
9	37.94	70.11	5.95	139.58	0.00	0.00	33.96	65.44	2.26
10	44.34	59.81	5.95	92.93	0.00	0.00	34.46	59.30	0.00
11	40.09	48.49	5.95	44.36	0.00	0.00	33.17	55.57	0.00
12	31.83	39.67	5.95	44.36	0.00	0.00	24.91	46.74	0.00
13	22.27	32.42	5.95	2.98	0.00	0.00	21.76	42.30	0.00
15	2.58	45.16	5.95	337.54	0.00	0.00	6.36	54.31	0.00
29	12.13	40.19	5.95	313.57	0.00	0.00	16.77	44.61	2.10
34	11.74	39.82	5.95	133.57	0.00	0.00	4.60	33.00	0.00
16	-3.08	41.36	5.95	353.16	0.00	0.00	-1.90	51.19	0.00
33	-14.52	42.59	5.95	353.16	0.00	0.00	-13.34	52.42	0.00
17	-22.79	49.33	5.95	320.38	0.00	0.00	-16.48	56.95	0.00
18	-29.58	55.33	5.95	316.46	0.00	0.00	-22.76	62.50	0.00
19	-36.07	61.69	5.95	316.46	0.00	0.00	-29.25	68.87	0.00
20	-7.43	54.24	5.95	316.46	0.00	0.00	-0.61	61.42	0.00
27	1.58	59.93	5.95	318.03	5.65	0.00	9.98	69.26	0.00
23	11.32	50.28	5.95	318.80	0.00	0.00	17.84	57.72	0.00
28	21.10	57.76	5.95	46.46	0.00	0.00	13.92	64.58	0.00
21	17.22	77.16	5.95	132.19	0.00	0.00	9.88	70.51	0.00
22	27.86	68.89	5.95	136.46	0.00	0.00	21.04	61.72	0.00
25	-15.38	65.42	5.95	47.18	0.00	0.00	-18.91	68.68	3.06
26	-14.95	65.00	5.95	227.18	0.00	0.00	-7.69	58.28	0.00

Structural elements

Measuring surface

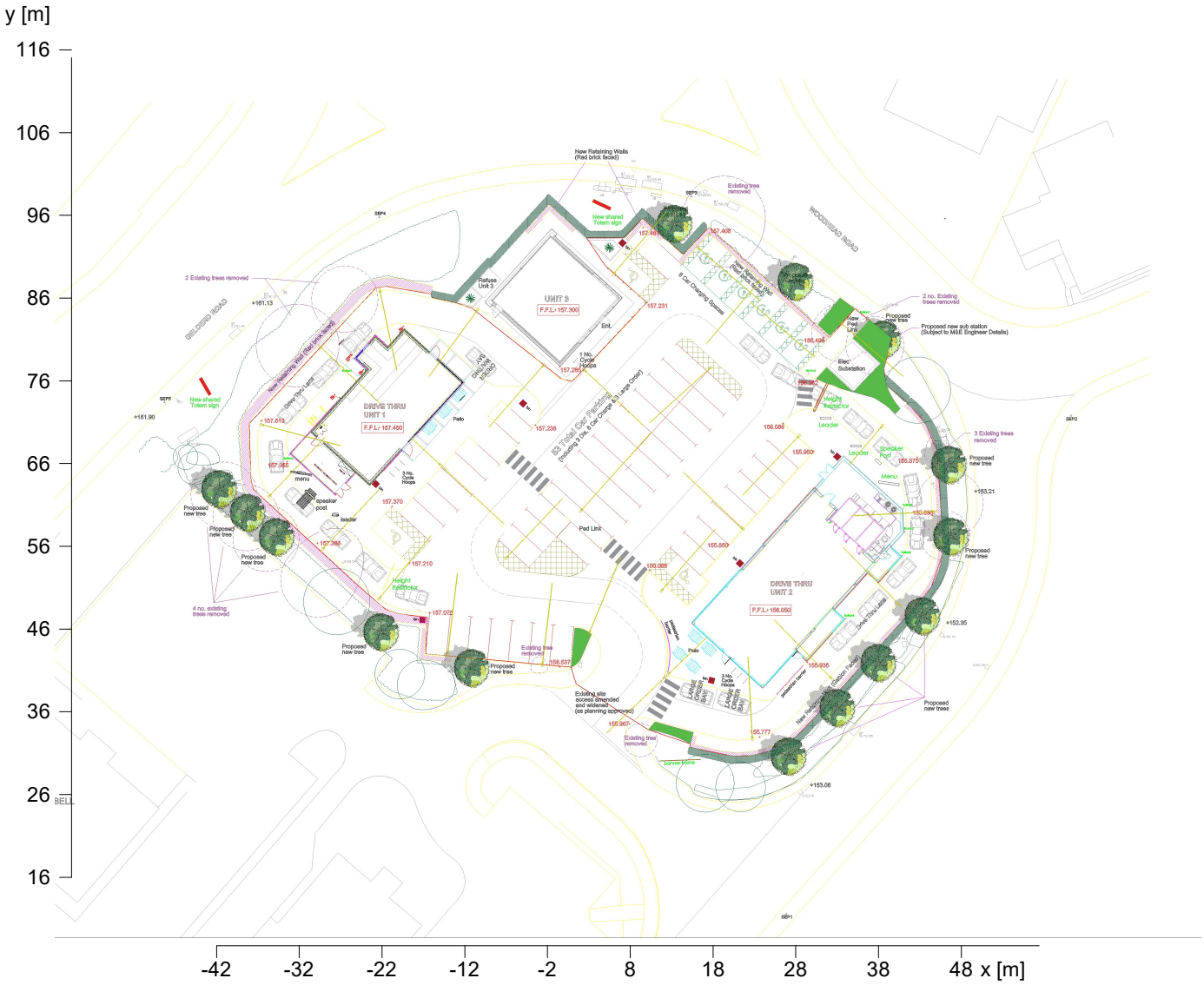
							Rotation angle	
No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	L axis	Q axis
Ref. plane 1.1								
	-22.00	87.00	0.00	99.43	99.05	226.95	0.00	0.00

Others

							Rotation angle		
No.	xm[m]	ym[m]	zm[m]	Length	Width	z axis	L axis	Q axis	rho[%]
A 1	-20.14	67.31	0.00	19.55	19.86	47.51	0.00	0.00	50
A 2	14.94	46.28	0.00	26.85	27.67	47.15	0.00	0.00	50
A 1	-33.45	66.92	0.00	7.52	7.41	316.07	0.00	0.00	50

2.1 Description, Exterior 1

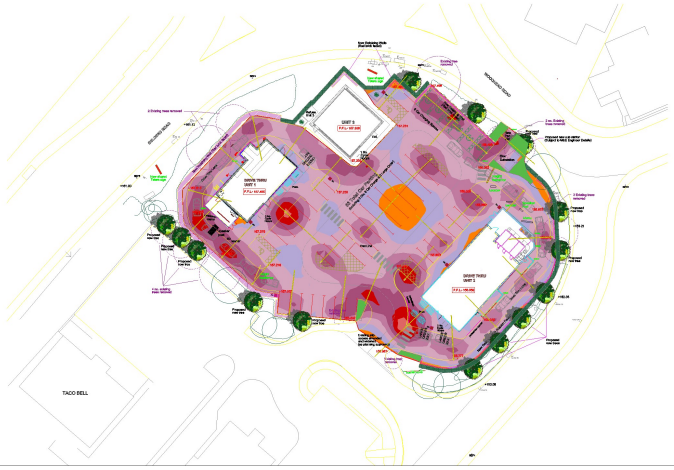
2.1.2 Floor plan

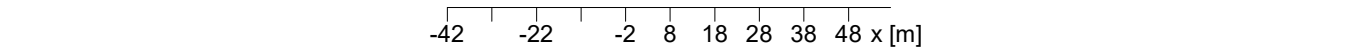


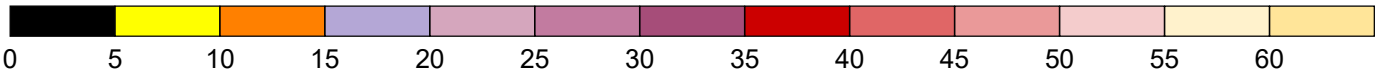
2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Evaluation area 1







General

Calculation algorithm used	Average indirect fraction
Height (phot.centre)	5.95 m
Maintenance factor	0.70
Luminaire luminous flux	144576 lm
Total power	924.8 W
Total power per area (3415.21 m²)	0.27 W/m² (1.11 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	24.5 lx
E_{min}	11.5 lx
$E_{min}/\bar{E}_m$ (U_o)	0.47
E_{min}/E_{max} (U_d)	0.29
Position	0.00 m

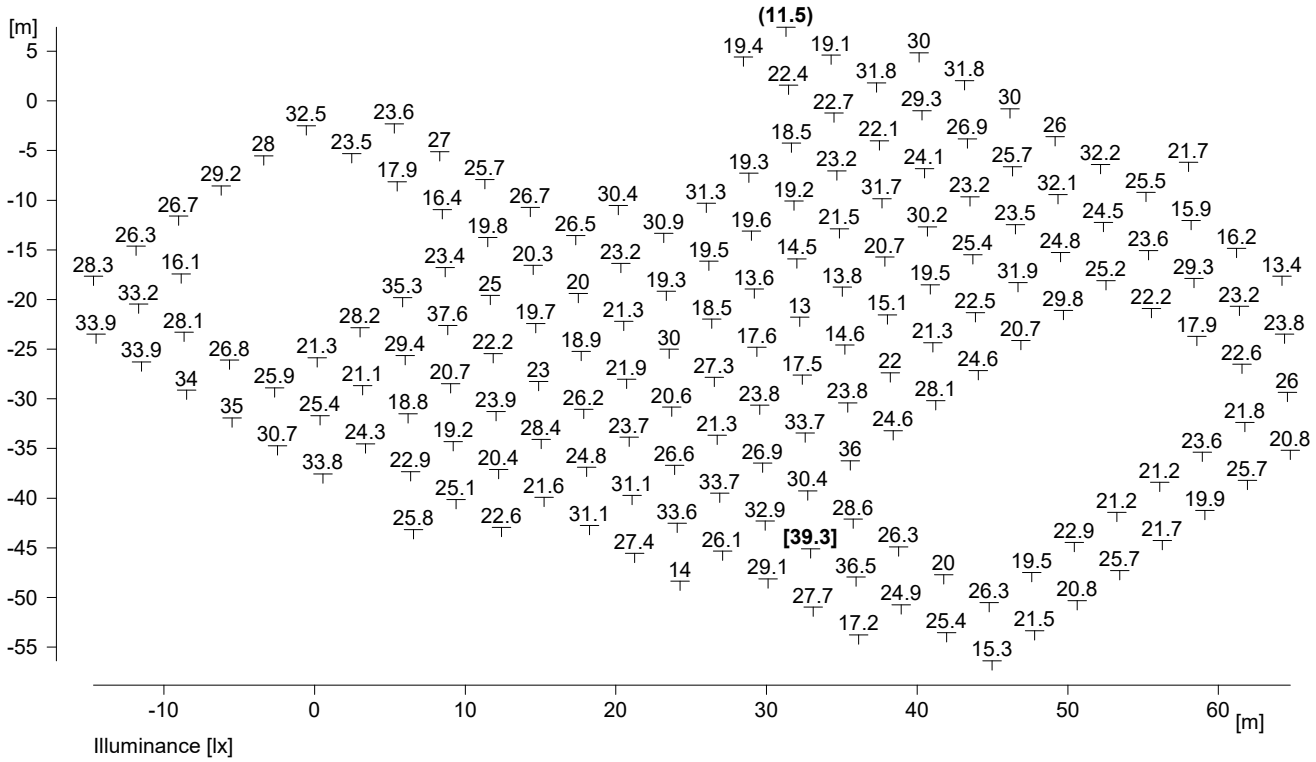
Type No.\Make

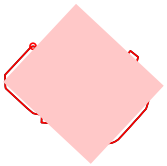
		NORTHCLIFFE
1	32 x	Order No. :
		Luminaire name : Auva LED1x4500 J008 T740 LSS2
		Equipment : 1 x LED 28.9 W / 4518 lm

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Table, Reference plane 1.1 (E)





Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 24.5 lx
Minimum illuminance	E_{min}	: 11.5 lx
Maximum illuminance	E_{max}	: 39.3 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 2.13 (0.47)