

Installation : EQUESTRIAN CENTRE

Project number : P19351R2

Customer : NEWHEY AND EYRE BURNLEY

Processed by : PAUL

Date : 10.10.2016

Project description:

ARENA RESCHEMED WITH 6 x 4.5m COLUMNS WITH 2x200W LED FLOODLIGHTS ON EACH, AS REQUESTED.

HILCLARE DOES NOT ADVISE THE INSTALLATION OF THIS DESIGN.

Calculations have been performed according to CIBSE standards and good design practice. Some differences between measured values and calculated results may occur due to calculation methods, testing procedures, component performance, field conditions and assumptions used to generate the calculations such as room details. These differences may typically be +/- 10%. Emergency lighting calculations are only indicative and thus no liability for non-performance will be accepted.

The information presented is for guidance only and Hilclare Ltd accepts no liability for non-performance, or to be held responsible for the subsequent use of this information.

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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1 Luminaire data

1.1 Hilclare, CORUNA (AFC200LED40)

LED by DESIGN

1.1.1 Data sheet

Manufacturer: Hilclare



AFC200LED40 Area Floods CORUNA

CORUNA IP65 LED floodlight. Black powder coated aluminium body and frame, steel adjustable bracket, clear glass lens. Ideal for lighting of paths, gardens, car parks, entrances and many commercial areas where efficiency is important.

No attachment fitted.

200W LED 4000K engine.

All CORUNA luminaires are c/w LED engine & driver.

Luminaire data

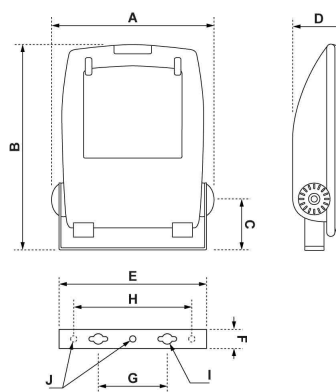
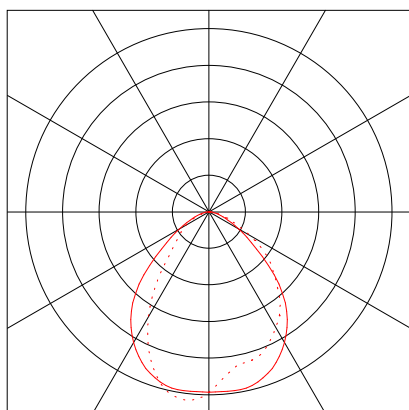
Absolute Photometry
Luminaire efficacy : 91.63 lm/W
Classification : A50 ↓ 100.0% ↑ 0.0%
CIE Flux Codes : 62 90 99 100 100
UGR 4H 8H : 26.7 / 24.3
Control gear : electronic ballast
Power : 202 W
Luminous flux : 18510 lm

Equipped with

Quantity : 1
Designation : LED
Colour : 4000K
Colour reproduction : 80

Dimensions : 625 mm x 480 mm x 160 mm

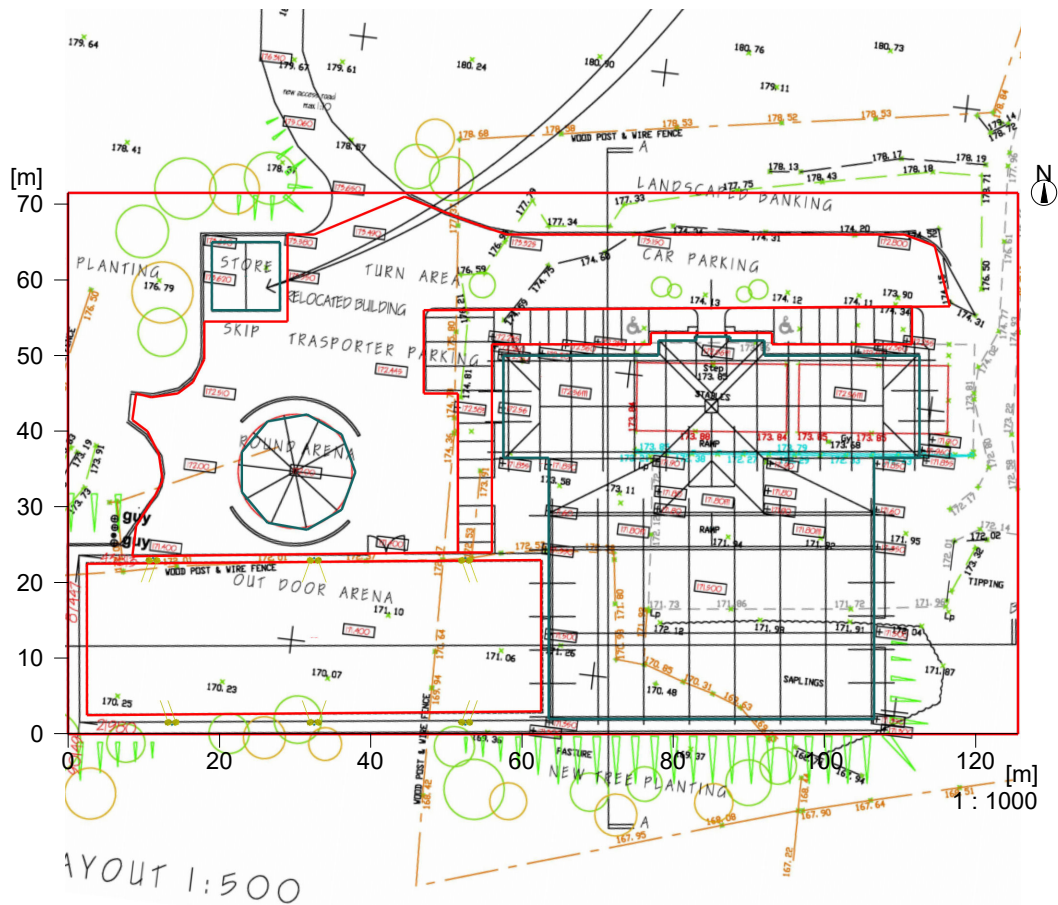
Height freestanding luminaire 5 mm



2 SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.1 Description, SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.1.1 Floor plan



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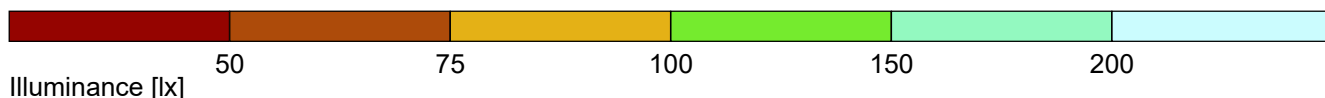
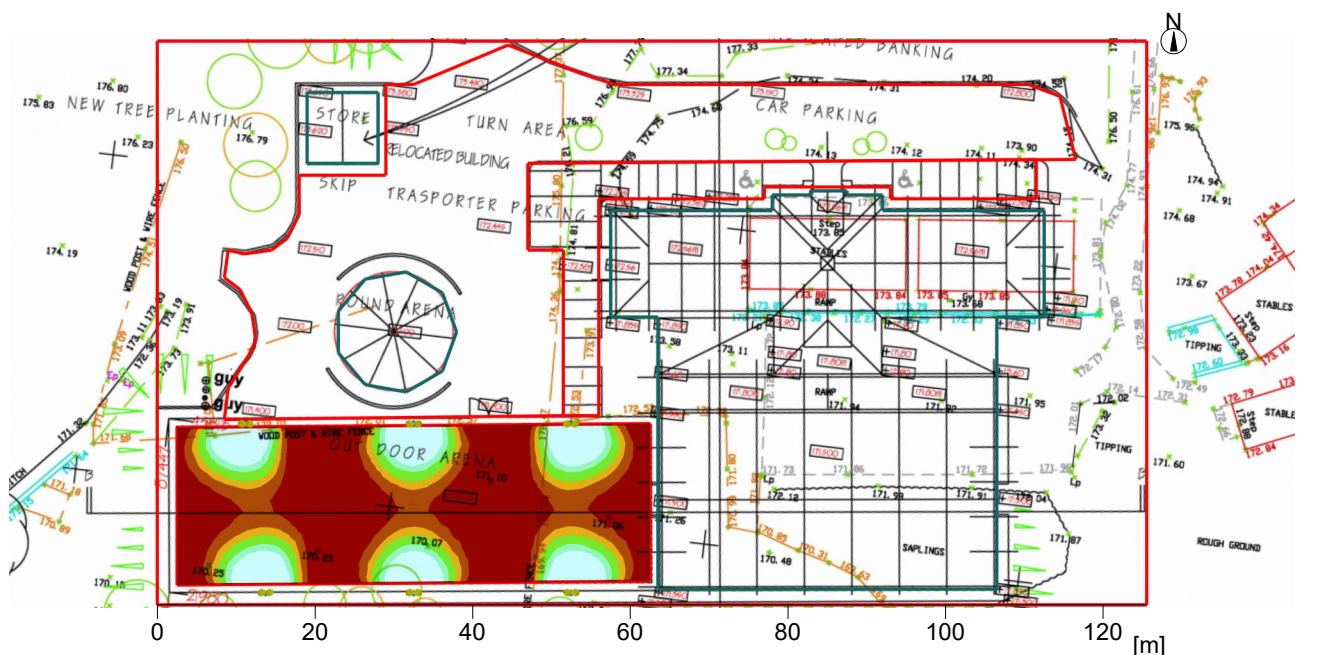
HILCLARE

LIGHTING MANUFACTURER

2 SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.2 Summary, SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.2.1 Result overview, OUTDOOR ARENA



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height. [m]:	4.37 m
Maintenance factor	0.80
Total luminous flux of all lamps	222120 lm
Total power	2424 W
Total power per area (8973.25 m²)	0.27 W/m²
Upward light ratio (ULR)	0.02

Illuminance

Average illuminance	Eav	98 lx
Minimum illuminance	Emin	10 lx
Maximum illuminance	Emax	559 lx
Uniformity Uo	Emin/Em	1:10.1 (0.1)
Diversity Ud	Emin/Emax	1:57.7 (0.02)

Type No.\Make

1	12	Hilclare
		Order No. : AFC200LED40/
		Luminaire name : CORUNA
		Equipment : 1 x LED 200 W / 18510 lm

The ULR value has been calculated without obstruction by other objects.

Hilclare Ltd.

Unit 1, Bond Street Industrial Estate, Mancunian Way, Manchester. M12 6HW

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2 SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.3 Calculation results, SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.3.1 Table, OUTDOOR ARENA (E)

[m]	34	72	154	299	491	559	388	173	55	19	11	(10)	13	22	47	102	222	424	544	449	244	111	50	23	14	11	15	36	117	315	530
18	44	86	163	283	401	422	302	149	56	24	14	13	18	30	58	113	215	343	422	357	232	122	62	32	19	15	20	43	116	266	425
16	42	72	120	184	245	266	211	120	53	26	17	16	20	30	51	88	152	231	278	240	162	94	55	32	21	18	23	42	99	199	288
14	34	53	77	105	132	144	127	88	49	27	19	17	20	27	40	62	97	134	154	138	102	66	43	28	21	19	24	41	80	129	162
12	27	38	50	63	75	83	77	62	42	27	20	18	19	24	32	45	63	80	88	81	65	47	33	25	20	19	24	37	58	80	93
10	22	29	36	44	52	57	56	49	39	29	22	19	19	22	28	36	46	56	60	56	47	37	28	22	19	19	23	33	45	56	62
8	19	25	32	39	46	52	54	50	42	33	25	20	19	22	27	34	43	51	55	51	43	34	27	22	19	19	23	31	41	50	55
6	19	25	34	44	54	63	69	67	57	42	29	22	20	23	30	39	52	63	68	63	51	39	29	23	19	19	24	34	47	60	66
4	19	28	41	59	79	99	113	110	88	58	33	23	22	26	36	52	76	99	108	98	75	51	35	25	20	19	24	39	64	89	103
2	20	32	53	85	129	175	208	196	139	74	36	23	23	30	47	75	121	172	196	169	118	73	45	29	21	19	24	43	88	146	184
0	19	34	64	116	201	306	370	323	192	84	35	22	22	33	58	105	187	287	340	281	181	101	56	32	20	17	23	44	109	222	323
	15	28	59	122	238	401	506	448	249	96	34	18	18	30	59	122	242	392	482	383	233	117	57	29	17	14	20	46	132	301	462
	0	5	10	15	20	25	30	35	40	45																					
	Illuminance [lx]																														



Part1

Height of the reference plane

: 0.00 m

Average illuminance

Eav : 98 lx

Minimum illuminance

Emin : 10 lx

Maximum illuminance

Emax : 559 lx

Uniformity Uo

Emin/Eav : 1 : 10.06 (0.10)

Diversity Ud

Emin/Emax : 1 : 57.66 (0.02)

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2.3 Calculation results, SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.3.1 Table, OUTDOOR ARENA (E)

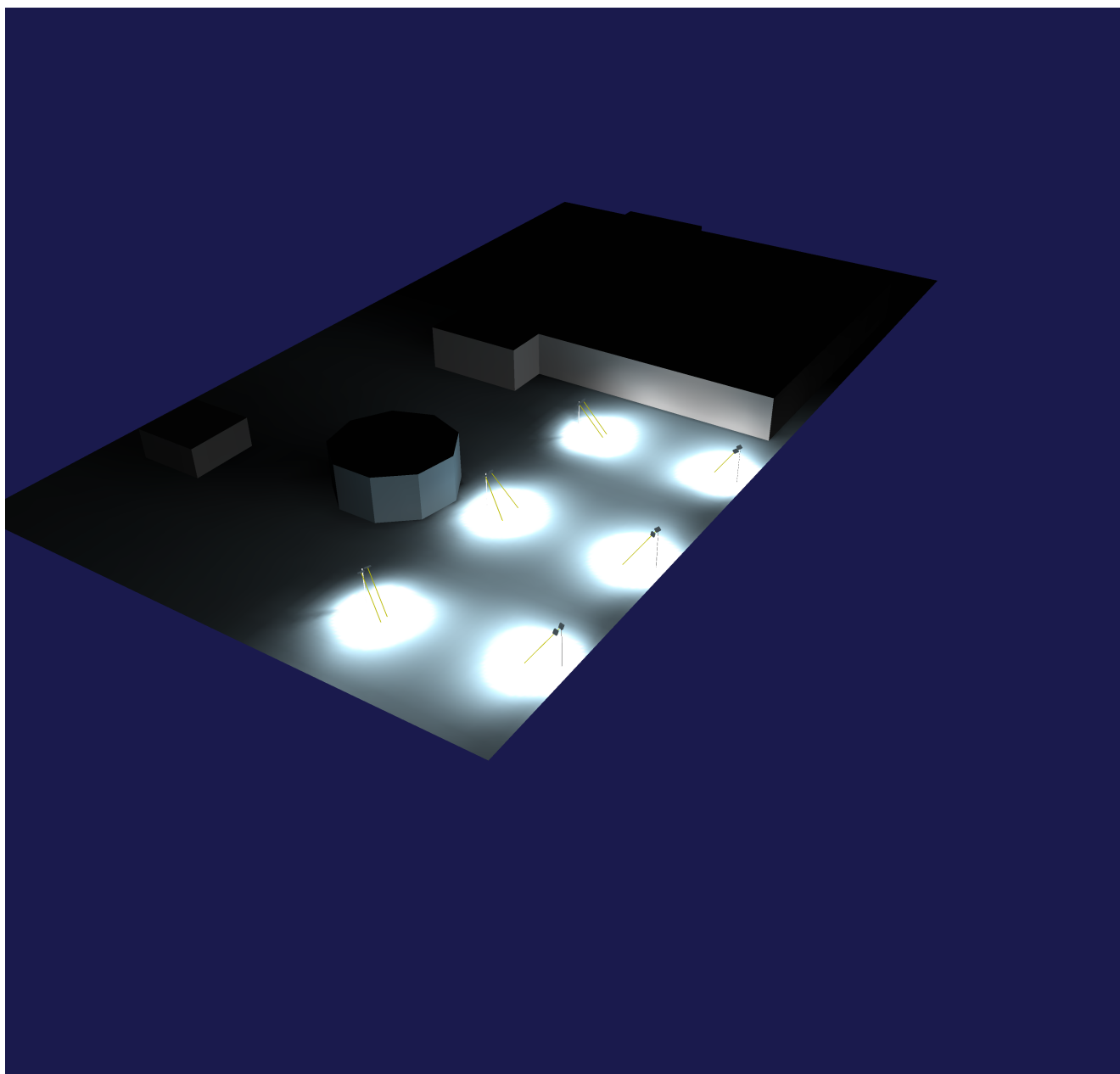
548	357	181	84	39	21
449	346	205	108	55	29
294	233	154	92	53	32
159	131	98	67	44	29
90	76	61	47	35	26
60	53	44	37	30	23
54	47	40	33	28	23
64	55	46	37	30	24
99	83	65	49	36	26
177	143	103	69	44	29
323	248	158	92	52	31
462	343	196	101	50	27
50					55 [m]



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2.3 Calculation results, SITE (OUTDOOR ARENA FLOODLIGHTS ON) (Copy of1)

2.3.2 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 118 cd/m²