



Rugby Pitch

Installation : CEF Oswestry

Project number : EMAIL

Customer : n/a

Processed by : Tom Francis

Date : 14.08.2013

Project description:

Sample lighting calc mounting on one side of the pitch only as requested. Uniformity will suffer due to this. TBC suitable prior to order.

>All Qty's shown are strictly budgetary at this stage, subject to fully scaled drawings (AutoCAD preferably) being submitted.

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 Tamlite, GXLH (GXLH400HPI/ASY)

1.1.1 Data sheet

Manufacturer: Tamlite



GXLH400HPI/ASY EXTERIOR - Floodlights GXLH
HID
GXLH -ASY
Floodlights
High performance large area floodlight - Asymmetric reflector

Features

Modern, high performance
floodlight
Ideal for sports ground
installations
Graduated goniometer allows for
accurate aiming angles
Asymmetric reflector
IP65
Maximum projected area = 0.16m²

Construction

Die cast aluminium housing
finished in grey RAL 9006
Extruded anodized aluminium
closing clips with stainless steel
spring
Stainless steel external screws
IP68 M20 x 1.5 anti-tearing
cable gland
Hinged toughened glass
Supplied with lamp and gear

To order / specify

Die cast, high performance floodlight for use with high wattage discharge lamps as per Tamlite 'GXLH' range

Accessories

GXLHWG|Wire guard
GXLHHOOD|Light hood

Options

PC|Photocell
C|Circular reflector (special order only)

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1 Luminaire data

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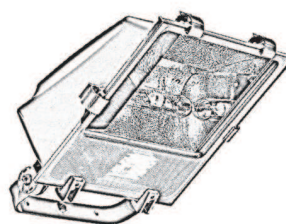
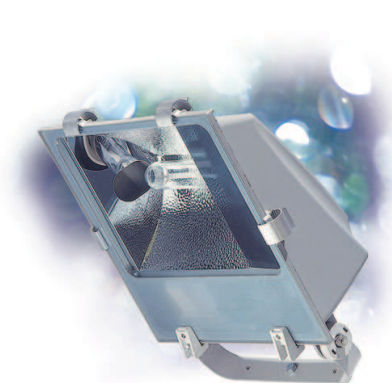
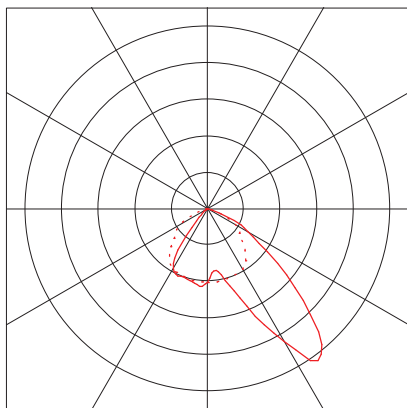
1.1.1 Data sheet

Luminaire data

Luminaire efficiency : 71%
Luminaire efficacy : 58.62 lm/W
Classification : ↓ 100.0% ↑ 0.0%
CIE Flux Codes : 52 90 100 100 71
UGR 4H 8H (20%, 50%, 70%)
C0 / C90 : 31.6 / 29.4
Control gear : conventional inductive ballast, with
ignition device and ignition time bypass
System power : 436 W
Length : 430 mm
Width : 545 mm
Height : 215 mm

Equipped with

Quantity : 1
Designation : MT
Power : 400 W
Colour : ww/4500K
Luminous flux : 36000 lm
Socket : E40
Colour reproduction : 2B



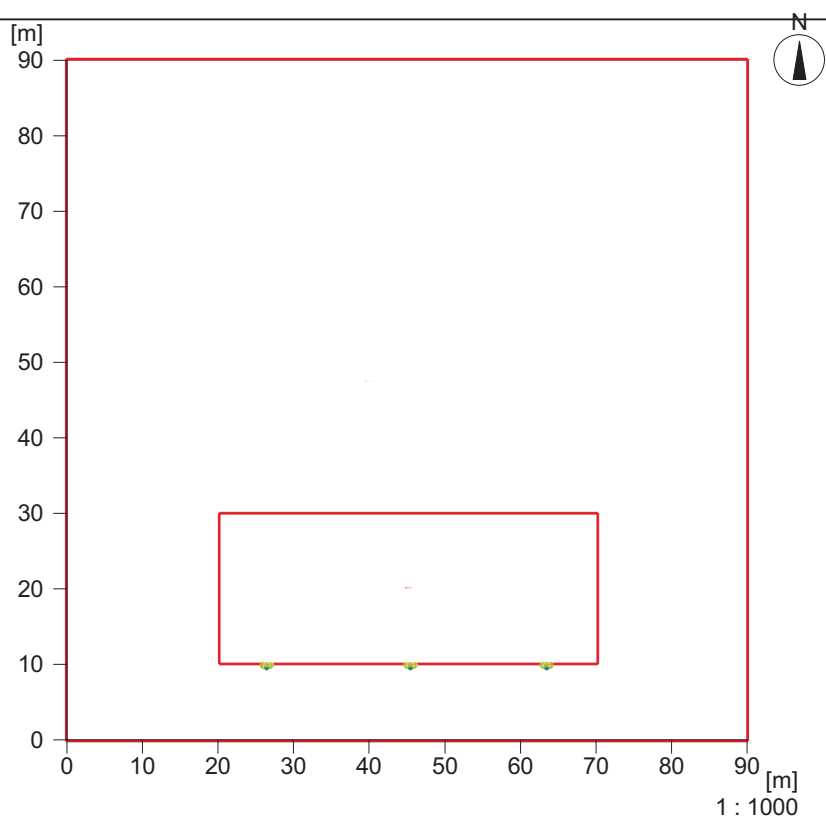
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2 Exterior Lighting Calc

2.1 Description, Exterior Lighting Calc

2.1.1 Floor plan



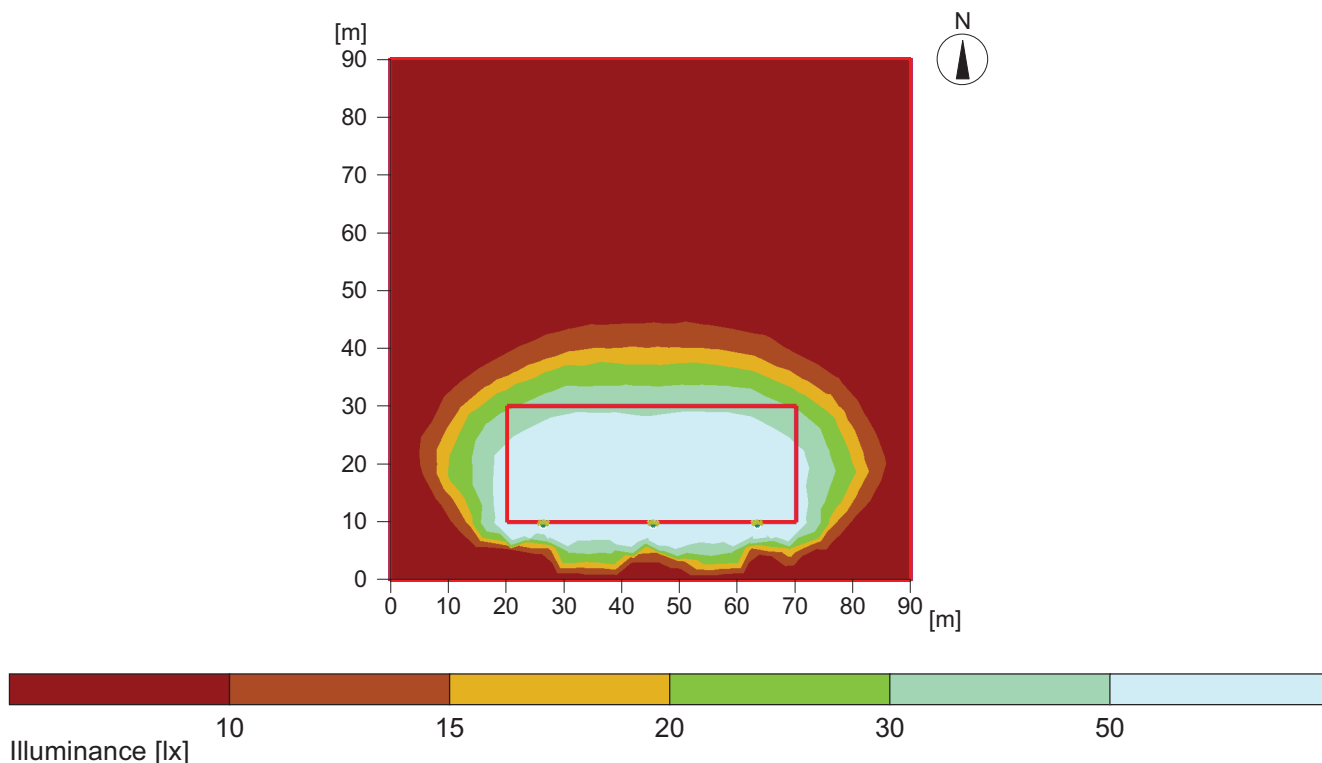
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2 Exterior Lighting Calc

2.2 Summary, Exterior Lighting Calc

2.2.1 Result overview, Evaluation area 1,



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height.	8.01 m
Maintenance factor	0.80
Total luminous flux of all lamps	324000 lm
Total power	3924.0 W
Total power per area	0.48 W/m ² (8100.00 m ²)

Evaluation area 1

Reference plane 1.1

Em	Horizontal
Emin	20.6 lx
Emin/Eav (Uo)	0.4 lx
Position	0.02
	0.00 m

Type No.\Make

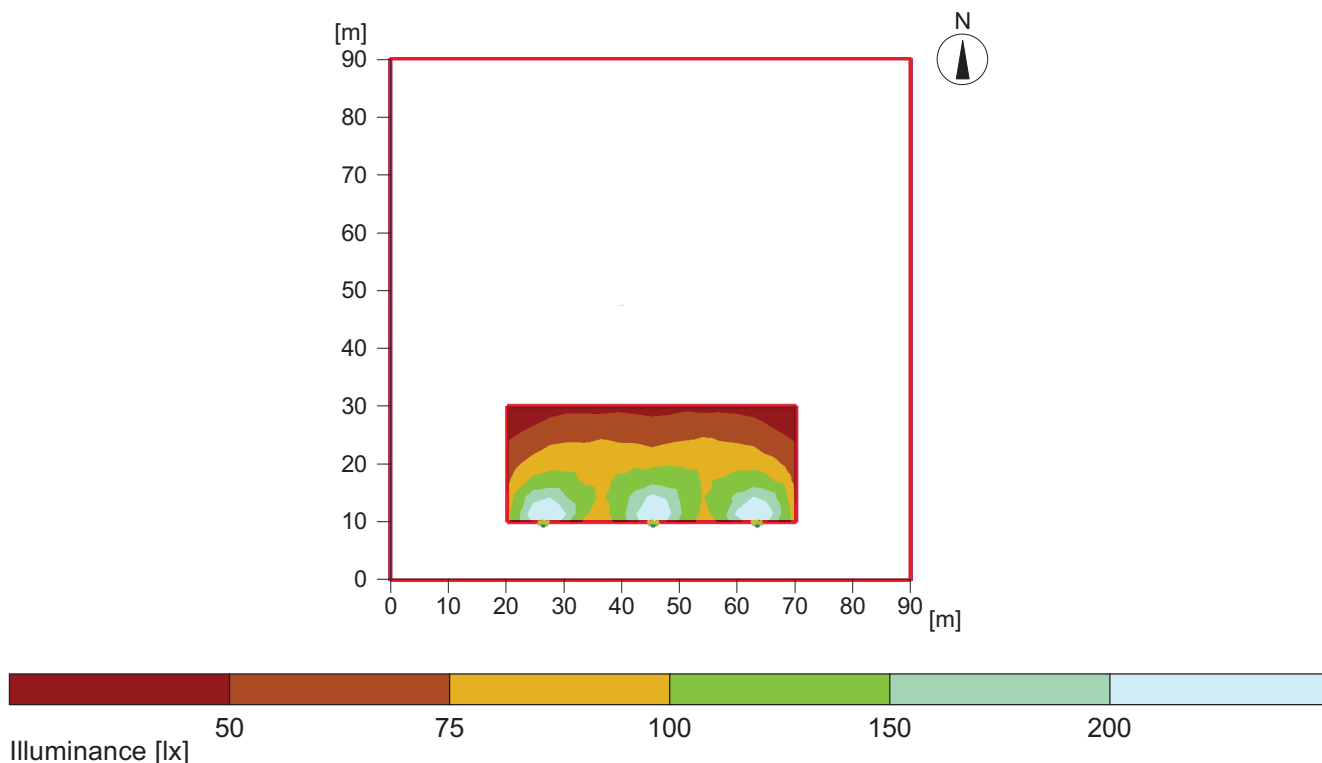
1	9	Tamlite
		Order No. : GXLH400HPI/ASY
		Luminaire name : GXLH
		Equipment : 1 x MT 400 W / 36000 lm

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2.2 Summary, Exterior Lighting Calc

2.2.2 Result overview, Evaluation area 2,



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	-0.00 m
photometric centre height.	8.01 m
Maintenance factor	0.80
Total luminous flux of all lamps	324000 lm
Total power	3924.0 W
Total power per area	3.92 W/m ² (1000.00 m ²)

Evaluation area 2

Reference plane 2.1

Em	Horizontal
Emin	100 lx
Emin/Eav (Uo)	35 lx
Position	0.35
	0.00 m

Type No.\Make

1	9	Tamlite
		Order No. : GXLH400HPI/ASY
		Luminaire name : GXLH
		Equipment : 1 x MT 400 W / 36000 lm



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2.3 Calculation results, Exterior Lighting Calc

2.3.2 Table, Reference plane 2.1, (E)

[m]	(35)	41	47	51	51	51	52	50	48	49	53	51	52	50	47	40	(35)
18	47	54	63	65	66	67	66	65	63	64	67	69	67	65	62	53	46
16	59	67	77	79	78	83	79	79	75	79	81	86	80	79	76	66	57
14	72	85	91	91	90	92	95	95	92	97	96	96	93	92	90	84	70
12	84	106	114	110	96	94	104	116	132	120	109	98	102	113	118	104	81
10	107	183	200	151	111	96	112	171	214	188	121	98	118	163	203	176	99
8	124	231	262	198	105	85	116	192	[278]	212	131	91	112	210	267	213	113
6		5	10	15	20	25	30	35	40	45							
4																	
2																	

illuminance [lx]

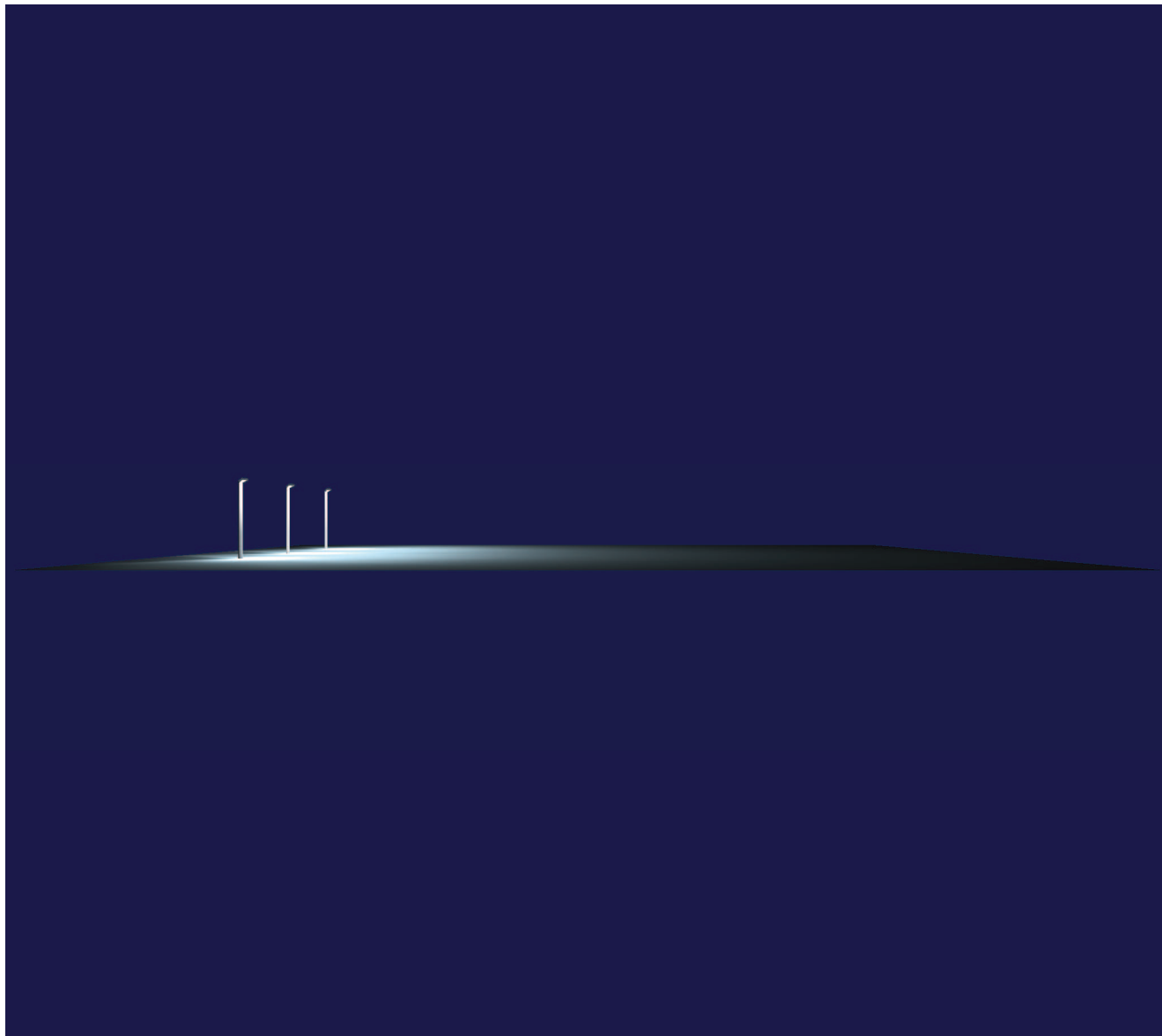
Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 100 lx
Minimum illuminance	Emin	: 35 lx
Maximum illuminance	Emax	: 278 lx
Uniformity Uo	Emin/Eav	: 1 : 2.89 (0.35)
Uniformity g2	Emin/Emax	: 1 : 8.03 (0.12)

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2.3 Calculation results, Exterior Lighting Calc

2.3.3 3D luminance, View from the right



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 129 cd/m²