

Tango G3 LED floodlight

A new and innovative LED flood lighting
For area and recreational sports lighting



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Philips Lighting
June 2017

Table of contents



Trends



Meet Tango G3

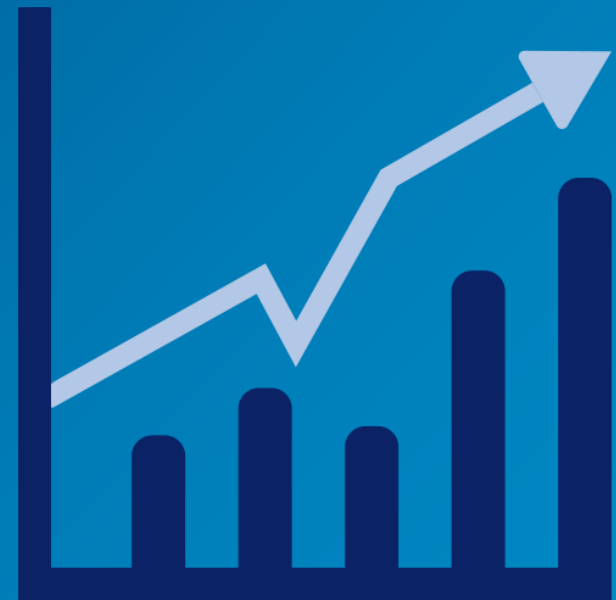


Product specifications



How can we help you?

Trends in area and recreational sports lighting





Reduce

energy consumption

Energy consumption is a key cost driver for owners and operators of area and recreational sports lighting installations.

And with today's 24/7 economy, lowering energy use is now a priority.



Increase safety, and reduce TCO

Good quality of lighting increases safety as well as the comfort of employees.

And with today's strong focus on reducing the Total Cost of Ownership, it helps when maintenance costs for the entire lighting installation can be minimized.



Reduce

CO₂ emissions, light pollution and create a sustainable image

With rising concerns about the environmental impact of high energy consumption, area and recreational sports lighting installations that use less power and reduce carbon emissions are in great demand.



Improve operational management

Increasingly, lighting systems and services need to help improve existing workflows and operations.

Flexibility is required to control lighting: in remote industrial areas, airports or harbors, as well as in indoor and outdoor sports facilities at multiple locations in the city.

Demand is increasing for total solutions, partnerships, and service offers that can enhance the project for the venue owner and other relevant stakeholders.



Enhance experiences

Cities are increasingly aiming to enhance the experience of citizens taking part in recreational sports activities outdoors.

Recreational sports fields need to be seamlessly integrated with nearby residential areas.



Philips' offer

for area and recreational sports lighting:

- Decades of experience and expertise in area and recreational sports lighting
- A rich portfolio of products, offering superb quality of light
- Wide range of systems and services
- Sustainable and future-proof solutions
- A single source partner for a totally integrated, intelligent lighting offer – from concept to completion – backed up by exceptional levels of after-sales care.








Meet Tango G3



Tango G3 LED

An extremely energy-efficient solution for **area and recreational sports lighting** that lets you choose the exact number of lumens you need.



-  Retrofit / HID replacement
-  Outstanding energy efficiency
-  Designed to meet the needs of various application areas
-  Elegant and unobtrusive design
-  Efficient LED thermal design
-  Robust and durable
-  Easy to install

Retrofit / HID

replacement

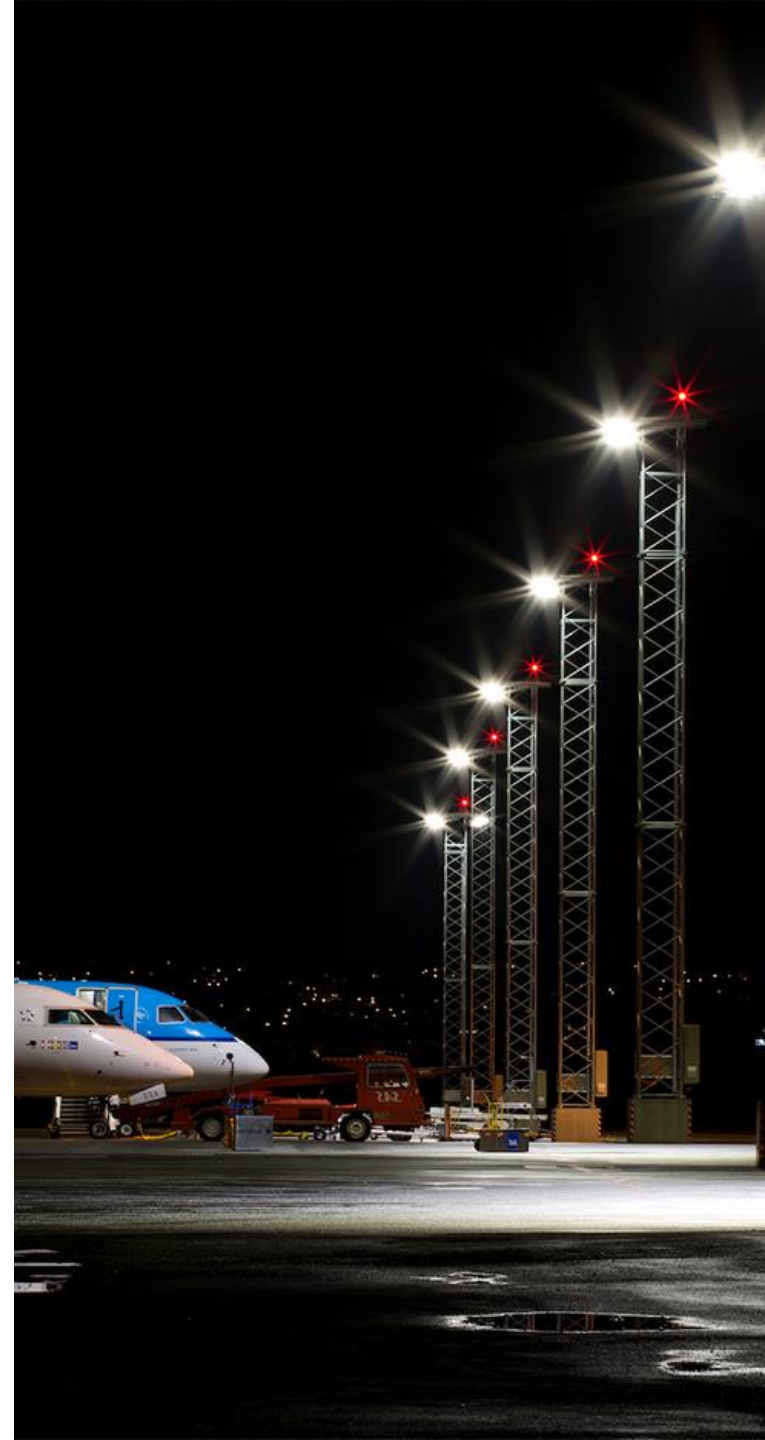
Equivalence between Tango G3 family and HID products:

Tango G3 LED family lumen package	HID equivalent	Lighting application	Energy saving
BVP383 Upto 45000lm	SON - T 2 x 250W SON - T 2 x 400W SON - T 600W HPI-T 2 x 250W HPI-T 2 x 400W	Parking area, Factory, billboard, industry, façade etc..	>40%

- **Tango G3 LED is the ideal solution for both renovation areas and new installations**
- **HID lamp replacement from 250W to 600 W**
- **Perfect for replacing conventional technology while retaining the same electrical installation and poles**

Outstanding energy efficiency

- Incorporates extremely efficient, state-of-the-art LED technology
- Enables you to choose the exact lighting level you want, thanks to a wide range of LED boards and highly flexible Philips LED drivers
- Reduces energy consumption by up to 50% versus conventional HID static light
- Higher system efficiency of 110 lm/W



Designed

to meet the needs of various application areas

- Ideal floodlighting solution for recreational sports facilities, industrial areas, parking lots, building facades, roundabouts and freeway junctions
- Wide choice of new optics sets ensures maximum application coverage and provides a solution for dealing with obtrusive light.
 - BVP383
 - Narrow beam
 - Asymmetrical wide beam
 - Symmetrical wide beam



♥ Elegant and unobtrusive design

- Designed with simple and unobtrusive shapes, facilitating integration into the urban environment
- Drivers are fully integrated
- Diversity of Lumen packages, **from 35 to 45 klm***
- LED configuration patterns suitable for a wide range of lighting solutions, taking into account compatibility with efficient optical systems to perfectly meet the required application
- Consistency in LED arrangement to further strengthen the visual aspect: sober, discreet and simple



**flux level depends on the CCT and type of optics*

Efficient

LED thermal design

- Fins on the back are designed to ensure good heat dissipation; they create airflow around the housing to prevent dirt from settling on the luminaire
- Temperature range up to **50°C** Outdoor
- **MCPCB** is used to efficiently remove heat from the LED's & transfer it to the housing thereby lowering as much as possible LED's operating temperature



© Robust and durable

- **IP66** level of protection against water and dust
- The new 10kV/kA Surge Protection Device (SPD) from Philips is specifically designed for use in outdoor luminaires and delivers maximum protection for all outdoor lighting applications from excessive surge voltages due to lightning
- Exposed lens to withstand shocks; its protection rating is **IK08**
- Optional coatings available for **extra protection in harsh environments** such as salt atmospheres (harbors etc...)
 - **Marine Salt Protection (1000-hr test in lab); - BVP383**
Luminaire coating with standard paint finish and extra primer layer

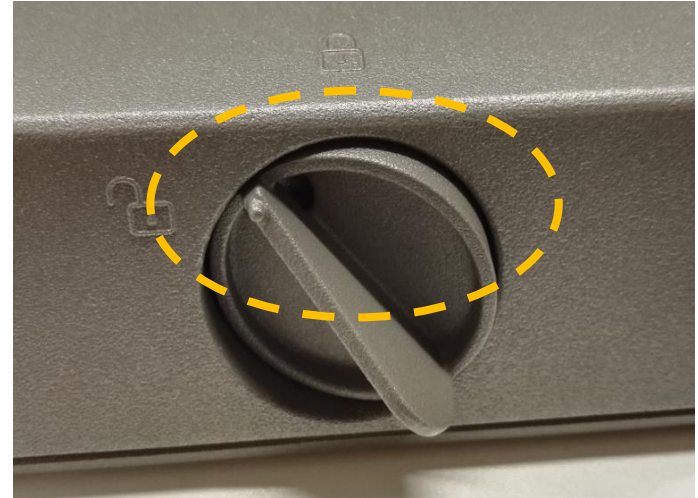
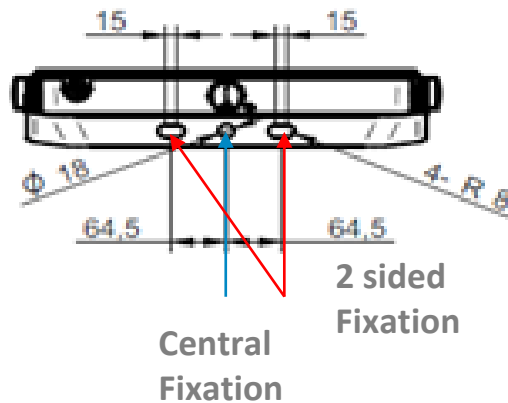


Easy

to install

- Easy to install and perfect for replacing conventional light-points as it uses the same electrical installation and poles
- Gear cover designs with **tool less open** button, which greatly help to reduce the installation and maintenance time, increase the working efficiency and good user experience

universal
bracket



Product

specifications



Tango G3 BVP383 LED luminaire datasheet 1/2



Topic	Tango G3 LED floodlight
Name	Tango G3 LED
Product Family Code (PFC)	BVP383 (integrated)
Range: LED lumens ($\pm 7\%$) / Total system watt ($\pm 10\%$)	36000lm(320w);40500lm(360w); 45000lm(400w)
Luminaire/system efficacy	110Lm/W
CCT and CRI	5700K(CW) and CRI >70
System life/lumen maintenance (system = light modules & drivers)	Up to 50k hours (L70B50) @ Ta 35deg
Light distributions / optics	Narrow/Asymmetrical wide / Symmetrical wide
	Exposed Optic lenses. Optic material: plastic (PC)
Operating temperature range	-40 to + 50°C
Electrical insulation class	Class I
IK	IK08
Degree of protection	IP66
System surge protection	10kV/kA
Housing Material / Finishing	The luminaires housing shall be made of non-corrosive high pressure ADC with corrosion resistant powder coating.
	1.5m Flying wire; U-shaped bracket; RAL 9007(Housing)
	Anti-dust exposed Lens

Note : All Electrical and photometric parameters mentioned above will have a variation of +/-10%

Tango G3 BVP383 LED luminaire datasheet 2/2

IK08

IP66



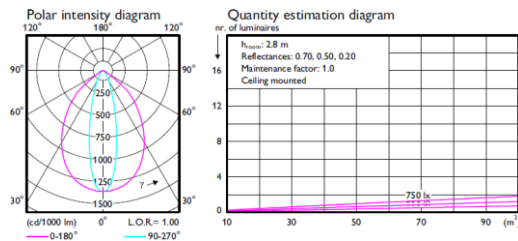
Topic	BVP383
Size Luminaire (mm) (L x W x H)	591 x 561 x 64 mm
Weight incl. brackets (kg)	12.5 KG
Luminaire mounting	U-shaped bracket
	Universal installation
	Aiming angle scale
Certification / Listing	IEC60598
	Salty Spray 1000hrs
Packaging	Carton box
Serviceability	CLASS B

Note : All Electrical and photometric parameters mentioned above will have a variation of +/-10%

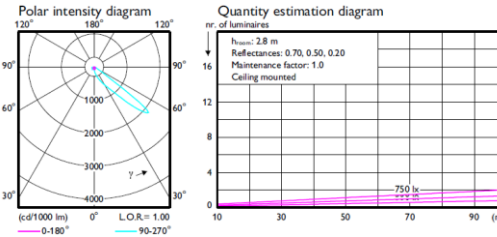
Photometrical data-BVP383

BVP383 light distributions: 3 Optics

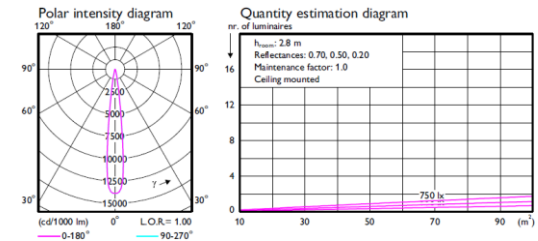
SWB



AWB



NB

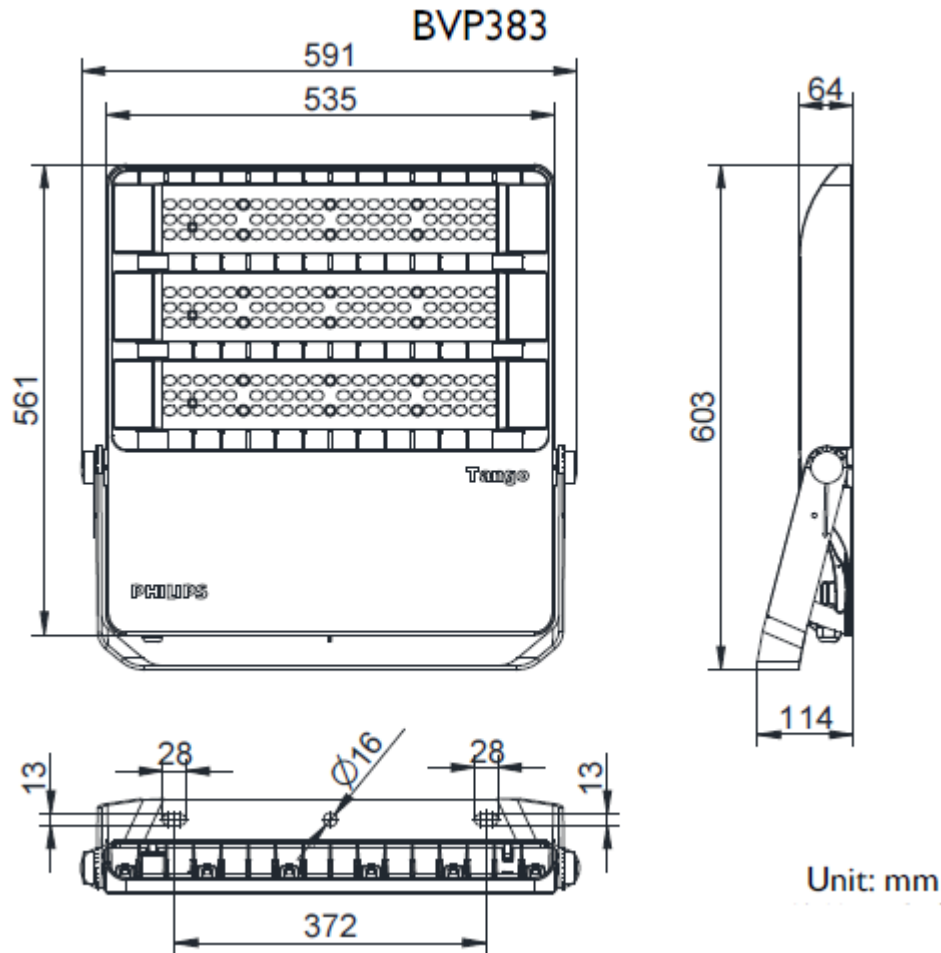


Optic type	Comment
Asymmetrical Wide	Can consider to use in airport apron, harbor/port yard applications
Narrow	Can consider to use in harbor/port crane, super high bay applications
Symmetrical Wide	Can consider to use in billboard, area lighting, Industry applications

Ordering Codes

12NC	Description
911401614604	BVP383 LED360/CW 320W 220-240V AWB IN
911401614704	BVP383 LED360/CW 320W 220-240V SWB IN
911401615004	BVP383 LED360/CW 320W 220-240V NB IN
911401615904	BVP383 LED405/CW 360W 220-240V AWB IN
911401615804	BVP383 LED405/CW 360W 220-240V NB IN
911401615704	BVP383 LED405/CW 360W 220-240V SWB IN
911401617004	BVP383 LED450/CW 400W 220-240V NB IN
911401616804	BVP383 LED450/CW 400W 220-240V AWB IN
911401616604	BVP383 LED450/CW 400W 220-240V SWB IN

BVP383 – Dimensions



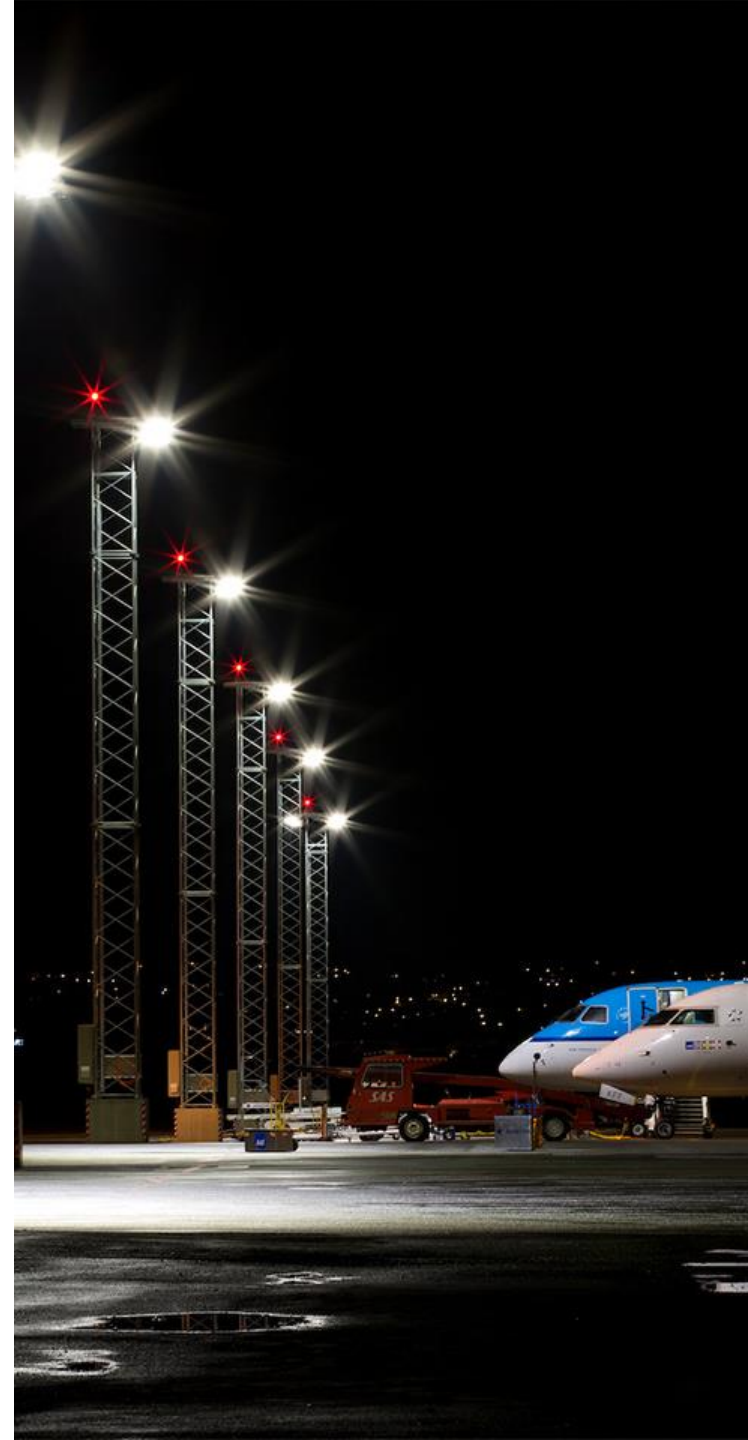
How can we
help you?



Philips solutions

for Area lighting

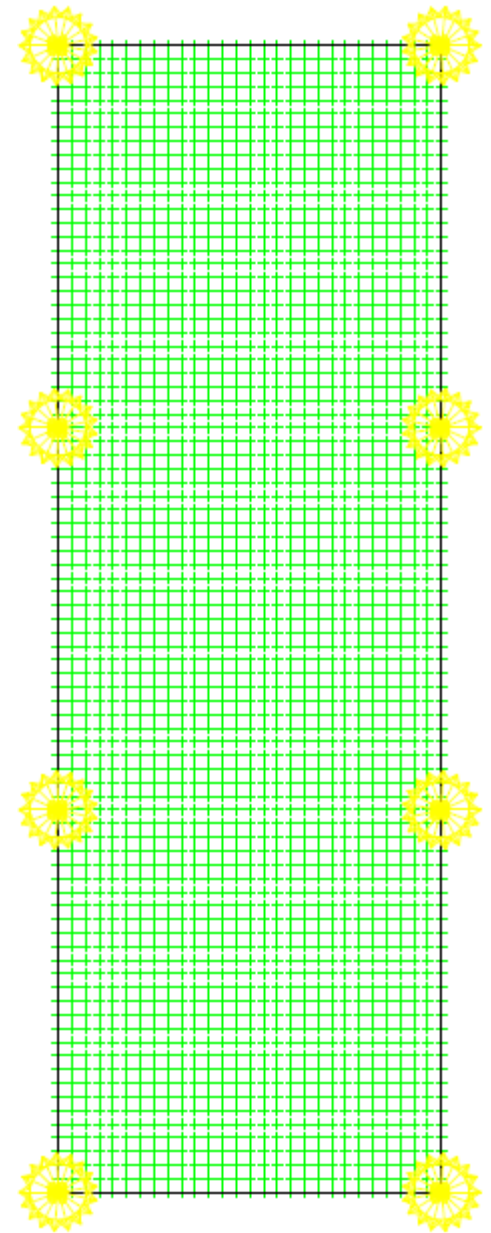
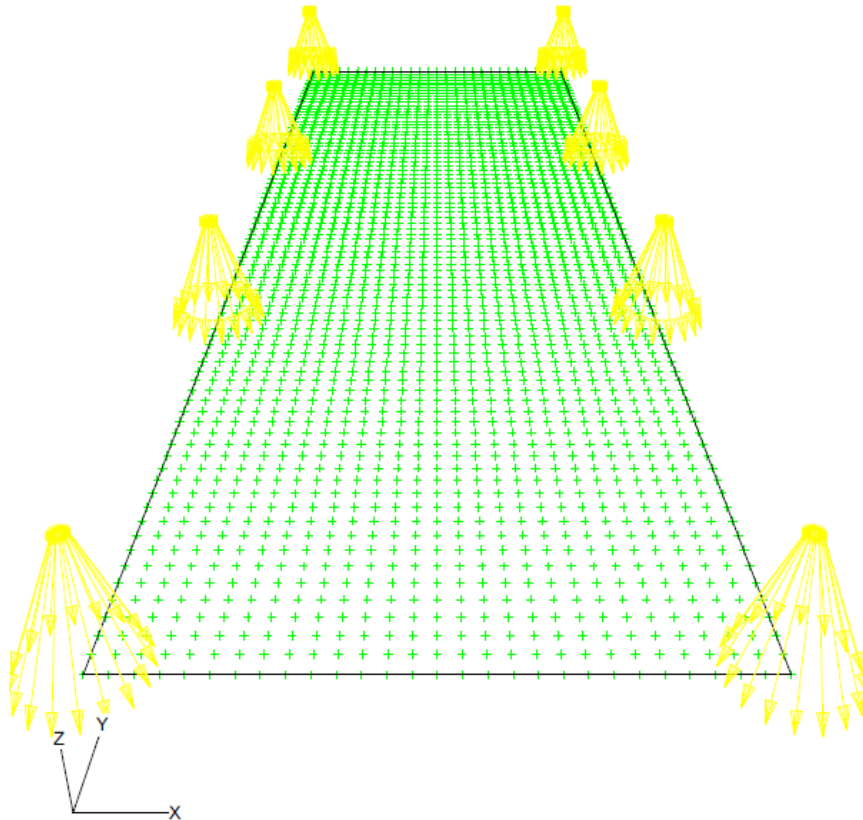
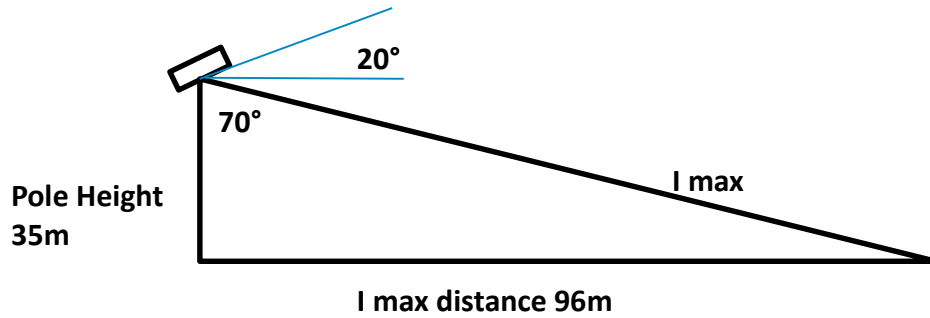
- Decades of experience and expertise in Area lighting
- A rich portfolio of affordable Area lighting products, delivering outstanding quality of light
- Sustainable and future-proof solutions



Sample Lighting Designs



Harbor – application setting (20° tilt)



Harbor – simulation (20° tilt)

2. Summary

2.1 General Information

The overall maintenance factor used for this project is 0.70.

2.2 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
H	136	BVP383 LED450NW 400W AWB	1 * LED	400.0	1 * 45000

The total installed power: 54.40 (kWatt)

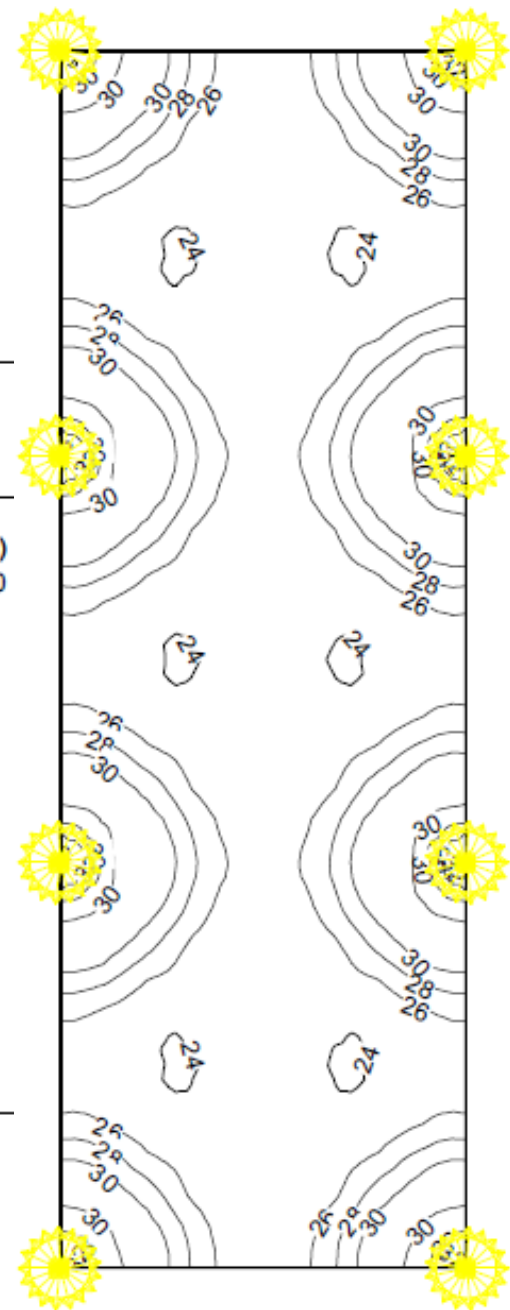
Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	H	
Polar 1	17	0.8
Polar 2	17	0.8
Polar 3	17	0.8
Polar 4	17	0.8
Polar 5	17	0.8
Polar 6	17	0.8
Polar 7	17	0.8
Polar 8	17	0.8

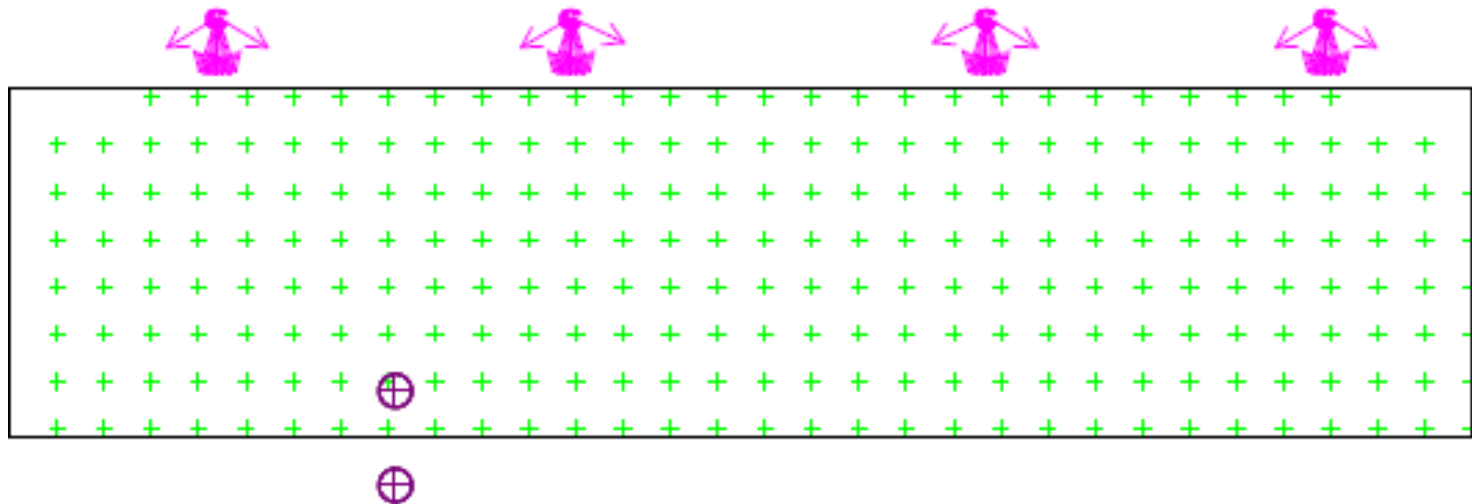
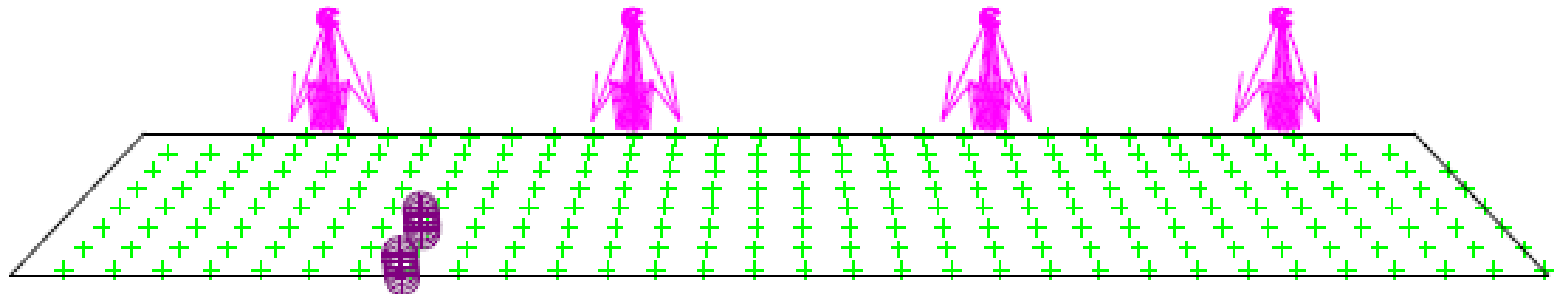
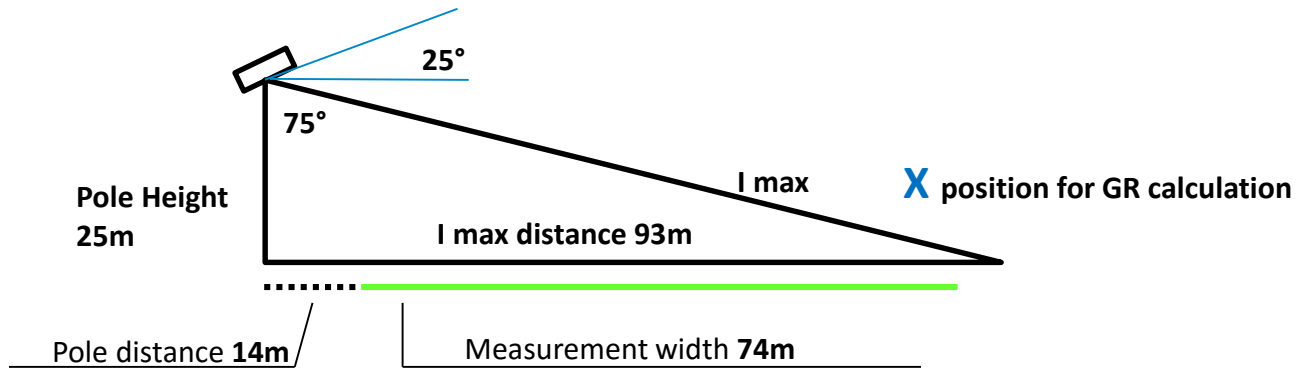
2.3 Calculation Results

(l)luminance Calculations:

Calculation	Type	Unit	Ave	Min/Ave	Min/Max
Harbor	Surface Illuminance	lux	26.8	0.89	0.72



Airport – application setting (25° tilt)



Airport – simulation (25° tilt)

2.3 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
C	44	BVP383 LED450NW 400W AWB	1 * LED	400.0	1 * 45000

The total installed power: 17.60 (kWatt)

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	C	
Polar	11	4.40
Polar1	11	4.40
Polar2	11	4.40
Polar3	11	4.40

2.4 Calculation Results

(II)luminance Calculations:

Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Horizontal Illuminance	Surface Illuminance	lux	35.7	12.4	67.1	0.35	0.19
Vertical Illuminance	Vertical Illuminance	lux	74.6	12.3	108.3	0.17	0.11

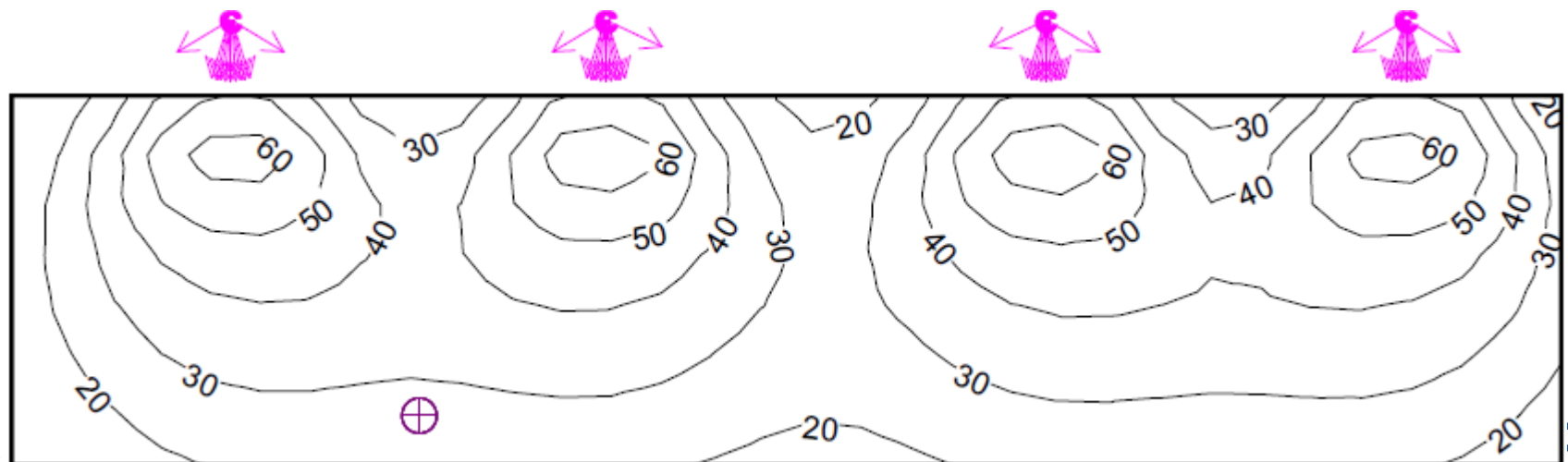
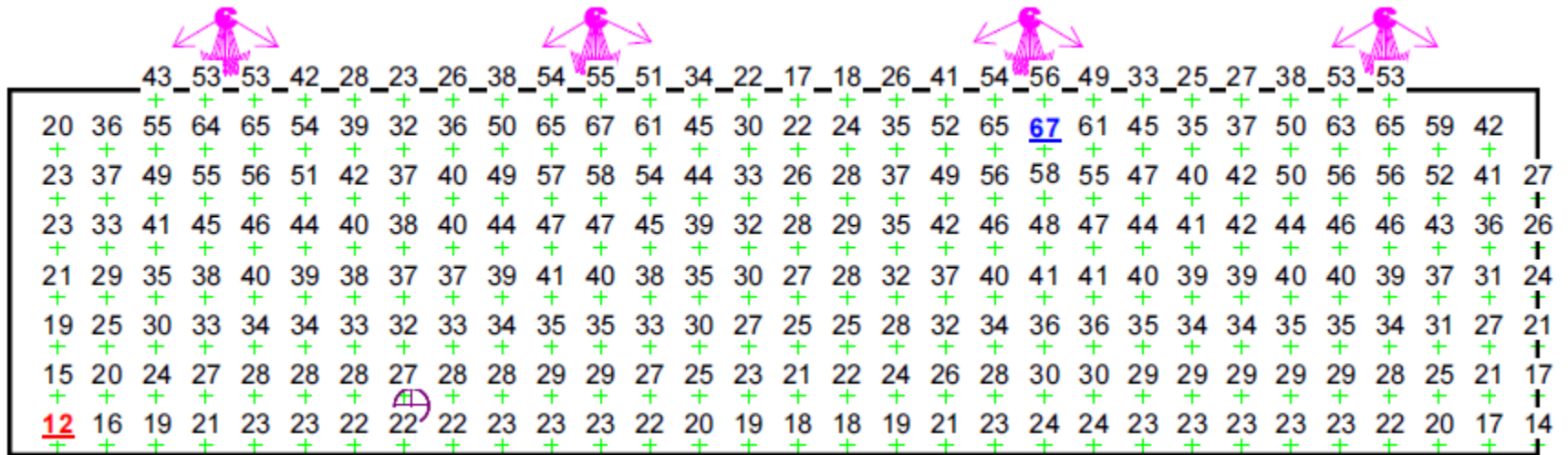
Glare Rating from Observer to Grid:

Calculation	Observer	Reference Grid	Reflectance	GR-Max
GR 80-5	Aa	General	0.25	52.6
GR80-6	Bb	General	0.25	51.1
GR80-7	Cc	General	0.25	49.0
GR80-8	Dd	General	0.25	46.6
GR80-9	Ee	General	0.25	43.9
GR80-10	Ff	General	0.25	41.2
GR100-5	Gg	General	0.25	47.4
GR100-6	Hh	General	0.25	45.1
GR100-7	Ii	General	0.25	42.9
GR100-8	Jj	General	0.25	40.6
GR100-9	Kk	General	0.25	38.1
GR100-10	Ll	General	0.25	35.9

Airport – simulation – (25° tilt) – Horizontal Illuminance

(II)luminance Calculations:

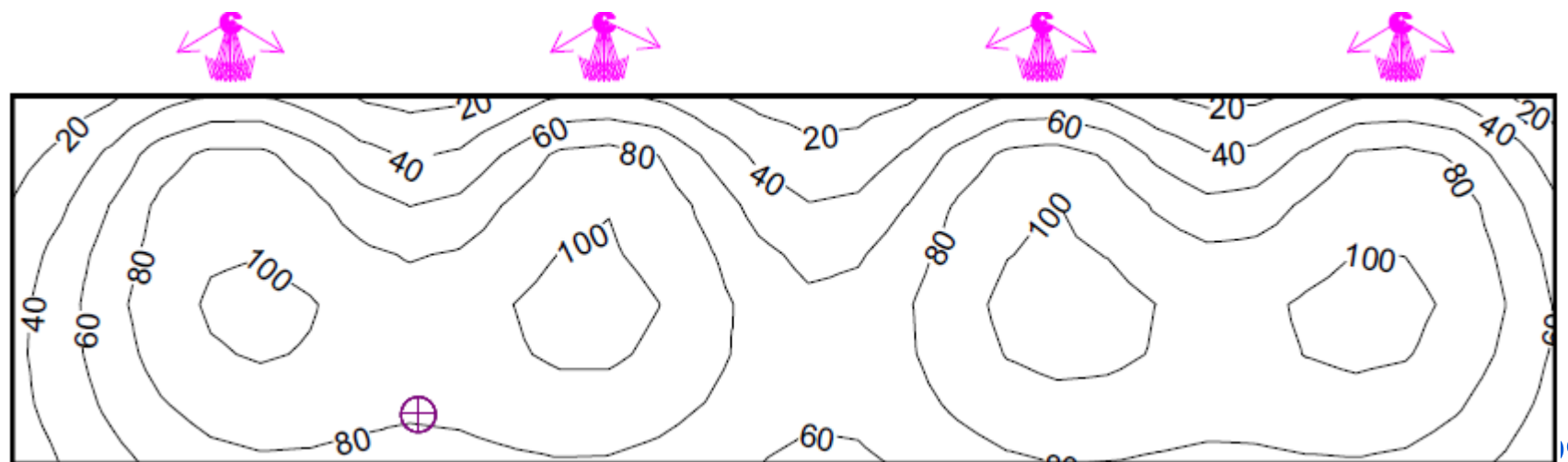
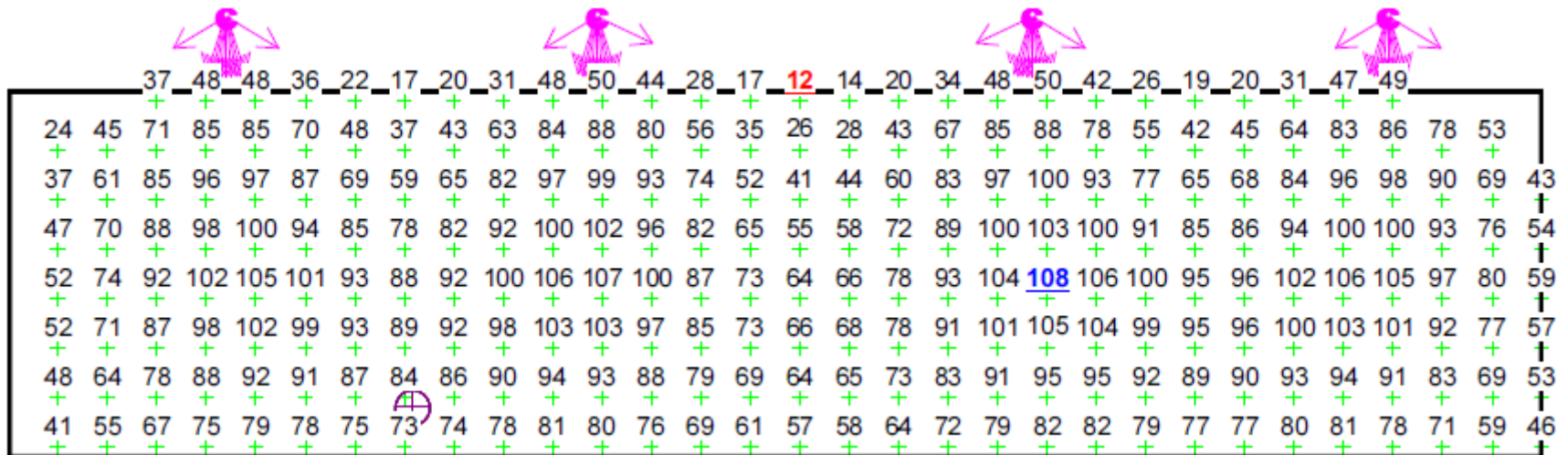
Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Horizontal Illuminance	Surface Illuminance	lux	35.7	12.4	67.1	0.35	0.19



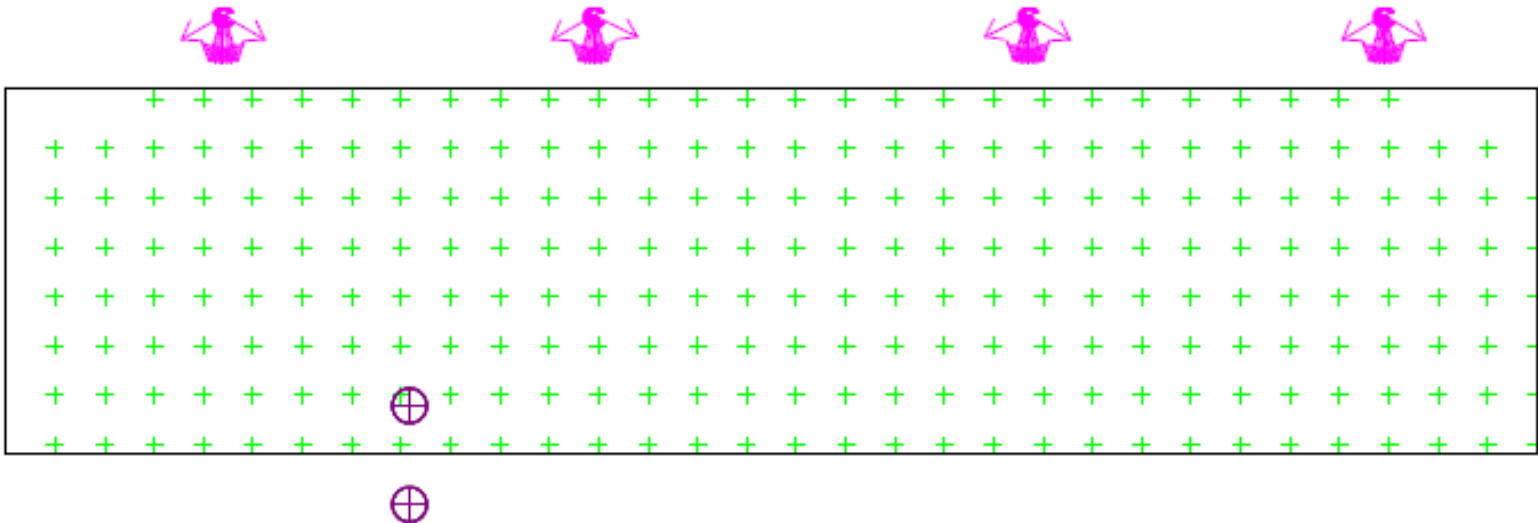
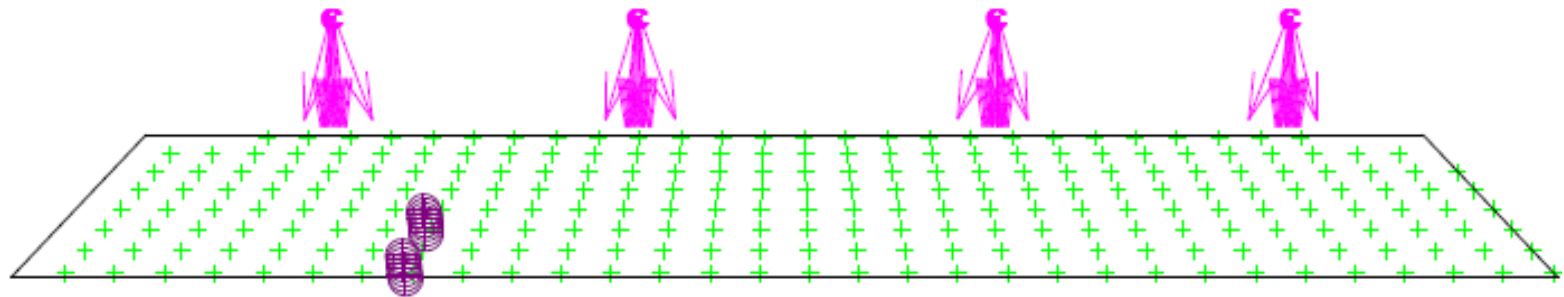
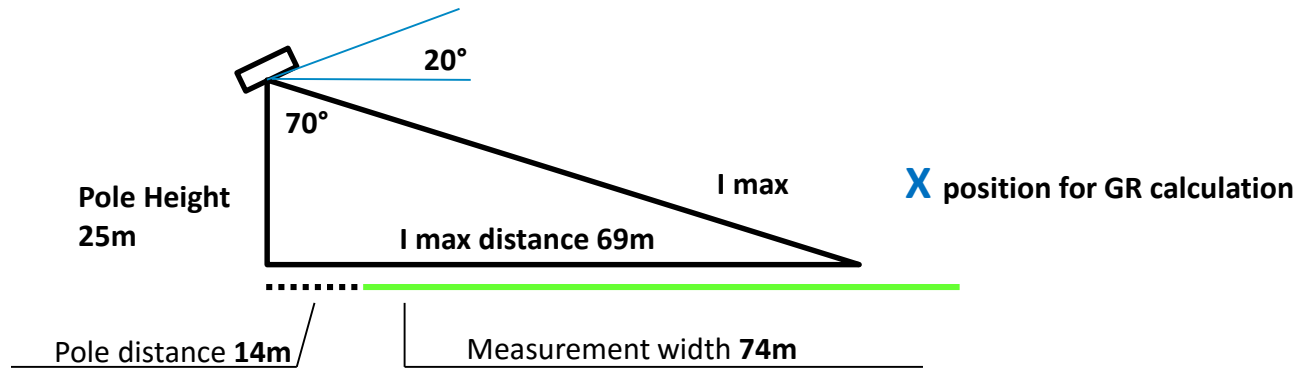
Airport – simulation – (25° tilt) – Vertical Illuminance

(II)luminance Calculations:

Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Vertical Illuminance	Vertical Illuminance	lux	74.6	12.3	108.3	0.17	0.11



Airport – application setting (20° tilt)



Airport – simulation (20° tilt)

2.3 Project Luminaires

Code	Qty	Luminaire Type	Lamp Type	Power (W)	Flux (lm)
C	44	BVP383 LED450NW 400W AWB	1 * LED	400.0	1 * 45000

The total installed power: 17.60 (kWatt)

Number of Luminaires Per Arrangement:

Arrangement	Luminaire Code	Power (kWatt)
	C	
Polar	11	4.40
Polar1	11	4.40
Polar2	11	4.40
Polar3	11	4.40

2.4 Calculation Results

(II)luminance Calculations:

Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Horizontal Illuminance	Surface Illuminance	lux	40.6	4.7	83.3	0.12	0.06
Vertical Illuminance	Vertical Illuminance	lux	72.5	10.7	142.5	0.15	0.07

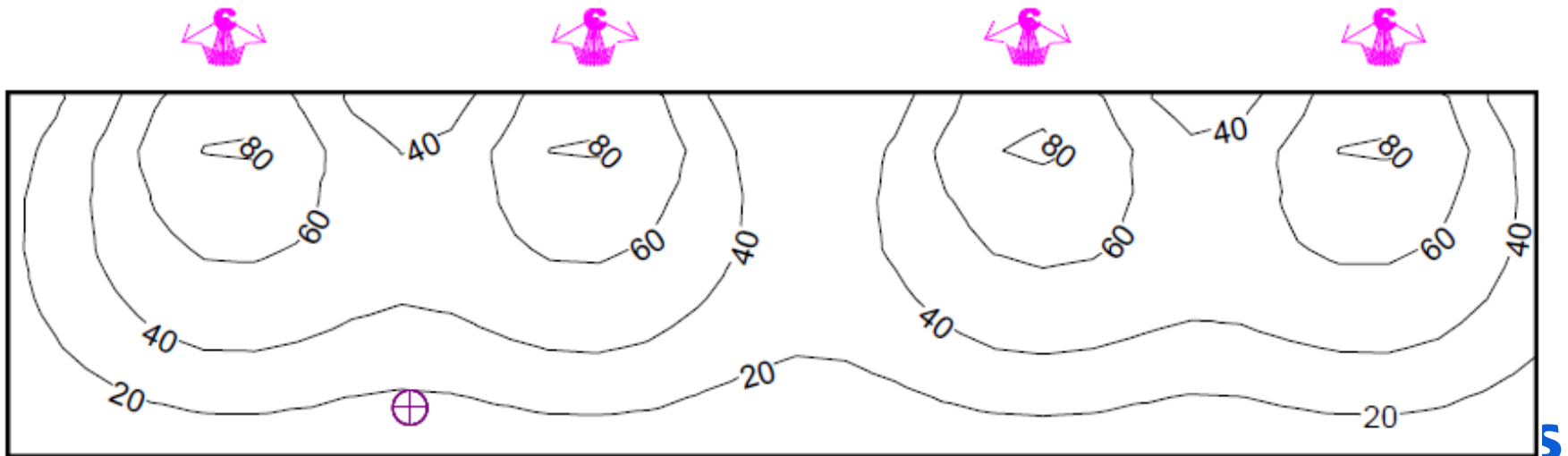
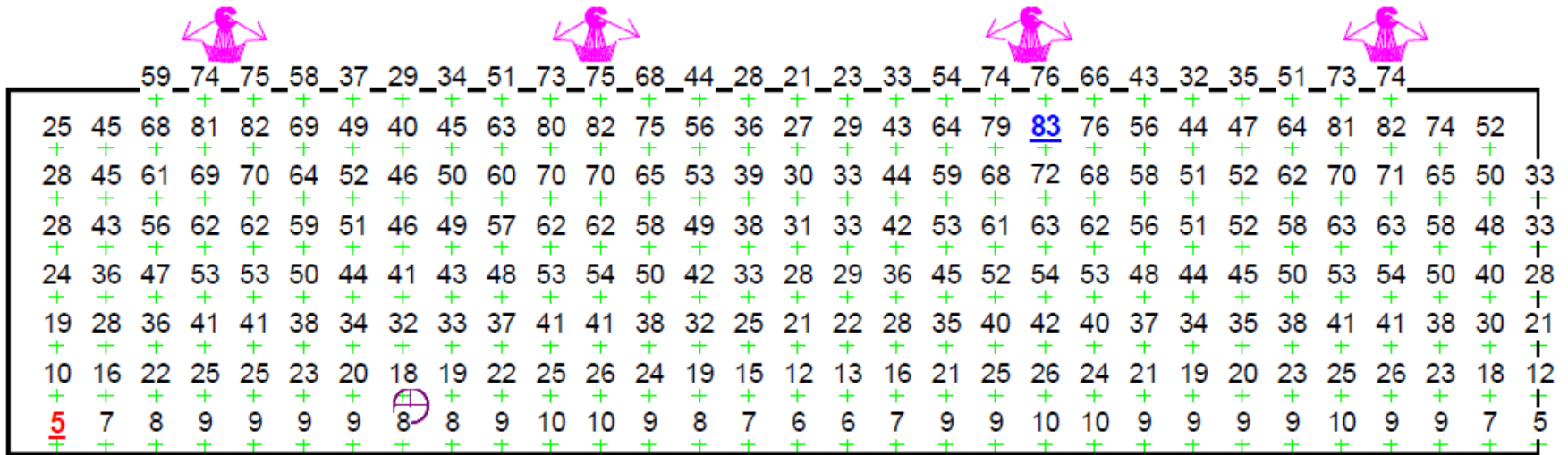
Glare Rating from Observer to Grid:

Calculation	Observer	Reference Grid	Reflectance	GR-Max
GR 80-5	Aa	General	0.25	34.9
GR80-6	Bb	General	0.25	32.4
GR80-7	Cc	General	0.25	30.0
GR80-8	Dd	General	0.25	27.7
GR80-9	Ee	General	0.25	25.6
GR80-10	Ff	General	0.25	23.7
GR100-5	Gg	General	0.25	28.7
GR100-6	Hh	General	0.25	26.9
GR100-7	Ii	General	0.25	25.4
GR100-8	Jj	General	0.25	24.0
GR100-9	Kk	General	0.25	22.7
GR100-10	Ll	General	0.25	21.4

Airport – simulation – (20° tilt) – Horizontal Illuminance

(II)luminance Calculations:

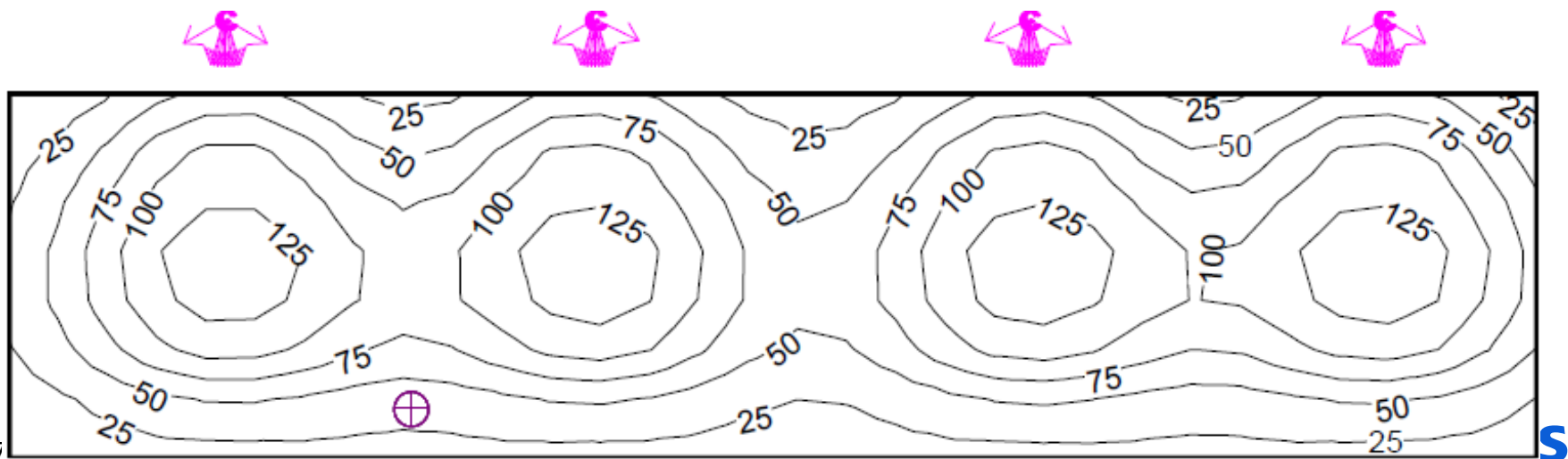
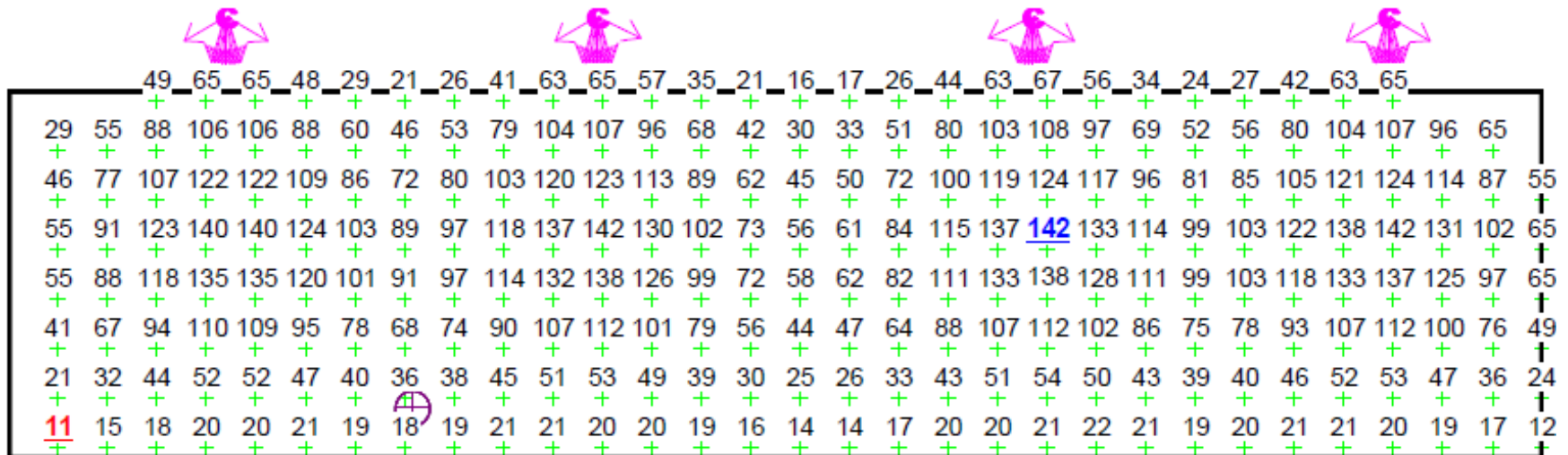
Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Horizontal Illuminance	Surface Illuminance	lux	40.6	4.7	83.3	0.12	0.06



Airport – simulation – (20° tilt) – Vertical Illuminance

(II)luminance Calculations:

Calculation	Type	Unit	Ave	Min	Max	Min/Ave	Min/Max
Vertical Illuminance	Vertical Illuminance	lux	72.5	10.7	142.5	0.15	0.07



A lighting service

that fits your business needs



Advisory services

Clear insight into your current lighting system, how it can be improved, and the benefits you would gain



Project services

Design, control and coordination activities necessary to take a lighting solution from the drawing board to reality



Lifecycle services

Variety of project after-care contracts that cover all aspects necessary to guarantee long-lasting, hassle-free performance



Lighting capital

This enables you to acquire a state-of-the-art, business enhancing solution immediately – with little to no upfront capital investment required

We listen to and understand your needs



Global presence
and local experience
delivering multi-tiered
support



One-stop shop:
solutions and services
across the lighting value
chain



World-class innovation
capabilities and deep
application and system
expertise



Proven record of
quality and reliability –
no unpleasant surprises

Thank you