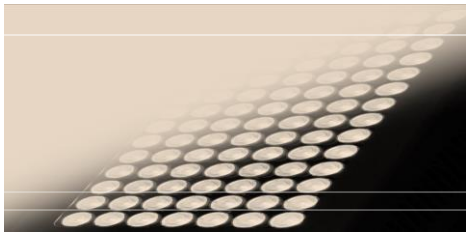
High Power LED Lighting

Global Value LED Solution Provider
Specialist in tailored systems integration





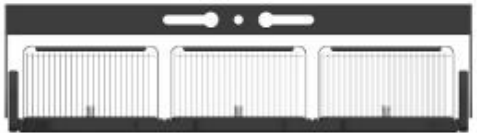


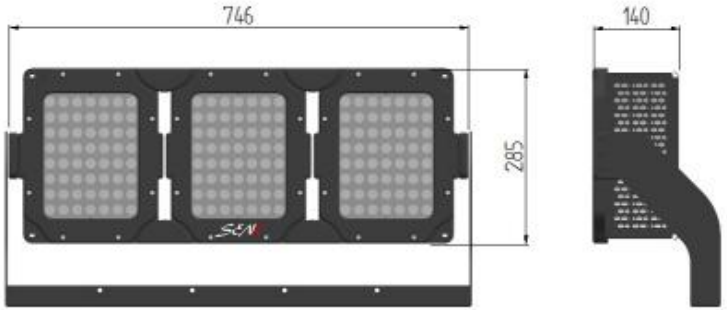
Contact : Nuno Hong
nuno@visol.net

VISOL Inc.
#601, 15, Annyangcheong-ro 502beon-gil, Gwangmyeong-si,
Gyeonggi-do, 14223 KOREA Tel : +82-2-2612-2111 Fax : +82-2-2612-0660

Specification SENi ACS900 *High Power 900W LED Lighting*







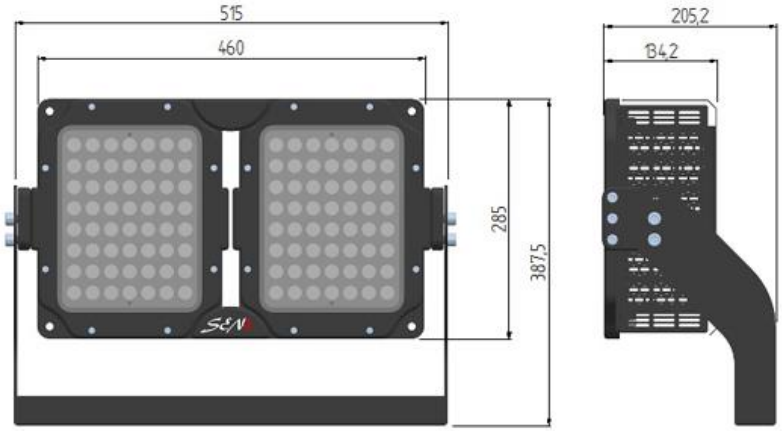
All specification are subject to change without notice.

Light Source	LED
Input Voltage	AC90V ~ 305V[47~63Hz]
Wattage	900W
Life Span	50,000 hrs
CCT	5,000~5,300K
Lumen output	90,000lm
Efficacy	100lm/w
Input Method	Dimming (Option)
Lighting Angle	20°, 45°, 60°, 120°
Int'l Protective	⟩ 67
CRI	⟩ 79Ra
Working Temp.	-40 ~ +60°C
Dimensions	746(W) x 285(H) x 140(D) mm
Weight	15kg
Material	Aluminum

- Instant On / Off
- Dimming Control
- Continuous high brightness for illumination
- Flicker-Free for TV broadcasting and Super Slow Motion.

Specification SENi ACS600 *High Power 600W LED Lighting*





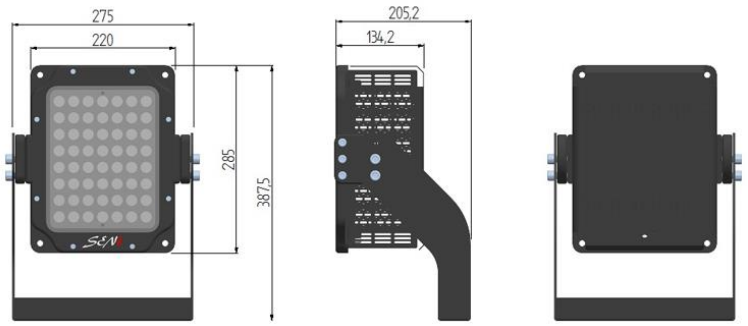
Light Source	LED
Input Voltage	AC90V ~ 305V[47~63Hz]
Wattage	600W
Life Span	50,000 hrs
CCT	5,000~5,300K
Lumen output	60,000lm
Efficacy	100lm/w
Input Method	Dimming (Option)
Lighting Angle	20°, 45°, 60°, 120°
Int'l Protective	⟩ 67
CRI	⟩ 79Ra
Working Temp.	-40 ~ +60°C
Dimensions	460(W) x 285(H) x 134.2(D) mm
Weight	9.5kg
Material	Aluminum

- Instant On / Off
- Dimming Control
- Continuous high brightness for illumination
- Flicker-Free for TV broadcasting and Super Slow Motion.

All specification are subject to change without notice.

Specification SENi ACS300 *High Power 300W LED Lighting*





Light Source	LED
Input Voltage	AC90V ~ 305V[47~63Hz]
Wattage	300W
Life Span	50,000 hrs
CCT	5,000~5,300K
Lumen output	30,000lm
Efficacy	100lm/w
Input Method	Dimming (Option)
Lighting Angle	20°, 45°, 60°, 120°
Int'l Protective	⟩ 67
CRI	⟩ 79Ra
Working Temp.	-40 ~ +60°C
Dimensions	220(W) x 285(H) x 134.2(D) mm
Weight	5kg
Material	Aluminum

- Instant On / Off
- Dimming Control
- Continuous high brightness for illumination
- Flicker-Free for TV broadcasting and Super Slow Motion.

All specification are subject to change without notice.

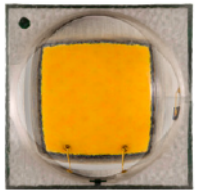
LED Package

CREE

PRODUCT FAMILY DATA SHEET

CLD-DS61 REV 1A

Cree® XLamp® XM-L2 LEDs



PRODUCT DESCRIPTION

The XLamp XM-L2 LED builds on the unprecedented performance of the original XM-L, increasing lumen output up to 20% while providing a single die LED point source for precise optical control. The XM-L2 LED shares the same mechanical and optical footprint as the original XM-L, providing a seamless upgrade path and shortened design cycle.

XLamp XM-L2 LEDs are the ideal choice for lighting applications where high light output and maximum efficacy are required, such as LED light bulbs, outdoor lighting, portable lighting, indoor lighting and solar-powered lighting.

FEATURES

- Available in white, 80-CRI white, 85-CRI white and 90-CRI white
- ANSI-compatible chromaticity bins
- Binned at 85 °C
- Maximum drive current: 3000 mA
- Low thermal resistance: 2.5 °C/W
- Wide viewing angle: 125°
- Unlimited floor life at ≤ 30 °C/85% RH
- Reflow solderable - JEDEC J-STD-020C
- Electrically neutral thermal path
- UL-recognized component (E349212)

TABLE OF CONTENTS

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SMPS

MEAN WELL

320W Single Output Switching Power Supply **HLG-320H series**



■ Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 95%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- OCP point adjustable through output cable or internal potentiometer
- IP67 / IP65 design for indoor or outdoor installations
- Type HL LED Driver for use in Class Ⅰ, Division 2 hazardous location luminaires
- Three in one dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and street lighting applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet location
- 5 years warranty (Note.10)

TAIWAN EXCELLENCE 2011

SELV IP65 IP67 CBCE

HLG-320H-12 A	Blank : IP67 rated. Cable for I/O connection.
	A : IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer.
	B : IP67 rated. Constant current level adjustable through output cable with 1~10Vdc or PWM signal or resistance.
	C : Terminal block for I/O connection. Output voltage and constant current level can be adjusted through internal potentiometer.
	D (option) : IP67 rated. Timer dimming function, contact MEAN WELL for details.

ISO 9001 / 14001



Orion Registrar, Inc., USA
Certificate of Registration

This is to certify the Quality Management System of

VISOL INC.
#601 Gwangmyeong Jomyeong-town
#626-3 Cheolsan-dong, Gwangmyeong-si,
Gyeonggi-do, Korea

Has been assessed by Orion Registrar and found to be in compliance with the following Quality Standard

ISO 9001:2008

The Quality Management System is applicable to

Design, Development, Manufacture, Installation and Service of LED High Speed Lighting, Imaging System and Automatic Optical Inspection System

The Registration period is from August 07, 2012 to August 06, 2015
This registration is subject to the company maintaining its system to the required standard, and applicable exceptions, which will be monitored by Orion.
Certificate Identification Number: KOR-1721-10-03
EAC / IAUSC Code: 19 / 19

ANAB ACCREDITED
IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

09/04/2012
Mr. Paul M. Burck, President — Date

Orion Registrar Inc. ★ PO Box 745070 ★ Arvada, Colorado 80006-5070 ★ 303-456-6010 ★ FAX 303-456-6681
To authenticate this certificate please visit www.orion4value.com



Orion Registrar, Inc., USA
Certificate of Registration

This is to certify the Environmental Management System of

VISOL INC.
#601 Gwangmyeong Jomyeong-town
#626-3 Cheolsan-dong, Gwangmyeong-si,
Gyeonggi-do, Korea

Has been assessed by Orion Registrar and found to be in compliance with the following Environmental Management Standard

ISO 14001:2004

The Environmental Management System is applicable to

Design, Development, Manufacture, Installation and Service of LED High Speed Lighting, Imaging System and Automatic Optical Inspection System

The Registration period is from September 07, 2011 to September 06, 2014
This registration is subject to the company maintaining its system to the required standard, and applicable exceptions, which will be monitored by Orion.
Certificate Identification: KOR-EMS-263-10-03
EAC / IAUSC Code: 19/19

ANAB ACCREDITED
IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

07/07/2011
Mr. Paul M. Burck, President — Date

Orion Registrar Inc. ★ PO Box 745070 ★ Arvada, Colorado 80006-5070 ★ 303-456-6010 ★ FAX 303-456-6681
To authenticate this certificate please visit www.orion4value.com

CE / RoHS



Certificate – Сертификат – 證明書 – Certificat – 증명서 – شهادة

Certificate of Compliance

No. 0A150513.VUO72

Certificate's Holder: VISOL Inc.
#601, 15, Annyangcheon-ro, 502beon-gil, Gwangmyeong-si, Gyeonggi-do, 423-030, KOREA

Certification ECM Mark: Type Approved

Product: High Power LED Floodlight
Model(s): SENi ACS900, SENi ACS300, SENi ACS600, SENi ACS1200

Rating: 90-305Vac, 47-63Hz, 900W, IP 67

Verification to: Standard:
EN 60598-1:2015,
EN 60598-2-17:1989/A2:1991, EN 55015:2013,
EN 61547:2009

related to CE Directive(s):
2014/35/EU (Low Voltage)
2014/30/EU (Electromagnetic Compatibility)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM. In reference to the above listed Standard(s). The above Certification Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. Regulation can be found at www.entecerma.it.
Whereas the Manufacturer is responsible of the CE certification of the product(s) and not exempted to perform all the necessary activities before placing the product(s) on the market.
The Manufacturer is also responsible to maintain efficient the internal production control to ensure the product(s) are in compliance with the Certification ECM Mark.
This certificate can be checked for validity at www.entecerma.it

Date of Issue 13 May 2015
Chief Manager
Tim Mahas

Expiry date 12 May 2020
Deputy Manager
Viola Miller

Ente Certificazione Macchine Srl
Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY



Certificate of Compliance

Certificate No.	:	BST1504414120002RC-4
Applicant	:	VISOL INC. #601, 15, Annyangcheon-ro, 502beon-gil, Gwangmyeong-si, Gyeonggi-do, 423-030, KOREA
Manufacturer	:	VISOL INC. #601, 15, Annyangcheon-ro, 502beon-gil, Gwangmyeong-si, Gyeonggi-do, 423-030, KOREA
Product Name	:	HIGH POWER LED FLOODLIGHT
Main Test Model	:	SENi ACS900
Additional Model	:	SENi ACS300, SENi ACS600, SENi ACS1200
Test Standard	:	IEC62321:2008
As shown in the Test Report No.	:	BST1504414120002RR-4.

The EUT described above has been consolidated by us and found in compliance with the council RoHS directive 2011/65/EU.

RoHS

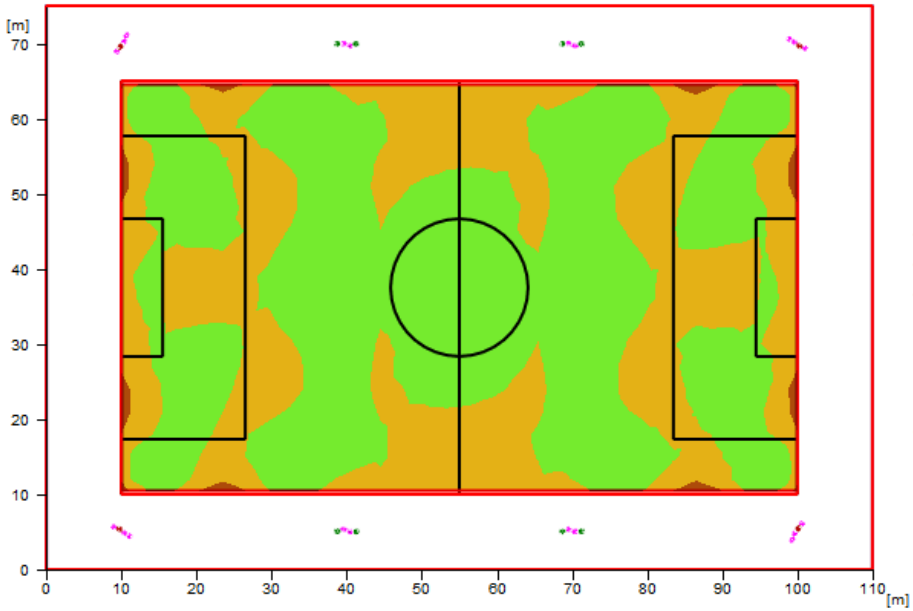
Christina Deng
Manager
Apr. 23, 2015

Shenzhen BST Technology Co.,Ltd.
Add: Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou,Nanshan District,Shenzhen,Guangdong,China
Certificate Search: http://www.bst-lab.com Tel:400-882-9628, 8009990305, E-mail:christina@bst-lab.com

Lighting design example - Football

Average Maintained Lux level : 210Lux (19.5fc)

Minimum average uniformity : 0.73

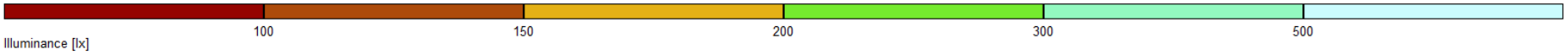


General

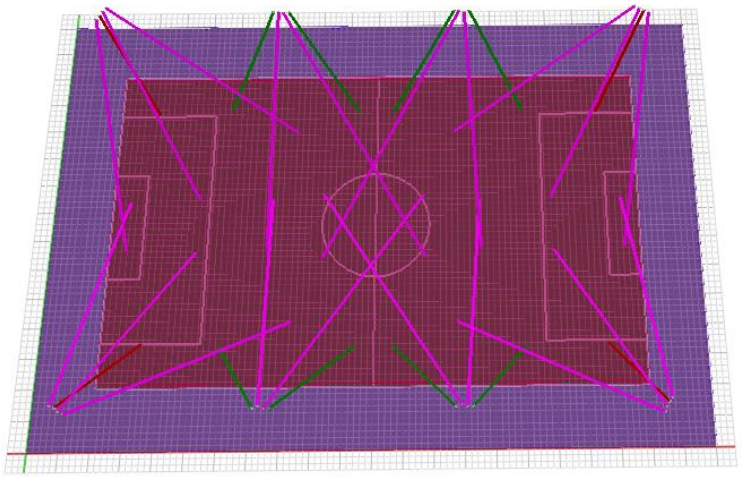
Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	4189580 lm
Total power	19200 W
Total power per area (8250.00 m²)	2.33 W/m²

Illuminance

Average illuminance	Eav	210 lx
Minimum illuminance	Emin	152 lx
Maximum illuminance	Emax	267 lx
Uniformity Uo	Emin/Em	1:1.38 (0.73)
Diversity Ud	Emin/Emax	1:1.76 (0.57)

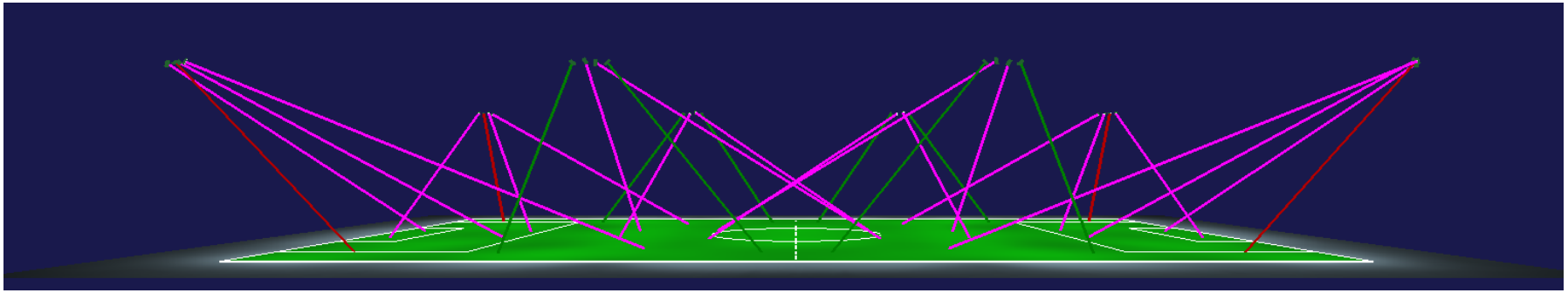


Lighting design example - Football

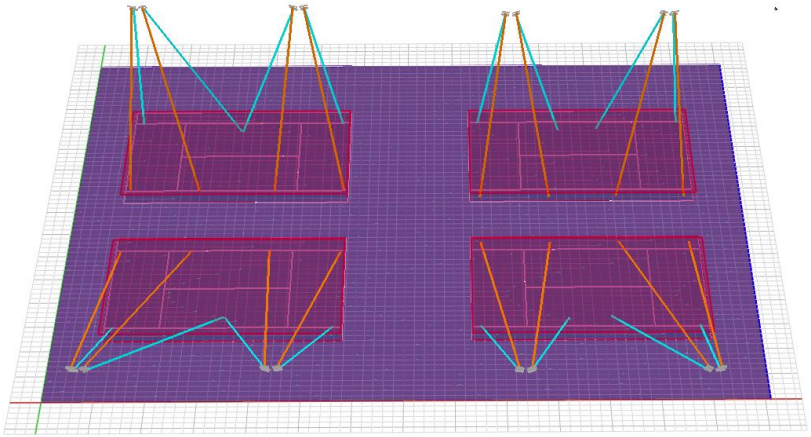


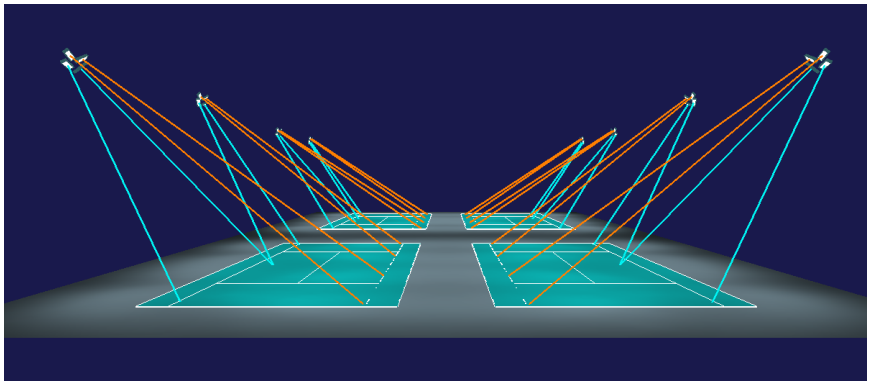


SENi ACS600 32units



Lighting design example - Tennis court





- **<SITE CONDITION & REQUEST for International standard>**

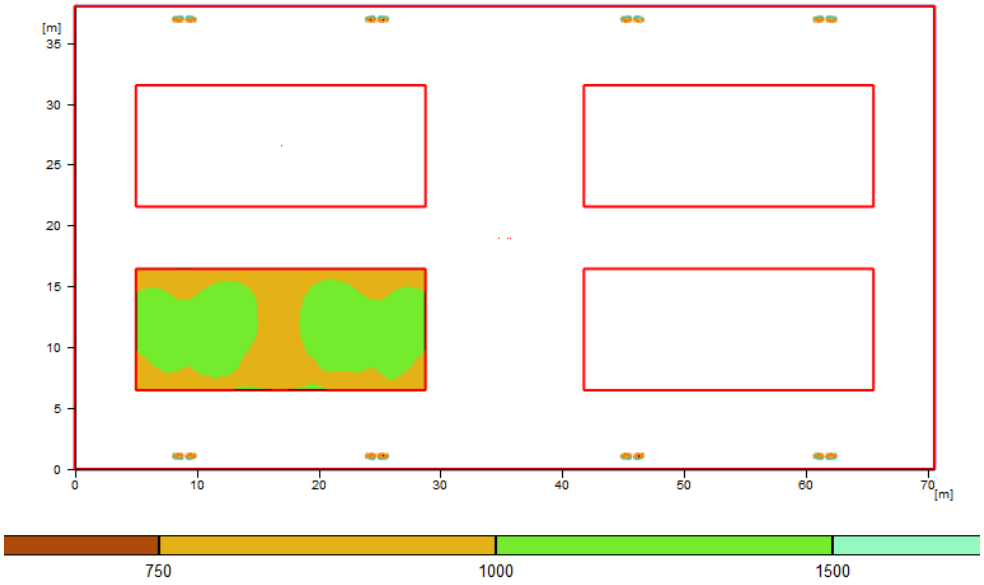
- Outdoor tennis court (4 sides)
- Lighting mount height: 10.3m and 11.5 each
- Height of reference plane: 1 meter above the court surface
- **Lux level: over 1,000lx(93fc)**
- **Uniformity: Minimum average 0.7**

<LIGHTING PLANNING RESULT>

Average illuminance and uniformity

Court 1 Average Maintained Lux level : 1,050Lux(97.7fc)

Minimum average uniformity : 0.74



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	7086832 lm
Total power	28800 W
Total power per area (2680.52 m²)	10.74 W/m²

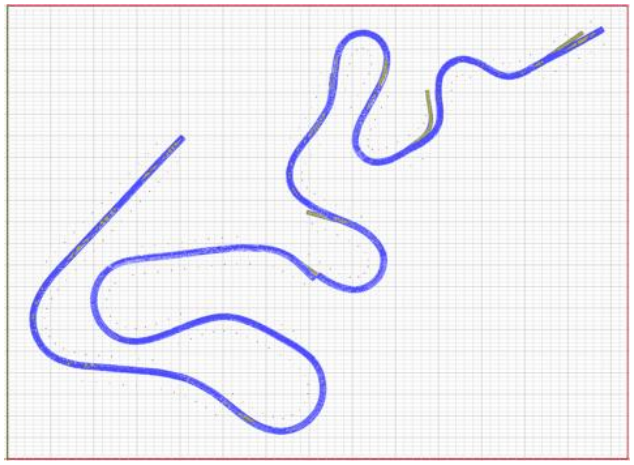
Illuminance

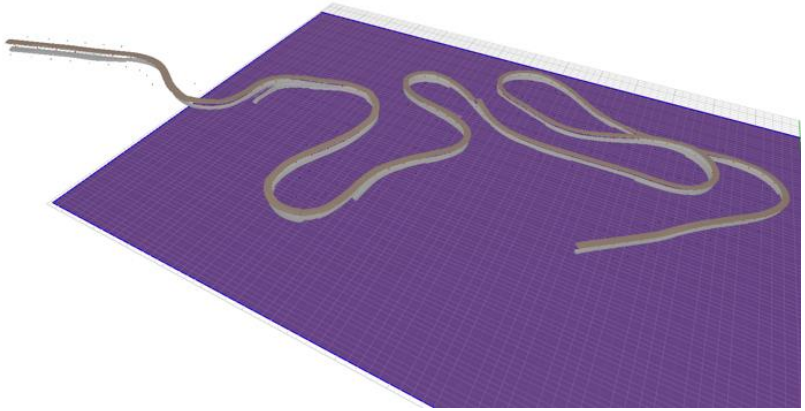
Average illuminance	Eav	1050 lx
Minimum illuminance	Emin	779 lx
Maximum illuminance	Emax	1410 lx
Uniformity Uo	Emin/Em	1:1.35 (0.74)
Diversity Ud	Emin/Emax	1:1.82 (0.55)

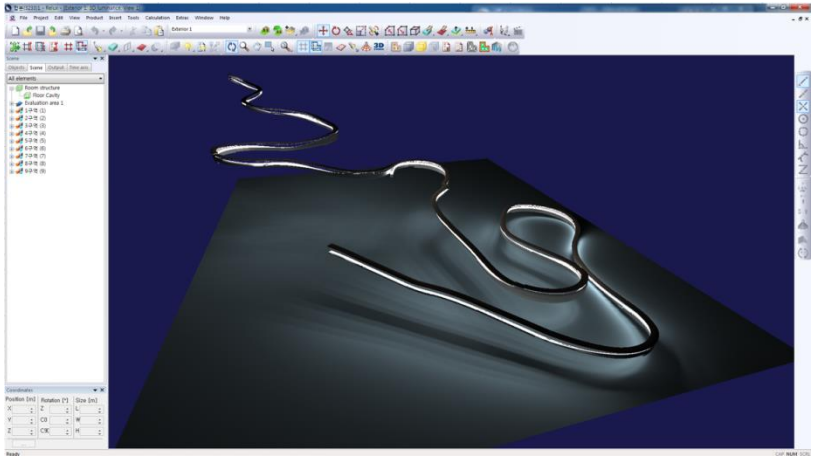
Pyeongchang Winter Olympic games 2018

Simulation data (Sliding center)

More than 3,000 lightings simulated (HD broadcasting available)









Applications







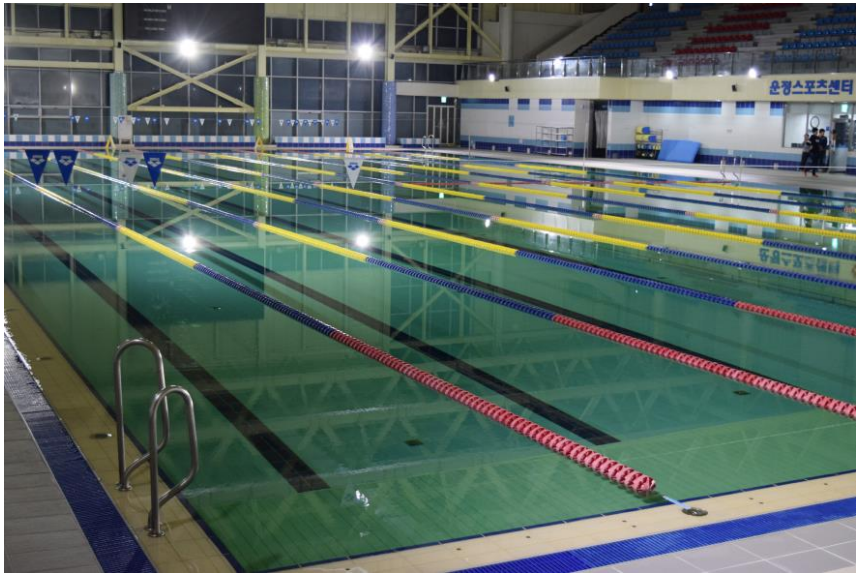





Case Study



Football Pitch – England
SENi ACS600 32units



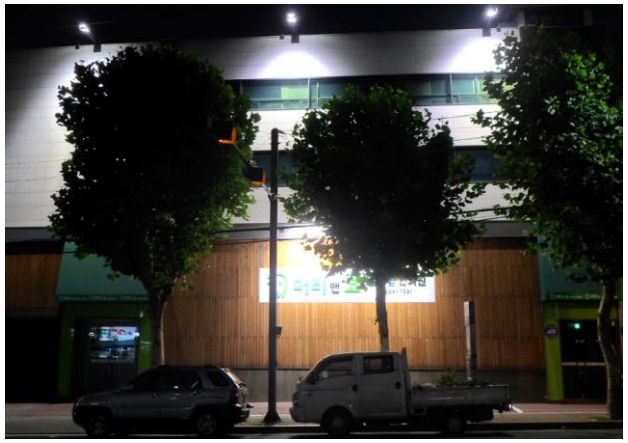
50m Indoor Swimming Pool– Korea
SENi ACS300 26units

Case Study











Golf Driving Range - Korea
SENi ACS900 5units

Muryenco Hospital – Korea
SENi ACS300 5units

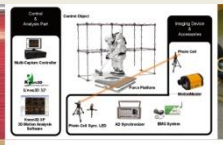
Case Study Motor Boat Racing Stadium– Korea SENi ACS1200 20units

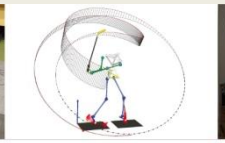















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VISOL

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423-030 경기도 광명시 안양천로 502번길 15, 601호 (철산동 광명테크노타운) TEL : 02-2612-2111 FAX : 02-2612-0660









