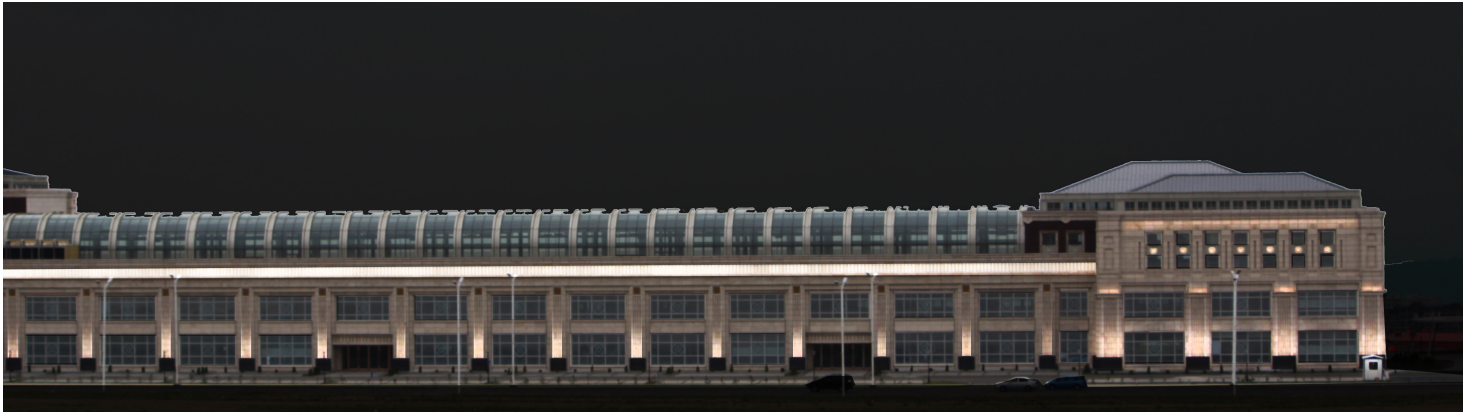


Hualing Tbilisi Sea Plaza

კომპიუტერული ვიზუალიზაცია



Hualing Tbilisi Sea Plaza

Partner for Contact:

Order No.:

Company:

Customer No.:

Date: 12.01.2018

Operator: Natia Tokhadze



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Hualing Tbilisi Sea Plaza

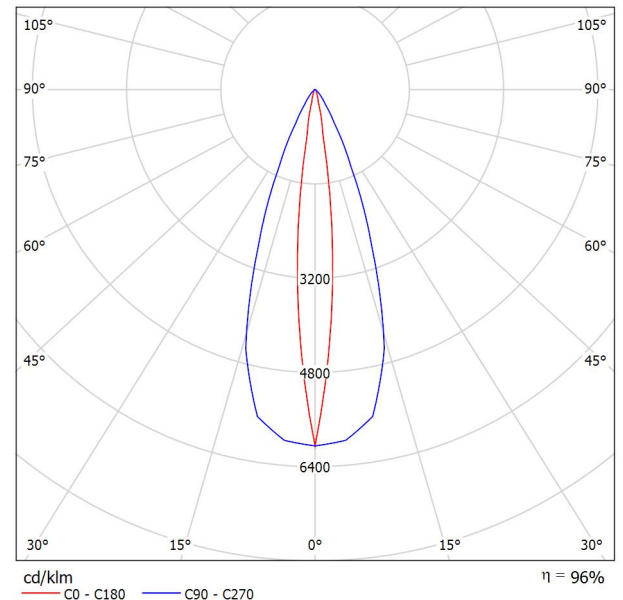
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Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 95 99 100 100 98

Linear Spot

Luminous emittance 1:

Glare Evaluation According to UGR												
ρ Ceiling		70	70	50	50	30	70	70	50	50	30	
ρ Walls		50	30	50	30	30	50	30	50	30	30	
ρ Floor		20	20	20	20	20	20	20	20	20	20	
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	6.7	7.3	6.9	7.5	7.7	11.4	12.1	11.6	12.3	12.5	
	3H	7.2	7.8	7.5	8.0	8.3	11.5	12.1	11.8	12.3	12.6	
	4H	7.3	7.9	7.6	8.2	8.4	11.6	12.2	12.0	12.5	12.8	
	6H	7.4	8.0	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9	
	8H	7.4	7.9	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9	
4H	12H	7.4	7.9	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9	
	2H	6.9	7.5	7.2	7.8	8.0	11.3	11.9	11.6	12.1	12.4	
	3H	7.5	8.0	7.9	8.3	8.7	11.4	11.9	11.8	12.2	12.5	
	4H	7.8	8.2	8.1	8.5	8.9	11.6	12.1	12.0	12.4	12.7	
	6H	7.9	8.2	8.3	8.6	9.0	11.8	12.2	12.2	12.5	12.9	
8H	8H	7.9	8.2	8.3	8.6	9.0	11.8	12.2	12.3	12.5	12.9	
	12H	7.9	8.1	8.3	8.5	9.0	11.8	12.1	12.3	12.5	12.9	
	4H	7.8	8.1	8.2	8.5	8.9	11.6	11.9	12.0	12.3	12.7	
	6H	7.9	8.1	8.4	8.6	9.0	11.7	12.0	12.2	12.4	12.8	
	8H	7.9	8.1	8.4	8.6	9.0	11.8	12.0	12.2	12.4	12.9	
12H	12H	7.9	8.1	8.4	8.6	9.1	11.8	11.9	12.3	12.4	12.9	
	4H	7.8	8.0	8.2	8.4	8.9	11.5	11.8	12.0	12.2	12.6	
	6H	7.9	8.1	8.4	8.5	9.0	11.7	11.9	12.2	12.3	12.8	
Variation of the observer position for the luminaire distances S												
S = 1.0H		+0.4 / -0.6					+3.7 / -2.9					
S = 1.5H		+1.1 / -1.6					+6.1 / -3.8					
S = 2.0H		+2.3 / -2.5					+8.0 / -5.1					
Standard table		BK02					BK01					
Correction Summand		-10.2					-6.5					
Corrected Glare Indices referring to 2588lm Total Luminous Flux												



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UGR-Table

Luminaire: Lamps: 1 x LED 28W 3000K

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	6.7	7.3	6.9	7.5	7.7	11.4	12.1	11.6	12.3	12.5
	3H	7.2	7.8	7.5	8.0	8.3	11.5	12.1	11.8	12.3	12.6
	4H	7.3	7.9	7.6	8.2	8.4	11.6	12.2	12.0	12.5	12.8
	6H	7.4	8.0	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9
	8H	7.4	7.9	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9
	12H	7.4	7.9	7.7	8.2	8.5	11.8	12.3	12.1	12.6	12.9
4H	2H	6.9	7.5	7.2	7.8	8.0	11.3	11.9	11.6	12.1	12.4
	3H	7.5	8.0	7.9	8.3	8.7	11.4	11.9	11.8	12.2	12.5
	4H	7.8	8.2	8.1	8.5	8.9	11.6	12.1	12.0	12.4	12.7
	6H	7.9	8.2	8.3	8.6	9.0	11.8	12.2	12.2	12.5	12.9
	8H	7.9	8.2	8.3	8.6	9.0	11.8	12.2	12.3	12.5	12.9
	12H	7.9	8.1	8.3	8.5	9.0	11.8	12.1	12.3	12.5	12.9
8H	4H	7.8	8.1	8.2	8.5	8.9	11.6	11.9	12.0	12.3	12.7
	6H	7.9	8.1	8.4	8.6	9.0	11.7	12.0	12.2	12.4	12.8
	8H	7.9	8.1	8.4	8.6	9.0	11.8	12.0	12.2	12.4	12.9
	12H	7.9	8.1	8.4	8.6	9.1	11.8	11.9	12.3	12.4	12.9
12H	4H	7.8	8.0	8.2	8.4	8.9	11.5	11.8	12.0	12.2	12.6
	6H	7.9	8.1	8.4	8.5	9.0	11.7	11.9	12.2	12.3	12.8
	8H	7.9	8.1	8.4	8.5	9.0	11.7	11.9	12.2	12.4	12.9
Variation of the observer position for the luminaire distances S											
S = 1.0H		+0.4 / -0.6					+3.7 / -2.9				
S = 1.5H		+1.1 / -1.6					+6.1 / -3.8				
S = 2.0H		+2.3 / -2.5					+8.0 / -5.1				
Standard table		BK02					BK01				
Correction Summand		-10.2					-6.5				
Corrected Glare Indices referring to 2588lm Total Luminous Flux											

The UGR values have been calculated according to CIE Publ. 117 Spacing-to-Height-Ratio = 0.25.

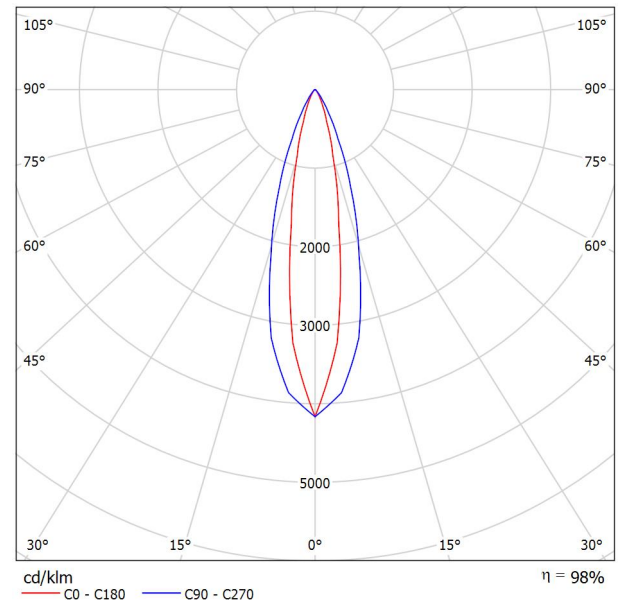
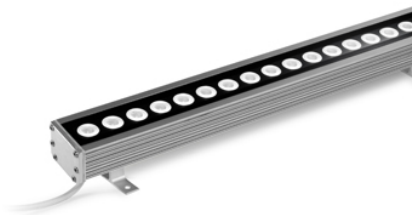


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Luminaire Data Sheet

Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 95 98 100 100 99

Spot
28 LED CREE 40W WW

Luminous emittance 1:

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	11.4	12.1	11.6	12.3	12.5	14.7	15.4	14.9	15.5	15.7
	3H	12.1	12.7	12.4	12.9	13.2	15.1	15.7	15.3	15.9	16.2
	4H	12.3	12.9	12.6	13.2	13.4	15.2	15.8	15.5	16.1	16.3
	6H	12.5	13.0	12.8	13.3	13.6	15.3	15.9	15.6	16.1	16.4
	8H	12.5	13.0	12.8	13.3	13.6	15.3	15.8	15.6	16.1	16.4
4H	12H	12.5	13.0	12.8	13.3	13.6	15.3	15.8	15.6	16.1	16.4
	2H	11.7	12.3	12.0	12.6	12.8	14.7	15.3	15.0	15.5	15.8
	3H	12.6	13.1	12.9	13.4	13.7	15.2	15.7	15.6	16.0	16.3
	4H	12.9	13.4	13.3	13.7	14.0	15.5	15.9	15.9	16.2	16.6
	6H	13.1	13.5	13.5	13.9	14.2	15.6	16.0	16.0	16.3	16.7
8H	8H	13.2	13.5	13.6	13.9	14.3	15.6	16.0	16.1	16.3	16.7
	12H	13.2	13.5	13.6	13.9	14.3	15.6	15.9	16.1	16.3	16.7
	4H	13.1	13.4	13.5	13.8	14.2	15.5	15.8	15.9	16.2	16.6
	6H	13.3	13.6	13.8	14.0	14.4	15.7	15.9	16.1	16.3	16.8
	8H	13.4	13.6	13.9	14.0	14.5	15.7	15.9	16.2	16.3	16.8
12H	12H	13.4	13.6	13.9	14.0	14.5	15.7	15.9	16.2	16.3	16.8
	4H	13.1	13.3	13.5	13.7	14.2	15.5	15.7	15.9	16.1	16.6
	6H	13.3	13.5	13.8	14.0	14.4	15.6	15.8	16.1	16.3	16.7
	8H	13.4	13.6	13.9	14.0	14.5	15.7	15.8	16.2	16.3	16.8
Variation of the observer position for the luminaire distances S											
S = 1.0H		+1.3 / -0.9					+3.2 / -1.8				
S = 1.5H		+2.7 / -1.4					+5.5 / -2.4				
S = 2.0H		+4.1 / -1.7					+7.3 / -2.7				
Standard table		BK03					BK02				
Correction		-4.6					-2.4				
Summand											
Corrected Glare Indices referring to 3500lm Total Luminous Flux											



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UGR-Table

Luminaire: Lamps: 1 x 40W 3000K

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	11.4	12.1	11.6	12.3	12.5	14.7	15.4	14.9	15.5	15.7
	3H	12.1	12.7	12.4	12.9	13.2	15.1	15.7	15.3	15.9	16.2
	4H	12.3	12.9	12.6	13.2	13.4	15.2	15.8	15.5	16.1	16.3
	6H	12.5	13.0	12.8	13.3	13.6	15.3	15.9	15.6	16.1	16.4
	8H	12.5	13.0	12.8	13.3	13.6	15.3	15.8	15.6	16.1	16.4
	12H	12.5	13.0	12.8	13.3	13.6	15.3	15.8	15.6	16.1	16.4
4H	2H	11.7	12.3	12.0	12.6	12.8	14.7	15.3	15.0	15.5	15.8
	3H	12.6	13.1	12.9	13.4	13.7	15.2	15.7	15.6	16.0	16.3
	4H	12.9	13.4	13.3	13.7	14.0	15.5	15.9	15.9	16.2	16.6
	6H	13.1	13.5	13.5	13.9	14.2	15.6	16.0	16.0	16.3	16.7
	8H	13.2	13.5	13.6	13.9	14.3	15.6	16.0	16.1	16.3	16.7
	12H	13.2	13.5	13.6	13.9	14.3	15.6	15.9	16.1	16.3	16.7
8H	4H	13.1	13.4	13.5	13.8	14.2	15.5	15.8	15.9	16.2	16.6
	6H	13.3	13.6	13.8	14.0	14.4	15.7	15.9	16.1	16.3	16.8
	8H	13.4	13.6	13.9	14.0	14.5	15.7	15.9	16.2	16.3	16.8
	12H	13.4	13.6	13.9	14.0	14.5	15.7	15.9	16.2	16.3	16.8
12H	4H	13.1	13.3	13.5	13.7	14.2	15.5	15.7	15.9	16.1	16.6
	6H	13.3	13.5	13.8	14.0	14.4	15.6	15.8	16.1	16.3	16.7
	8H	13.4	13.6	13.9	14.0	14.5	15.7	15.8	16.2	16.3	16.8
Variation of the observer position for the luminaire distances S											
S = 1.0H		+1.3 / -0.9					+3.2 / -1.8				
S = 1.5H		+2.7 / -1.4					+5.5 / -2.4				
S = 2.0H		+4.1 / -1.7					+7.3 / -2.7				
Standard table		BK03					BK02				
Correction Summand		-4.6					-2.4				
Corrected Glare Indices referring to 3500lm Total Luminous Flux											

The UGR values have been calculated according to CIE Publ. 117 Spacing-to-Height-Ratio = 0.25.

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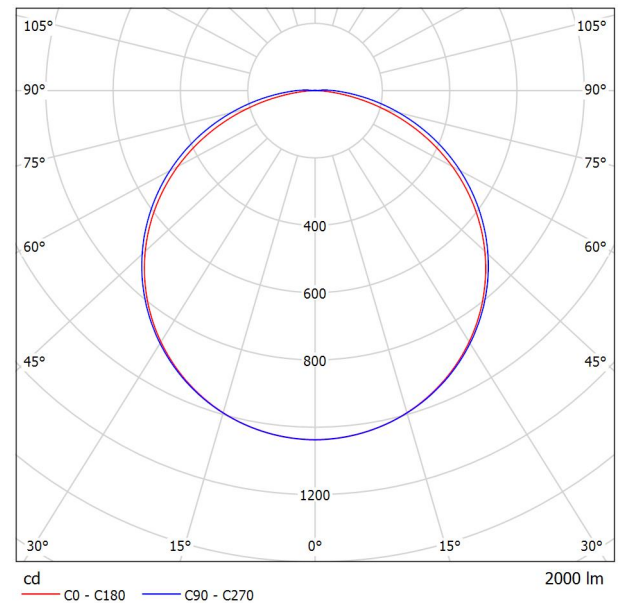
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Flex Strip IP65 HD-80 Double Mono - NW / Luminaire Data

Sheet



Luminous emittance 1:



Luminaire classification according to CIE: 100
CIE flux code: 45 76 94 100 159

The PROLED FLEX STRIPS are perfect for indirect lightning, as customs made versions for fair or shop applications as well as for all kinds of illumination. Due to their shallow design and the individually adaptable lengths the PROLED FLEX STRIPS offer a wide spectrum of application possibilities.

- High flexibility - adaptable to round shapes.
- Installation with 3M adhesive tape on the strip's backside (self adhesive)
- IP53 only if glued correctly and if the sides are sealed with glue.
- dimmable or DMX 512, DALI, 1-10V, KNX controllable by MBNLED RGB MULTI power supplies/controller

Luminous emittance 1:

Glare Evaluation According to UGR												
ρ Ceiling		70	70	50	50	30	70	70	50	50	30	
ρ Walls		50	30	50	30	30	50	30	50	30	30	
ρ Floor		20	20	20	20	20	20	20	20	20	20	
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis					
2H	2H	27.2	28.5	27.5	28.8	29.0	27.3	28.7	27.7	28.9	29.2	
	3H	28.8	30.0	29.1	30.3	30.6	29.1	30.4	29.5	30.7	30.9	
	4H	29.4	30.6	29.8	30.9	31.2	29.9	31.1	30.3	31.4	31.7	
	6H	29.9	31.0	30.3	31.3	31.6	30.6	31.7	31.0	32.0	32.4	
	8H	30.0	31.1	30.4	31.4	31.7	30.9	32.0	31.3	32.3	32.6	
	12H	30.1	31.1	30.5	31.4	31.8	31.2	32.2	31.6	32.5	32.9	
4H	2H	27.9	29.1	28.3	29.4	29.7	28.1	29.2	28.4	29.5	29.8	
	3H	29.8	30.7	30.1	31.1	31.4	30.0	31.0	30.4	31.4	31.7	
	4H	30.5	31.4	30.9	31.8	32.2	31.0	31.9	31.4	32.2	32.6	
	6H	31.1	31.9	31.5	32.3	32.7	31.8	32.6	32.2	33.0	33.4	
	8H	31.3	32.0	31.7	32.4	32.8	32.2	32.9	32.6	33.3	33.7	
	12H	31.4	32.0	31.8	32.5	32.9	32.5	33.2	33.0	33.6	34.0	
8H	4H	30.9	31.6	31.4	32.0	32.5	31.3	32.0	31.8	32.4	32.9	
	6H	31.6	32.2	32.1	32.7	33.1	32.3	32.9	32.8	33.3	33.8	
	8H	31.9	32.4	32.4	32.9	33.4	32.8	33.3	33.3	33.8	34.2	
	12H	32.1	32.5	32.6	33.0	33.5	33.2	33.7	33.7	34.2	34.7	
	4H	31.0	31.6	31.4	32.0	32.5	31.3	32.0	31.8	32.4	32.9	
	6H	31.7	32.3	32.2	32.7	33.2	32.4	32.9	32.9	33.4	33.8	
12H	8H	32.1	32.5	32.6	33.0	33.5	32.9	33.3	33.4	33.8	34.3	
Variation of the observer position for the luminaire distances S												
S = 1.0H		+0.1 / -0.1					+0.1 / -0.1					
S = 1.5H		+0.2 / -0.3					+0.2 / -0.3					
S = 2.0H		+0.3 / -0.6					+0.3 / -0.5					
Standard table		BK06					BK07					
Correction Summand		16.3					17.5					
Corrected Glare Indices referring to 2000lm Total Luminous Flux												

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UGR-Table

Luminaire: PROLED L654808D Flex Strip IP53 HD-80 Double Mono - NW
Lamps: 1 x LED 4000K - CRI 80

Glare Evaluation According to UGR											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room Size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	27.2	28.5	27.5	28.8	29.0	27.3	28.7	27.7	28.9	29.2
	3H	28.8	30.0	29.1	30.3	30.6	29.1	30.4	29.5	30.7	30.9
	4H	29.4	30.6	29.8	30.9	31.2	29.9	31.1	30.3	31.4	31.7
	6H	29.9	31.0	30.3	31.3	31.6	30.6	31.7	31.0	32.0	32.4
	8H	30.0	31.1	30.4	31.4	31.7	30.9	32.0	31.3	32.3	32.6
	12H	30.1	31.1	30.5	31.4	31.8	31.2	32.2	31.6	32.5	32.9
4H	2H	27.9	29.1	28.3	29.4	29.7	28.1	29.2	28.4	29.5	29.8
	3H	29.8	30.7	30.1	31.1	31.4	30.0	31.0	30.4	31.4	31.7
	4H	30.5	31.4	30.9	31.8	32.2	31.0	31.9	31.4	32.2	32.6
	6H	31.1	31.9	31.5	32.3	32.7	31.8	32.6	32.2	33.0	33.4
	8H	31.3	32.0	31.7	32.4	32.8	32.2	32.9	32.6	33.3	33.7
	12H	31.4	32.0	31.8	32.5	32.9	32.5	33.2	33.0	33.6	34.0
8H	4H	30.9	31.6	31.4	32.0	32.5	31.3	32.0	31.8	32.4	32.9
	6H	31.6	32.2	32.1	32.7	33.1	32.3	32.9	32.8	33.3	33.8
	8H	31.9	32.4	32.4	32.9	33.4	32.8	33.3	33.3	33.8	34.2
	12H	32.1	32.5	32.6	33.0	33.5	33.2	33.7	33.7	34.2	34.7
12H	4H	31.0	31.6	31.4	32.0	32.5	31.3	32.0	31.8	32.4	32.9
	6H	31.7	32.3	32.2	32.7	33.2	32.4	32.9	32.9	33.4	33.8
	8H	32.1	32.5	32.6	33.0	33.5	32.9	33.3	33.4	33.8	34.3
Variation of the observer position for the luminaire distances S											
S = 1.0H		+0.1 / -0.1					+0.1 / -0.1				
S = 1.5H		+0.2 / -0.3					+0.2 / -0.3				
S = 2.0H		+0.3 / -0.6					+0.3 / -0.5				
Standard table		BK06					BK07				
Correction Summand		16.3					17.5				
Corrected Glare Indices referring to 2000lm Total Luminous Flux											

The UGR values have been calculated according to CIE Publ. 117 Spacing-to-Height-Ratio = 0.25.

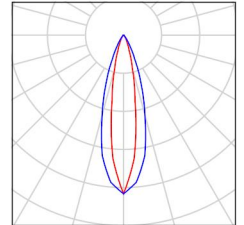


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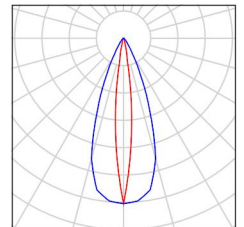
Operator Natia Tokhadze
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e-Mail natia.toxadze@gmail.com

Exterior Scene 1 / Luminaire parts list

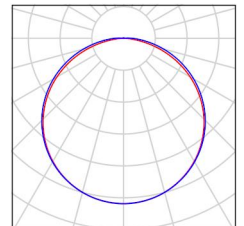
Article No.: 05-1552-54-H6
Luminous flux (Luminaire): 3416 lm
Luminous flux (Lamps): 3500 lm
Luminaire Wattage: 40 W
Luminaire classification according to CIE: 100
CIE flux code: 95 98 100 100 99
Fitting: 1 x LED CREE TRON 48W 3000K
(Correction Factor 1.000).



Article No.: 05-9750-54-CLV1
Luminous flux (Luminaire): 2497 lm
Luminous flux (Lamps): 2588 lm
Luminaire Wattage: 28 W
Luminaire classification according to CIE: 100
CIE flux code: 95 99 100 100 98
Fitting: 1 x LED CONVERT 34,5W 3000K
(Correction Factor 1.000).



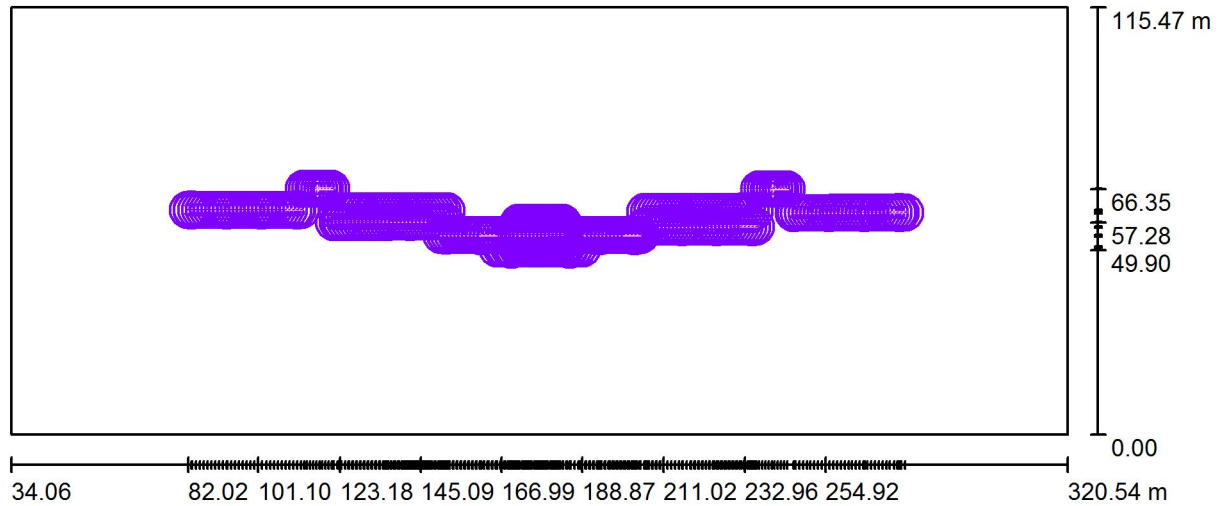
Double Mono - NW
Article No.: L654808D
Luminous flux (Luminaire): 2000 lm
Luminous flux (Lamps): 2000 lm
Luminaire Wattage: 28.8 W
Luminaire classification according to CIE: 100
CIE flux code: 45 76 94 100 159
Fitting: 1 x LED 3000K - CRI 80 (Correction Factor 1.000).



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Exterior Scene 1 / Luminaires (layout plan)



Scale 1 : 2049

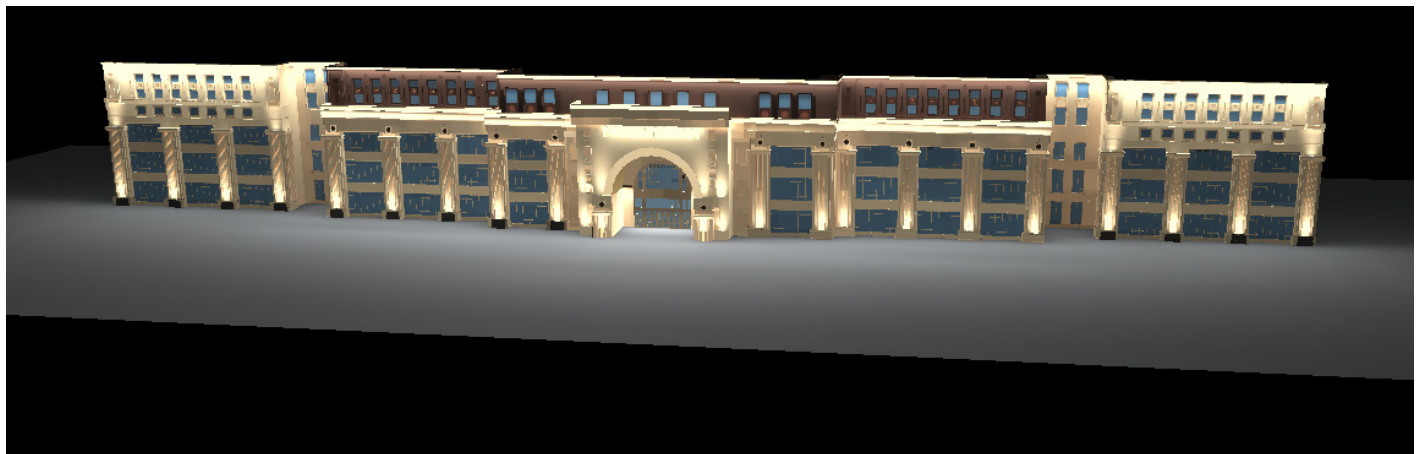
Luminaire Parts List



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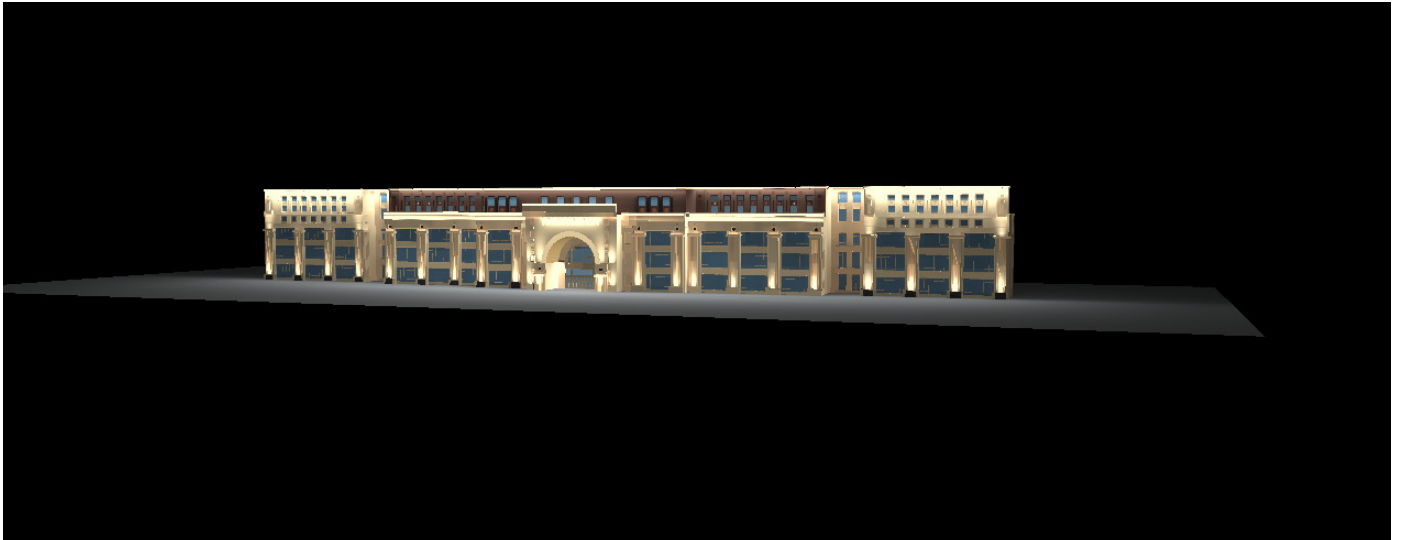
Exterior Scene 1 / 3D Rendering



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Exterior Scene 1 / 3D Rendering

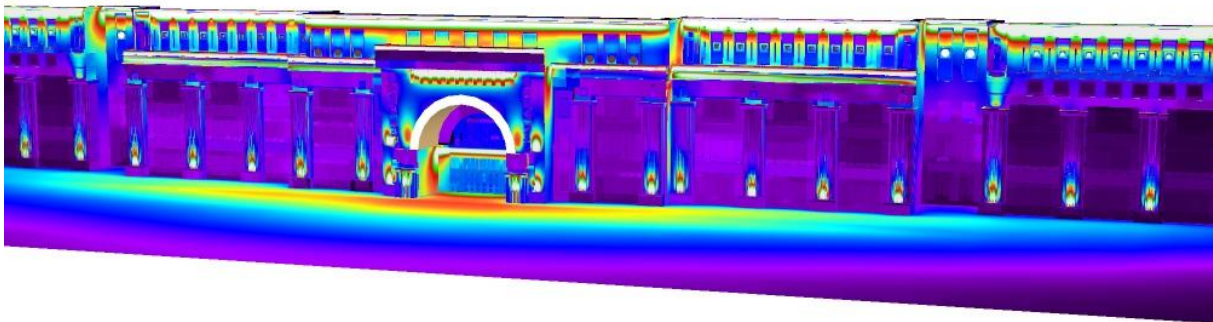




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Exterior Scene 1 / False Color Rendering



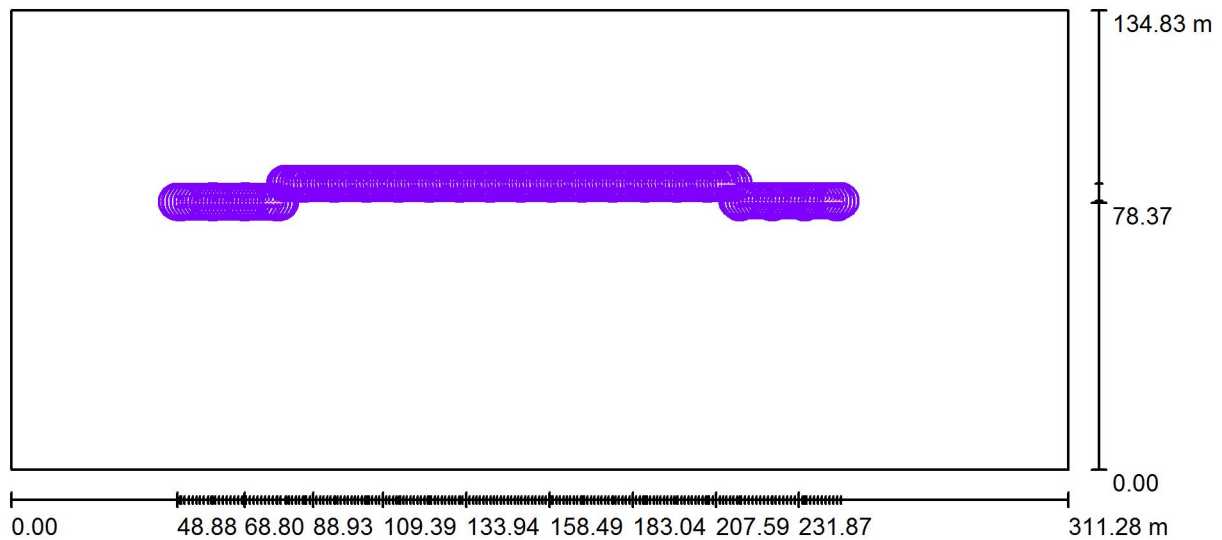
0 10 20 50 80 100 150 200 300 lx



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Exterior Scene 1 / Luminaires (layout plan)



Scale 1 : 2226

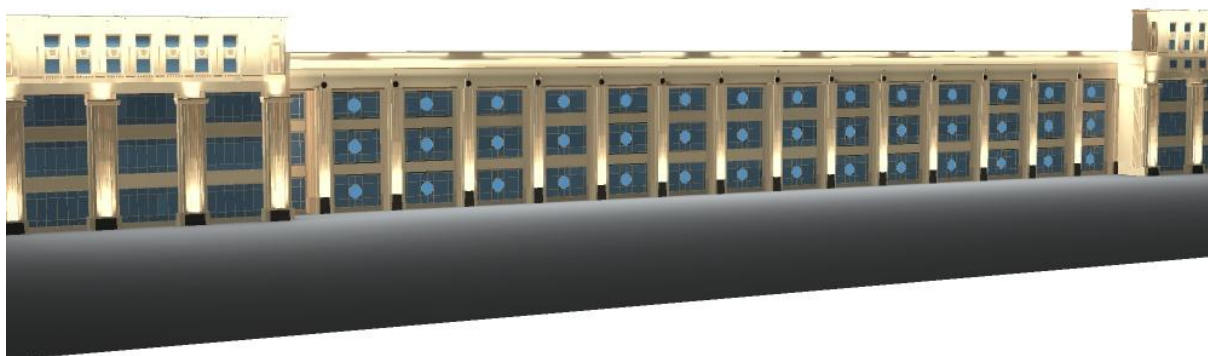
Luminaire Parts List



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Exterior Scene 1 / 3D Rendering

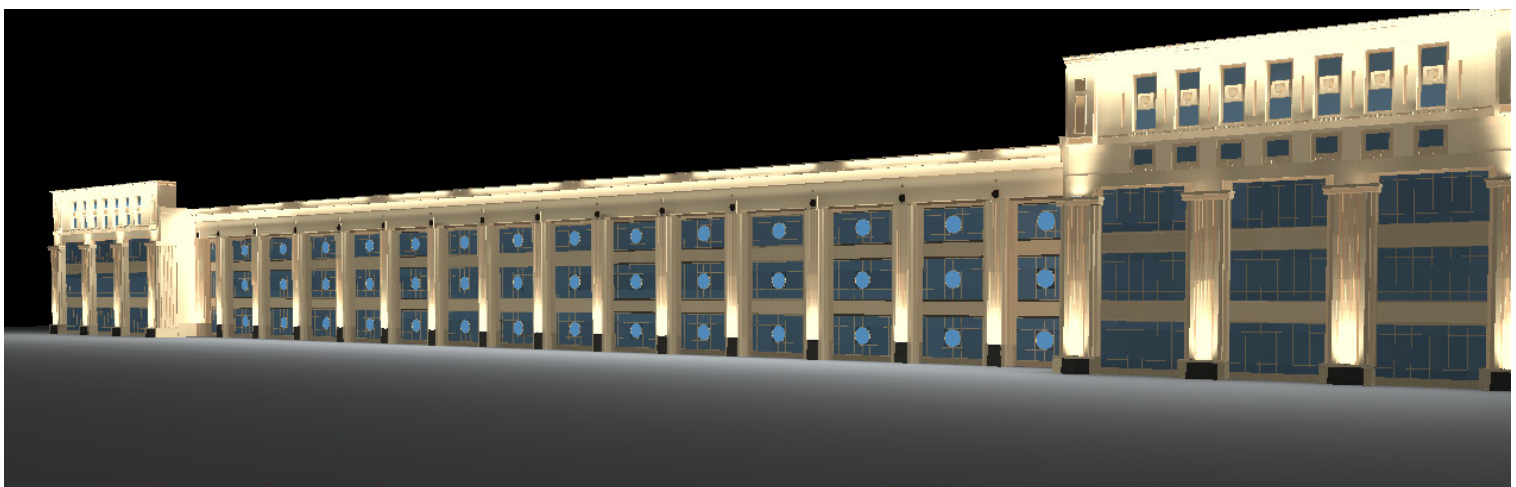
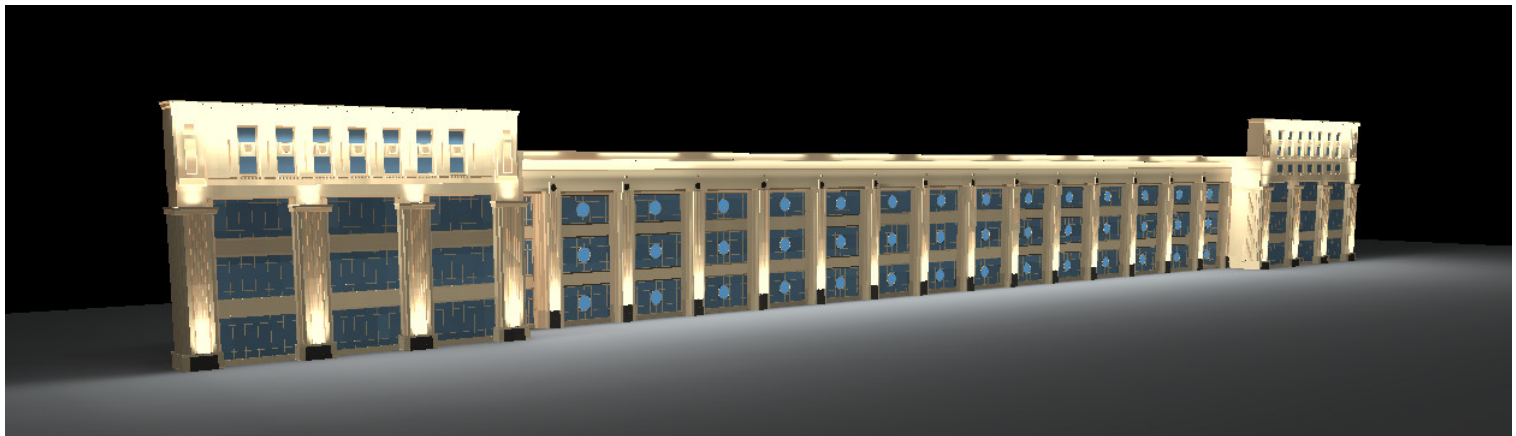




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Exterior Scene 1 / 3D Rendering

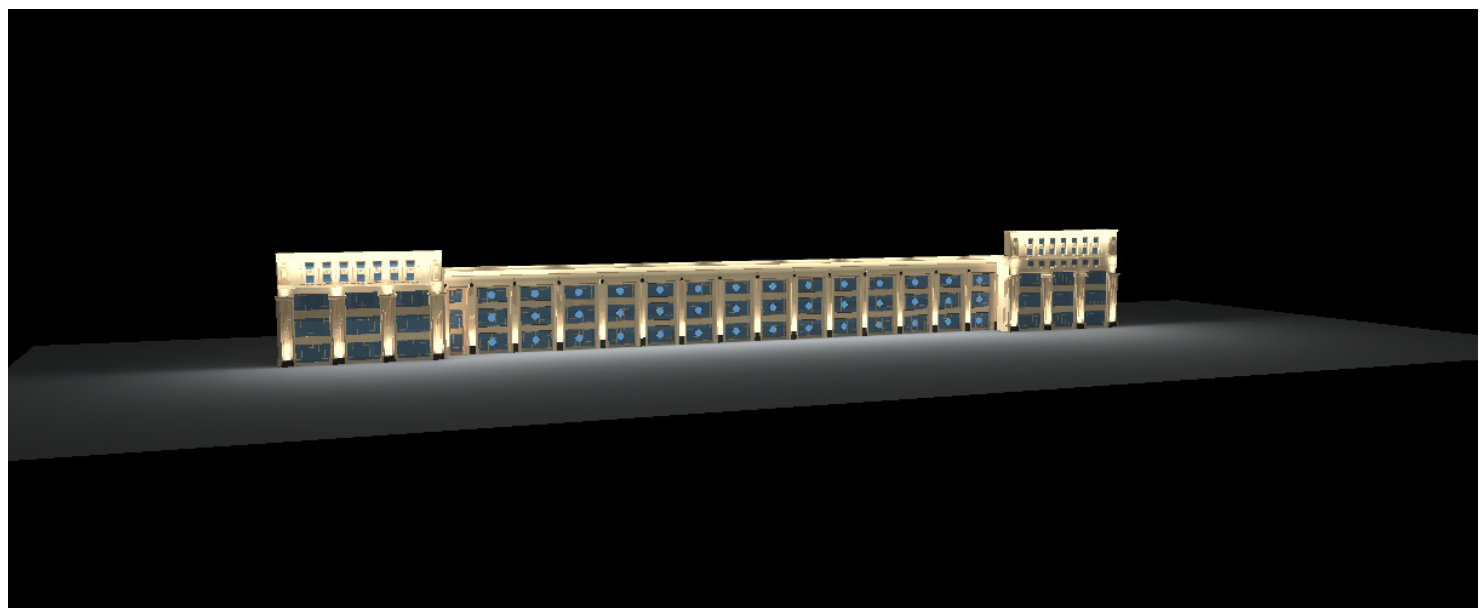
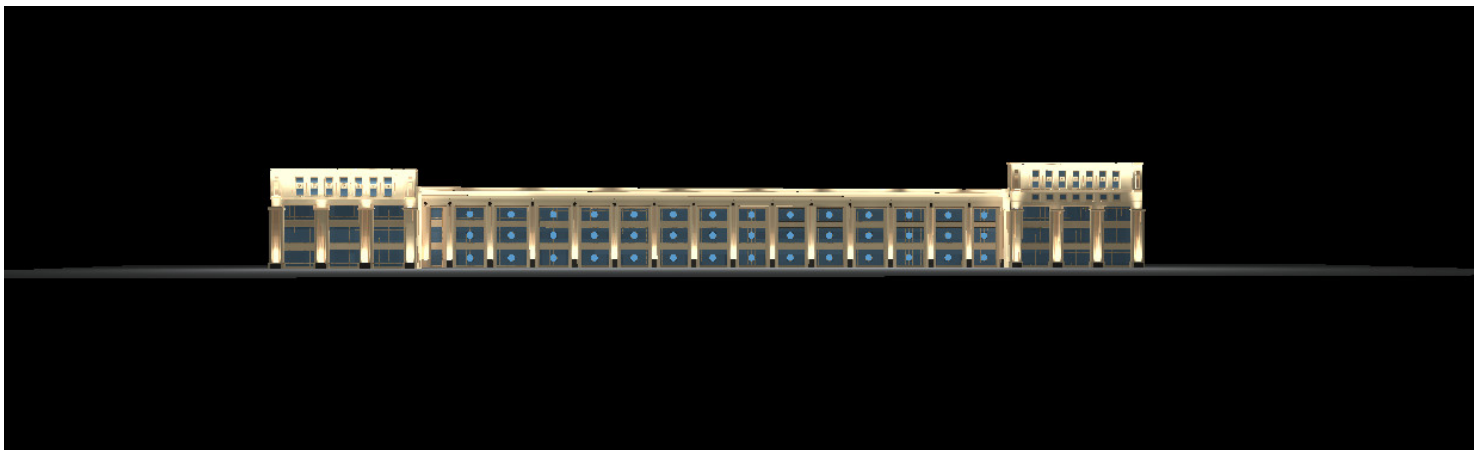




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Exterior Scene 1 / 3D Rendering

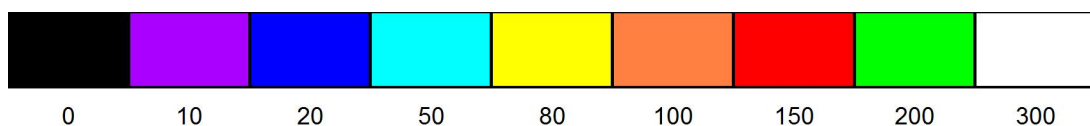
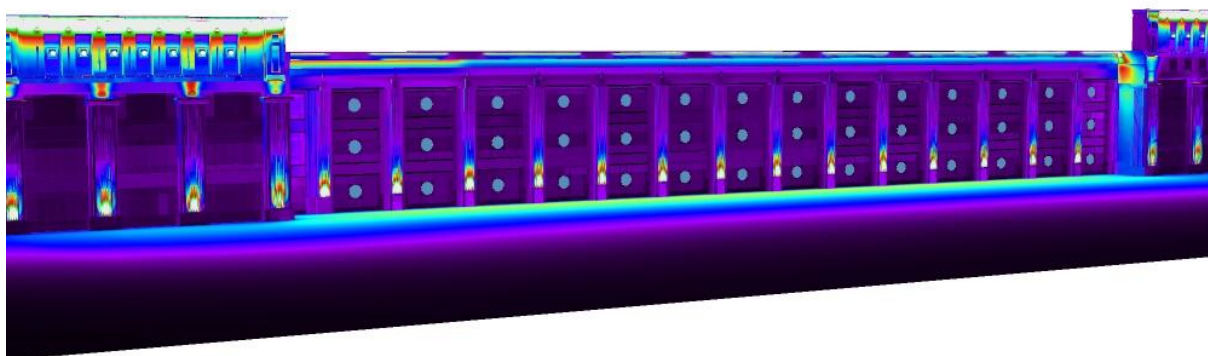




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Exterior Scene 1 / False Color Rendering



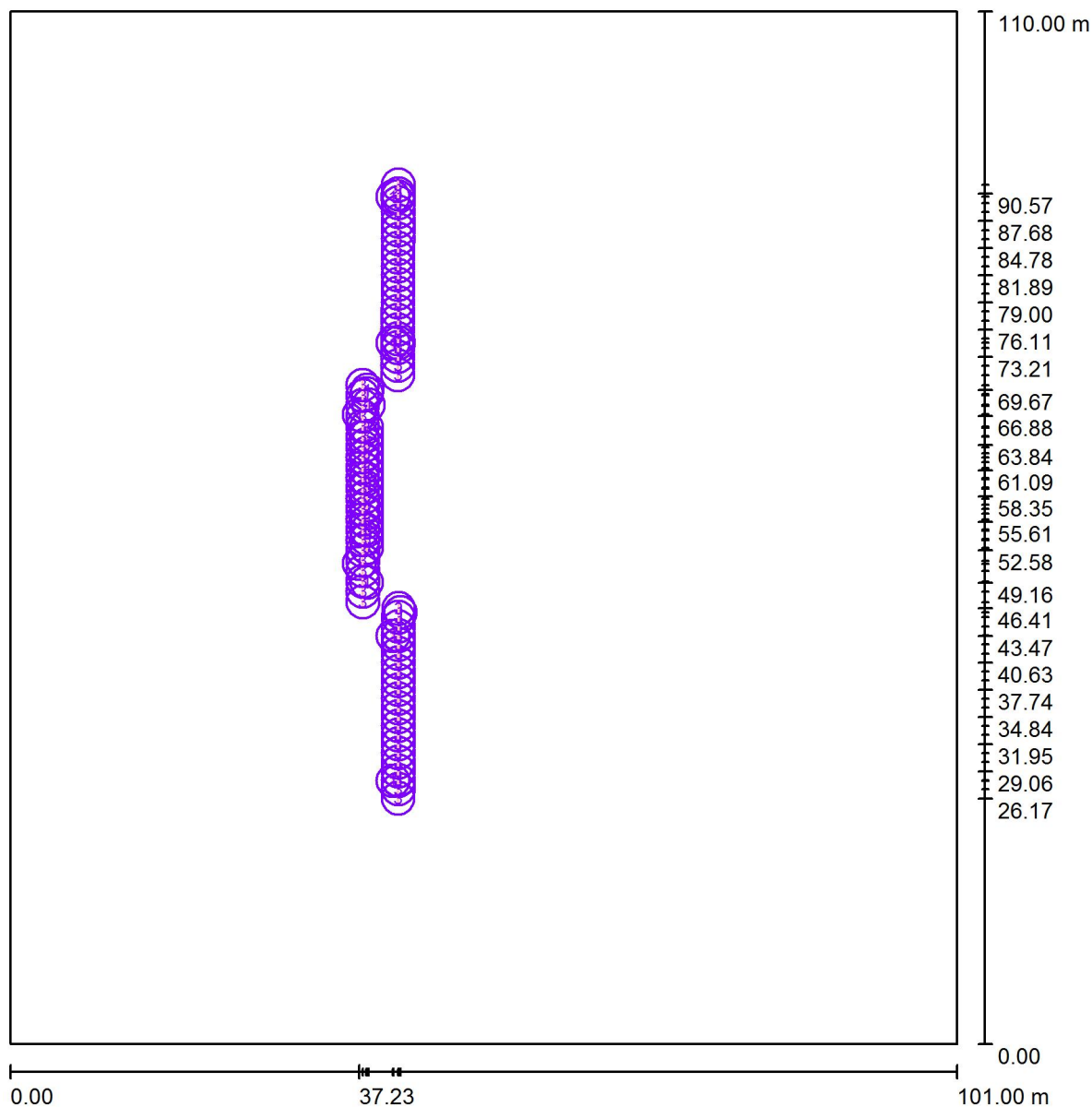
lx



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Hualing Tbilisi Sea Plaza / Luminaires (layout plan)



Scale 1 : 744

Luminaire Parts List

No.	Pieces	Designation
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Hualing Tbilisi Sea Plaza / 3D Rendering

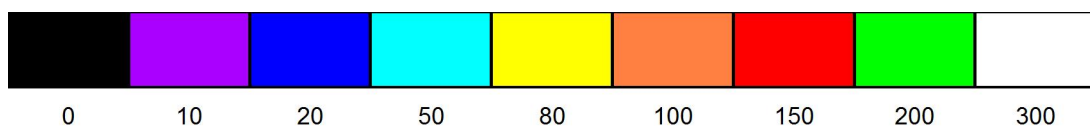
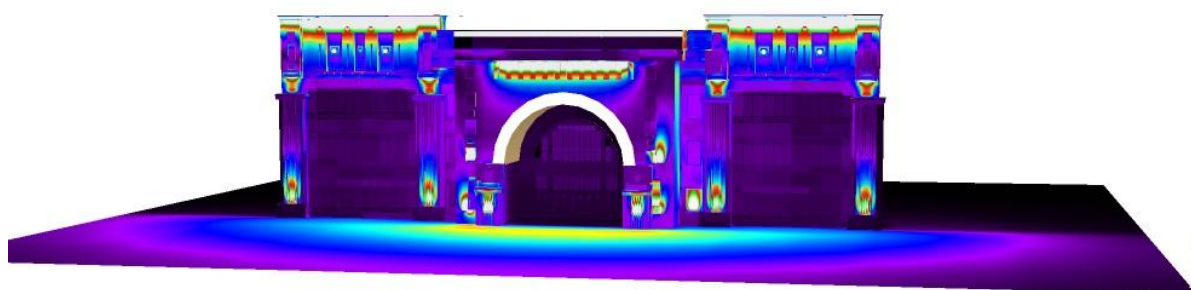




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Hualing Tbilisi Sea Plaza / False Color Rendering

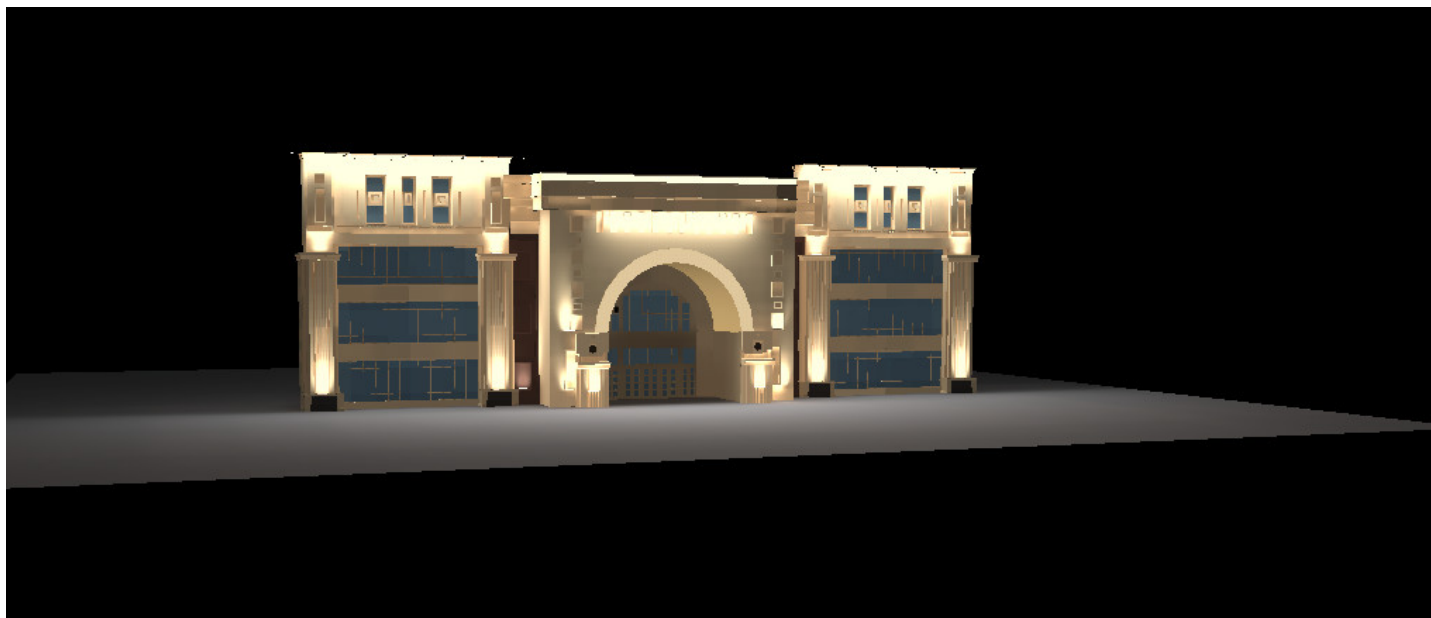
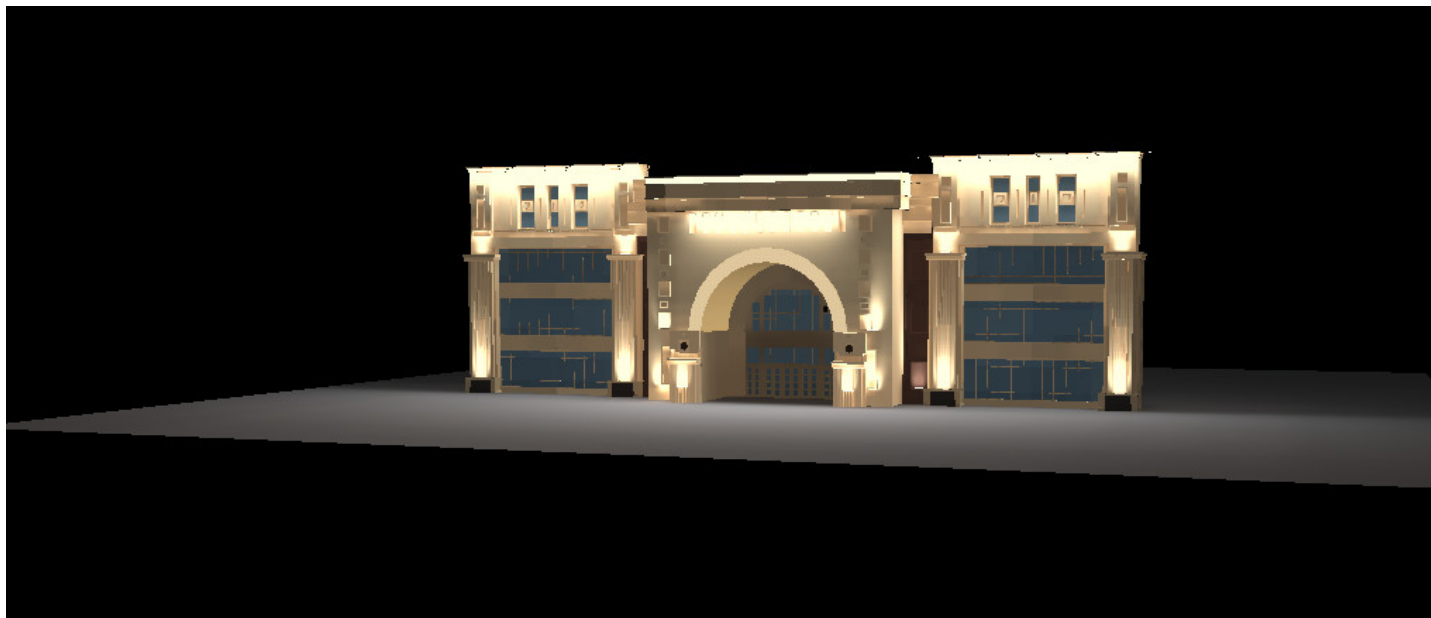




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Hualing Tbilisi Sea Plaza / Raytrace preview 1

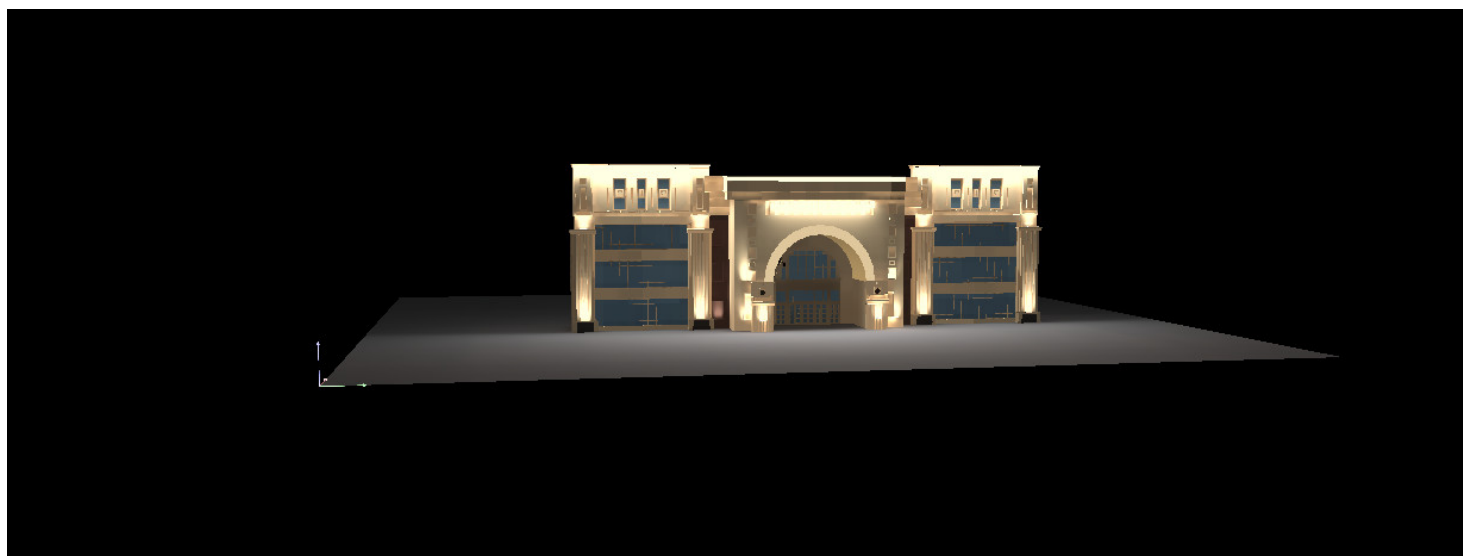




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Hualing Tbilisi Sea Plaza / Raytrace preview 2



LED High Voltage Strip

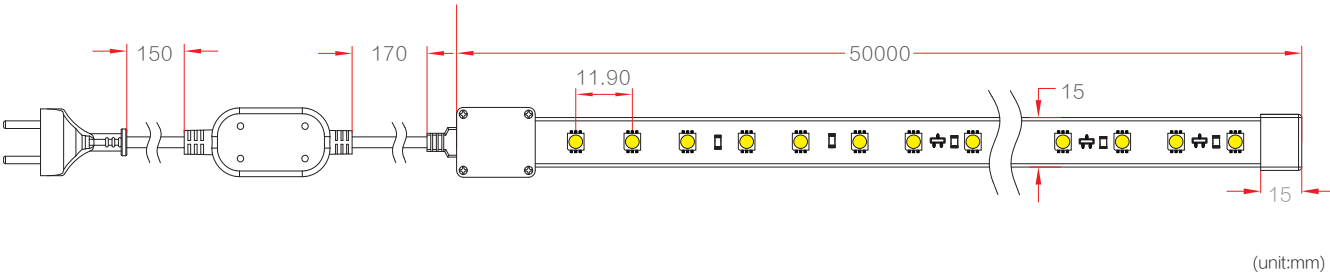
5050-84Leds Series



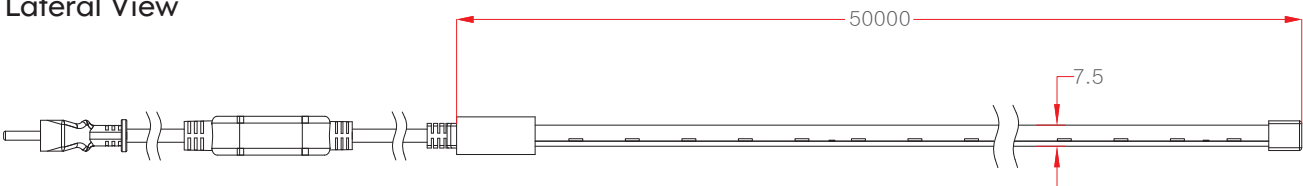
Specification



Front View



Lateral View



Technical Parameters

No.	Product No.	Dimension (mm)	Standard Length	Cut Length	Over-voltage Protection	Beam Angle	IP Rate	Working Temperature
1	MS-120-GF056-A	W15xH7.5mm	30M	0.5M	@130Vac	120°	IP54	-20℃~40℃
2	MS-220-GF056-A	W15xH7.5mm	50M	1M	@230Vac	120°	IP54	-20℃~40℃

Photoelectricity Parameter

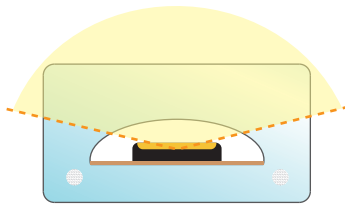
No.	Product No.	Input Voltage	Max power @130Vac	LED Type	Leds	Luminous flux /M	CCT	CRI	Lifespan
1	MS-120-GF056-A	100-140Vac	6W	5050	84	600IM/500IM	2900-6500K	Ra>80/90	20, 000
2	MS-220-GF056-A	180-264Vac	6W	5050	84	600IM/500IM	2900-6500K	Ra>80/90	20, 000

Drive parameters

No.	Product No.	Type	Product No.	Input Voltage	Ouput Power
1	MS-120-GF056-A	Regular type	MS-2F-200	100-140Vac	200W
2	MS-220-GF056-A	Regular type	MS-2F-350	180-264Vac	350W

Features

Energy saving



Patented configuration design

Patented circuit design

luminous efficiency: 100lm/w, save more power, 50% power saving compared with like product.

Lifespan protection

Over voltage protection

Adaptable to wide input voltage as 180-264Vac;
When input voltage is larger than protective voltage, the strips will lower the current automatically to protect LED;
When input voltage comes to normal, the current of strips will also automatically return to normal.

Over-voltage-protection

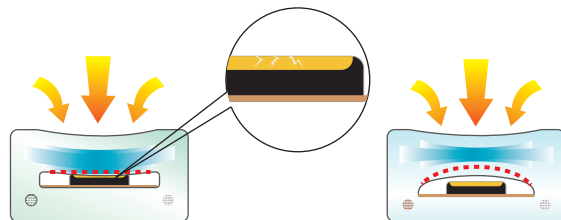
The LED current keep rated when the peak current is larger than rated current.

The limited current circuit does not work, equal to short circuit, no power consumption, when current is smaller than rated current.

Protective structure

Cambered surface as the light-limiting surface, the cambered space between the light-limiting surface and LED strip can protect LED when the strips suffer from external force. As shown in figure 2.

The regular one in the market is shown in figure 1, when the strips suffer from external force, the LED is easy to destroy.



Over temperature protection

When the temperature is abnormally high, the strips can automatically reduce the voltage to reduce the current and reduce the temperature.

When the temperature resume normal, the strips can automatically resume and keep in the best working state.

Solid material used

Use best fire-proof and pressure durability PVC as the protection tube;

No-yellowing;

Multi-unit copper wires as principal line, low internal resistance and small heat dissipation.

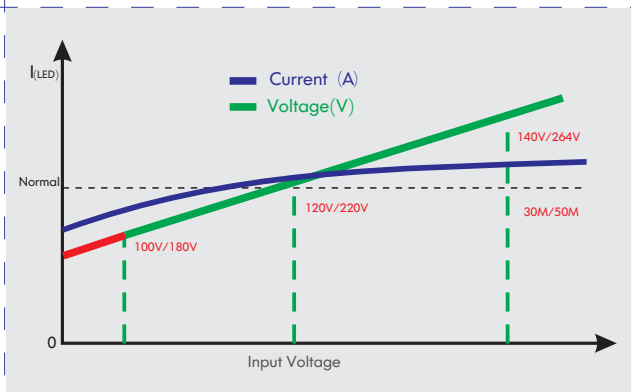


Application

1. Ultra-thin light box;
2. Household adornment ceiling;
3. Store;
4. Exhibition hall;
5. Hotel;
6. Resort.



Operating Characteristic Curve



Operating Characteristic Curve

1. Working voltage

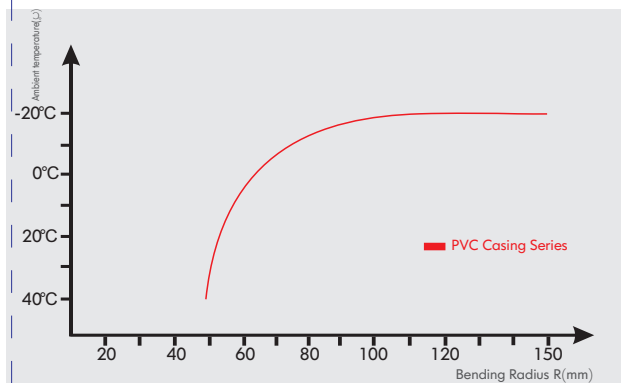
We have released regular and smart protection high voltage strip of 100W and 350W, adaptable to wide input voltage (180-264Vac), 300V top.

For the best effect of the product, AC 220v working voltage is suggested. Lower or higher voltage will affect the brightness; Refer to the voltage curve in the picture.(as shown by the green line)

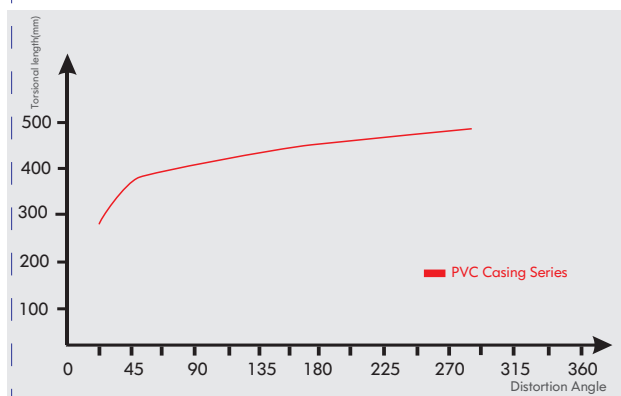
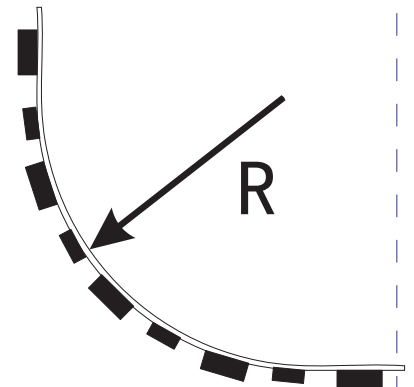
2. Connected length

For the best effect of the product, the power of the strip must be lower than the power of the driver. Please select the right driver accordingly. Refer to schedule 3.

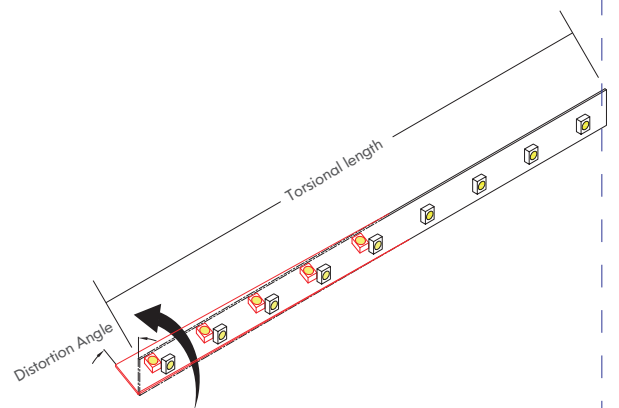
Product Information



Camber curve

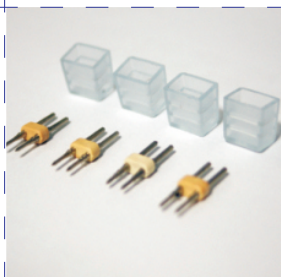


Torsional stiffness curve



Remark: the above torsional angle data is based on the temperature environment more than 10°C

Product Accessories



Pin and end cap



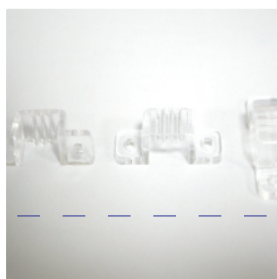
Power line
8/10mm protective monochrome pin



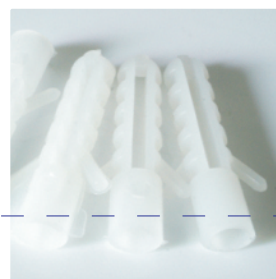
Waterproof silicone gel



Self-tapping screw

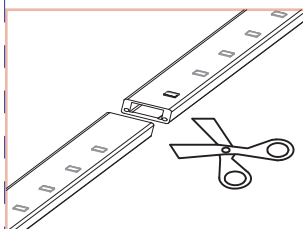


Plastic clips

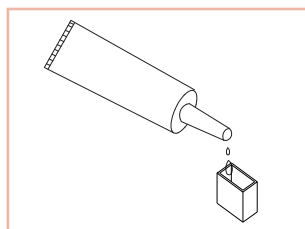


Plastic gecko

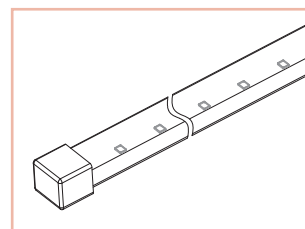
Operation Specification



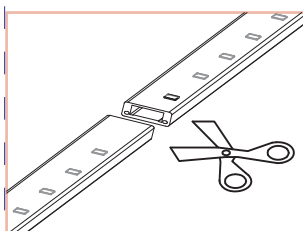
Cut the strip on the position as shown



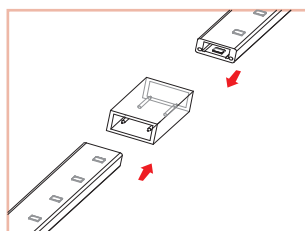
Inject adequate silicone gel into the end cap



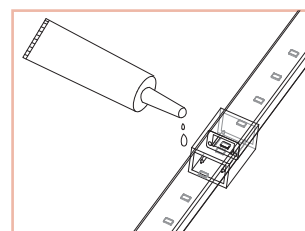
Cover with tubes; make it fixed and dried



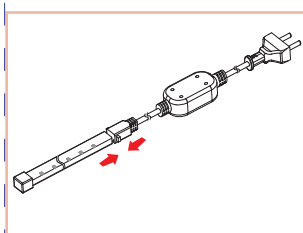
Cut the strip on the position as shown



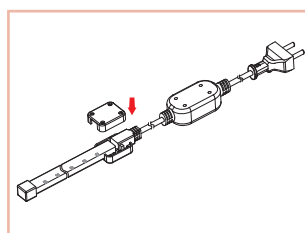
Connect the strip as shown



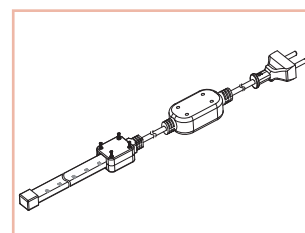
Inject adequate silicone gel into the joint
and make it dried



Connect the strip lights as shown



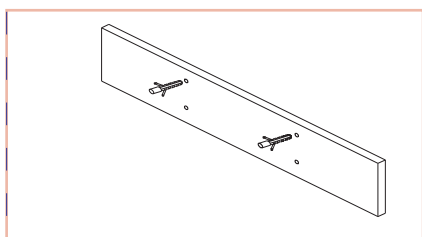
Put the joint strip lights into protective shell



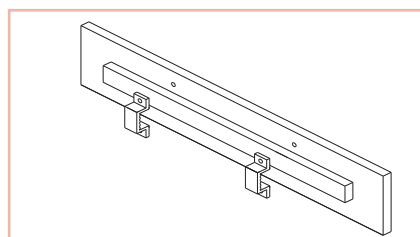
Cover the protective shell according to
instructions and fix the screws

Installation

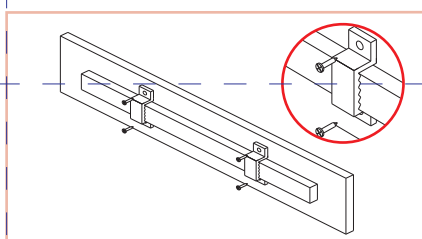
Installation Diagram



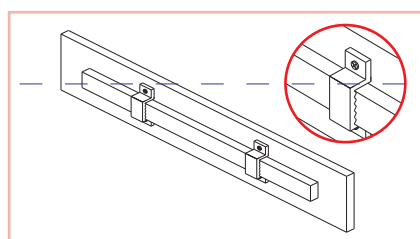
Make holes on the mounting surface according to the size of clips, and then put the expansion screws into them.



Make strips and clips aligned with the holes on the wall

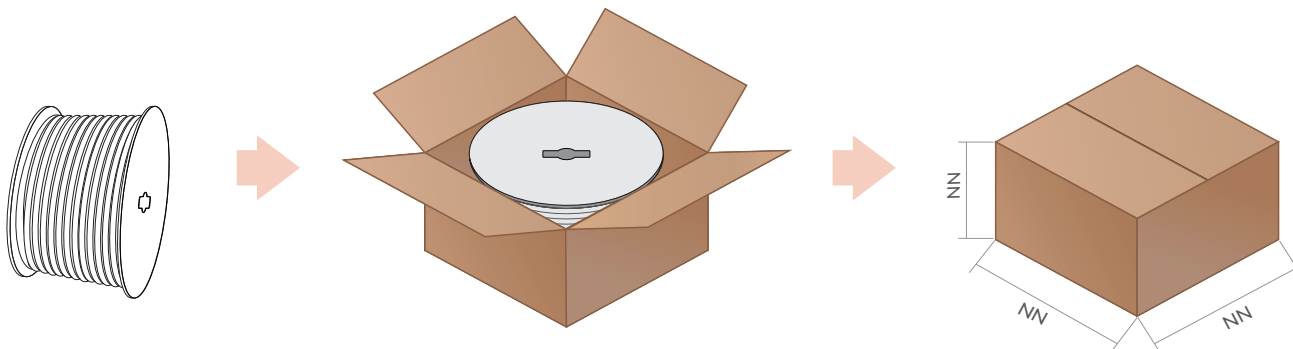


Fix the screws into mounting holes



Make sure the screws are well fixed in place

Packing details



Note

1. Please note that the input voltage is 110VAC, And the minimum cutting unit id 0.5/1M. It is not allowed to be arbitrarily cur;
2. Do make sure of switching off the electricity before installation and power on after check the wire connection;
3. Please make sure the installations is stable and the connection is correct in case of short circuit and potential fire;
4. Do not change or destroy the wires and spare parts privately;
5. Please avoid dragging and buckling the product in case of irreparable damage;
6. Over suggested connection length is not recommended in case of overloading, unbalanced brightness and other unexpected damages.

LED WALL WASHER

ITEM NO.: LWW/LFL-5 Series

INSTRUCTION OF LED WALL WASHER/LWW/LFL-5

This production is mainly used for decorating and highlighting in building frame, garden, etc. It can work in independent mode and DMX mode, which can generate various color changing effects, such as flashing, fading, steady, seven color jumping synchronously etc. DMX256 class gray degree dimmer, DMX programmable (thousands of effects available if many lights being connected together); **LFL series is single steady color without any change.**

***The manual is based on the LWW series, please skip B&C parts when it is LFL series.

A. Specification:

A-1. Structure

Materials of Shell: Aluminum alloy/6063
 Rotary angle: 180°
 Input Voltage: 100V-240V AC
 Operating Voltage: 24V DC
 Protecting Rating: IP65
 Operating Temperature: -20℃~40℃



A-2. Model Configuration Table

Model No.	LED Color	LED Quantity	Power Consumption	Beam Angle	Size	Weight	✓
LWW/LFL-5-12P	R, G, B/W/W/N/W/W	12	15 WATTS	10°/20°/45°	440x147/78x70/118mm	2.35kg±5%	
LWW/LFL-5-18P	R, G, B/W/W/N/W/W	18	20 WATTS	10°/20°/45°	580x147/78x70/118mm	2.80kg±5%	
LWW/LFL-5-24P	R, G, B/W/W/N/W/W	24	26 WATTS	10°/20°/45°	840x147/78x70/118mm	3.73kg±5%	
LWW/LFL-5-30P	R, G, B/W/W/N/W/W	30	35 WATTS	10°/20°/45°	1000x147/78x70/118mm	4.15kg±5%	
LWW/LFL-5-36P	R, G, B/W/W/N/W/W	36	40 WATTS	10°/20°/45°	1120x147/78x70/118mm	4.5kg±5%	
LWW/LFL-5-48P	R, G, B, W/W/W/N/W/W	48	52 WATTS	15°/25°/40°	1240x147/78x70/118mm	5.22kg±5%	

B. Working Mode:

B-1. Independent Mode: Choose the build-in programs via the buttons on the end cover.

B-2. DMX Mode: International standard DMX 512 signal (IP68 connector).

B-3. Master/Slave Mode: Auto online and synchro working.

B-1. Mode indépendant: Choisissez les programmes de construction en passant par les boutons sur la couverture de fin

B-2. Mode DMX: Signal de norme internationale DMX512 (connecteur IP68) .

B-3. Mode maître / esclave: Auto en ligne et travail synchro.

C. Function & Setup

C-1. Independent Mode

After pressing **A** four times (the first three times is the setup on DMX address) or **B** directly, light enter into independent mode; the digital LEDs show **PXY**, press **A** once, active digital LEDs move backward, you can choose function via **X** and parameter via **Y**; Press **B**, the corresponding flash digital LED increases one bit (range: 1~9).

Après avoir appuyé sur **A** quatre reprises (les trois premières fois est la configuration de l'adresse DMX) ou **B** directement, lumière entrer dans le mode indépendant; les voyants numériques montrent **PXY**, appuyez une fois, les LED numériques actifs se déplacent vers l'arrière, vous pouvez choisir la fonction via le **X** et le paramètre par **Y**; augmentations Appuyez sur **B**, le numérique de flash LED correspondante un peu (de 1 à 9).

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X refers to functions (the value between 1 to b), **Y** refers to value of speed and gray degree for the functions (the value between 1 to 9). When pressing button, please wait for about 10 sec, then you can exit the mode of adjustment function, the digital LED stop flashing and data recorded.

X se réfère à des fonctions (la valeur entre 1 et b), **Y** se rapporte à la valeur de la vitesse et du degré de gris pour les fonctions (l'valeur comprise entre 1 à 9). Quand appuyant sur le bouton, s'il vous plaît attendez environ 10 secondes, puis vous pouvez quitter le mode de réglage fonction, le voyant cesse de clignoter et numérique des données enregistrées.

Function and parameter sheet:

X value	Y value
1-static red	1~9 class gray degree
2-static green	1~9 class gray degree
3-static yellow	1~9 class gray degree
4-static blue	1~9 class gray degree
5-static purple	1~9 class gray degree
6-static cyan	1~9 class gray degree

Valeur de X	Valeur Y
1-rouge statique	1-9 degré classe gris
2-vert statique	1-9 degré classe gris
3-statique jaune	1-9 degré classe gris
4-bleu statique	1-9 degré classe gris
5-statique violet	1-9 degré classe gris
6-cyan statique	1-9 degré classe gris

X value	Y value
7-static white	1~9 class gray degree
8-multicolor changing	1~9 class speed
9-single fading	1~9 class speed
A-multicolor fading	1~9 class speed
B-multicolor flashing	1~9 class speed
C-aurorun	1~9 times circle

Valeur de X	Valeur Y
7-leblanc statique	1-9 degré classe gris
8-changement multicolore	1-9 vitesse de classe
9-unique décoloration	1-9 vitesse de classe
A-multicolore décoloration	1-9 vitesse de classe
B-multicolore clignotant	1-9 vitesse de classe
C-aurorun	1-9 fois cercle

C-2. DMX Mode

1. DMX Addressing

When the digital LED is not flashing, press **A**, digital LED begin to flash, press **A** once, active digital LEDs moves backward, you can start to edit the second digital LED; Press **B**, the corresponding flash digital LED increase one bit (the values between 1 to 9).

Lorsque le voyant numérique ne clignote pas, appuyez sur A, numérique LED commence à clignoter, appuyez une fois, actifs LED numériques se déplace vers l'arrière, vous pouvez commencer à éditer le second LED numérique; Appuyez sur B, le numérique flash LED correspondant augmenter un bit (les valeurs entre 1 à 9).

2. DMX Channel instruction-3 Channels available as sheet:

CHANNEL 1		CHANNEL 2		CHANNEL 3	
Data	Function	Data	Function	Data	Function
0~255	Brightness of Red	0~255	Brightness of Green	0~255	Brightness of Blue

***Enter or quit DMX mode automatically once detecting valid signal!!!

CANAL 1		CANAL 2		CANAL 3	
Données	Fonction	Données	Fonction	Données	Fonction
0~255	Luminosité de Red	0~255	Luminosité de Green	0~255	Luminosité de Blue

*** Entrée ou quitter le mode DMX automatiquement une fois la détection de signal valide!

3. DMX Channel instruction-4 Channels available as sheet:

CHANNEL 1		CHANNEL 2		CHANNEL 3		CHANNEL 4	
Data	Function	Data	Function	Data	Function	Data	Function
0~255	Brightness of Red	0~255	Brightness of Green	0~255	Brightness of Blue	0~255	Brightness of White

***Enter or quit DMX mode automatically once detecting valid signal!!!

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CANAL 1		CANAL 2		CANAL 3		CANAL 4	
Données	Fonction	Données	Fonction	Données	Fonction	Données	Fonction
0~255	Luminosité de Red	0~255	Luminosité de Green	0~255	Luminosité de Blue	0~255	Luminosité de White

*** Entrée ou quitter le mode DMX automatiquement une fois la détection de signal valide!

C-3. Master/Slave Mode

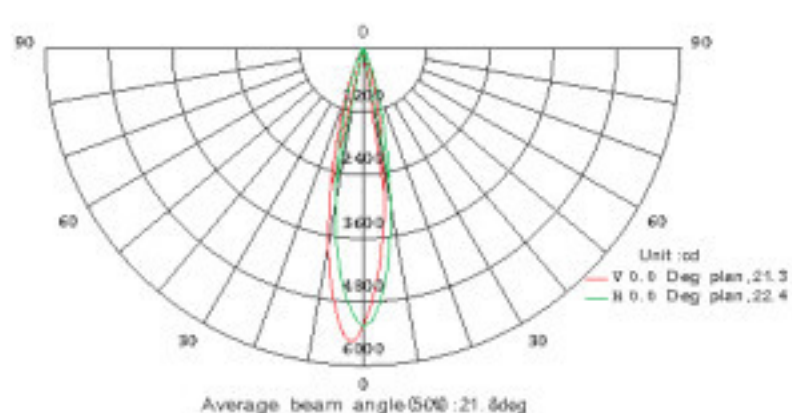
Choose any one light as the master for attaining auto online function, the operations are as below: firstly, set the address of master as 001, others are set as slave (address can be any one except 001); Change function of the master (001) light, then all lights will work synchronously;

Choisissez une quelconque lumière en tant que maître pour atteindre la fonction automatique de ligne, les opérations sont les suivantes: premièrement, définir la adresse du maître comme 001, d'autres sont définies comme esclave (adresse peut être l'un quelconque sauf 001); la fonction de changement de la maître (001) de lumière, puis toutes les lumières ne fonctionnent de manière synchrone;

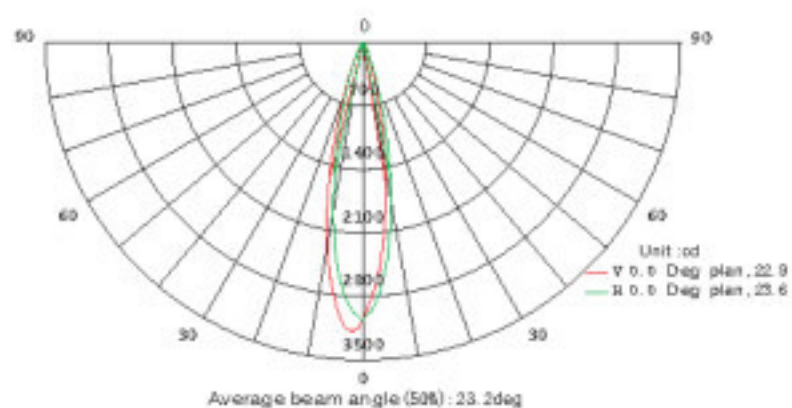
D. Photometric Parameters

D-1. Cadela Distribution

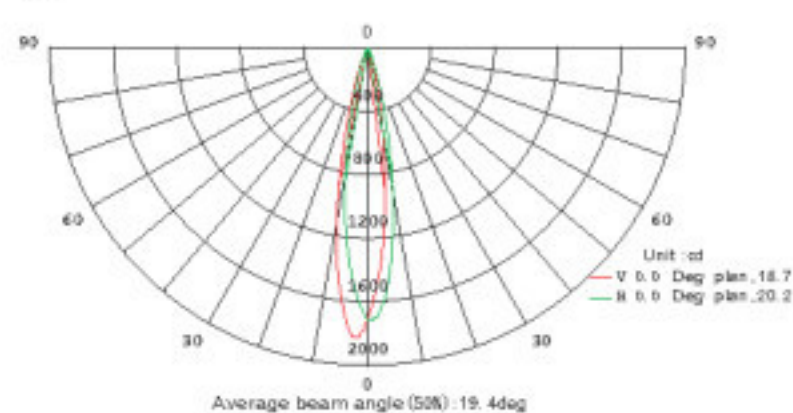
LWW-5-36P Beam Angle: 20°



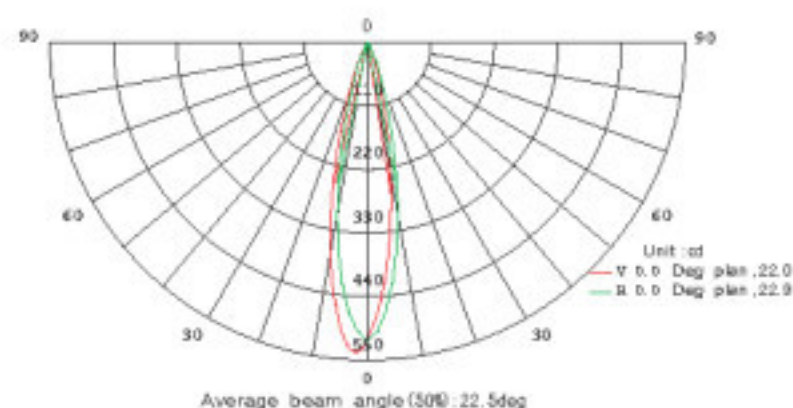
RGB



Green



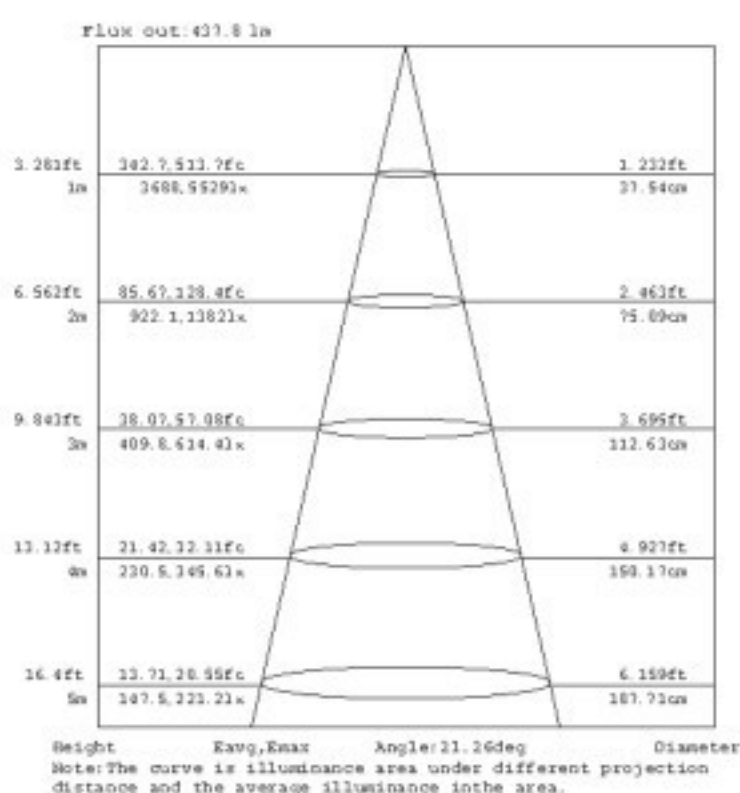
Red



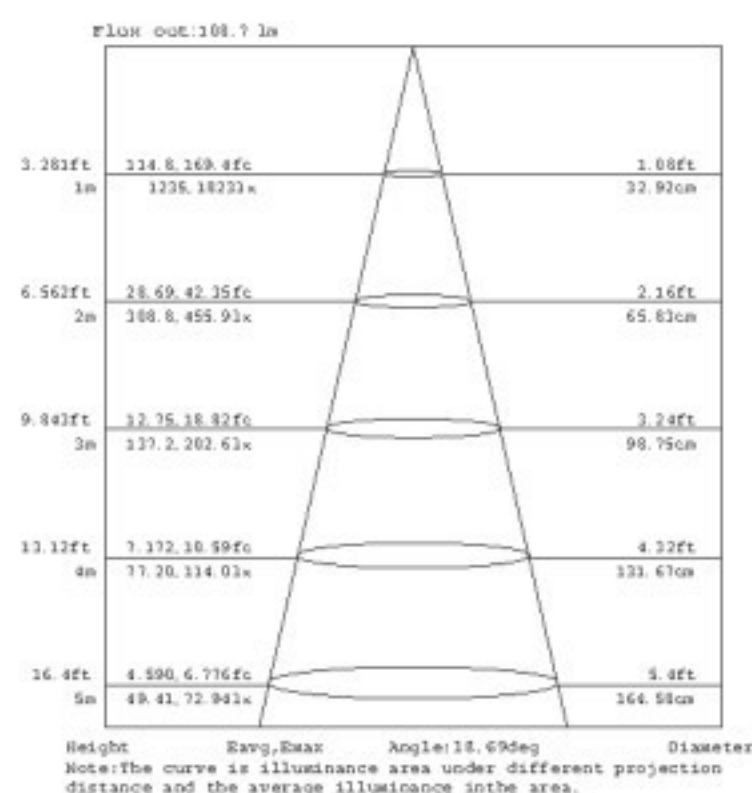
Blue

D-2. Illuminance At A Distance

LWW-5-36P Beam Angle: 20°



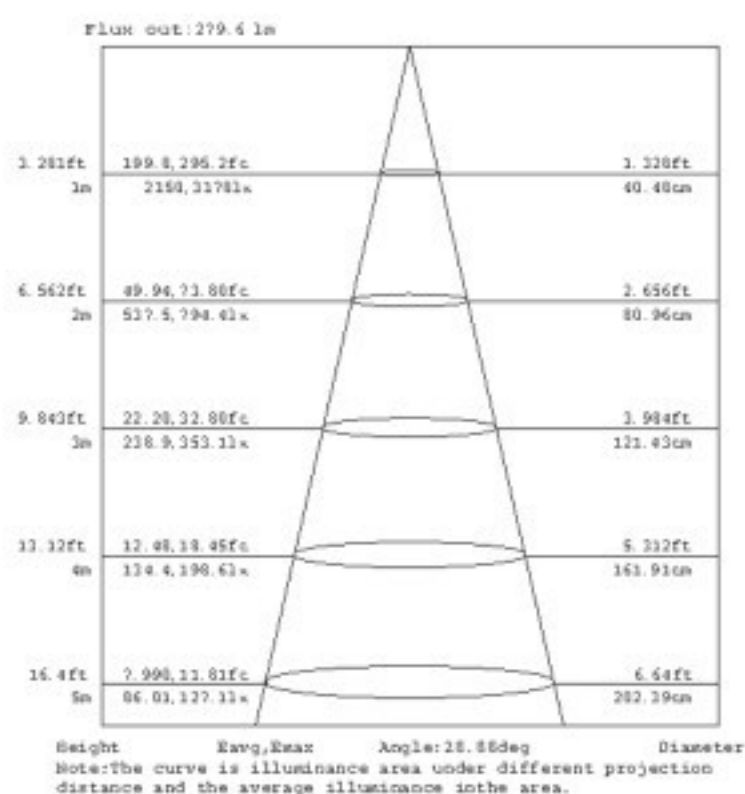
RGB



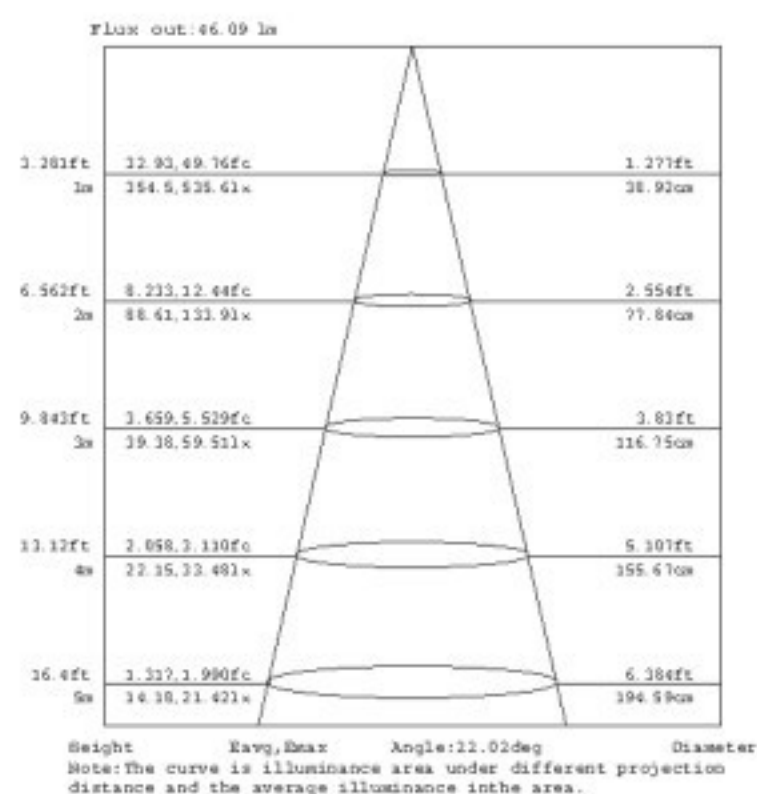
Red

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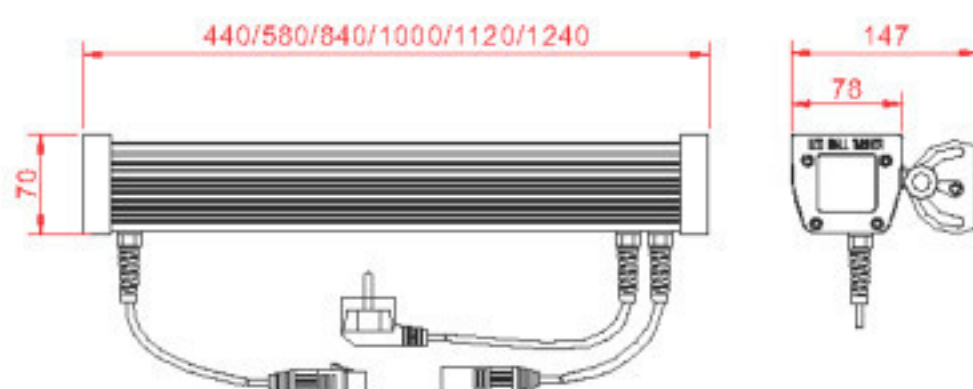


Green

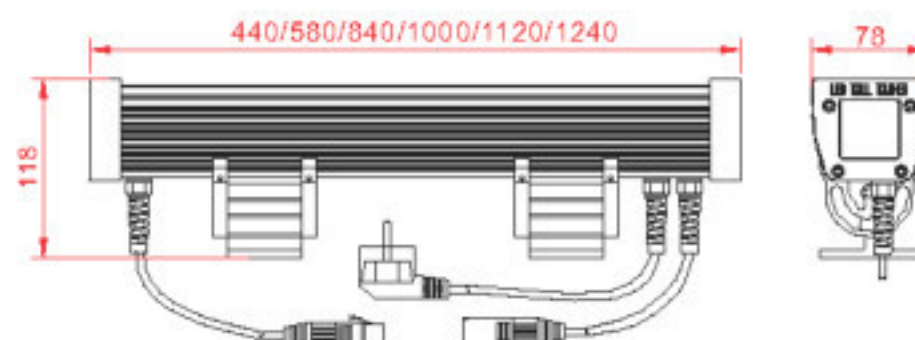


Blue

E. Dimension Drawing



LWW-5B Side mounting leg

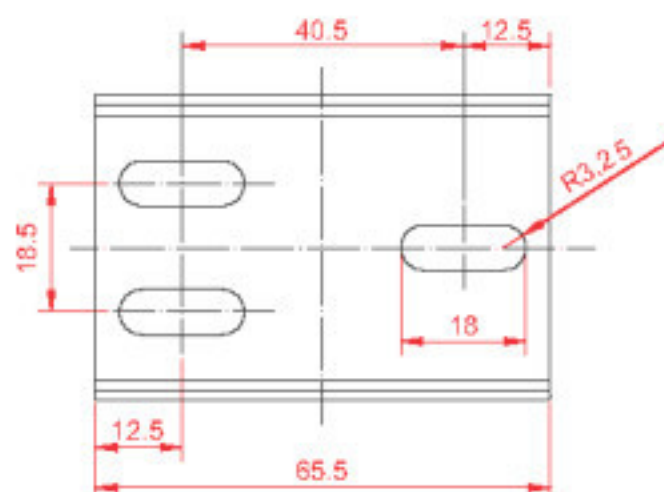


LWW-5C Bottom mounting leg

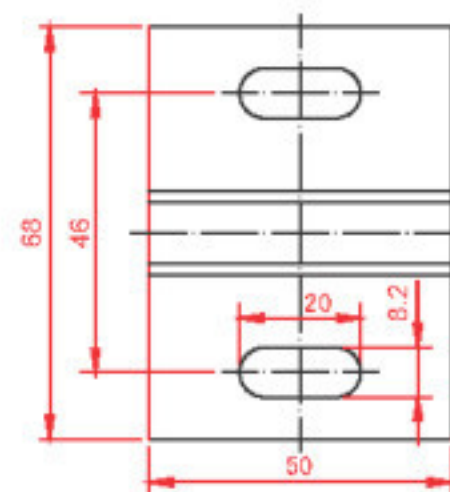
F. Installation Drawing:

Fix the brackets via M4 tapping screw, mounting size as below

Fixer les supports via M4 Vis Parker, la taille de montage ci-dessous:



LWW-5B Mounting Hole



LWW-5C Mounting Hole

G. Connection

G-1. Signal max connection is 100m, more than 100m or 60pcs fixtures need a signal amplifier.

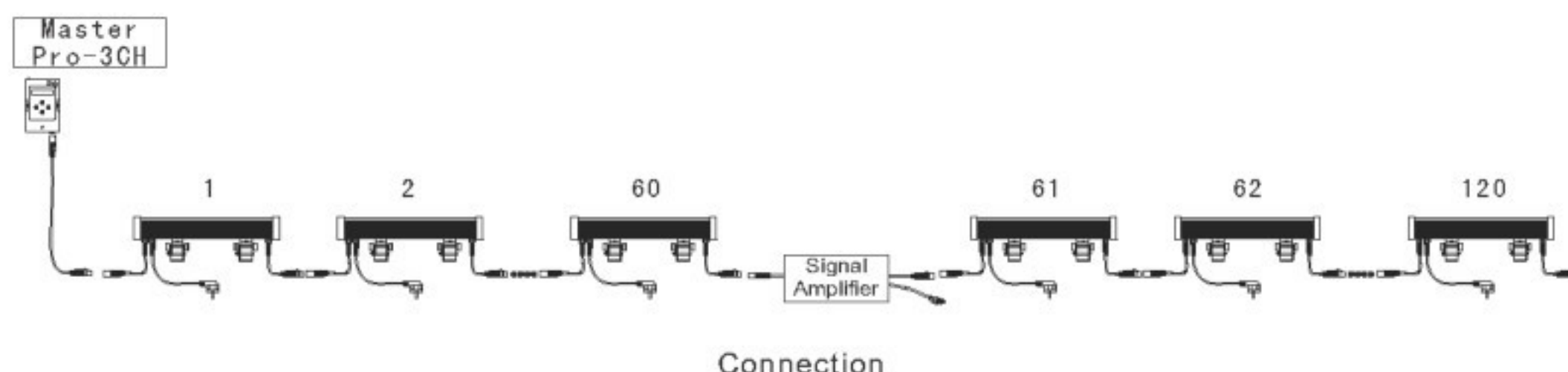
G-2. Optional controller: MASTER PRO, Sunlite, DMX-192C, Madrix and other DMX controller.

G-1. Signal connexion max est de 100 m, tous les 100 m ou 60pcs appareils ont besoin d'un amplificateur de signal Contrôleur

G-2. Optional: MASTER PRO, Sunlite, DMX-192C, Madrix et autre contrôleur DMXr.

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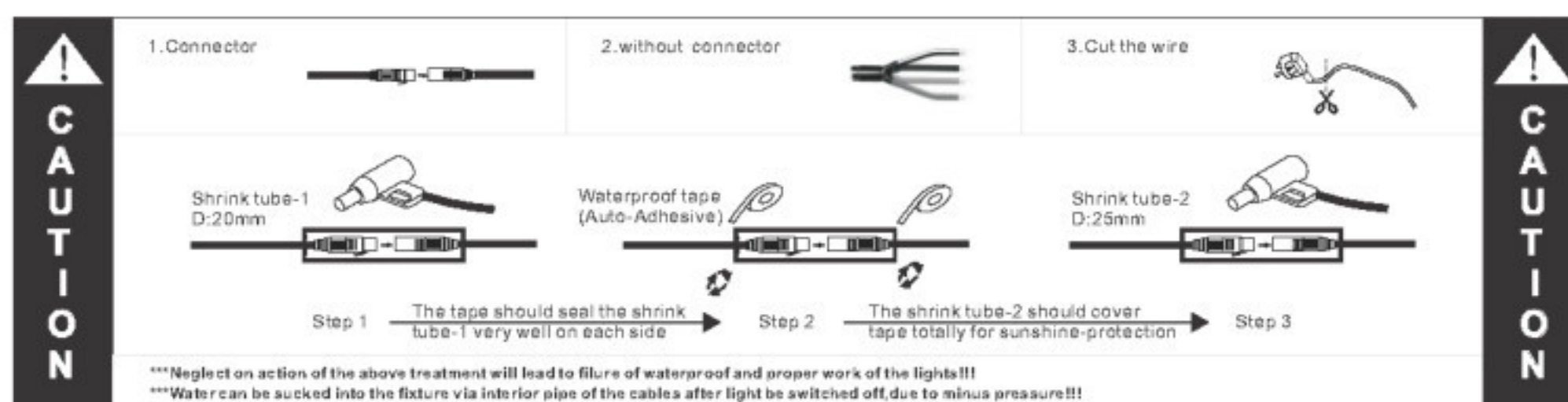
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H. Waterproof Treatment

The signal output connector XLR-3 of the last fixture of each series must be sealed with a 20mm thermal shrinking tube(-1), blow and shrink it with a hair driers; thence wrapped with waterproof tape (auto-adhesive, please refer to below instruction for operation) on both side; Blow the second 25mm shrink tube(-2) at last so as to protect waterproof tape under sunshine and guarantee the waterproof validity.

Le connecteur de sortie du signal XLR-3 du dernier appareil de chaque série doit être scellé avec un 20mm Stube rétrécissement thermique (-1), souffler et rétrécir avec cheveux séchoirs, de là enveloppé avec du ruban adhésif étanche (auto-adhésif, s'il vous plaît se référer au-dessous de l'instruction pour le fonctionnement) sur les deux côtés; Soufflez le deuxième tube de 25mm de retrait (-2) à durer de manière à protéger la bande imperméable à l'eau sous le soleil et garantir la validité étanche.



*** Power connector should be treated in the same way if available!!!

*** Connecteur d'alimentation doit être traitée de la même manière si disponible!

Caution:

1. Do not plug them into power when the product is still in package;
2. Don't use anything to cover the fixture during application;
3. Don't use this product in close environment;
4. If this product appears to be damaged, do not attempt any repair, please contact your dealer.

Warning:

- * Neglect on action of the above treatment will lead to failure of waterproof and proper working of the lights!!!
- * Make sure the ground connection well avoid electric shock, due to metal housing.

Caution:

1. Ne pas les brancher au pouvoir lorsque le produit est toujours en emballage;
2. Ne pas utiliser quoi que ce soit pour couvrir l'appareil lors de l'application;
3. Ne pas utiliser ce produit en étroite environnement;
4. Si ce produit semble endommagé, n'essayez pas toute réparation, s'il vous plaît contactez votre revendeur.

Warning:

- * Négligence sur l'action du traitement ci-dessus conduira à l'échec de imperméable et bon travail des lumières!.
- * Assurez-vous que la connexion à la terre et éviter choc électrique, grâce à un boîtier métallique.