



**SONARAY**

2013/8

## LED Downlight 2000 Series



High quality of light like the fresh air, it can create a comfortable space for people with good feelings. Excellent light effect of 2000 series Downlight quietly for you create a comfortable, bright spaces, so people can enjoy the indoor sunlight and fresh feeling.

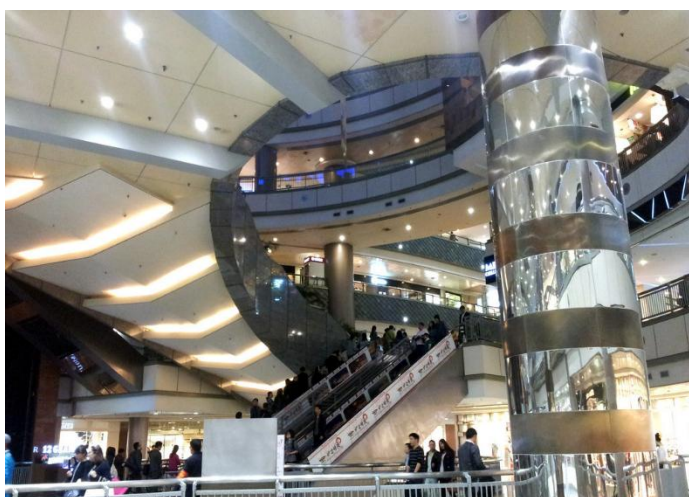


10inch



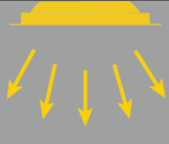





8inch

6inch

5inch



### Product Outstanding Features

 <p><b>Light Quality</b> High quality CITELED LED closes to natural daylight , comfortable light.</p>	 <p><b>High Output</b> Achieved 90lm/w , high efficiency and energy saving.</p>	 <p><b>Optical Design</b> Science front-end diffuser design , even light distribution.</p>
 <p><b>High CRI</b> Ra &gt; 80 , The space color has more structured.</p>	 <p><b>Long lifetime</b> 35000hrs of lifetime, greatly reduce maintained cost</p>	 <p><b>High Efficiency</b> Pursuing more energy saving , higher efficiency, achieved energy savings of 40%-80%</p>
 <p><b>Obtained EN62471 : 2008 Standard Certification</b> Obtained Photo-Biological Safety Standards EN62471:2008, to ensure do not emit radiation causing harm to the human eyes and skin</p>		 <p><b>Obtained LM-80 Certification</b> 70% lumens maintained after 35,000 hours of operation</p>

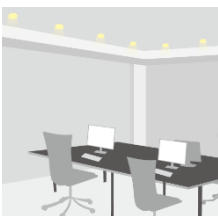

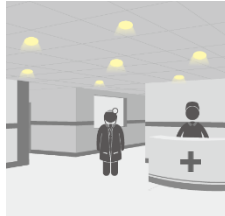
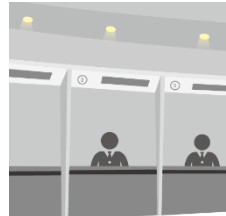

**Downlight** Specifications

5" 10W	6" 10W	5" 21W	6" 21W	8" 21W	10" 21W																																																																																																												
<b>DL-2005E1-10</b>	<b>DL-2006E1-10</b>	<b>DL-2005E1-21</b>	<b>DL-2006E1-21</b>	<b>DL-2008E1-21</b>	<b>DL-2010E1-21</b>																																																																																																												
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**Downlight General Spec**



Housing material : Aluminum  
 Reflector : PC  
 Power supply : external  
 CCT : 5000K/4000K/3000K  
 Ambient Temp. : -20°C~+40°C  
 Mounting way : Recessed

**5"6" Downlight Main Application**

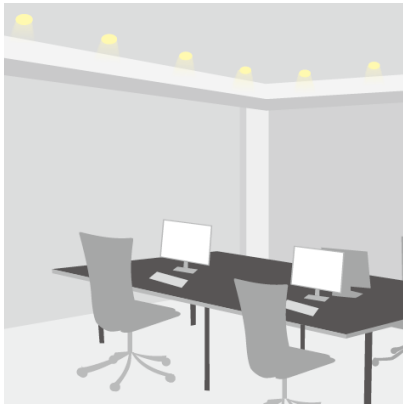






Office, Conference Room    Retail Store    Hospital    Bank Counter    Gallery

**8"10" Downlight Main Application**

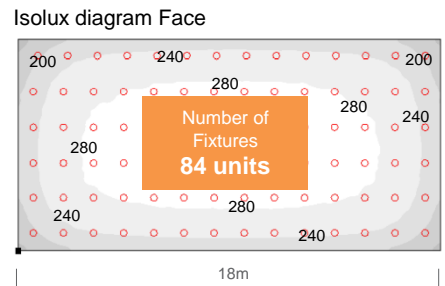
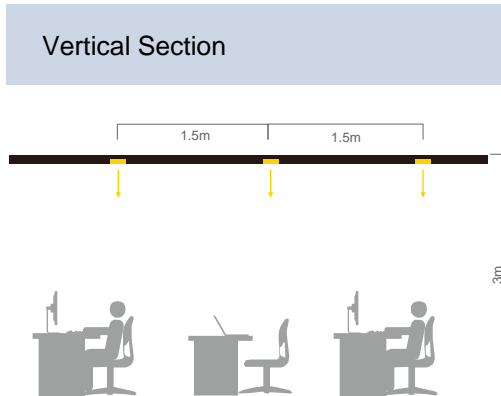



Market service areas    Airport Terminal



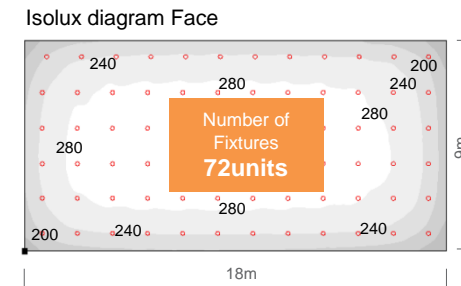
Designed Example : Office, Conference Room

Designed Illumination : 250lx



※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional lamp
Light source	Traditional Light Source
Light Source Luminous Flux	850lm
Lifetime	8000hrs
Installation Height	3m
Maintained Average luminance	261lx
Power Consumption	1848W



※The curve graph shows the illumination unit : ( lx )

Lamp	DL-2006E1-10
Light source	LED
Light Source Luminous Flux	900lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	261lx
Power Consumption	720W

Same Brightness as 250lx above

Energy saving about 60%

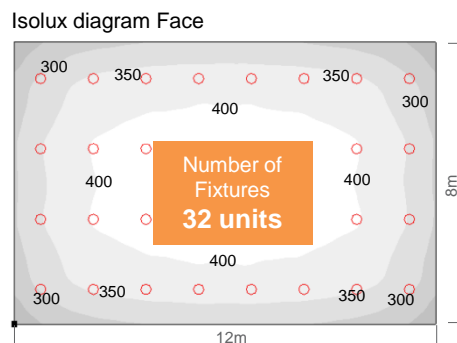
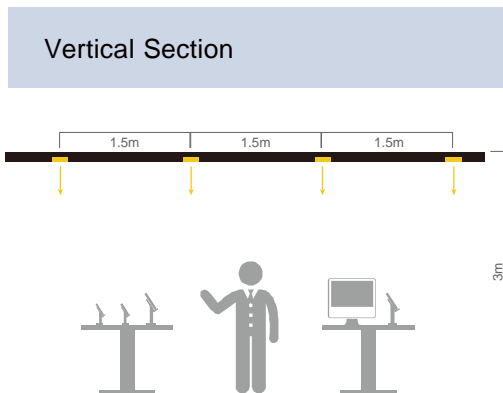
12 units reduction

Lifetime about 5 times longer



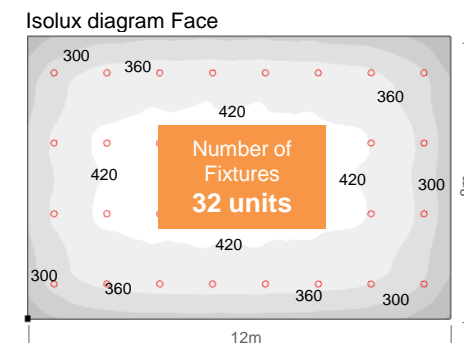
Designed Example : Retail Store

Designed Illumination : 360lx



※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional Lamp
Light source	Traditional Light Source
Light Source Luminous Flux	1650lm
Lifetime	8000hrs
Installation Height	3m
Maintained Average luminance	367lx
Power Consumption	1344W



※The curve graph shows the illumination unit : ( lx )

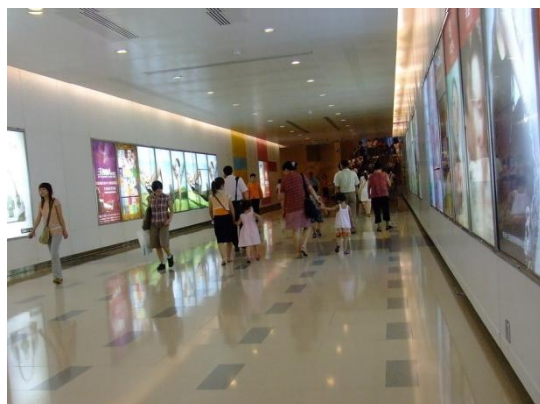
Lamp	DL-2005E1-21
Light source	LED
Light Source Luminous Flux	1800lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	377lx
Power Consumption	672W

Same Brightness as 250lx above

Energy saving about 50%

Same number of fixture

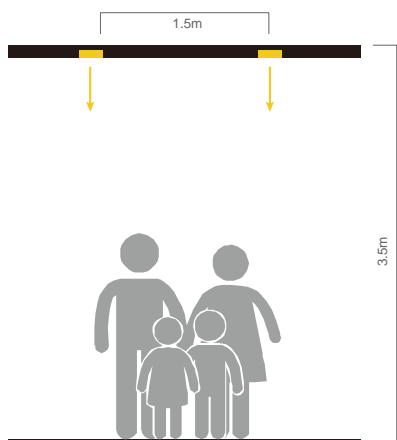
Lifetime about 5 times longer



Designed Example : Gallery

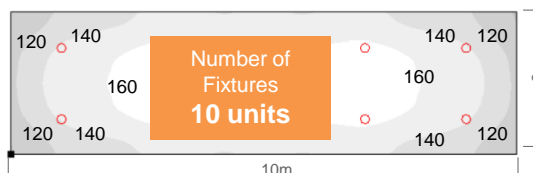
Designed Illumination : 150lx

Vertical Section



Traditional Lamp 22W

Isolux diagram Face



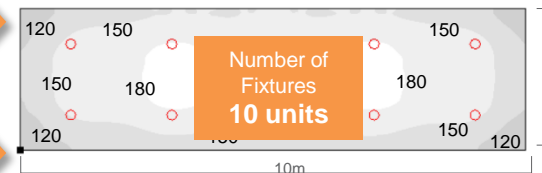
※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional Lamp
Light source	LED
Light Source Luminous Flux	830lm
Lifetime	8000hrs
Installation Height	3.5m
Maintained Average luminance	150lx
Power Consumption	220W



LED Downlight 6 " 10W  
( DL-2006E1-10 )

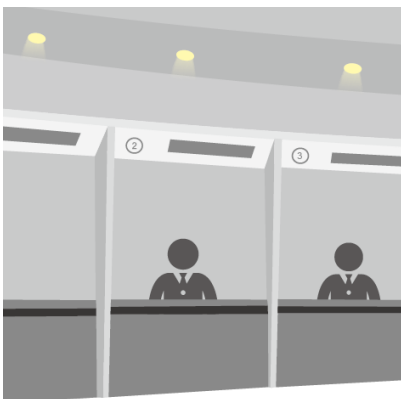
Isolux diagram Face



※The curve graph shows the illumination unit : ( lx )

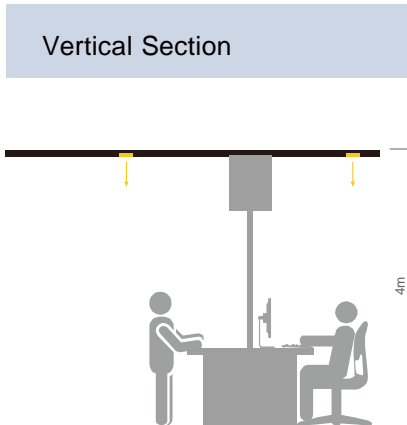
Lamp	DL-2006E1-10
Light source	LED
Light Source Luminous Flux	900lm
Lifetime	35000hrs
Installation Height	3.5m
Maintained Average luminance	159lx
Power Consumption	100W

- Brightness Be improved 150lx above
- Energy saving about 55%
- Same number of fixture
- Lifetime about 5 times longer



Designed Example : Bank Counter

Designed Illumination : 350lx



Traditional Lamp 42W

Isolux diagram Face



※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional Lamp
Light source	Traditional Light Source
Light Source Luminous Flux	1600lm
Lifetime	8000hrs
Installation Height	3m
Maintained Average luminance	352lx
Power Consumption	420W



LED Downlight 6 " 21W  
( DL-2006E1-21 )

Isolux diagram Face



※The curve graph shows the illumination unit : ( lx )

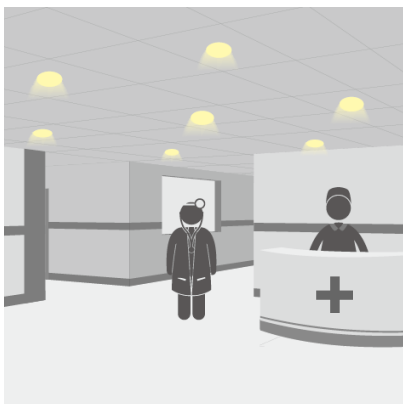
Lamp	DL-2006E1-21
Light source	LED
Light Source Luminous Flux	1800lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	363lx
Power Consumption	210W

Same Brightness as 350lx above

Energy saving about 50%

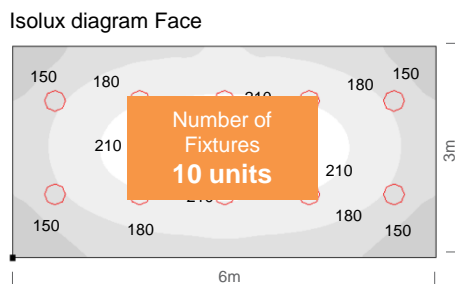
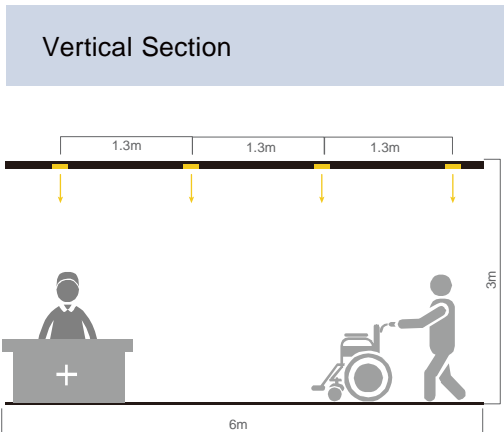
Same number of fixture

Lifetime about 5 times longer



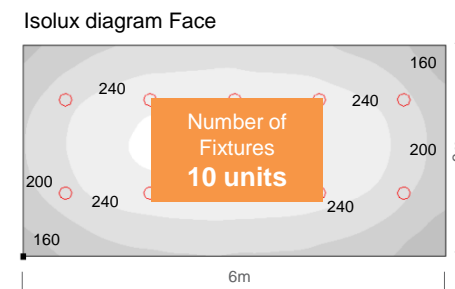
Designed Example : Hospital

Designed Illumination : 200lx



※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional Lamp
Light source	Traditional Light Source
Light Source Luminous Flux	850lm
Lifetime	8000hrs
Installation Height	3m
Maintained Average luminance	187lx
Power Consumption	220W



※The curve graph shows the illumination unit : ( lx )

Lamp	DL-2006E1-10
Light source	LED
Light Source Luminous Flux	900lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	233lx
Power Consumption	100W

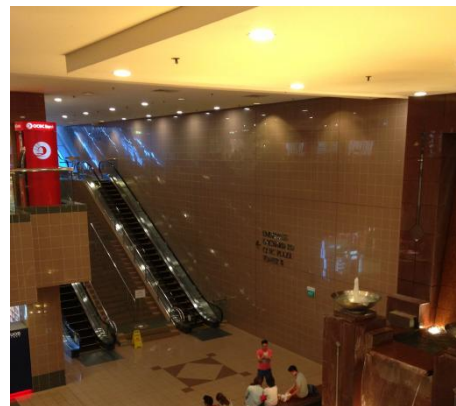
Same Brightness as 200lx above

Energy saving about 55%

Same number of fixture

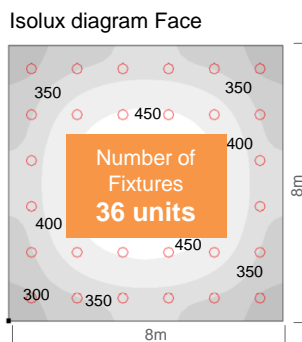
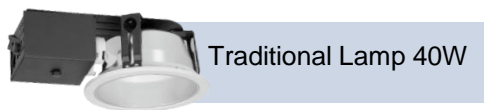
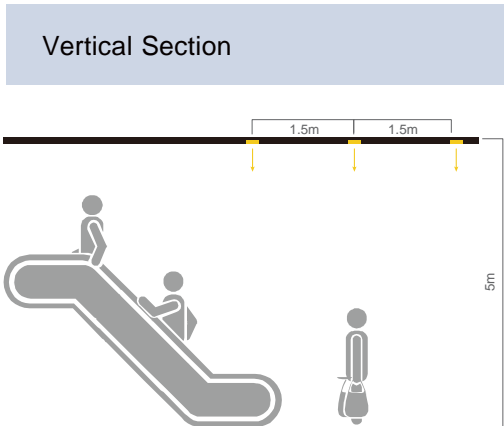
Lifetime about 5 times longer





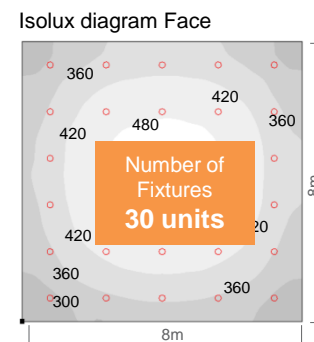
Designed Example : Market Business Areas

Designed Illumination : 400lx



※The curve graph shows the illumination unit : ( lx )

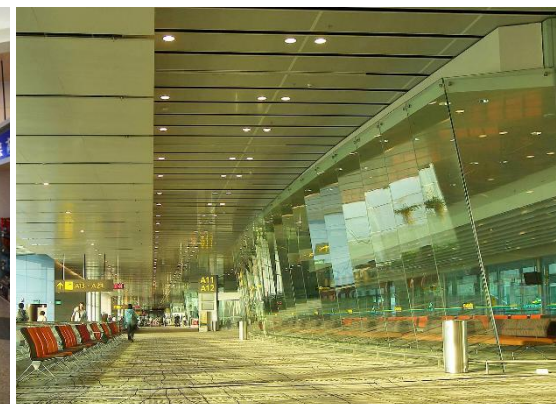
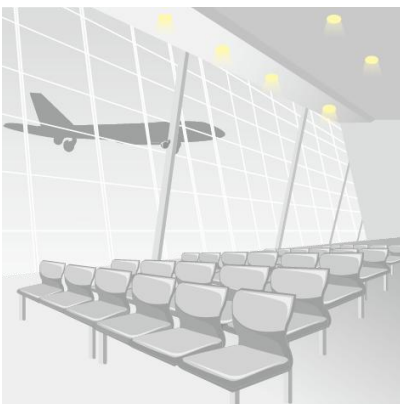
Lamp	Traditional Lamp
Light source	Traditional Light Source
Light Source Luminous Flux	1650lm
Lifetime	8000hrs
Installation Height	5m
Maintained Average luminance	400lx
Power Consumption	1440W



※The curve graph shows the illumination unit : ( lx )

Lamp	DL-2008E1-21
Light source	LED
Light Source Luminous Flux	1720lm
Lifetime	35000hrs
Installation Height	5m
Maintained Average luminance	402lx
Power Consumption	630W

- Same Brightness as 400lx above
- Energy Saving about 56%
- 6 units reduction
- Lifetime about 5 times



Designed Example : Airport Terminal

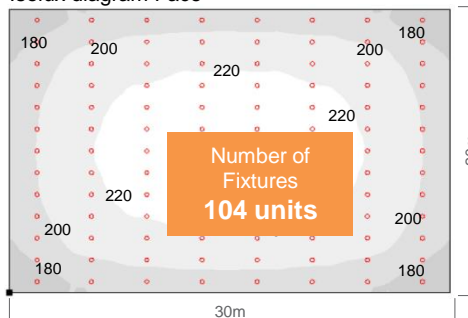
Designed Illumination : 200lx

#### Vertical Section



Traditional Lamp 42W

Isolux diagram Face



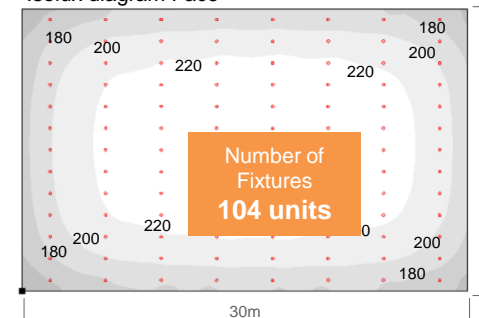
※The curve graph shows the illumination unit : ( lx )

Lamp	Traditional Lamp
Light source	Traditional Light Source
Light Source Luminous Flux	1650lm
Lifetime	8000hrs
Installation Height	6m
Maintained Average luminance	200lx
Power Consumption	4368W



LED Downlight 10 " 21W  
( DL-2010E1-21 )

Isolux diagram Face



※The curve graph shows the illumination unit : ( lx )

Lamp	DL-2010E1-21
Light source	LED
Light Source Luminous Flux	1764lm
Lifetime	35000hrs
Installation Height	6m
Maintained Average luminance	202lx
Power Consumption	2184W

Same Brightness as 200lx above

Energy saving about 50%

Same number of fixture

Lifetime about 5 times longer