



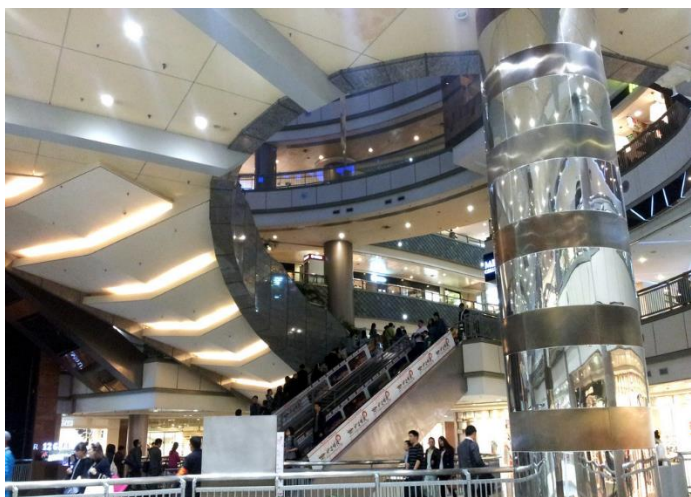
SONARAY

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



Light Quality

High quality
CITILED LED
closes to natural
daylight ,
comfortable light.



High Output

Achieved 90lm/w ,
high efficiency and
energy saving.



Optical Design

Science front-end
diffuser design ,
even light
distribution.



High CRI

Ra > 80 ,
The space color
has more
structured.



Long lifetime

35000hrs of
lifetime, greatly
reduce maintained
cost



High Efficiency

Pursuing more
energy saving ,
higher efficiency,
achieved energy
savings of
40%-80%



Obtained EN62471 : 2008 Standard Certification







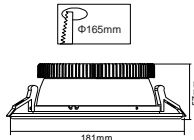
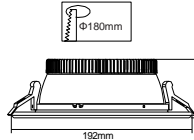
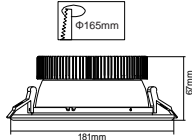
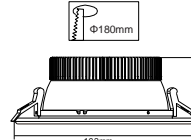
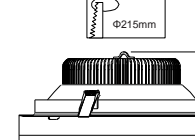
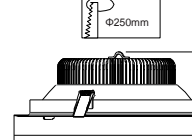
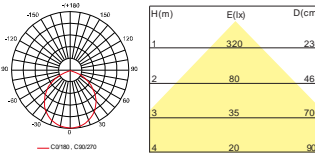
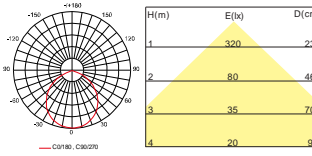
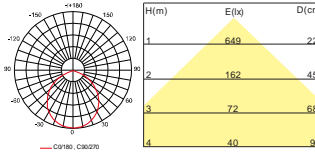
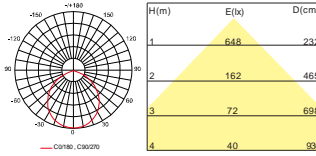
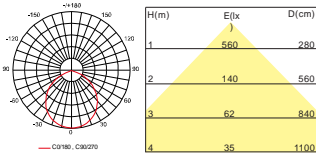
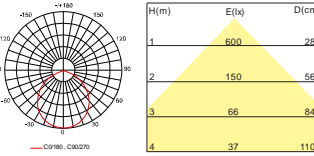
Obtained Photo-Biological Safety
Standards EN62471:2008, to ensure do
not emit radiation causing harm to the
human eyes and skin

LM-80

Obtained LM-80 Certification

70% lumens maintained after
35,000 hours of operation

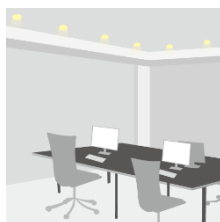
Downlight Specifications

5" 10W	6" 10W	5" 21W	6" 21W	8" 21W	10" 21W																																				
																																									
DL-2005E1-10	DL-2006E1-10	DL-2005E1-21	DL-2006E1-21	DL-2008E1-21	DL-2010E1-21																																				
																																									
<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>900lm</td><td>90lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	900lm	90lm/W	5000K	<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>900lm</td><td>90lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	900lm	90lm/W	5000K	<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>1800lm</td><td>86lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	1800lm	86lm/W	5000K	<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>1800lm</td><td>86lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	1800lm	86lm/W	5000K	<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>1720lm</td><td>82lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	1720lm	82lm/W	5000K	<table><tr><th>Luminous Flux</th><th>Efficiency</th><th>CCT</th></tr><tr><td>1764lm</td><td>82lm/W</td><td>5000K</td></tr></table>	Luminous Flux	Efficiency	CCT	1764lm	82lm/W	5000K
Luminous Flux	Efficiency	CCT																																							
900lm	90lm/W	5000K																																							
Luminous Flux	Efficiency	CCT																																							
900lm	90lm/W	5000K																																							
Luminous Flux	Efficiency	CCT																																							
1800lm	86lm/W	5000K																																							
Luminous Flux	Efficiency	CCT																																							
1800lm	86lm/W	5000K																																							
Luminous Flux	Efficiency	CCT																																							
1720lm	82lm/W	5000K																																							
Luminous Flux	Efficiency	CCT																																							
1764lm	82lm/W	5000K																																							
<table><tr><th>Power</th><th>Input</th></tr><tr><td>10W</td><td>DC 25V-32V, 310mA</td></tr></table>	Power	Input	10W	DC 25V-32V, 310mA	<table><tr><th>Power</th><th>Input</th></tr><tr><td>10W</td><td>DC 25V-32V, 310mA</td></tr></table>	Power	Input	10W	DC 25V-32V, 310mA	<table><tr><th>Power</th><th>Input</th></tr><tr><td>21W</td><td>DC 25V-32V, 390mA</td></tr></table>	Power	Input	21W	DC 25V-32V, 390mA	<table><tr><th>Power</th><th>Input</th></tr><tr><td>21W</td><td>DC 25V-32V, 390mA</td></tr></table>	Power	Input	21W	DC 25V-32V, 390mA	<table><tr><th>Power</th><th>Input</th></tr><tr><td>21W</td><td>DC 26V-30V, 310mA</td></tr></table>	Power	Input	21W	DC 26V-30V, 310mA	<table><tr><th>Power</th><th>Input</th></tr><tr><td>21W</td><td>DC 26V-30V, 310mA</td></tr></table>	Power	Input	21W	DC 26V-30V, 310mA												
Power	Input																																								
10W	DC 25V-32V, 310mA																																								
Power	Input																																								
10W	DC 25V-32V, 310mA																																								
Power	Input																																								
21W	DC 25V-32V, 390mA																																								
Power	Input																																								
21W	DC 25V-32V, 390mA																																								
Power	Input																																								
21W	DC 26V-30V, 310mA																																								
Power	Input																																								
21W	DC 26V-30V, 310mA																																								
<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80	<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80	<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80	<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80	<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80	<table><tr><th>Beam Angle</th><th>Average Lifetime</th><th>CRI (Ra)</th></tr><tr><td>100°</td><td>35000hrs</td><td>80</td></tr></table>	Beam Angle	Average Lifetime	CRI (Ra)	100°	35000hrs	80
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
Beam Angle	Average Lifetime	CRI (Ra)																																							
100°	35000hrs	80																																							
																																									

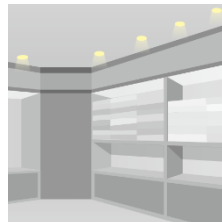
Downlight General Spec

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

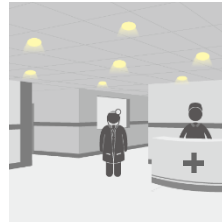
5"6"Downlight Main Application



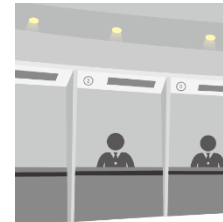
Office、Conference Room



Retail Store



Hospital



Bank Counter



Gallery

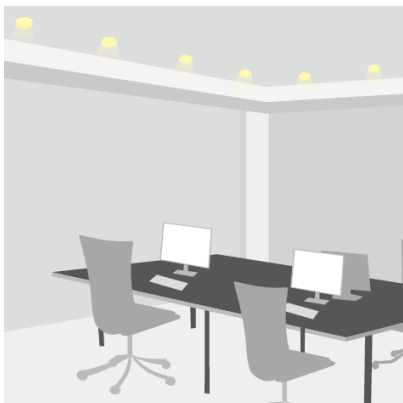


Market service areas



Airport Terminal

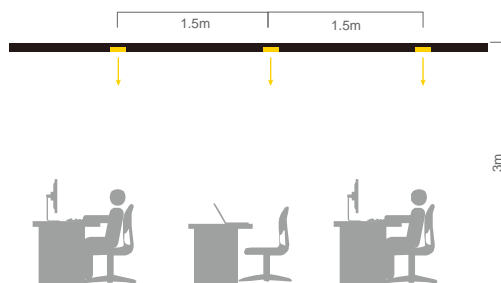
8"10"Downlight Main Application



Designed Example : Office、Conference Room

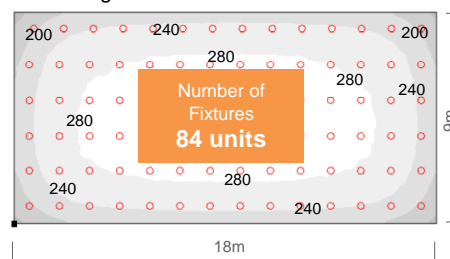
Designed Illumination : 250lx

Vertical Section



Traditional Lamp 22W

Isolux diagram Face



※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

Same
Brightness
as 250lx
above

Energy
saving
about 60%

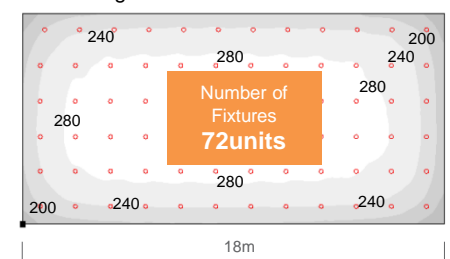
12 units
reduction

Lifetime
about 5
times longer



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

Isolux diagram Face



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

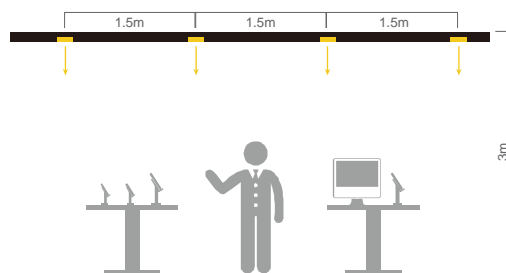
Lamp	DL-2006E1-10
Light source	LED
Light Source Luminous Flux	900lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	261lx
Power Consumption	720W



Designed Example : Retail Store

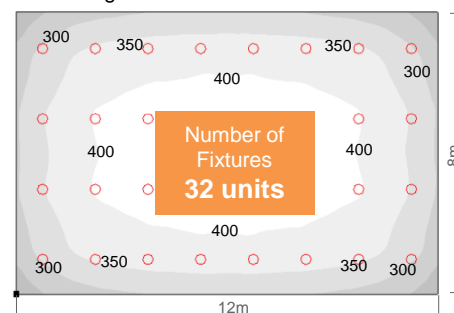
Designed Illumination : 360lx

Vertical Section



Traditional Lamp 42W

Isolux diagram Face



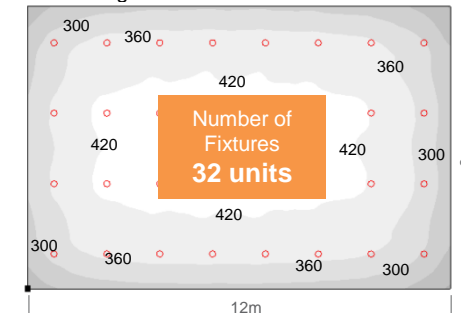
※The curve graph shows the illumination unit : (lx)

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



LED Downlight 5 " 21W
(DL-2005E1-21)

Isolux diagram Face



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

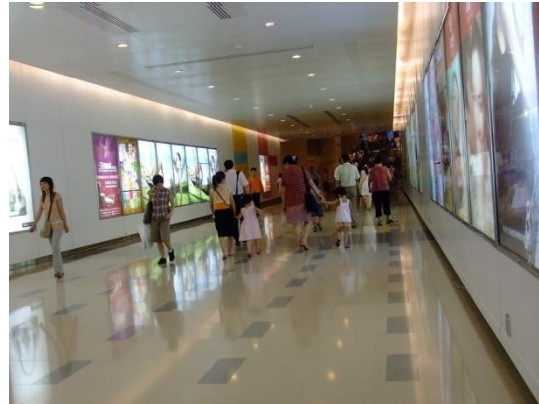
Lamp	DL-2005E1-21
Light source	LED
Light Source Luminous Flux	1800lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	377lx
Power Consumption	672W

Same Brightness
as 250lx
above

Energy
saving about
50%

Same
number
of fixture

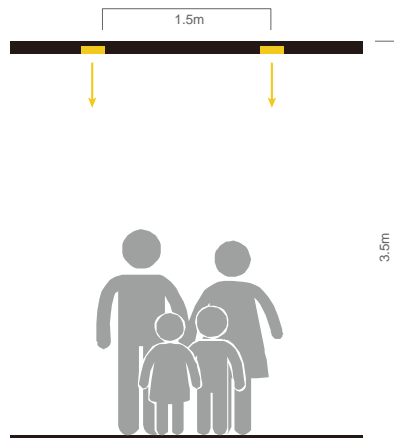
Lifetime
about 5
times longer



Designed Example : Gallery

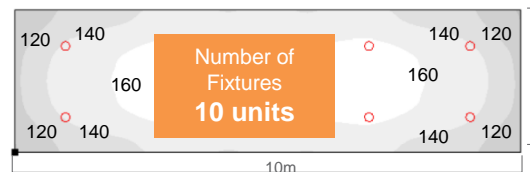
Designed Illumination : 150lx

Vertical Section



Traditional Lamp 22W

Isolux diagram Face



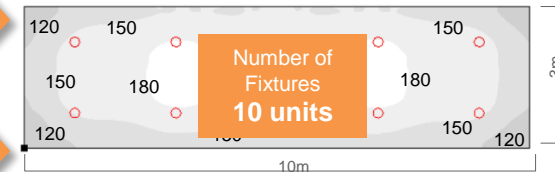
※The curve graph shows the illumination unit : (lx)

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)

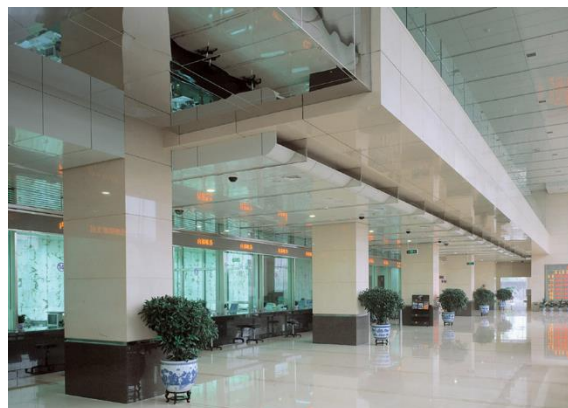
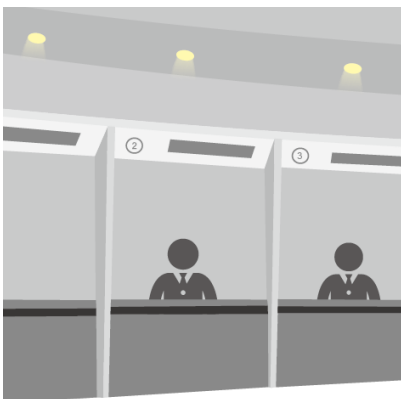
Lamp	DL-2006E1-10
Light source	LED
Light Source Luminous Flux	900lm
Lifetime	35000hrs
Installation Height	3.5m
Maintained Average luminance	159lx
Power Consumption	100W

Brightness
Be improved
150lx above

Energy saving
about 55%

Same
number of
fixture

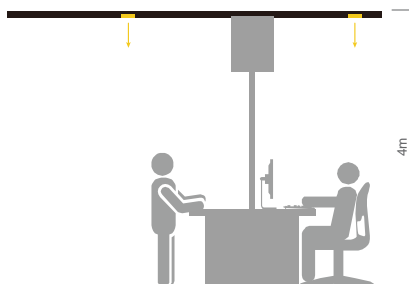
Lifetime
about 5
times longer



Designed Example : Bank Counter

Designed Illumination : 350lx

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	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)

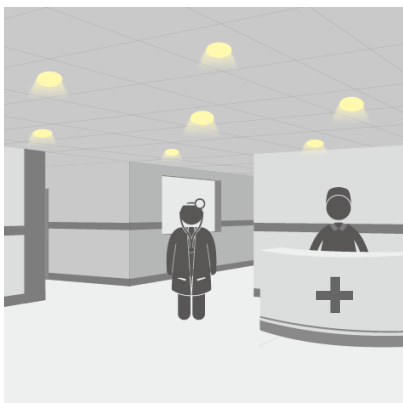
Lamp	DL-2006E1-21
Light source	LED
Light Source Luminous Flux	1800lm
Lifetime	35000hrs
Installation Height	3m
Maintained Average luminance	363lx
Power Consumption	210W

Same
Brightness
as 350lx
above

Energy
saving
about 50%

Same
number of
fixture

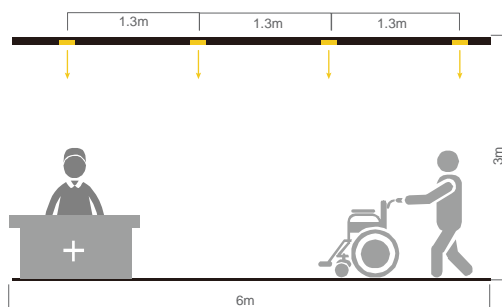
Lifetime
about 5
times longer



Designed Example : Hospital

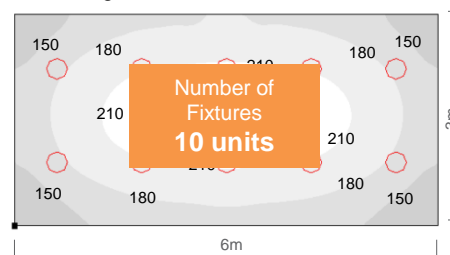
Designed Illumination : 200lx

Vertical Section



Traditional Lamp 22W

Isolux diagram Face



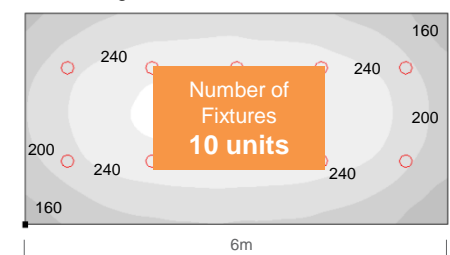
※The curve graph shows the illumination unit : (lx)

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



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	3m
Maintained Average luminance	233lx
Power Consumption	100W

Same Brightness as 200lx above

Energy saving about 55%

Same number of fixture

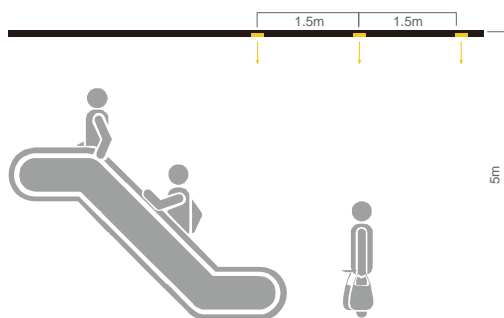
Lifetime about 5 times longer



Designed Example : Market Business Areas

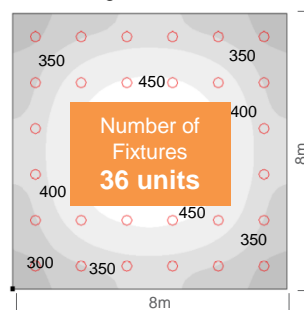
Designed Illumination : 400lx

Vertical Section



Traditional Lamp 40W

Isolux diagram Face



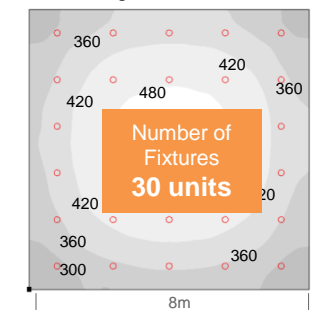
※The curve graph shows the illumination unit : (lx)

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



LED Downlight 8 " 21W
(DL-2008E1-21)

Isolux diagram Face



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

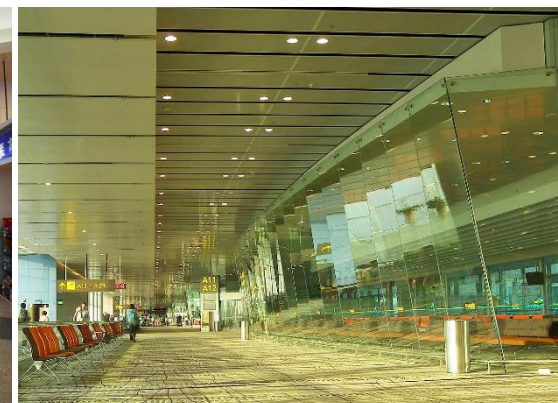
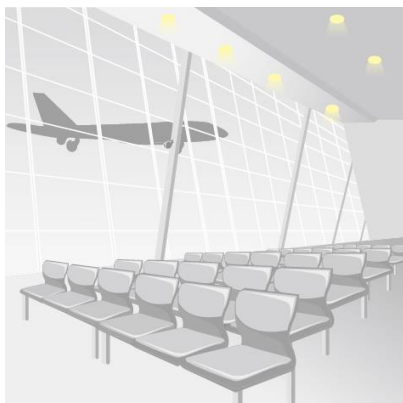
Lamp	DL-2008E1-21
Light source	LED
Light Source Luminous Flux	1720lm
Lifetime	35000hrs
Installation Height	5m
Maintained Average luminance	402lx
Power Consumption	630W

Same
Brightness
as 400lx
above

Energy
Saving about
56%

6 units
reduction

Lifetime
about 5 times



Designed Example : Airport Terminal

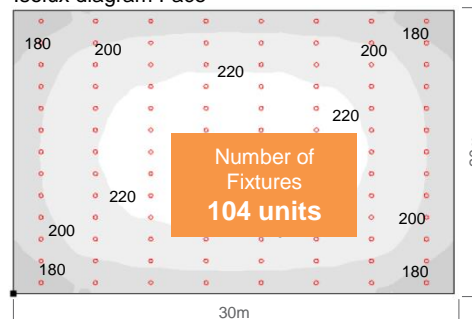
Designed Illumination : 200lx

Vertical Section



Traditional Lamp 42W

Isolux diagram Face



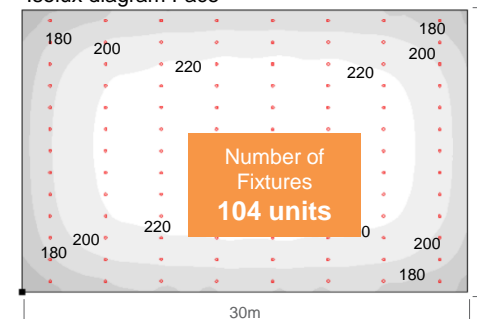
※The curve graph shows the illumination unit : (lx)

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