

三水同鄉會禰景榮學校

Sam Shui Natives Association Huen King Wing School

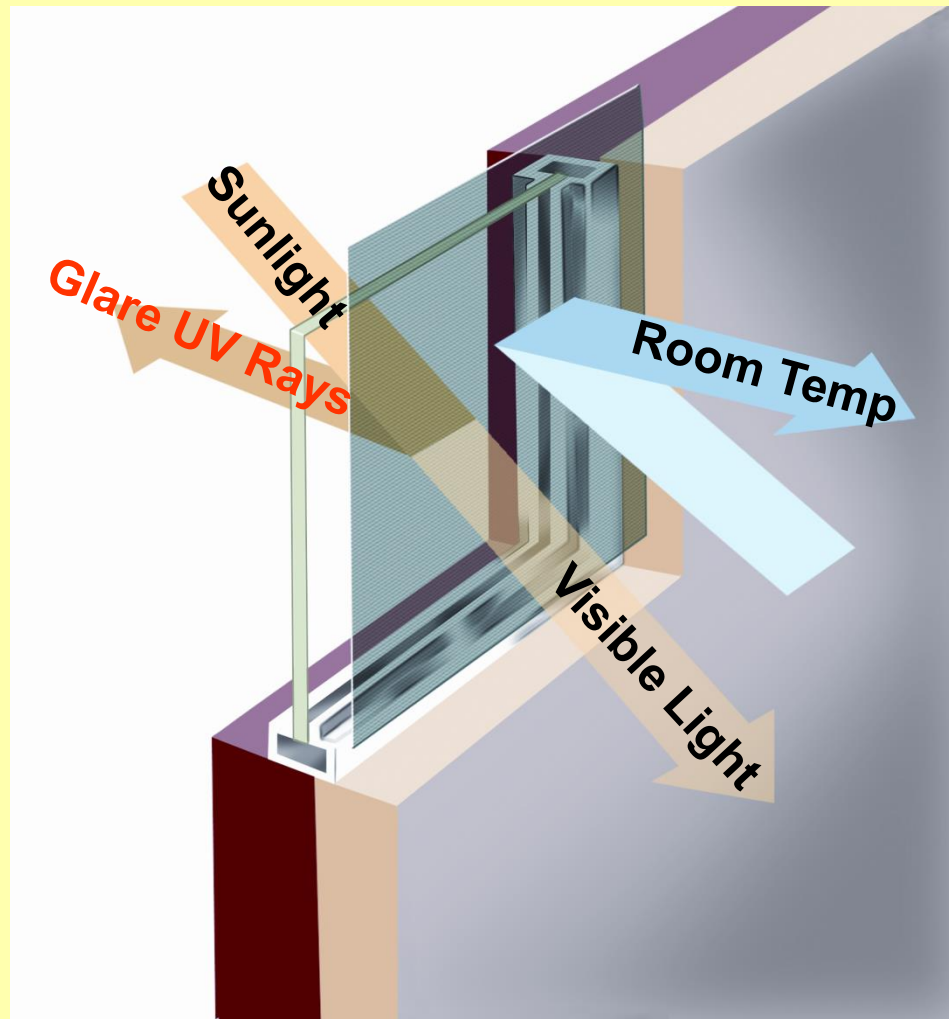
Test Report –

Solar Control Film

&

Roof Heat Rejected Coating

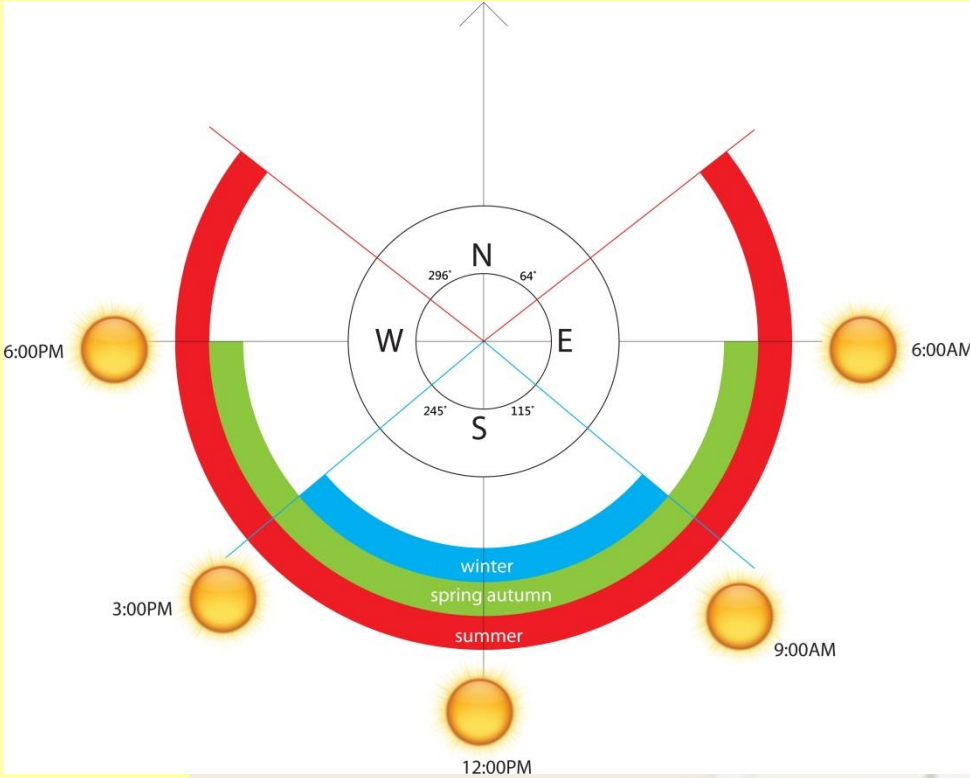
Solar Control Film



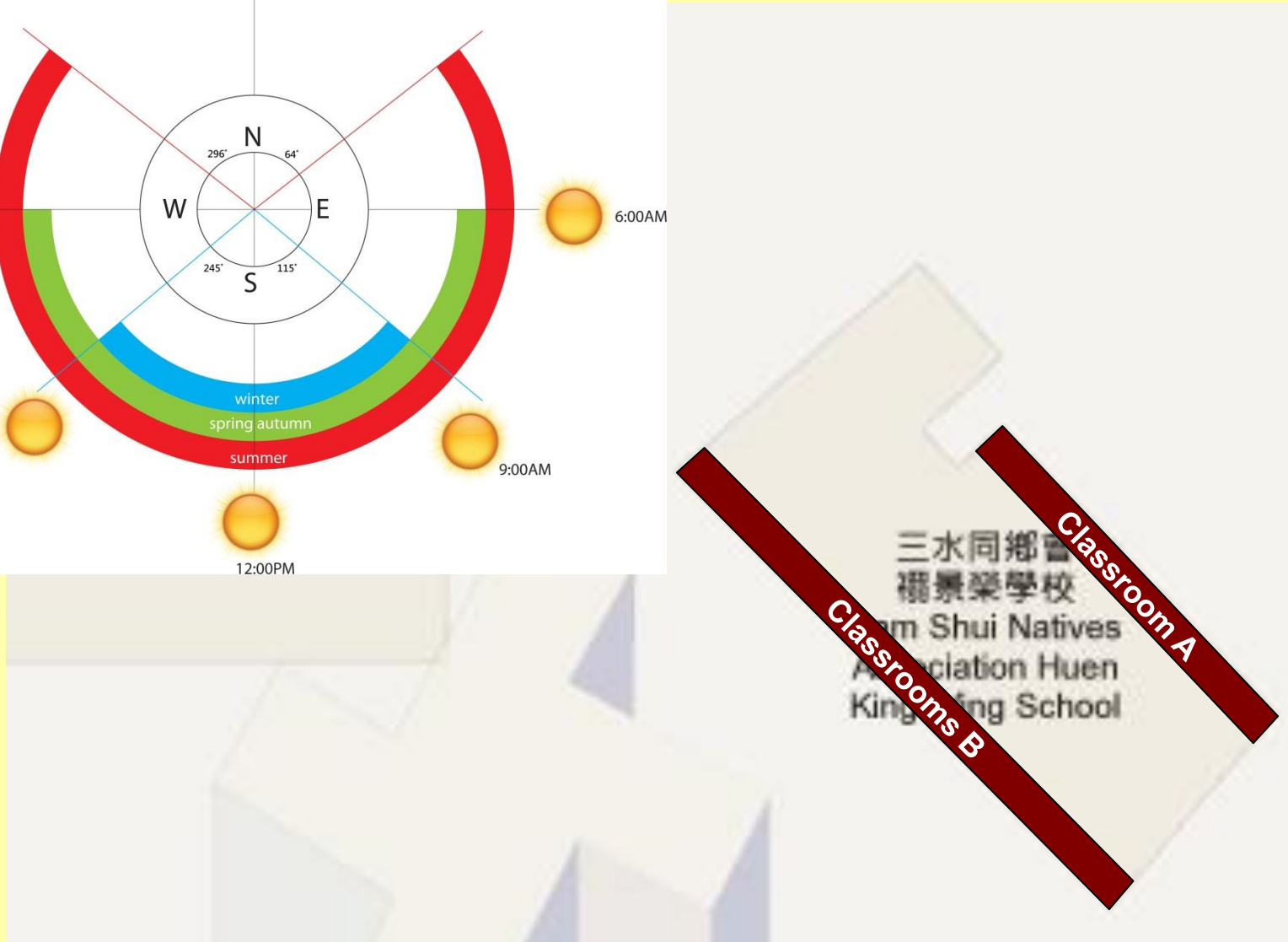
Solar Control Film (continue...)



Location of School (1/F – 6/F)



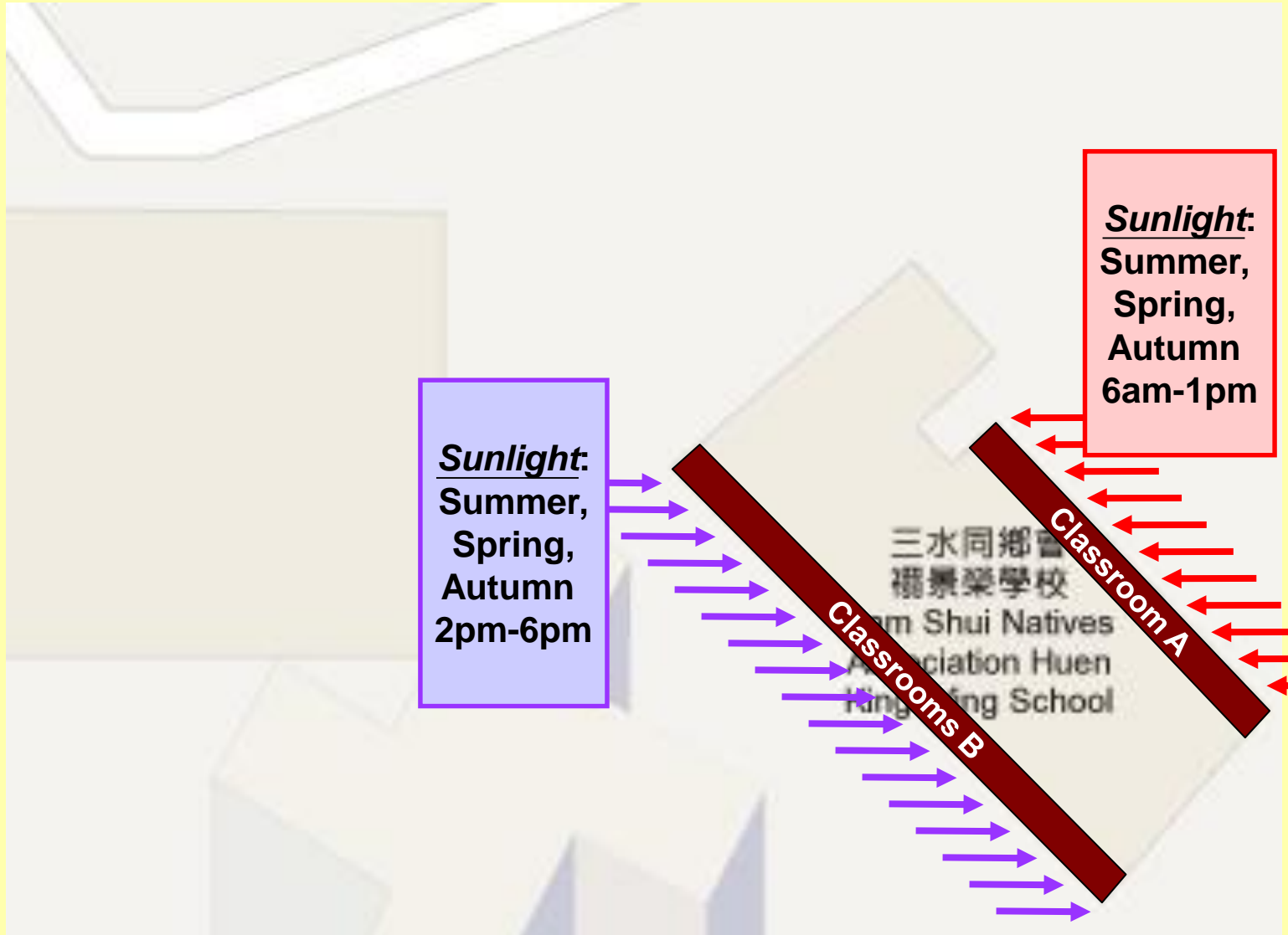
Window Locations = 





Location of School (1/F – 6/F)

Window Locations = 



Solar Control Film (continue...)

1. Location of window

(1/F-6/F – Classroom A)



<i>Location</i>	<i>Width"</i>	<i>Height"</i>	<i>Unit</i>	<i>Area (sq.ft.)</i>	<i>Direction</i>
2/F-6/F Special Rooms	128	50	40	1778	EAST

Solar Control Film (continue...)

Sunlight

(Main Classrooms)



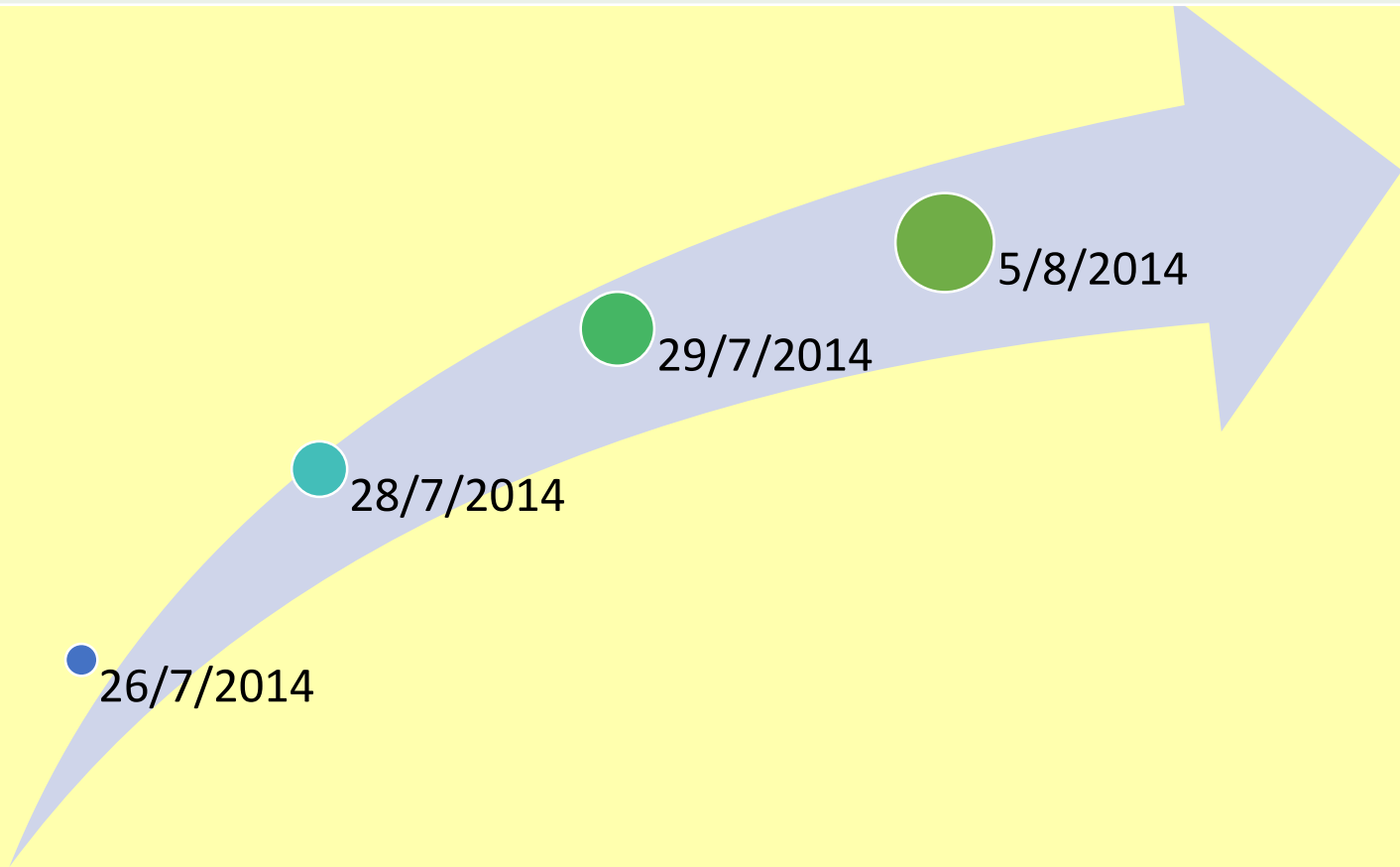
Sunlight

(Main Classrooms)



Temperature Test: *Before VS After* Solar Film install

501	502
Before installation of solar control film	After installation of solar control film
Area: In front of the Blackboard & window	



Temperature Test: *Before VS After* Solar Film install

Date: 26th July, 2014

Temperature: 30.3°C

Rainfall : 6.7mm

Film model: CXP80

Total Solar Energy Rejected: 44%

Visible Light Transmittance: 80%

2014年7月26日天氣摘要及輻射水平資料

2014年7月26日天氣及輻射水平資料

天文台：	
最高氣溫攝氏：	30.3度
最低氣溫攝氏：	26.0度
最低草溫攝氏：	27.5度
相對濕度：	78 - 95%
雨量：	6.7毫米

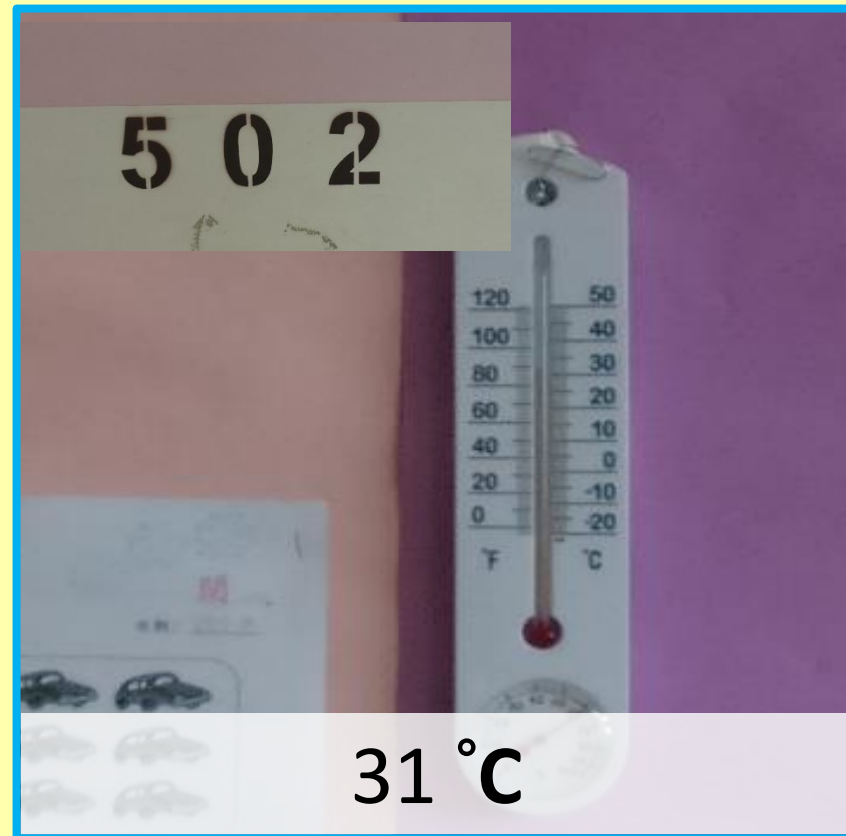
由本年一月一日起之總雨量：	1738.4毫米
同期平均雨量：	1411.7毫米

Temperature Test: *Before VS After* install

Without Window Film



With Window Film



***Because the backboard location is quite far away from the window, therefore, there will not have big difference before or after installation ***

Temperature Test: *Before VS After* Solar Film install

Date: 28th July, 2014

Temperature: 33.2°C

Rainfall : 0mm

Film model: CXP80

Total Solar Energy Rejected: 44%

Visible Light Transmittance: 80%

2014年7月28日天氣摘要及輻射水平資料

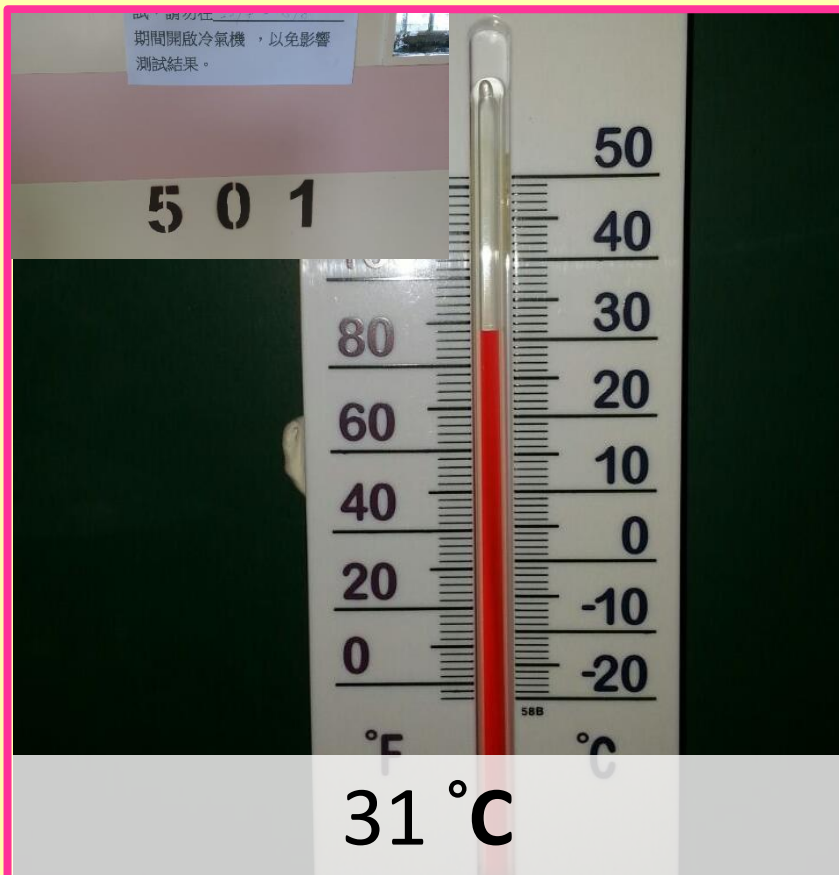
2014年7月28日天氣及輻射水平資料

天文台：	
最高氣溫攝氏：	33.2 度
最低氣溫攝氏：	27.2 度
最低草溫攝氏：	26.6 度
相對濕度：	64 - 89 %
雨量：	0 毫米

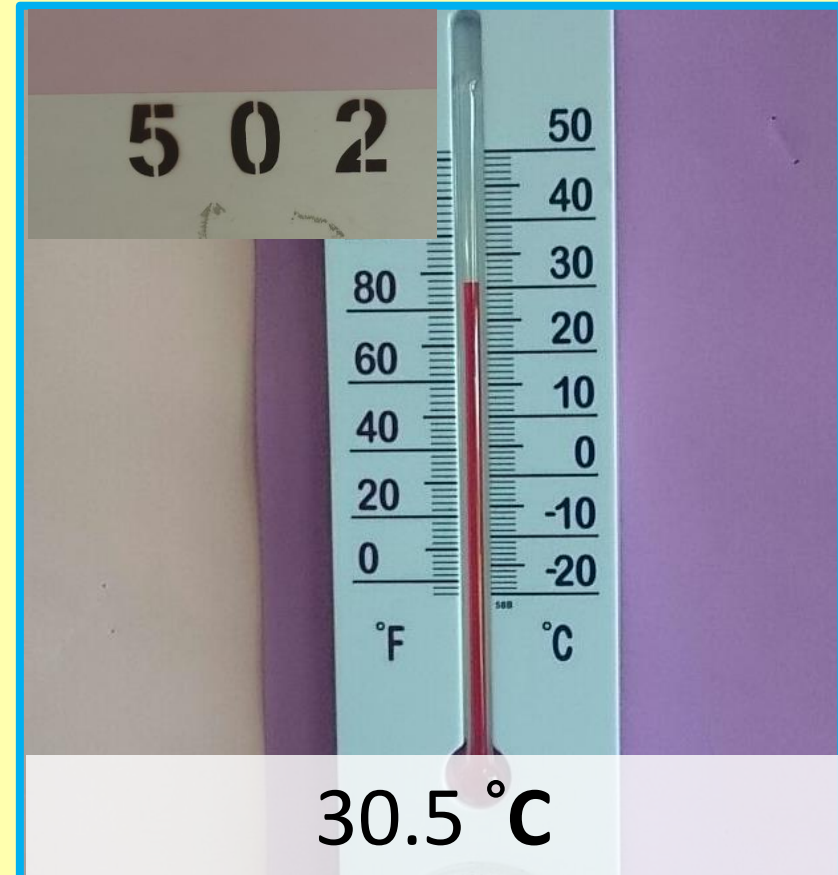
由本年一月一日起之總雨量：	1763.9 毫米
同期平均雨量：	1439.0 毫米

Temperature Test: *Before VS After* install

Without Window Film



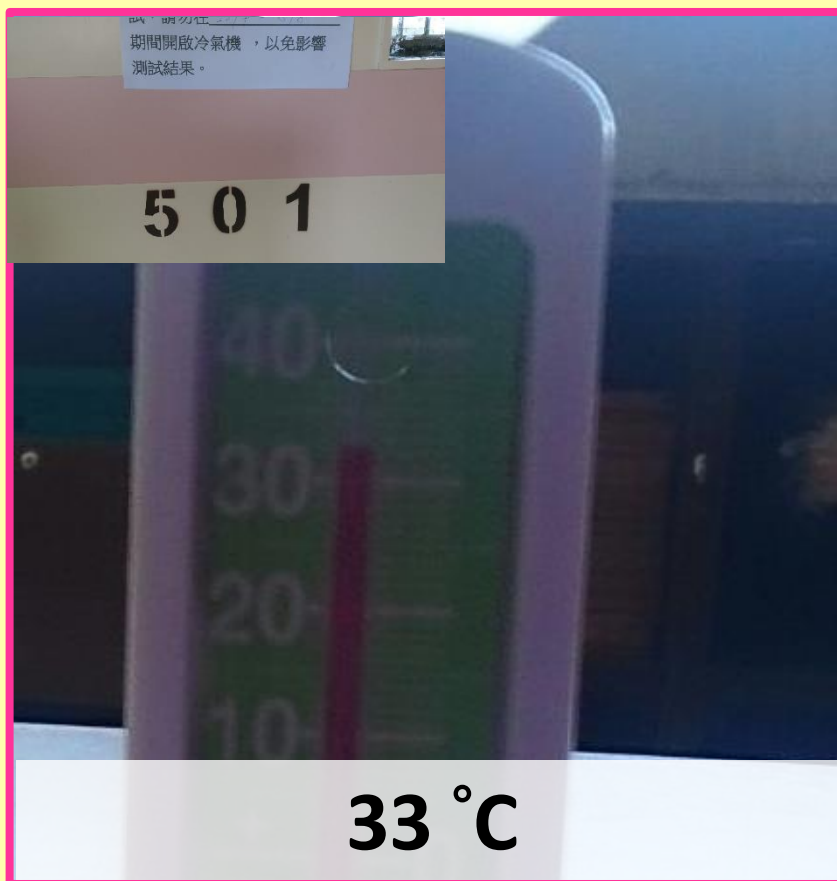
With Window Film



***Because the backboard location is quite far away from the window, therefore, there will not have big difference before or after installation ***

Temperature Test: *Before VS After* install

Without Window Film



With Window Film



Temperature Test: *Before VS After* Solar Film install

Date: 29th July, 2014

Temperature: 34.2°C

Rainfall : 0mm

Film model: CXP80

Total Solar Energy Rejected: 44%

Visible Light Transmittance: 80%

昨日天氣及輻射水平資料

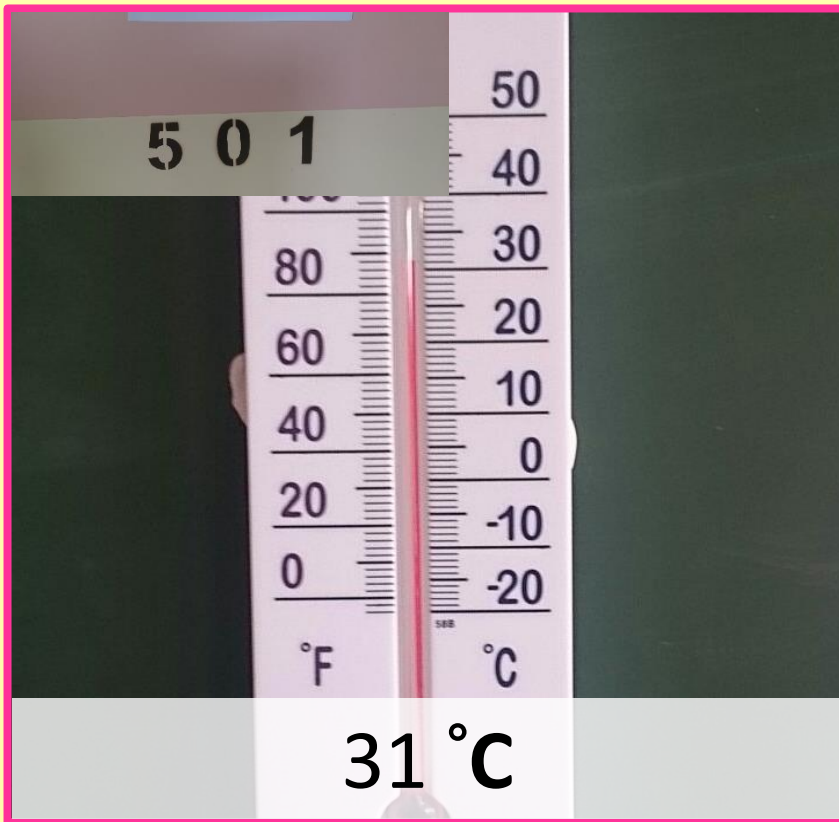
香港天文台在2014年07月30日09時00分發出之天氣報告

昨日 (7月29日) 天氣及輻射水平資料

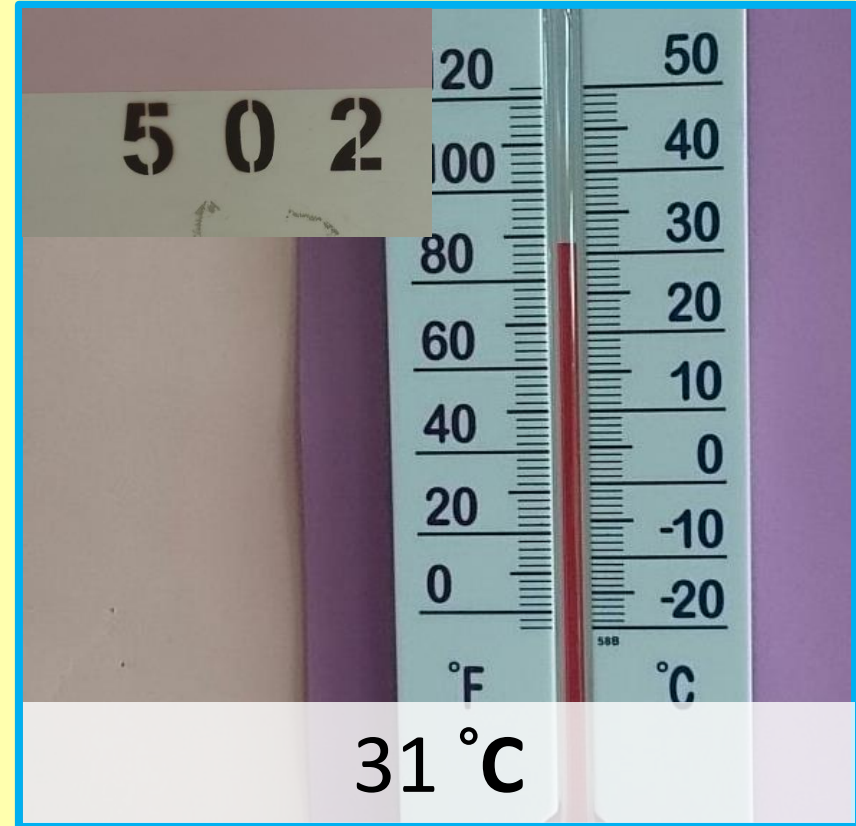
天文台 :	
最高氣溫攝氏 :	34.2 度
最低氣溫攝氏 :	27.5 度
最低草溫攝氏 :	27.6 度
相對濕度 :	61 - 87 %
雨量 :	0 毫米
由本年一月一日起之總雨量 :	1763.9 毫米
同期平均雨量 :	1456.5 毫米

Temperature Test: *Before VS* After install

Without Window Film



With Window Film



***Because the backboard location is quite far away from the window, therefore, there will not have big difference before or after installation ***

Temperature Test: *Before VS After* install

Without Window Film

5 0 1

33 °C

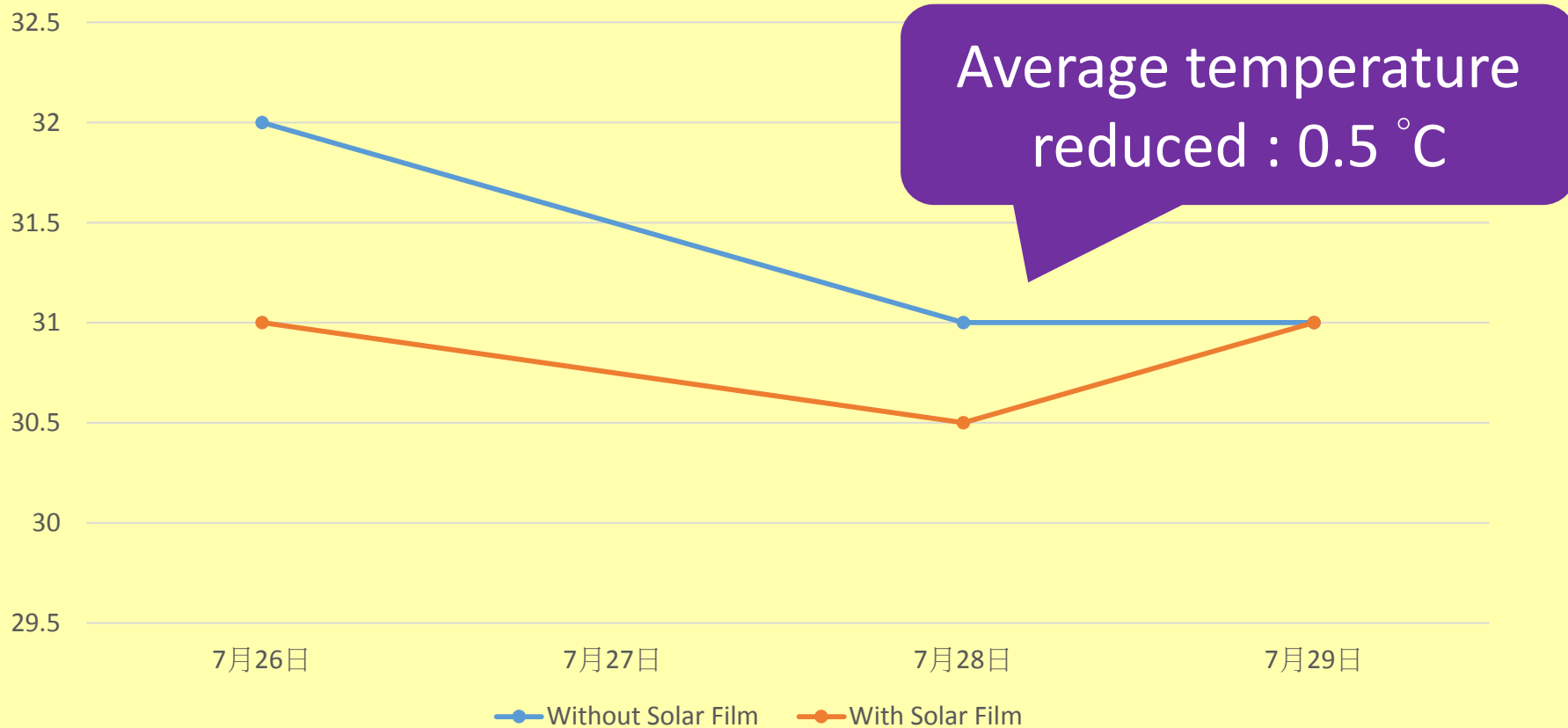
With Window Film

5 0 2

31.5 °C

Temperature Test: *Before VS After* install

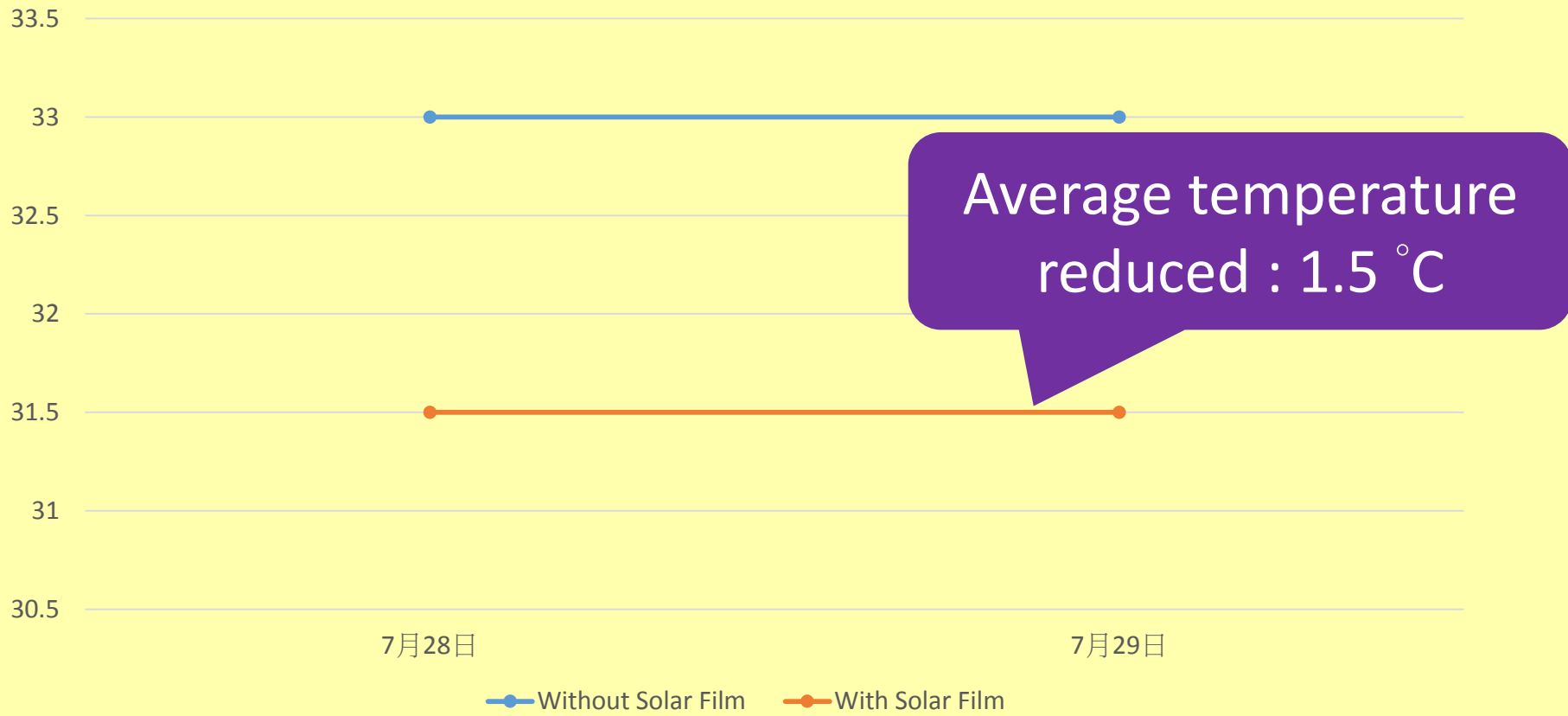
Location : blackboard



***Because the blackboard location is quite far away from the window, therefore, there will not have big difference before or after installation ***

Temperature Test: *Before VS After* install

Location : In front of the window



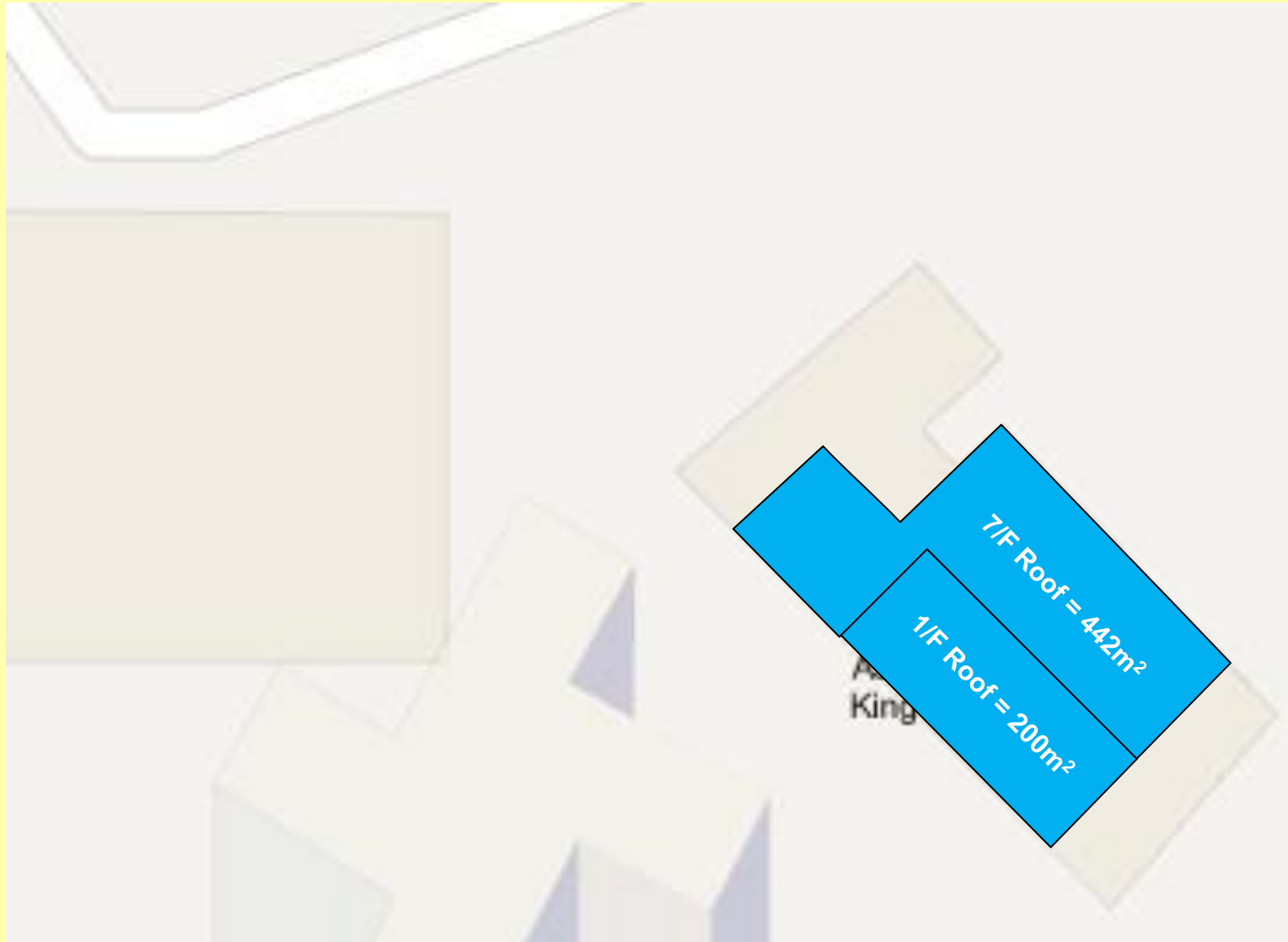
Roof Heat Rejected Coating



Roof of school



Coating Locations = 



Roof Heat Rejected Coating - Test Report (continue...)

Location: 1/F

Aim: To test the efficiency of the Roof Heat Rejected Coating



The location where was going to apply
with the Roof Heat Rejected Coating

Roof Heat Rejected Coating (continue...)

Location: 1/F

The locations where were going to apply with the Roof Heat Rejected Coating)



Roof Heat Rejected Coating (continue...)

Location: **7/F**

(The locations where were going to apply with the Roof Heat Rejected Coating)



Roof Heat Rejected Coating (continue...)

Location: **7/F**

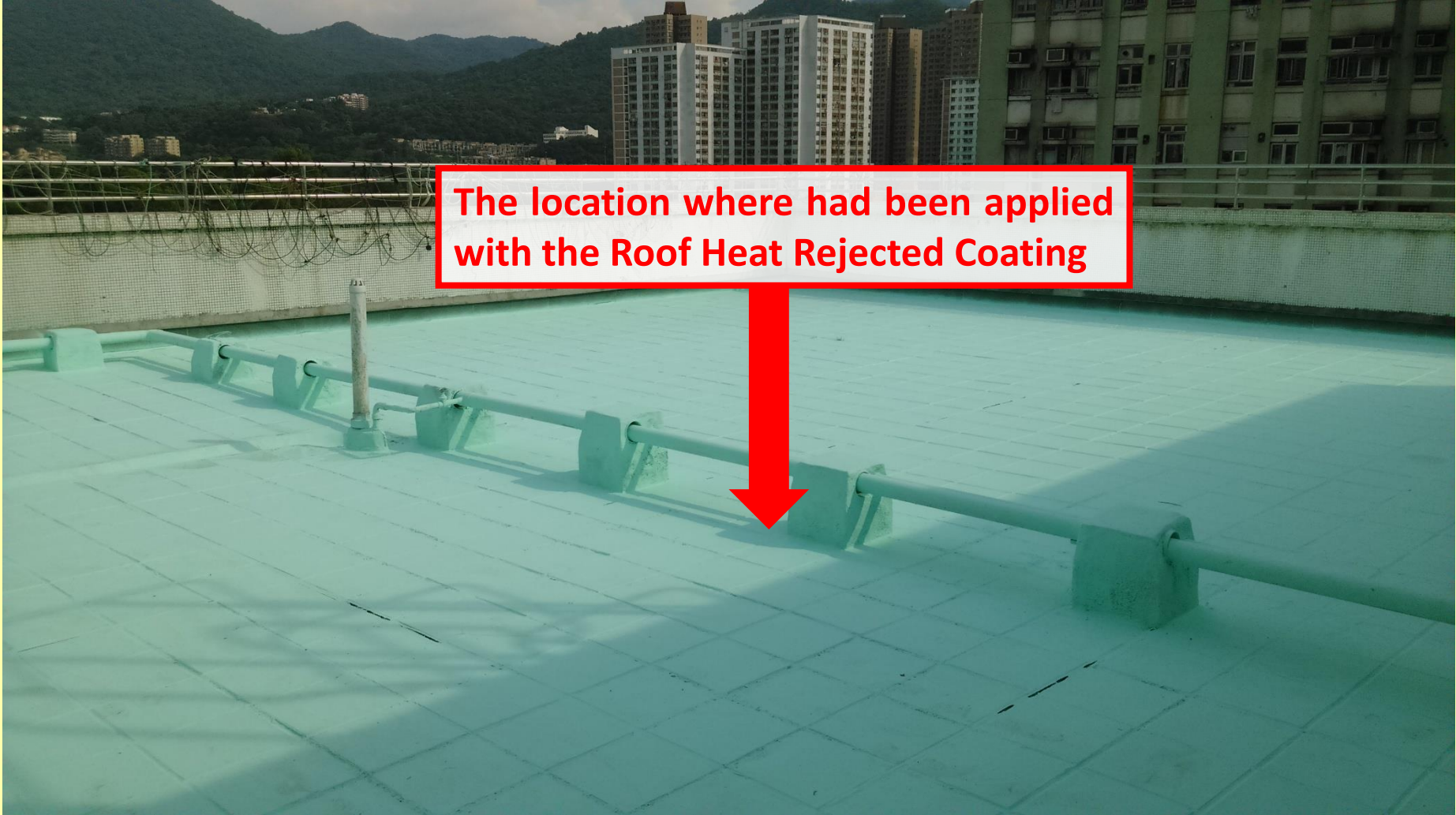
(The locations where were going to apply with the Roof Heat Rejected Coating)



Summary

Location	Paint Area
7/F Roof	442 m ²
1/F Roof	200 m ²
Total Area	642 m²

Roof Heat Rejected Coating - Test Report (continue...)



The location where had been applied with the Roof Heat Rejected Coating

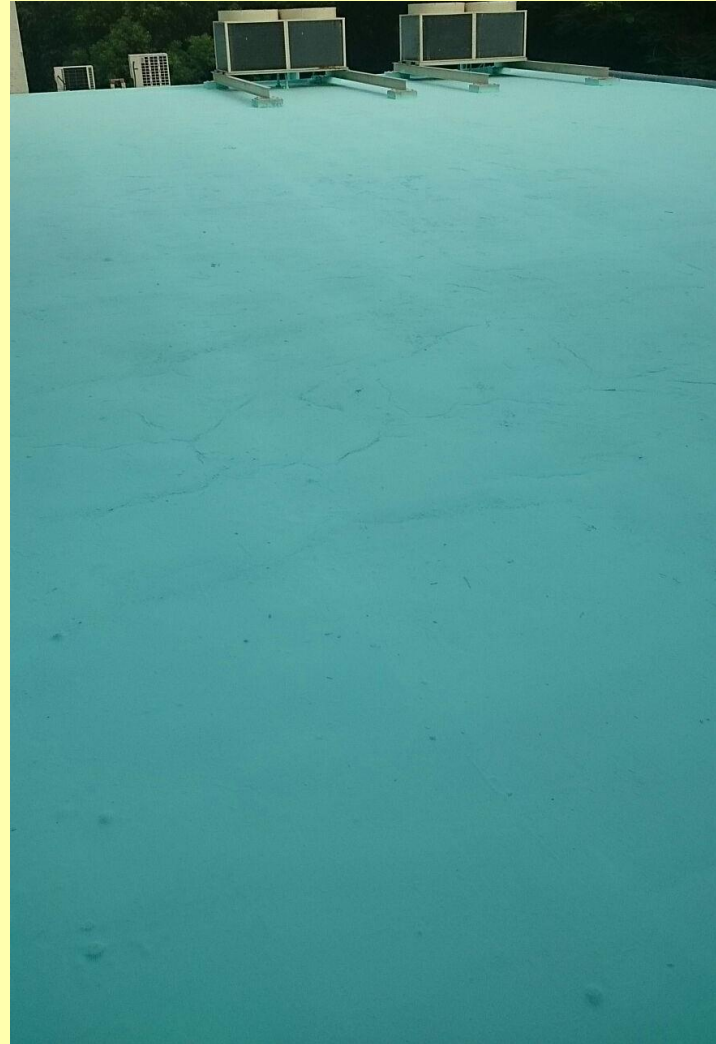
Roof Heat Rejected Coating - Test Report (continue...)

(The locations where had been applied with the Roof Heat Rejected Coating)



Roof Heat Rejected Coating (continue...)

(The locations where had been applied with the Roof Heat Rejected Coating)



Temperature Test: *Before VS After* apply the roof heat rejected coating

Date: 31st July, 2014

Temperature: 33.6°C

Rainfall : 0mm

2014年7月31日天氣摘要及輻射水平資料

2014年7月31日天氣及輻射水平資料

天文台：	
最高氣溫攝氏：	33.6 度
最低氣溫攝氏：	28.7 度
最低草溫攝氏：	27.9 度
相對濕度：	61 - 86 %
雨量：	0 毫米
由本年一月一日起之總雨量：	1763.9 毫米
同期平均雨量：	1473.3 毫米

Roof Heat Rejected Coating – Test Report (continue...)

Temp. Test: **Before Roof Heat Rejected Coating was applied**

Time: 31 July 2014

Location: 1/F (Hall under the roof)

Temperature Recorded: 33°C (after apply the coating)
35°C (Before apply the coating)



Roof Heat Rejected Coating – Test Report (continue...)

Temp. Test: **After Roof Heat Rejected Coating was applied**

Time: 31 July 2014

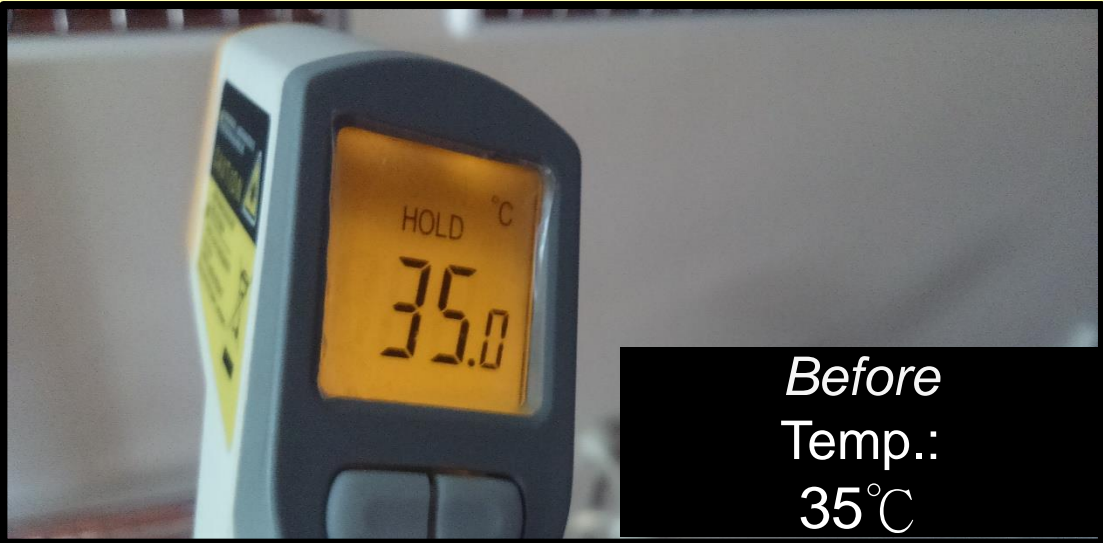
Location: 1/F (Hall under the roof)

Temperature Recorded: 33°C (after apply the coating)
35°C (Before apply the coating)

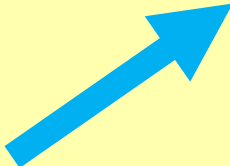


Temperature Test: *Before VS After*

Location: 1/F (Hall under the roof)



Temperature Reduced:
2°C



Temperature Test: *Before VS After* apply the roof heat rejected coating

Date: 26th July, 2014

Temperature: 30.3°C

Rainfall : 6.7mm

2014年7月26日天氣摘要及輻射水平資料

2014年7月26日天氣及輻射水平資料

天文台：	
最高氣溫攝氏：	30.3 度
最低氣溫攝氏：	26.0 度
最低草溫攝氏：	27.5 度
相對濕度：	78 - 95 %
雨量：	6.7 毫米

由本年一月一日起之總雨量：	1738.4 毫米
同期平均雨量：	1411.7 毫米

Roof Heat Rejected Coating – Test Report (continue...)

Temp. Test: **Before Roof Heat Rejected Coating was applied**

Time: 26 July 2014

Location: 7/F (School's roof surface)

Temperature Recorded: 36°C (after apply the coating)

42°C (Before apply the coating)



Roof Heat Rejected Coating – Test Report (continue...)

Temp. Test: **After Roof Heat Rejected Coating was applied**

Time: 26 July 2014

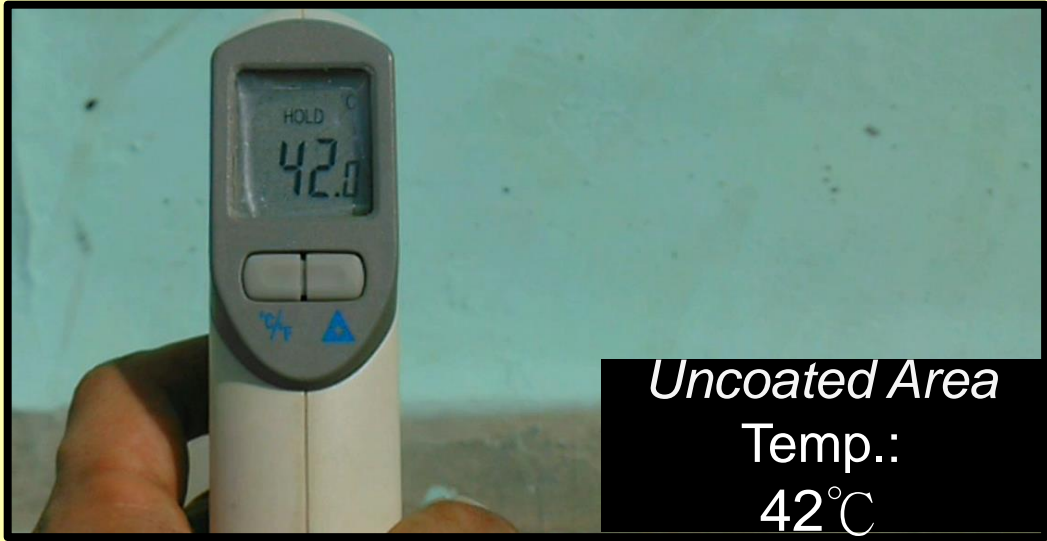
Location: 7/F (School's roof surface)

Temperature Recorded: 33°C (after apply the coating)
35°C (Before apply the coating)



Temperature Test: *Uncoated VS Coated* roof area

Location: School's roof surface



Temperature Reduced:

6°C