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*Digital Foundry Lighting  
Project – GE APAC Campus*

*Delivered by Shanghai Gline Net Co., Ltd*



# 系统拓扑图



# 楼层主要区域及控制方案

| 数量/<br>控制需求 | 公共<br>区域 | 办公室  | 会议室  | 讨论室  | 储藏室      | 打印室  | 接待室  | 茶水间  | 电话亭  | 机房   |
|-------------|----------|------|------|------|----------|------|------|------|------|------|
| 数量          |          | 20   | 6    | 3    | 5        | 2    | 2    | 2    | 7    | 1    |
| 日程表         | ✓        | ✓    | ✓    | ✓    | ✓        | ✓    | ✓    | ✓    | ✓    |      |
| 日光采集        | ✓        |      |      |      |          |      |      |      |      |      |
| 人体感应        | ✓        | ✓    | ✓    | ✓    | ✓        | ✓    | ✓    | ✓    | ✓    | ✓    |
| 场景模式        |          |      | ✓    |      |          |      |      |      |      |      |
| 手动开关        |          | ✓    | ✓    | ✓    |          |      |      |      |      |      |
| 数据报告        | ✓        | ✓    | ✓    | ✓    |          |      | ✓    | ✓    | ✓    |      |
| 控制方式        | 回路<br>开关 | dali | dali | dali | 回路<br>开关 | dali | dali | dali | dali | dali |

数据报告包括7X24各区域的occupancy报告，包括时间点、持续时长等，并可在Predix中形成热点图，为后续空间优化提供支持

# 日光采集自动控制功能

根据传感器实时照度值，对靠近窗边（4米以内）灯具1/3, 2/3或者全亮的自动控制开关方案

- 其他公共区域在照度不足时，按照明回路递增自动打开灯具照明
- 无需部署照明弱电控制线路、无需DALI电源灯具
- 系统实时记录各区域的全日照度曲线（每秒/或照度变化时自动记录）
- 适用范围：靠窗的公共区域（不含办公室、会议室）



例如，阴天2/3开灯  
晴天全关

M 照度传感（有源或者无线无源）

落地窗

# DALI数字化照明系统主要功能

## 会议场景设定

根据日程安排（Room booking、上下班时间）设定对应的照度值或者场景模式

## 自然调光

模仿日光变化，对照明进行逐级自然调光过渡，提供最佳的舒适感

## 恒照度控制

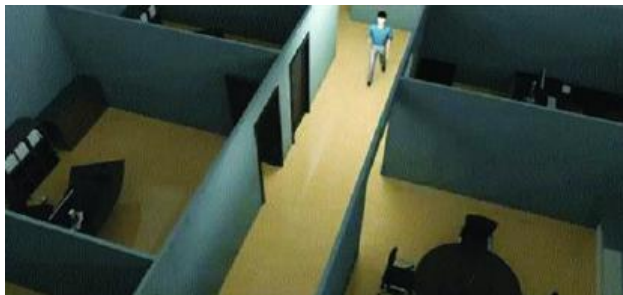
实现真正的恒照度（例如300Lux），并实现照度可调（可以做到单灯、或者区域）

## 人体感应

有人进入时照明将会自动启动，并根据人体感应传输的信息自动调节照明亮度

## Predix ready

全天记录灯具状况、会议室占有状况、温湿度、照度等数据，并可实现Predix云平台管理



# 会议室场景模式

- 1) 全亮模式，适用场景参观人员进入、离场；
- 2) PPT模式，适用场景参观人员站定讲解员开始演示方案，可以设定灯光3个档位 30% 50% 80%；
- 3) 讨论模式：讲解员讲解过程中与会人员与客户相互讨论，需要有一个舒适的讨论空间灯光，打开会议桌上方的灯，周边环绕灯具调暗
- 4) 灯光场景设置功能，部门秘书可以通过web界面，根据用户偏好，对单灯或者区域灯光进行自行设置，满足用户定制化要求



# Conference Room Control



Conference Room Mode Control



Motion & Lumen Sensing

# Wireless & Batteryless Sensing



Daylight Harvest



CO<sub>2</sub>, Temp, Humidity



Antenna

# Public Area

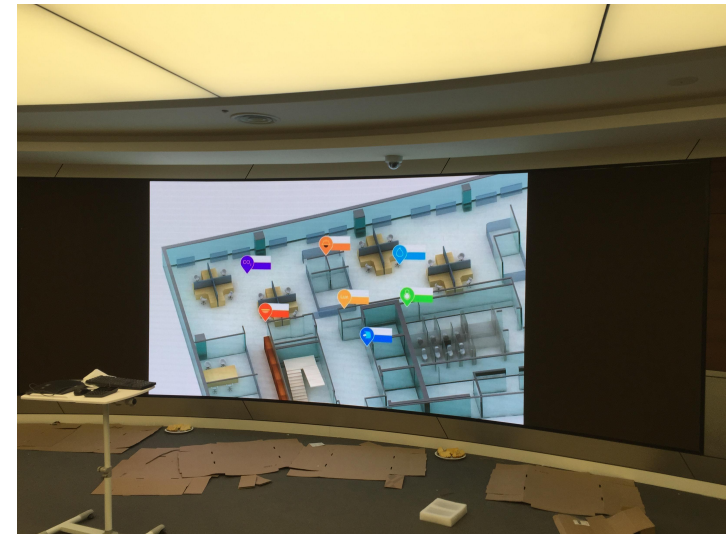
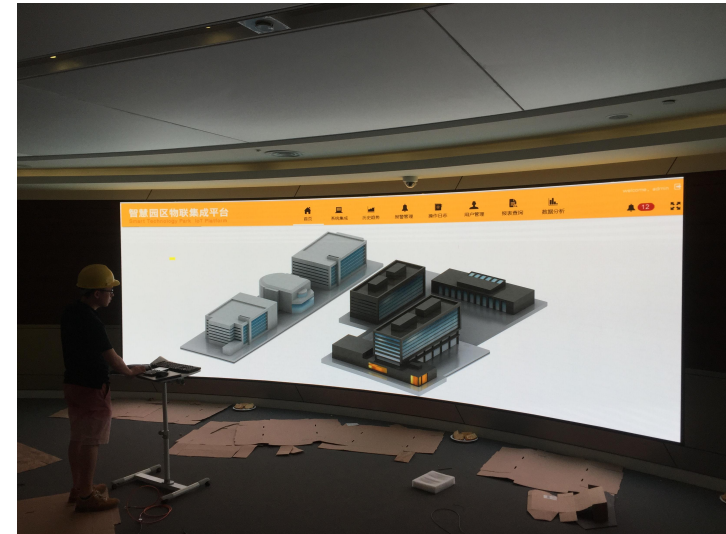


Corridor - Constant Lumen



Individual Light Dimming

# User Interface



## GE Campus Dashboard

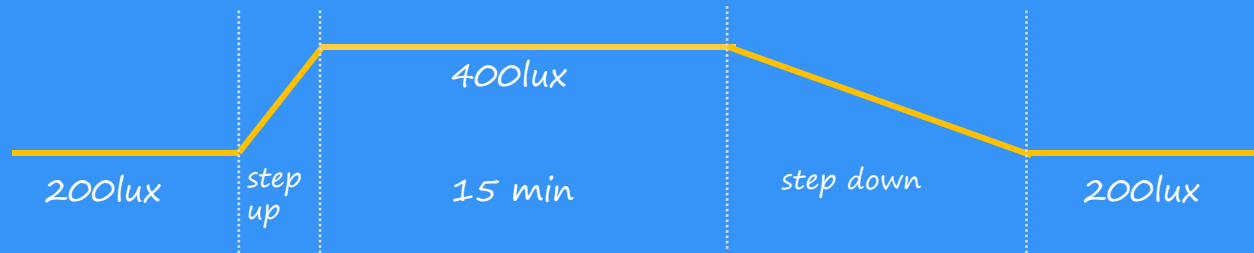
# Corridor, Pantry, small meeting room

Business  
hours

Schedule ON

Constant Light Level: 400Lux, run-on 15 min

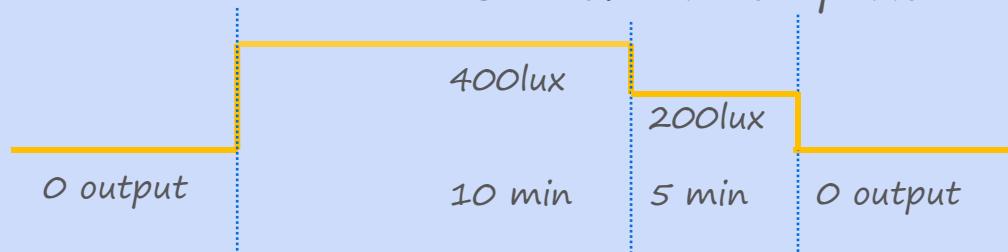
Unoccupancy: 200Lux



After  
Business  
hours

Schedule OFF

Occupancy sensed: 400Lux run-on time 10 min  
200Lux after 5 Min and run 10min  
End of Run-on period turn OFF



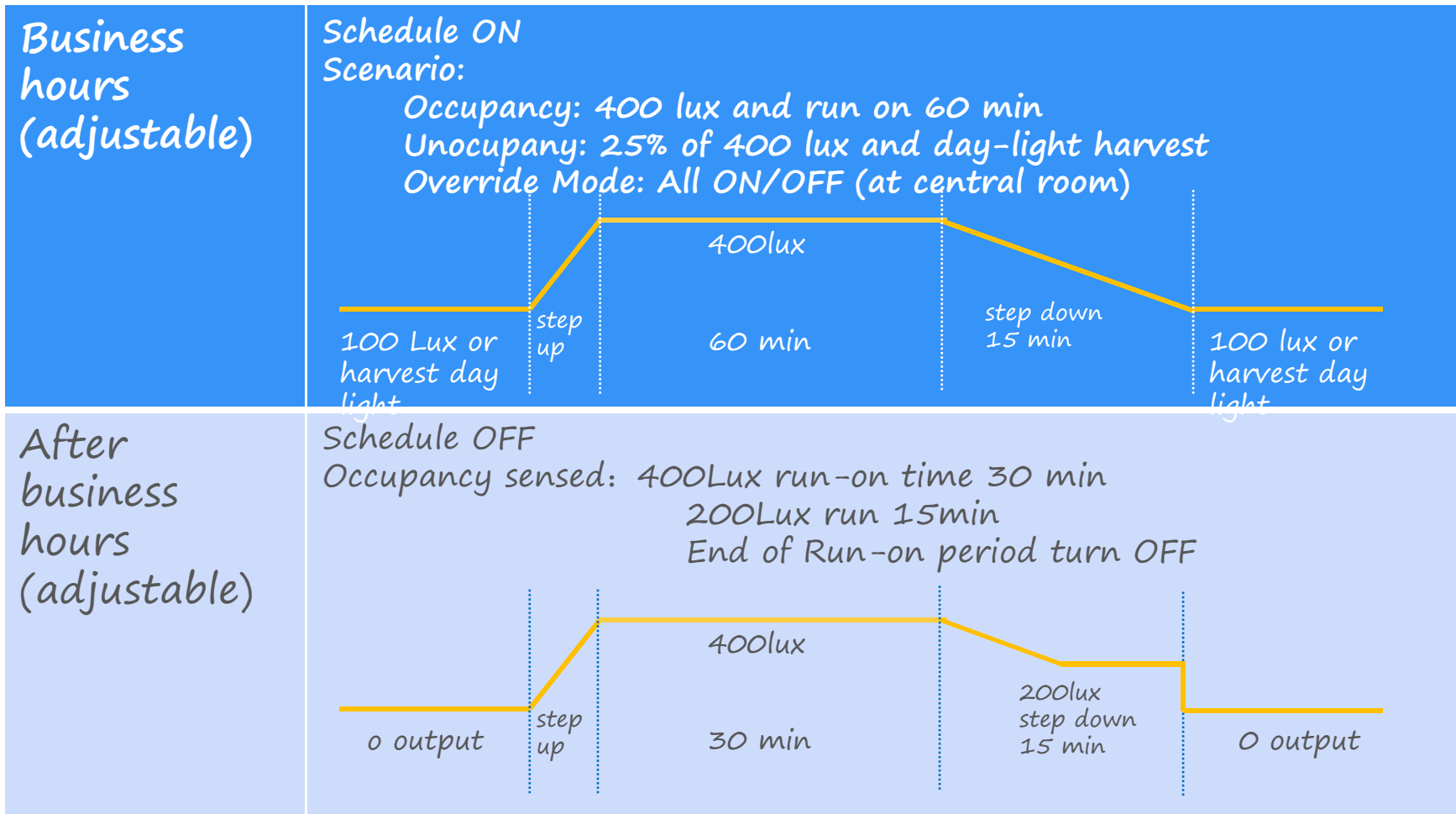
# Office room, store room & printer room

|                      |                                                              |
|----------------------|--------------------------------------------------------------|
| Business hours       | Schedule ON<br>Wall Switch ON/OFF                            |
| After business hours | Schedule OFF<br>Override schedule ON with Wall Switch ON/OFF |

# Large Conference Room with AV system

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Business hours<br>(adjustable)       | <p>Schedule ON</p> <p>Scenario:</p> <ul style="list-style-type: none"><li>Presentation Mode</li><li>Conference Mode</li><li>Unoccupied Mode: 10% of light level (Default mode)</li><li>Override Mode: All ON/OFF</li></ul> <p>Scenarios are controlled by AV touch screen.</p>                                                                                                                                                                                                                                                 |
| After Business hours<br>(adjustable) | <p>Schedule OFF</p> <p>Occupancy triggered: 400Lux run-on time 30 min<br/>200Lux run 15min<br/>End of Run-on period turn OFF</p> <p>The graph illustrates the light output schedule for the conference room after business hours. The x-axis represents time, and the y-axis represents light output in lux. The schedule starts at 0 output, then steps up to 400lux. It remains at 400lux for 30 minutes. After 30 minutes, it steps down to 200lux and remains at 200lux for 15 minutes. Finally, it drops to 0 output.</p> |

# Large Conference Room without AV System



# Server Room

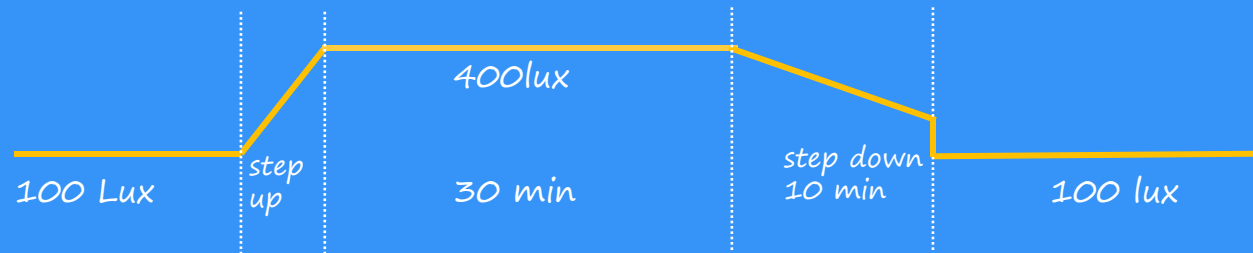
General  
Occupancy  
Mode  
通用模式

No Schedule, 7X24

Constant Light Level: 400lux on occupancy

Run-on period: 30 min

Unoccupancy: 100lux



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