Day-Brite CFI

LED

Recessed
FormFlex 2x2
FFZ up to 5400 lumens

Day-Brite/CFI FormFlex LED recessed is a fully luminous aperture luminaire offering a diffuse or opaque center channel accent for unique aesthetic flexibility. FormFlex delivers high performing even illumination and high visual comfort. Its architectural style, coupled with controls options, makes FormFlex an ideal choice for applications such as office, institutional, and healthcare, where energy savings and customized effect are desired.

Project:

Location:

Cat.No:

Type:

Qty:

Notes:

Base configurations are indicated in blue. Standard configurations are available with all choices, unless otherwise noted.

Ordering guide (standard & wireless controls)

example: 2FFZG45L840-2-DS-UNV-DIM-DAYOCC-EM06

Series	Ceiling Type	Lumens (nominal delivered)	Color (CRI/CCT)	–	Length	–	Center Diffuser	Voltage	–	Driver	–	Options
2FFZ	**G**		**–**		**2**	**–**	**–**	**–**		**–**		
2FFZ FormFlex 2x2' gen 2	G Grid	**Base configs**	835 80 CRI, 3500K		2 2ft		DS Diffuse (smooth)	UNV Universal Voltage, 120-277V		DIM[1] Dimming		F1 3/8" flex, 18ga. 6'; 3 leads include hot, neutral, ground
		38B 3800	840 80 CRI, 4000K				DSOP Diffuse (opaque)	347 347V		SDIM Step dimming to 40% input power		F2 3/8" flex, 18ga. 6'; 4 leads include 2 hots, neutral, ground
		45B 4500	850 80 CRI, 5000K							LDE1 Lutron LDE1, 1% dimming		F2/5W[8] 3/8" single flex, 18ga. 6' (for dimmable); 5 leads include hot, neutral, ground, Dim+ / Dim-
		Standard configs								DALI DALI dimming		F2/6W[8] 3/8" single flex, 18ga. 6' (for dim & EM); 6 leads include 2 hot, neutral, ground, Dim+ / Dim-
		20L 2000										GLR Fusing, fast blow
		30L 3000										DSC Quick driver disconnect
		38L 3800										CHIC Chicago Plenum rated
		45L 4500										EM06[4] Bodine BSL06T3 6W battery pack
		54L 5400										EM10[4] Bodine BSL10T3 10W battery pack
		Other options may be ordered in increments of 100lm from 2000 to 5400lm										GTD/E[3,5] UL924 listed Bodine GTD factory installed on driver input
												GTD/SNSR[3,4,5,6] UL924 listed Bodine GTD factory installed between driver & sensor
												DAYOCC[8] Basic sensor with daylighting & occupancy
												SWZCS[1,7,8] Interact wireless sensor with integral daylight & occupancy sensing, advanced grouping with dwell time
												RADIO[1,7,8] Interact RF sensor for wireless connectivity only, no sensing
												IAOSB[1,7,8] Interact Pro wireless sensor with occupancy, daylight, & environmental sensing capabilities
												AG Antimicrobial Finish

Accessories (order separately)
- **FSF422 –** 2'x2' surface mount field installation kit (field assembled)
- **FMA22 –** 2'x2' "F" mounting frame for NEMA "F" ceiling

SWZCS accessories (order separately)
- **IRT9015 –** handheld remote for grouping and configuration (at least one remote required for any SWZCS installation).

Replacement Lens
- **FFZGDS22L** – Replacement Lens
- **FFZGDS22LC** – Replacement Control Lens
- **FFZGDSOP22L** – Replacement Lens
- **FFZGDSOP22LC** – Replacement Control Lens

Footnotes
1. Integral controls option dimmable to 5% via wireless wall switch (non-controls). 0-10v dimmable to 1% for Standard configurations, and to 10% for Base configurations.
2. Specify only with –DIM driver option (Integrated sensor options).
3. Not available with 347V.(BSL6/10/14, GTD, nor GLR).
4. ER100 not available with Bodine EM battery packs. ER100 only available with sensor options.
5. Must be installed in conjunction with a UL1008 device.
6. Must be ordered with an integral sensing option.
7. Must order IRT9015 Interact commissioning remote with each system order.
8. Flex with dimming not available with sensors.
9. Third party sensors also available, please enquire about options for Lutron Athena, Vive, or others.

Not all product variations listed on this page are DLC qualified. To ensure that a specific model is qualified, visit www.designlights.org/search

DLC LISTED

interact ready.

FormFlex-recessed-2x2 05/25 page 1 of 6

FFZ FormFlex recessed 2x2

2000 to 5400 lumens

Application

- Ideal for modern offices, institutional, retail, and healthcare applications.
- Modern architectural styling to complementary space.
- Full width luminous lens provides smooth brightness and high visual comfort.
- Directs a controlled amount of light to higher angles to eliminate "cave effect" without creating glare.
- 80 CRI minimum source provides a balanced spectral power distribution.
- Suitable for use with NEMA G (15/16") and NFG (9/16") suspended t-grid ceilings. NEMA F flange ceilings require the FMA24 accessory (ordered separately).

Environment

- Rated for dry or damp locations in operating ambient temperatures 0-30°C (32-86°F). Many luminaire components, such as reflectors, refractors, lenses, sockets, lampholders, and LEDs are made from various types of plastics which can be adversely affected by airborne contaminants. If sulfur based chemicals, petroleum based products, cleaning solutions, or other contaminants are expected in the intended area of use, consult factory for compatibility. Not suitable for natatorium environments.

Construction/Finish

- Robust and durable die-formed embossed steel housing and end caps.
- Molded one-piece acrylic diffuser may be removed without tools for easy replacement.
- T-bar grid clips are built into luminaire end caps for quick and easy installation, no extra parts.
- Sheet metal components are multi-stage phosphate treated for maximum corrosion resistance and finish coat is high reflectance basked white enamel.

Validation

- cETLus listed for use in damp locations
- When ordered with –WL option code, suitable for use in wet locations with covered ceilings
- Rated for direct contact with insulation (IC)
- CCEA Chicago Plenum listed
- FormFlex luminaires are Designlights Consortium® qualified. Please see the DLC QPL list for exact catalog numbers, www.designlights.org/QPL

Electrical

- Non-controls Base configurations 0-10V dimmable to 5%.
- Non-controls Standard configurations 0-10V dimmable to 1%.
- Standard configurations with controls options dimmable via wireless switches (see below).
- Predicted L70 lumen maintenance up to 100,000 hours at 25°C ambient for all configurations.
- Emergency battery packs accessible from above. To estimate lumen output in emergency mode, multiply emergency pack wattage by luminaire efficacy, then by 1.10.
- The GTD/E option is used to bypass wall switches and allow luminaire operation on auxiliary power. Generator transfer requires installation in conjunction with a UL1008 listed device.
- The GTD/SNSR option is used to bypass integrated sensor control in the event of utility power loss. Generator transfer requires installation in conjunction with a UL1008 listed device.
- Compliance to CAN ICES-005-A/ NEB-005-A and FCC Part 15-A.

Warranty

- 5 year manufacturer's limited warranty. Visit signify.com/warranties for complete warranty information.
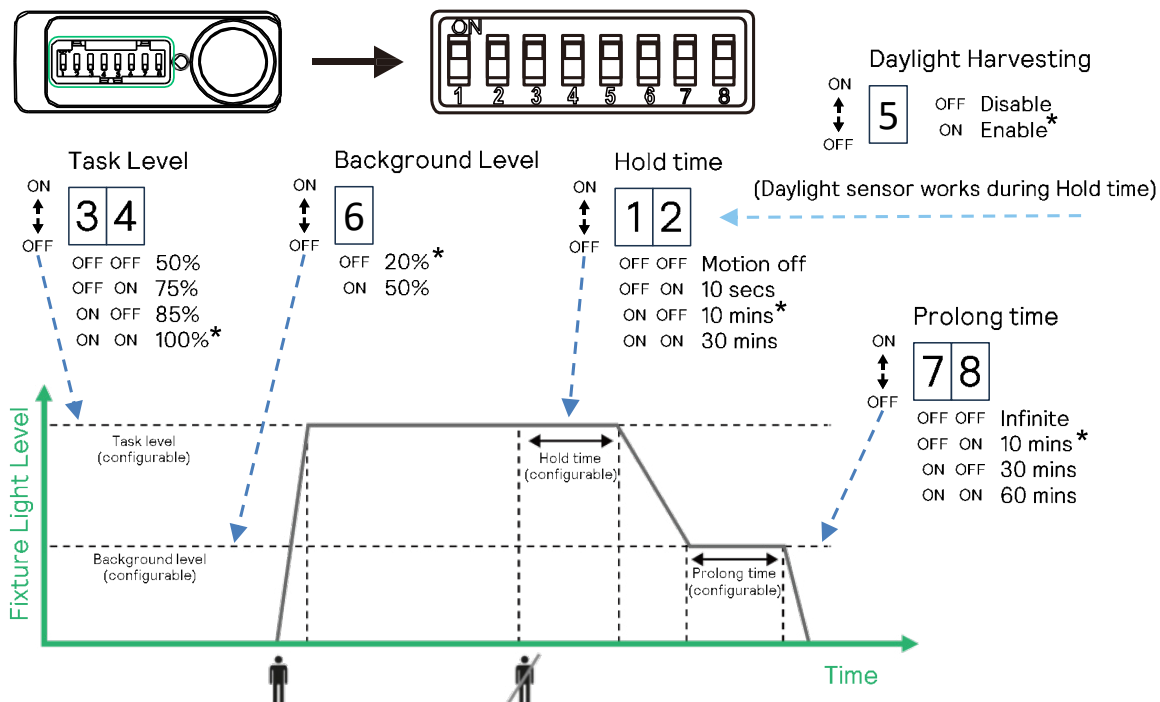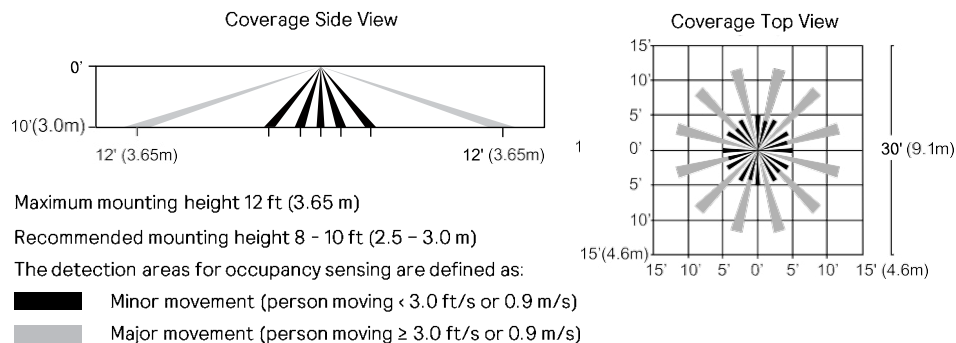
Dimensions
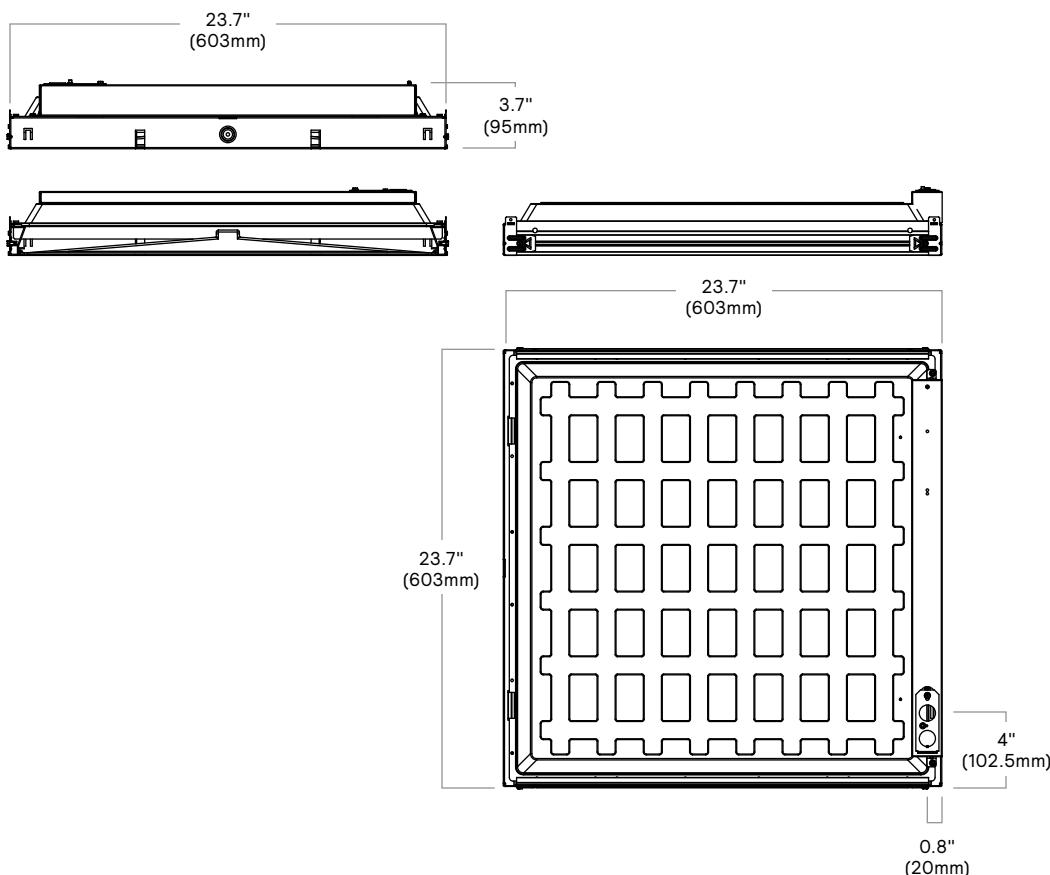
FFZ FormFlex recessed 2x2

2000 to 5400 lumens

Configurable Parameters (Dip-switches)

Daylight Harvesting

5		
	OFF	Disable
	ON	Enable*

Task Level

3	4	
OFF	OFF	50%
OFF	ON	75%
ON	OFF	85%
ON	ON	100%*

Background Level

6	
OFF	20%*
ON	50%

Hold time

(Daylight sensor works during Hold time)

1	2	
OFF	OFF	Motion off
OFF	ON	10 secs
ON	OFF	10 mins*
ON	ON	30 mins

Prolong time

7	8	
OFF	OFF	Infinite
OFF	ON	10 mins*
ON	OFF	30 mins
ON	ON	60 mins

Fixture Light Level

Task level (configurable)

Hold time (configurable)

Background level (configurable)

Prolong time (configurable)

Time

Occupancy Sensing Coverage (ft)

Coverage Side View

0'

10'(3.0m)

12' (3.65m)   12' (3.65m)

Maximum mounting height 12 ft (3.65 m)

Recommended mounting height 8 - 10 ft (2.5 – 3.0 m)

The detection areas for occupancy sensing are defined as:

▬ Minor movement (person moving < 3.0 ft/s or 0.9 m/s)

▬ Major movement (person moving ≥ 3.0 ft/s or 0.9 m/s)

Coverage Top View

15'
10'
5'
0'
5'
10'
15'(4.6m)

15' 10' 5' 0' 5' 10' 15' (4.6m)

30' (9.1m)

Configurable settings

- **Brightness level: 100% ; 90% ; 80% ; 70%**

- **Daylight harvesting: Enable; Disable**

- **Hold time: infinite (continuous daylight harvesting)* : 10 sec; 10min; 30 mins**

- **Background level: 20%; 50%**

- **Prolong-time: 9 min; 30 min; 60 min; infinite (light always on)**

- *** Sensor working as "daylight harvesting only". No occupancy detection**
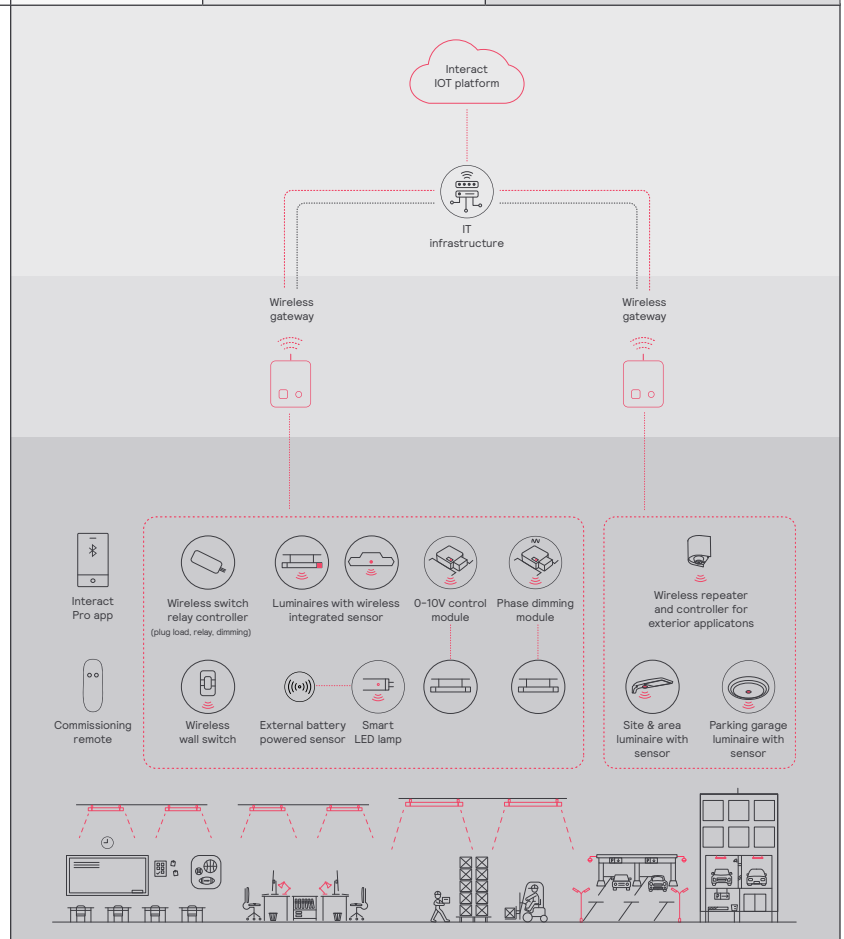
FFZ   FormFlex recessed 2x2

2000 to 5400 lumens

interact

	Standalone	Gateway Connected	
		Option 1	Option 2
Dimming, grouping, and zoning	✓	✓	✓
Bluetooth and ZigBee enabled	✓	✓	✓
Motion sensing and daylight harvesting	✓	✓	✓
Integration with 0-10V and phase dimming fixtures	✓	✓	✓
Code compliance	✓	✓	✓
Granular dimming and dwell time	✓	✓	✓
Correlated color temperature (CCT) tuning by switch `New`	✓	✓	✓
Support for sensor-based Tunable White luminaires `New`	✓	✓	✓
Energy reporting and monitoring		✓	✓
Scheduling		✓	✓
Demand response		✓	✓
BMS integration (BACnet)			✓
Floor plan visualization			✓
IoT sensors for wellness			✓
IoT Apps for productivity			✓

Currently supported maximum system size

To be able to design the lighting system correctly for the customer, it is important to know the prime characteristics of the system, its possibilities and limitations.

System level	
Total number of gateways	Unlimited
Total number of devices	200 per network
· Luminaires with integrated sensors	150
· Smart TLEDS	150
· Zones + groups	64
Total number of ZGP devices (sensors and switches)	50
· Sensors	30
· Switches	50

Group level	
Recommended number of lights	40 (maximum 150)
Number of ZGP devices	5
Number of scenes	16

FFZ FormFlex recessed 2x2

2000 to 5400 lumens

Wireless controls options

Interact

- SWZCS is a connected sensor with integral occupancy and daylight sensing and supports wireless mesh connectivity.
- The sensor works in the standalone mode (similar to SpaceWise) when configured without a gateway or in a cloud connected mode if a compatible gateway is used.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & BlueTooth connectivity. The App provides flexibility to choose between a gateway or non gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely and use IRT9015 remote on-site to identify and group devices together.
  Compatible with:
  - SWS200 & UID8465 wireless scene switch
  - Battery powered IP42 presence sensor OCC sensor IA CM WH 10/1
  - Battery powered IP42 presence & daylight sensor OCC-DL sensor IA CM IP42 WH
  - LCN3110: battery powered IP65 presence sensor, OCC sensor IA CM IP65W
  - LCN3120: battery powered IP65 presence & daylight sensor, OCC-DL sensor IA CM IP65 WH
- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

Radio only sensor (RA or RADIO)

- Integral RA or RADIO only sensor simply enables wireless mesh connectivity to the luminaire without any occupancy or daylight sensing.
- Ideal for applications where sensing functionality is managed by other Interact devices and the luminaire only needs to have wireless connectivity.
- Interact includes an App, a portal and a broad portfolio of wireless luminaires, lamps and retrofit kits all working on the same system.
- Startup is implemented via Interact Pro App (Android or iPhone) & Bluetooth connectivity. The App provides flexibility to choose between a gateway or non-gateway mode for setup.
- Setup with the gateway requires wired internet access to the gateway. It is possible to add a gateway at a later point.
- Prepare project configuration steps remotely, identify and group devices together onsite.
- Compatible with SWS200 and UID8465 wireless scene switch, wireless Occ sensor (OCC SENSOR IA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1).
- For more information on Interact visit: interact-lighting.com/interactproscalablesystem

SofTrace shown with integral sensor

Sensor bundle (IAOSB or SB)

- A wireless IoT connected lighting solution for large enterprises that span across multiple floors, buildings and require multiple gateways.
- View all your projects under one dashboard and easily compare insights from multiple projects in one view.
- Compatible with SWS200 wireless scene switch, wireless Occ sensor (OCC SENSORIA CM IP42 WH 10/1) and wireless Day/Occ sensor (OCC MULTI SENSOR IA CM WH 10/1) and wireless Occupancy or Daylight & Occupancy sensors available.• Use Interact software and insights to increase building efficiency, achieve building wide integration and optimize space through occupancy analytics.
- IAOSB or SB option in addition to occupancy and daylights sensing supports advanced IoT capabilities, such as people estimation analysis, desk level temperature & humidity sensing, noise classification, and BLE beacon.
- Requires compatible Gateway and internet connectivity for commissioning.
- For more information, visit: interact-lighting.com/interactproscalablesystem

Emergency Options (ER100)

- **Power Sensing** (factory default) – Recommended UL924 option requires unswitched power sense line, absence of voltage on the normal circuit triggers luminaire to 100% output.
- **Power Interruption Detection** (field option) – Detects AC power interruption >30ms triggers 90 minute emergency mode with luminaire at 100% output.

Interact supported sensor option codes across Genlyte Solutions product lines

	Evokit	Day-Brite	Ledalite	Lightolier
ZigBee + Bluetooth + Sensing	SWZCS	SWZCS	CS	SBA accessory (external)
ZigBee + Bluetooth	RADIO	RADIO	RA	RA
ZigBee + Bluetooth + Sensing + Environmental data	IAOSB	IAOSB	SB	SB
ZigBee + Highbay + Sensing	–	SWZCSH	–	–

FFZ   FormFlex recessed 2x2

2000 to 5400 lumens

Photometry

2FFZG45L840-2-DS-UNV-DIM

Luminaire Lumens	4797
Luminaire Efficacy Rating (LER)	126
Total Luminaire Watts	38
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.30
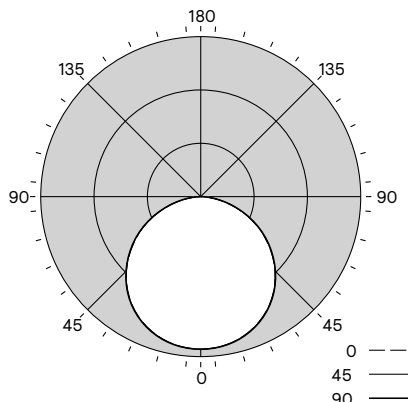
Candela Distribution						Flux
	0	**45**	**90**	**135**	**180**	**Lumens**
0	1622	1622	1622	1622	1622	
5	1614	1615	1615	1617	1616	154
15	1565	1566	1568	1570	1570	443
25	1467	1468	1470	1472	1473	678
35	1317	1319	1321	1322	1323	826
45	1115	1116	1119	1120	1122	863
55	872	874	879	880	883	785
65	601	604	610	613	616	603
75	323	334	340	330	332	351
85	77	81	87	88	87	97
90	0	0	0	0	0	

Coefficients of Utilization % (Based on a floor reflectance of 0.2)										
Pc---	**80**				**70**			**50**		**0**
Pw---	**70**	**50**	**30**	**10**	**70**	**50**	**30**	**50**	**30**	**10**	**0**
RCR										
0	119	119	119	119	116	116	116	111	111	111	100
1	109	104	99	95	106	101	97	97	94	91	83
2	99	90	83	77	96	88	82	85	79	75	69
3	90	79	71	64	87	77	70	74	68	62	58
4	82	70	61	54	80	68	60	66	59	53	49
5	75	62	53	46	73	61	53	59	51	46	42
6	70	56	47	40	68	55	46	53	46	40	37
7	64	51	42	36	63	50	41	48	41	35	33
8	60	46	38	32	58	46	37	44	37	31	29
9	56	42	34	29	55	42	34	41	33	28	26
10	52	39	31	26	51	39	31	38	31	26	24

* Based on a floor reflectance of 0.2

Zonal Lumen Summary			
Zone	**Lumens**	**%Fixture**	**%Lamp**
0-30	1274	26.6%	26.6%
0-40	2100	43.8%	43.8%
0-60	3747	78.1%	78.1%
0-90	4797	100.0%	100.0%
0-180	4797	100.0%	100.0%

Avg. Luminance (cd/m²)			
	0	**90**	**180**
45	5181	5198	5213
55	4990	5031	5057
65	4672	4739	4783
75	4093	4313	4209
85	2891	3264	3287

Nominal CRI & CCT			CRI 80, 3500K			CRI 80, 4000K		
	Nominal Lumen Package (lm)	**Watts (W)**	**Flux (lm)**	**Efficacy (LPW)**	**UGR**	**Flux (lm)**	**Efficacy (LPW)**	**UGR**
2FFZG20LXXX-2-DS	2000	17.6	2,084	118.0	19.1	2,230	126.5	19.6
2FFZG20LXXX-2-DSOP	2000	14.9	1,841	123.9	19.4	1,988	133.8	19.6
2FFZG30LXXX-2-DS	3000	25.1	3,036	121.2	20.7	3,183	127.0	20.8
2FFZG30LXXX-2-DSOP	3000	23.2	2,921	125.9	20.7	3,037	132.2	20.8
2FFZG38BXXX-2-DS	3800	32.7	3,989	122.2	21.6	4,136	126.7	21.7
2FFZG38BXXX-2-DSOP	3800	32.7	4,110	125.9	21.6	4,257	130.4	21.6
2FFZG38LXXX-2-DS	3800	32.5	3,966	122.2	21.6	4,113	126.7	21.7
2FFZG38LXXX-2-DSOP	3800	29.7	3,741	126.0	21.8	3,888	130.9	21.6
2FFZG45BXXX-2-DS	4500	38.0	4,649	122.3	22.2	4,796	126.1	22.2
2FFZG45BXXX-2-DSOP	4500	35.3	4,430	125.7	22.2	4,577	129.8	22.3
2FFZG45LXXX-2-DS	4500	38.0	4,649	122.3	22.1	4,796	126.1	22.2
2FFZG45LXXX-2-DSOP	4500	35.3	4,430	125.7	22.1	4,577	129.8	22.2
2FFZG54LXXX-2-DS	5400	43.6	5,320	122.0	22.6	5,467	125.4	22.7
2FFZG54LXXX-2-DSOP	5400	40.8	5,107	125.1	22.6	5,254	128.7	22.6

GENLYTE SOLUTIONS
a ⓢignify business