legrand®

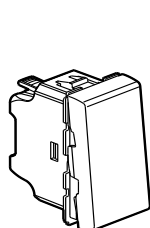**DALI sensor and ballast**
Auto ON/Auto OFF operation
Lighting regulation, lux level control
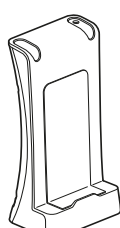
Cat. No(s): 0 489 53

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0 489 53   **0 770 30**   **0 882 40 and Legrand CloseUp app**

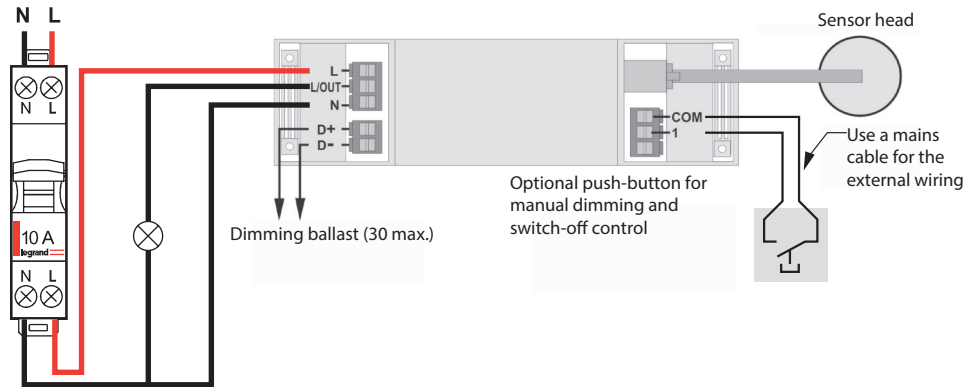## 1. USE CASE

Meeting rooms/office suites

2. DESCRIPTION

Automatic switch-on/switch-off and continuous regulation of DALI luminaires by a DALI sensor.

Auto ON/Auto OFF operation:

• A detection switches on the lighting and enables regulation (if there is sufficient natural light).
• The luminaires switch on automatically and regulation is enabled when human presence is detected.
• The luminaires will switch off automatically if there is sufficient natural light or after the room is vacated (+ end of sensor time delay).
• A push-button is used to switch on and switch off DALI luminaires as well as for +/- dimming.
Option of controlling another load to switch ON/OFF (which should be synchronised with control of the DALI luminaires).

DALI sensor and ballast
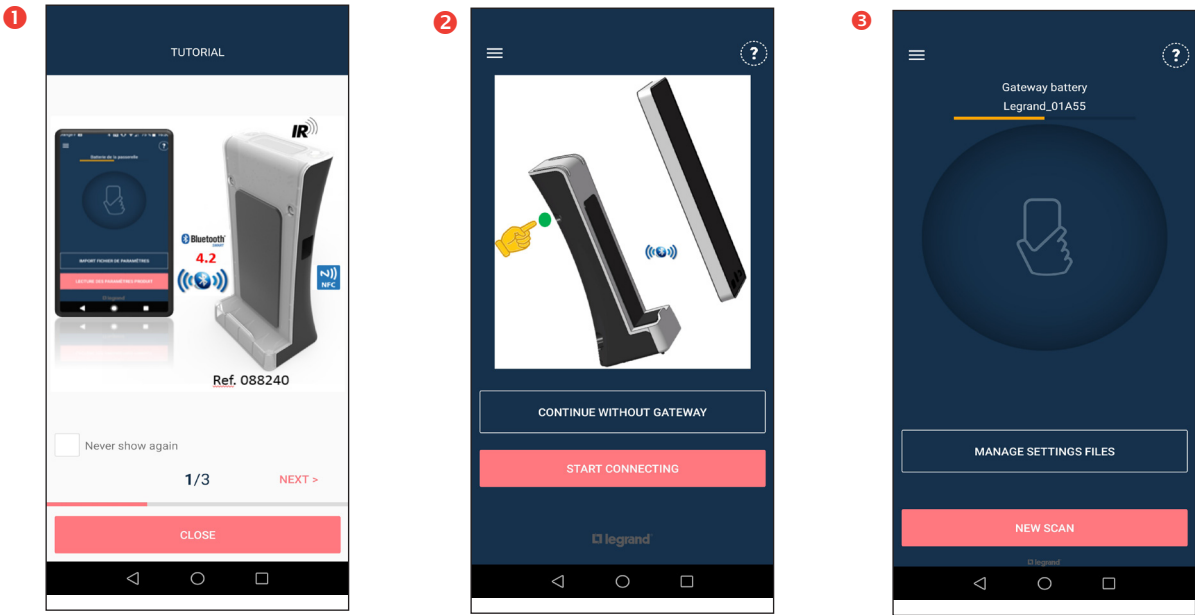**Auto ON/Auto OFF operation**
Lighting regulation, lux level control

Cat. No(s): 0 489 53

3. WIRING DIAGRAM

N L

L
L/OUT
N
D+
D-

10 A

N L

Dimming ballast (30 max.)

Optional push-button for manual dimming and switch-off control

Sensor head

COM
1

Use a mains cable for the external wiring

NB:

For more information about the product, refer to the documentation on our website

ℹ️ **www.legrandoc.com**

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4. CONFIGURATION

The sensors controlling the luminaires in dimming mode should be configured with **configuration gateway Cat. No. 0 882 40 and the Legrand CloseUp app**. This operation is used to load the correct values for the parameters used in this use case.

■ **4•1 Connecting the gateway and interrogating the product**

❶
TUTORIAL

IR
Bluetooth
4.2
NFC

Ref. 088240

☐ Never show again

1/3   NEXT >

CLOSE

❷

CONTINUE WITHOUT GATEWAY

START CONNECTING

legrand

❸
Gateway battery
Legrand_01A55

MANAGE SETTINGS FILES

NEW SCAN

legrand

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

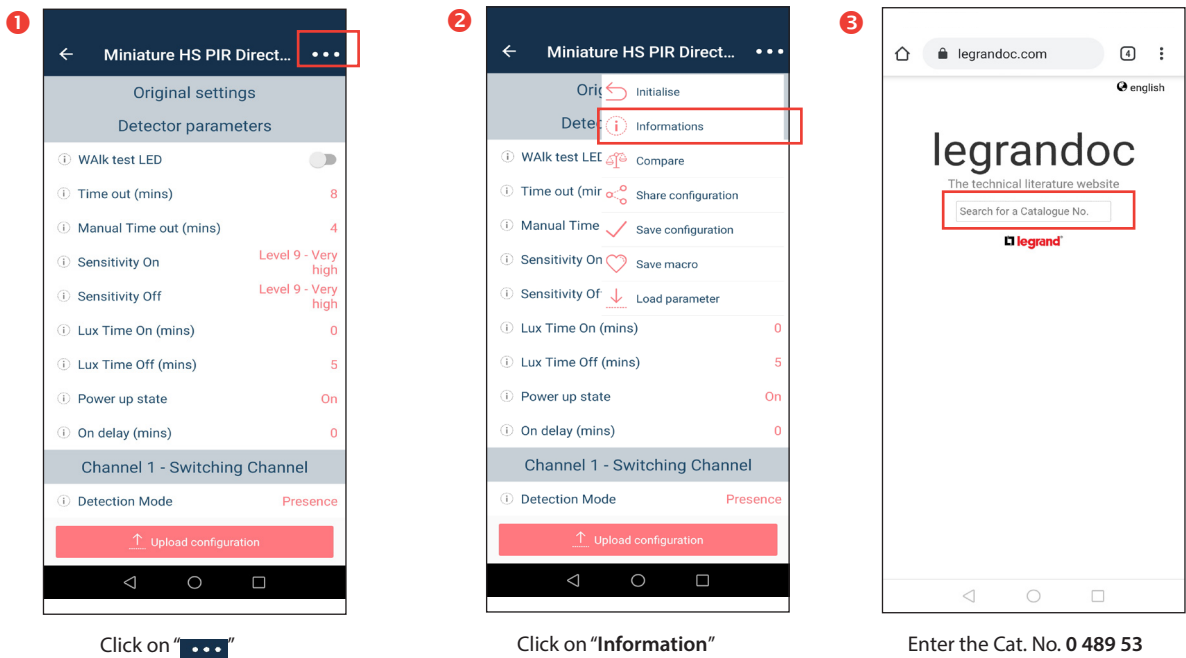## 4. CONFIGURATION (CONTINUED)

■ 4•1 Connecting the gateway and interrogating the product (continued)
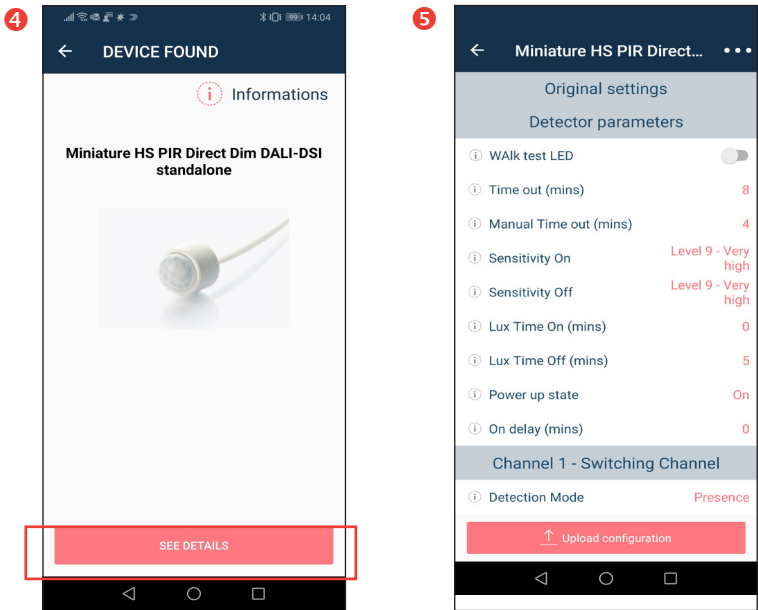
After clicking on "**See details**" you can access the full list of parameters

■ 4•2 Downloading the use case file

This step is used to download the use case file available on **www.legrandoc.com**

Click on "●●●"

Click on "**Information**"

Enter the Cat. No. **0 489 53**

CONTENTS

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

4. CONFIGURATION (CONTINUED)

■ 4•2 Downloading the use case file (continued)
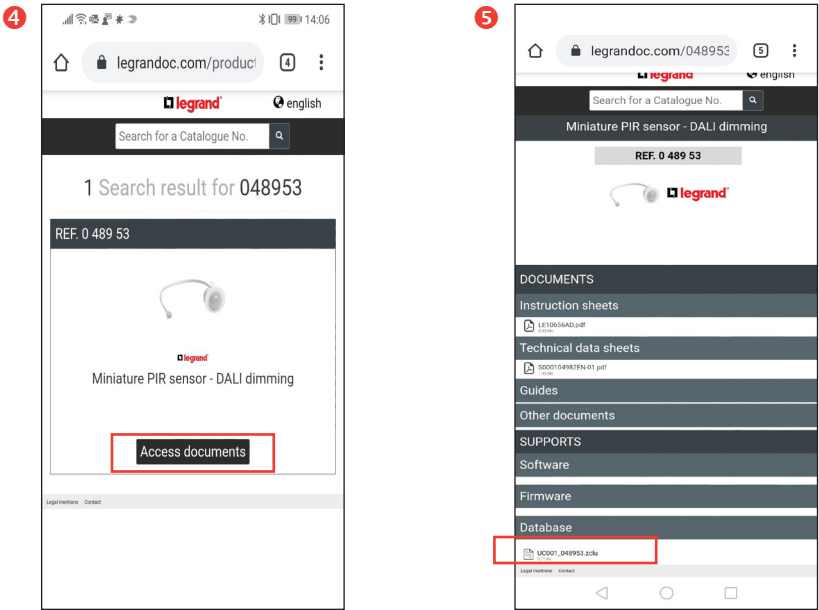
Click on "**Access documents**" then Database to download the file **UC001_048953**

■ 4•3 Import the file into CloseUp

Click on "•••"

Click on "**Load parameters**"

Click on "•••"

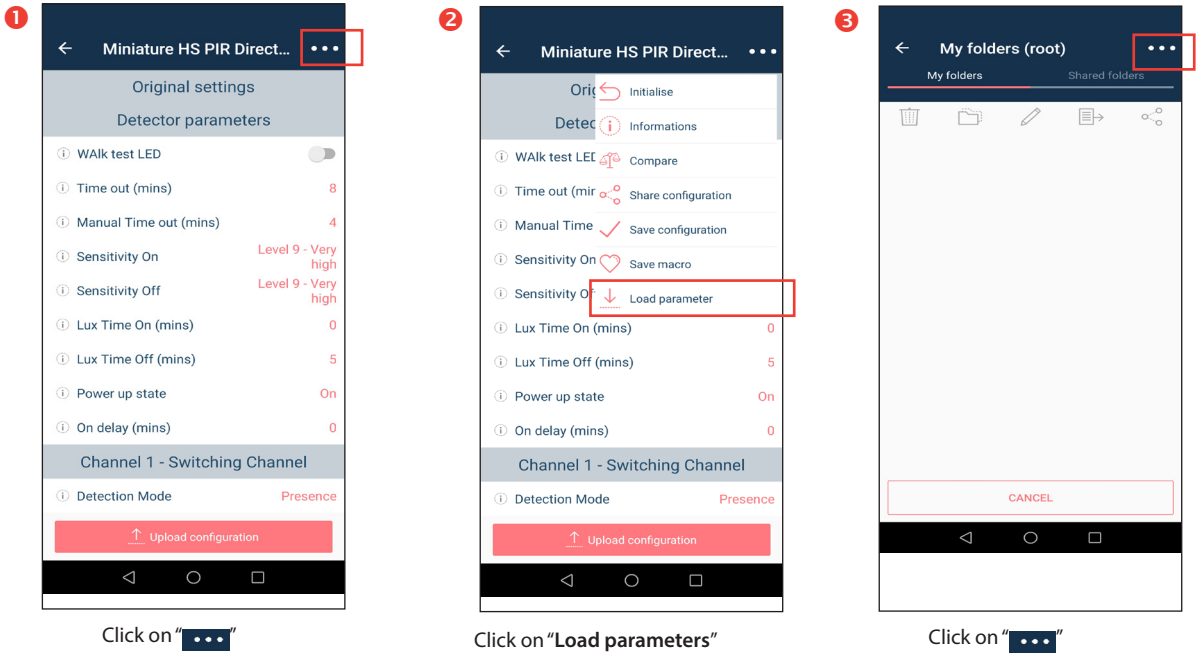**DALI sensor and ballast**
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

4. CONFIGURATION (CONTINUED)

■ **4•3 Import the file into CloseUp (continued)**
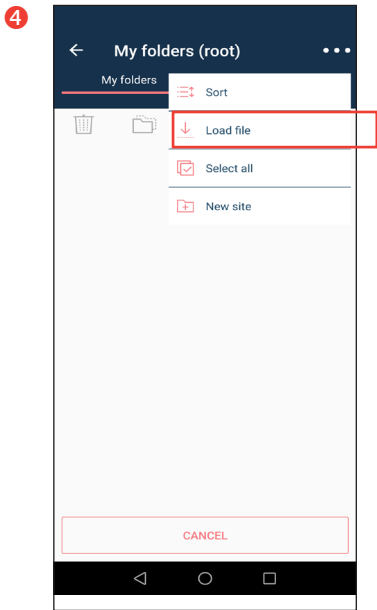
Click on "**Load file**"
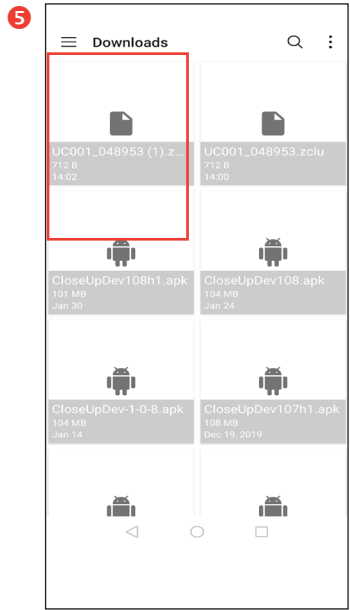
Select file UC001_048953.zclu downloaded from legrandoc.

■ **4•4 Import settings into the sensor**
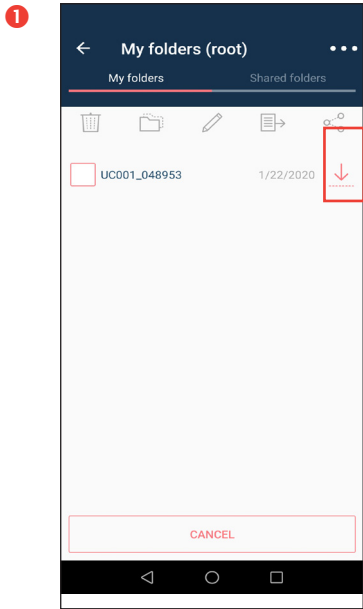
Click on the arrow to select the file to be imported
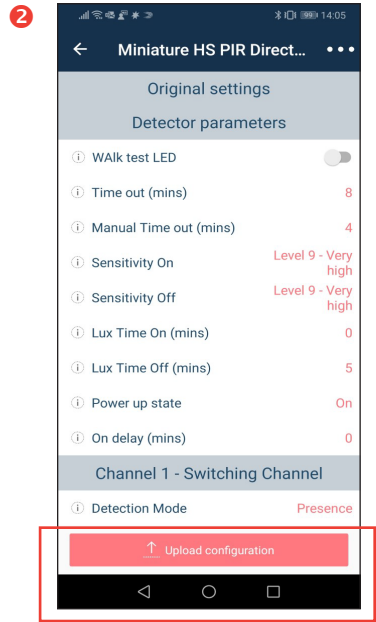
Click on "**Write product settings**"

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

4. CONFIGURATION (CONTINUED)

■ **4•4 Import settings into the sensor (continued)**
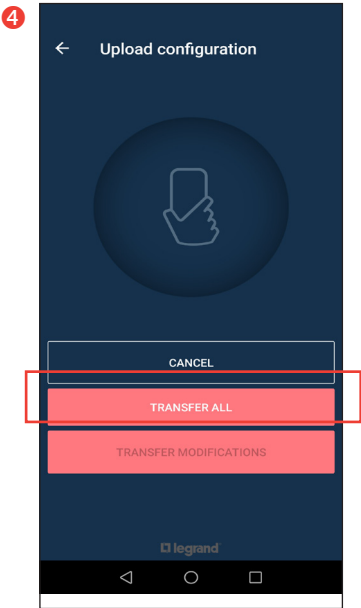
Aim at the sensor to confirm this action.

Select "**WRITE ALL/PASTE**" to import the settings

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

5. ADJUSTMENT OF LIGHTING REGULATION PARAMETERS

Settings predefined during initialization

Lux level for regulation	**150**
Lux On level	**145**
Lux Off level	**225**
OFF Lux time	**5**

■ **5•1 If the light level is often too low**

Increase and adjust the value of the "**Lux level for regulation**" from 150 up to 200.

Adjust the value of the following parameters:

Lux On Level = Lux level for regulation -5

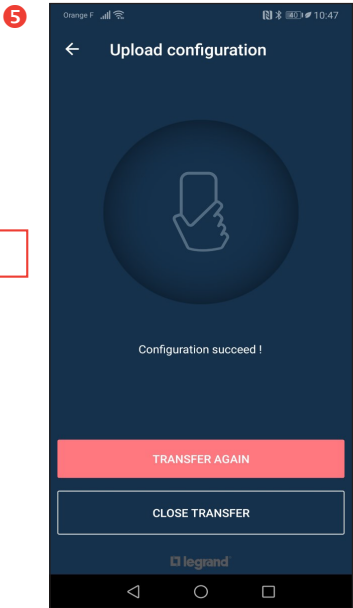**Lux Off Level = Lux level for regulation x 1.5**

Example:

Lux level for regulation	180
Lux On level	175
Lux Off level	270
OFF Lux time	5

■ **5•2 If the lighting loads never switch off (minimal lighting)**

Option 1

Reduce and adjust the value of the "**OFF Lux time**" parameter; **this value must be greater than or equal to 1**

Example:

Lux level for regulation	150
Lux On level	145
Lux Off level	225
OFF Lux time	4

Option 2

Reduce and adjust the value of the "**Lux Off level**" parameter" in steps of 10 or 20

Lux level for regulation	150
Lux On level	145
Lux Off level	215
OFF Lux time	5

■ **5•3 If the light level is often too high**

Reduce and adjust the value of the "**Lux level for regulation**" parameter

Adjust the value of the following parameters:

Lux On level	Lux level for regulation -5
Lux Off level	Lux level for regulation x 1.5

Example:

Lux level for regulation	130
Lux On level	125
Lux Off level	195
OFF Lux time	5

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

6. MONITORING OF DALI FRAMES

■ 6•1 Detection, switch on at 100% and regulation (opens the blinds)

60	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	10:12:16.412 23.01.2020
61	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	10:12:16.912 23.01.2020
62	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:12:17.410 23.01.2020
63	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:12:17.913 23.01.2020
64	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:12:18.411 23.01.2020
65	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:12:18.913 23.01.2020
66	DAP	FEFD	Bcast	DIRECT ARC POWER (DAPC) 253 (97 %)	10:12:19.914 23.01.2020
67	DAP	FEFC	Bcast	DIRECT ARC POWER (DAPC) 252 (95 %)	10:12:20.415 23.01.2020
68	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:12:20.915 23.01.2020
69	DAP	FEFA	Bcast	DIRECT ARC POWER (DAPC) 250 (90 %)	10:12:21.416 23.01.2020
70	DAP	FEFA	Bcast	DIRECT ARC POWER (DAPC) 250 (90 %)	10:12:23.410 23.01.2020
71	DAP	FEFA	Bcast	DIRECT ARC POWER (DAPC) 250 (90 %)	10:12:25.404 23.01.2020

■ 6•2 Detection, switch on at 100% and regulation (opens the blinds) with adjustment of regulation parameters (see example 5.3)

1	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	10:22:16.133 23.01.2020
2	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	10:22:18.055 23.01.2020
3	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:22:19.076 23.01.2020
4	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:22:19.558 23.01.2020
5	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:22:20.055 23.01.2020
6	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	10:22:20.557 23.01.2020
7	DAP	FEFD	Bcast	DIRECT ARC POWER (DAPC) 253 (97 %)	10:22:21.556 23.01.2020
8	DAP	FEFC	Bcast	DIRECT ARC POWER (DAPC) 252 (95 %)	10:22:22.060 23.01.2020
9	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:22:22.558 23.01.2020
10	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:22:24.552 23.01.2020
11	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:22:26.546 23.01.2020
12	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:22:28.539 23.01.2020
13	DAP	FEFB	Bcast	DIRECT ARC POWER (DAPC) 251 (92 %)	10:22:30.535 23.01.2020
14	DAP	FEFA	Bcast	DIRECT ARC POWER (DAPC) 250 (90 %)	10:22:32.064 23.01.2020
15	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:32.565 23.01.2020
16	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:34.558 23.01.2020
17	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:36.549 23.01.2020
18	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:38.546 23.01.2020
19	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:40.539 23.01.2020
20	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	10:22:42.536 23.01.2020
21	DAP	FEF8	Bcast	DIRECT ARC POWER (DAPC) 248 (85 %)	10:22:44.069 23.01.2020
22	DAP	FEF8	Bcast	DIRECT ARC POWER (DAPC) 248 (85 %)	10:22:46.067 23.01.2020
23	DAP	FEF7	Bcast	DIRECT ARC POWER (DAPC) 247 (83 %)	10:22:46.575 23.01.2020
24	DAP	FEF7	Bcast	DIRECT ARC POWER (DAPC) 247 (83 %)	10:22:48.567 23.01.2020
25	DAP	FEF7	Bcast	DIRECT ARC POWER (DAPC) 247 (83 %)	10:22:50.560 23.01.2020
26	DAP	FEF6	Bcast	DIRECT ARC POWER (DAPC) 246 (80 %)	10:22:51.577 23.01.2020
27	DAP	FEF5	Bcast	DIRECT ARC POWER (DAPC) 245 (78 %)	10:22:52.077 23.01.2020
28	DAP	FEF4	Bcast	DIRECT ARC POWER (DAPC) 244 (76 %)	10:22:52.578 23.01.2020
29	DAP	FEF4	Bcast	DIRECT ARC POWER (DAPC) 244 (76 %)	10:22:54.570 23.01.2020
30	DAP	FEF4	Bcast	DIRECT ARC POWER (DAPC) 244 (76 %)	10:22:56.563 23.01.2020
31	DAP	FEF3	Bcast	DIRECT ARC POWER (DAPC) 243 (74 %)	10:22:58.080 23.01.2020
32	DAP	FEF2	Bcast	DIRECT ARC POWER (DAPC) 242 (72 %)	10:22:58.581 23.01.2020
33	DAP	FEF1	Bcast	DIRECT ARC POWER (DAPC) 241 (70 %)	10:22:59.081 23.01.2020
34	DAP	FEF0	Bcast	DIRECT ARC POWER (DAPC) 240 (68 %)	10:22:59.581 23.01.2020
35	DAP	FEF0	Bcast	DIRECT ARC POWER (DAPC) 240 (68 %)	10:23:01.576 23.01.2020
36	DAP	FEF0	Bcast	DIRECT ARC POWER (DAPC) 240 (68 %)	10:23:03.569 23.01.2020
37	DAP	FEF0	Bcast	DIRECT ARC POWER (DAPC) 240 (68 %)	10:23:05.563 23.01.2020

CONTENTS

DALI sensor and ballast
Auto ON/Auto OFF operation
Lighting regulation, lux level control

Cat. No(s): 0 489 53

6. MONITORING OF DALI FRAMES (CONTINUED)

■ 6•3 ON via push-button, ↓ dimming, OFF

1	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	09:53:14.420 23.01.2020
2	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	09:53:15.099 23.01.2020
3	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:53:16.122 23.01.2020
4	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:53:16.603 23.01.2020
5	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:53:17.100 23.01.2020
6	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:53:17.602 23.01.2020
7	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:53:19.597 23.01.2020
8	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	09:53:20.004 23.01.2020
9	DAP	FEF4	Bcast	DIRECT ARC POWER (DAPC) 244 (76 %)	09:53:20.104 23.01.2020
10	DAP	FEEF	Bcast	DIRECT ARC POWER (DAPC) 239 (66 %)	09:53:20.203 23.01.2020
11	DAP	FEEA	Bcast	DIRECT ARC POWER (DAPC) 234 (58 %)	09:53:20.302 23.01.2020
12	DAP	FEE5	Bcast	DIRECT ARC POWER (DAPC) 229 (51 %)	09:53:20.404 23.01.2020
13	DAP	FEE0	Bcast	DIRECT ARC POWER (DAPC) 224 (44 %)	09:53:20.501 23.01.2020
14	DAP	FEDB	Bcast	DIRECT ARC POWER (DAPC) 219 (38 %)	09:53:20.602 23.01.2020
15	DAP	FED6	Bcast	DIRECT ARC POWER (DAPC) 214 (34 %)	09:53:20.702 23.01.2020
16	DAP	FED1	Bcast	DIRECT ARC POWER (DAPC) 209 (29 %)	09:53:20.805 23.01.2020
17	DAP	FECC	Bcast	DIRECT ARC POWER (DAPC) 204 (26 %)	09:53:20.903 23.01.2020
18	DAP	FEC7	Bcast	DIRECT ARC POWER (DAPC) 199 (22 %)	09:53:21.005 23.01.2020
19	DAP	FEC2	Bcast	DIRECT ARC POWER (DAPC) 194 (19 %)	09:53:21.102 23.01.2020
20	DAP	FEBD	Bcast	DIRECT ARC POWER (DAPC) 189 (17 %)	09:53:21.205 23.01.2020
21	DAP	FEB8	Bcast	DIRECT ARC POWER (DAPC) 184 (15 %)	09:53:21.305 23.01.2020
22	DAP	FEB3	Bcast	DIRECT ARC POWER (DAPC) 179 (13 %)	09:53:21.405 23.01.2020
23	DAP	FEAE	Bcast	DIRECT ARC POWER (DAPC) 174 (11 %)	09:53:21.505 23.01.2020
24	DAP	FEA9	Bcast	DIRECT ARC POWER (DAPC) 169 (9.8 %)	09:53:21.602 23.01.2020
25	DAP	FEA4	Bcast	DIRECT ARC POWER (DAPC) 164 (8.6 %)	09:53:21.704 23.01.2020
26	DAP	FE9F	Bcast	DIRECT ARC POWER (DAPC) 159 (7.5 %)	09:53:21.802 23.01.2020
27	DAP	FE9A	Bcast	DIRECT ARC POWER (DAPC) 154 (6.5 %)	09:53:21.903 23.01.2020
28	DAP	FE95	Bcast	DIRECT ARC POWER (DAPC) 149 (5.7 %)	09:53:22.003 23.01.2020
29	DAP	FE90	Bcast	DIRECT ARC POWER (DAPC) 144 (5.0 %)	09:53:22.105 23.01.2020
30	DAP	FE8B	Bcast	DIRECT ARC POWER (DAPC) 139 (4.3 %)	09:53:22.203 23.01.2020
31	DAP	FE86	Bcast	DIRECT ARC POWER (DAPC) 134 (3.8 %)	09:53:22.305 23.01.2020
32	DAP	FE81	Bcast	DIRECT ARC POWER (DAPC) 129 (3.3 %)	09:53:22.405 23.01.2020
33	DAP	FE81	Bcast	DIRECT ARC POWER (DAPC) 129 (3.3 %)	09:53:23.507 23.01.2020
34	DAP	FE00	Bcast	DIRECT ARC POWER (DAPC) 0 (OFF)	09:53:23.560 23.01.2020

■ 6•4 ↓ dimming via push-button

1	DAP	FE95	Bcast	DIRECT ARC POWER (DAPC) 149 (5.7 %)	09:51:56.045 23.01.2020
2	DAP	FE9A	Bcast	DIRECT ARC POWER (DAPC) 154 (6.5 %)	09:51:57.861 23.01.2020
3	DAP	FE9F	Bcast	DIRECT ARC POWER (DAPC) 159 (7.5 %)	09:51:57.961 23.01.2020
4	DAP	FEA4	Bcast	DIRECT ARC POWER (DAPC) 164 (8.6 %)	09:51:58.058 23.01.2020
5	DAP	FEA9	Bcast	DIRECT ARC POWER (DAPC) 169 (9.8 %)	09:51:58.162 23.01.2020
6	DAP	FEAE	Bcast	DIRECT ARC POWER (DAPC) 174 (11 %)	09:51:58.258 23.01.2020
7	DAP	FEB3	Bcast	DIRECT ARC POWER (DAPC) 179 (13 %)	09:51:58.361 23.01.2020
8	DAP	FEB8	Bcast	DIRECT ARC POWER (DAPC) 184 (15 %)	09:51:58.462 23.01.2020
9	DAP	FEBD	Bcast	DIRECT ARC POWER (DAPC) 189 (17 %)	09:51:58.563 23.01.2020
10	DAP	FEC2	Bcast	DIRECT ARC POWER (DAPC) 194 (19 %)	09:51:58.662 23.01.2020
11	DAP	FEC7	Bcast	DIRECT ARC POWER (DAPC) 199 (22 %)	09:51:58.762 23.01.2020
12	DAP	FECC	Bcast	DIRECT ARC POWER (DAPC) 204 (26 %)	09:51:58.862 23.01.2020
13	DAP	FED1	Bcast	DIRECT ARC POWER (DAPC) 209 (29 %)	09:51:58.961 23.01.2020
14	DAP	FED6	Bcast	DIRECT ARC POWER (DAPC) 214 (34 %)	09:51:59.061 23.01.2020
15	DAP	FEDB	Bcast	DIRECT ARC POWER (DAPC) 219 (38 %)	09:51:59.162 23.01.2020
16	DAP	FEE0	Bcast	DIRECT ARC POWER (DAPC) 224 (44 %)	09:51:59.263 23.01.2020
17	DAP	FEE5	Bcast	DIRECT ARC POWER (DAPC) 229 (51 %)	09:51:59.363 23.01.2020
18	DAP	FEEA	Bcast	DIRECT ARC POWER (DAPC) 234 (58 %)	09:51:59.462 23.01.2020
19	DAP	FEEF	Bcast	DIRECT ARC POWER (DAPC) 239 (66 %)	09:51:59.562 23.01.2020
20	DAP	FEF4	Bcast	DIRECT ARC POWER (DAPC) 244 (76 %)	09:51:59.659 23.01.2020
21	DAP	FEF9	Bcast	DIRECT ARC POWER (DAPC) 249 (87 %)	09:51:59.762 23.01.2020
22	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:51:59.863 23.01.2020
23	DAP	FEFE	Bcast	DIRECT ARC POWER (DAPC) 254 (100 %)	09:51:59.963 23.01.2020