

STANDARD COMMISSIONING PROCEDURE FOR LIGHTING SWEEP CONTROLS

BUILDING NAME: _____ **APPLICATION #:** _____
BUILDING ADDRESS: _____

NAME & FIRM OF PERSON(S) DOING TEST: _____
DATE(S) OF TEST: _____

General Notes:

1. This is a generic test procedure for lighting sweep control systems. If the complexity, configuration, or other aspects of a specific project require substitute tests or additional tests, explain on the comments sheets, and attach the additional test procedures and field data. Use additional copies of this procedure as required for the total number of zones to be commissioned.
2. In all test sections, circle or otherwise highlight any responses that indicate deficiencies (i.e. responses that don't meet the criteria for acceptance). Acceptance requires correction and retest of all deficiencies, as defined in each test section under "Criteria for Acceptance" or "Acceptance". Attach all retest data sheets. Complete the Deficiency Report Form for all deficiencies.
3. This Commissioning Procedure does not address fire and life safety or basic equipment safety controls.
4. To ensure that this Commissioning Procedure will not damage any equipment or affect any equipment warranties, have the equipment manufacturer's representative review any interventive test procedures prior to execution.

OPERATOR INTERVIEW (Existing Buildings Only):

Determine from a discussion with the building operator whether the lighting sweep controls are operating properly to the best of their knowledge. Note any known problems, and possible solutions.

LIGHTING ZONE SCHEDULE:

For the purposes of this commissioning procedure, a lighting zone is defined as a group of luminaires that are controlled by a single schedule output. In cases of split wiring, a single building space may have two or more zones.

Sampling: If there are more than 8 zones in the building, you may select a sample for the following performance tests. The sample should include at least 10% of the total number of zones, or 8 zones, whichever is greater. Zones should be selected from different areas of each floor, and from different floors. Note in the table below which zones are selected for the sample.

Criteria for Acceptance: Lighting zoning must be in accordance with submittals as approved by Designer and Commissioning Agent.

ZONE #	SAMPLE ZONE? (✓)	DESCRIPTION OF LOCATION	CIRCUIT # (if available)

INSTALLATION VERIFICATION:

Instructions: Under each zone write "Y" for yes, "N" for no, "NA" for not applicable, or a number to refer to any needed comments. Explain any "N" answers in the comment section. If other information is requested, write the appropriate values.

Criteria for Acceptance: All items require answers of "Y" (or "NA", where relevant) except where other criteria are noted.

DESCRIPTION	ZONE #								
	General								
1. Are lighting schedules programmable with a microprocessor-based central processing unit (CPU)?									
2. Does CPU allow separate weekday, weekend, & holiday schedules?									
3. Verify battery backup by interrupting power to the CPU and restoring power. Do schedules remain intact? ¹									
4. Is zone less than 2500ft ² in area?									
5. Method of override ("T" for telephone link, "L" for latching/smart switch, "S" for simple button or switch). Acceptance: per approved submittals.									
6. Override method compatible with CPU?									
7. Override controls no more than 2 zones?									
8. Override located within general area of zone(s) controlled?									
9. System provides warning to occupants prior to lights being swept off?									
10. Schedule & override time period are reasonable for zone occupancy pattern? ²									
11. Override time period, minutes. Acceptance: <120 minutes ²									
12. Occupants have been explained the intent & operation of the sweep system?									
13.									

Notes To Table:

¹ Don't do this test unless you are sure the CPU is equipped with battery backup, and that the backup is supposed to keep schedule and other critical programming intact. Before doing test, explain to the building operator that failure of the test may mean loss of programming, and get permission to proceed.

² Answer in the "General" column only if a single schedule and override period applies to all zones; otherwise answer for each zone.

COMMENTS ON INSTALLATION VERIFICATION CHECKLIST ITEMS (add more sheets if needed):

ITEM #	ZONE #	COMMENT
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

FUNCTIONAL PERFORMANCE VERIFICATION:

The following section is a series of field tests that are intended to verify that the lighting sweep controls operate as they were intended to operate by the manufacturer and designer. Under each zone write "Y" for yes, "N" for no, "NA" for not applicable, or a number to refer to any needed comments. Explain any "N" answers in the comment section. If other information is requested, write the appropriate values. If you were not able to complete a test, write "ND" for not done, and explain in a comment.

Lighting Sweep Schedule Tests: Perform the following tests by monitoring and/or observing each lighting zone under actual operation. If the actual control sequence differs from that implied by the tests, attach a description of the control sequence, the tests that were done to verify the sequence, and your conclusions. It is permissible to adjust the programmed schedules and override periods for easier testing. If this is done, reprogram to the original schedules and override periods, or as directed by the building operator, at the conclusion of testing. Use of light loggers or current dataloggers over a one week period to document operation is recommended, though visual observation is acceptable. Annotate any logger data and graphs so that it is clear what the data are proving, and attach these to this form. Energy Management System trend logs of EMS outputs or schedule print-outs are not acceptable as proof of operation.

Criteria for Acceptance: All items require answers of "Y" (or "NA", where relevant) except where other criteria are noted.

ZONE #								
1. Lights in zone are turned off at scheduled time?								
2. Lighting sweep is preceded by occupant warning (blinking of lights, etc.)?								
3. Override turns on zone lights only?								
4. Lights turned on by override are turned off after programmed override period?								
5. If space has split wiring, inboard and outboard lights are properly sequenced?								
6. If there is a keyed whole floor switch (for cleaning staff, etc.), this is also swept off?								
7. If HVAC terminal units also controlled by the sweep, units go to unocc. mode when swept off & go to occ. mode by override?								
8.								
9.								

COMMENTS ON FUNCTIONAL PERFORMANCE VERIFICATION ITEMS (add more sheets as needed):

ITEM #	ZONE #	COMMENT
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

I certify that the data and test results as recorded herein are accurate.

Signature, Commissioning Agent

Date

Firm Name

(Area Code) Phone Number

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