

Incompatibility of Some Photocontrols with the Clearlight

Subject: DTL Dark to Light American Electric Electronic Locking Type Photocontrol
Part Number: DD124-1.5-TJA.

Scope: Incompatibility of DTL Dark to Light American Electric Electronic Type Photocontrol
PN DD124-1.5-TJA with the Evluma Clearlight 40W LED replacement lamp/luminaire for
use in NEMA Type 5 dusk-till-dawn fixtures, PN 83125148 and 46505625.

Result of Analysis:

The DD124-1.5-TJA is a special Dark to Light (DTL) Photocontrol from American Electric that detects and disables cycling High Pressure Sodium (HPS) lamps. After five lamp cycles, the photocontrol will shut off the lamp and attempt restart at next dusk. Lamps that fail to start will also be shut down and the circuit restarted at next dusk.

When used in a dusk-till-dawn fixture with the Clearlight, this photocell fails to detect sufficient load from the Clearlight and falsely determines that the arc has not been struck. The photocell shuts off the power to the luminaire and will not allow a restart until the next dusk. The DD124-1.5 TJA is incompatible with the Clearlight 40W LED PN 83125148 and 46505625 and should not be used.

The spec for the DD124-1.5 TJA states that it is “not for incandescent operation,” indicating that it should be used with HPS only. The spec for the DD124-1.5-TJA also states that it should be used anywhere a cycling lamp or starting aid life is a problem. The Clearlight does load the DTD sufficiently to keep it turned on due to its low energy demand.

Recommendation:

Evluma recommends replacing the DD124-1.5-TJA DTD with a standard DTD.

