



Department  
for Transport

## Road Traffic Regulation Act 1984 Sections 64 and 65

### Authorisation of traffic signs and special directions

#### Accessible transcript

Secretary of State for Transport's traffic authorisation of approval for road studs for the purposes of carrying out road tests in accordance with the provisions of British Standard BS EN 1463-1:2021 (as required by draft Standard BS prEN 1463-3) on the M54 motorway westbound between Junction 5 and 6.

The following pages contain a copy of the text from the Secretary of State for Transport's traffic authorisation regarding the above sign/markings.

A scanned copy of the signed authorisation and supporting signs/markings from the application are appended to this letter. The supporting material is submitted to the Department for Transport by a third party. You should refer to the party involved for accessible copies of the supporting material.



**ROAD TRAFFIC REGULATION ACT 1984 – SECTIONS 64 AND 65**

**APPROVAL OF TYPE OF STUD**

The Secretary of State for Transport, in exercise of his powers under sections 64 and 65 of the Road Traffic Regulation Act 1984, and all other powers enabling him in that behalf, in accordance with the requirements of directions 7(4), 7(5) and 7(6) of the Traffic Signs General Directions 2016 (S.I. 2016/362) and having regard to directions 7(1), 7(2), 7(3), 7(7) to 7(11) and 11, hereby:-

1. approves the road studs specified below for the purposes of carrying out road tests in accordance with the provisions of British Standard BS EN 1463-1:2021 (as required by draft Standard BS prEN 1463-3) on the M54 motorway westbound between Junction 5 and 6; and
2. directs that the adhesive used for fixing the road studs shall be Fosroc Nitobond TM or Robnor resin EL628SS or Triflex Cryl R 238S; and
3. directs that this approval shall expire on 1<sup>st</sup> September 2025.

**SPECIFICATION**

Product identification	Clearview Intelligence SolarLite-Click housed within a Stimsonite 381c shoe and cassette assembly.  Clearview Intelligence SolarLite-Surface.  Part numbers 806338-001 to 015
Description	Unidirectional or Bidirectional road studs with LED illumination



LED manufacturer's identification numbers	White (4150k-4500k)  Red  Amber  Green  Blue
LED to comply with the chromaticity requirements of	prEN 1463-3 pt1 (Draft)
LED flash rate	100 Hz minimum, with each flash equally spaced
To be of the size and type shown on the drawing marked with the Department's number	GT50/197/0011-1, GT50/197/0011-2, GT50/197/0011-3, GT50/197/0011-4, GT50/197/0011-5, GT50/197/0011-6, GT50/197/0011-7

Dated *10 January 2024*

Signed by authority of the Secretary of State

.....

A Delegated Official of the Department for Transport



Department  
for Transport

**SCANNED  
AUTHORISATION  
AND MAPS / SIGNS  
FOLLOW**



**ROAD TRAFFIC REGULATION ACT 1984 – SECTIONS 64 AND 65**

**APPROVAL OF TYPE OF STUD**

The Secretary of State for Transport, in exercise of his powers under sections 64 and 65 of the Road Traffic Regulation Act 1984, and all other powers enabling him in that behalf, in accordance with the requirements of directions 7(4), 7(5) and 7(6) of the Traffic Signs General Directions 2016 (S.I. 2016/362) and having regard to directions 7(1), 7(2), 7(3), 7(7) to 7(11) and 11, hereby:-

1. approves the road studs specified below for the purposes of carrying out road tests in accordance with the provisions of British Standard BS EN 1463-1:2021 (as required by draft Standard BS prEN 1463-3) on the M54 motorway westbound between Junction 5 and 6; and
2. directs that the adhesive used for fixing the road studs shall be Fosroc Nitobond TM or Robnor resin EL628SS or Triflex Ceryl R 238S; and
3. directs that this approval shall expire on 1<sup>st</sup> September 2025.

**SPECIFICATION**

Product identification	Clearview Intelligence SolarLite-Click housed within a Stimsonite 381c shoe and cassette assembly.  Clearview Intelligence SolarLite-Surface.  Part numbers 806338-001 to 015
Description	Unidirectional or Bidirectional road studs with LED illumination



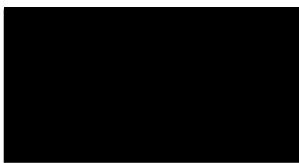
Department  
for Transport

GT50/197/0011

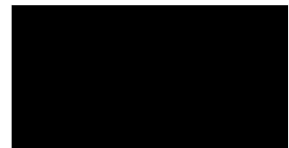
LED manufacturer's identification numbers	White (4150k-4500k) [REDACTED] Red [REDACTED] Amber [REDACTED] Green [REDACTED] Blue [REDACTED]
LED to comply with the chromaticity requirements of	prEN 1463-3 pt1 (Draft)
LED flash rate	100 Hz minimum, with each flash equally spaced
To be of the size and type shown on the drawing marked with the Department's number	GT50/197/0011-1, GT50/197/0011-2, GT50/197/0011-3, GT50/197/0011-4, GT50/197/0011-5, GT50/197/0011-6, GT50/197/0011-7

Dated *10 January 2024*

Signed by authority of the Secretary of State



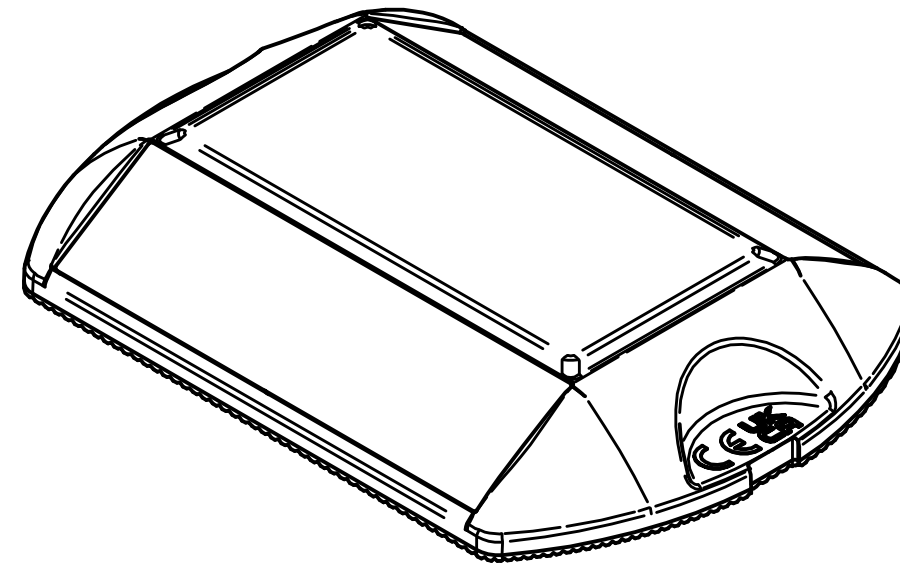
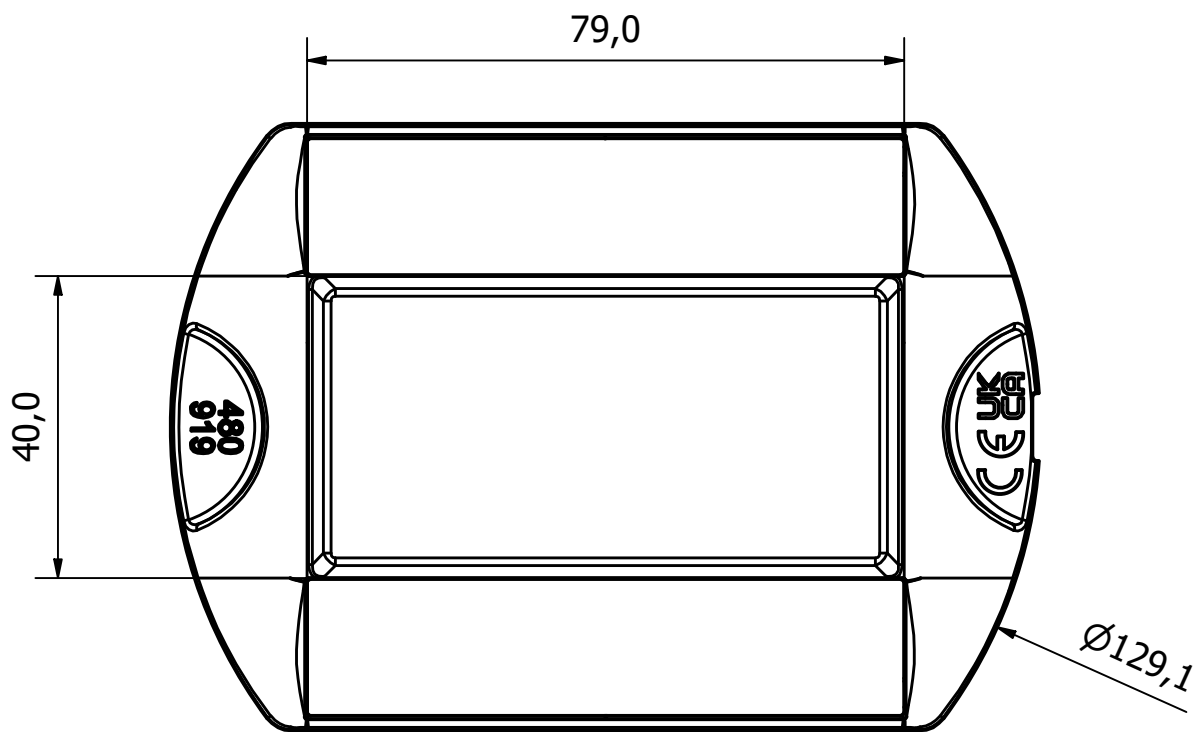
**CERTIFIED TRUE COPY**



Department  
for Transport

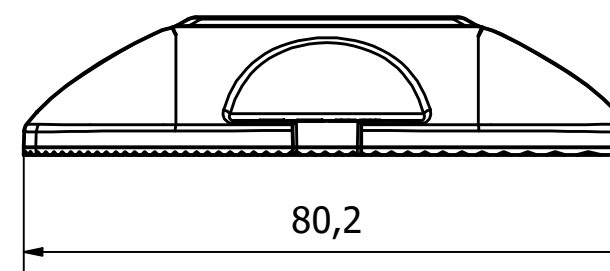
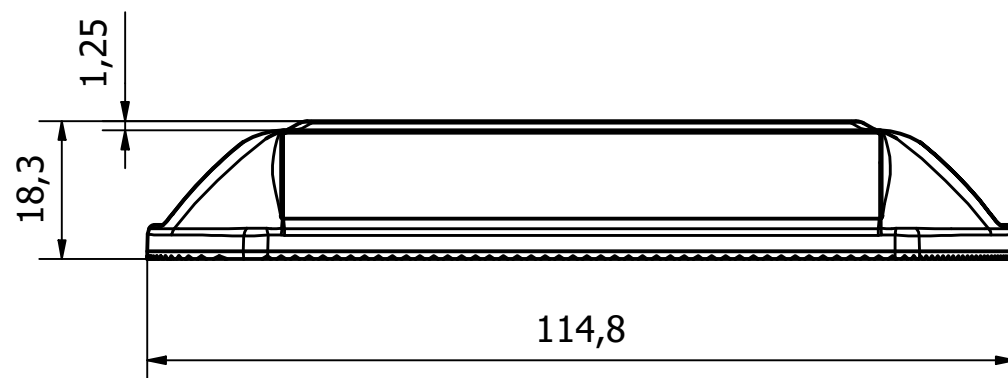
Date:  
10/01/2024

A Delegated Official of the Department for Transport



  
 Department  
 for Transport  
  
 Date: 10 January 2024  
 Number: GT50/197/0011-1

COLOUR VARIANTS	
Variant (XXX)	Colors
001	Uni Amber
002	Uni Red
003	Uni Green
004	Uni White
005	Uni Blue
006	Red/Amber
008	Red/White
011	Bi-Amber
012	Bi-Red
013	Bi-Green
014	Bi-White
015	Bi-Blue



IF IN DOUBT ASK

ISSUE	DATE	ECN No.	ISSUE	DATE	ECN No.
01	12/10/23				

MODIFICATION RECORDS

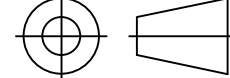
APPROVED BY

DIMS IN MILLIMETERS

DO NOT SCALE

TOLERANCES UOS:  
 LINEAR ± 0.2  
 ANGULAR ± 0.2

3rd ANGLE PROJECTION



DRAWING TO BS 8888

AUTHOR  
**JWD Ltd**


**Clearview Intelligence**  
 making journeys work  
 Aurora House, Deltic Avenue, Rooksley,  
 Milton Keynes, Bucks, MK13 8LW  
[www.clearview-intelligence.com](http://www.clearview-intelligence.com)

DRAWING No.

806338-XXX

ISSUE  
**1A**

TITLE

ClickLite Stud - Outline Drawing

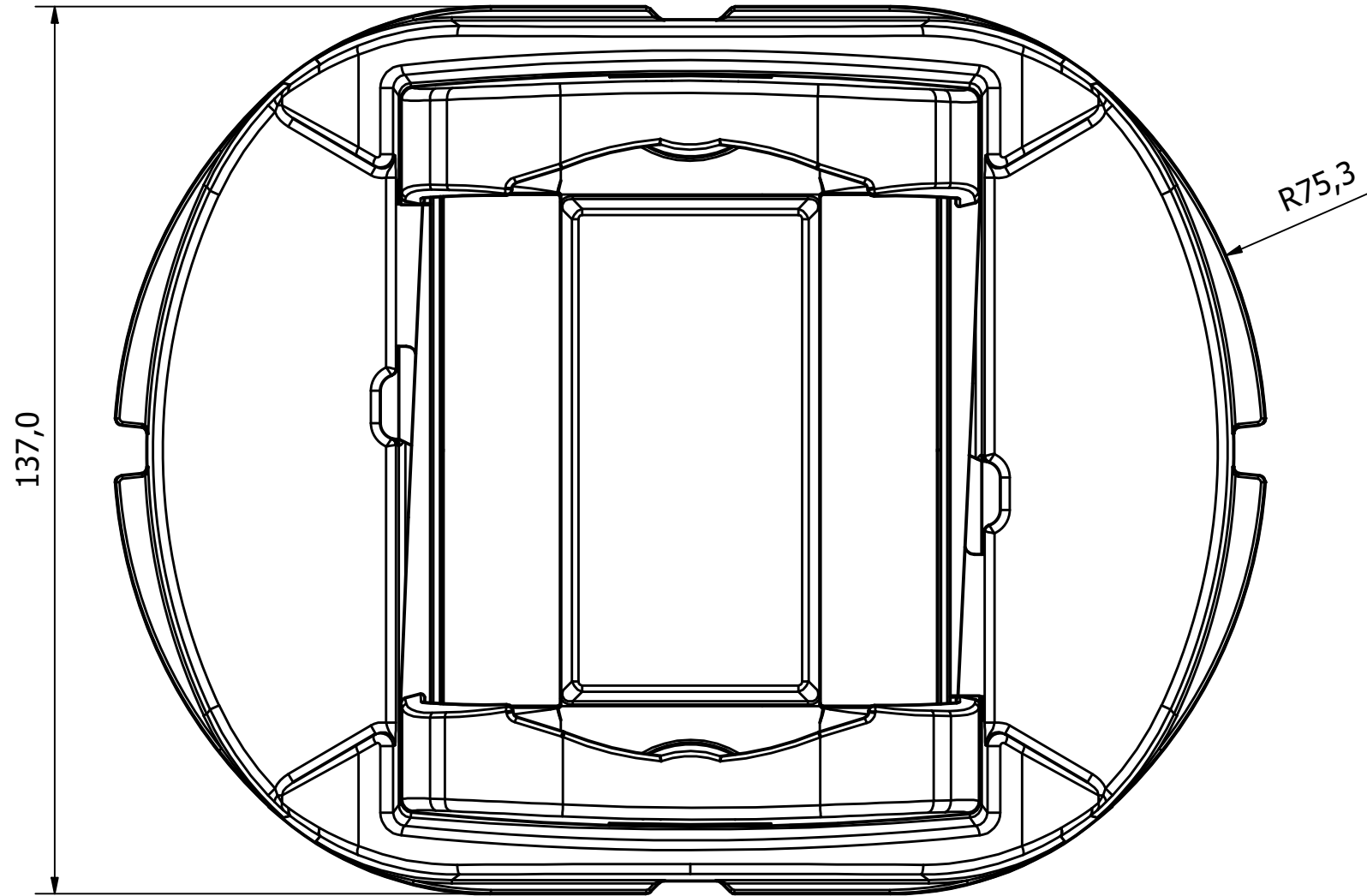
THE COPYRIGHT OF THIS DRAWING IS RESERVED TO CLEARVIEW INTELLIGENCE, AND THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL. IT IS ISSUED ON THE CONDITION THAT IT IS NOT DISCLOSED TO A THIRD PARTY WITHOUT THE CONSENT IN WRITING OF CLEARVIEW INTELLIGENCE.

SHEET No. 1  
 No. OF SHEETS 1

SHT SIZE  
**A3**

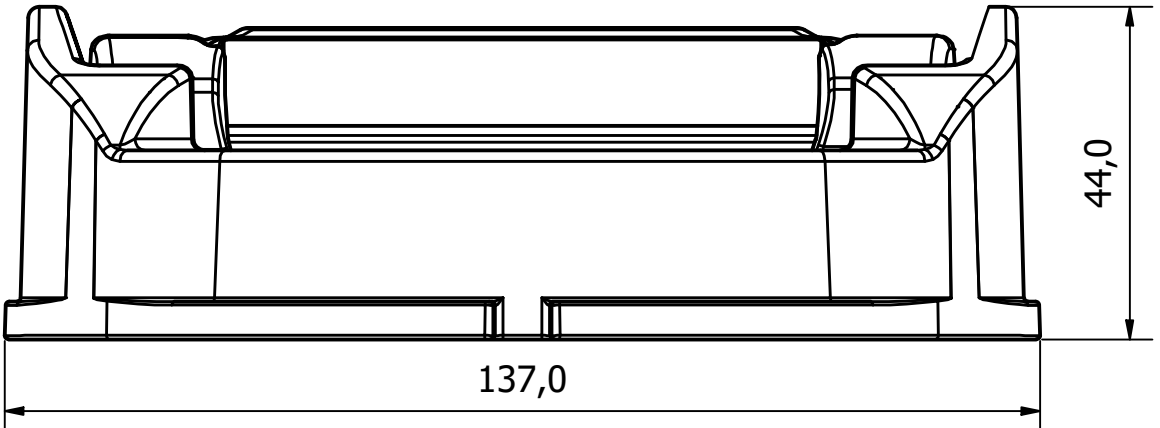
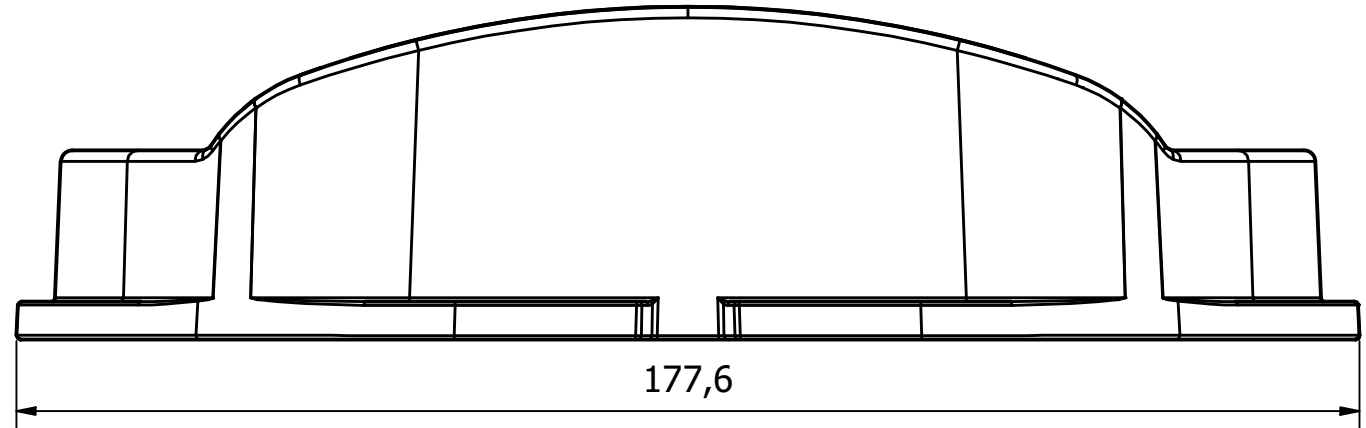
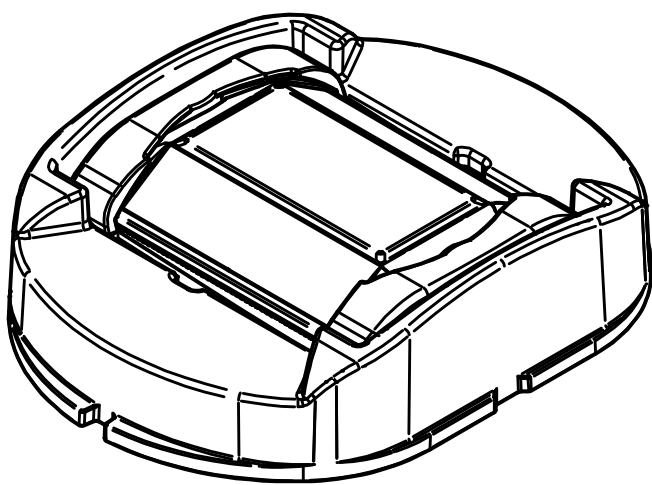
8 7 6 5 4 3 2 1

F  
E  
D  
C  
B  
A



  
**Department  
 for Transport**  
 Date: 10 January 2024  
 Number: GT50/197/0011-2

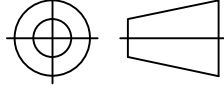
COLOUR VARIANTS	
Variant (XXX)	Colors
001	Uni Amber
002	Uni Red
003	Uni Green
004	Uni White
005	Uni Blue
006	Red/Amber
008	Red/White
011	Bi-Amber
012	Bi-Red
013	Bi-Green
014	Bi-White
015	Bi-Blue



IF IN DOUBT ASK

ISSUE	DATE	ECN No.	ISSUE	DATE	ECN No.
01	04/12/23				

**MODIFICATION RECORDS**

APPROVED BY	DIMS IN MILLIMETERS
CHECKED	DO NOT SCALE
AUTHOR	TOLERANCES UOS: LINEAR ± 0.2 ANGULAR ± 0.2
JWD Ltd	3rd ANGLE PROJECTION
	
	DRAWING TO BS 8888

 **Clearview  
Intelligence**  
 making journeys work  
 Aurora House, Deltic Avenue, Rooksley,  
 Milton Keynes, Bucks, MK13 8LW  
[www.clearview-intelligence.com](http://www.clearview-intelligence.com)

DRAWING No.	806338-XXX	ISSUE	1A
TITLE	SolarLite-C Installed General Assembly		

THE COPYRIGHT OF THIS DRAWING IS RESERVED TO CLEARVIEW INTELLIGENCE, AND THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL. IT IS ISSUED ON THE CONDITION THAT IT IS NOT DISCLOSED TO A THIRD PARTY WITHOUT THE CONSENT IN WRITING OF CLEARVIEW INTELLIGENCE.


SHEET No.	1	SHT SIZE	A3
No. OF SHEETS	1		

8 7 6 5 4 3 2 1



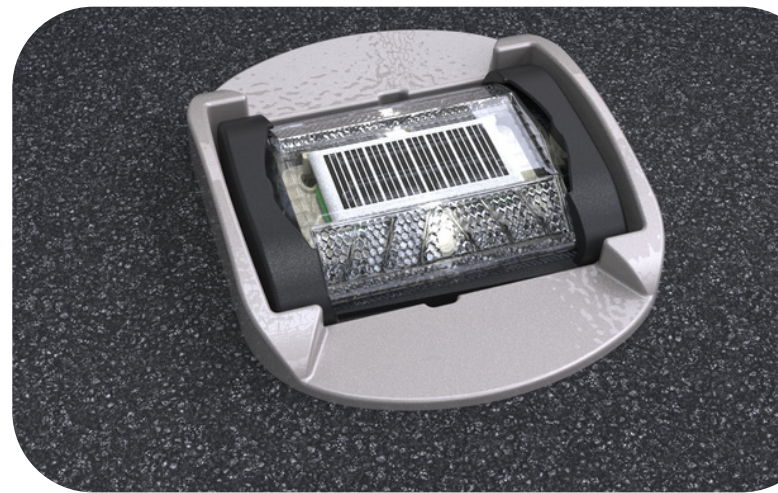
# SolarLite-Click

**Solar powered road stud to provide guidance and advance warning to road users day and night**

<b>Reflector colour</b>	Amber, Red, White, Green, Blue
<b>Operating temperature range</b>	-30°C to +85°C
<b>LED configuration</b>	Uni / Bi directional
<b>LEDs per stud</b>	1 per uni directional stud 2 per bi directional stud
<b>LED size</b>	5mm (all colour variants)
<b>LED colours</b>	Amber to EN1463/ Red to EN1463/ White to EN1376 C/ Green to EN1463/ Blue to EN1376 A
<b>Approximate max distance of view</b>	Up to 900m dependent on road layout
<b>LED output</b>	>100Hz
<b>Battery</b>	Nickel metal hydride
<b>Output - full charge</b>	Up to 240 working hours with no solar input
<b>Time to full charge</b>	8 hours with 500W/m2 illuminance
<b>Installation</b>	Housed within a Stimsonite 381c shoe and cassette assembly
<b>Housing colour</b>	Transparent
<b>LED manufacturer part numbers</b>	
<b>Physical dimensions</b>	w114.8mm x h18.3mm x l80.2mm (w4.52"xh0.72"xl3.16")
<b>Physical dimensions when installed</b>	Shoe housing - 8mm above road surface
<b>Product weight</b>	135g
<b>Product reflector type</b>	Corner cube plastic with abrasion resistant layer

SolarLite-Click is an 'active road stud', providing enhanced visibility for drivers with an inbuilt solar powered LED to delineate the route ahead. The SolarLite-Click offers versatility to network operators, designers and maintainers alike with the ability to remove and replace studs in the event of resurfacing works or contraflow.

The stud has been designed for installation by using the proven C80/P09 shoe and cassette assembly to affix the stud in place.



## Benefits


- Enhanced distance visibility of road layout ahead compared to retro-reflective studs – even in poor weather conditions or on wet roads
- Allows additional driver reaction time to respond to changing road layouts
- Reduces erratic driving behaviour and promotes smoother braking along winding roads
- Versatility of stud accessibility allowing for stud removal and redeployment in the event of resurfacing works or for contraflow
- Retroreflective face of stud visible in daylight conditions

## Features

- Superior solar energy harvesting & storage electronics designed to maintain light outputs throughout a full annual cycle
- Use where street lighting is either unavailable, not cost effective or environmentally not possible
- Eliminate mains power running costs for street lighting on the network by using efficient renewable energies to power active road studs

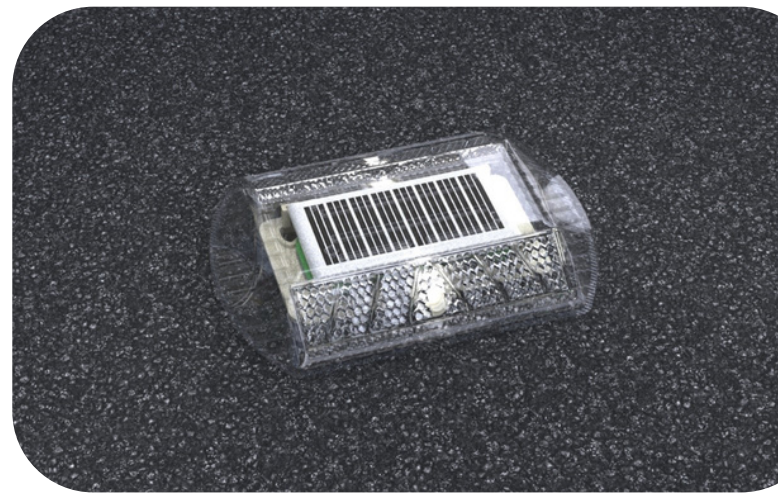
# SolarLite-Surface

**Solar powered road stud to provide guidance and advance warning to road users day and night**

<b>Reflector colour</b>	Amber, Red, White, Green, Blue
<b>Operating temperature range</b>	-30°C to +85°C
<b>LED configuration</b>	Uni / Bi directional
<b>LEDs per stud</b>	1 per uni directional stud 2 per bi directional stud
<b>LED size</b>	5mm (all colour variants)
<b>LED colours</b>	Amber to EN1463/ Red to EN1463/ White to EN1376 C/ Green to EN1463/ Blue to EN1376 A
<b>Approximate max distance of view</b>	Up to 900m dependent on road layout
<b>LED output</b>	>100Hz
<b>Battery</b>	Nickel metal hydride
<b>Output - full charge</b>	Up to 240 working hours with no solar input
<b>Time to full charge</b>	8 hours with 500W/m2 illuminance
<b>Installation</b>	Bonded directly to surface with Fosroc Nitobond adhesive
<b>Housing colour</b>	Transparent
<b>LED manufacturer part numbers</b>	
<b>Physical dimensions</b>	w114.8mm x h18.3mm x l80.2mm (w4.52"xh0.72"xl3.16")
<b>Product weight</b>	135g
<b>Product reflector type</b>	Corner cube plastic with abrasion resistant layer

SolarLite-Surface is an 'active road stud', providing enhanced visibility for drivers with an inbuilt solar powered LED to delineate the route ahead. The SolarLite-S allows for network operators, designers and maintainers alike to enhance a route with the benefits of active road studs to a driver whilst stud installation time is kept to a minimum.

The stud has been designed with a texturised base to allow for bonding of studs directly onto the road surface.



## Benefits

- Enhanced distance visibility of road layout ahead compared to retro-reflective studs – even in poor weather conditions or on wet roads
- Allows additional driver reaction time to respond to changing road layouts
- Reduces erratic driving behaviour and promotes smoother braking along winding roads
- Retroreflective face of stud visible in daylight conditions

## Features

- Superior solar energy harvesting & storage electronics designed to maintain light outputs throughout a full annual cycle
- Use where street lighting is either unavailable, not cost effective or environmentally not possible
- Eliminate mains power running costs for street lighting on the network by using efficient renewable energies to power active road studs




Department  
for Transport

Date: 10 January 2024

Number: GT50/197/0011-4

# SolarLite-Surface

**Solar powered road stud to provide guidance and advance warning to road users day and night**

<b>Reflector colour</b>	Amber, Red, White, Green, Blue
<b>Operating temperature range</b>	-30°C to +85°C
<b>LED configuration</b>	Uni / Bi directional
<b>LEDs per stud</b>	1 per uni directional stud 2 per bi directional stud
<b>LED size</b>	5mm (all colour variants)
<b>LED colours</b>	Amber to EN1463/ Red to EN1463/ White to EN1376 C/ Green to EN1463/ Blue to EN1376 A
<b>Approximate max distance of view</b>	Up to 900m dependent on road layout
<b>LED output</b>	>100Hz
<b>Battery</b>	Nickel metal hydride
<b>Output - full charge</b>	Up to 240 working hours with no solar input
<b>Time to full charge</b>	8 hours with 500W/m2 illuminance
<b>Installation</b>	Bonded directly to surface with Robnor resin adhesive
<b>Housing colour</b>	Transparent
<b>LED manufacturer part numbers</b>	
<b>Physical dimensions</b>	w114.8mm x h18.3mm x l80.2mm (w4.52"xh0.72"xl3.16")
<b>Product weight</b>	135g
<b>Product reflector type</b>	Corner cube plastic with abrasion resistant layer

SolarLite-Surface is an 'active road stud', providing enhanced visibility for drivers with an inbuilt solar powered LED to delineate the route ahead. The SolarLite-S allows for network operators, designers and maintainers alike to enhance a route with the benefits of active road studs to a driver whilst stud installation time is kept to a minimum.

The stud has been designed with a texturised base to allow for bonding of studs directly onto the road surface.



## Benefits

- Enhanced distance visibility of road layout ahead compared to retro-reflective studs – even in poor weather conditions or on wet roads
- Allows additional driver reaction time to respond to changing road layouts
- Reduces erratic driving behaviour and promotes smoother braking along winding roads
- Retroreflective face of stud visible in daylight conditions

## Features

- Superior solar energy harvesting & storage electronics designed to maintain light outputs throughout a full annual cycle
- Use where street lighting is either unavailable, not cost effective or environmentally not possible
- Eliminate mains power running costs for street lighting on the network by using efficient renewable energies to power active road studs



Department  
for Transport

Date: 10 January 2024

Number: GT50/197/0011-5



# SolarLite-Surface

**Solar powered road stud to provide guidance and advance warning to road users day and night**

<b>Reflector colour</b>	Amber, Red, White, Green, Blue
<b>Operating temperature range</b>	-30°C to +85°C
<b>LED configuration</b>	Uni / Bi directional
<b>LEDs per stud</b>	1 per uni directional stud 2 per bi directional stud
<b>LED size</b>	5mm (all colour variants)
<b>LED colours</b>	Amber to EN1463/ Red to EN1463/ White to EN1376 C/ Green to EN1463/ Blue to EN1376 A
<b>Approximate max distance of view</b>	Up to 900m dependent on road layout
<b>LED output</b>	>100Hz
<b>Battery</b>	Nickel metal hydride
<b>Output - full charge</b>	Up to 240 working hours with no solar input
<b>Time to full charge</b>	8 hours with 500W/m2 illuminance
<b>Installation</b>	Bonded directly to surface with Triflex Cryl R238 adhesive
<b>Housing colour</b>	Transparent
<b>LED manufacturer part numbers</b>	[REDACTED]
<b>Physical dimensions</b>	w114.8mm x h18.3mm x l80.2mm (w4.52"xh0.72"xl3.16")
<b>Product weight</b>	135g
<b>Product reflector type</b>	Corner cube plastic with abrasion resistant layer

SolarLite-Surface is an 'active road stud', providing enhanced visibility for drivers with an inbuilt solar powered LED to delineate the route ahead. The SolarLite-S allows for network operators, designers and maintainers alike to enhance a route with the benefits of active road studs to a driver whilst stud installation time is kept to a minimum.

The stud has been designed with a texturised base to allow for bonding of studs directly onto the road surface.



## Benefits

- Enhanced distance visibility of road layout ahead compared to retro-reflective studs – even in poor weather conditions or on wet roads
- Allows additional driver reaction time to respond to changing road layouts
- Reduces erratic driving behaviour and promotes smoother braking along winding roads
- Retroreflective face of stud visible in daylight conditions

## Features

- Superior solar energy harvesting & storage electronics designed to maintain light outputs throughout a full annual cycle
- Use where street lighting is either unavailable, not cost effective or environmentally not possible
- Eliminate mains power running costs for street lighting on the network by using efficient renewable energies to power active road studs






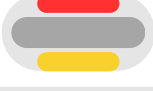
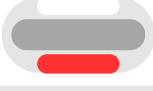
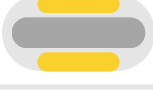
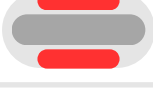
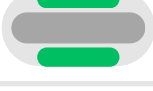




Department  
for Transport

Date: 10 January 2024

Number: GT50/197/0011-6

# Product Options

Symbol	Part Number	Description
	806338-001	Amber- Uni-directional
	806338-002	Red- Uni-directional
	806338-003	Green- Uni-directional
	806338-004	White- Uni-directional
	806338-005	Blue - Uni-directional
	806338-006	Red/amber - Bi-directional
	806338-008	White/red – Bi-directional
	806338-011	Amber – Bi-directional
	806338-012	Red – Bi-directional
	806338-013	Green – Bi-directional
	806338-014	White – Bi-directional
	806338-015	Blue – Bi-directional



Department  
for Transport

Date: 10 January 2024

Number: GT50/197/0011-7

t: +44 (0)1908 088008

e: [info@clearview-intelligence.com](mailto:info@clearview-intelligence.com)

Head Office: Aurora House, Deltic Avenue, Rooksley, Milton Keynes, MK13 8LW

[www.clearview-intelligence.com](http://www.clearview-intelligence.com)