

TEST REPORT

SABS

SIMPLE SYSTEMS

Attention: Mr J. Janse van Rensburg
PO Box 1414
LAMBTON
1414

Your Ref: K-Lite road studs
Our ref: FE 646
Enquiries: A. Rocha
Tel: 012 428 6365
Date: 09 November 2012
Report No: 2330/ FE 646
Page: 1 of 3

TESTING TO STANDARD SANS 1442: 2008 (EDITION 1.3) "ROAD STUDS"

0. CONCLUSION

The sample complied with the requirements as requested in clause 4, as specified in standard SANS 1442: 2008 (Edition 1.3).

1. SAMPLE DESCRIPTION

TABLE 1 – SAMPLE DESCRIPTION

Sample description	Marking	Photograph of sample
Eight galvanized road studs in clear, yellow and red marked 1 to 8 by the SABS	K K-Lite	See Annex A on page 3

2. SAMPLE SUBMITTED

The sample was received in a condition suitable for testing.

Submission date : 08 October 2012
Testing starting date : 19 October 2012
Testing completion date : 05 November 2012

3. TEST METHOD

The tests were conducted in accordance with the test methods of standard SANS 1442: 2008 (Edition 1.3).

4. TESTS REQUESTED

Full test.

SANAS Accredited Testing Laboratory No.T0085



5. TEST RESULTS

TABLE 2 – TEST RESULTS

Description of requirements	Clauses	Test results
General (visual inspection)	3.1.1	Complied
Dimensions	3.2	Complied
Colour	3.3	Complied See colour test report attachments
Category and photometric properties	3.4	Complied for category A photometric properties See photometric test report attachments
Resistance to penetration of water	3.5	Complied
Resistance to heat	3.6	Complied See photometric test report attachments
Resistance to motor fuel	3.7	Complied See photometric test report attachments
Resistance to lubricating oil	3.8	Complied See photometric test report attachments
Resistance to corrosion	3.9	Complied
Marking (visual inspection)	4	Complied

6. SUBCONTRACTING OF SABS LABORATORIES

Paints & Sealants – resistance to corrosion.

7. EXCLUSIONS

None.

8. UNCERTAINTY OF MEASUREMENT

The estimated uncertainty of measurement of the photometric measurement is approximately 5,3 % for a 94,7 % level of confidence.

9 NOTE

The sample will be disposed of if not collected within three months of completion of testing.

Tested by: A. Rocha
TECHNICAL SIGNATORY
LIGHTING TECHNOLOGY

Checked by: T. Fourie
MANAGEMENT SIGNATORY
LIGHTING TECHNOLOGY

This test was performed by SABS Commercial (Pty) Ltd.,

This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested. (Refer also to the complete conditions printed on the back of official test reports.)

ANNEX A
PHOTOGRAPH OF SAMPLE INCLUDING MARKING



This test was performed by SABS Commercial (Pty) Ltd.,

This report relates only to the specific sample(s) tested as identified herein. It does not imply SABS approval of the quality and/or performance of the item(s) in question and the test results do not apply to any similar item that has not been tested. (Refer also to the complete conditions printed on the back of official test reports.)

SABS

Photometric Test Report

SANS 1442

ROAD STUDS (Clear - Category A)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 1 side A

Sample status: Initial test

Date 19. Oct 2012

Time 09:41:40

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		453.4900	mcd/lx
V/5R	5.00	0.00	220.0000		503.9900	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		239.7000	mcd/lx
V/10R	10.00	0.00	120.0000		290.7000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		63.7500	mcd/lx
V/10R	10.00	0.00	25.0000		63.7500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		14.4838	mcd/lx
V/15R	15.00	0.00	5.0000		14.9006	mcd/lx

Test passed

SABS

Photometric Test Report

SANS 1442

ROAD STUDS (Clear - Category A)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 1 side B

Sample status: Initial test

Date 19. Oct 2012

Time 11:49:52

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		787.8000	mcd/lx
V/5R	5.00	0.00	220.0000		780.7300	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		456.4500	mcd/lx
V/10R	10.00	0.00	120.0000		483.6500	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		57.8000	mcd/lx
V/10R	10.00	0.00	25.0000		61.2000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		8.8570	mcd/lx
V/15R	15.00	0.00	5.0000		9.0654	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Clear - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 2 side A
Sample status: Initial test

Date 19. Oct 2012
Time 12:01:25
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		366.6300	mcd/lx
V/5R	5.00	0.00	220.0000		401.9800	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		366.3500	mcd/lx
V/10R	10.00	0.00	120.0000		387.6000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		97.7500	mcd/lx
V/10R	10.00	0.00	25.0000		98.6000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		17.8182	mcd/lx
V/15R	15.00	0.00	5.0000		16.0468	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Clear - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 2 side B
Sample status: Initial test

Date 19. Oct 2012
Time 11:57:30
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		228.2600	mcd/lx
V/5R	5.00	0.00	220.0000		235.3300	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		173.4000	mcd/lx
V/10R	10.00	0.00	120.0000		172.5500	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		34.8500	mcd/lx
V/10R	10.00	0.00	25.0000		35.7000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		9.7948	mcd/lx
V/15R	15.00	0.00	5.0000		11.9830	mcd/lx

Test passed

SABS

Photometric Test Report

SANS 1442

ROAD STUDS (Clear - Category A)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 3 side A

Sample status: Initial test

Date 19. Oct 2012

Time 12:04:11

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		615.0900	mcd/lx
V/5R	5.00	0.00	220.0000		643.3700	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		376.5500	mcd/lx
V/10R	10.00	0.00	120.0000		382.5000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		42.5000	mcd/lx
V/10R	10.00	0.00	25.0000		45.9000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		6.3562	mcd/lx
V/15R	15.00	0.00	5.0000		6.6688	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 3 side B
Sample status: Initial test

Date 19. Oct 2012
Time 12:10:45
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		199.7780	mcd/lx
V/5R	5.00	0.00	44.0000		200.9900	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		124.1000	mcd/lx
V/10R	10.00	0.00	24.0000		130.0500	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		18.7000	mcd/lx
V/10R	10.00	0.00	5.0000		20.4000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		4.2722	mcd/lx
V/15R	15.00	0.00	1.0000		5.7310	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Clear - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 4 side A
Sample status: Initial test

Date 19. Oct 2012
Time 12:06:57
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		754.4700	mcd/lx
V/5R	5.00	0.00	220.0000		768.6100	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	120.0000		448.8000	mcd/lx
V/10R	10.00	0.00	120.0000		487.9000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	25.0000		56.9500	mcd/lx
V/10R	10.00	0.00	25.0000		56.9500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	5.0000		7.8150	mcd/lx
V/15R	15.00	0.00	5.0000		8.2318	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 4 side B
Sample status: Initial test

Date 19. Oct 2012
Time 12:14:26
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		158.7720	mcd/lx
V/5R	5.00	0.00	44.0000		159.8830	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		146.2000	mcd/lx
V/10R	10.00	0.00	24.0000		150.4500	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		34.0000	mcd/lx
V/10R	10.00	0.00	5.0000		35.7000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		5.6268	mcd/lx
V/15R	15.00	0.00	1.0000		6.2520	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 5 side A
Sample status: Initial test

Date 19. Oct 2012
Time 12:17:31
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		255.5300	mcd/lx
V/5R	5.00	0.00	44.0000		281.7900	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		219.3000	mcd/lx
V/10R	10.00	0.00	24.0000		214.2000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		21.2500	mcd/lx
V/10R	10.00	0.00	5.0000		18.7000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		5.0016	mcd/lx
V/15R	15.00	0.00	1.0000		5.2100	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Date 19. Oct 2012
Time 12:20:31
Department Lighting Technology
Name A. Rocha
Page 1

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 5 side B
Sample status: Initial test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		222.2000	mcd/lx
V/5R	5.00	0.00	44.0000		243.4100	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		82.4500	mcd/lx
V/10R	10.00	0.00	24.0000		83.3000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		9.3500	mcd/lx
V/10R	10.00	0.00	5.0000		10.2000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		4.0638	mcd/lx
V/15R	15.00	0.00	1.0000		4.5848	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 6 side A
Sample status: Initial test

Date 19. Oct 2012
Time 12:24:30
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		209.0700	mcd/lx
V/5R	5.00	0.00	44.0000		223.2100	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		87.5500	mcd/lx
V/10R	10.00	0.00	24.0000		86.7000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		9.3500	mcd/lx
V/10R	10.00	0.00	5.0000		9.3500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		4.0638	mcd/lx
V/15R	15.00	0.00	1.0000		4.4806	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 6 side B
Sample status: Initial test

Date 19. Oct 2012
Time 12:27:43
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		240.3800	mcd/lx
V/5R	5.00	0.00	44.0000		242.4000	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		86.7000	mcd/lx
V/10R	10.00	0.00	24.0000		83.3000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		10.2000	mcd/lx
V/10R	10.00	0.00	5.0000		10.2000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		3.8554	mcd/lx
V/15R	15.00	0.00	1.0000		4.4806	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 7 side A
Sample status: Initial test

Date 19. Oct 2012
Time 12:30:56
Department Lighting Technology
Name A. Rocha
Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		164.4280	mcd/lx
V/5R	5.00	0.00	44.0000		164.7310	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		124.9500	mcd/lx
V/10R	10.00	0.00	24.0000		119.0000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		34.0000	mcd/lx
V/10R	10.00	0.00	5.0000		34.0000	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		6.7730	mcd/lx
V/15R	15.00	0.00	1.0000		7.8150	mcd/lx

Test passed

SABS

Photometric Test Report

SANS 1442

ROAD STUDS (Yellow - Category A)

Date 19. Oct 2012

Time 12:40:13

Department Lighting Technology

Name A. Rocha

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 7 side B

Sample status: Initial test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	110.0000		366.6300	mcd/lx
V/5R	5.00	0.00	110.0000		355.5200	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	60.0000		192.1000	mcd/lx
V/10R	10.00	0.00	60.0000		195.5000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	12.5000		48.4500	mcd/lx
V/10R	10.00	0.00	12.5000		45.0500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	2.5000		10.1074	mcd/lx
V/15R	15.00	0.00	2.5000		9.7948	mcd/lx

Test passed

SABS

Photometric Test Report
SANS 1442
ROAD STUDS (Red - Category A)

Date 19. Oct 2012
Time 12:33:52
Department Lighting Technology
Name A. Rocha
Page 1

Project : Photometric Requirements
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample # 8 side A
Sample status: Initial test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	44.0000		280.7800	mcd/lx
V/5R	5.00	0.00	44.0000		316.1300	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	24.0000		223.5500	mcd/lx
V/10R	10.00	0.00	24.0000		221.8500	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	5.0000		18.7000	mcd/lx
V/10R	10.00	0.00	5.0000		19.5500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	1.0000		4.4806	mcd/lx
V/15R	15.00	0.00	1.0000		4.7932	mcd/lx

Test passed

SABS

Photometric Test Report

SANS 1442

ROAD STUDS (Yellow - Category A)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 8 side B

Sample status: Initial test

Date 19. Oct 2012

Time 12:37:10

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	110.0000		317.1400	mcd/lx
V/5R	5.00	0.00	110.0000		321.1800	mcd/lx

Channel Retro 100ft 0°30'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	60.0000		175.9500	mcd/lx
V/10R	10.00	0.00	60.0000		175.1000	mcd/lx

Channel Retro 100ft 1°00'

	H	V	MIN	MAX	SAMPLE	
V/10L	-10.00	0.00	12.5000		27.2000	mcd/lx
V/10R	10.00	0.00	12.5000		26.3500	mcd/lx

Channel Retro 100ft 1°30'

	H	V	MIN	MAX	SAMPLE	
V/15L	-15.00	0.00	2.5000		6.5646	mcd/lx
V/15R	15.00	0.00	2.5000		10.9410	mcd/lx

Test passed

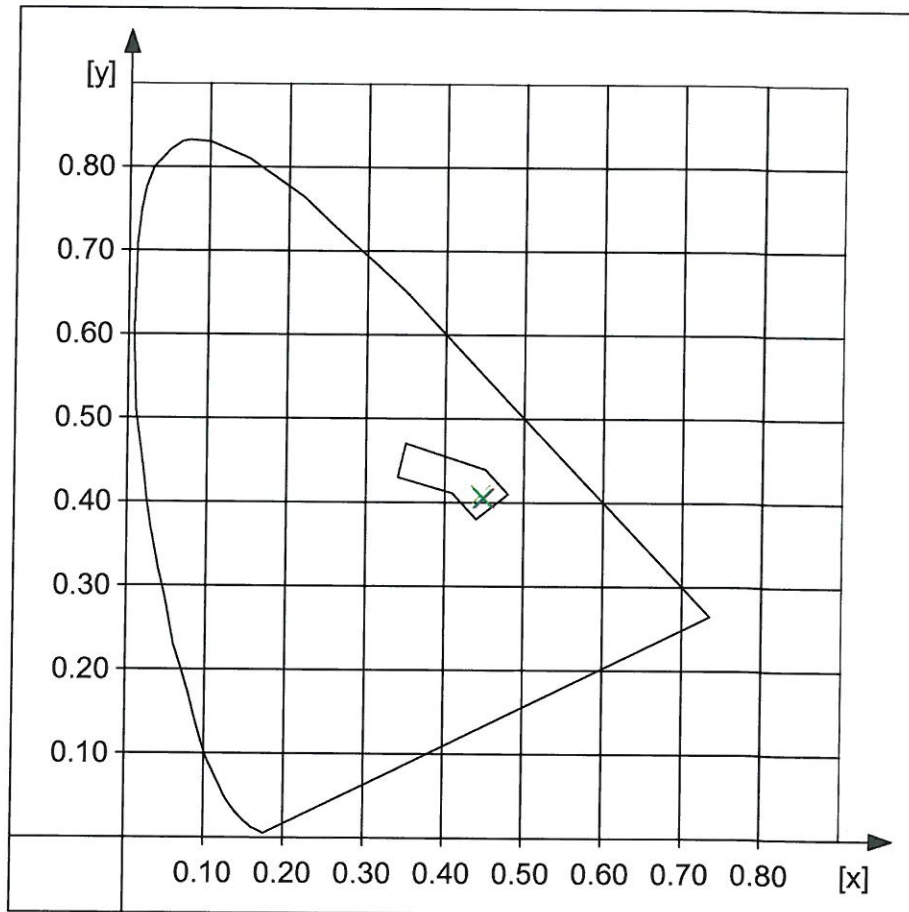
SABS

Photometric Test Report
SANS 1442
SANS 1442 Roadstuds Clear

Project : Road Studs
Client: Simple Systems
Roadstuds: K-Lite
Sample status: Initial test
H=12.5 V=30

Date 19. Oct 2012
Time 15:27:26
Department Lighting Technology
Name A. Rocha
Page 1

colour region SANS 1442 Road studs Clear



Channel color standard

	H	V	colour x	colour y	illuminance lx
first angle	-5.00	0.33	0.450	0.405	0.307
second angle	5.00	0.33	0.445	0.409	0.239
third angle	0.00	0.00	0.448	0.405	0.245

Test passed

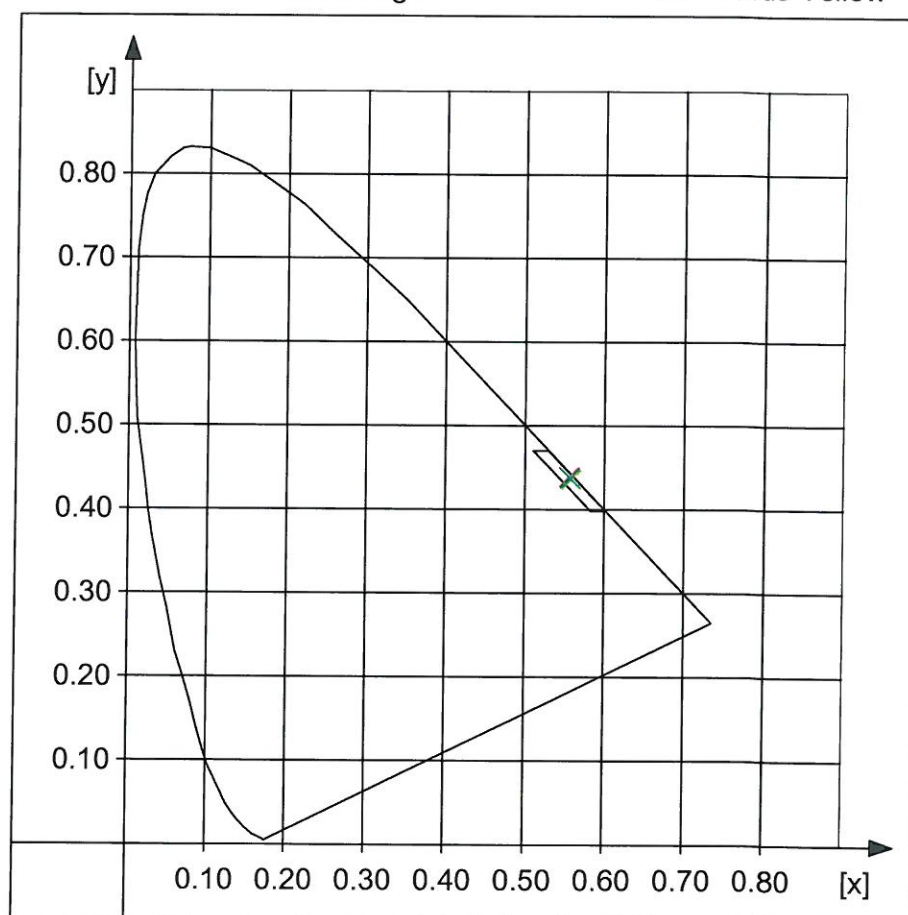
SABS

Photometric Test Report
SANS 1442
SANS 1442 Roadstuds Yellow

Project : Road Studs
Client: Simple Systems
Roadstuds: K-Lite
Sample status: Initial test
H=12.5 V=30

Date 19. Oct 2012
Time 15:21:36
Department Lighting Technology
Name A. Rocha
Page 1

colour region SANS 1442 Road studs Yellow



Channel color standard

	H	V	colour x	colour y	illuminance lx
first angle	5.00	0.33	0.555	0.439	0.143
second angle	5.00	0.33	0.558	0.435	0.138
third angle	5.00	0.33	0.557	0.437	0.139

Test passed

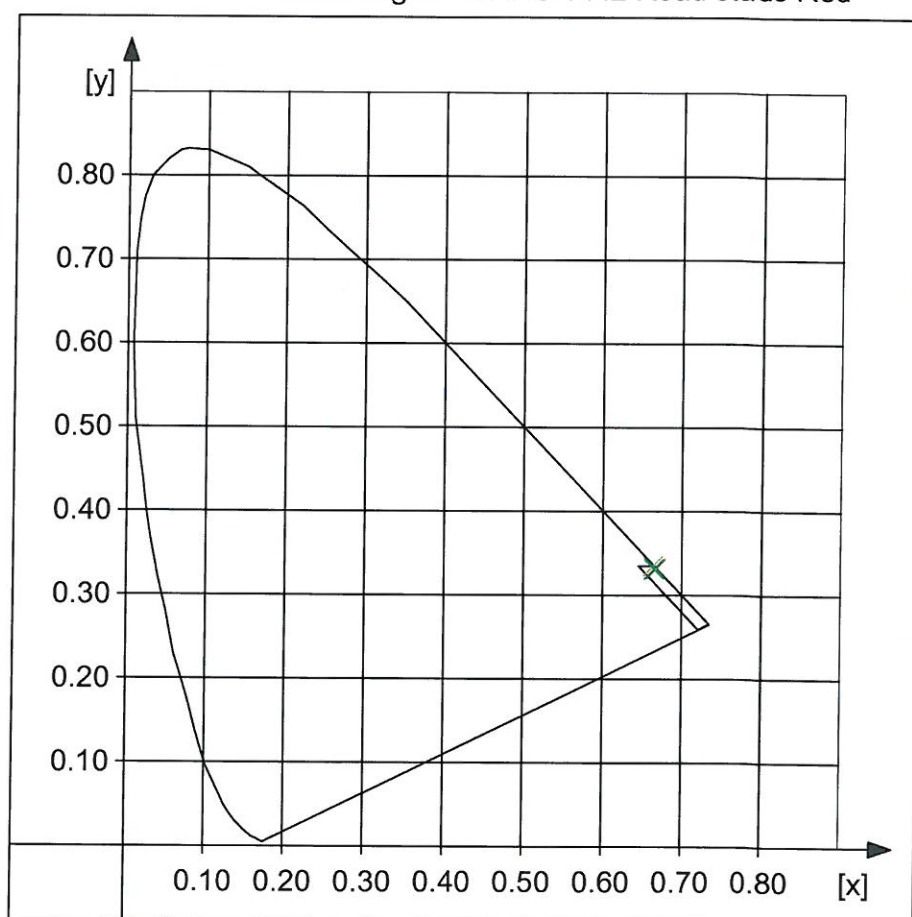
SABS

Photometric Test Report
SANS 1442
SANS 1442 Roadstuds Red

Project : Road Studs
Job No.: 2330 / FE 646
Client: Simple Systems
Roadstuds: K-Lite
Sample status: Initial test
H=12.5 V=30

Date 19. Oct 2012
Time 15:05:13
Department Lighting Technology
Name A. Rocha
Page 1

colour region SANS 1442 Road studs Red



Channel color standard

	H	V	colour x	colour y	illuminance lx
first angle	-5.00	0.33	0.667	0.331	0.158
second angle	5.00	0.33	0.663	0.335	0.170
third angle	0.00	0.00	0.665	0.331	0.158

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Clear lens-Cat. A 0.33 deg. only)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 1 side A

Sample status: After resistance to oil test

Date 29. Oct 2012

Time 12:45:25

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		392.8900	mcd/lx
V/5R	5.00	0.00	220.0000		436.3200	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Clear lens-Cat. A 0.33 deg. only)

Date 29. Oct 2012

Time 12:47:42

Department Lighting Technology

Name A. Rocha

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 1 side B

Sample status: After resistance to oil test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		564.5900	mcd/lx
V/5R	5.00	0.00	220.0000		570.6500	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Clear lens-Cat. A 0.33 deg. only)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 2 side A

Sample status: After resistance to motor fuel test

Date 29. Oct 2012

Time 12:50:27

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		341.3800	mcd/lx
V/5R	5.00	0.00	220.0000		385.8200	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Clear lens-Cat. A 0.33 deg. only)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 2 side B

Sample status: After resistance to motor fuel test

Date 29. Oct 2012

Time 12:53:36

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		223.2100	mcd/lx
V/5R	5.00	0.00	220.0000		229.2700	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Clear lens-Cat. A 0.33 deg. only)

Date 29. Oct 2012

Time 12:55:58

Department Lighting Technology

Name A. Rocha

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 3 side A

Sample status: After resistance to heat test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	220.0000		300.9800	mcd/lx
V/5R	5.00	0.00	220.0000		305.0200	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Red lens- Cat.A 0.33 deg. only)

Date 29. Oct 2012

Time 12:57:59

Department LIGHTING TECHNOLOGY

Name J.Mashele

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 3 side B

Sample status: After resistance to heat test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5R	5.00	0.00	44.0000		86.3550	mcd/lx
V/5L	-5.00	0.00	44.0000		86.1530	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Red lens- Cat.A 0.33 deg. only)

Date 29. Oct 2012

Time 13:53:58

Department Lighting Technology

Name A. Rocha

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 5 side A

Sample status: After resistance to motor fuel test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5R	5.00	0.00	44.0000		284.8200	mcd/lx
V/5L	-5.00	0.00	44.0000		258.5600	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Red lens- Cat.A 0.33 deg. only)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 5 side B

Sample status: After resistance to motor fuel test

Date 29. Oct 2012

Time 13:56:18

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5R	5.00	0.00	44.0000		207.0500	mcd/lx
V/5L	-5.00	0.00	44.0000		193.8190	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Red lens- Cat.A 0.33 deg. only)

Date 29. Oct 2012

Time 13:58:59

Department Lighting Technology

Name A. Rocha

Page 1

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 8 side A

Sample status: After resistance to heat test

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5R	5.00	0.00	44.0000		143.4200	mcd/lx
V/5L	-5.00	0.00	44.0000		142.8140	mcd/lx

Test passed

SABS

Photometric Test Report

SANS1442

ROAD STUDS (Yellow lens-Cat. A 0.33 deg. only)

Project : Photometric Requirements

Job No.: 2330 / FE 646

Client: Simple Systems

Roadstuds: K-Lite

Sample # 8 side B

Sample status: After resistance to heat test

Date 29. Oct 2012

Time 14:00:20

Department Lighting Technology

Name A. Rocha

Page 1

Channel Retro 100ft 0°20'

	H	V	MIN	MAX	SAMPLE	
V/5L	-5.00	0.00	110.0000		142.7130	mcd/lx
V/5R	5.00	0.00	110.0000		143.7230	mcd/lx

Test passed