

TEST REPORT

SABS

The Managing Director
MINCORP cc
Attention: Mr B. Wylie
P.O. Box 294
Randburg
2125

Your ref.: Payment 10-07-2009
Our ref.: CE962
Enquiries: J Marema
Tel.: 012 428-6073
Report No.: 2330/CE962
Date: 31-07-2009
Page: 1 of 3

TESTING OF TYPE A NAVIGATION LIGHT

0 CONCLUSION

01. The TYPE-B navigation light complied with the photometric requirements of ICAO ANNEX 14 VOL ONE 3RD EDITION for which it was tested. See Table 1.
02. The compliance results for the chromaticity co-ordinates are given in Table 2.

1. DESCRIPTION OF SAMPLE

The navigation light consisted of a yellow coloured metal housing. A spherical red glass lens was secured to the housing by means of clips which covered the section containing the clear white LED's used as light source and emitting red light. The navigation light was approximately 240 mm in height and 93 mm in width.

See page 3 for the photographs of the sample.

2. TESTS REQUESTED

- 2.1 The testing of a navigation light for compliance to ICAO ANNEX 14 VOL ONE 3RD EDITION.
- 2.2 Testing of chromaticity co-ordinates.

3. SAMPLES SUBMITTED

The sample was received in a condition suitable for testing.

Date sample received : 17-07-2009
Starting date of test : 17-07-2009
Completion date of test : 20-07-2009

4. TEST METHOD

The tests were conducted as per the photometric requirements of ICAO ANNEX 14 VOL ONE 3RD EDITION.

4.1 The navigation light was mounted vertically in the centre of a rotating goniometer

4.2 The navigation light was connected to a stabilized AC supply and tested at rated voltage 230,0V.

4.3 Measurements were taken with a photocell at a test distance of 25 m from the centre of the light.

4.4 All the measurements were done at an ambient temperature of 25 ± 2 °C.

5. TEST RESULTS

The test result are given in Table 1 and 2.

TABLE 1- NAVIGATION LIGHT

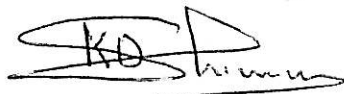
Properties	Requirements	Result
Photometric Properties	ICAO ANNEX 14 VOL ONE 3 RD EDITION	Complied See Annex A and B

TABLE 2-COLOUR TEST

Sample	Chromaticity co-ordinates			Results
	x	y	z	
Red	0.697	0.303	0	Complied See attached diagram Annex C



Tested by: J. Marema
TEST OFFICER
LIGHTING TECHNOLOGY

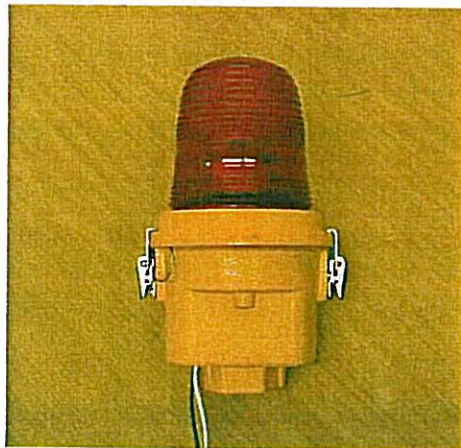


Checked by: KD Dhimmar
TEST OFFICER
LIGHTING TECHNOLOGY



Authorized by: T. Fourie
TECHNICAL SIGNATORY
LIGHTING TECHNOLOGY

PHOTOGRAPH OF THE SAMPLE



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Photometric Test Report

CIE RED

CIE RED

Date 20. Jul 2009

Time 10:06:35

Department LIGHTING TECHNOLOGY

Name JOHNSON

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Project : CE962 / MINCORP

CE962

MINCORP LED Light

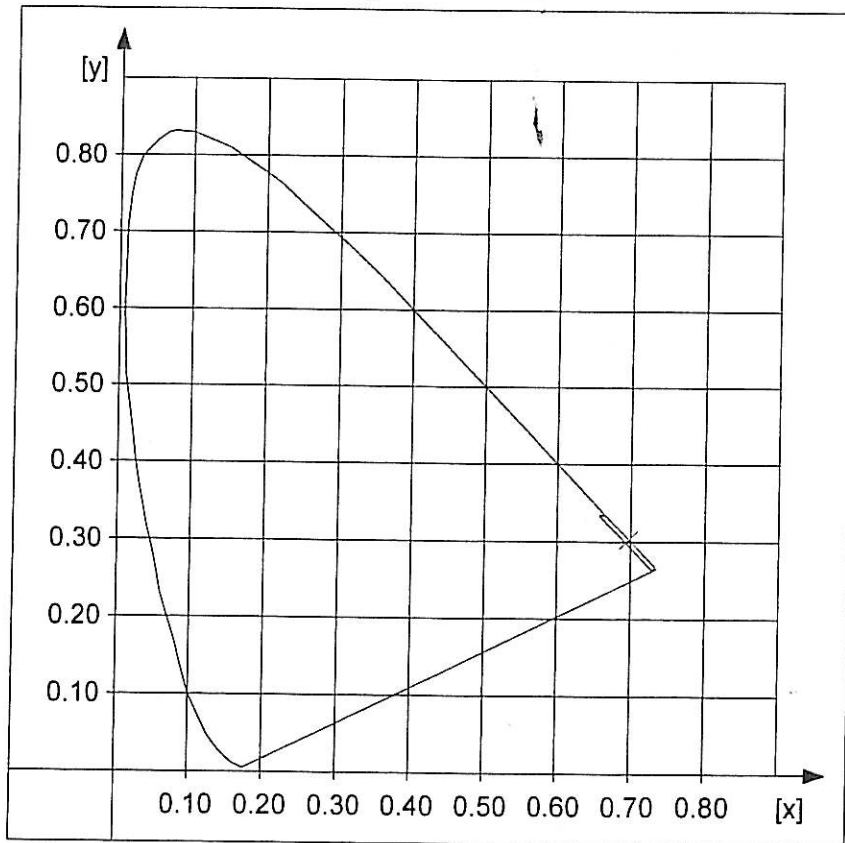
TESTED@ 230V AC

6 - 10 degrees Elevation (1 intervals)

0 - 360 Azimuth (30 intervals)

NAVIGATION LIGHT

colour region CIE RED



Channel color standard

	H	V	colour x	colour y	illuminance
first angle	0.00	0.00	0.697	0.303	13.170
second angle	0.00	0.00	0.697	0.303	13.170
third angle	0.00	0.00	0.697	0.303	13.160

Test passed

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Annex A

Photometric Test Report
AVI/B
NAVIGATION LIGHT AVIA/B

Date 17. Jul 2009
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Project : CE962 / ELECTROWEB
CE962

Electroweb LED Light

TESTED@ 230V AC

6 - 10 degrees Elevation (1 intervals)

0 - 360 Azimuth (30 intervals)

Channel 25m DC

	H	V	MIN	MAX	SAMPLE	REAIM	
0U/0H	0.00	0.00	32.0000		88.1250		cd
6U/30H	30.00	6.00	32.0000		103.7500		cd
6U/90H	90.00	6.00	32.0000		92.5000		cd
6U/60H	60.00	6.00	32.0000		87.5000		cd
6U/90H	90.00	6.00	32.0000		92.5000		cd
6U/120H	120.00	6.00	32.0000		83.7500		cd
6U/150H	150.00	6.00	32.0000		103.7500		cd
6U/180H	180.00	6.00	32.0000		93.7500		cd
7U/180H	180.00	7.00	32.0000		96.2500		cd
7U/150H	150.00	7.00	32.0000		111.2500		cd
7U/120H	120.00	7.00	32.0000		90.6250		cd
7U/90H	90.00	7.00	32.0000		100.6250		cd
7U/60H	60.00	7.00	32.0000		87.5000		cd
7U/30H	30.00	7.00	32.0000		105.6250		cd
7U/0H	0.00	7.00	32.0000		95.0000		cd
8U/0H	0.00	8.00	32.0000		91.8750		cd
8U/30H	30.00	8.00	32.0000		102.5000		cd
8U/60H	60.00	8.00	32.0000		89.3750		cd
8U/90H	90.00	8.00	32.0000		105.6250		cd
8U/120H	120.00	8.00	32.0000		93.7500		cd
8U/150H	150.00	8.00	32.0000		106.8750		cd
8U/180H	180.00	8.00	32.0000		93.1250		cd
9U/180H	180.00	9.00	32.0000		87.5000		cd
9U/150H	150.00	9.00	32.0000		98.7500		cd
9U/120H	120.00	9.00	32.0000		93.7500		cd
9U/90H	90.00	9.00	32.0000		102.5000		cd
9U/60H	60.00	9.00	32.0000		90.0000		cd
9U/30H	30.00	9.00	32.0000		95.6250		cd
9U/0H	0.00	9.00	32.0000		89.3750		cd
10U/0H	0.00	10.00	32.0000		86.2500		cd
10U/30H	30.00	10.00	32.0000		87.5000		cd
10U/60H	60.00	10.00	32.0000		85.6250		cd
10U/90H	90.00	10.00	32.0000		94.3750		cd
10U/120H	120.00	10.00	32.0000		88.7500		cd
10V/180H	180.00	10.00	32.0000		77.5000		cd

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Annex B

Photometric Test Report
AVI/B
NAVIGATION LIGHT AVIA/B

Date 17. Jul 2009
Time 10:05:27
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Project : CE962 / MINCORP

	H	V	MIN	MAX	SAMPLE	REAIM	
6U/0H	0.00	6.00	32.0000		94.3750		cd
6U/-30H	-30.00	6.00	32.0000		100.0000		cd
6U/-60H	-60.00	6.00	32.0000		87.5000		cd
6U/-90H	-90.00	6.00	32.0000		96.2500		cd
6U/-120H	-120.00	6.00	32.0000		91.2500		cd
6U/-150H	-150.00	6.00	32.0000		98.1250		cd
6U/-180H	-180.00	6.00	32.0000		92.5000		cd
7U/-180H	-180.00	7.00	32.0000		95.0000		cd
7U/-150H	-150.00	7.00	32.0000		99.3750		cd
7U/-120H	-120.00	7.00	32.0000		93.1250		cd
7U/-90H	-90.00	7.00	32.0000		97.5000		cd
7U/-60H	-60.00	7.00	32.0000		86.8750		cd
7U/-30H	-30.00	7.00	32.0000		102.5000		cd
7U/0H	0.00	7.00	32.0000		93.1250		cd
8U/0H	0.00	8.00	32.0000		89.3750		cd
8U/-30H	-30.00	8.00	32.0000		101.8750		cd
8U/-60H	-60.00	8.00	32.0000		86.2500		cd
8U/-90H	-90.00	8.00	32.0000		91.8750		cd
8U/-120H	-120.00	8.00	32.0000		93.1250		cd
8U/-150H	-150.00	8.00	32.0000		96.8750		cd
8U/-180H	-180.00	8.00	32.0000		91.8750		cd
9U/-180H	-180.00	9.00	32.0000		86.8750		cd
9U/-150H	-150.00	9.00	32.0000		90.0000		cd
9U/-120H	-120.00	9.00	32.0000		88.1250		cd
9U/-90H	-90.00	9.00	32.0000		84.3750		cd
9U/-60H	-60.00	9.00	32.0000		85.0000		cd
9U/-30H	-30.00	9.00	32.0000		95.6250		cd
9U/0H	0.00	9.00	32.0000		86.8750		cd
10U/0H	0.00	10.00	32.0000		83.7500		cd
10U/-30H	-30.00	10.00	32.0000		86.2500		cd
10U/-60H	-60.00	10.00	32.0000		77.5000		cd
10U/-90H	-90.00	10.00	32.0000		76.8750		cd
10U/-120H	-120.00	10.00	32.0000		81.2500		cd
10U/-150H	-150.00	10.00	32.0000		81.2500		cd
10V/-180H	-180.00	10.00	32.0000		76.8750		cd
0V/0H	0.00	0.00	32.0000		83.7500		cd

Test passed