



TEST REPORT

by : SIGMA SEARCH LIGHTS LIMITED
Address of : P-27, SAGAR MANNA ROAD
Organisation) CALCUTTA 700060
WEST BENGAL

Item : 1) Item : FLOOD LIGHT (400 W) W
Make : ii) Make : SIGMA
Model : iii) Model : 400W



Government of India
Ministry of Communications and Information Technology
Department of Information Technology
Standardisation Testing and Quality Certification Directorate
ELECTRONICS REGIONAL TEST LABORATORY (EAST)
Block DN, Sector V, Salt Lake, Kolkata 700 091
INDIA

Government of India
 Ministry of Communications and Information Technology
 Department of Information Technology, Standardisation Testing & Quality Certification Directorate
ELECTRONICS REGIONAL TEST LABORATORY (EAST)

TEST REPORT ON : FLOOD LIGHT (400 W) WITH CONTR : PAGE : OF
 : : 01 : 04

- 1.0 SCOPE :
- 1.1 Service Request No. : TE/0126/07-03
- 1.2 Test Report No. : ERTL(E)/TES/S208/0033/11-03
 Date : 20/06/2005
- 1.3 Requested by : SIGMA SEARCH LIGHTS LIMITED
 (Name & Address of P-27,SAGAR MANNA ROAD
 of the organisation) CALCUTTA 700060
 WEST BENGAL
- 1.4 Description , i) Item : FLOOD LIGHT (400 W) WITH CONTR
 Identification ii) Make : SIGMA
 of the item iii) Model : 400W
 to be tested iv) Sl.No. :
 v) Qty. : 1
- 1.4.1 Applicable Spec.of the item(s) tested: 400 W
- 1.4.2 Characterisation and (i) Characterisation : Not applicable /
 condition of the item (ii) Condition : Satisfactory /
- 1.5 Date of item received : 05/11/2003
- 1.6 Date of completion of : 20/06/2005
 testing
- 1.7 Location where testing : In house
 performed
- 1.8 Ambient condition during : 25 +/- 1.5 Deg.
 measurement 70% RH. Max.
- 1.9 Spec. used for testing : AS PER IS:10322
- 1.9.1 Details of non-standard : NIL
 method followed (if any)



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ELECTRONICS REGIONAL TEST LABORATORY (EAST) BLOCK DN, SECTOR-V, SALT LAKE CALCUTTA-700091					TEST REPORT NO.: ERTL(E)/TES/S208/0033/11-03		
TEST REPORT ON : FLOOD LIGHT (400W)					PAGE	TO	
					2	4	
TEST RESULTS :							
SL. NO	TEST OR ENVIRONMENT	CLAUSE NO.	QUANTITY		SPECS. LIMIT	RESULTS	NOTES
			TESTED	FAILED			
1	Visual Examination	Cl.13.1.1 (a) of IS:10322 Pt.5/Sec.5	1	0	Good external finish, workmanship and electrical connections.	Complied	Result attached in Annex.-I
2	Mechanical strength test	Cl.13.1.1 (b) of IS:10322 Pt.5/Sec.5	1	0	Shall have adequate mechanical strength.	Complied	
3	Endurance and Thermal test	Cl.13.1.1 (c) of IS:10322 Pt.5/Sec.5	1	0	Luminaire shall not become unsafe or fail, marking shall be legible after the test.	Complied	
4	Resistance to Dust and Moisture.	Cl.13.1.1 (d) of IS:10322 Pt.5/Sec.5	1	0	Luminaire shall remain operational after dust and water jet test(IP65) and shall show no damage affecting compliance after humidity test.	Complied Passes IP65	

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SL. NO	TEST OR ENVIRONMENT	CLAUSE NO.	QUANTITY		SPECS. LIMIT	RESULTS	NOTES
			TESTED	FAILED			
5	Insulation Resistance at 500V dc for 1min. and electrical strength test at 1480V ac for 1 min. between live parts and body.	Cl.13.1.1 (e) of IS:10322 Pt.5/Sec.5	1	0	IR \geq 2M Ω No breakdown or flashover during electrical strength test.	Complied IR > 1000 M Ω No breakdown or flashover occurred.	
6	Resistance to Heat, fire and tracking.	Cl.13.1.1 (f) of IS:10322 Pt.5/Sec.5	1	0	Not applicable for ceramic material.	Terminals made of ceramic material	
7	Photometric test	Cl.13.1.1 (f) of IS:10322 Pt.5/Sec.5	1	-	To be decided between purchaser and supplier	Result attached as Annexure -II	
8	Leakage current test at 264Vac	--	1	0	1mA(max)	0.065mA	
9	Wind-load test	Cl.6 of IS:10322 Pt.5/Sec.5	1	0	There shall be no permanent set exceeding one degree.	Complied	

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ANNEXURE-I
THERMAL TEST

Sr.No.	Name of the parts	Temp. limit (max) in °C	Measured temperature in °C
1.	Capacitor case	95	49.5
2.	Parts intended to be handled or touched (metal surface)	70	40.5
3.	Parts intended to be gripped	60	32.6
4.	Ignitor surface	95	56.8
5.	Cable	90	28
6.	Ballast winding	120	89.1

S.M.



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**Distribution of Light along the axis
400 watt HPSV T Lamp Sigma Symmetric Flood Light
in stainless steel body-cum-reflector**

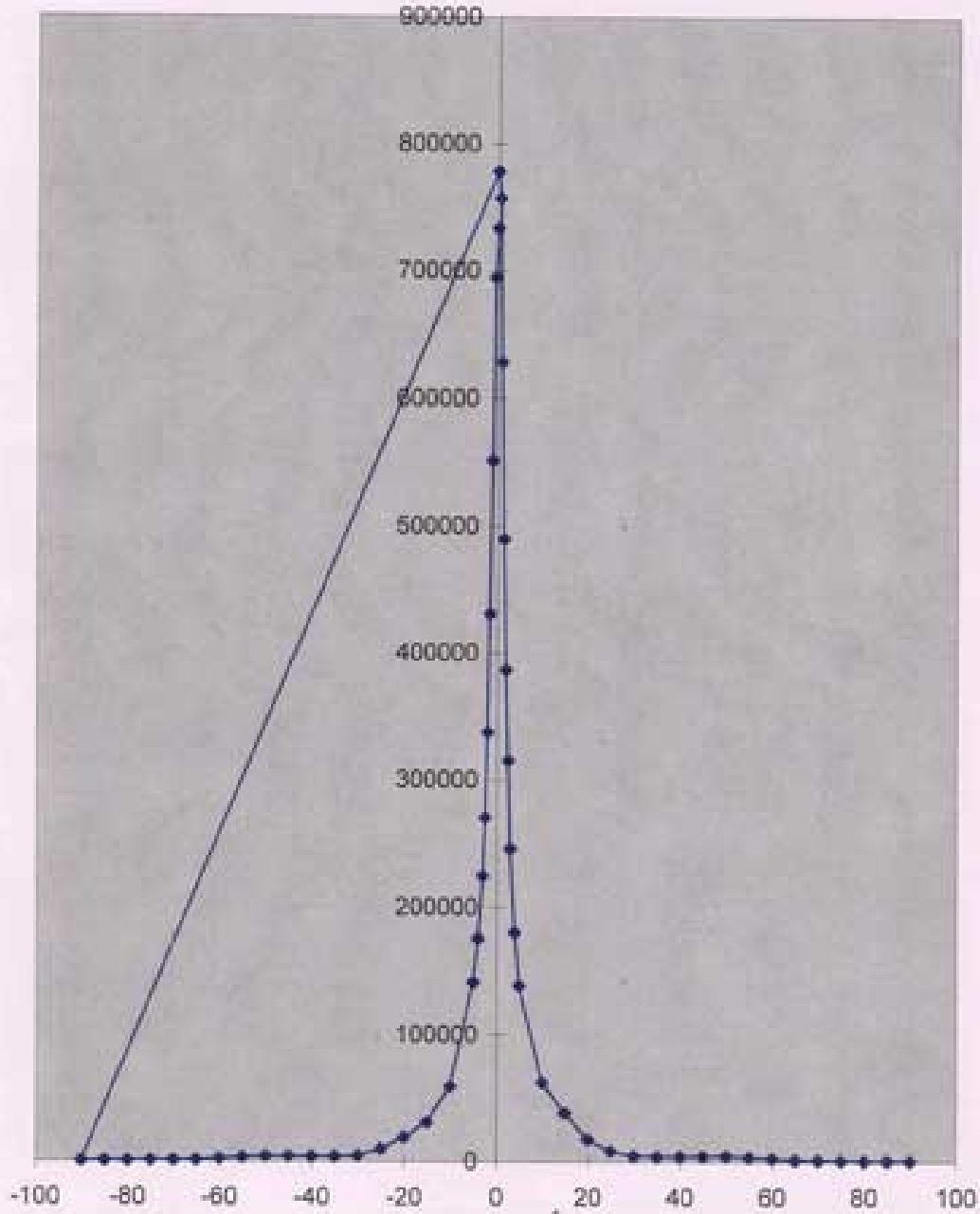
Degrees	Lux level at 10 meter distance Horizontal	Luminous Intensity in candelas	Degrees	Lux level at 10 meter distance Horizontal	Luminous Intensity in candelas
0	7335	733500	0	7780	778000
-0.5	6945	694500	0.5	7570	757000
-1	5510	551000	1	6281	628100
-1.5	4306	430600	1.5	4894	489400
-2	3372	337200	2	3867	386700
-2.5	2703	270300	2.5	3150	315000
-3	2245	224500	3	2458	245800
-4	1753	175300	4	1800	180000
-5	1410	141000	5	1381	138100
-10	589	58900	10	620	62000
-15	307	30700	15	380	38000
-20	188	18800	20	172.9	17290
-25	95	9500	25	80.4	8040
-30	42	4200	30	42.0	4200
-35	37	3700	35	38.8	3880
-40	36.5	3650	40	39.1	3910
-45	37.3	3730	45	40.8	4080
-50	38.1	3810	50	42.0	4200
-55	29.6	2960	55	33.3	3330
-60	18.2	1820	60	22.8	2280
-65	8.1	810	65	11.5	1150
-70	5.8	580	70	8.0	800
-75	5.5	550	75	5.7	570
-80	3.0	300	80	4.9	490
-85	2.8	280	85	4.6	460
-90	2.8	280	90	3.9	390

Sigma Type : 20143



Light Distribution Diagram

400 watt HPSV T Lamp Sigma Symmetric Flood Light
in stainless steel body-cum-reflector



Sigma Type 20143

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Date : 20/06/2005

3.0 Remarks (if any)

Measurement uncertainty at 95% CL.
Temp:-1.39 Deg.C.
Leakage current:-0.02 mA.
AC Voltage:- 1.487 V AC.



Checked by

dnip
20/6/05
(signature & date)

Released by

Jana
20/6/05
(signature & date)

ROHANI JANA
Scientist-B
E. R. T. L. (East)
Dir. of Inf. Tech.
Govt. of India
Kolkata-9



ACCREDITATIONS

INTERNATIONAL

- ▶ Independent Test Laboratory under IECQ System of International Electrotechnical Commission
- ▶ Approved test laboratory (CBTL) for safety under IECEE-CB Scheme
- ▶ FCC (Federal Communications Commission) USA approved Open Area Test Site (10 meters) for EMV/EMC testing
- ▶ Recognised laboratory of Saudi Arabia Standards Organisations (SASO)

NATIONAL

- ▶ Approved Laboratory under National Accreditation Board for Testing and Calibration Laboratories (NABL) for Testing and Calibration
- ▶ Approved flameproof and intrinsic safety testing laboratory of
 - Directorate General of Mines Safety
 - Chief Controller of Explosives
 - Directorate General Factory Advice Service and Labour Institutes
- ▶ Approved laboratory for testing of Solar Photovoltaic products by Ministry of Non-conventional Energy Sources, Govt. of India.
- ▶ Approved laboratory of Bureau of Indian Standards in specific fields