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TC-5639 & CC-2916

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ULR:TC563919000000581F/PHOTOMETRY TESTING/LUMINARIES

TEST REPORT

TEST REPORTAS PER :IESLM-79-08 and as per Customer Specification **SRF No.19120536**

Name & Address of Customer:	Test Report No: HPL/Test/19120536/01 Date of Issue:23/12/2019		
M/s. HALONIX TECHNOLOGIES PVT. LTD B-31, Phase II,Noida, Distt. Gautam Budh Nagar,Uttar Pradesh - 201305	Customer Ref. & Date :Nil & Dated 23/12/2019		
	Date of Sample Receipt: 23/12/2019	Start of Test Date: 23/12/2019	End of Test Date: 23/12/2019

PART A - PARTICULARS OF THE SAMPLE SUBMITTED

Sample description	LED HW STREET LIGHT 15W CWL
Grade/ variety/ type/ class/ size etc.	Pin:15W, V: 240V~50Hz, PF:>0.95, t_a:-10°C to 50°C, IP 66
Declared values, if any	Input Voltage: 240V AC , Test Voltage: 240V AC , Input Frequency: 50Hz, Input Current:65mA, Input Power: 15W, PF>0.95, Total Luminous Flux : 1800lm, Luminous Efficacy: >120lm/W, Correlated Colour Temprature :5700K, Rendering Index(Ra) >70, Thd <10%
Code no., BIS seal and IO's sign. if any	Nil.
Batch no., date of manufacture and Brand Name	Brand: "HALONIX" Model No: "LED STREET LIGHT 15W"
Quantity	01No.
Condition of the sample	OK
Reference specification (s)	IES LM-79-08 & as per customer's request
Environmental conditions	Temperature (25±1)°C & Relative Humidity<65%

PART B - SUPPLEMENTARY INFORMATION

- If an Item is tested, acknowledging deviations from specified conditions as requested by customers, the results may be affected due to this deviation.
- Deviations from the test methods as per relevant specification/ work instructions, if any:
- Details of the drawings, graphs, tables, sketches or photographs as referred in the test report, if any:
- Testing procedure according to work instruction – HPL03/WI/PHTM/144
- The standards/ Instruments used are maintained in accordance with **ISO / IEC 17025** and are traceable to National and International Standards

Notes:

1. This report is not to be reproduced wholly or in part without our special permission in writing.
2. This report refers only to the particular sample detailed above.
3. The results reported in this Test report are valid at the time of and under the stipulated conditions of measurement.
4. Remnants of samples will be disposed off after 30/90 days of issue of test report if no any further information is received.

For HI PHYSIX LABORATORY

Tested by
Saurabh Srivastava
(Testing Engineer)

HI PHYSIX LABORATORY PHYSIX DELHI

Checked by

(Sunil Saini)
Technical Manager
Approved by

Format No.HPL04 F40-7.8-01

Certificate Nos.:
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PART C-TEST RESULT **TEST REPORT NO.:HPL/Test/19120536/01**

S. No.	TESTS WITH CLAUSE REFERENCE		SPECIFIED REQUIREMENTS	RESULTS
1.	Photometric Results (IES LM-79-08)	i)	Total luminous flux	1736.80lm
		ii)	Luminous efficacy	122.22 lm/W
		iii)	Luminous intensity	1064.99cd
		iv)	Luminous intensity distribution	Graph Attached
		v)	Chromaticity Co-ordinates	x= 0.3348 y = 0.3532
		vi)	Correlated Colour Temperature	5405K
		vii)	Rendering Index (Ra)	71
2.	Electrical Results (IES LM-79-08)	i)	Input Power	14.21W
		ii)	Input Voltage	$240V_{ac}$
		iii)	Input Current (Amps)	0.061A
		iv)	Power Factor	0.971
		v)	Input Frequency (Hz)	50 Hz
3.	Additional Parameters	i)	Stabilization Time	30 minutes
		ii)	Photometric Method Used	IESLM-79-08 Using C type-Goniophotometer

For HI PHYSIX LABORATORY
(Sunil Saini)
Technical Manager

Tested by
Saurabh Srivastava
(Testing Engineer)

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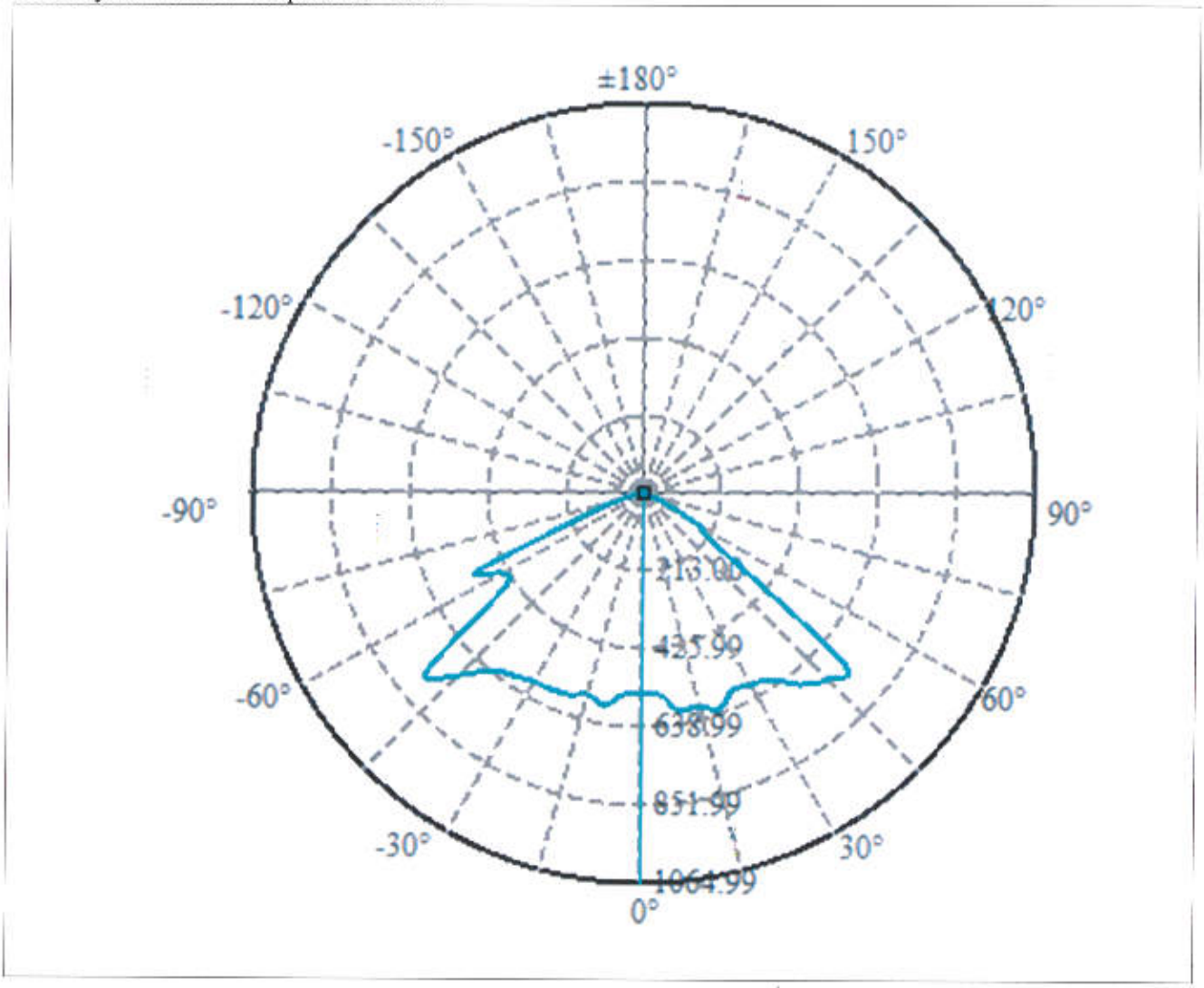
PART C-TEST RESULT

TEST REPORT NO.:HPL/Test/19120536/01

Intensity distribution Graph at C0-C180



For HI PHYSIX LABORATORY

(Sunil Saini)
Technical Manager

Tested by
Saurabh Srivastava
(Testing Engineer)

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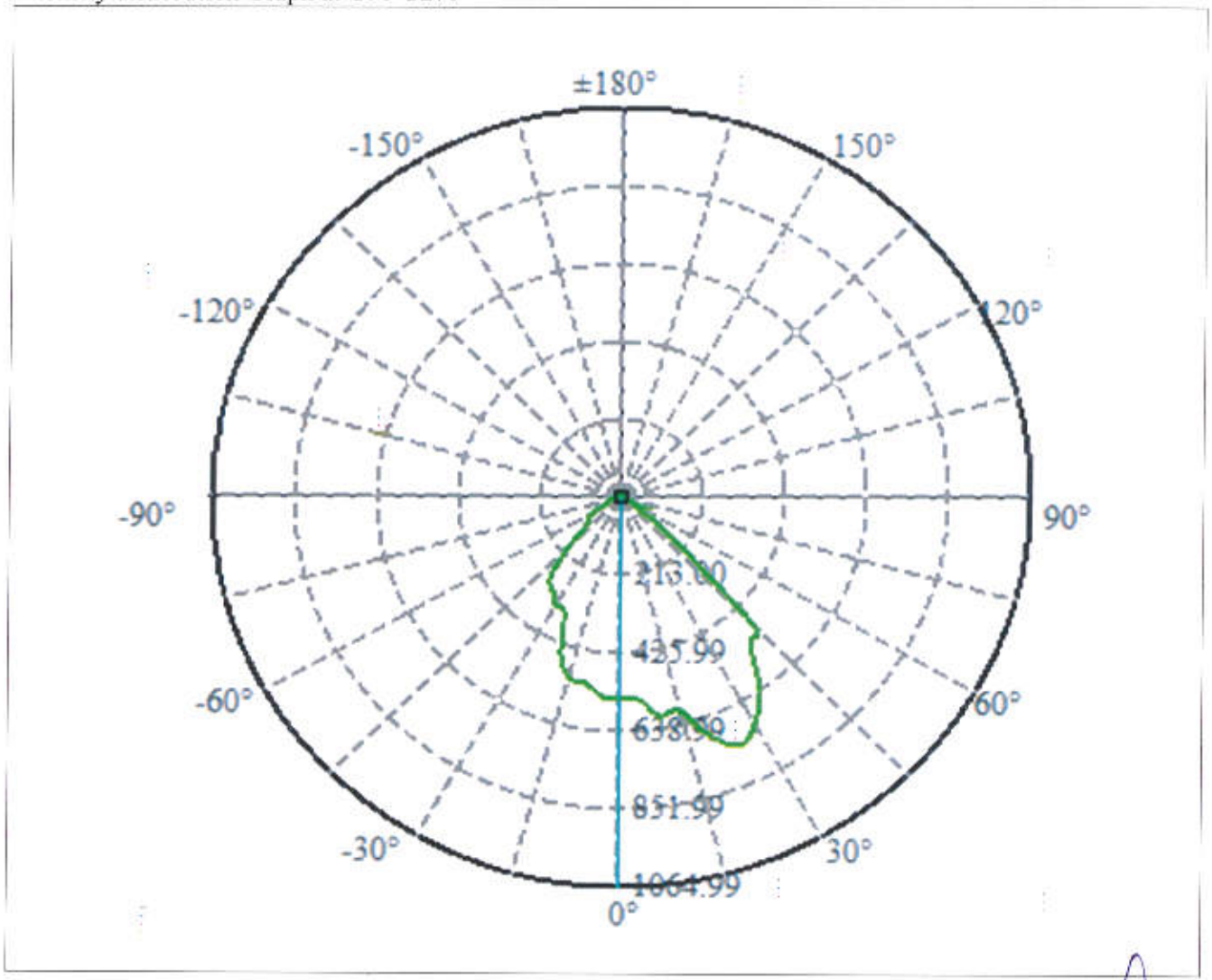
PART C-TEST RESULT

TEST REPORT NO.:HPL/Test/19120536/01

Intensity distribution Graph at C90-C270



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PART C-TEST RESULT

TEST REPORT NO.:HPL/Test/19120536/01

Zonal Flux Distribution Table

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	457.11	N.A.	26.32%
0-40	805.36	N.A.	46.37%
0-60	1479.08	N.A.	85.16%
0-90	1694.42	N.A.	97.56%
0-120	1714.26	N.A.	98.70%
0-180	1736.80	N.A.	100.00%
60-90	335.42	N.A.	19.31%
90-120	25.05	N.A.	1.44%
90-130	31.17	N.A.	1.79%
90-150	41.57	N.A.	2.39%
90-180	47.42	N.A.	2.73%
0-56.27	1389.44	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	51.77
10-20	153.90
20-30	251.43
30-40	348.25
40-50	391.63
50-60	282.08
60-70	159.83
70-80	43.12
80-90	12.38
90-100	7.20
100-110	6.42
110-120	6.24
120-130	6.12
130-140	5.69
140-150	4.71
150-160	3.39
160-170	1.98
170-180	0.49

For HI PHYSIX LABORATORY

(Sunil Saini)
Technical Manager

Tested by
Saurabh Srivastava
(Testing Engineer)

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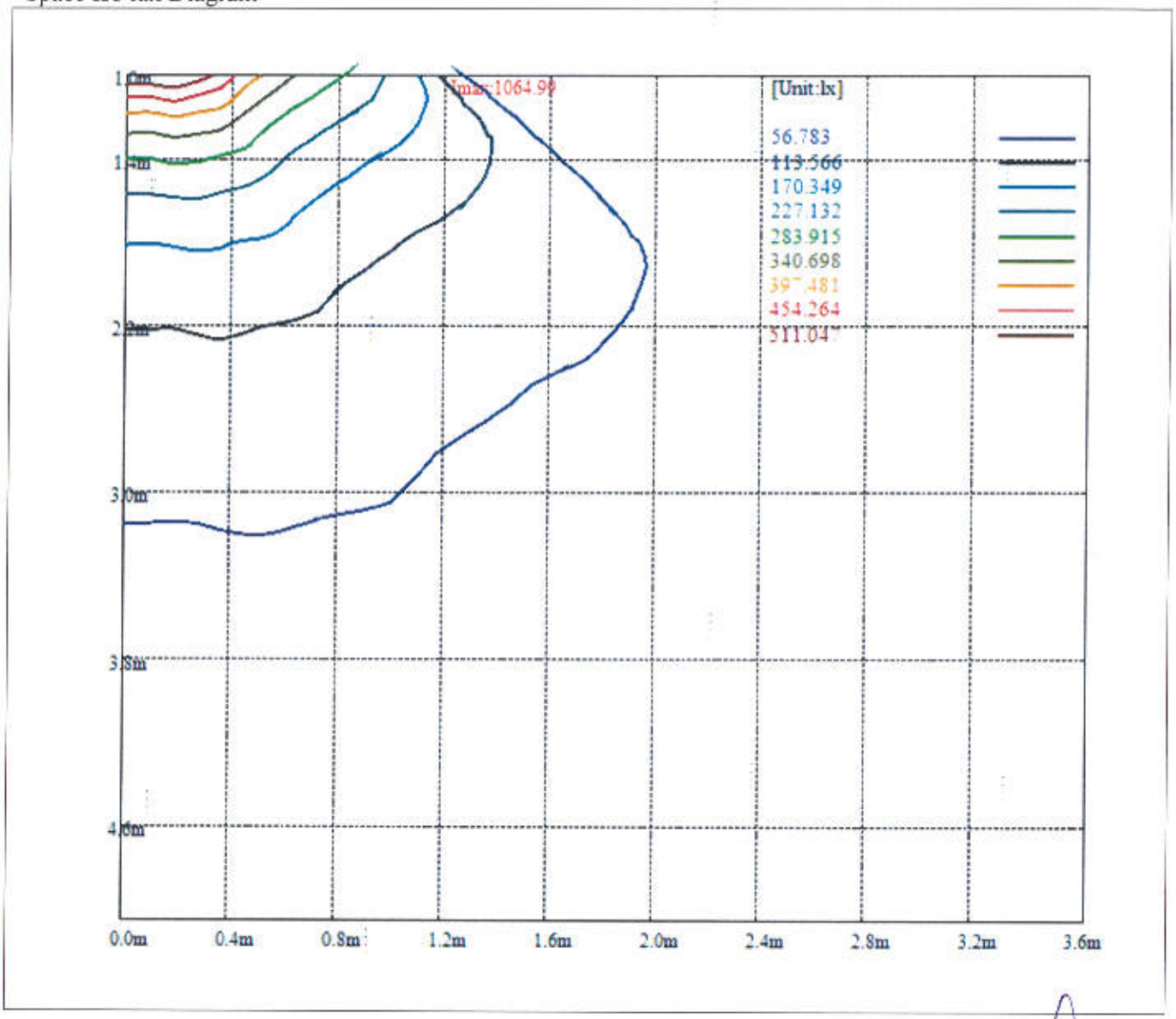
PART C-TEST RESULT

TEST REPORT NO.:HPL/Test/19120536/01

Space Iso lux Diagram



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PART C-TEST RESULT

TEST REPORT NO.:HPL/Test/19120536/01

Intensity Data (cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	552.65	554.75	602.24	602.24	627.14	591.62	601.00	619.29	679.03
22.5	540.68	554.18	557.43	573.71	578.50	593.24	607.41	612.58	636.43
45.0	558.10	558.10	564.52	581.08	619.29	691.10	691.10	892.83	814.42
67.5	527.47	552.26	552.26	585.39	593.53	636.23	656.02	881.15	947.79
90.0	553.89	553.70	603.01	603.01	689.25	749.12	712.26	646.00	520.09
112.5	528.81	548.43	550.16	562.13	595.92	641.12	667.83	817.39	834.14
135.0	547.48	553.60	562.13	620.15	643.61	663.14	804.75	828.01	706.42
157.5	533.98	546.52	554.75	554.75	559.83	617.95	633.36	639.39	666.59
180.0	552.65	552.17	586.25	567.78	585.30	588.84	597.65	612.68	634.32
202.5	540.68	540.68	534.36	559.83	528.14	523.83	546.33	540.58	423.96
225.0	558.10	536.37	531.30	525.17	501.71	432.68	402.80	349.57	329.94
247.5	527.47	488.98	463.51	427.99	342.68	327.36	208.92	208.92	197.14
270.0	553.89	543.17	512.72	506.02	458.91	349.00	339.52	312.04	288.39
292.5	528.81	513.01	467.82	424.36	346.74	326.21	244.82	181.16	181.16
315.0	547.48	543.74	532.06	499.60	491.56	482.27	408.74	408.74	408.74
337.5	533.98	527.47	524.98	524.98	519.14	516.93	497.88	497.88	489.45
360.0	552.65	554.75	602.24	602.24	627.14	591.62	601.00	619.29	679.03

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	711.59	711.78	236.49	175.50	53.14	15.61	15.61	9.96	6.80
22.5	746.44	746.44	709.77	579.65	438.90	215.62	91.63	26.43	10.05
45.0	814.42	638.53	510.04	58.69	58.69	58.69	19.05	12.16	9.00
67.5	1064.99	603.87	584.43	262.63	262.63	262.63	30.06	31.85	21.06
90.0	491.47	160.57	49.41	49.41	45.19	14.55	9.77	9.77	6.99
112.5	549.58	512.91	282.64	188.52	188.52	66.53	70.76	24.61	22.50
135.0	706.42	560.31	385.57	94.50	65.20	42.80	21.93	18.29	6.61
157.5	784.93	878.09	825.43	826.43	876.02	191.97	102.54	22.88	22.88
180.0	703.26	770.95	463.70	442.06	496.73	145.60	78.22	16.70	8.90
202.5	423.96	174.74	126.39	86.08	22.21	14.74	9.86	7.18	6.32
225.0	256.70	233.62	207.39	40.50	26.81	16.76	14.65	9.57	9.57
247.5	104.36	104.36	47.87	42.03	11.49	10.92	8.33	7.47	6.39
270.0	194.84	115.15	95.46	77.84	51.22	40.60	31.69	14.36	14.36
292.5	120.26	76.88	53.81	45.19	36.29	12.35	11.01	9.48	6.51
315.0	264.74	211.31	200.59	200.59	38.01	27.96	27.96	15.03	15.03
337.5	456.61	397.92	101.40	16.18	15.22	8.62	6.32	5.46	5.46
360.0	711.59	711.78	236.49	175.50	53.14	15.61	15.61	9.96	6.80

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	6.03	6.13	6.13	6.22	6.61	6.59	7.37	7.37	8.14
22.5	6.80	6.80	6.41	6.22	6.22	6.32	6.70	7.28	7.56
45.0	6.70	6.41	6.41	6.41	6.51	6.59	7.09	7.18	8.04
67.5	8.52	7.18	6.80	6.61	6.51	6.41	7.18	6.51	6.61
90.0	6.41	6.32	6.32	6.41	6.41	6.41	6.41	6.70	6.70
112.5	7.86	6.22	6.22	5.84	5.84	5.94	5.94	5.94	6.61
135.0	5.84	5.36	5.07	5.46	5.17	5.27	5.27	5.36	5.36
157.5	16.09	5.55	5.55	4.79	4.79	4.79	4.79	4.98	4.98
180.0	9.48	6.13	6.13	6.13	6.51	6.32	7.09	7.56	8.43
202.5	6.22	6.70	6.70	6.51	6.61	6.99	8.71	7.95	8.04
225.0	7.76	7.76	6.41	6.51	6.51	6.59	6.80	6.99	7.18
247.5	6.41	6.41	7.28	7.09	6.70	7.09	7.09	7.56	8.62
270.0	7.09	7.09	6.32	6.41	6.41	6.41	6.80	6.80	7.18
292.5	5.84	5.84	5.84	6.03	6.41	6.61	6.80	8.33	7.86
315.0	10.16	5.84	5.07	5.07	5.17	5.17	5.94	6.32	6.51
337.5	4.79	4.69	4.79	4.88	5.17	5.55	5.55	5.84	6.13
360.0	6.03	6.13	6.13	6.22	6.61	6.59	7.37	7.37	8.14

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	8.14	8.43	8.04	7.95	7.76	7.37	7.56	7.09	7.09
22.5	8.33	8.43	8.43	8.14	8.62	7.76	7.76	7.18	7.18
45.0	8.04	8.04	8.14	7.85	7.76	7.28	7.28	7.28	7.37
67.5	6.99	6.99	7.76	8.72	7.66	7.66	7.56	7.37	7.28
90.0	6.80	6.80	7.37	7.09	7.09	7.56	7.09	7.09	7.18
112.5	6.32	6.22	6.22	6.22	6.32	6.32	6.32	6.32	6.41
135.0	5.46	5.55	5.46	5.55	6.13	5.84	5.46	5.55	5.55
157.5	5.27	5.27	5.27	5.27	5.27	5.27	5.46	5.07	5.07
180.0	8.81	8.81	9.29	8.23	8.14	7.95	7.28	7.28	7.09
202.5	8.43	8.33	8.14	7.95	7.85	7.37	7.28	7.28	7.28
225.0	7.66	8.04	8.04	8.14	8.62	8.14	7.85	7.85	7.66
247.5	8.14	8.71	8.23	8.14	7.95	7.95	7.66	7.56	7.56
270.0	7.95	8.33	8.33	8.90	8.43	8.43	8.43	8.43	7.28
292.5	8.14	8.23	7.76	7.56	7.09	6.80	6.70	6.61	6.61
315.0	7.89	7.18	7.89	6.80	6.89	6.89	6.13	5.94	5.94
337.5	6.32	6.32	6.23	6.03	5.94	5.46	5.27	5.36	5.27
360.0	8.14	8.43	8.04	7.95	7.76	7.37	7.56	7.09	7.09

C/γ(°)	180.0
0.0	7.18
22.5	7.18
45.0	7.56
67.5	7.37
90.0	7.28
112.5	6.61
135.0	5.55
157.5	5.17
180.0	7.09
202.5	7.28
225.0	7.66
247.5	7.56
270.0	7.86
292.5	6.61
315.0	6.13
337.5	5.17
360.0	7.18

For HI PHYSIX LABORATORY

(Sunil Saini)
Technical Manager

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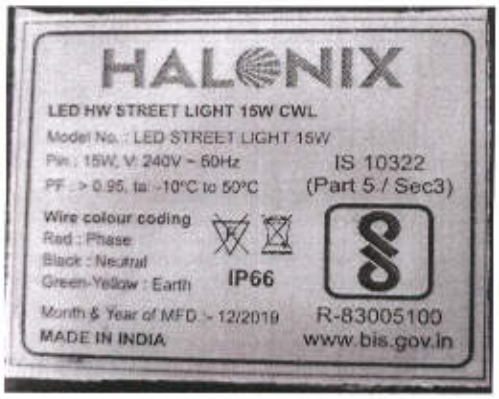
PART C-TEST RESULT **TEST REPORT NO.:HPL/Test/19120536/01**

Photograph:

Sample under Test



Marking plate of the sample

PART-D

Remarks: 1. The observations given in part A of the cover page of the test report are taken from the marking on the sample and specification given by the customer.

For HI PHYSIX LABORATORY
(Sunil Saini)
Technical Manager

Tested by
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(Testing Engineer)

Checked by

Approved by

***** END OF THE TEST REPORT *****