



# REPORT

545 E. Algonquin Rd Arlington Heights, IL 60005

Project No. G100822491

Date: July 30, 2012

REPORT NO. 100822491CHI-004

TEST OF ONE INDUCTION HOOK/PENDANT-MOUNT LUMINAIRE

FIXTURE MODEL NO. Fi8550A  
GENERATOR MODEL NO. R045DS-A WJD100W-V28  
LAMP NO. WJY100

RENDERED TO

ESCO LIGHTING, INC.  
3254 NORTH KILBOURN AVENUE  
CHICAGO, IL 60641-4505

TEST: Electrical and Photometric tests as required to the IESNA test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number 500389866.

STANDARDS USED: The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:

IESNA LM-9: 2009 Approved Method for Electrical and Photometric Measurements of Fluorescent Lamps

IESNA LM-41: 1998 Approved Method for Photometric Testing of Indoor Fluorescent Luminaires

IESNA LM-54: 1999 Approved Guide to Lamp Seasoning

DESCRIPTION OF SAMPLE: The client submitted one sample of model Fi8550A  
The sample was received by Intertek on June 26, 2012, in undamaged condition, and one sample was tested as received. The sample designation was CHI1206261333-001.

DATES OF TEST: July 26, 2012

SUMMARY

Model No.:	Fi8550A
Description:	Pendant/Hook-mount 12" diameter induction high bay luminaire with aluminum reflector.

<u>Criteria</u>	<u>Result</u>
Total Lumen Output	5173 Lumens
Total Power	112.5 W
Luminaire Efficacy	45.98
Power Factor	0.820

EQUIPMENT LIST

<u>Equipment Used</u>	<u>Model Number</u>	<u>Control Number</u>	<u>Last Calibration Date</u>	<u>Calibration Due Date</u>
LSI High Speed Mirror Goniometer	6440	146928	VBU	VBU
Extech Stopwatch	365510	146530	04/19/12	04/19/13
Newport Thermohygrometer	iTHX-SD	146961	02/23/12	02/23/13
Yokogawa Power Analyzer	WT210	146919	11/18/11	11/18/12
Omega Temperature Meter	Dpi8-C24	146920	11/18/11	11/18/12
Elgar AC Power Supply	CW1251P	146918	VBU	VBU



TEST METHODS

Seasoning in Sample Orientation – Fluorescent Products

The lamp was seasoned 100 hours prior to testing per LM-54-99.

Photometric and Electrical measurements – Distribution Method

A LSI Type C High Speed Model 6440 Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for each sample.

Ambient temperature was measured equal to the height of the sample mounted on the Goniometer equipment. Each sample was operated at input rated voltage in its designated orientation. Each sample was allowed to stabilize for at least thirty minutes before measurements were made. Electrical measurements including voltage, current, and power were measured using the Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

Estimated Total Operating Time

<u>Model No.</u>	<u>Total Hours</u>
Fi8550A	2

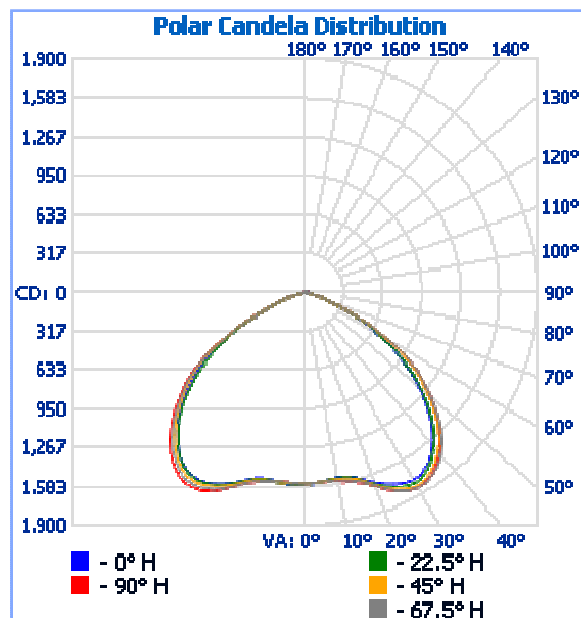
## RESULTS OF TESTS

### Photometric and Electrical Measurements – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (A)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
Fi8550A							
CHI1206261333-001	UP	120.0	1.144	112.5	0.820	5173	45.98

### Intensity (Candlepower) Summary at 25°C - Candelas

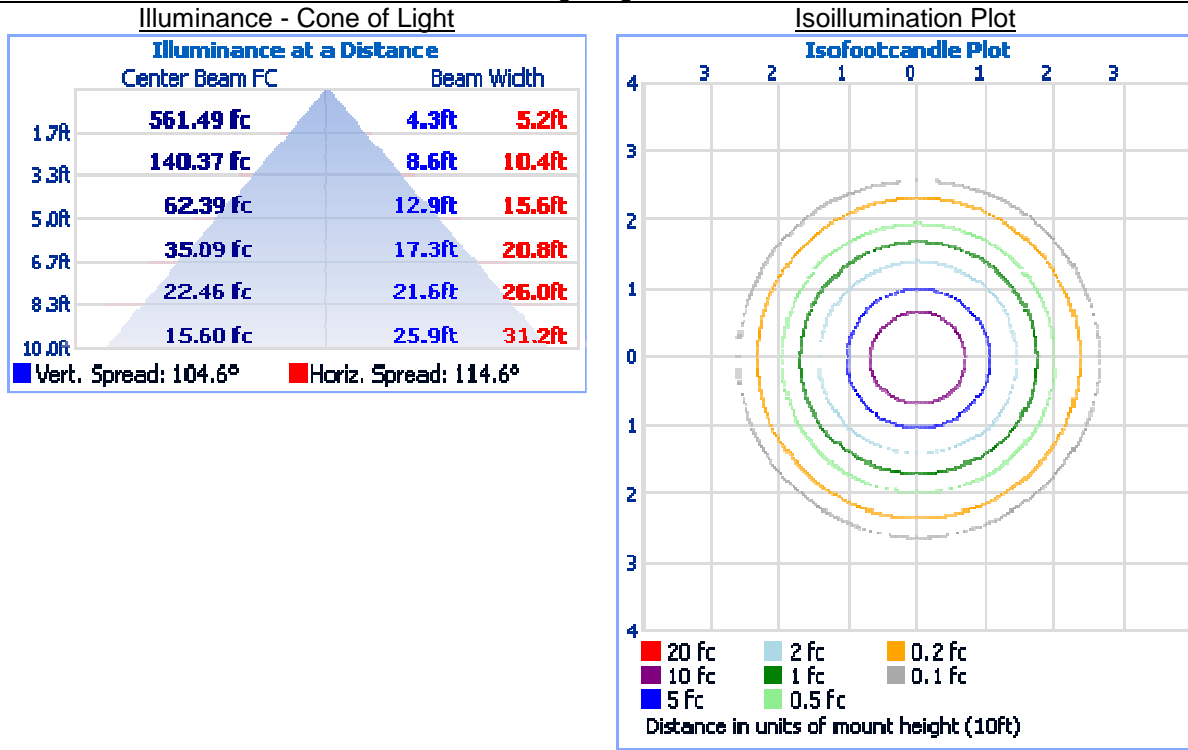
Angle	0	22.5	45	67.5	90
Fi8550A					
0	1560	1560	1560	1560	1560
5	1553	1553	1553	1553	1554
10	1531	1538	1547	1558	1563
15	1561	1569	1576	1592	1598
20	1648	1665	1673	1678	1683
25	1726	1752	1777	1790	1792
30	1764	1792	1824	1840	1836
35	1732	1752	1789	1814	1808
40	1622	1639	1692	1721	1705
45	1449	1467	1538	1564	1545
50	1220	1238	1323	1346	1338
55	976	989	1088	1114	1105
60	707	720	784	808	790
65	424	435	443	454	448
70	182	176	174	190	191
75	55	52	50	54	56
80	30	30	30	32	33
85	15	15	15	16	17
90	4	4	5	5	5
95	4	5	5	4	5
100	5	5	5	5	5
105	5	5	5	5	4
110	4	5	5	4	4
115	4	5	5	4	4
120	4	4	6	6	5
125	6	8	9	10	11
130	14	10	9	11	16
135	17	10	10	9	16
140	6	5	5	5	8
145	3	3	4	3	3
150	3	3	3	3	2
155	2	2	3	3	2
160	2	2	2	2	2
165	2	2	2	2	2
170	2	2	2	2	2
175	2	2	2	2	2
180	2	2	2	2	2



## RESULTS OF TESTS (cont'd)

### Illumination Plots

Model No.: Fi8550A  
Mounting Height: 10 Ft.



### Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens Fi8550A	% Luminaire
0-30	1415	27.4
0-40	2516	48.6
0-60	4601	88.9
60-90	539.2	10.4
0-90	5140	99.4
90-180	33.2	0.6
0-180	5173	100.0



RESULTS OF TESTS (cont'd)

Zonal Lumens and Percentages at 25°C

Zone	Lumens	% Luminaire
	Fi8550A	
0-10	148.5	2.9
10-20	453.6	8.8
20-30	812.7	15.7
30-40	1101	21.3
40-50	1152	22.3
50-60	932.8	18.0
60-70	444.3	8.6
70-80	77.1	1.5
80-90	17.9	0.3
90-100	5.0	0.1
100-110	5.0	0.1
110-120	4.5	0.1
120-130	7.1	0.1
130-140	7.7	0.1
140-150	2.1	0.0
150-160	1.0	0.0
160-170	0.6	0.0
170-180	0.2	0.0

Pictures (not to scale)



Fi8550A luminaire mounted on goniometer.

## CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



Tim Quigley  
Engineer  
Lighting Division

Attachment: None

Report Reviewed By:



David Ellis  
Senior Project Engineer  
Lighting Division