REPORT

545 E. ALGONQUIN ROAD ARLINGTON HEIGHTS, ILLINOIS 60005

Project No. G100766137 Date: October 6, 2012

REPORT NO. 100766137CHI-023

TEST OF ONE COMPACT FLUORESCENT LUMINAIRE

FIXTURE MODEL NO. APD.60
BALLAST MODEL NO. FULHAM WH22-120C

RENDERED TO
LUMENART LTD.
3333 W 47th STREET
CHICAGO, IL 60632

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

AUTHORIZATION: The testing performed was authorized by signed quote number 500383499.

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

DESCRIPTION OF SAMPLE: The client submitted one sample of model number APD.60. The sample was received by Intertek on September 4, 2012, in undamaged condition, and one sample was tested as received. The sample designation was CHI1209041744-019
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DATES OF TESTS: September 11, 2012

SUMMARY

Model No.:	APD.60
Description:	Pendant-mount luminaire with 1x26W CF lamp

Criteria	Result
Total Lumen Output	805.5 Lumens
Total Power	25.04 W
Luminaire Efficacy	32.17
Power Factor	0.948

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Calibration Date	Calibration Due Date
Yokogawa Power Meter	WT210	146919	11/18/2011	11/18/2012
Omega Thermometer	DPI8-C24	146920	11/18/2011	11/18/2012
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
Newport Hygrometer	iServer	146961	2/23/2012	2/23/2013
Elgar, AC Power Supply	CW1251P	146918	VBU	VBU
Extech Stopwatch	365510	146830	2/16/2012	2/16/2013

TEST METHODS

Seasoning in Sample Orientation – LED Products

Seasoning was performed in accordance with IESNA LM-66.

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

Model No.	Total Hours
APD.60	1

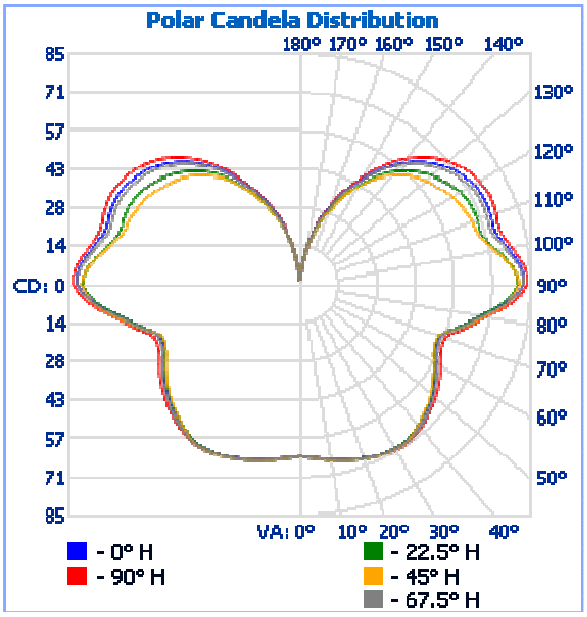
RESULTS OF TESTS

Photometric and Electrical Measurements – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
			APD.60				
CHI1208061220-001	Up	120.1	220.0	25.04	0.948	805.5	32.17

Intensity (Candlepower) Summary at 25℃ - Candelas

Angle	0	22.5	45	67.5	90
		APD.60			
0	63	63	63	63	63
5	64	64	64	64	64
10	66	66	66	66	66
15	67	67	67	67	67
20	68	68	68	68	68
25	69	69	70	69	69
30	70	70	70	70	70
35	70	70	70	70	70
40	68	68	68	68	69
45	66	66	65	66	67
50	64	63	63	64	65
55	61	60	60	62	63
60	58	57	57	58	60
65	55	55	55	56	57
70	55	55	55	56	57
75	60	60	61	61	62
80	68	67	69	68	70
85	76	75	77	77	78
90	82	80	80	82	83
95	81	78	78	81	82
100	77	73	73	76	79
105	74	70	68	73	76
110	75	69	67	73	77
115	75	69	66	73	77
120	74	68	65	72	76
125	71	66	62	70	74
130	68	63	60	67	71
135	64	59	57	63	66
140	58	54	53	58	60
145	52	48	48	51	54
150	44	42	41	44	46
155	37	35	34	37	38
160	29	28	28	29	30
165	21	20	20	21	22
170	13	13	12	13	13
175	5	5	5	4	4
180	2	2	2	2	2

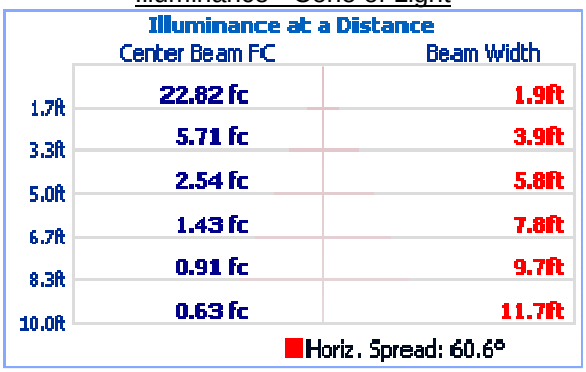


RESULTS OF TESTS (cont'd)

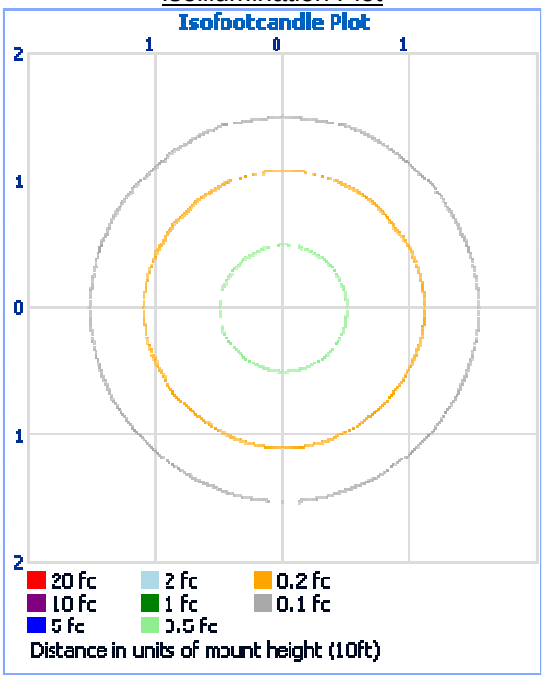
Illumination Plots

Model No.: APD.60
Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumens and Percentages at 25℃

Zone	Lumens	% Luminaire
	APD.60	
0-10	6.2	0.8
10-20	19.0	2.4
20-30	32.1	4.0
30-40	43.6	5.4
40-50	51.0	6.3
50-60	54.5	6.8
60-70	55.4	6.9
70-80	64.7	8.0
80-90	82.7	10.3
90-100	86.3	10.7
100-110	76.5	9.5
110-120	70.5	8.8
120-130	60.7	7.5
130-140	47.1	5.8
140-150	31.5	3.9
150-160	16.8	2.1
160-170	6.1	0.8
170-180	0.7	0.1

RESULTS OF TESTS (cont'd)

Zonal Lumen Summary and Percentages at 25℃

Zone	Lumens	% Luminaire
	APD.60	
0-30	57.3	7.1
0-40	100.9	12.5
0-60	206.4	25.6
60-90	202.8	25.2
0-90	409.3	50.8
90-180	396.3	49.2
0-180	805.5	100.0

Pictures (not to scale)

Model APD.60 w/o pendant cord.

Lampholder in luminaire

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

Report Reviewed By:

Jacki Swiernik
Staff Engineer
Lighting Division

Attachment: None