



# REPORT

545 E. Algonquin Rd., Arlington Heights, IL 60005

Project No. G102929574

Date: August 18, 2017

REPORT NO. 102929574CHI-009

TEST OF ONE OVERBED LIGHT

MODEL NO. CYB505400L30 - LW  
LED MODEL NO. SAMSUNG 281B

DRIVER MODEL NO. ESPEN VEL6700120H / KEYSTONE KTLD-36-1-1000-FDIM-AK2 (2)

RENDERED TO

AFX INC.  
2345 N. ERNIE KRUEGER CIRCLE  
WAUKEGAN, IL. 60087

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

AUTHORIZATION: The testing performed was authorized by signed quote number Qu-00761824-1.

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-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

DESCRIPTION OF SAMPLE: The client submitted one prototype sample of model number CYB505400L30 - LW. The sample was received by Intertek on July 20, 2017, in undamaged condition and one sample was tested as received. The sample designation was AH07202017091417-009.

DATES OF TESTS: August 18, 2017



SUMMARY

Model No.:	CYB505400L30 - LW
Description:	Overbed Light

Criteria	Result
Total Lumen Output (Lumens)	4153
Total Power (W)	89.79
Luminaire Efficacy (LPW)	46.25
Power Factor	0.995

EQUIPMENT LIST

Equipment Used	Model Number	Control Number	Last Date Calibrated	Calibration Due Date	Date Used
Yokogawa Power Meter	WT210	146919	07/10/17	07/10/18	08/18/17
Omega Newport Thermometer	DPI8-C24	146920	10/07/16	10/07/17	08/18/17
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU	08/18/17
Newport Thermohygrometer	iServer	146956	01/06/17	01/06/18	08/18/17
Pacific, AC power supply	118-ACX	CHI0358	VBU	VBU	08/18/17

TEST METHODS

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IESNA LM-79.

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.

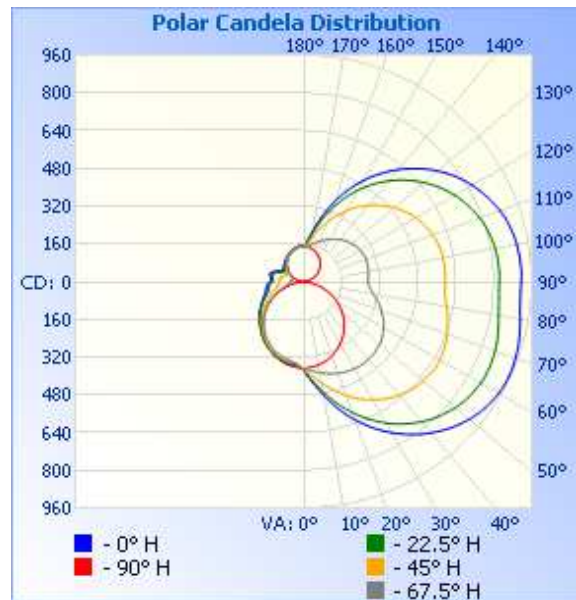
**RESULTS OF TEST**

Photometric and Electrical Measurements at Ambient Temperature (25°C +/- 1°C) – 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 (LPW)
AH07202017091417-009	Horizontal	120.0	752.0	89.79	0.995	4153	46.25

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	22.5	45	67.5	90
0	372	372	372	372	372
5	428	421	401	379	364
10	488	475	436	391	358
15	556	532	474	403	350
20	621	589	512	414	338
25	682	642	547	421	323
30	739	692	578	427	306
35	790	736	606	428	287
40	837	775	627	428	265
45	876	806	644	423	241
50	909	832	656	416	216
55	933	850	662	404	188
60	948	860	662	389	158
65	953	863	655	370	128
70	949	858	644	347	96
75	939	847	627	324	65
80	926	833	612	298	36
85	915	825	597	279	12
90	916	824	596	271	2
95	916	823	597	274	6
100	911	818	596	277	15
105	899	807	590	279	27
110	880	789	579	279	40
115	852	764	563	277	53
120	819	734	544	273	66
125	779	698	519	266	78
130	732	656	490	256	89
135	679	609	458	246	99
140	621	559	423	234	109
145	559	503	384	221	117
150	492	444	343	207	125
155	422	383	300	194	132
160	349	319	258	180	138
165	280	259	218	169	143
170	216	205	184	159	146
175	171	167	159	149	149
180	151	151	151	151	151

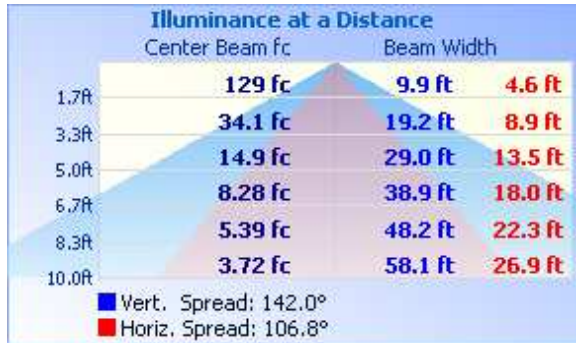


**RESULTS OF TEST (cont'd)**

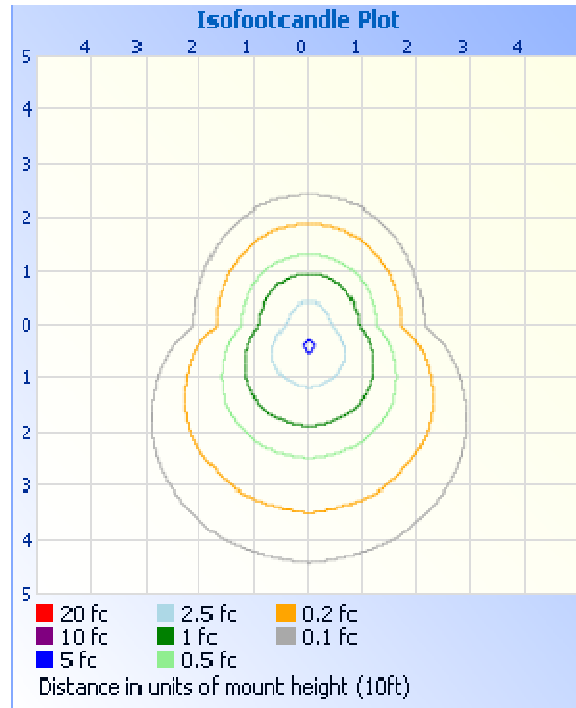
**Illumination Plots**

Mounting Height: 10 ft.

**Illuminance - Cone of Light**



**Isoillumination Plot**



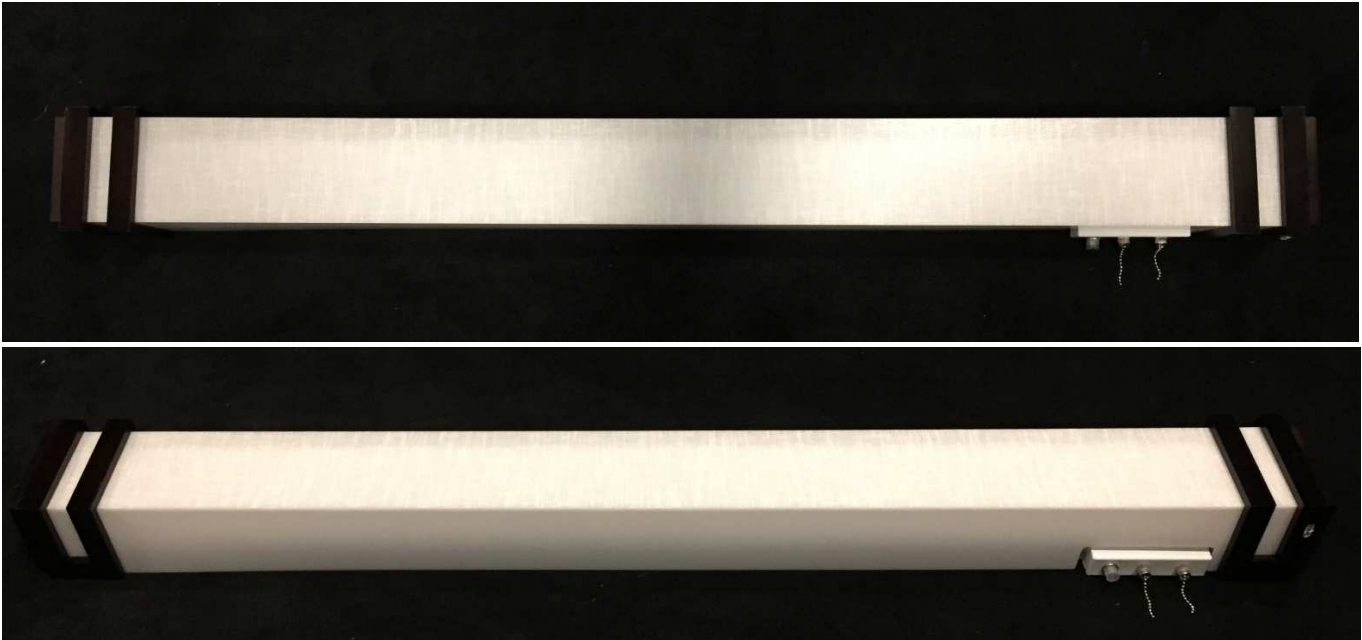
**Zonal Lumen Summary and Percentages at 25°C**

Zone	Lumens	% Luminaire
0-30	347.0	8.4
0-40	618.2	14.9
0-60	1318	31.7
60-90	1097	26.4
0-90	2414	58.1
90-180	1739.0	41.9
0-180	4153	100.0

**Zonal Lumens and Percentages at 25°C**

Zone	Lumens	% Luminaire
0-10	36.3	0.9
10-20	114.6	2.8
20-30	196.1	4.7
30-40	271.2	6.5
40-50	330.9	8.0
50-60	368.5	8.9
60-70	379.9	9.1
70-80	367.6	8.9
80-90	349.3	8.4
90-100	342.2	8.2
100-110	328.5	7.9
110-120	293.8	7.1
120-130	253.6	6.1
130-140	205.1	4.9
140-150	151.3	3.6
150-160	98.0	2.4
160-170	51.3	1.2
170-180	15.1	0.4

PICTURES (not to scale)



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.

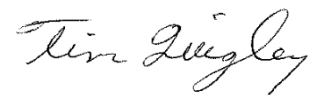
In Charge Of Tests:



Hector Huitron  
Associate Engineer  
Lighting Division

Attachment: None

Report Reviewed By:



Timothy Quigley  
Engineer  
Lighting Division