



# REPORT

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

Project No. G102929574

Date: February 14, 2018

REPORT NO. 103136304CHI-028

TEST OF ONE RANDOLPH OVERBED

MODEL NO. RAB384000L30ENRB-JT  
LED MODEL NO. SAMSUNG 281B+  
DRIVER MODEL NO. KEYSTONE

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-00761824-0.

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 production sample of model number RAB384000L30ENRB-JT. The sample was received by Intertek on February 2, 2018, in undamaged condition and one sample was tested as received. The sample designation was AH02022018041836-028.

DATES OF TESTS: February 12, 2018

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SUMMARY

Model No.: RAB384000L30ENRB-JT
Description: RANDOLPH OVERBED

Criteria	Result
Total Lumen Output (Lumens)	2725
Total Power (W)	54.71
Luminaire Efficacy (LPW)	49.81
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	02/12/18
Omega Newport Thermometer	DPI8-C24	146920	10/04/17	10/04/18	02/12/18
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU	02/12/18
Newport Thermohygrometer	iServer	146382	03/22/17	03/22/18	02/12/18
Pacific, AC power supply	118-ACX	CHI0358	VBU	VBU	02/12/18

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 Xitron or Yokogawa Power Analyzer.

Some graphics were created with Photometrics Plus software.

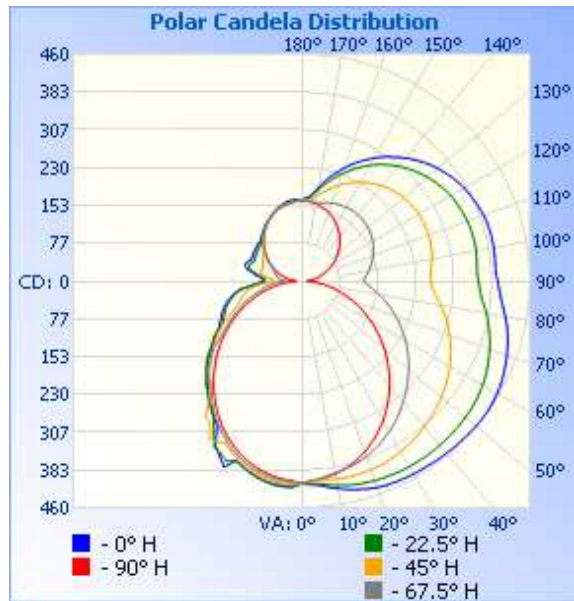
**RESULTS OF TEST**

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)
AH02022018041836-028	Horizontal	120.0	458.3	54.71	0.995	2725	49.81

Intensity (Candlepower) Summary at 25°C - Candelas

Angle	0	25	45	67.5	90
0	411	411	411	411	411
5	415	412	404	402	404
10	427	420	407	394	396
15	437	426	409	388	385
20	445	431	408	379	369
25	449	433	404	367	350
30	451	434	399	353	328
35	453	434	393	337	303
40	455	434	385	319	276
45	457	433	376	300	248
50	458	430	367	282	220
55	458	427	357	262	190
60	455	422	345	243	161
65	449	414	332	221	133
70	440	404	317	201	104
75	430	391	302	180	78
80	417	378	286	159	53
85	403	364	269	140	30
90	396	356	260	126	11
95	392	355	262	130	18
100	394	357	267	139	28
105	393	357	271	146	39
110	391	356	273	154	51
115	385	352	273	160	63
120	378	347	273	166	74
125	369	339	270	170	86
130	357	330	266	173	98
135	343	318	260	175	109
140	326	304	252	176	119
145	308	289	243	176	128
150	288	271	231	174	137
155	266	251	219	172	145
160	242	230	205	169	151
165	218	208	190	165	156
170	193	187	175	162	160
175	172	169	165	163	162
180	165	165	165	165	165



RESULTS OF TEST (cont'd)

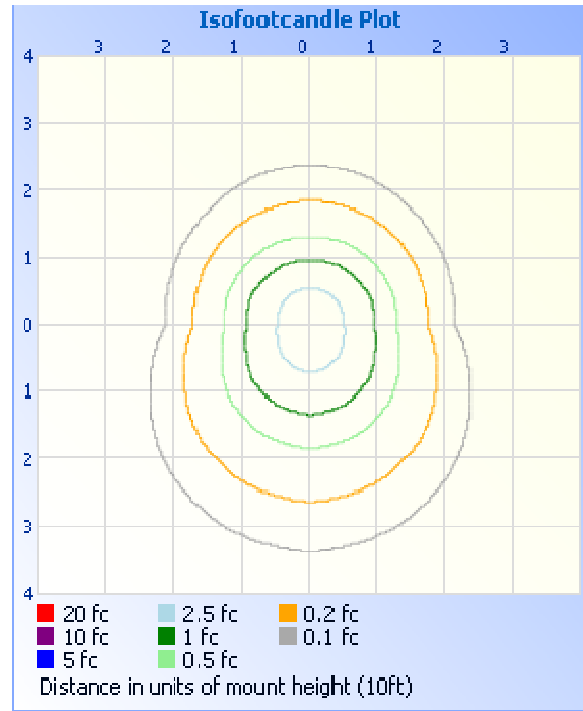
Illumination Plots

Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens	% Luminaire
0-30	330.4	12.1
0-40	550.6	20.2
0-60	1042	38.2
60-90	625.3	23.0
0-90	1667	61.2
90-180	1058.0	38.8
0-180	2725	100.0

Zonal Lumens and Percentages at 25°C

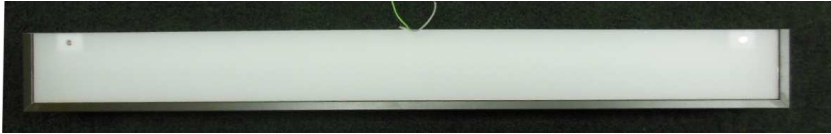
Zone	Lumens	% Luminaire
0-10	39.0	1.4
10-20	113.6	4.2
20-30	177.8	6.5
30-40	220.1	8.1
40-50	243.5	8.9
50-60	247.5	9.1
60-70	234.4	8.6
70-80	212.8	7.8
80-90	178.1	6.5
90-100	162.7	6.0
100-110	173.1	6.4
110-120	167.8	6.2
120-130	156.3	5.7
130-140	137.7	5.1
140-150	112.9	4.1
150-160	82.5	3.0
160-170	48.9	1.8
170-180	15.8	0.6

PICTURES (not to scale)

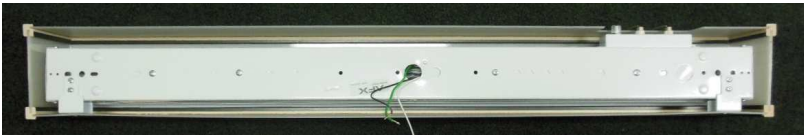
Front



Top



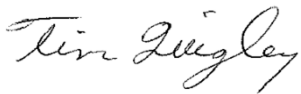
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CONCLUSION

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:



Hector Huitron  
Associate Engineer  
Lighting Division