



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L111707703



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Issue Date: 12/18/2017

Prepared For: Airey-Thompson
5310 Irwindale Ave, Irwindale, CA 91706

Model Number: 62L-H-30K-24-Y-ZZZ

Test: Photometric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 12/13/17

Date of Tests: 12/14/17 - 12/18/17

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	1/9/19
BK PRECISION	1747	PS-DC04	1/10/19
Fluke Digital Thermometer	52K/J	MT-TP05	1/10/19
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Summary

Manufacturer:	Airey-Thompson
Model Number:	62L-H-30K-24-Y-ZZZ
Driver Model Number:	OSRAM OPTOTRONIC Oti 30/120-277/1A0 DIM L
Total Lumens:	1732.61
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.12
Input Power (W):	13.99
Input Power Factor:	0.99
Current ATHD @ 120V(%):	5%
Current ATHD @ 277V(%):	N/A
Efficacy:	124
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:50
Total Operating Time (Hours):	1:10

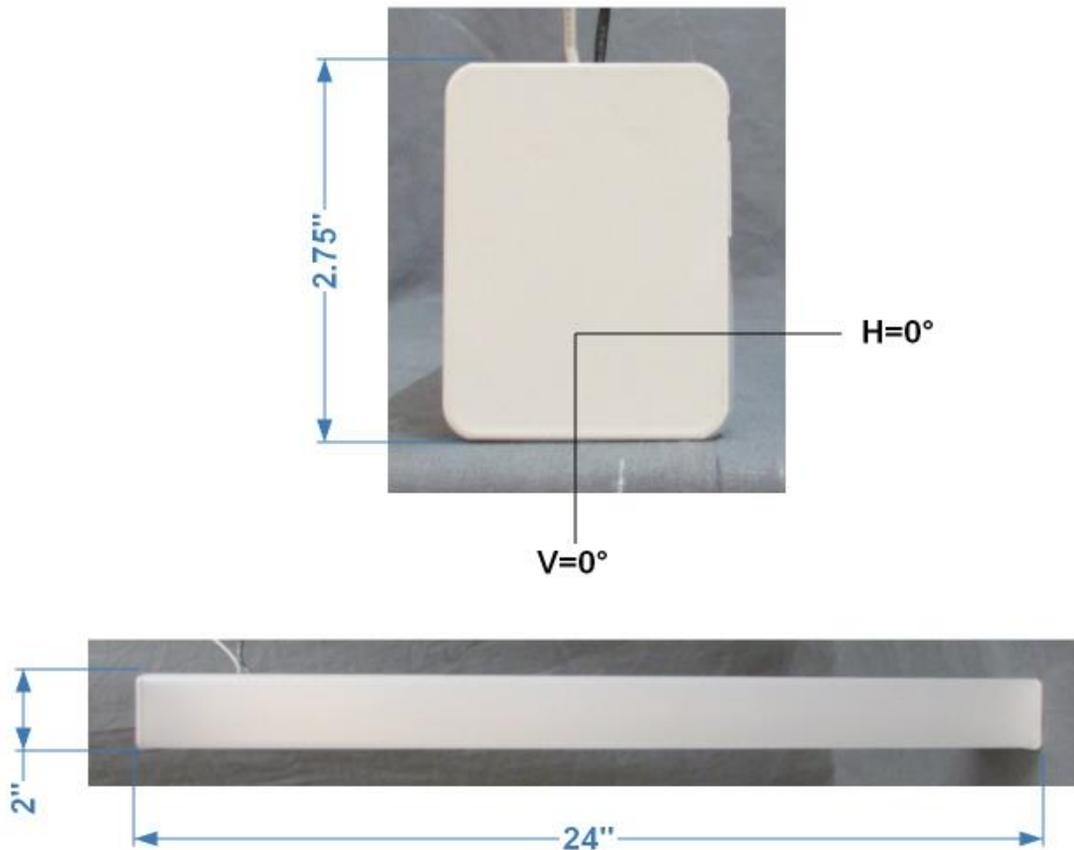


FIG.1 LUMINAIRE

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

Report Prepared by : Keyur Patel

Test Report Released by:



Jeff Ahn
Engineering Manager

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports. Total number of pages: 8*



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Photometric Test Report

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L111707703.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L111707703
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
 [ISSUEDATE] 12/18/2017
 [MANUFAC] Airey-Thompson
 [LUMCAT] 62L-H-30K-24-Y-ZZZ
 [LUMINAIRE] LED LUMINAIRE
 [BALLASTCAT] OSRAM OPTOTRONIC Oti 30/120-277/1A0 DIM L
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 13.99W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1733
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	124
Total Luminaire Watts	13.99
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.17 ft
Luminous Width (90-270)	2.00 ft
Luminous Height	0.13 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8743	8645	10641
55	8105	7541	9067
65	7347	6568	7407
75	6322	5560	5382
85	5179	4554	2145

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L111707703.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	469.45	469.45	469.45	469.45	469.45
5	468.99	468.78	468.04	466.92	465.92
10	465.01	464.26	462.06	458.86	456.45
15	455.54	454.42	450.14	444.50	440.68
20	441.51	439.22	433.04	425.48	418.51
25	423.90	420.37	412.36	401.23	391.85
30	403.56	399.32	387.45	372.05	360.88
35	383.80	376.95	360.75	338.33	328.74
40	363.78	354.19	333.81	309.64	291.04
45	344.93	331.86	306.65	275.43	253.35
50	326.67	313.13	278.75	240.56	216.89
55	307.49	291.21	251.35	207.76	179.69
60	285.40	268.17	224.74	177.12	145.15
65	259.16	243.01	198.17	146.48	112.76
70	229.51	215.36	171.51	117.75	82.46
75	199.37	186.21	145.11	91.63	54.72
80	168.23	156.77	119.45	67.88	29.89
85	139.00	130.29	96.70	47.75	10.30
90	117.08	109.86	81.87	36.45	0.66
95	104.05	97.65	73.94	33.05	0.58
100	93.42	88.27	67.38	30.43	0.00
105	85.03	82.00	61.82	28.11	0.00
110	78.47	74.32	56.96	26.12	0.00
115	72.57	68.42	52.44	24.25	0.00
120	67.01	63.03	48.12	22.38	0.00
125	61.70	57.88	43.84	20.47	0.00
130	56.38	52.52	39.65	18.60	0.00
135	50.90	47.25	35.42	16.69	0.00
140	45.34	41.89	31.22	14.66	0.00
145	39.53	36.41	26.86	12.00	0.00
150	33.71	30.77	21.80	9.76	0.00
155	27.65	25.20	17.15	7.68	0.00
160	21.42	19.27	12.58	5.77	0.00
165	15.61	12.79	8.47	4.36	0.00
170	9.55	6.81	5.36	3.57	0.00
175	4.15	3.61	3.49	2.78	0.00
180	0.00	0.00	0.00	0.00	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L111707703.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	171.10	N.A.	9.90
0-30	360.15	N.A.	20.80
0-40	584.62	N.A.	33.70
0-60	1041.82	N.A.	60.10
0-80	1378.97	N.A.	79.60
0-90	1476.38	N.A.	85.20
10-90	1431.93	N.A.	82.60
20-40	413.52	N.A.	23.90
20-50	648.07	N.A.	37.40
40-70	648.81	N.A.	37.40
60-80	337.15	N.A.	19.50
70-80	145.54	N.A.	8.40
80-90	97.40	N.A.	5.60
90-110	127.29	N.A.	7.30
90-120	172.39	N.A.	9.90
90-130	206.76	N.A.	11.90
90-150	245.96	N.A.	14.20
90-180	256.24	N.A.	14.80
110-180	128.95	N.A.	7.40
0-180	1732.61	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.45
10-20	126.65
20-30	189.05
30-40	224.47
40-50	234.55
50-60	222.64
60-70	191.61
70-80	145.54
80-90	97.40
90-100	70.51
100-110	56.78
110-120	45.11
120-130	34.37
130-140	24.21
140-150	14.98
150-160	7.47
160-170	2.48
170-180	0.33

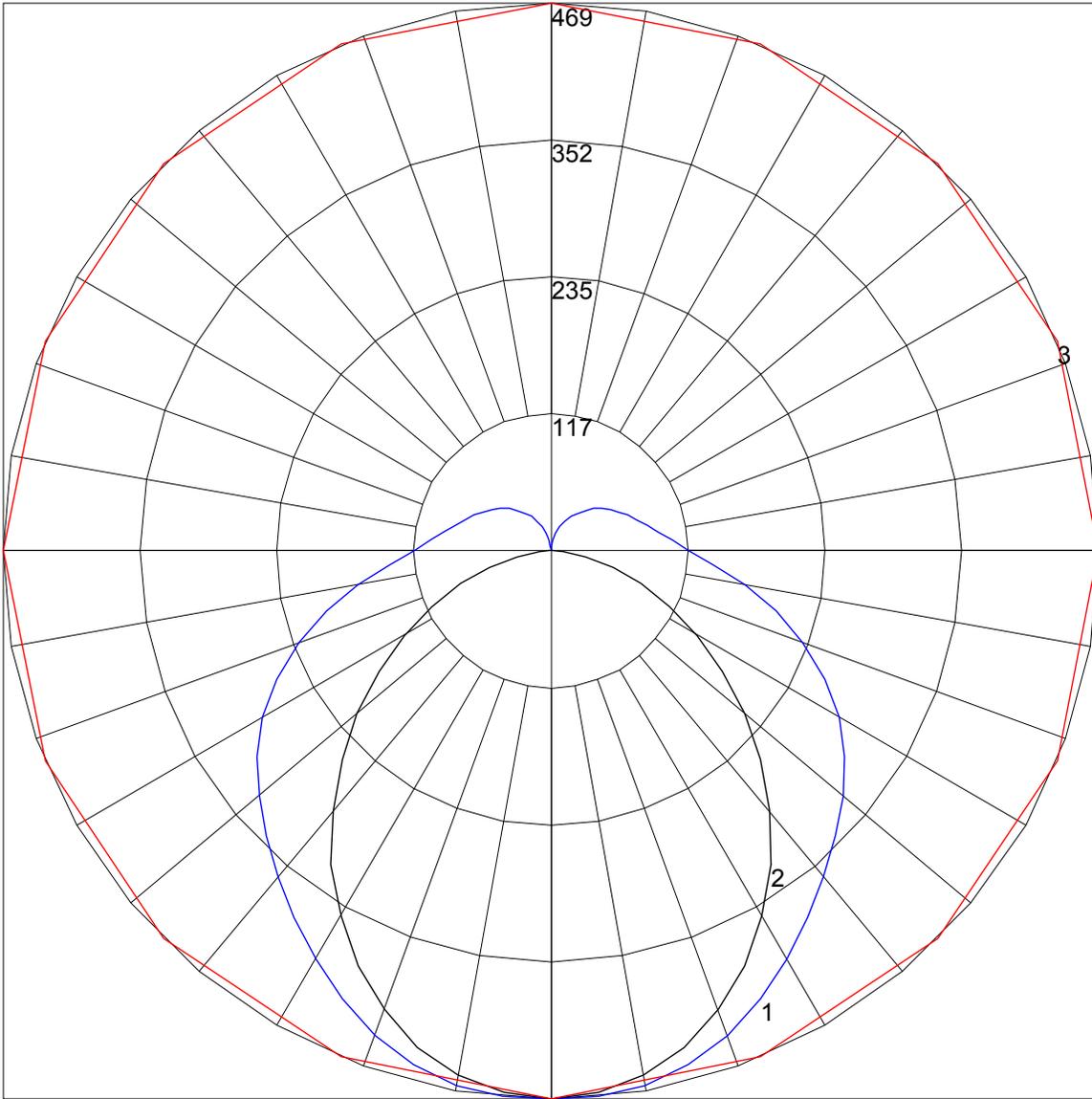
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	116	116	116	116	111	111	111	111	103	103	103	95	95	95	88	88	88	85
1	103	98	93	88	99	94	90	86	87	83	80	81	78	75	75	72	70	67
2	93	84	77	71	89	81	74	69	75	70	65	70	65	61	64	61	58	55
3	85	74	65	58	81	71	63	57	66	59	54	61	55	51	57	52	48	45
4	77	65	56	49	74	63	54	48	58	51	45	54	48	43	50	45	41	38
5	71	58	49	42	68	56	47	41	52	45	39	48	42	37	45	40	35	33
6	65	52	43	36	63	50	42	35	47	39	34	44	37	33	41	35	31	29
7	61	47	38	32	58	45	37	31	43	35	30	40	33	29	37	32	28	25
8	56	43	34	28	54	41	33	28	39	32	27	36	30	26	34	29	25	23
9	53	39	31	25	50	38	30	25	36	29	24	34	27	23	32	26	22	20
10	49	36	28	23	47	35	28	22	33	26	22	31	25	21	29	24	20	18

POLAR GRAPH



Maximum Candela = 469.45 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)