



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
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## Indoor Distribution Test Report

Relevant Standards  
IES LM-79-2008, ANSI C82.77-10-2014

Prepared For  
**H E Williams Inc**  
831 W Fairview Ave  
PO Box 837  
Carthage, MO 64836-0837  
United States

Catalog Number  
**2DS-L15/835-DIM-UNV-LW-OF-WH-AD-x-xx**  
Order Number  
13257153  
Test Number  
13257153.15

Test Date

2020-03-12

Prepared By

Jesse Litchfield, Technician

Approved By

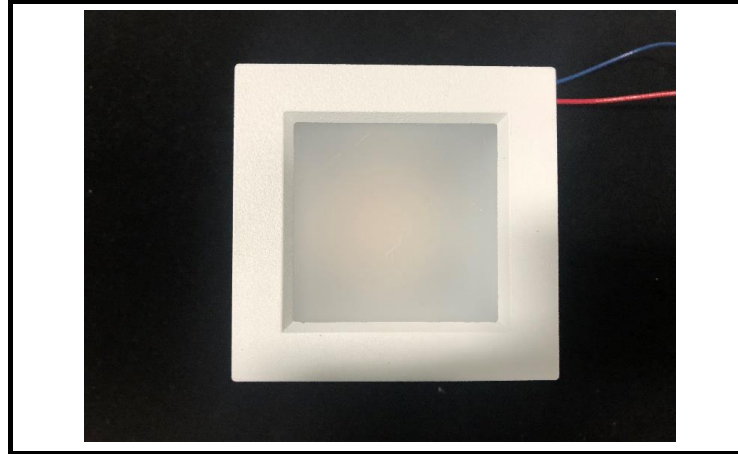
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Aluminum housing, optics, and trim enclosure  
**Lamp:** One white LED  
**Mounting:** Recessed  
**Ballast/Driver:** One Philips Advance XI025C070V054DSM1 Driver

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 2.50 in.  
Luminous Width: 2.500 in.

**Summary of Results**

Total Luminaire Output: 1324 Lumens  
Luminaire Efficacy: 76.5 lm/w  
Maximum Candela: 1010 Candela

**Test Conditions**

Test Temperature: 25.2 °C  
Voltage: 120.1 VAC  
Current: 0.1453 A  
Power: 17.31 W  
Power Factor: 0.992  
Frequency: 60 Hz  
Current THD: 10.8 %

Laboratory results may not be representative of field performance  
Ballast factors have not been applied



## Distribution - Goniophotometer

### Distribution Test Conditions

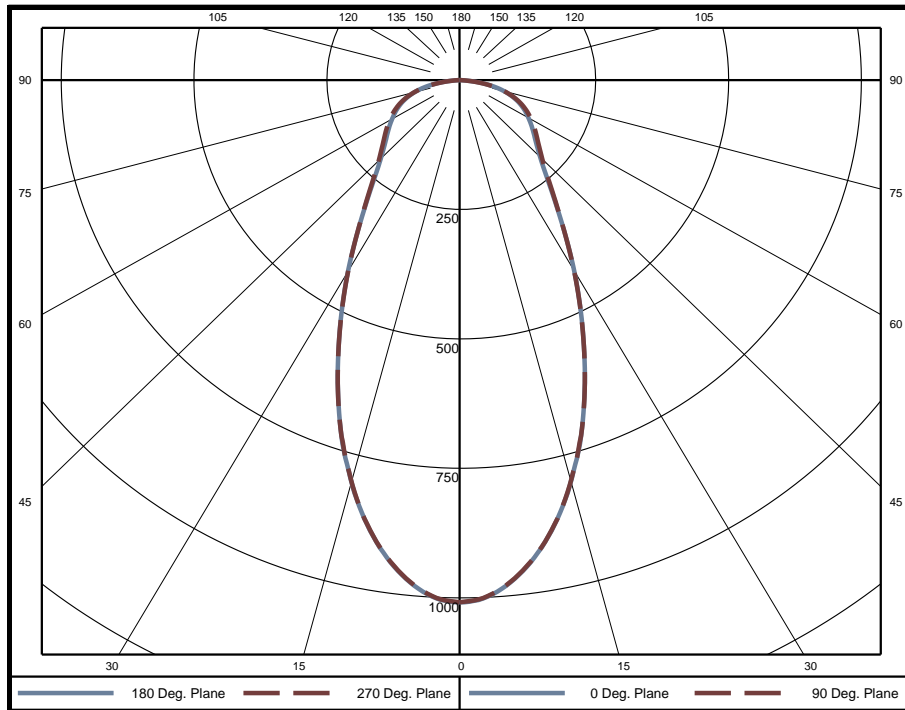
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.1 VAC	0.1453 A	17.31 W	0.992	60 Hz	10.8 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.79  
 90-270: 0.79

**Total Lumen Output:** 1324 Lumens  
**Luminaire Efficacy:** 76.5 lm/w  
**Maximum Candela:** 1010 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	23.8	1.8%	60-65	68.7	5.2%	120-125	0	0.0%
5-10	67.4	5.1%	65-70	61.9	4.7%	125-130	0	0.0%
10-15	101.0	7.6%	70-75	52.0	3.9%	130-135	0	0.0%
15-20	120.8	9.1%	75-80	37.9	2.9%	135-140	0	0.0%
20-25	126.1	9.5%	80-85	19.4	1.5%	140-145	0	0.0%
25-30	120.7	9.1%	85-90	3.0	0.2%	145-150	0	0.0%
30-35	108.7	8.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	95.9	7.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	86.3	6.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	80.7	6.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	76.9	5.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	73.3	5.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	764	57.7%
0-60	1082	81.7%
0-90	1325	100.0%
90-180	0	0.0%



### Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009	1009
	5	981	982	980	980	980	980	980	982	981	982	980	980	980	980	982
	10	906	907	906	905	906	905	906	907	906	907	906	905	906	905	907
	15	797	798	798	798	796	798	798	798	797	798	798	798	796	798	798
	20	669	671	671	671	669	671	671	671	669	671	671	669	671	671	671
	25	537	539	540	538	536	538	540	539	537	539	540	538	536	538	539
	30	419	422	423	421	419	421	423	422	419	422	423	421	419	421	422
	35	321	324	326	324	322	324	326	324	321	324	326	324	322	324	326
	40	253	256	258	258	257	258	258	256	253	256	258	258	257	258	258
	45	209	212	216	216	215	216	216	212	209	212	216	216	215	216	216
	50	183	184	189	190	189	190	189	184	183	184	189	190	189	190	189
	55	163	165	169	171	170	171	169	165	163	165	169	171	170	171	169
	60	146	147	150	153	152	153	150	147	146	147	150	153	152	153	150
	65	130	130	132	135	134	135	132	130	130	130	132	135	134	135	132
	70	110	110	111	114	113	114	111	110	110	110	111	114	113	114	111
	75	87	85	85	87	87	87	85	85	87	85	85	87	87	87	85
	80	56	54	53	54	54	54	53	54	56	54	53	54	54	54	53
	85	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	250100	250100
	45	73420	75640
	55	70670	72850
	65	76150	77490
	75	83030	81920
	85	48810	48130



### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46
7	70	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44	42
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33

### Beam and Field Information

CIE Type:	Direct
Center Beam Intensity:	1009 Candela
Central Cone Intensity:	999 Candela
Beam Flux:	473.4 Lumens
Beam Angle (0-180):	52.6 Degrees
Beam Angle (90-270):	52.6 Degrees
Field Angle (0-180):	144.3 Degrees
Field Angle (90-270):	145.0 Degrees

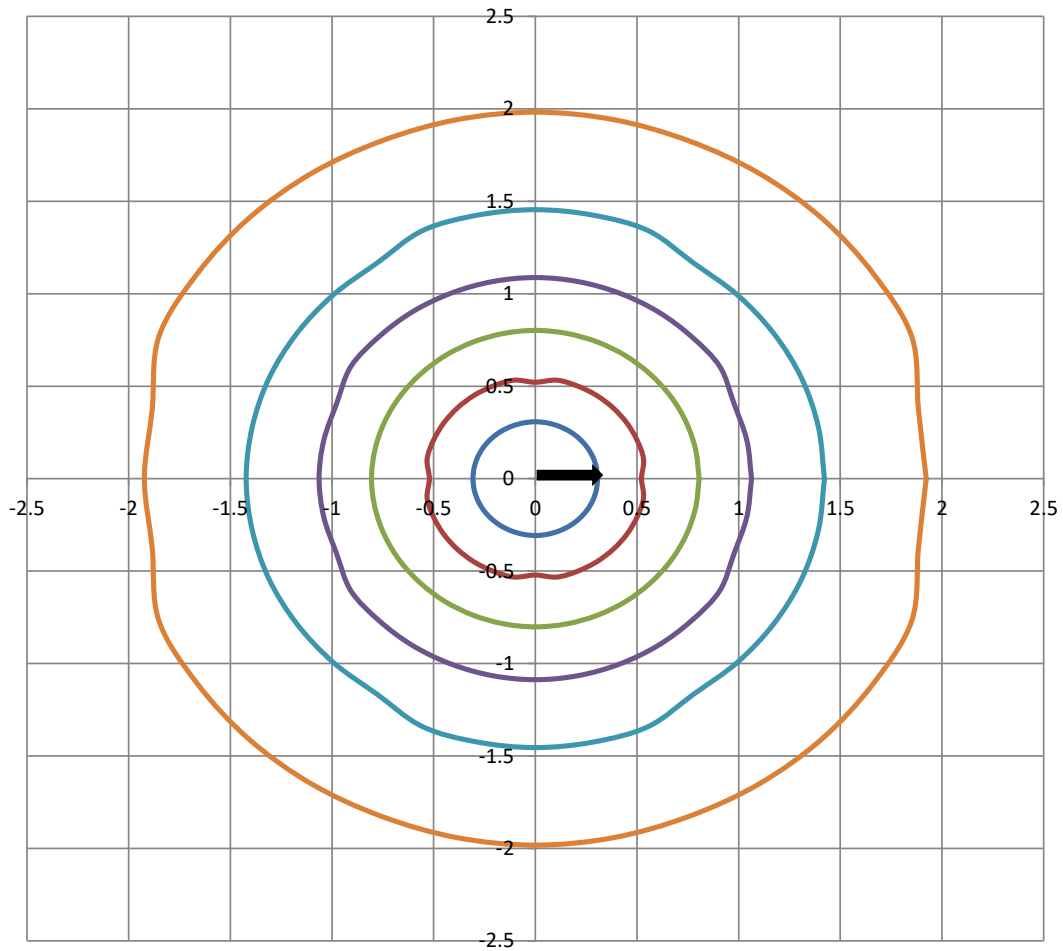
### Cone of Light Tabulation

Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		63.0	3.17
6.00		28.0	4.75
8.00		15.8	6.33
10.0		10.1	7.92
12.0		7.00	9.50
14.0		5.15	11.1
16.0		3.94	12.7



## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

10 fc    5 fc    2 fc    1 fc    0.5 fc    0.2 fc