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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**  
**2DR-L15/835-DIM-UNV-RW-OF-WH-AD-x-xx**  
Order Number  
13257153  
Test Number  
13257153.04

Test Date

2020-03-10

Prepared By

Jesse Litchfield, Technician

Approved By

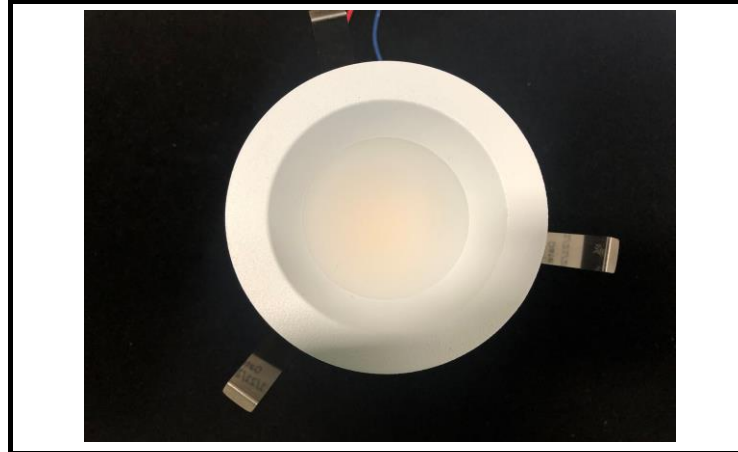
Alexa Lambert, Project Handler

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 Diameter: 2.50 in.

**Summary of Results**

Total Luminaire Output:	1387 Lumens
Luminaire Efficacy:	80.2 lm/w
Maximum Candela:	1123 Candela

**Test Conditions**

Test Temperature:	24.8 °C
Voltage:	120.1 VAC
Current:	0.1451 A
Power:	17.29 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	11.0 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

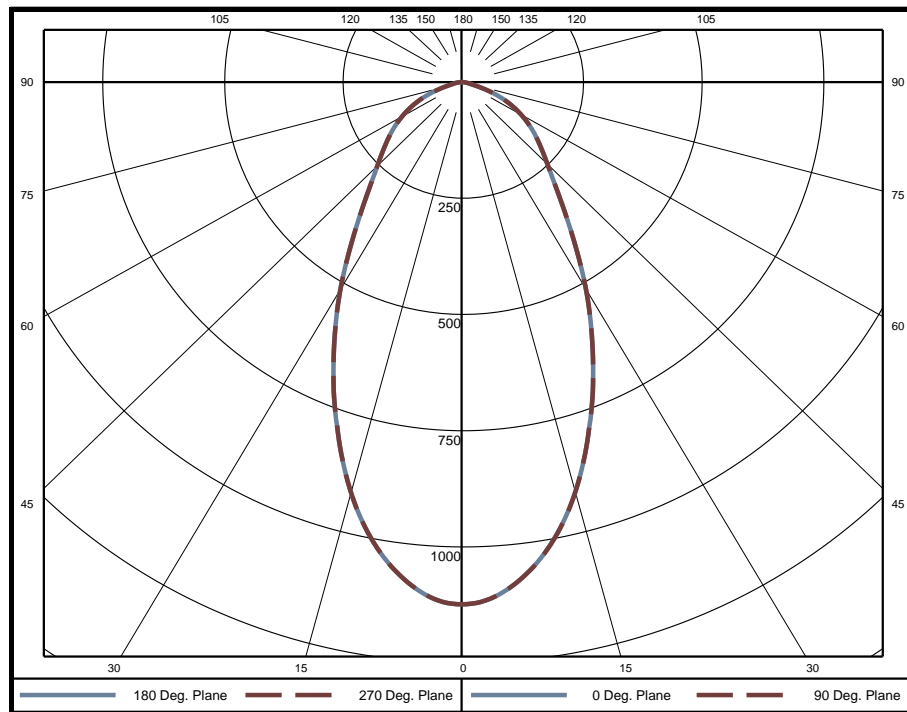
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.1 VAC	0.1451 A	17.29 W	0.992	60 Hz	11.0 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.82  
 90-270: 0.82

**Total Lumen Output:** 1387 Lumens  
**Luminaire Efficacy:** 80.2 lm/w  
**Maximum Candela:** 1123 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	26.5	1.9%	60-65	60.2	4.3%	120-125	0	0.0%
5-10	75.5	5.4%	65-70	43.9	3.2%	125-130	0	0.0%
10-15	114.1	8.2%	70-75	25.0	1.8%	130-135	0	0.0%
15-20	137.8	9.9%	75-80	11.0	0.8%	135-140	0	0.0%
20-25	146.9	10.6%	80-85	5.5	0.4%	140-145	0	0.0%
25-30	143.8	10.4%	85-90	1.5	0.1%	145-150	0	0.0%
30-35	130.9	9.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	114.6	8.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	101.2	7.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	91.8	6.6%	105-110	0	0.0%	165-170	0	0.0%
50-55	83.2	6.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	73.1	5.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	890	64.2%
0-60	1239	89.4%
0-90	1387	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	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123	1123
	5	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094	1094
	10	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019	1019
	15	907	907	907	907	907	907	907	907	907	907	907	907	907	907	907
	20	772	772	772	772	772	772	772	772	772	772	772	772	772	772	772
	25	635	635	635	635	635	635	635	635	635	635	635	635	635	635	635
	30	506	506	506	506	506	506	506	506	506	506	506	506	506	506	506
	35	390	390	390	390	390	390	390	390	390	390	390	390	390	390	390
	40	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304
	45	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
	50	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208
	55	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
	60	141	141	141	141	141	141	141	141	141	141	141	141	141	141	141
	65	106	106	106	106	106	106	106	106	106	106	106	106	106	106	106
	70	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67
	75	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	80	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	85	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	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)

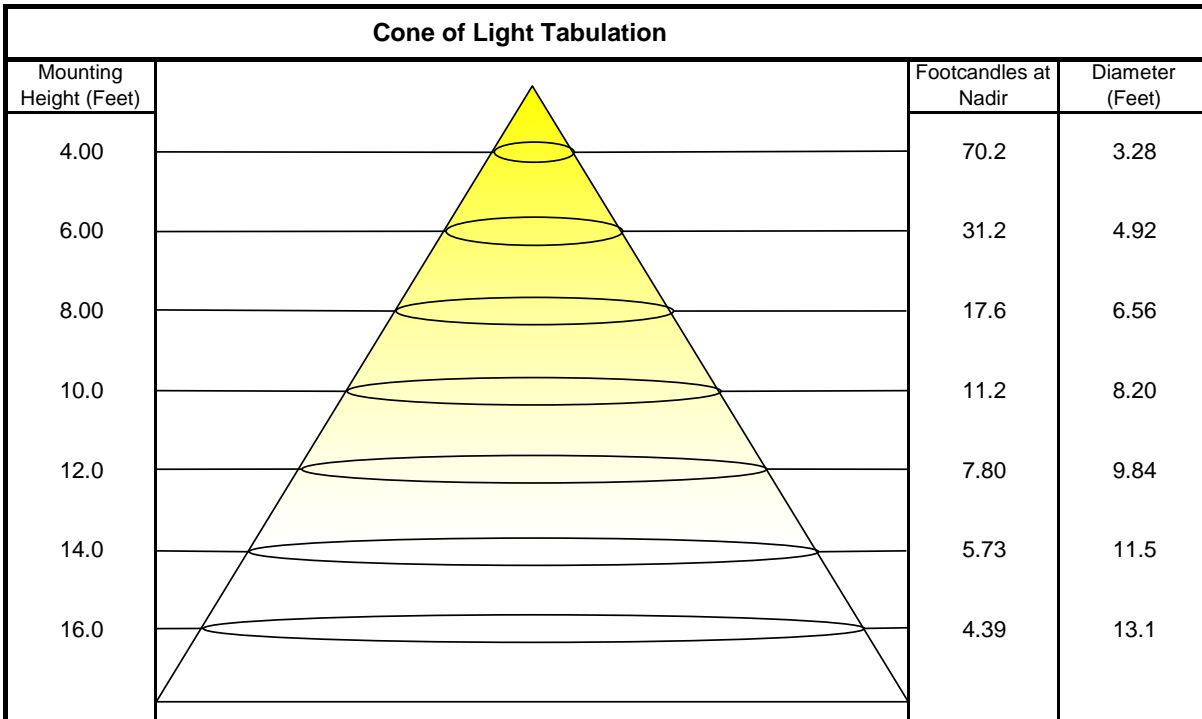
Vertical Angle (Degrees)	0	45	90
	0	354800	354800
	45	110700	110700
	55	96290	96290
	65	79170	79170
	75	36830	36830
	85	22140	22140



### 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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	83	80	78
3	96	87	81	75	94	86	80	75	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	74	68	64	72	67	64	62
5	83	73	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55
6	78	67	59	54	76	66	59	53	64	58	53	63	57	53	61	56	52	50
7	73	62	54	49	72	61	54	49	59	53	48	58	52	48	57	52	48	46
8	69	57	50	45	68	57	50	45	55	49	44	54	48	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

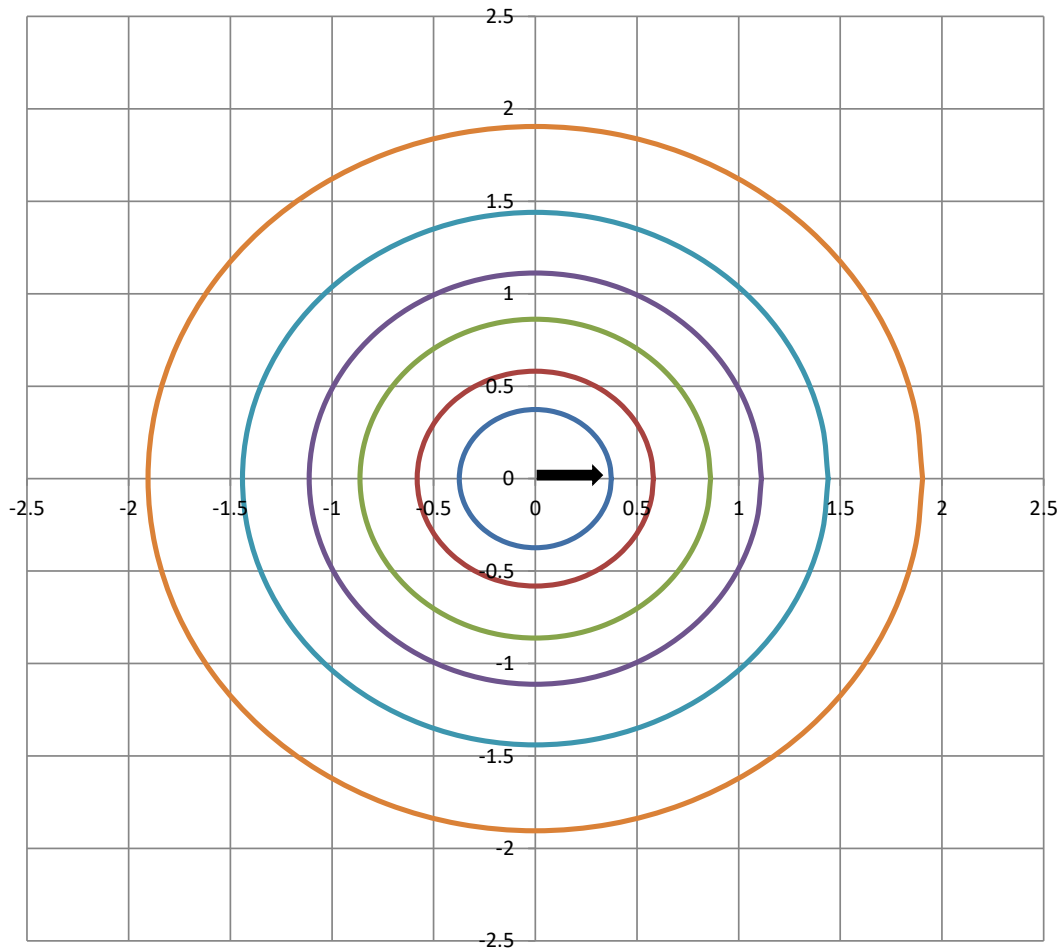
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1123 Candela
Central Cone Intensity:	1113 Candela
Beam Flux:	583.9 Lumens
Beam Angle (0-180):	55.6 Degrees
Beam Angle (90-270):	55.6 Degrees
Field Angle (0-180):	128.3 Degrees
Field Angle (90-270):	128.3 Degrees





## 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