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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-LN-OF-WH-x-xx**  
Order Number  
13257153  
Test Number  
13257153.08

Test Date

2020-03-10

Prepared By

Jesse Litchfield, Technician

Approved By

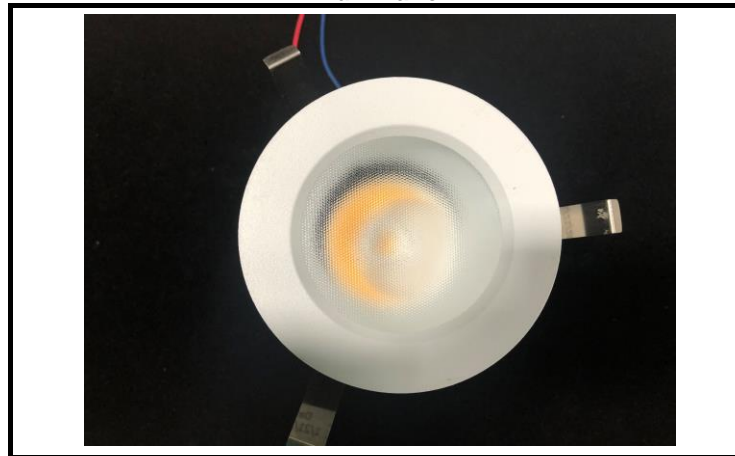
Alexa Lambert, Project Handler

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:	1607 Lumens
Luminaire Efficacy:	93 lm/w
Maximum Candela:	5574 Candela

**Test Conditions**

Test Temperature:	25.3 °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

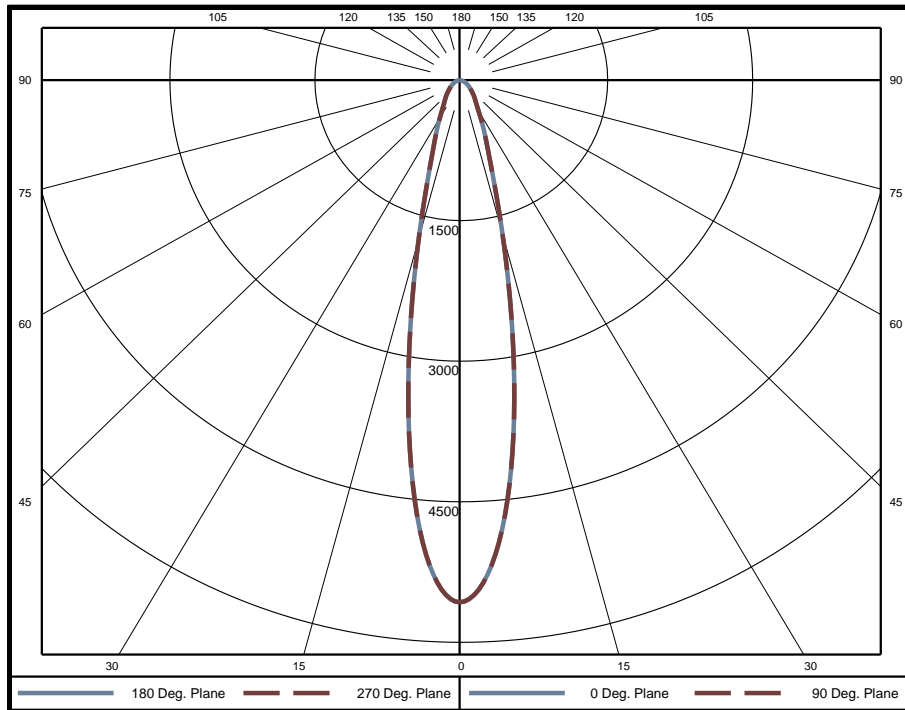
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.1 VAC	0.1451 A	17.29 W	0.992	60 Hz	11.0 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.37  
 90-270: 0.37

**Total Lumen Output:** 1607 Lumens  
**Luminaire Efficacy:** 93.0 lm/w  
**Maximum Candela:** 5574 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	124.1	7.7%	60-65	35.0	2.2%	120-125	0	0.0%
5-10	278.3	17.3%	65-70	26.4	1.6%	125-130	0	0.0%
10-15	263.0	16.4%	70-75	18.6	1.2%	130-135	0	0.0%
15-20	186.2	11.6%	75-80	11.6	0.7%	135-140	0	0.0%
20-25	141.4	8.8%	80-85	5.6	0.3%	140-145	0	0.0%
25-30	112.9	7.0%	85-90	0.9	0.1%	145-150	0	0.0%
30-35	92.7	5.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	81.8	5.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	71.5	4.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	61.0	3.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	52.0	3.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	43.7	2.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1280	79.7%
0-60	1509	93.9%
0-90	1607	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	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574	5574
	5	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815	4815
	10	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084	3084
	15	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568	1568
	20	842	842	842	842	842	842	842	842	842	842	842	842	842	842	842
	25	547	547	547	547	547	547	547	547	547	547	547	547	547	547	547
	30	367	367	367	367	367	367	367	367	367	367	367	367	367	367	367
	35	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
	40	218	218	218	218	218	218	218	218	218	218	218	218	218	218	218
	45	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
	50	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
	55	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107
	60	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
	65	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
	70	43	43	43	43	43	43	43	43	43	43	43	43	43	43	43
	75	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	80	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	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)

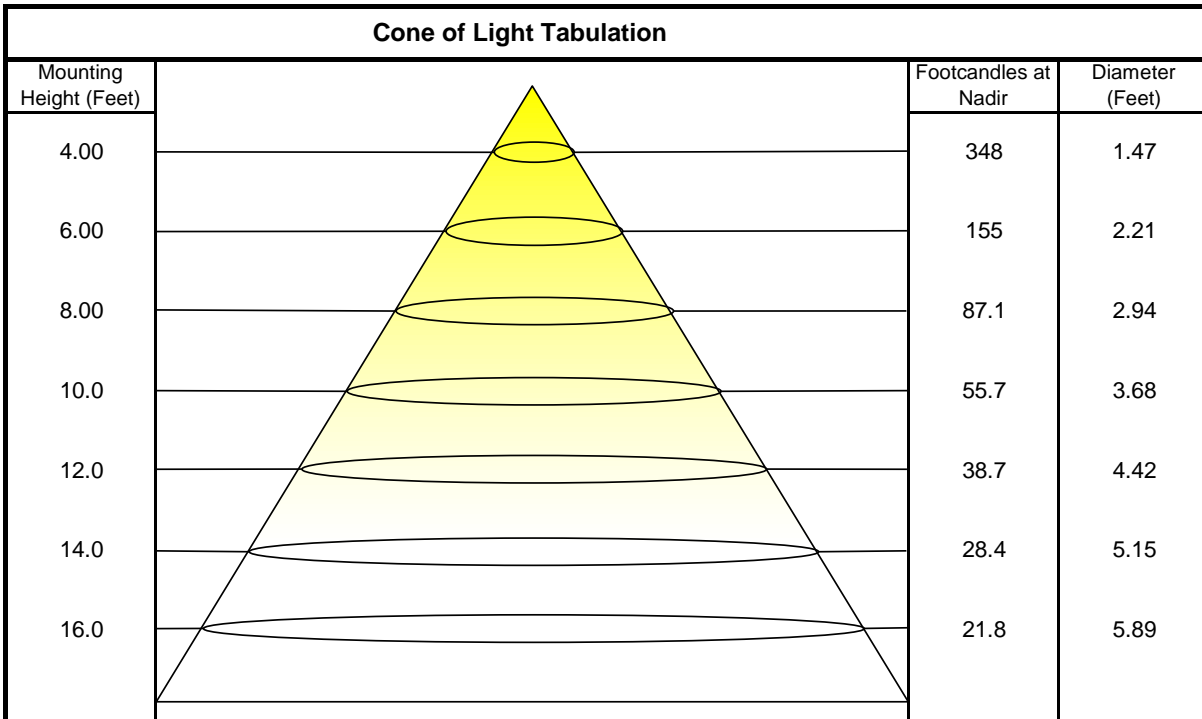
Vertical Angle (Degrees)	0	45	90
	0	1760000	1760000
	45	76090	76090
	55	58700	58700
	65	46030	46030
	75	34500	34500
	85	18710	18710



### 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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87	85
3	102	95	90	86	100	94	89	85	91	87	84	88	85	82	86	83	81	79
4	97	89	83	79	95	88	83	79	86	81	78	84	80	77	82	79	76	74
5	92	84	78	74	91	83	77	73	81	76	73	79	75	72	78	74	71	70
6	88	79	74	69	87	79	73	69	77	72	69	76	71	68	74	71	68	66
7	85	76	70	66	83	75	69	65	74	69	65	72	68	65	71	67	64	63
8	81	72	66	62	80	71	66	62	70	66	62	69	65	62	68	64	61	60
9	78	69	63	60	77	68	63	60	68	63	59	67	62	59	66	62	59	58
10	75	66	61	57	74	66	61	57	65	60	57	64	60	57	64	60	57	55

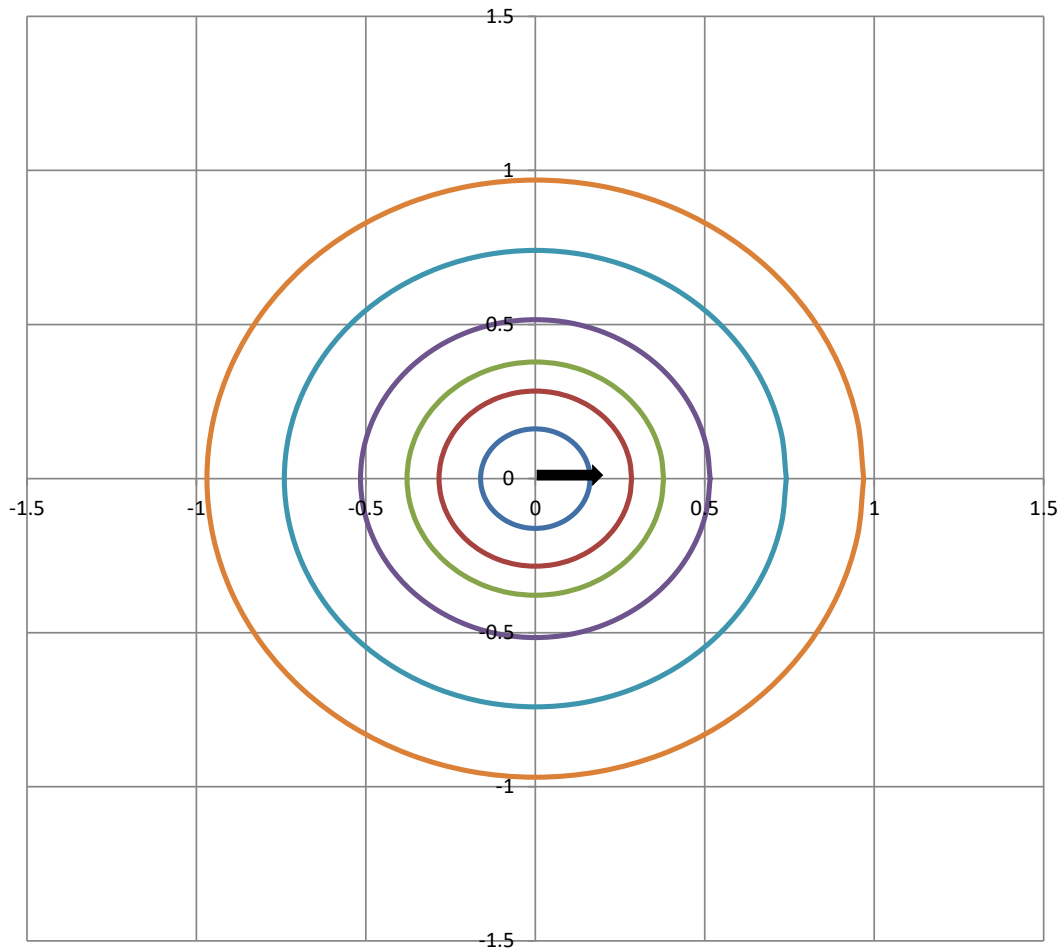
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	5574 Candela
Central Cone Intensity:	5299 Candela
Beam Flux:	451.3 Lumens
Beam Angle (0-180):	21.7 Degrees
Beam Angle (90-270):	21.7 Degrees
Field Angle (0-180):	49.5 Degrees
Field Angle (90-270):	49.5 Degrees





## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

50 fc    20 fc    10 fc    5 fc    2 fc    1 fc