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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  
**2DS-L12/835-DIM-UNV-RS-OF-WH-x-xx**  
Order Number  
13257153  
Test Number  
13257153.26

Test Date

2020-03-13

Prepared By

Jesse Litchfield, Technician

Approved By

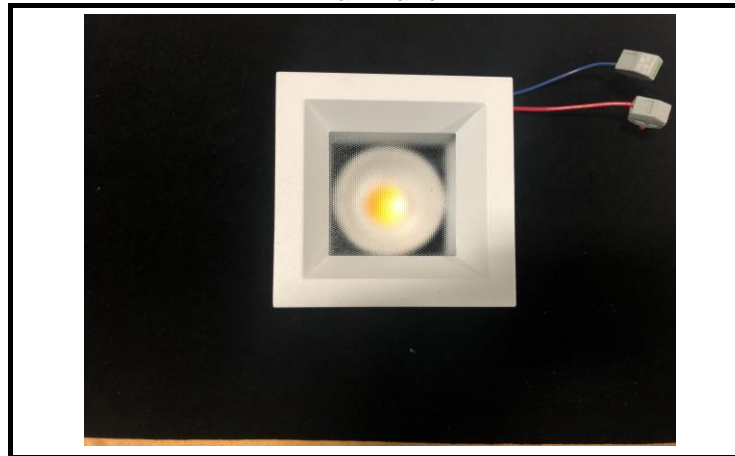
Alexa Lambert, Project Handler

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: 1445 Lumens  
Luminaire Efficacy: 70.9 lm/w  
Maximum Candela: 14379 Candela

**Test Conditions**

Test Temperature: 25.1 °C  
Voltage: 120.1 VAC  
Current: 0.1708 A  
Power: 20.39 W  
Power Factor: 0.994  
Frequency: 60 Hz  
Current THD: 9.40 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

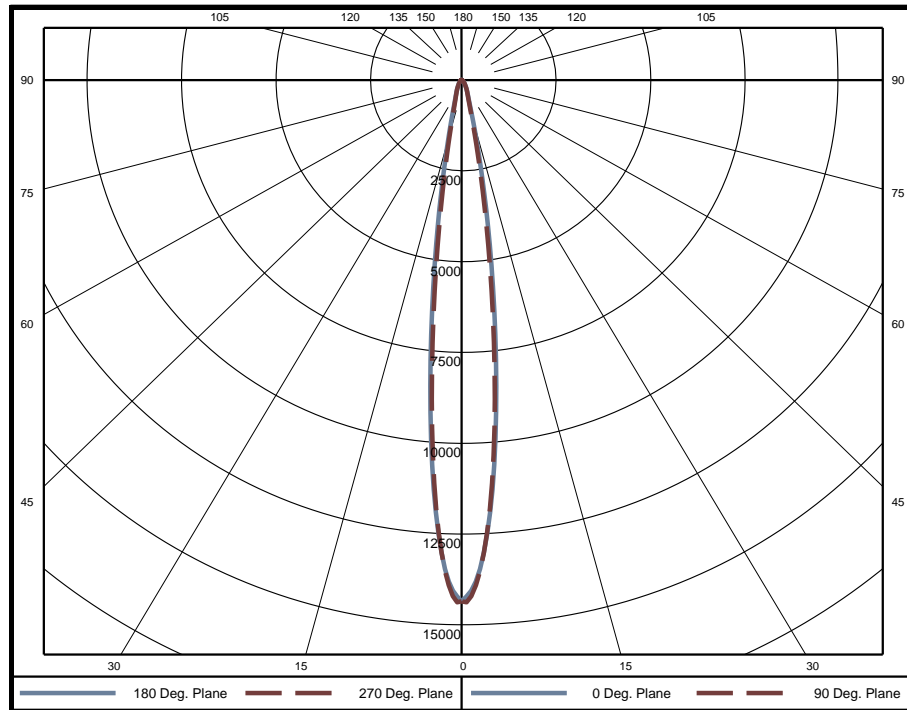
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.1708 A	20.39 W	0.994	60 Hz	9.40 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.24  
 90-270: 0.23

**Total Lumen Output:** 1445 Lumens  
**Luminaire Efficacy:** 70.9 lm/w  
**Maximum Candela:** 14379 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	285.8	19.8%	60-65	12.5	0.9%	120-125	0	0.0%
5-10	425.7	29.5%	65-70	9.0	0.6%	125-130	0	0.0%
10-15	216.7	15.0%	70-75	5.7	0.4%	130-135	0	0.0%
15-20	111.7	7.7%	75-80	2.7	0.2%	135-140	0	0.0%
20-25	86.5	6.0%	80-85	1.2	0.1%	140-145	0	0.0%
25-30	73.1	5.1%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	59.6	4.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	47.9	3.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	38.5	2.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	29.6	2.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	22.0	1.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	16.5	1.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1307	90.4%
0-60	1414	97.8%
0-90	1445	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	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350	14350
	5	9911	9920	9793	9664	9611	9664	9793	9920	9911	9920	9793	9664	9611	9664	9793
	10	3626	3621	3384	3167	3094	3167	3384	3621	3626	3621	3384	3167	3094	3167	3384
	15	1064	1070	1003	929	894	929	1003	1070	1064	1070	1003	929	894	929	1003
	20	500	518	522	492	468	492	522	518	500	518	522	492	468	492	522
	25	324	348	368	338	316	338	368	348	324	348	368	338	316	338	368
	30	221	244	273	236	213	236	273	244	221	244	273	236	213	236	273
	35	153	168	197	161	147	161	197	168	153	168	197	161	147	161	197
	40	113	121	137	119	112	119	137	121	113	121	137	119	112	119	137
	45	80	88	97	87	79	87	97	88	80	88	97	87	79	87	97
	50	55	61	67	60	54	60	67	61	55	61	67	60	54	60	67
	55	40	43	45	42	39	42	45	43	40	43	45	42	39	42	45
	60	30	31	30	30	30	30	31	30	31	30	30	30	30	30	31
	65	21	22	21	22	22	22	21	22	21	22	21	22	22	21	22
	70	14	14	13	15	15	15	13	14	14	14	13	15	15	15	13
	75	7	8	8	8	8	8	8	7	8	8	8	8	8	8	8
	80	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	85	1	1	2	2	2	2	2	1	1	1	2	2	2	2	1
	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)

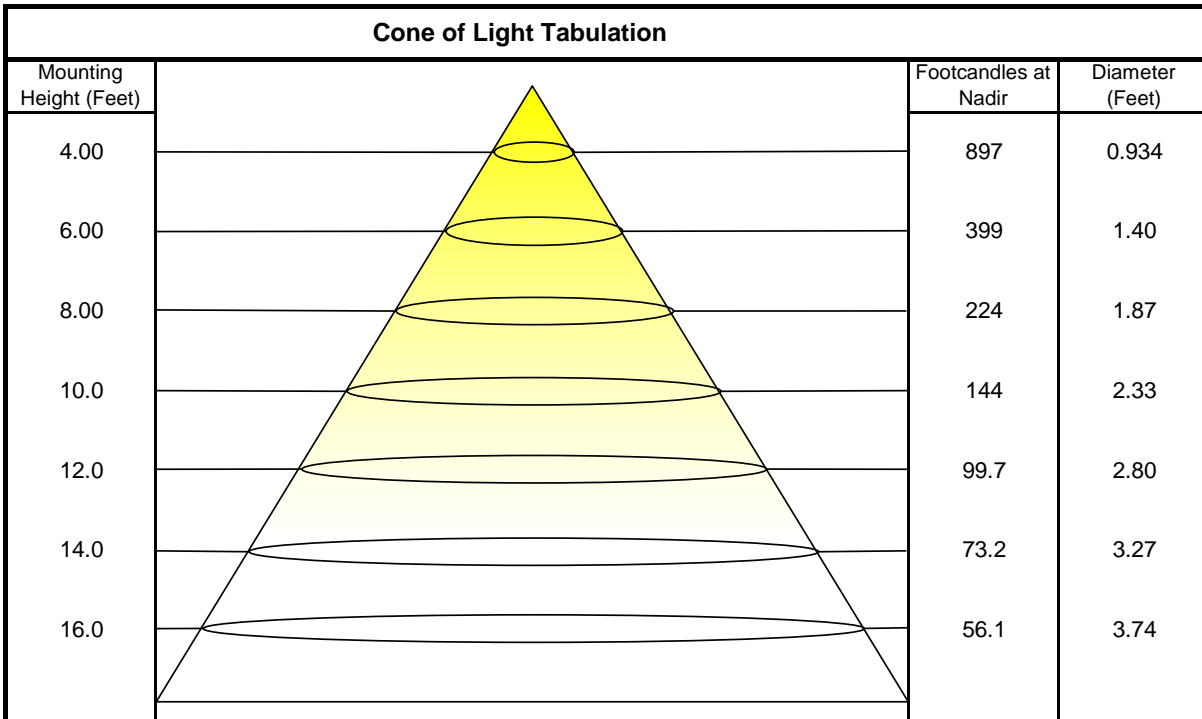
Vertical Angle (Degrees)	0	45	90
	0	3559000	3559000
	45	28020	33870
	55	17120	19420
	65	12310	12050
	75	6991	7331
	85	3181	4693



### 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	115	112	110	108	112	110	108	107	106	105	103	103	101	100	99	98	98	96
2	110	106	103	100	108	105	102	99	102	99	97	99	97	95	96	95	93	92
3	107	101	98	94	105	100	97	94	98	95	92	95	93	91	93	91	90	88
4	103	97	93	90	101	96	92	89	94	91	88	92	89	87	91	88	86	85
5	100	94	89	86	98	93	89	86	91	87	85	89	86	84	88	85	83	82
6	97	90	86	83	96	90	85	82	88	85	82	87	84	81	86	83	81	80
7	94	87	83	80	93	87	83	80	86	82	79	85	81	79	84	81	79	78
8	92	85	81	78	91	84	80	78	83	80	77	83	79	77	82	79	77	76
9	90	83	79	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74
10	87	81	77	74	87	80	76	74	80	76	74	79	76	73	78	75	73	72

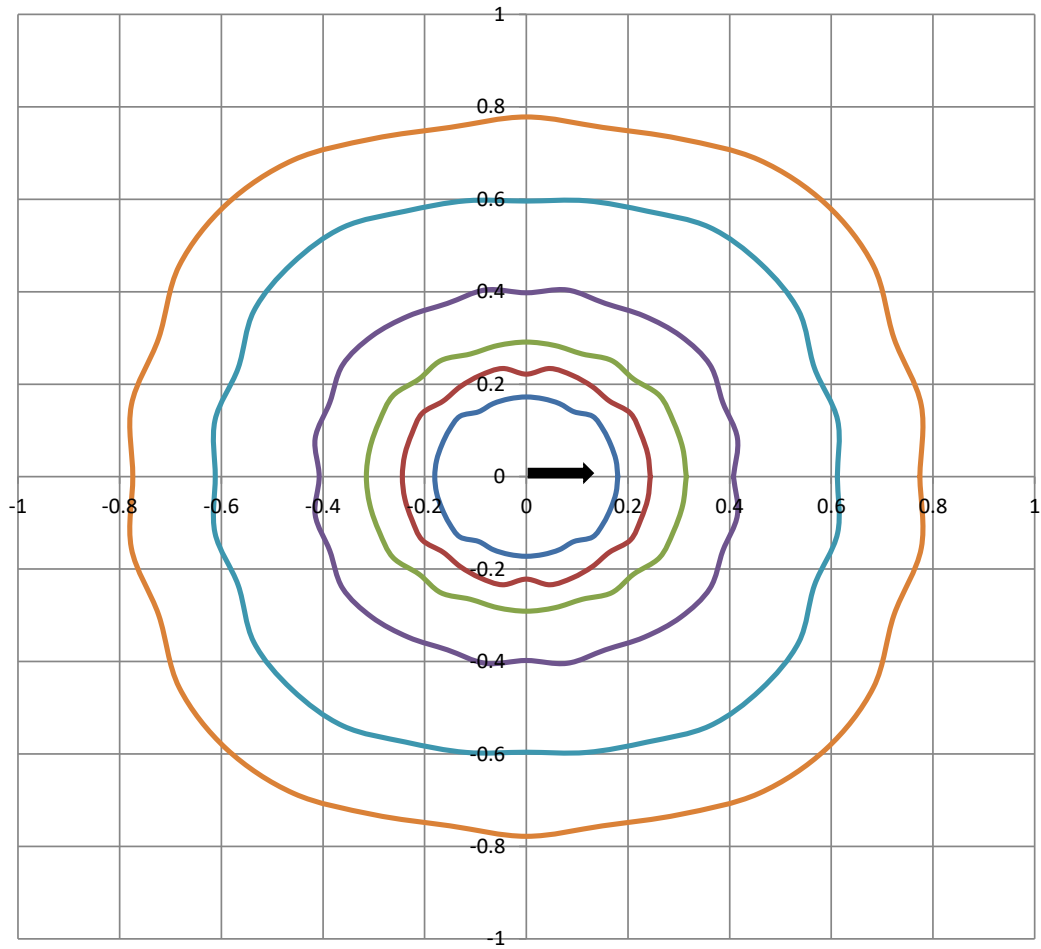
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	14350 Candela
Central Cone Intensity:	12642 Candela
Beam Flux:	452.7 Lumens
Beam Angle (0-180):	13.8 Degrees
Beam Angle (90-270):	13.1 Degrees
Field Angle (0-180):	27.4 Degrees
Field Angle (90-270):	25.7 Degrees





## 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