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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-L15/835-DIM-UNV-RN-OF-WH-x-xx**  
Order Number  
**13257153**  
Test Number  
**13257153.23**

Test Date

2020-03-13

Prepared By

Jesse Litchfield, Technician

Approved By

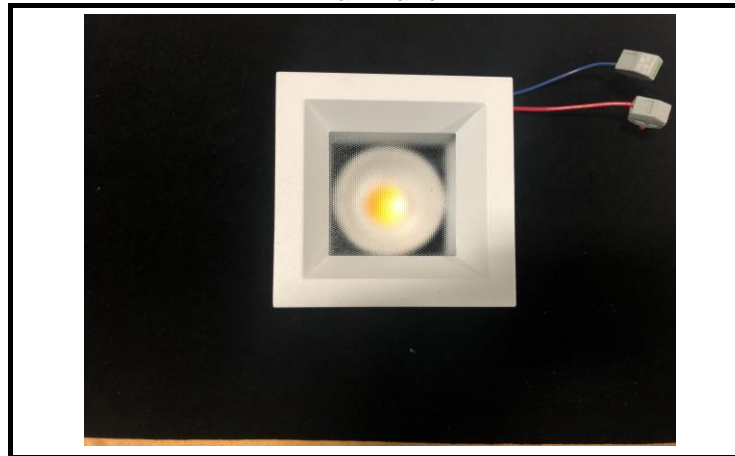
Alexa Lambert, Project Handler

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:	1556 Lumens
Luminaire Efficacy:	90 lm/w
Maximum Candela:	5655 Candela

**Test Conditions**

Test Temperature:	25.1 °C
Voltage:	120.1 VAC
Current:	0.1452 A
Power:	17.30 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	10.9 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

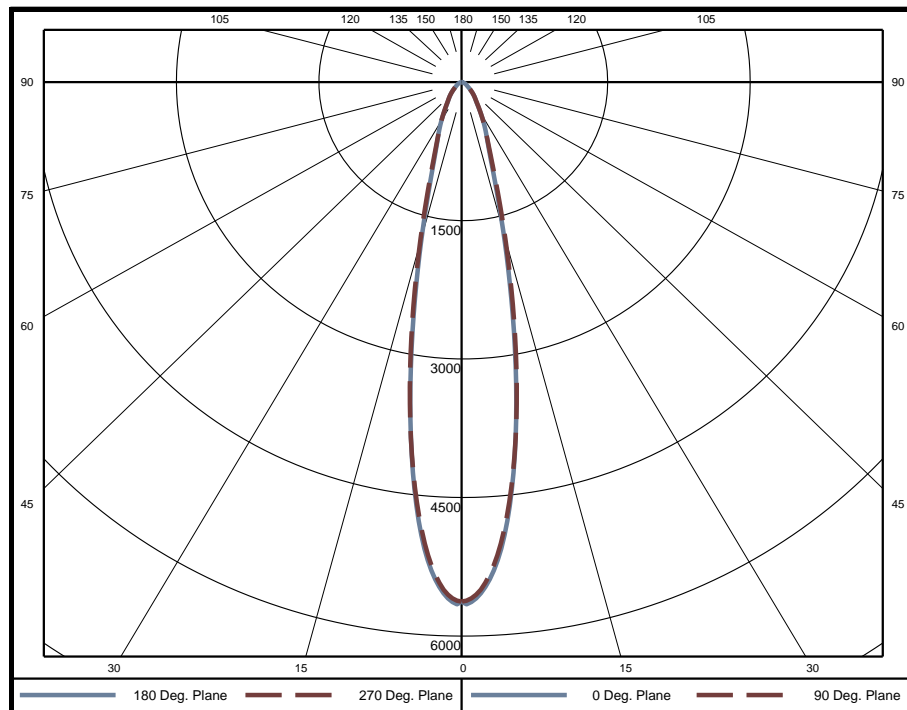
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.1452 A	17.30 W	0.992	60 Hz	10.9 %

### Summary of Results

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

**Total Lumen Output:** 1556 Lumens  
**Luminaire Efficacy:** 90.0 lm/w  
**Maximum Candela:** 5655 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	125.7	8.1%	60-65	21.4	1.4%	120-125	0	0.0%
5-10	282.7	18.2%	65-70	15.2	1.0%	125-130	0	0.0%
10-15	266.5	17.1%	70-75	9.5	0.6%	130-135	0	0.0%
15-20	187.7	12.1%	75-80	4.3	0.3%	135-140	0	0.0%
20-25	146.3	9.4%	80-85	1.8	0.1%	140-145	0	0.0%
25-30	127.1	8.2%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	103.2	6.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	82.1	5.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	66.3	4.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	50.7	3.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	37.4	2.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	28.2	1.8%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1321	84.9%
0-60	1504	96.7%
0-90	1557	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	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626	5626
	5	4927	4889	4879	4877	4874	4877	4879	4889	4927	4889	4879	4877	4874	4877	4889
	10	3118	3102	3128	3154	3164	3154	3128	3102	3118	3102	3128	3154	3164	3154	3128
	15	1545	1548	1582	1618	1627	1618	1582	1548	1545	1548	1582	1618	1627	1618	1582
	20	823	837	863	866	857	866	863	837	823	837	863	866	857	866	863
	25	559	589	622	588	560	588	622	589	559	589	622	588	560	588	622
	30	374	416	481	418	378	418	481	416	374	416	481	418	378	418	416
	35	254	278	340	286	261	286	340	278	254	278	340	286	261	286	340
	40	194	205	234	206	194	206	234	205	194	205	234	206	194	206	234
	45	137	150	165	151	138	151	165	150	137	150	165	151	138	151	165
	50	92	103	113	104	94	104	113	103	92	103	113	104	94	104	113
	55	66	71	76	73	67	73	76	71	66	71	76	73	67	73	76
	60	51	52	51	53	51	53	51	52	51	52	51	53	51	53	51
	65	38	38	35	37	37	37	35	38	38	38	35	37	37	37	35
	70	25	24	22	24	24	24	22	24	25	24	22	24	24	24	22
	75	13	13	12	13	12	13	12	13	13	13	12	13	12	13	12
	80	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	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)

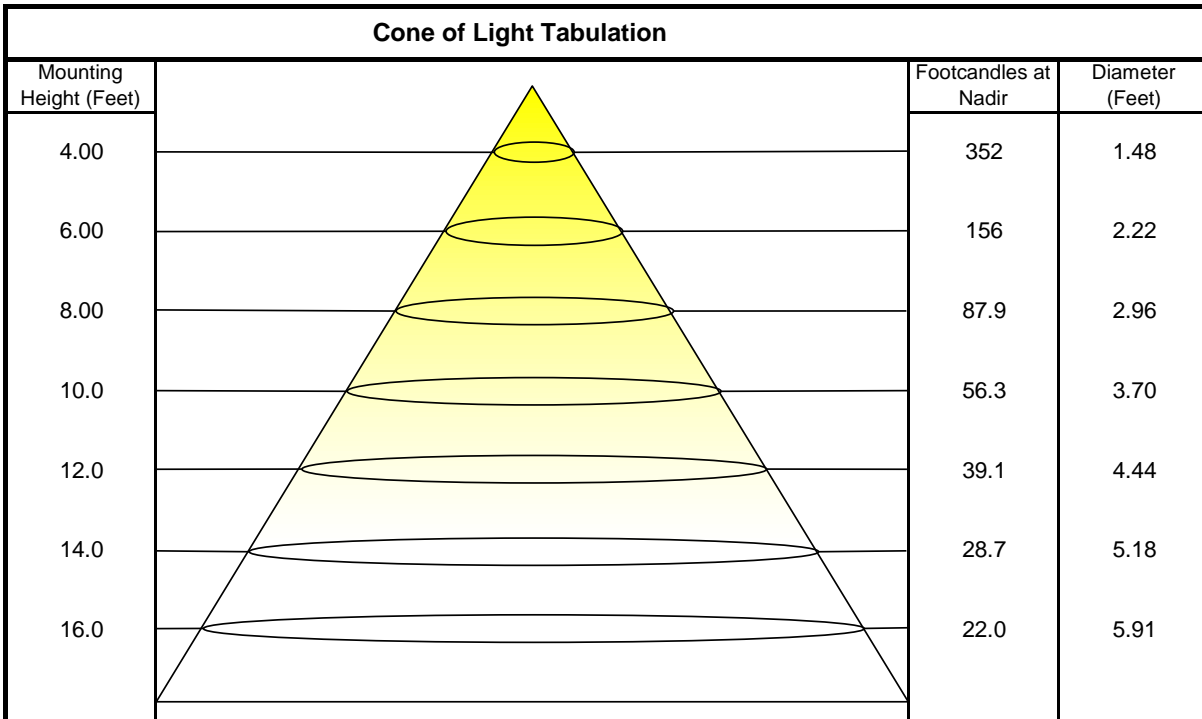
Vertical Angle (Degrees)	0	45	90
	0	1395000	1395000
	45	47910	57930
	55	28410	32730
	65	22200	20280
	75	12410	11610
	85	5706	5747



### 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	114	111	108	106	111	109	106	104	105	103	101	101	100	98	97	96	95	94
2	108	103	99	96	106	102	98	95	98	96	93	95	93	91	93	91	89	87
3	103	97	92	88	101	96	91	88	93	89	86	91	87	85	88	86	84	82
4	98	91	86	82	97	90	85	81	88	84	81	86	82	80	84	81	79	77
5	94	86	81	77	93	85	80	76	84	79	76	82	78	75	80	77	74	73
6	90	82	76	72	89	81	76	72	80	75	72	78	74	71	77	74	71	69
7	87	78	73	69	85	77	72	68	76	72	68	75	71	68	74	70	67	66
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	65	63
9	80	72	66	63	79	71	66	62	70	66	62	69	65	62	69	65	62	61
10	77	69	64	60	76	68	63	60	68	63	60	67	63	60	66	62	60	58

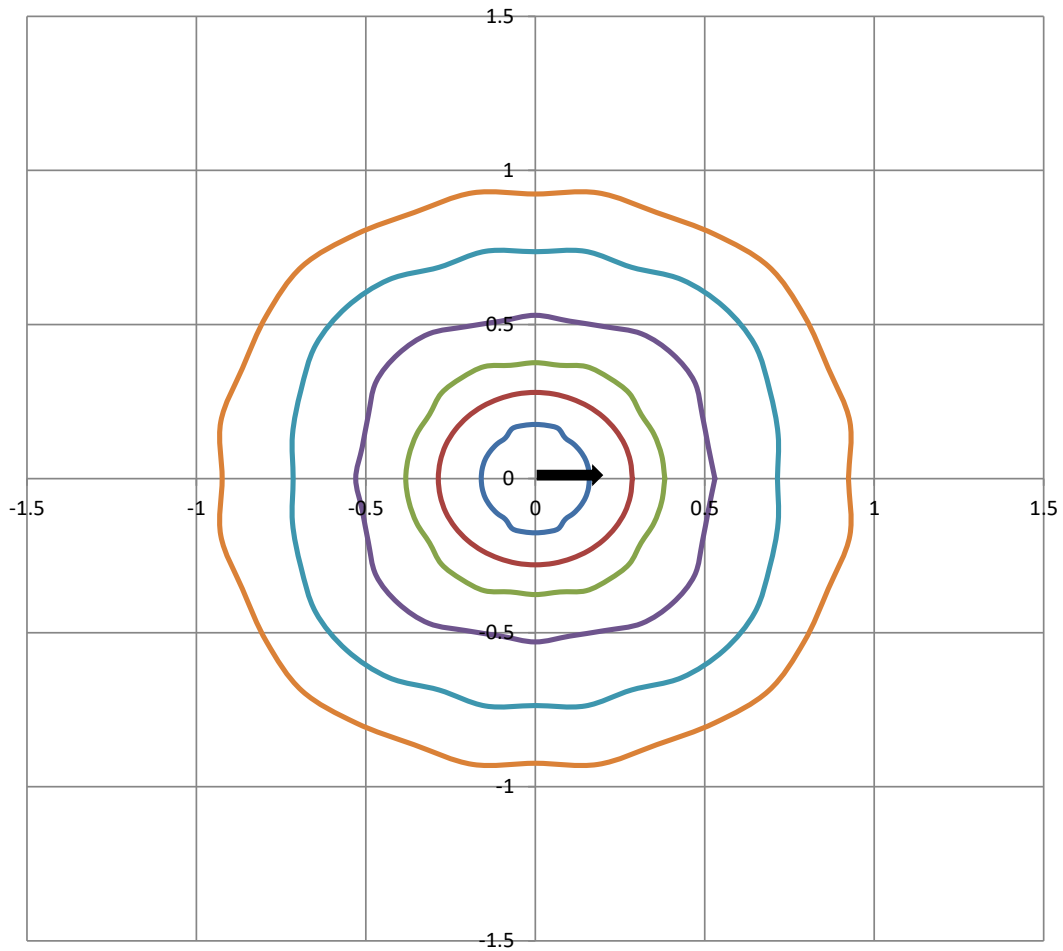
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	5626 Candela
Central Cone Intensity:	5363 Candela
Beam Flux:	458.8 Lumens
Beam Angle (0-180):	21.6 Degrees
Beam Angle (90-270):	22.0 Degrees
Field Angle (0-180):	49.8 Degrees
Field Angle (90-270):	49.9 Degrees





## 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