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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 C82.77-2002

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

**Catalog Number**  
**6DR-L20/835-DIM-UNV-L-N-OF-WH**  
Order Number  
12326812  
Test Number  
12326812.10

Test Date

2018-06-05

Prepared By

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Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
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**Luminaire Description:** Black formed aluminum housing, white reflector, clear plastic optic, clear glass patterned lens enclosure  
**Lamp:** One white LED  
**Mounting:** Recessed  
**Ballast/Driver:** Philips XI025C070V054DSM5

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 5.50 in.

**Summary of Results**

Total Luminaire Output:	1836 Lumens
Luminaire Efficacy:	96.2 lm/w
Maximum Candela:	6867 Candela

**Test Conditions**

Test Temperature:	25.7 °C
Voltage:	120.0 VAC
Current:	0.1600 A
Power:	19.09 W
Power Factor:	0.994
Frequency:	60 Hz
Current THD:	9.69 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

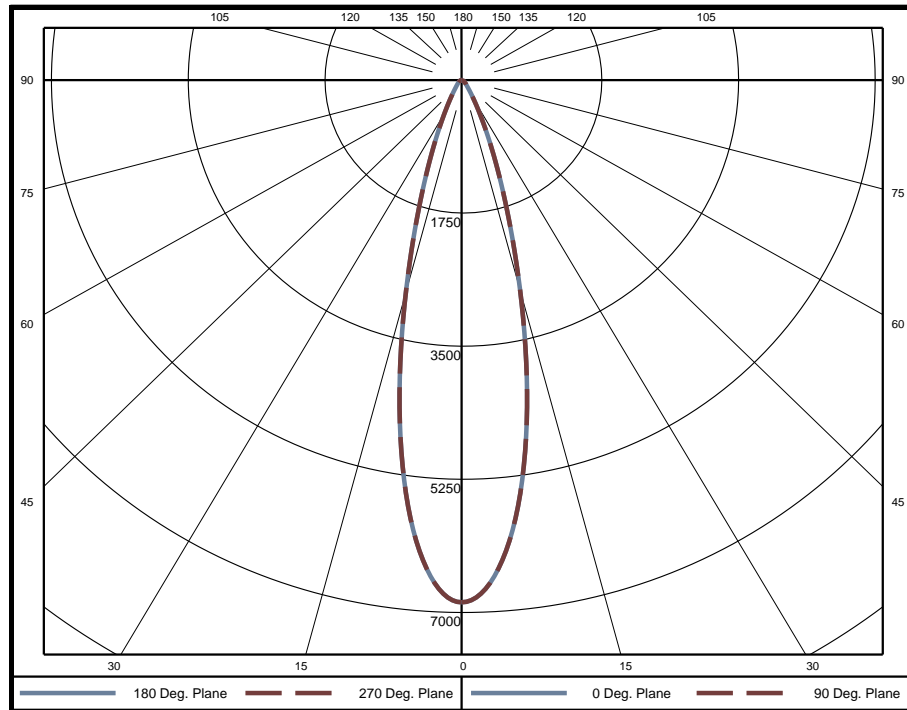
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.1600 A	19.09 W	0.994	60 Hz	9.69 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.44  
 90-270: 0.44

**Total Lumen Output:** 1836 Lumens  
**Luminaire Efficacy:** 96.2 lm/w  
**Maximum Candela:** 6867 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	156.4	8.5%	60-65	14.8	0.8%	120-125	0	0.0%
5-10	383.8	20.9%	65-70	11.6	0.6%	125-130	0	0.0%
10-15	420.1	22.9%	70-75	8.5	0.5%	130-135	0	0.0%
15-20	315.3	17.2%	75-80	5.6	0.3%	135-140	0	0.0%
20-25	196.4	10.7%	80-85	2.9	0.2%	140-145	0	0.0%
25-30	111.7	6.1%	85-90	0.7	0.0%	145-150	0	0.0%
30-35	65.7	3.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	43.3	2.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	32.5	1.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	26.4	1.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	21.9	1.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	18.2	1.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1693	92.2%
0-60	1792	97.6%
0-90	1836	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	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867	6867
	5	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215	6215
	10	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571	4571
	15	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669	2669
	20	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344	1344
	25	634	634	634	634	634	634	634	634	634	634	634	634	634	634	634
	30	304	304	304	304	304	304	304	304	304	304	304	304	304	304	304
	35	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
	40	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
	45	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
	50	57	57	57	57	57	57	57	57	57	57	57	57	57	57	57
	55	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44
	60	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	65	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	70	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	75	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	80	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	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	448000	448000
	45	6900	6900
	55	5045	5045
	65	4101	4101
	75	3339	3339
	85	2204	2204



### 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	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	105	102	99	108	104	101	98	101	98	96	98	96	94	95	93	92	90
3	105	100	96	92	104	99	95	92	96	93	90	94	91	89	92	89	88	86
4	101	95	91	87	100	94	90	87	92	88	86	90	87	85	88	86	84	82
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79
6	94	87	82	79	93	86	82	79	85	81	78	84	80	78	83	80	77	76
7	91	84	79	76	90	83	79	75	82	78	75	81	77	75	80	77	74	73
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	78	74	72	71
9	86	78	73	70	85	78	73	70	77	73	70	76	72	70	75	72	69	68
10	83	75	71	68	82	75	71	68	74	70	68	74	70	67	73	70	67	66

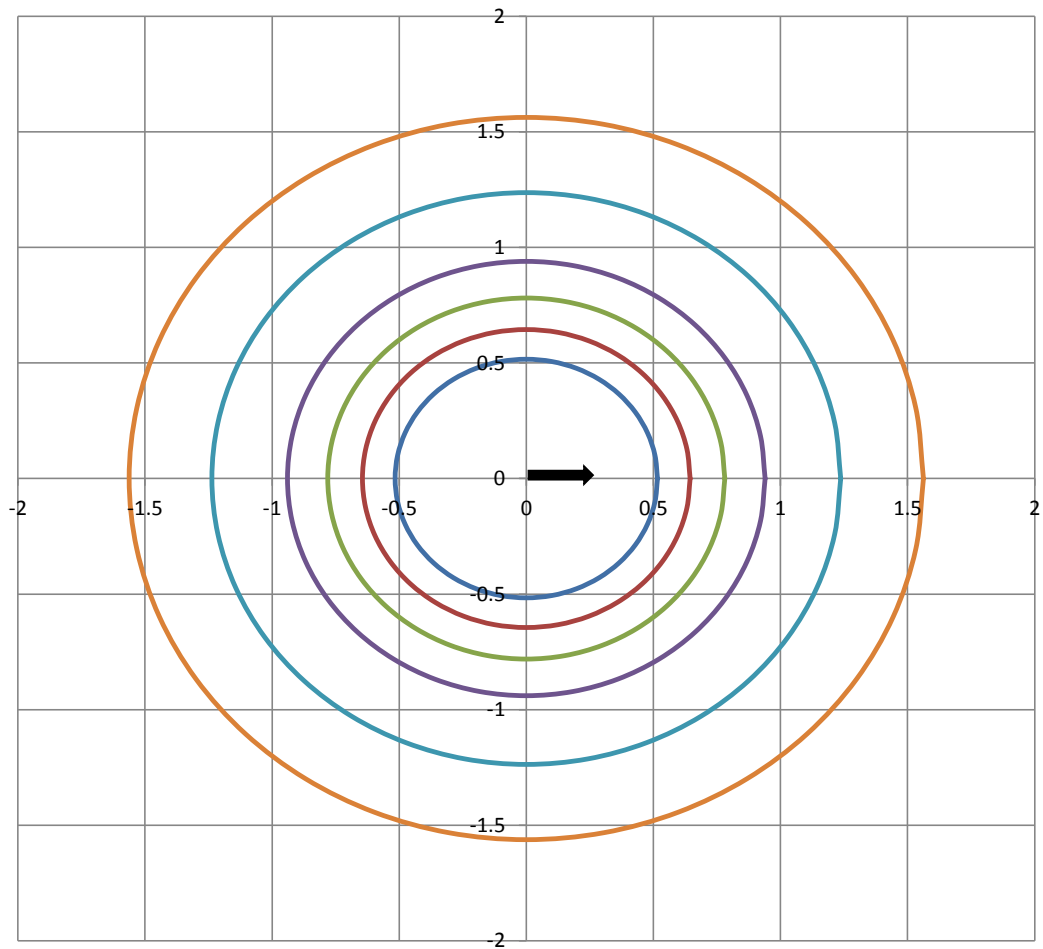
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	6867 Candela
Central Cone Intensity:	6635 Candela
Beam Flux:	795.2 Lumens
Beam Angle (0-180):	25.8 Degrees
Beam Angle (90-270):	25.8 Degrees
Field Angle (0-180):	49.0 Degrees
Field Angle (90-270):	49.0 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		429	1.74
6.00		191	2.61
8.00		107	3.48
10.0		68.7	4.35
12.0		47.7	5.22
14.0		35.0	6.09
16.0		26.8	6.96



## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc    2 fc    1 fc    0.5 fc    0.2 fc    0.1 fc