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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**  
**6PR-L20/835-DIM-UNV-L-W-OF-WH**

Order Number  
12326812  
Test Number  
12326812.29

Test Date

2018-06-08

Prepared By

Josh Mitchell, Technician

Approved By

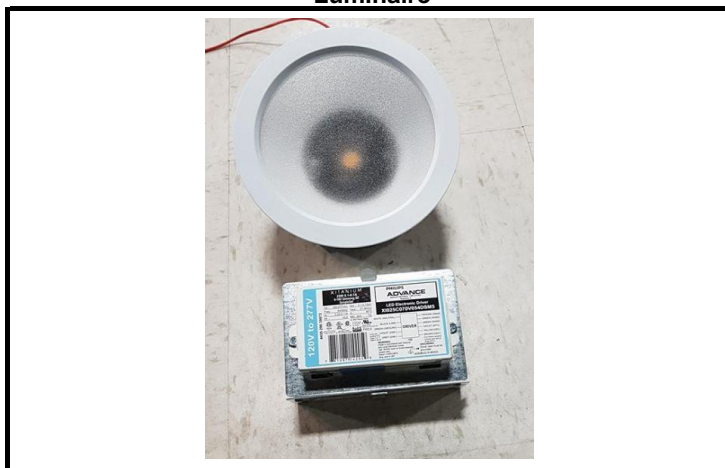
Alexa Lambert, Project Handler

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**Luminaire Description:** Black formed aluminum housing, white reflector, 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:	2208 Lumens
Luminaire Efficacy:	97.3 lm/w
Maximum Candela:	1169 Candela

**Test Conditions**

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.1900 A
Power:	22.70 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	7.96 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

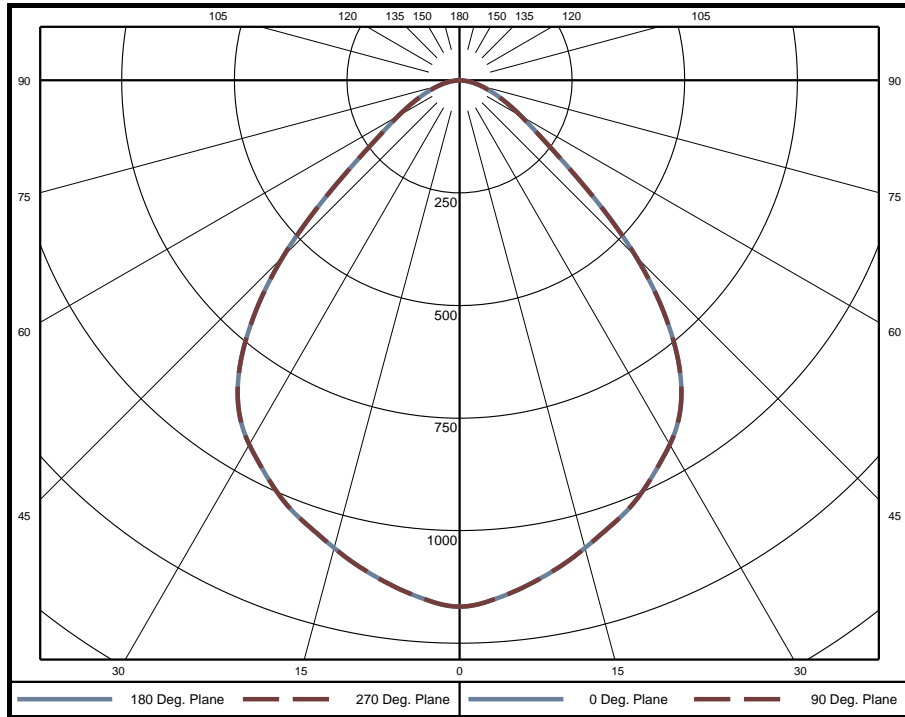
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.0 °C	120.0 VAC	0.1900 A	22.70 W	0.996	60 Hz	7.96 %

### Summary of Results

**Spacing Criteria**  
 0-180: 1.20  
 90-270: 1.20

**Total Lumen Output:** 2208 Lumens  
**Luminaire Efficacy:** 97.3 lm/w  
**Maximum Candela:** 1169 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	27.7	1.3%	60-65	64.4	2.9%	120-125	0	0.0%
5-10	80.9	3.7%	65-70	47.1	2.1%	125-130	0	0.0%
10-15	129.9	5.9%	70-75	33.0	1.5%	130-135	0	0.0%
15-20	173.7	7.9%	75-80	21.3	1.0%	135-140	0	0.0%
20-25	212.4	9.6%	80-85	11.1	0.5%	140-145	0	0.0%
25-30	243.1	11.0%	85-90	2.8	0.1%	145-150	0	0.0%
30-35	265.0	12.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	266.5	12.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	239.0	10.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	182.7	8.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	121.6	5.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	86.0	3.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1399	63.4%
0-60	2029	91.9%
0-90	2208	100.0%
90-180	0	0.0%



### Candela Tabulation

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169	1169
5	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148	1148
10	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115	1115
15	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075	1075
20	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035	1035
25	989	989	989	989	989	989	989	989	989	989	989	989	989	989	989	989
30	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934	934
35	859	859	859	859	859	859	859	859	859	859	859	859	859	859	859	859
40	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731	731
45	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556
50	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354	354
55	223	223	223	223	223	223	223	223	223	223	223	223	223	223	223	223
60	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156
65	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
70	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
75	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51
80	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
85	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
95	0	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	0
105	0	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	0
115	0	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	0
125	0	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	0
135	0	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	0
145	0	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	0
155	0	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	0
165	0	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	0
175	0	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	0

### Average Luminance (cd/m<sup>2</sup>)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	76240	76240	76240
45	51280	51280	51280
55	25320	25320	25320
65	17150	17150	17150
75	12760	12760	12760
85	8832	8832	8832



### 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	98	96	97	95	93	94	92	91	89
2	103	96	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	96	87	80	75	93	85	79	74	83	77	73	80	75	72	78	74	70	69
4	89	79	71	66	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	82	71	64	58	81	70	63	58	68	62	57	67	61	57	65	60	56	54
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50	49
7	72	60	52	47	70	59	52	46	58	51	46	56	50	46	55	50	46	44
8	67	55	47	42	66	54	47	42	53	47	42	52	46	42	51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33

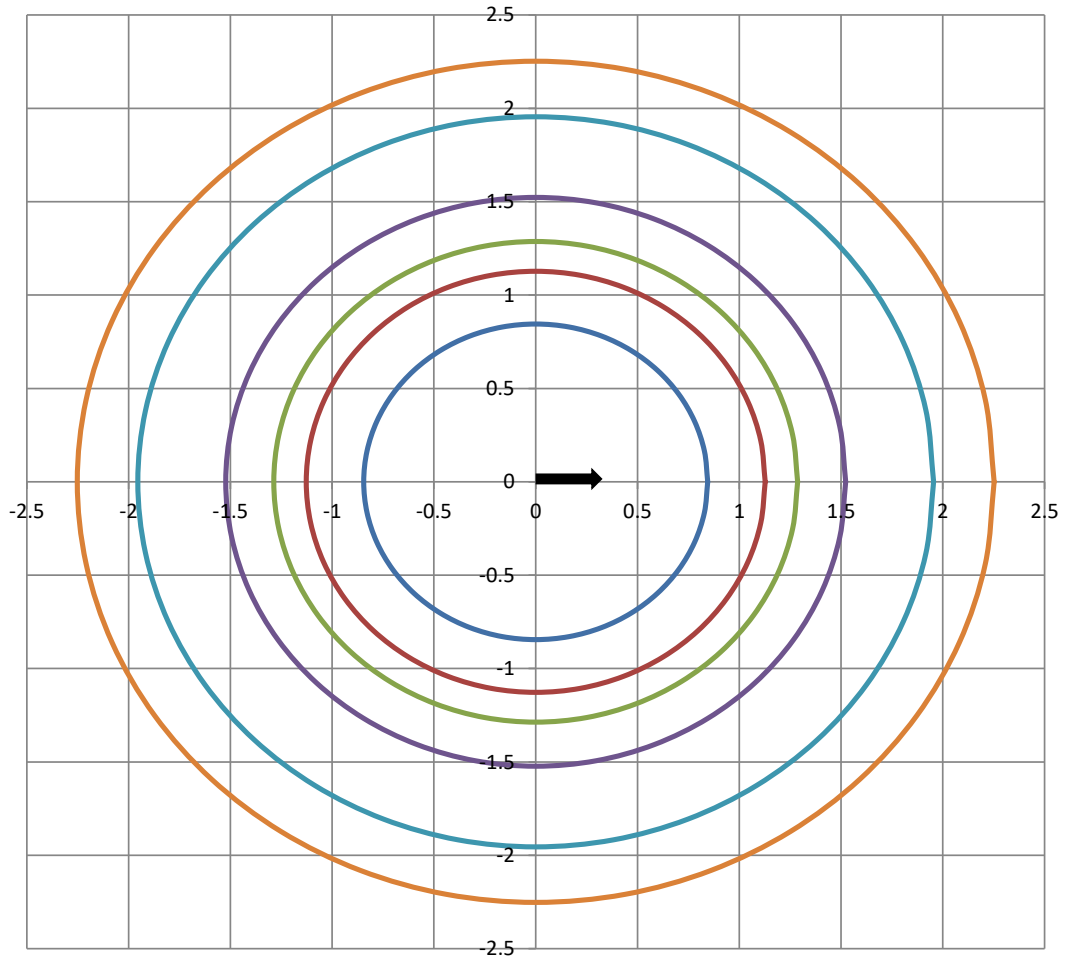
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1169 Candela
Central Cone Intensity:	1161 Candela
Beam Flux:	1605.1 Lumens
Beam Angle (0-180):	88.5 Degrees
Beam Angle (90-270):	88.5 Degrees
Field Angle (0-180):	128.6 Degrees
Field Angle (90-270):	128.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		73.0	4.78
6.00		32.5	7.17
8.00		18.3	9.56
10.0		11.7	12.0
12.0		8.12	14.3
14.0		5.96	16.7
16.0		4.57	19.1



## ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

