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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-L25/835-DIM-UNV-OM-OF-CS-AD-x-xx**  
Order Number  
13131414  
Test Number  
13131414.07

Test Date

2019-11-26

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:** Aluminum housing and reflector, frosted lens enclosure  
**Lamp:** One white LED  
**Mounting:** Recessed  
**Ballast/Driver:** Philips Advance XI036C100V054DSM1

#### Luminaire



#### Luminaire Characteristics

Luminous Diameter: 2.50 in.

#### Summary of Results

Total Luminaire Output:	1610 Lumens
Luminaire Efficacy:	53.6 lm/w
Maximum Candela:	3512 Candela

#### Test Conditions

Test Temperature:	24.4 °C
Voltage:	120.0 VAC
Current:	0.2511 A
Power:	30.03 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.68 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

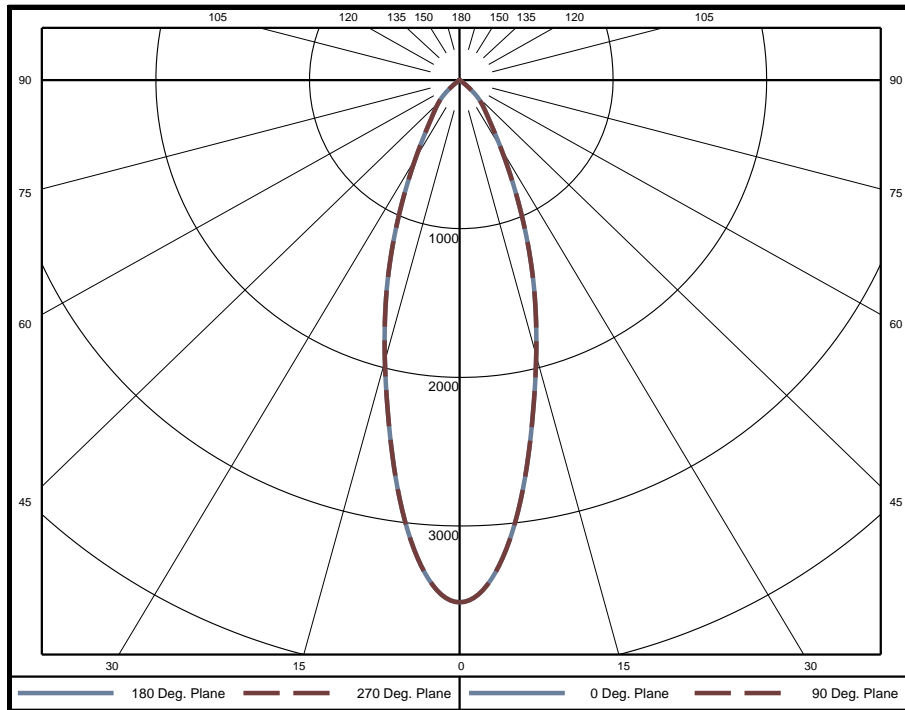
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.2511 A	30.03 W	0.996	60 Hz	6.68 %

### Summary of Results

**Spacing Criteria**  
0-180: 0.53  
90-270: 0.53

**Total Lumen Output:** 1610 Lumens  
**Luminaire Efficacy:** 53.6 lm/w  
**Maximum Candela:** 3512 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	80.5	5.0%	60-65	1.5	0.1%	120-125	0	0.0%
5-10	205.9	12.8%	65-70	0.8	0.0%	125-130	0	0.0%
10-15	262.7	16.3%	70-75	0.4	0.0%	130-135	0	0.0%
15-20	269.9	16.8%	75-80	0.2	0.0%	135-140	0	0.0%
20-25	236.5	14.7%	80-85	0.1	0.0%	140-145	0	0.0%
25-30	179.3	11.1%	85-90	0.0	0.0%	145-150	0	0.0%
30-35	128.5	8.0%	90-95	0	0.0%	150-155	0	0.0%
35-40	97.4	6.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	77.3	4.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	49.7	3.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	15.9	1.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.2	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1461	90.7%
0-60	1607	99.8%
0-90	1610	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	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512	3512
	5	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224	3224
	10	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571	2571
	15	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924	1924
	20	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385
	25	902	902	902	902	902	902	902	902	902	902	902	902	902	902	902
	30	551	551	551	551	551	551	551	551	551	551	551	551	551	551	551
	35	349	349	349	349	349	349	349	349	349	349	349	349	349	349	349
	40	247	247	247	247	247	247	247	247	247	247	247	247	247	247	247
	45	171	171	171	171	171	171	171	171	171	171	171	171	171	171	171
	50	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
	55	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	60	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	65	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	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)

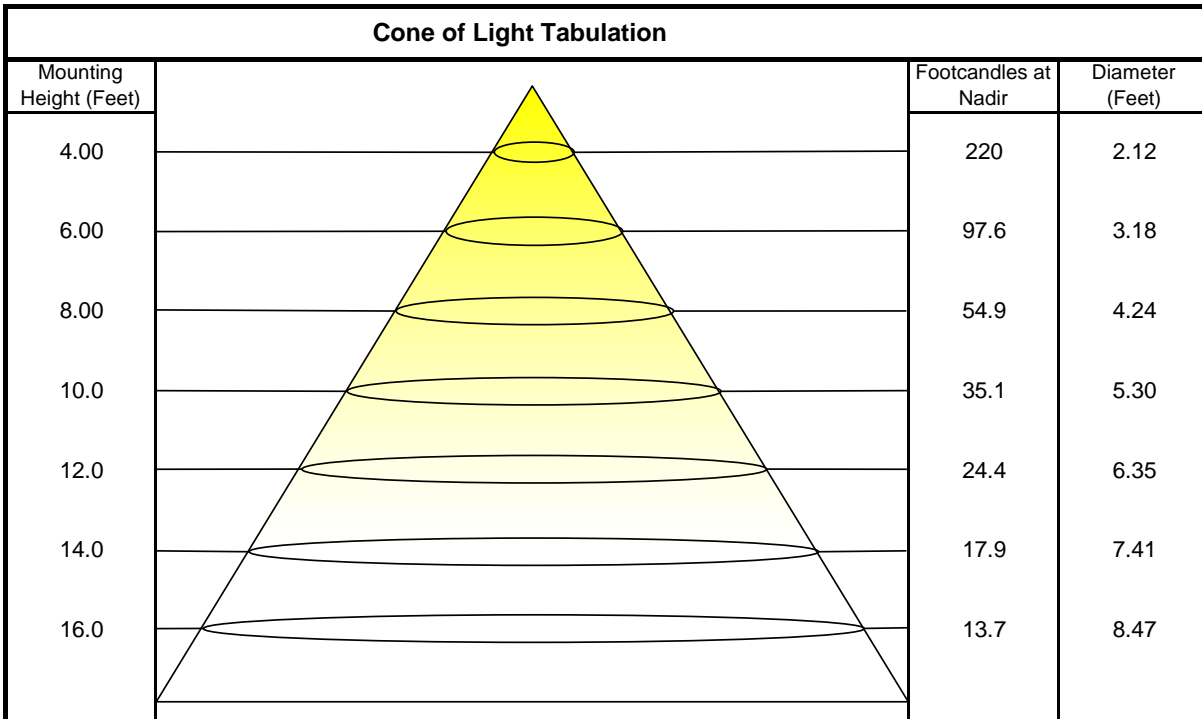
Vertical Angle (Degrees)	0	45	90
	0	1109000	1109000
	45	76300	76300
	55	6576	6576
	65	1572	1572
	75	660	660
	85	304	304



### 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	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	100	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	93	90	102	96	92	89	94	90	87	91	89	86	89	87	85	83
4	99	92	87	83	97	91	86	83	89	85	82	87	83	81	85	82	80	78
5	95	87	82	78	93	86	81	77	84	80	77	83	79	76	81	78	75	74
6	90	82	77	73	89	81	76	73	80	75	72	79	75	72	77	74	71	70
7	87	78	72	69	85	77	72	68	76	71	68	75	71	68	74	70	67	66
8	83	74	69	65	82	74	68	65	73	68	64	72	67	64	71	67	64	63
9	79	71	65	62	78	70	65	61	69	65	61	68	64	61	68	64	61	60
10	76	67	62	59	75	67	62	58	66	62	58	65	61	58	65	61	58	57

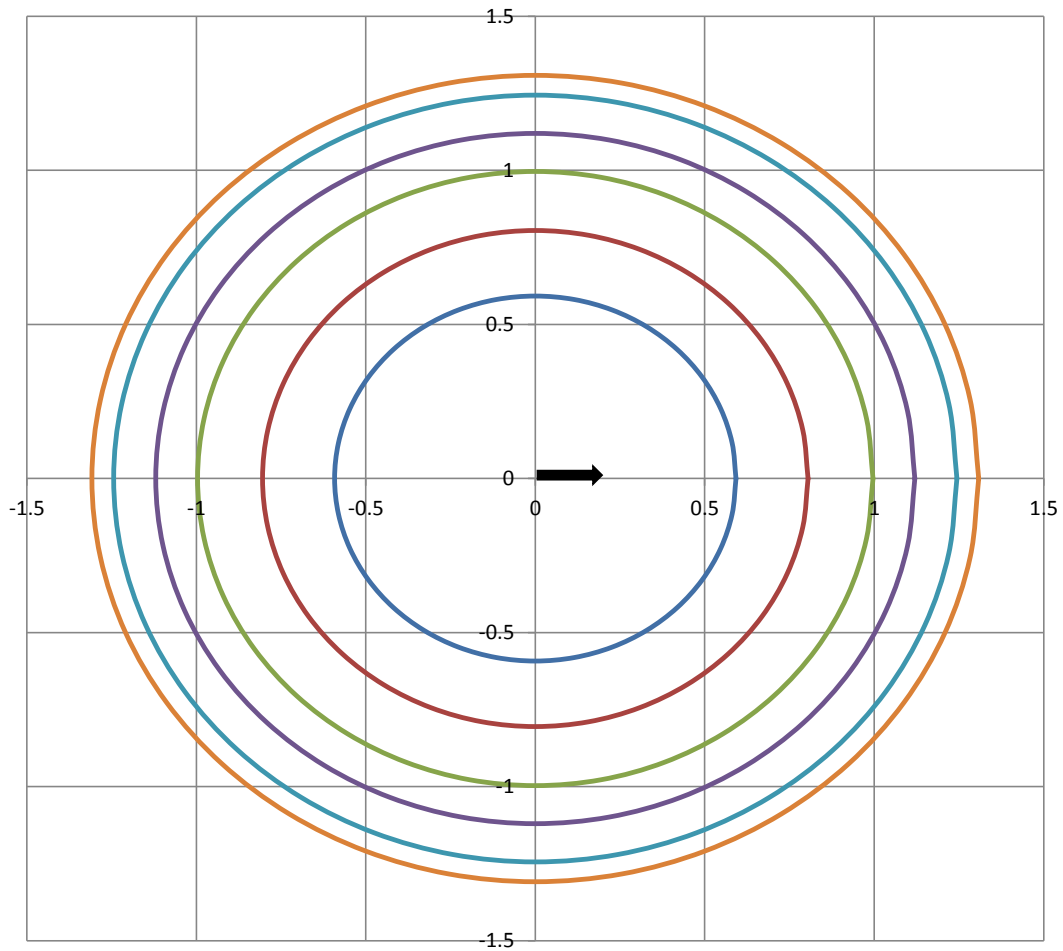
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3512 Candela
Central Cone Intensity:	3409 Candela
Beam Flux:	628.2 Lumens
Beam Angle (0-180):	33.0 Degrees
Beam Angle (90-270):	33.0 Degrees
Field Angle (0-180):	69.8 Degrees
Field Angle (90-270):	69.8 Degrees





## 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