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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-O-M-OF-CS**

Order Number  
12326812  
Test Number  
12326812.04

Test Date

2018-05-01

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, specular reflector, no lens enclosure  
**Lamp:** One white LED  
**Mounting:** Recessed  
**Ballast/Driver:** Philips XI025C070V054DSM5

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 6.00 in.

**Summary of Results**

Total Luminaire Output:	1983 Lumens
Luminaire Efficacy:	103.8 lm/w
Maximum Candela:	4077 Candela

**Test Conditions**

Test Temperature:	25.5 °C
Voltage:	120.1 VAC
Current:	0.1601 A
Power:	19.11 W
Power Factor:	0.994
Frequency:	60 Hz
Current THD:	9.67 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

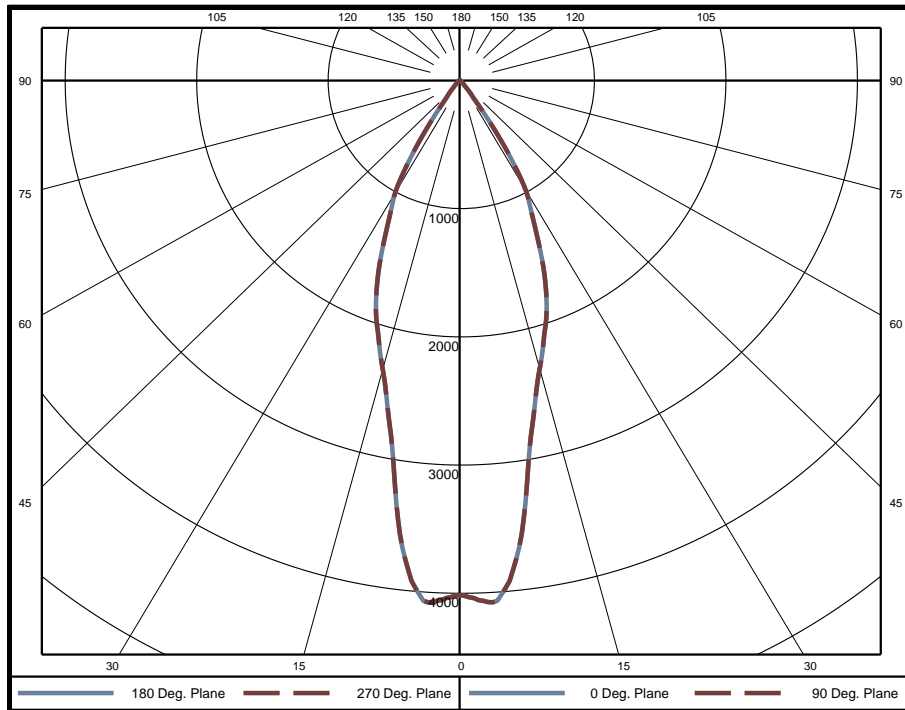
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.5 °C	120.1 VAC	0.1601 A	19.11 W	0.994	60 Hz	9.67 %

### Summary of Results

**Spacing Criteria**  
0-180: 0.57  
90-270: 0.57

**Total Lumen Output:** 1983 Lumens  
**Luminaire Efficacy:** 103.8 lm/w  
**Maximum Candela:** 4077 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	96.8	4.9%	60-65	2.6	0.1%	120-125	0	0.0%
5-10	249.3	12.6%	65-70	1.5	0.1%	125-130	0	0.0%
10-15	308.1	15.5%	70-75	0.8	0.0%	130-135	0	0.0%
15-20	346.8	17.5%	75-80	0.4	0.0%	135-140	0	0.0%
20-25	348.7	17.6%	80-85	0.2	0.0%	140-145	0	0.0%
25-30	299.7	15.1%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	206.4	10.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	67.7	3.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	26.1	1.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	14.5	0.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	8.5	0.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	4.7	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1924	97.0%
0-60	1977	99.7%
0-90	1983	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	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013	4013
	5	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972
	10	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993	2993
	15	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325	2325
	20	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912	1912
	25	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412	1412
	30	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003	1003
	35	396	396	396	396	396	396	396	396	396	396	396	396	396	396	396
	40	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
	45	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
	50	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	55	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
	60	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	65	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	80	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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)

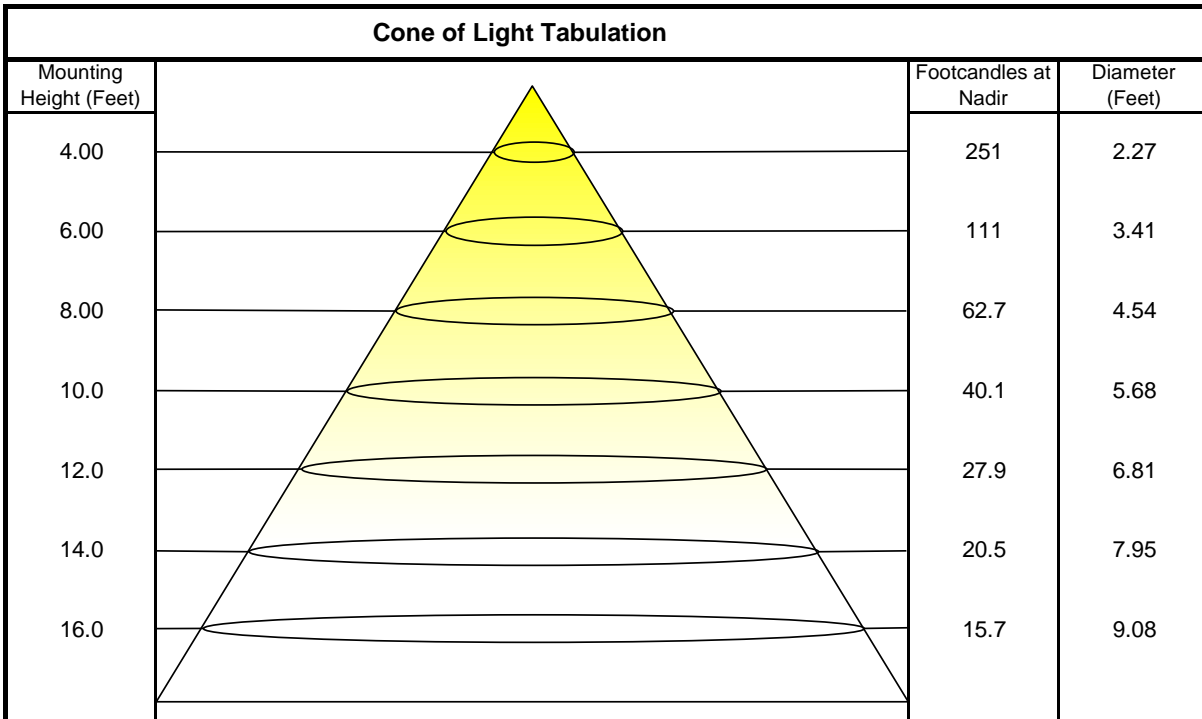
Vertical Angle (Degrees)	0	45	90
	0	220000	220000
	45	3584	3584
	55	1323	1323
	65	515	515
	75	240	240
	85	170	170



### 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	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	99	94	91	103	97	93	90	95	91	89	92	90	87	90	88	86	84
4	100	93	88	84	98	92	88	84	90	86	83	88	85	82	86	83	81	80
5	96	88	83	79	94	87	82	79	86	81	78	84	80	77	82	79	77	75
6	92	84	78	75	90	83	78	74	81	77	74	80	76	73	79	75	73	72
7	88	80	74	70	87	79	74	70	78	73	70	77	73	70	75	72	69	68
8	84	76	70	67	83	75	70	67	74	70	66	73	69	66	72	69	66	65
9	81	72	67	63	80	72	67	63	71	66	63	70	66	63	69	65	63	62
10	78	69	64	60	77	69	64	60	68	63	60	67	63	60	66	63	60	59

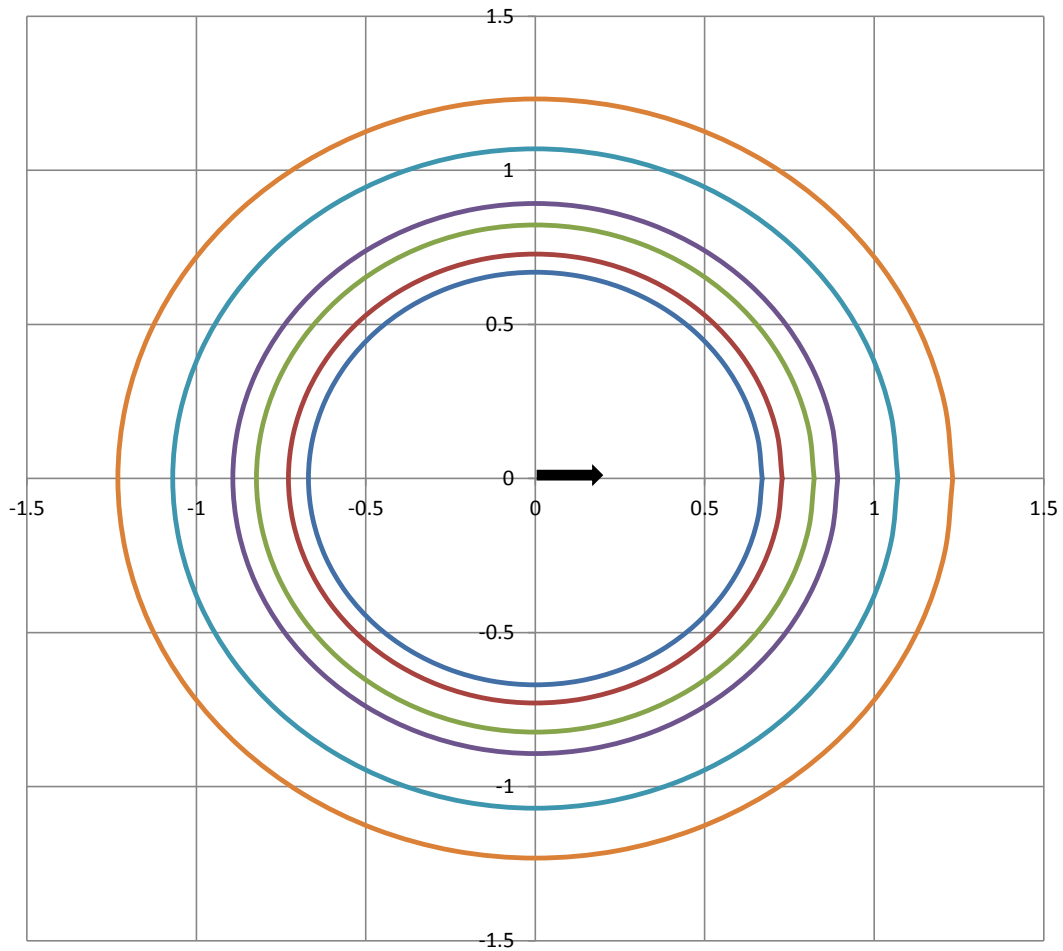
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	4013 Candela
Central Cone Intensity:	4039 Candela
Beam Flux:	918.6 Lumens
Beam Angle (0-180):	37.6 Degrees
Beam Angle (90-270):	37.6 Degrees
Field Angle (0-180):	69.9 Degrees
Field Angle (90-270):	69.9 Degrees





## 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