



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
610-774-1300



## 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-L40/835-DIM-UNV-O-M-OF-CS**  
Order Number  
12326812  
Test Number  
12326812.22

Test Date

2018-06-07

Prepared By

Cordaryl Cousar, Technician

Approved By

Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.  
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.  
This report must not be used by the client to claim product certification, approval, or endorsement by  
NVLAP, NIST, or any agency of the Federal Government.



**Luminaire Description:** Black formed aluminum housing, specular reflector, no lens enclosure  
**Lamp:** One white LED  
**Mounting:** Recessed  
**Ballast/Driver:** Philips XI036C100V054DSM5

**Luminaire**



**Luminaire Characteristics**

Luminous Diameter: 6.00 in.

**Summary of Results**

Total Luminaire Output:	4016 Lumens
Luminaire Efficacy:	110.4 lm/w
Maximum Candela:	8010 Candela

**Test Conditions**

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.3040 A
Power:	36.39 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	5.42 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

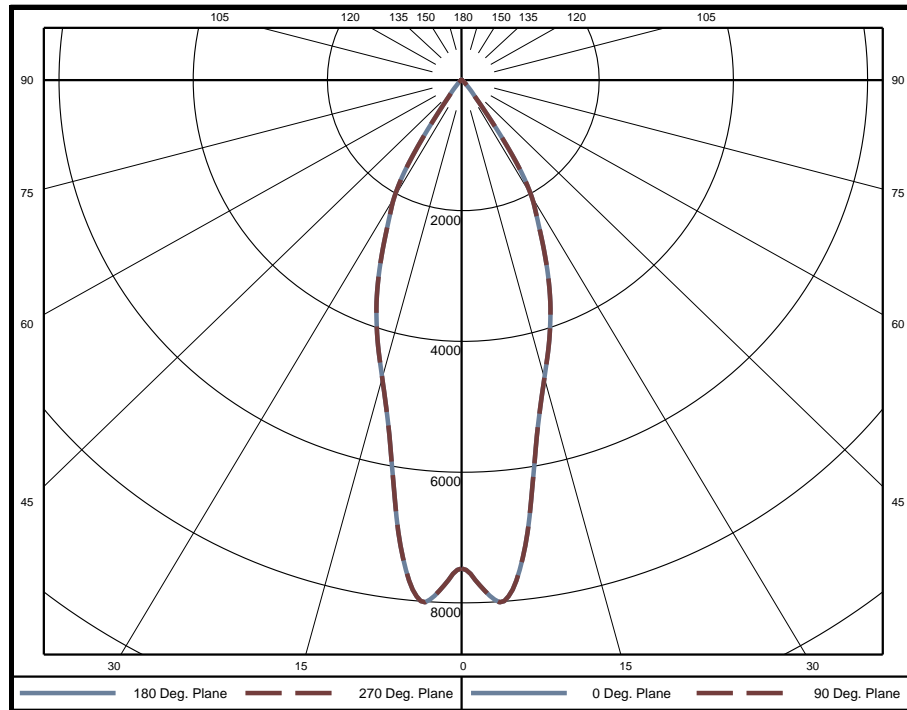
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.2 °C	120.0 VAC	0.3040 A	36.39 W	0.997	60 Hz	5.42 %

### Summary of Results

**Spacing Criteria**  
 0-180: 0.62  
 90-270: 0.62

**Total Lumen Output:** 4016 Lumens  
**Luminaire Efficacy:** 110.4 lm/w  
**Maximum Candela:** 8010 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	188.7	4.7%	60-65	5.5	0.1%	120-125	0	0.0%
5-10	502.5	12.5%	65-70	3.2	0.1%	125-130	0	0.0%
10-15	625.1	15.6%	70-75	1.9	0.0%	130-135	0	0.0%
15-20	699.1	17.4%	75-80	1.1	0.0%	135-140	0	0.0%
20-25	699.4	17.4%	80-85	0.6	0.0%	140-145	0	0.0%
25-30	614.8	15.3%	85-90	0.4	0.0%	145-150	0	0.0%
30-35	430.4	10.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	133.2	3.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	54.4	1.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	29.2	0.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	17.2	0.4%	110-115	0	0.0%	170-175	0	0.0%
55-60	9.6	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	3893	96.9%
0-60	4004	99.7%
0-90	4016	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	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474	7474
	5	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929	7929
	10	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099	6099
	15	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709	4709
	20	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820	3820
	25	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866	2866
	30	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061	2061
	35	777	777	777	777	777	777	777	777	777	777	777	777	777	777	777
	40	229	229	229	229	229	229	229	229	229	229	229	229	229	229	229
	45	94	94	94	94	94	94	94	94	94	94	94	94	94	94	94
	50	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54
	55	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	60	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	65	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	90	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
	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)

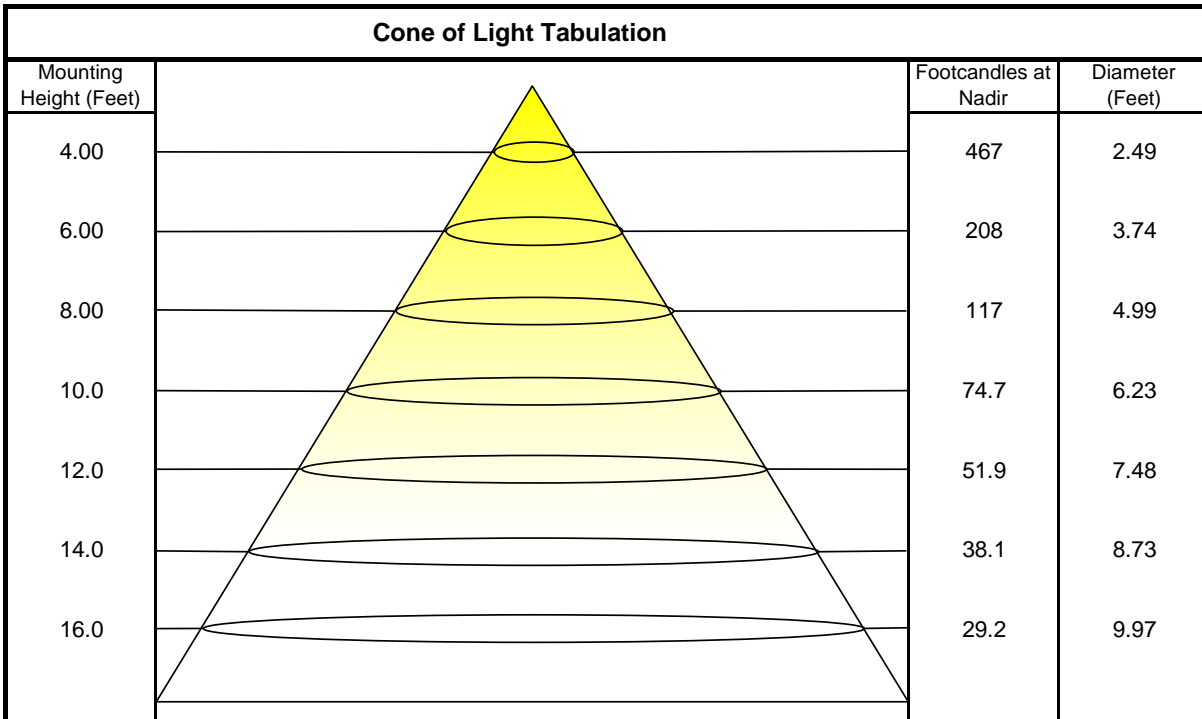
Vertical Angle (Degrees)	0	45	90
	0	409700	409700
	45	7252	7252
	55	2675	2675
	65	1066	1066
	75	583	583
	85	554	554



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

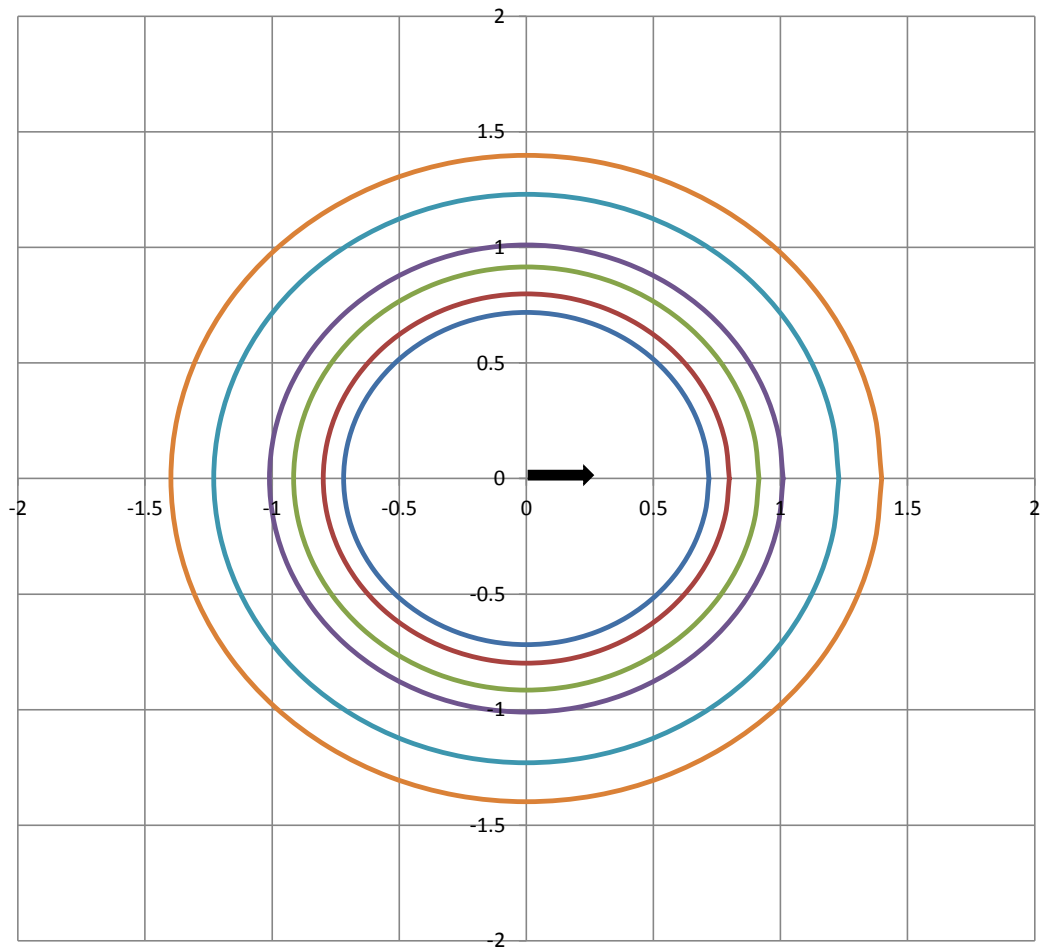
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	7474 Candela
Central Cone Intensity:	7776 Candela
Beam Flux:	2079.3 Lumens
Beam Angle (0-180):	40.9 Degrees
Beam Angle (90-270):	40.9 Degrees
Field Angle (0-180):	70.2 Degrees
Field Angle (90-270):	70.2 Degrees





## 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