



UL Verification Services Inc.
7036 Snowdrift Road
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-OW-OF-CS-AD-x-xx
Order Number
13131414
Test Number
13131414.03

Test Date

2019-11-25

Prepared By

Javier Caban, Technician

Approved By

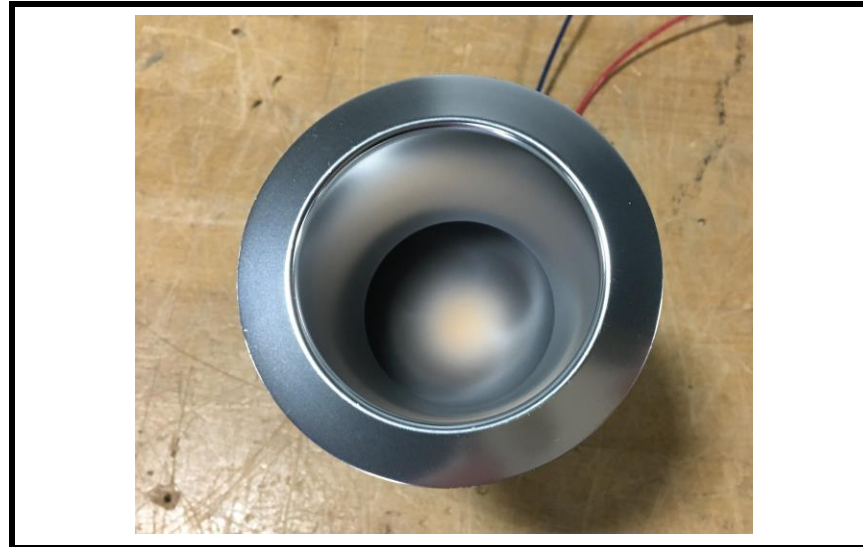
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Aluminum housing and reflector, frosted plastic 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:	1632 Lumens
Luminaire Efficacy:	54.3 lm/w
Maximum Candela:	998 Candela

Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.2514 A
Power:	30.06 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.69 %

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
25.1 °C	120.0 VAC	0.2514 A	30.06 W	0.996	60 Hz	6.69 %

Summary of Results

Spacing Criteria

0-180: 1.20

90-270: 1.20

Total Lumen Output:

1632 Lumens

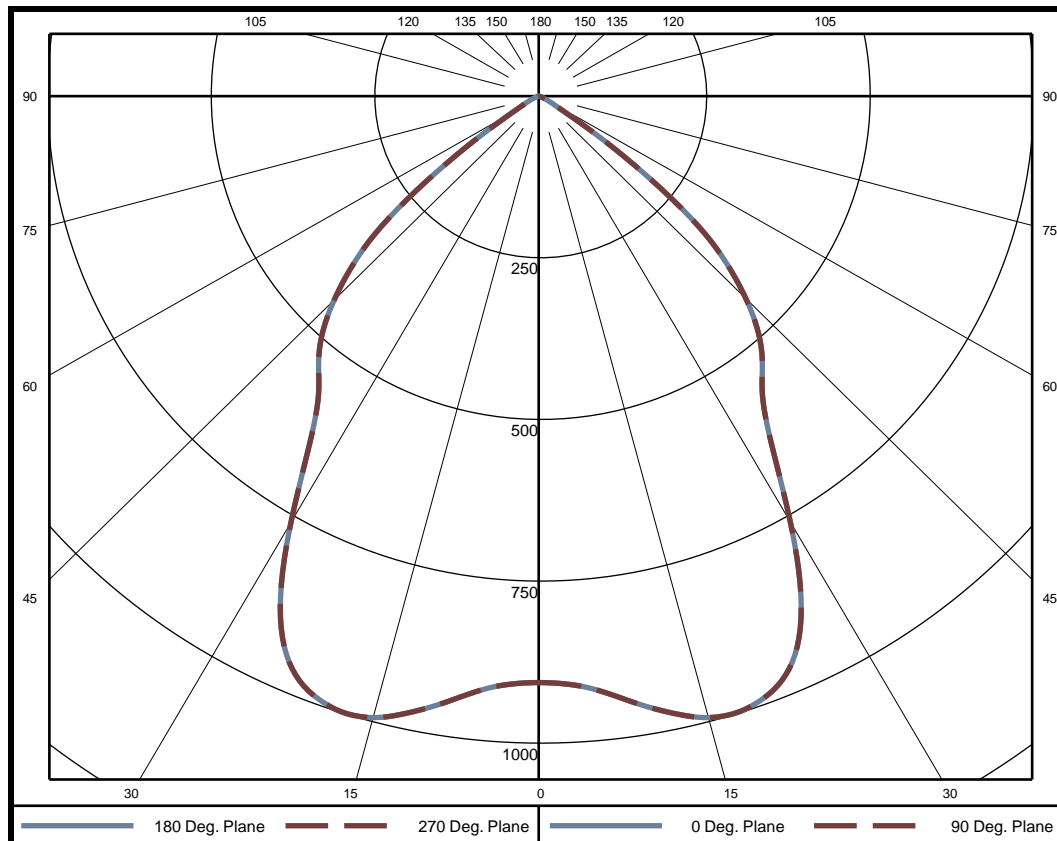
Luminaire Efficacy:

54.3 lm/w

Maximum Candela:

998 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	21.8	1.3%	60-65	9.3	0.6%	120-125	0	0.0%
5-10	67.3	4.1%	65-70	4.2	0.3%	125-130	0	0.0%
10-15	116.2	7.1%	70-75	1.8	0.1%	130-135	0	0.0%
15-20	164.1	10.1%	75-80	0.7	0.0%	135-140	0	0.0%
20-25	202.1	12.4%	80-85	0.3	0.0%	140-145	0	0.0%
25-30	213.4	13.1%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	194.3	11.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	184.0	11.3%	95-100	0	0.0%	155-160	0	0.0%
40-45	178.5	10.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	153.2	9.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	93.4	5.7%	110-115	0	0.0%	170-175	0	0.0%
55-60	27.5	1.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1163	71.3%
0-60	1616	99.0%
0-90	1632	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	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3	906.3
	5	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3	919.3
	10	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4	959.4
	15	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3	994.3
	20	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4	989.4
	25	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7	923.7
	30	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9	751.9
	35	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2	589.2
	40	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0	521.0
	45	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9	436.9
	50	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7	312.7
	55	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6	120.6
	60	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
	65	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
	70	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
	75	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
	80	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	85	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	90	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

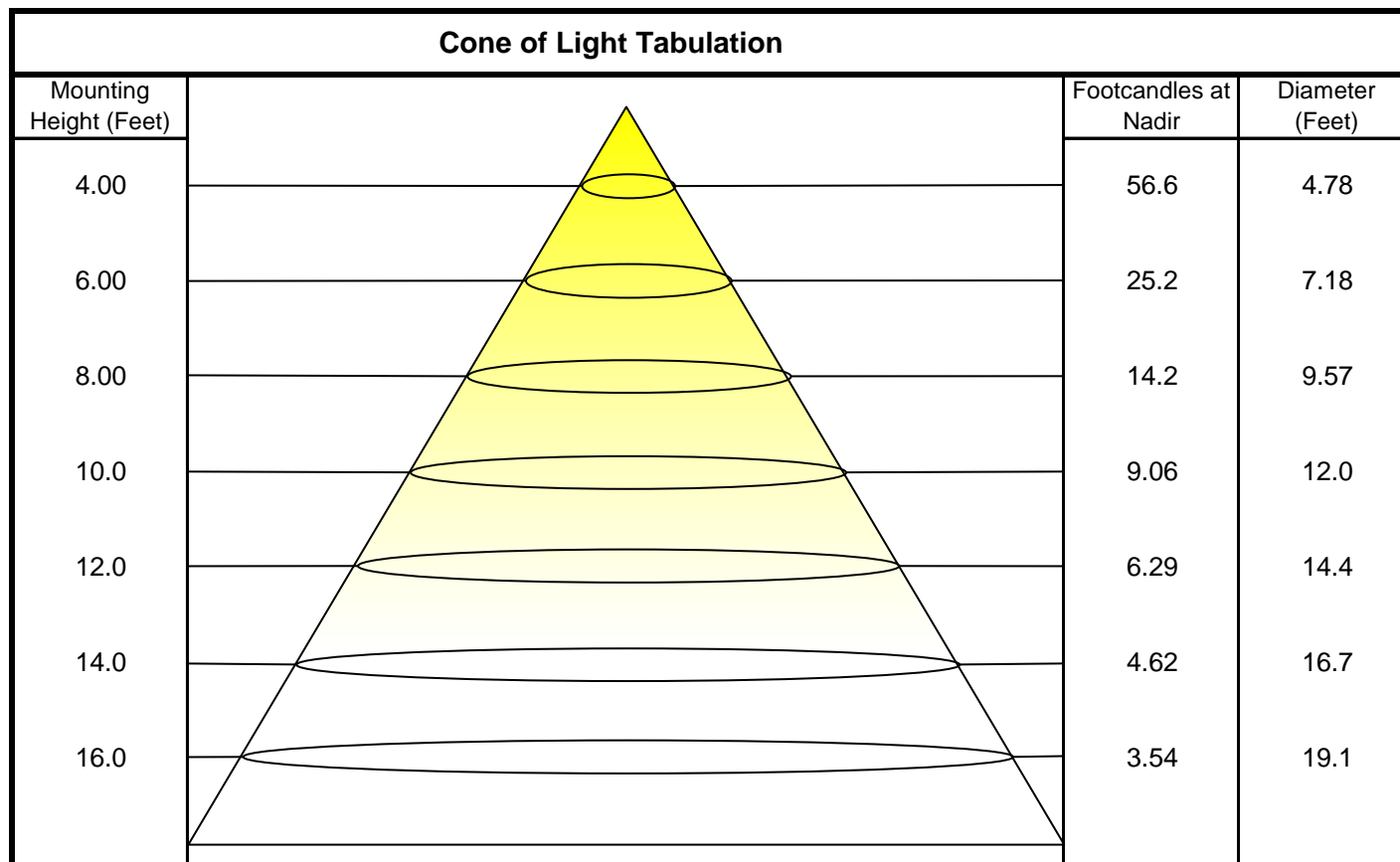
Vertical Angle (Degrees)	Horizontal Angle (deg/sec)			
	0	45	90	
	0	286200	286200	286200
	45	195100	195100	195100
	55	66380	66380	66380
	65	9235	9235	9235
	75	2652	2652	2652
	85	845	845	845



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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	100	95	91	103	98	93	90	94	91	88	91	88	86	89	86	84	82
3	99	91	85	80	96	89	84	79	87	82	78	84	80	77	82	78	76	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45
9	67	55	48	43	65	55	48	43	54	47	43	53	47	43	52	47	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	39	38

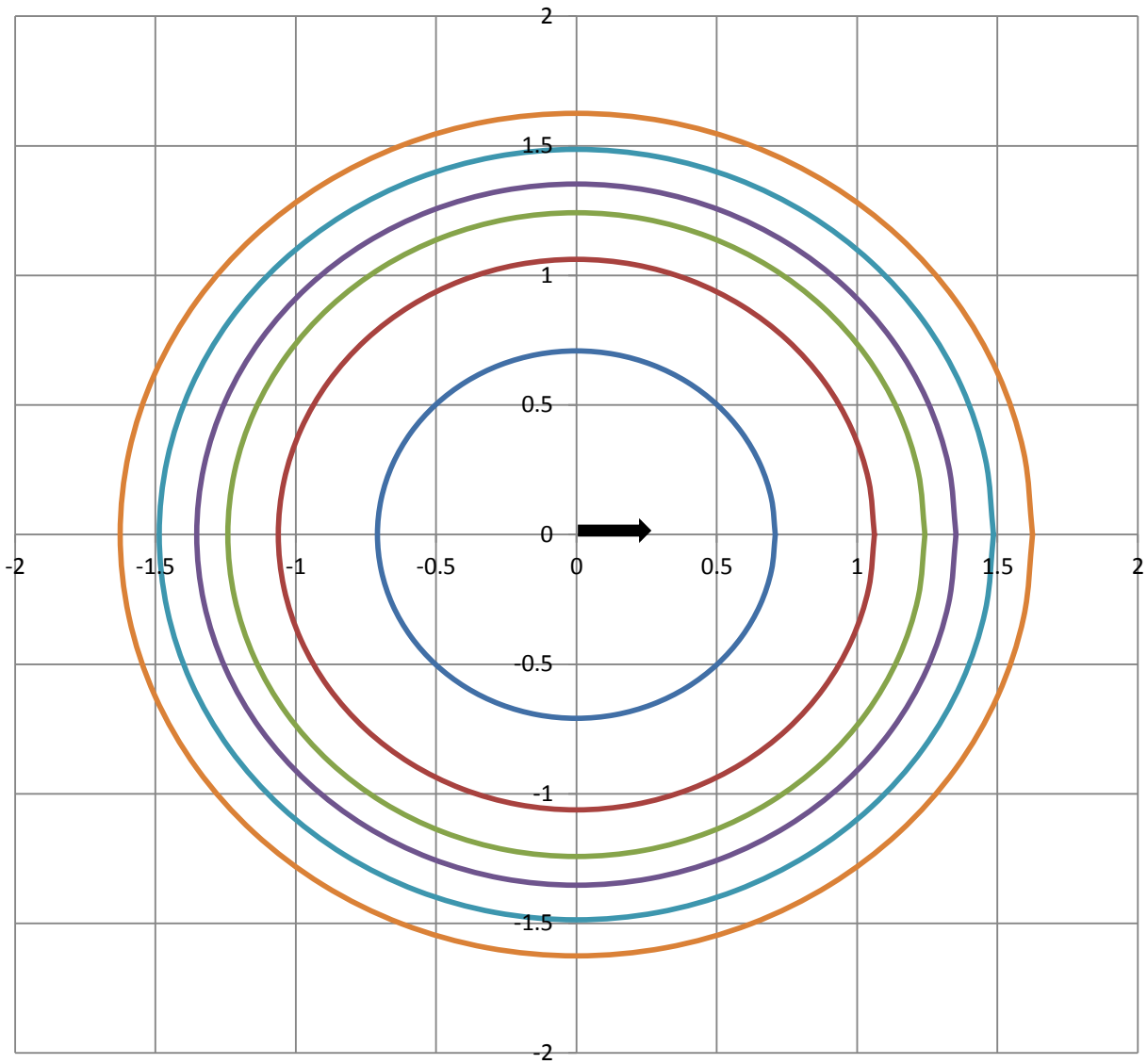
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	906.3 Candela
Central Cone Intensity:	911 Candela
Beam Flux:	1312.4 Lumens
Beam Angle (0-180):	88.4 Degrees
Beam Angle (90-270):	88.4 Degrees
Field Angle (0-180):	111.8 Degrees
Field Angle (90-270):	111.8 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

