



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



Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014

Prepared For
H E Williams Inc
831 W Fairview Ave
PO Box 837
Carthage, MO 64836-0837
United States

Catalog Number
2AR-L12/835-DIM-UNV-RM-OF-WH-x-xx (0° TILT)
Order Number
13257190
Test Number
13257190.13

Test Date

2020-03-17

Prepared By

Jesse Litchfield, Technician

Approved By

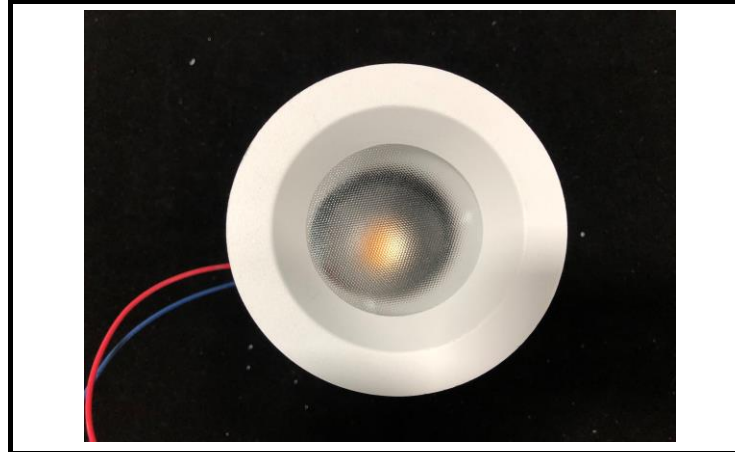
Alexa Lambert, Project Handler

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: Aluminum housing, optics, and trim enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: One Philips Advance XI025C070V054DSM1 Driver

Luminaire



Luminaire Characteristics
Luminous Diameter: 2.50 in.

Summary of Results

Total Luminaire Output:	685.1 Lumens
Luminaire Efficacy:	32.7 lm/w
Maximum Candela:	6041 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.1753 A
Power:	20.92 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.86 %

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



Distribution - Goniophotometer

Distribution Test Conditions

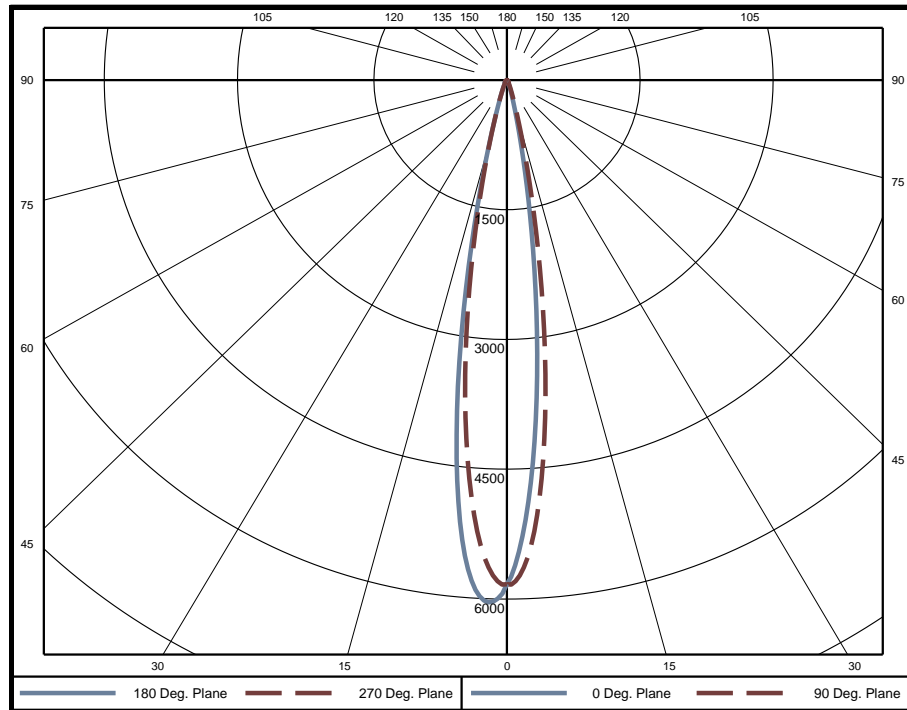
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.1753 A	20.92 W	0.995	60 Hz	8.86 %

Summary of Results

Spacing Criteria
0-180: 0.24
90-270: 0.29

Total Lumen Output: 685.1 Lumens
Luminaire Efficacy: 32.7 lm/w
Maximum Candela: 6041 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	125.4	18.3%	60-65	6.0	0.9%	120-125	0	0.0%
5-10	240.0	35.0%	65-70	4.4	0.6%	125-130	0	0.0%
10-15	150.3	21.9%	70-75	2.7	0.4%	130-135	0	0.0%
15-20	56.0	8.2%	75-80	1.1	0.2%	135-140	0	0.0%
20-25	25.0	3.6%	80-85	0.6	0.1%	140-145	0	0.0%
25-30	14.6	2.1%	85-90	0.3	0.0%	145-150	0	0.0%
30-35	11.5	1.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	10.4	1.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	10.0	1.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	9.8	1.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	9.1	1.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	7.6	1.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	633	92.4%
0-60	670	97.8%
0-90	685	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	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827
	5	3943	3847	4032	4286	4626	4999	5321	5543	5520	5543	5321	4999	4626	4286	4032
	10	1588	1525	1677	1894	2204	2542	2860	3096	3007	3096	2860	2542	2204	1894	1677
	15	406	387	436	510	615	737	831	901	841	901	831	737	615	510	436
	20	130	128	137	155	183	211	231	245	239	245	231	211	183	155	137
	25	55	54	59	67	80	91	97	105	103	105	97	91	80	67	59
	30	30	31	34	38	46	52	54	57	57	57	54	52	46	38	34
	35	23	23	26	30	37	41	42	43	43	43	42	41	37	30	26
	40	19	19	21	25	31	35	35	36	36	36	35	35	31	25	21
	45	17	17	19	22	27	31	32	32	32	32	32	31	27	22	19
	50	16	16	18	20	24	27	28	28	27	28	28	27	24	20	18
	55	16	16	16	18	19	21	21	21	21	21	21	19	18	16	16
	60	14	14	14	14	14	15	15	15	14	15	15	14	14	14	14
	65	11	11	11	10	10	10	10	10	10	10	10	10	10	11	11
	70	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	75	3	3	3	3	3	3	4	4	3	4	4	3	3	3	3
	80	1	1	1	1	1	1	2	2	2	2	2	1	1	1	1
	85	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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/m²)

Horizontal Angle (Degrees)

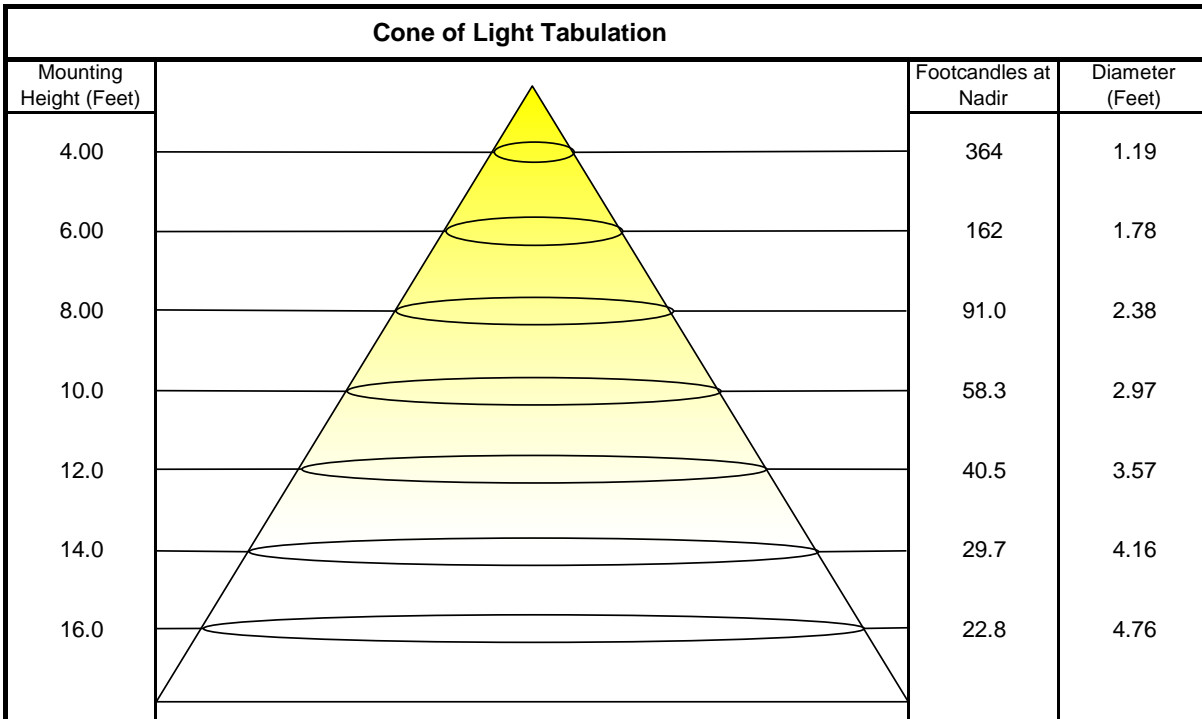
Vertical Angle (Degrees)	0	45	90
	0	1840000	1840000
	45	7441	8425
	55	8634	8959
	65	8506	7985
	75	3757	3603
	85	2292	2358



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	115	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	103	101	103	101	99	100	98	97	97	96	95	93
3	108	103	100	97	106	102	99	96	99	97	94	97	95	93	95	93	92	90
4	105	99	96	93	103	98	95	92	96	93	91	95	92	90	93	91	89	88
5	102	96	92	89	101	95	92	89	94	91	88	92	90	87	91	89	87	86
6	99	93	89	87	98	93	89	86	91	88	86	90	87	85	89	87	85	84
7	97	91	87	84	96	90	87	84	89	86	84	88	85	83	87	85	83	82
8	95	89	85	82	94	88	85	82	88	84	82	87	84	82	86	83	81	80
9	93	87	83	81	92	87	83	81	86	83	80	85	82	80	84	82	80	79
10	91	85	82	79	91	85	81	79	84	81	79	84	81	79	83	80	79	78

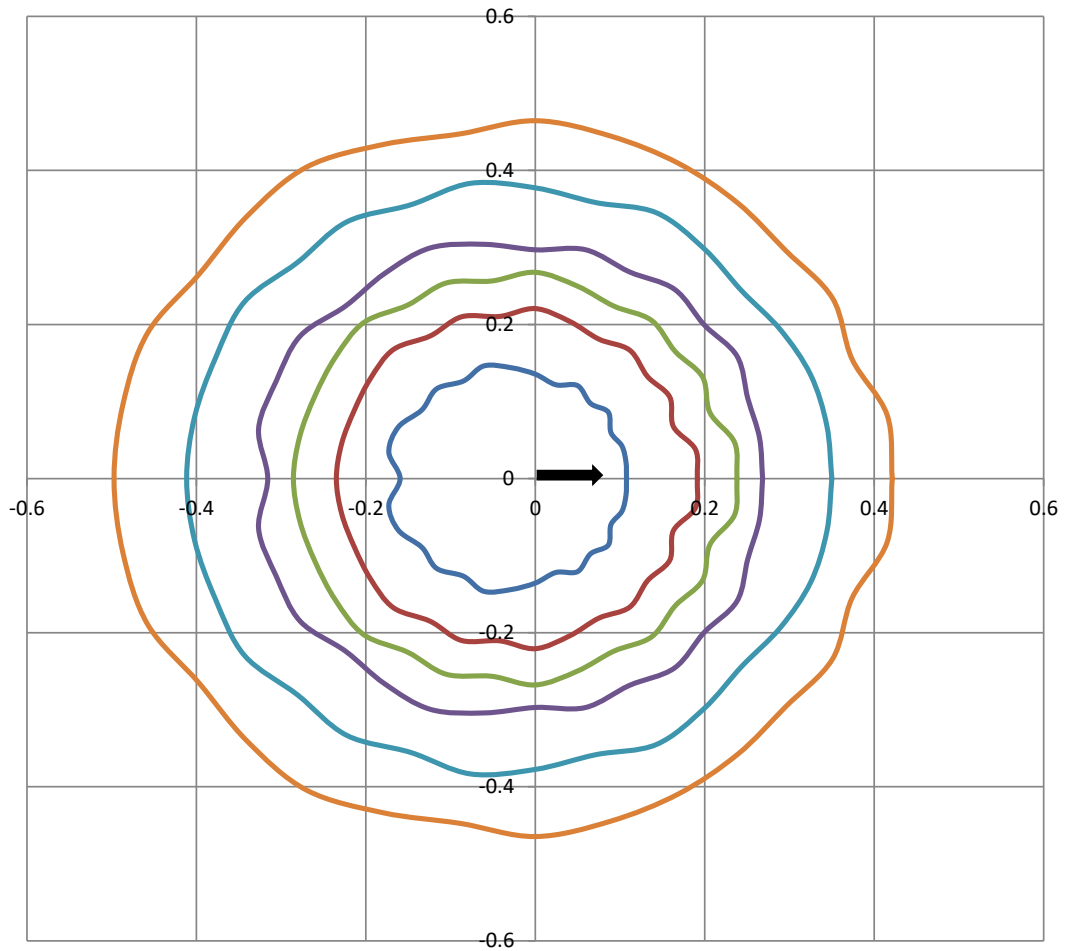
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	5827 Candela
Central Cone Intensity:	5411 Candela
Beam Flux:	310.5 Lumens
Beam Angle (0-180):	17.2 Degrees
Beam Angle (90-270):	17.1 Degrees
Field Angle (0-180):	30.0 Degrees
Field Angle (90-270):	30.4 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

50 fc 20 fc 10 fc 5 fc 2 fc 1 fc