



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
2DS-L15/835-DIM-UNV-LM-OF-WH-x-xx
Order Number
13257153
Test Number
13257153.19

Test Date

2020-03-12

Prepared By

Jesse Litchfield, Technician

Approved By

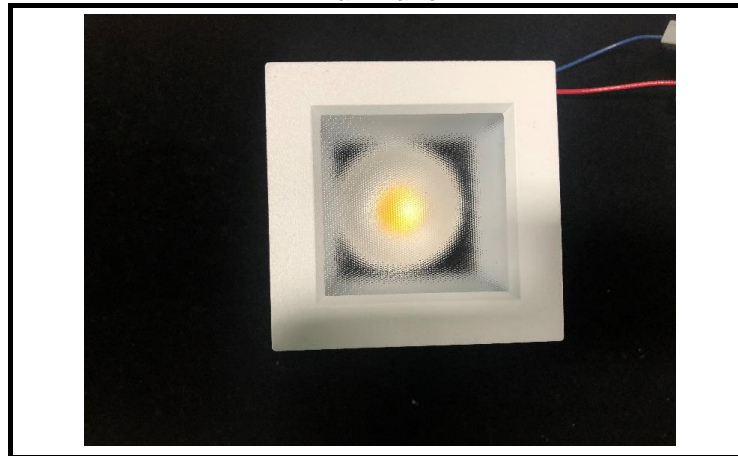
Alexa Lambert, Project Handler

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 Length: 2.50 in.
Luminous Width: 2.500 in.

Summary of Results

Total Luminaire Output: 1607 Lumens
Luminaire Efficacy: 92.8 lm/w
Maximum Candela: 3973 Candela

Test Conditions

Test Temperature: 25.1 °C
Voltage: 120.1 VAC
Current: 0.1453 A
Power: 17.31 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 10.8 %

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



Distribution - Goniophotometer

Distribution Test Conditions

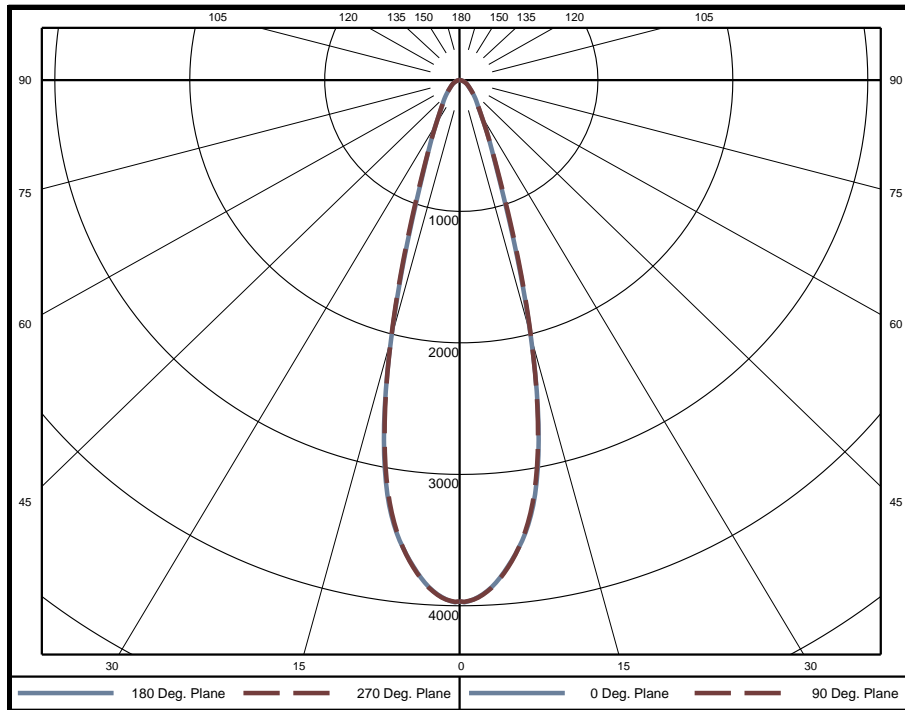
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.1453 A	17.31 W	0.992	60 Hz	10.8 %

Summary of Results

Spacing Criteria
 0-180: 0.51
 90-270: 0.52

Total Lumen Output: 1607 Lumens
Luminaire Efficacy: 92.8 lm/w
Maximum Candela: 3973 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	92.3	5.7%	60-65	27.6	1.7%	120-125	0	0.0%
5-10	249.0	15.5%	65-70	21.1	1.3%	125-130	0	0.0%
10-15	313.5	19.5%	70-75	14.9	0.9%	130-135	0	0.0%
15-20	244.6	15.2%	75-80	9.3	0.6%	135-140	0	0.0%
20-25	160.5	10.0%	80-85	4.4	0.3%	140-145	0	0.0%
25-30	119.4	7.4%	85-90	0.8	0.0%	145-150	0	0.0%
30-35	91.3	5.7%	90-95	0	0.0%	150-155	0	0.0%
35-40	72.9	4.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	60.6	3.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	49.9	3.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	40.9	2.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	33.9	2.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1344	83.6%
0-60	1529	95.1%
0-90	1607	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	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966	3966
	5	3758	3746	3753	3761	3765	3761	3753	3746	3758	3746	3753	3761	3765	3761	3753
	10	3201	3194	3203	3191	3176	3191	3203	3194	3201	3194	3203	3191	3176	3191	3203
	15	2031	2070	2126	2087	2040	2087	2126	2070	2031	2070	2126	2087	2040	2087	2126
	20	953	1014	1100	1050	992	1050	1100	1014	953	1014	1100	1050	992	1050	1100
	25	532	577	651	586	535	586	651	577	532	577	651	586	535	586	651
	30	331	371	442	373	333	373	442	371	331	371	442	373	333	373	442
	35	232	249	288	254	235	254	288	249	232	249	288	254	235	254	288
	40	178	187	199	189	178	189	199	187	178	187	199	189	178	189	199
	45	133	143	149	144	133	144	149	143	133	143	149	144	133	144	149
	50	99	107	113	109	101	109	113	107	99	107	113	109	101	109	113
	55	78	82	85	84	79	84	85	82	78	82	85	84	79	84	85
	60	63	65	65	66	63	66	65	65	63	65	65	66	63	66	65
	65	48	49	49	49	48	49	49	49	48	49	49	49	48	49	49
	70	35	35	34	35	35	35	34	35	35	35	34	35	35	34	35
	75	23	23	22	23	23	23	22	23	23	23	22	23	23	23	22
	80	13	12	12	13	13	13	12	12	13	12	12	13	13	13	12
	85	5	4	4	4	5	4	4	4	5	4	4	4	5	4	4
	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)

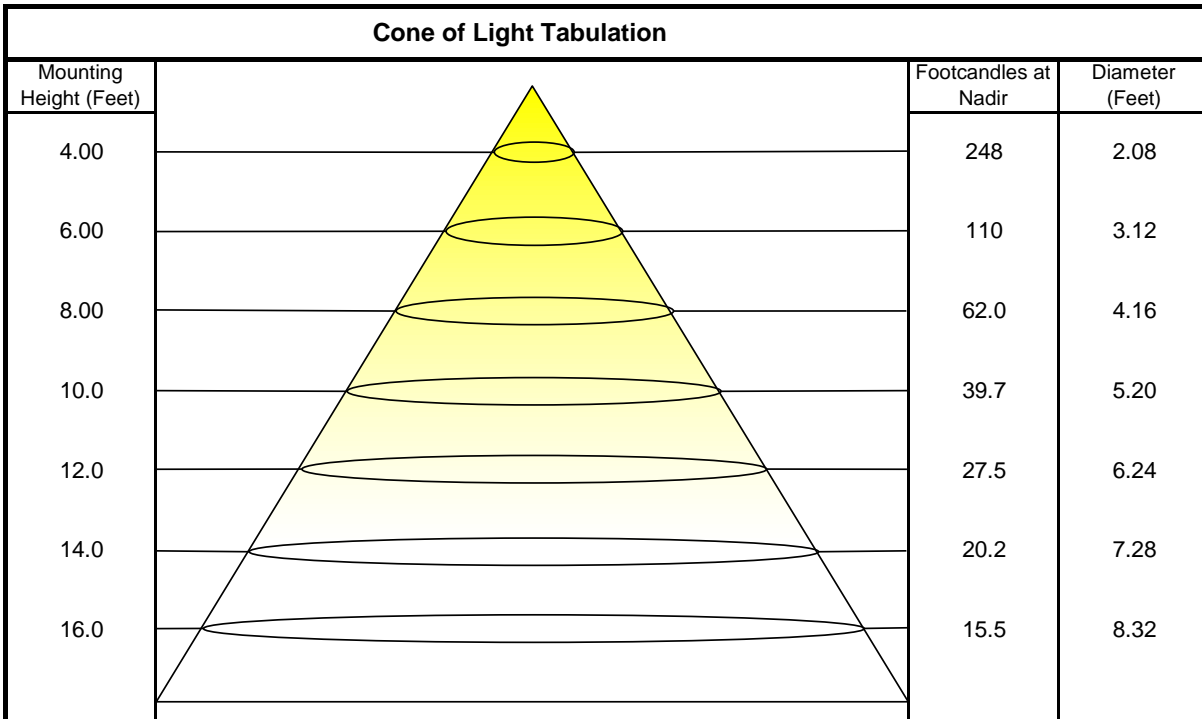
Vertical Angle (Degrees)	0	45	90
	0	983700	983700
	45	46490	52340
	55	33700	36910
	65	28340	28500
	75	21610	21140
	85	12870	11460



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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	108	103	98	95	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	102	96	91	87	100	95	90	86	92	88	85	89	86	84	87	85	82	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76
5	93	85	79	75	92	84	79	75	82	78	74	81	77	74	79	76	73	71
6	89	81	75	71	88	80	74	71	78	74	70	77	73	70	76	72	69	68
7	85	77	71	67	84	76	71	67	75	70	66	74	69	66	73	69	66	64
8	82	73	68	64	81	73	67	64	72	67	63	71	66	63	70	66	63	62
9	79	70	65	61	78	70	64	61	69	64	61	68	63	60	67	63	60	59
10	76	67	62	58	75	67	62	58	66	61	58	65	61	58	65	61	58	57

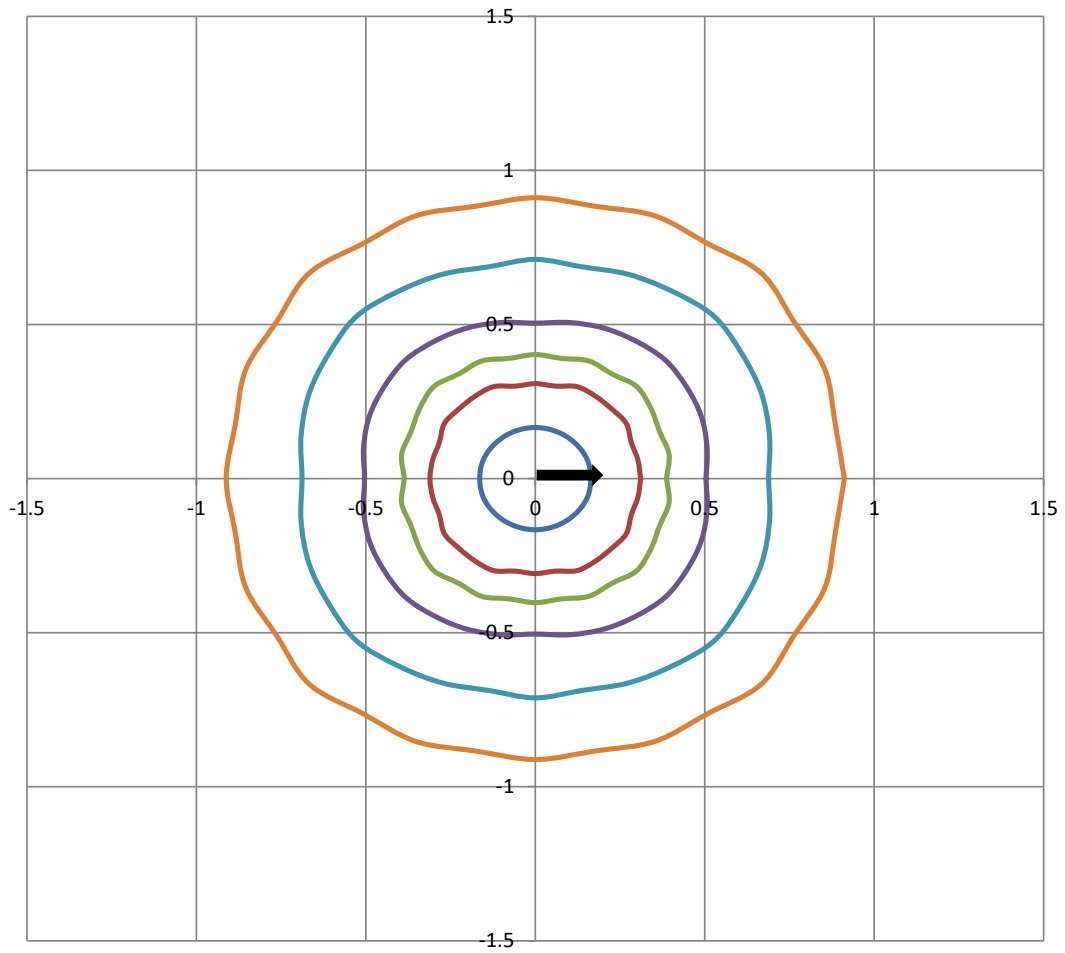
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3966 Candela
Central Cone Intensity:	3890 Candela
Beam Flux:	677.0 Lumens
Beam Angle (0-180):	30.4 Degrees
Beam Angle (90-270):	30.4 Degrees
Field Angle (0-180):	56.1 Degrees
Field Angle (90-270):	56.0 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

