



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
2DR-L25/835-DIM-UNV-OW-OF-SG-AD-x-xx

Order Number
13131414
Test Number
13131414.05

Test Date

2019-11-26

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 and reflector, frosted 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:	1515 Lumens
Luminaire Efficacy:	50.4 lm/w
Maximum Candela:	1580 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.2511 A
Power:	30.03 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.68 %

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



Distribution - Goniophotometer

Distribution Test Conditions

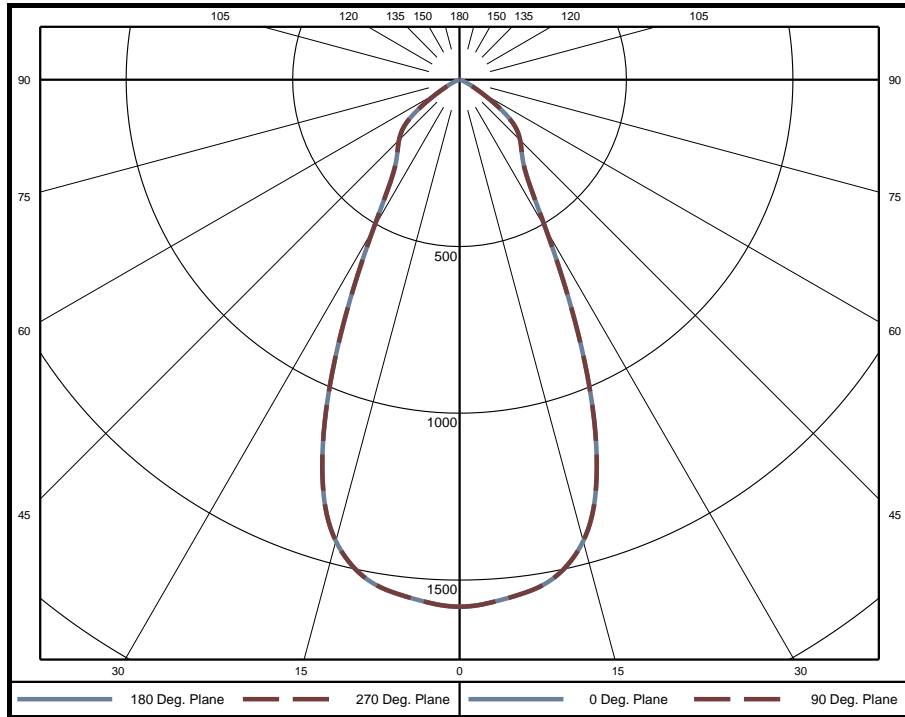
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.2511 A	30.03 W	0.996	60 Hz	6.68 %

Summary of Results

Spacing Criteria
 0-180: 0.84
 90-270: 0.84

Total Lumen Output: 1515 Lumens
Luminaire Efficacy: 50.4 lm/w
Maximum Candela: 1580 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	37.6	2.5%	60-65	21.4	1.4%	120-125	0	0.0%
5-10	110.7	7.3%	65-70	10.1	0.7%	125-130	0	0.0%
10-15	176.2	11.6%	70-75	4.4	0.3%	130-135	0	0.0%
15-20	218.8	14.4%	75-80	1.7	0.1%	135-140	0	0.0%
20-25	214.5	14.2%	80-85	0.6	0.0%	140-145	0	0.0%
25-30	168.4	11.1%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	123.3	8.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	105.3	7.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	101.2	6.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	96.1	6.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	78.7	5.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	45.7	3.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1155	76.2%
0-60	1477	97.5%
0-90	1515	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	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580	1580
	5	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563	1563
	10	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530	1530
	15	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433	1433
	20	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203	1203
	25	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844
	30	518	518	518	518	518	518	518	518	518	518	518	518	518	518	518
	35	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350
	40	291	291	291	291	291	291	291	291	291	291	291	291	291	291	291
	45	257	257	257	257	257	257	257	257	257	257	257	257	257	257	257
	50	216	216	216	216	216	216	216	216	216	216	216	216	216	216	216
	55	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
	60	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
	65	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
	70	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	75	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	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/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	499000	499000
	45	114700	114700
	55	77260	77260
	65	21690	21690
	75	6317	6317
	85	1780	1780



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	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	88	86	84
3	100	93	87	83	98	91	86	82	89	84	81	86	82	79	84	81	78	76
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72	70
5	89	79	73	68	87	78	72	68	77	71	67	75	70	67	73	69	66	64
6	84	74	67	63	82	73	67	62	72	66	62	70	65	61	69	64	61	59
7	79	69	62	58	78	68	62	58	67	61	57	66	61	57	65	60	57	55
8	75	65	58	54	74	64	58	54	63	57	53	62	57	53	61	56	53	51
9	71	61	54	50	70	60	54	50	59	54	50	58	53	50	58	53	49	48
10	68	57	51	47	67	57	51	47	56	51	47	55	50	47	55	50	46	45

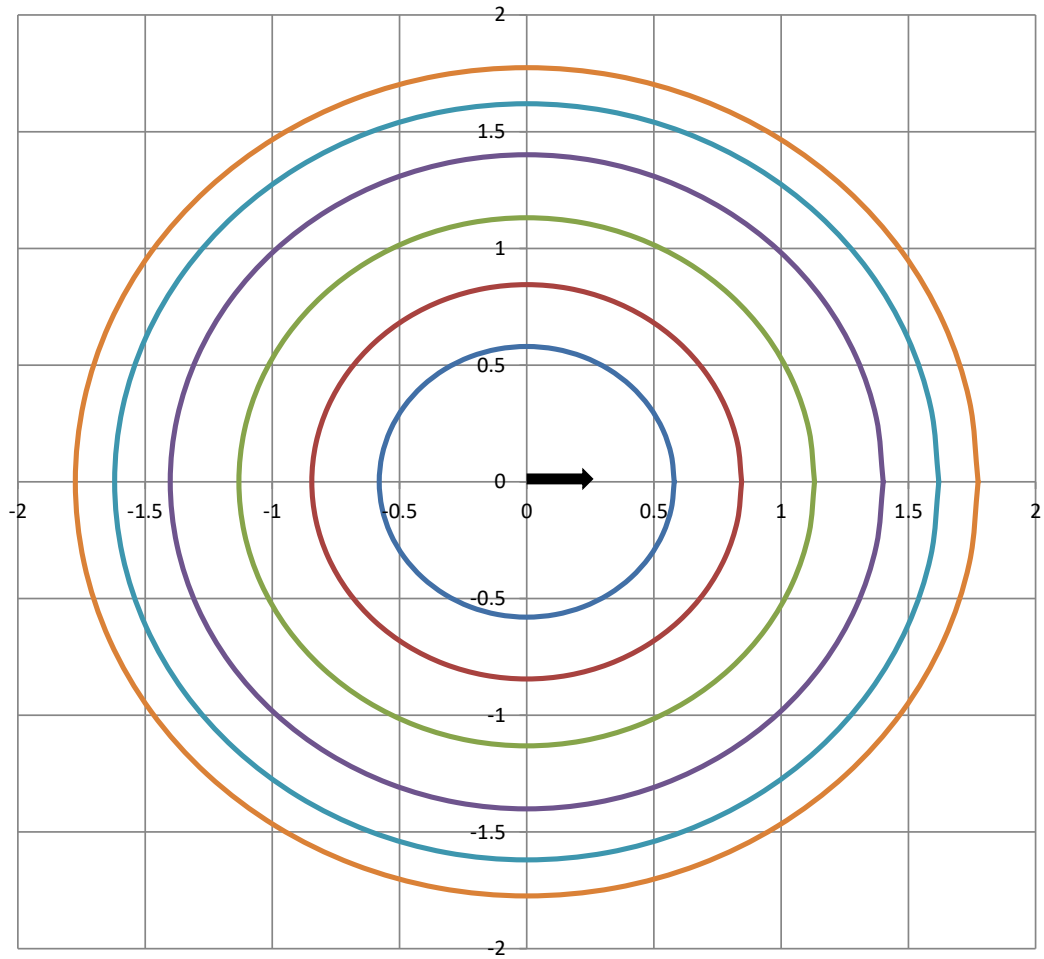
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1580 Candela
Central Cone Intensity:	1574 Candela
Beam Flux:	786.3 Lumens
Beam Angle (0-180):	51.4 Degrees
Beam Angle (90-270):	51.4 Degrees
Field Angle (0-180):	108.0 Degrees
Field Angle (90-270):	108.0 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		98.8	3.36
6.00		43.9	5.05
8.00		24.7	6.73
10.0		15.8	8.41
12.0		11.0	10.1
14.0		8.06	11.8
16.0		6.17	13.5



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