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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
2DS-L15/835-DIM-UNV-RW-OF-WH-AD-x-xx
Order Number
13257153
Test Number
13257153.17

Test Date

2020-03-12

Prepared By

Jesse Litchfield, Technician

Approved By

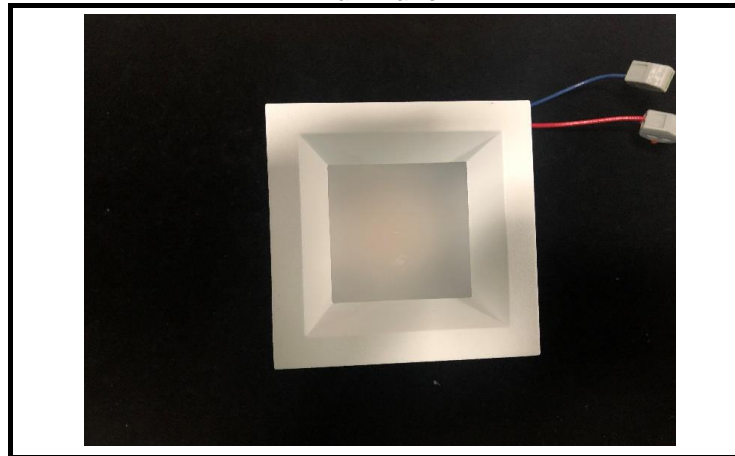
Alexa Lambert, Project Handler

The results contained in this report pertain only to the tested sample.
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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: 1269 Lumens
Luminaire Efficacy: 73.4 lm/w
Maximum Candela: 1036 Candela

Test Conditions

Test Temperature: 25.7 °C
Voltage: 120.1 VAC
Current: 0.1452 A
Power: 17.30 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 10.9 %

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



Distribution - Goniophotometer

Distribution Test Conditions

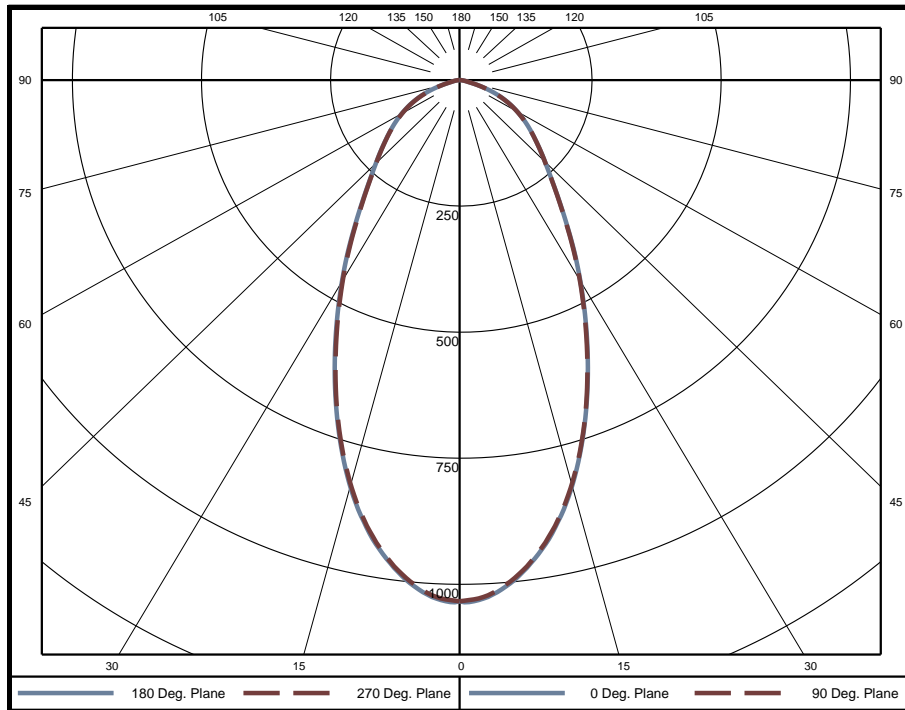
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.1 VAC	0.1452 A	17.30 W	0.992	60 Hz	10.9 %

Summary of Results

Spacing Criteria
0-180: 0.81
90-270: 0.80

Total Lumen Output: 1269 Lumens
Luminaire Efficacy: 73.4 lm/w
Maximum Candela: 1036 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	24.4	1.9%	60-65	55.5	4.4%	120-125	0	0.0%
5-10	69.2	5.5%	65-70	41.5	3.3%	125-130	0	0.0%
10-15	104.1	8.2%	70-75	24.6	1.9%	130-135	0	0.0%
15-20	125.0	9.9%	75-80	10.3	0.8%	135-140	0	0.0%
20-25	131.9	10.4%	80-85	4.5	0.4%	140-145	0	0.0%
25-30	128.5	10.1%	85-90	1.3	0.1%	145-150	0	0.0%
30-35	118.5	9.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	106.2	8.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	94.9	7.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	85.4	6.7%	105-110	0	0.0%	165-170	0	0.0%
50-55	76.4	6.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	66.8	5.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	808	63.7%
0-60	1131	89.1%
0-90	1269	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	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034	1034
	5	1008	1006	1005	1005	1005	1005	1005	1006	1008	1006	1005	1005	1005	1005	1006
	10	935	932	932	931	932	931	932	932	935	932	932	931	932	931	932
	15	827	825	825	824	824	824	825	825	827	825	825	824	824	824	825
	20	698	697	697	696	696	696	697	697	698	697	697	696	696	696	697
	25	570	568	568	567	567	567	568	568	570	568	568	567	567	567	568
	30	454	454	454	452	452	452	454	454	454	454	454	452	452	452	454
	35	355	359	360	357	353	357	360	359	355	359	360	357	353	357	360
	40	280	284	291	283	279	283	291	284	280	284	291	283	279	283	291
	45	227	232	238	231	227	231	238	232	227	232	238	231	227	231	238
	50	189	192	197	192	188	192	197	192	189	192	197	192	188	192	197
	55	157	161	163	160	156	160	163	161	157	161	163	160	156	160	163
	60	126	131	132	130	126	130	132	131	126	131	132	130	126	130	132
	65	96	100	101	99	95	99	101	100	96	100	101	99	95	99	101
	70	62	66	67	65	61	65	67	66	62	66	67	65	61	65	67
	75	28	31	32	31	28	31	32	31	28	31	32	31	28	31	32
	80	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	85	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	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)

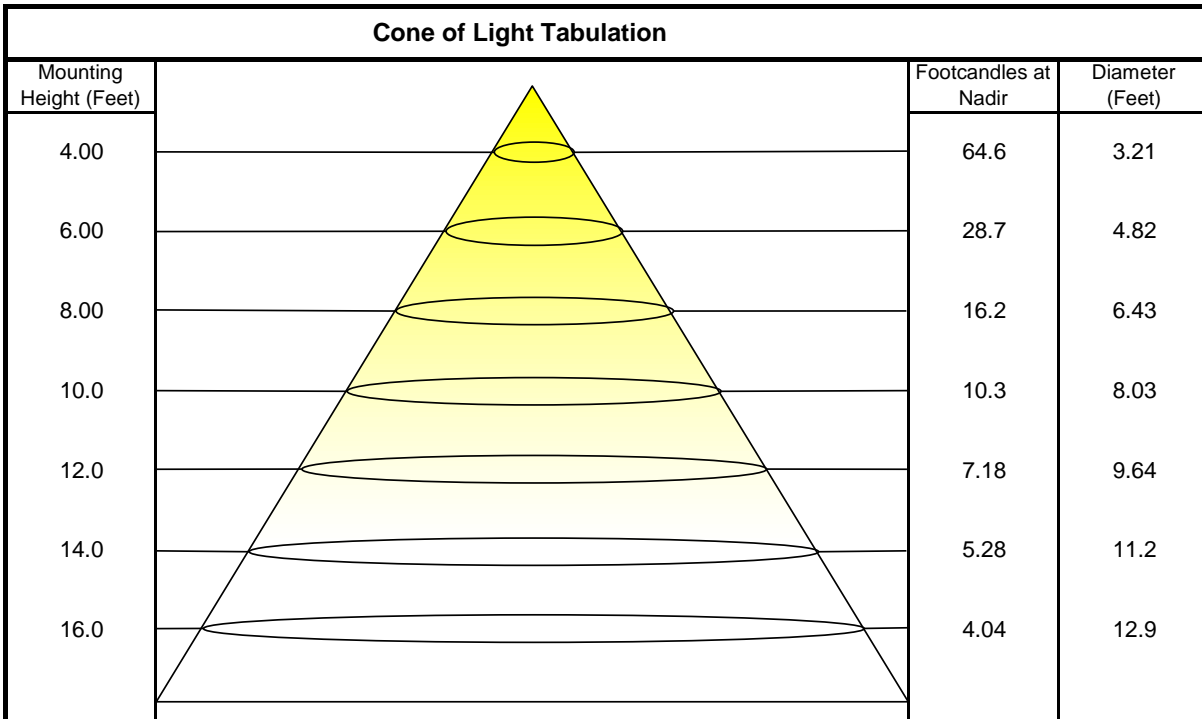
Vertical Angle (Degrees)	0	45	90
	0	256400	256400
	45	79730	83610
	55	67700	70280
	65	56230	59290
	75	26960	30840
	85	13920	13940



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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	86	101	95	90	85	91	87	83	88	85	82	85	82	80	78
3	96	87	80	75	94	86	79	74	83	78	73	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61
5	83	72	65	59	81	71	64	59	69	63	58	67	62	58	66	61	57	55
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50
7	73	61	54	49	71	61	53	48	59	53	48	58	52	48	57	51	47	46
8	69	57	50	44	67	56	49	44	55	49	44	54	48	44	53	48	44	42
9	65	53	46	41	64	53	46	41	52	45	41	51	45	41	50	44	40	39
10	61	50	43	38	60	49	43	38	48	42	38	47	42	38	47	41	38	36

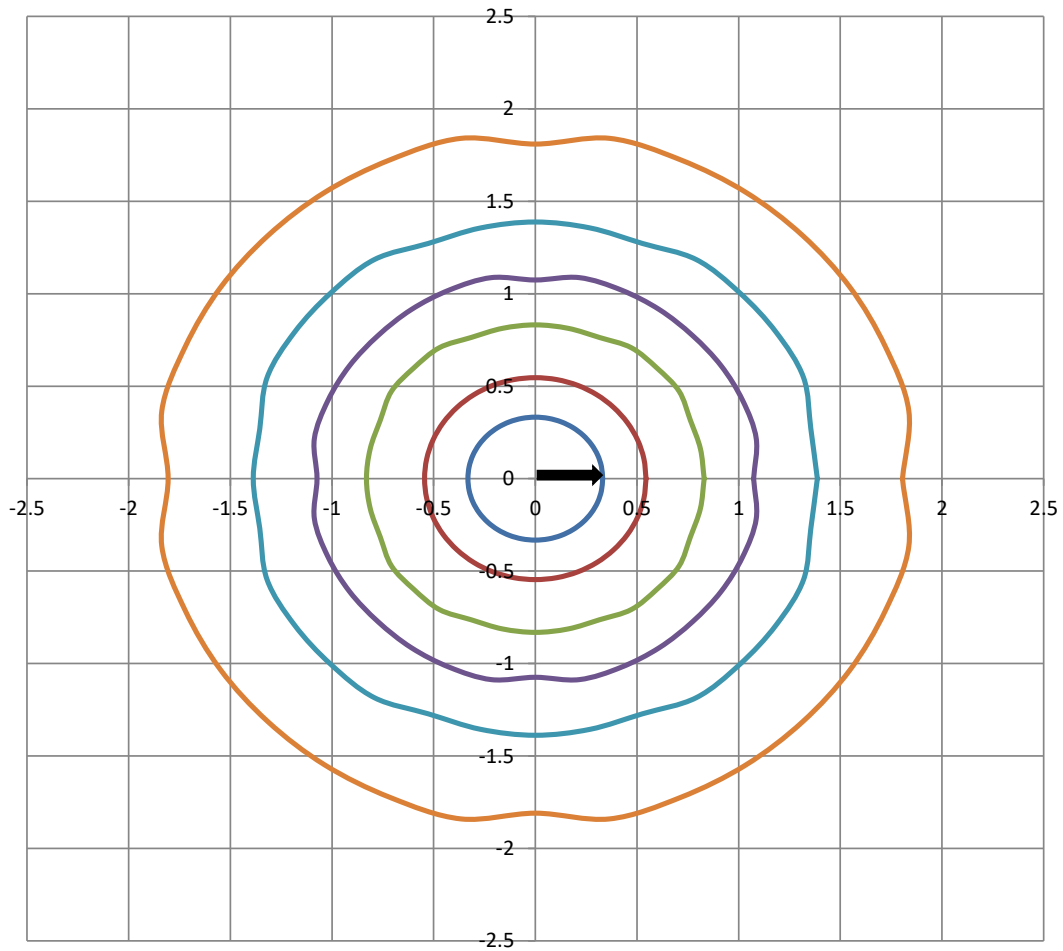
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1034 Candela
Central Cone Intensity:	1024 Candela
Beam Flux:	509.8 Lumens
Beam Angle (0-180):	54.4 Degrees
Beam Angle (90-270):	54.1 Degrees
Field Angle (0-180):	127.6 Degrees
Field Angle (90-270):	127.3 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

10 fc 5 fc 2 fc 1 fc 0.5 fc 0.2 fc