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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
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United States

Catalog Number
2AS-L12/835-DIM-UNV-LM-OF-WH-x-xx (45° TILT)
Order Number
13257190
Test Number
13257190.34

Test Date

2020-03-20

Prepared By

Jesse Litchfield, Technician

Approved By

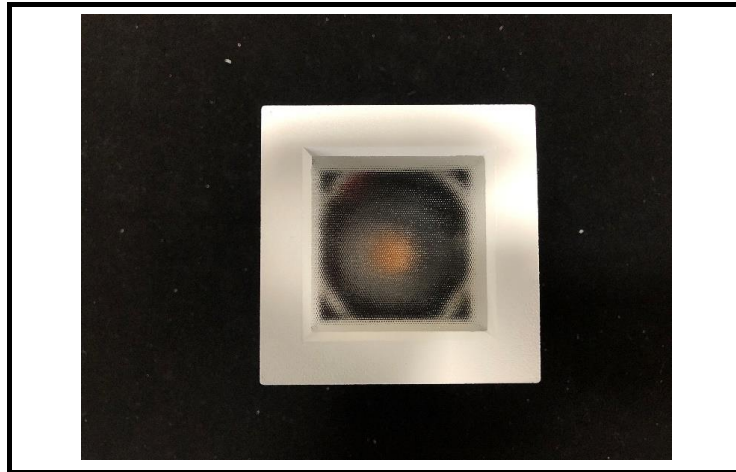
Alexa Lambert, Project Handler

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:	656.5 Lumens
Luminaire Efficacy:	30.9 lm/w
Maximum Candela:	4474 Candela

Test Conditions

Test Temperature:	24.4 °C
Voltage:	120.1 VAC
Current:	0.1781 A
Power:	21.28 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.69 %

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
24.4 °C	120.1 VAC	0.1781 A	21.28 W	0.995	60 Hz	8.69 %

Summary of Results

Spacing Criteria

0-180: 3.04

90-270: 1.39

Total Lumen Output:

656.5 Lumens

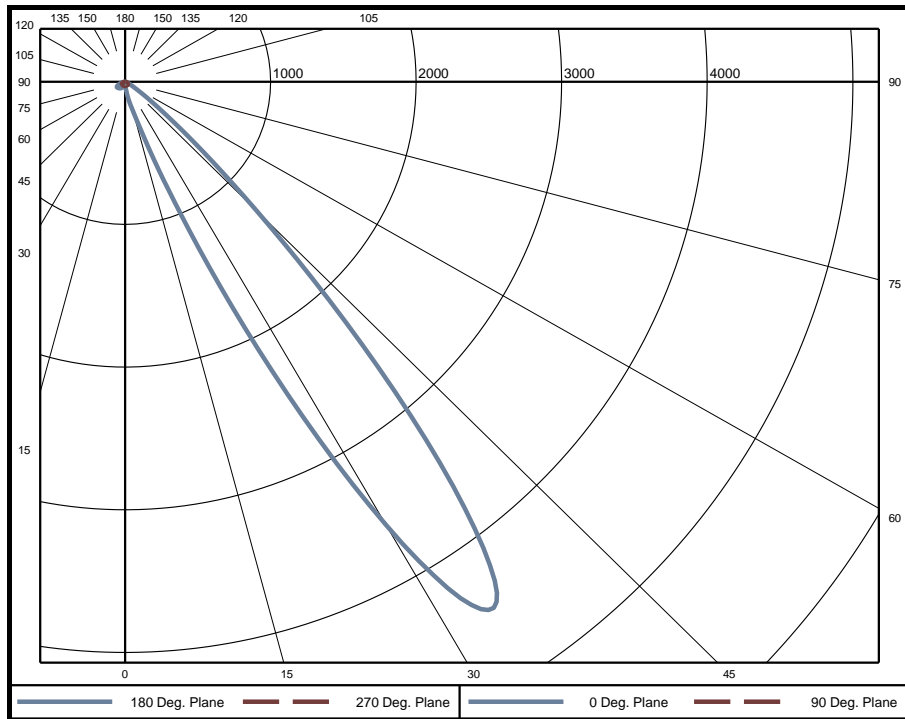
Luminaire Efficacy:

30.9 lm/w

Maximum Candela:

4474 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	0.7	0.1%	60-65	15.4	2.3%	120-125	0	0.0%
5-10	2.9	0.4%	65-70	12.3	1.9%	125-130	0	0.0%
10-15	7.4	1.1%	70-75	9.1	1.4%	130-135	0	0.0%
15-20	16.3	2.5%	75-80	5.8	0.9%	135-140	0	0.0%
20-25	40.2	6.1%	80-85	2.8	0.4%	140-145	0	0.0%
25-30	89.1	13.6%	85-90	0.5	0.1%	145-150	0	0.0%
30-35	139.4	21.2%	90-95	0	0.0%	150-155	0	0.0%
35-40	137.5	20.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	87.9	13.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	44.9	6.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	25.6	3.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	18.7	2.8%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	434	66.0%
0-60	611	93.0%
0-90	657	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	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	5	41	39	34	31	30	31	31	30	31	30	31	31	30	31	34
	10	110	99	61	34	30	31	32	33	34	33	32	31	30	34	61
	15	220	183	117	45	30	32	34	36	37	36	34	32	30	45	117
	20	587	384	161	55	30	32	36	38	40	38	36	32	30	55	161
	25	1737	831	184	51	29	33	38	42	44	42	38	33	29	51	184
	30	3586	1295	155	39	28	34	41	48	50	48	41	34	28	39	155
	35	4451	1281	97	31	27	35	44	52	55	52	44	35	27	31	97
	40	3052	823	61	28	27	36	47	56	59	56	47	36	27	28	61
	45	1275	371	44	26	27	37	49	58	62	58	49	37	27	26	44
	50	413	141	33	24	27	38	50	60	65	60	50	38	27	24	33
	55	129	55	26	22	26	37	49	61	67	61	49	37	26	22	26
	60	49	30	21	20	23	33	44	57	63	57	44	33	23	20	21
	65	27	21	17	17	20	27	36	47	51	47	36	27	20	17	17
	70	18	15	13	13	15	21	27	35	38	35	27	21	15	13	13
	75	12	10	9	9	11	14	18	23	24	23	18	14	11	9	9
	80	7	6	5	5	6	8	10	12	13	12	10	8	6	5	5
	85	2	2	2	2	2	3	4	4	5	4	4	3	2	2	2
	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)

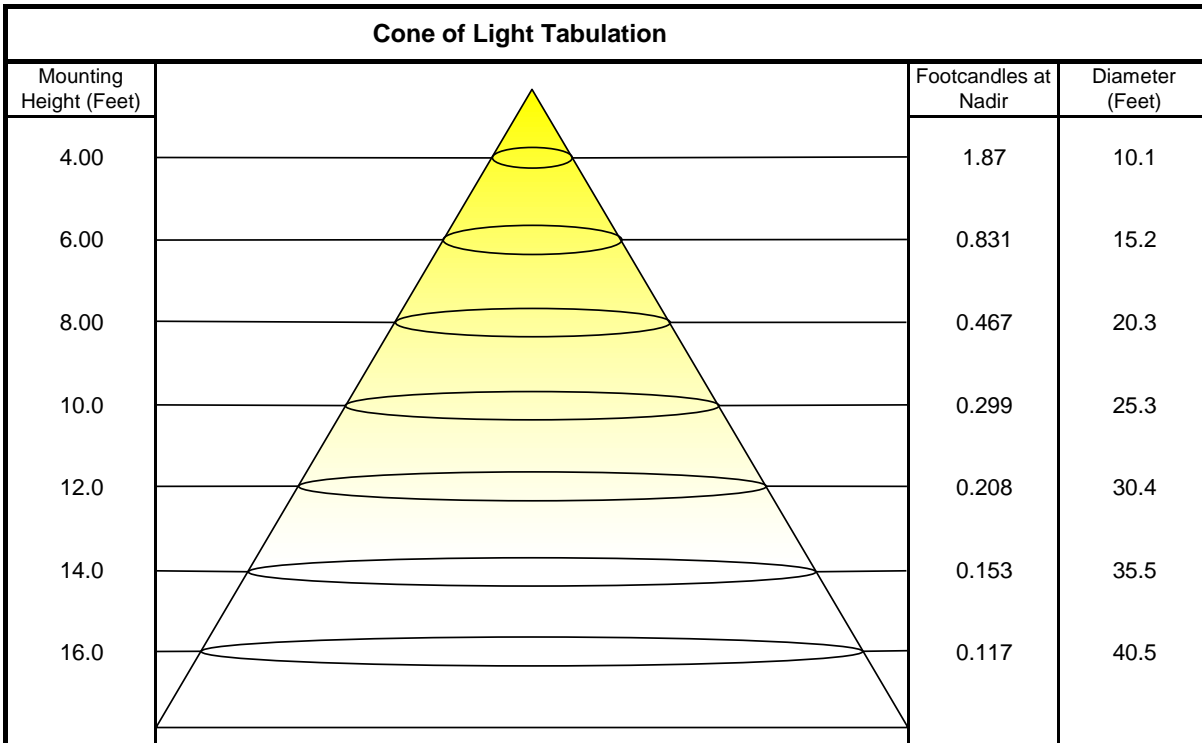
Vertical Angle (Degrees)	0	45	90
	0	7419	7419
	45	447000	15290
	55	55950	11270
	65	16100	9894
	75	11910	8510
	85	6302	4303



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	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	102	96	90	85	100	94	88	84	90	86	82	87	83	80	84	81	79	77
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	80	69	60	54	78	67	60	54	65	59	53	64	58	53	62	57	52	50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	68	56	47	41	67	55	47	41	53	46	41	52	46	41	51	45	40	39
8	63	50	42	36	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

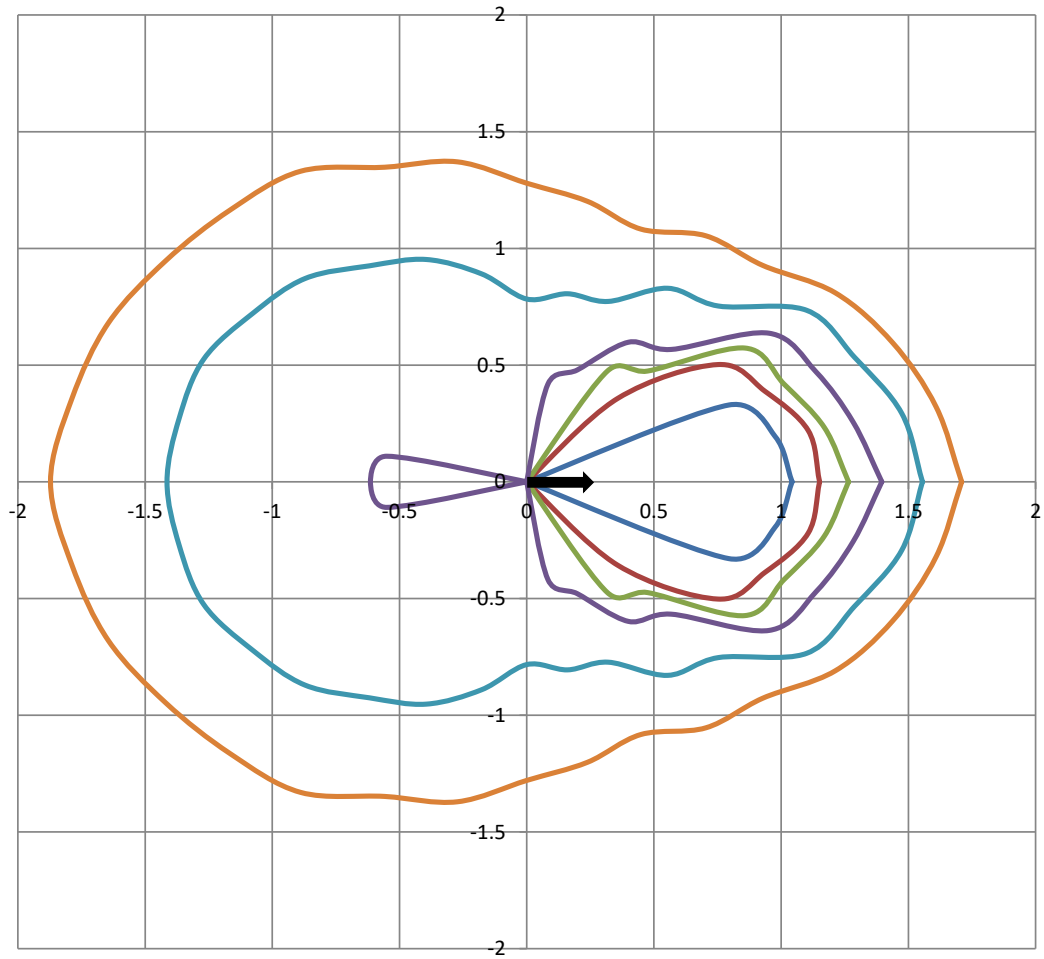
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	30 Candela
Central Cone Intensity:	31 Candela
Beam Flux:	645.0 Lumens
Beam Angle (0-180):	151.9 Degrees
Beam Angle (90-270):	140.5 Degrees
Field Angle (0-180):	170.1 Degrees
Field Angle (90-270):	168.2 Degrees





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