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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
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PO Box 837
Carthage, MO 64836-0837
United States

Catalog Number
2AS-L12/835-DIM-UNV-LW-OF-WH-x-xx (0° TILT)
Order Number
13257190
Test Number
13257190.29

Test Date

2020-03-19

Prepared By

Jesse Litchfield, Technician

Approved By

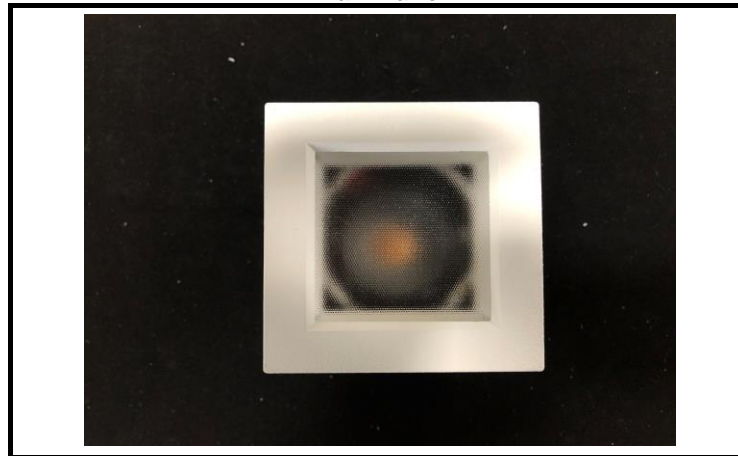
Alexa Lambert, Project Handler

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:	1179 Lumens
Luminaire Efficacy:	55.4 lm/w
Maximum Candela:	3571 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.1783 A
Power:	21.29 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.67 %

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



Distribution - Goniophotometer

Distribution Test Conditions

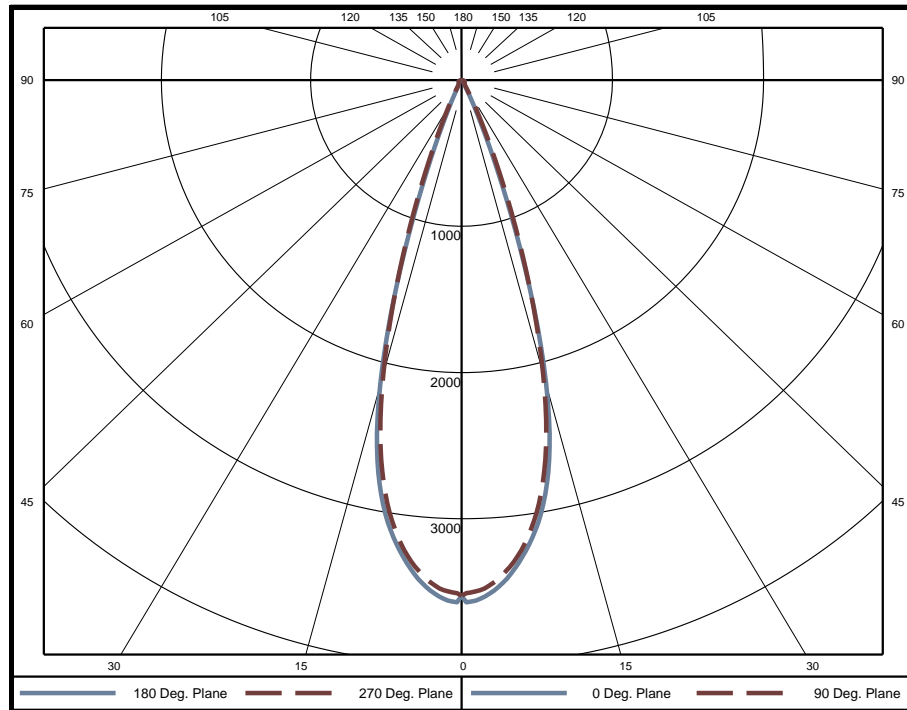
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	120.0 VAC	0.1783 A	21.29 W	0.995	60 Hz	8.67 %

Summary of Results

Spacing Criteria
 0-180: 0.56
 90-270: 0.55

Total Lumen Output: 1179 Lumens
Luminaire Efficacy: 55.4 lm/w
Maximum Candela: 3571 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	82.7	7.0%	60-65	10.6	0.9%	120-125	0	0.0%
5-10	227.2	19.3%	65-70	9.3	0.8%	125-130	0	0.0%
10-15	307.9	26.1%	70-75	7.3	0.6%	130-135	0	0.0%
15-20	269.2	22.8%	75-80	4.9	0.4%	135-140	0	0.0%
20-25	140.5	11.9%	80-85	2.5	0.2%	140-145	0	0.0%
25-30	47.2	4.0%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	16.2	1.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	10.5	0.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	9.9	0.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	10.3	0.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	10.9	0.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	11.2	0.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1101	93.4%
0-60	1144	97.0%
0-90	1179	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	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527	3527
	5	3424	3383	3377	3373	3370	3373	3377	3383	3424	3383	3377	3373	3370	3373	3383
	10	3010	2973	2968	2951	2939	2951	2968	2973	3010	2973	2968	2951	2939	2951	2968
	15	2151	2217	2286	2163	2075	2163	2286	2217	2151	2217	2286	2163	2075	2163	2286
	20	855	1060	1355	1127	959	1127	1355	1060	855	1060	1355	1127	959	1127	1355
	25	179	276	523	381	277	381	523	276	179	276	523	381	277	381	523
	30	44	62	137	102	69	102	137	62	44	62	137	102	69	102	137
	35	30	33	44	40	35	40	44	33	30	33	44	40	35	40	44
	40	26	27	29	30	28	30	29	27	26	27	29	30	28	30	29
	45	24	26	27	27	26	27	27	26	24	26	27	27	26	27	26
	50	24	25	26	26	25	26	26	25	24	25	26	26	25	26	26
	55	24	25	25	25	24	25	25	25	24	25	25	25	24	25	25
	60	23	24	23	23	23	23	24	23	24	23	23	23	23	23	24
	65	20	21	20	20	20	20	21	20	21	20	20	20	20	20	21
	70	17	17	16	16	16	16	17	17	17	16	16	16	16	16	17
	75	12	12	11	11	12	11	11	12	12	12	11	11	12	11	12
	80	7	7	6	7	7	7	6	7	7	7	6	7	7	7	6
	85	3	2	2	2	3	2	2	2	3	2	2	2	3	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)

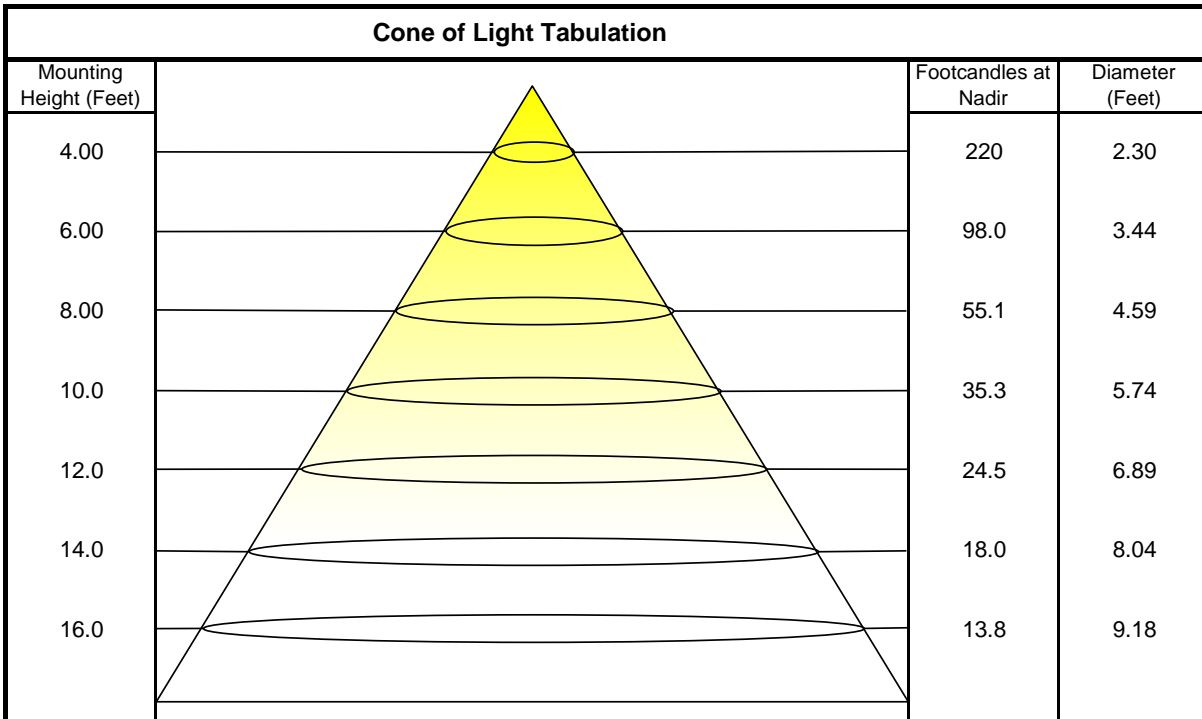
Vertical Angle (Degrees)	0	45	90
	0	874700	874700
	45	8449	9299
	55	10330	10770
	65	11910	11680
	75	11740	11050
	85	8150	6274



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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	102	99	108	104	101	98	101	98	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	96	93	91	94	92	89	92	90	88	87
4	102	96	91	88	100	95	90	87	93	89	86	91	88	85	89	86	84	83
5	98	92	87	84	97	91	86	83	89	85	83	88	84	82	86	83	81	80
6	95	88	83	80	94	87	83	80	86	82	79	85	81	79	83	81	78	77
7	92	85	80	77	91	84	80	77	83	79	76	82	78	76	81	78	76	74
8	89	82	77	74	88	81	77	74	80	76	74	79	76	73	79	75	73	72
9	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	71	70
10	84	77	72	69	83	76	72	69	75	72	69	75	71	69	74	71	69	68

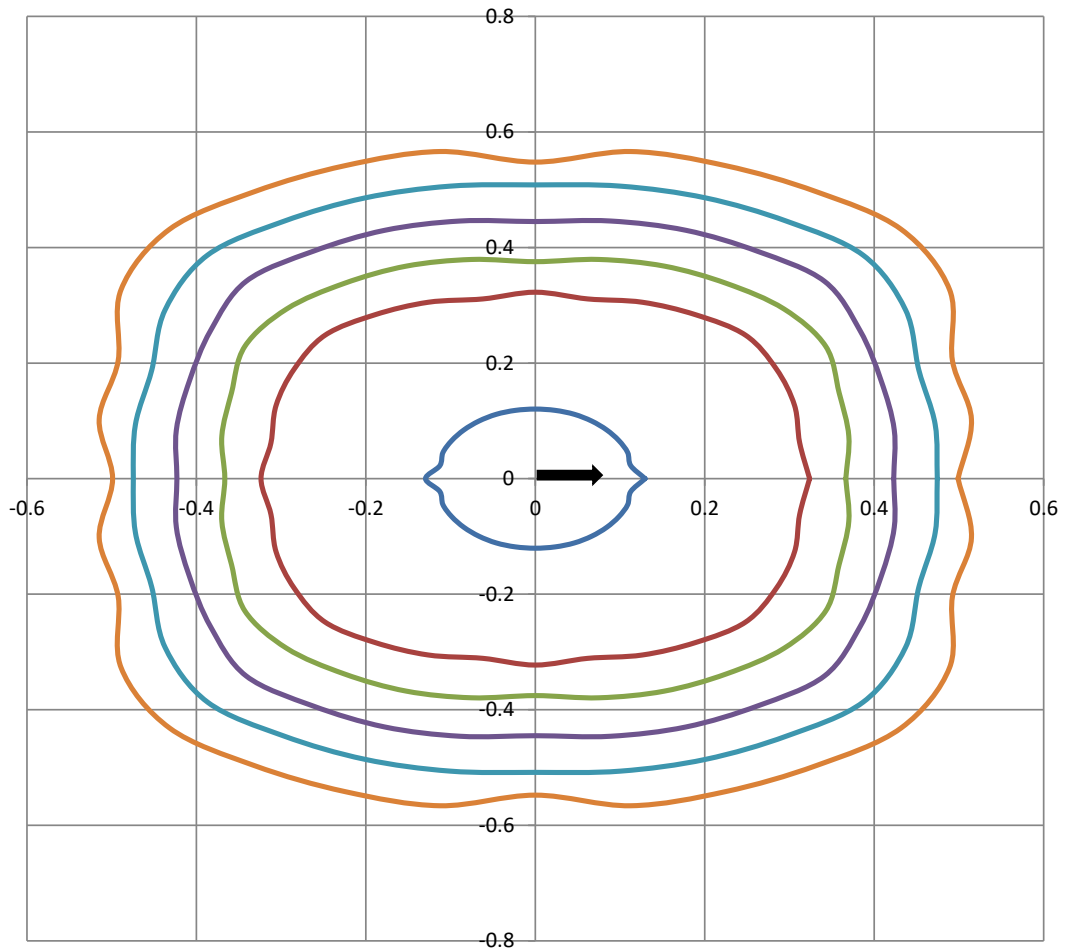
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3527 Candela
Central Cone Intensity:	3477 Candela
Beam Flux:	742.7 Lumens
Beam Angle (0-180):	33.0 Degrees
Beam Angle (90-270):	32.8 Degrees
Field Angle (0-180):	46.0 Degrees
Field Angle (90-270):	48.3 Degrees





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