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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-10-2014

Prepared For
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United States

Catalog Number
2AR-L12/835-DIM-UNV-ON-OF-CS-x-xx (0° TILT)
Order Number
13257190
Test Number
13257190.17

Test Date

2020-03-17

Prepared By

Jesse Litchfield, Technician

Approved By

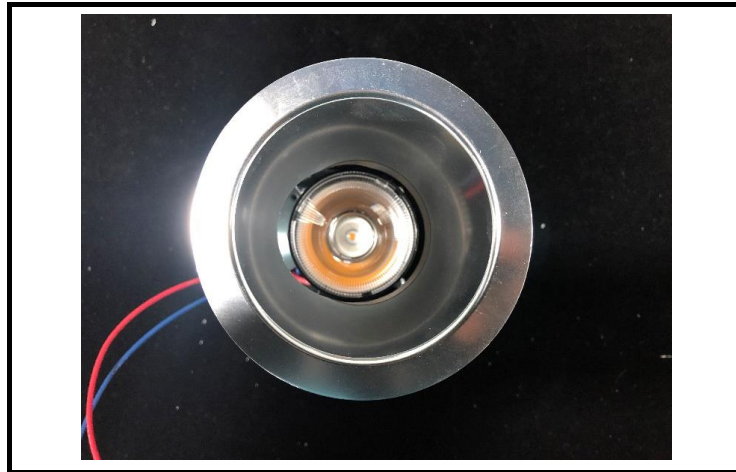
Alexa Lambert, Project Handler

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 Diameter: 2.50 in.

Summary of Results

Total Luminaire Output:	1092 Lumens
Luminaire Efficacy:	52.2 lm/w
Maximum Candela:	19890 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.1754 A
Power:	20.94 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	8.85 %

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



Distribution - Goniophotometer

Distribution Test Conditions

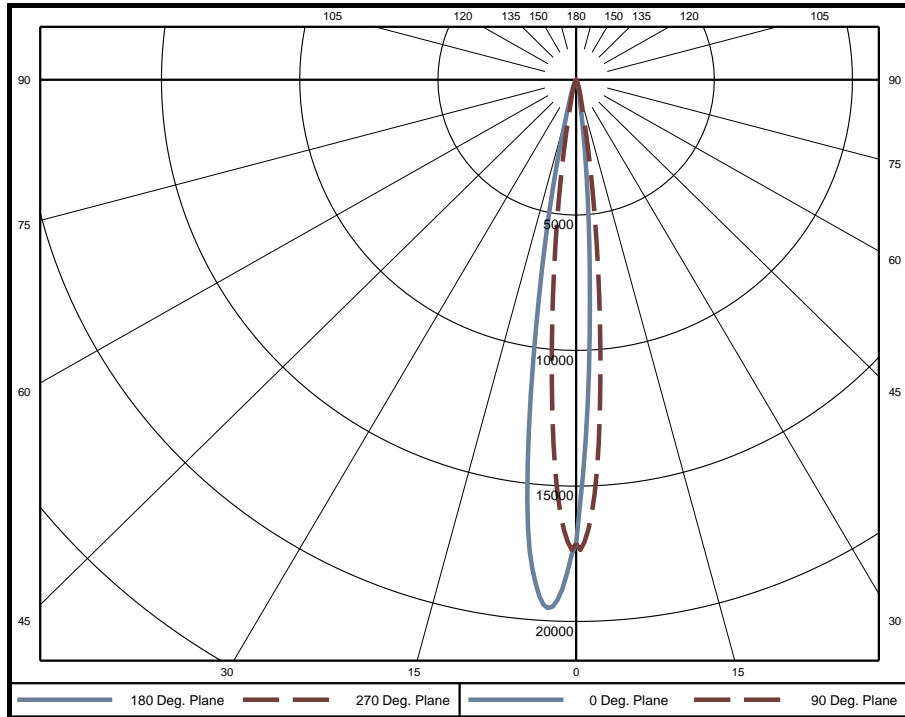
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	120.0 VAC	0.1754 A	20.94 W	0.995	60 Hz	8.85 %

Summary of Results

Spacing Criteria
 0-180: 0.12
 90-270: 0.20

Total Lumen Output: 1092 Lumens
Luminaire Efficacy: 52.2 lm/w
Maximum Candela: 19890 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	331.2	30.3%	60-65	0.2	0.0%	120-125	0	0.0%
5-10	450.6	41.3%	65-70	0.1	0.0%	125-130	0	0.0%
10-15	185.0	16.9%	70-75	0.1	0.0%	130-135	0	0.0%
15-20	71.7	6.6%	75-80	0.1	0.0%	135-140	0	0.0%
20-25	32.0	2.9%	80-85	0.1	0.0%	140-145	0	0.0%
25-30	10.8	1.0%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	4.4	0.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	2.5	0.2%	95-100	0	0.0%	155-160	0	0.0%
40-45	1.3	0.1%	100-105	0	0.0%	160-165	0	0.0%
45-50	0.7	0.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	0.5	0.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	0.3	0.0%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1088	99.7%
0-60	1091	99.9%
0-90	1092	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	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130	17130
5	5236	5135	6119	7641	10100	13260	16330	18190	18120	18190	16330	13260	10100	7641	6119	5135
10	884	846	960	1389	2251	3728	5404	7071	7087	7071	5404	3728	2251	1389	960	846
15	371	361	415	486	585	726	977	1328	1315	1328	977	726	585	486	415	361
20	162	154	168	204	252	304	369	414	403	414	369	304	252	204	168	154
25	42	40	43	51	60	97	128	141	132	141	128	97	60	51	43	40
30	12	12	13	16	21	26	33	40	41	40	33	26	21	16	13	12
35	6	6	7	8	10	12	13	14	15	14	13	12	10	8	7	6
40	3	3	3	4	6	9	7	7	8	7	7	9	6	4	3	3
45	1	1	1	2	3	3	3	3	3	3	3	3	3	2	1	1
50	1	1	1	1	2	2	2	2	2	2	2	2	2	1	1	1
55	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
60	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1
65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	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	0
95	0	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	0
105	0	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	0
115	0	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	0
125	0	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	0
135	0	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	0
145	0	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	0
155	0	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	0
165	0	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	0
175	0	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	0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

Vertical Angle (Degrees)

	0	45	90
0	5408000	5408000	5408000
45	467	590	1457
55	419	439	469
65	331	253	229
75	186	212	278
85	413	423	454



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	116	114	113	111	114	112	111	110	108	107	106	105	104	103	101	101	100	99
2	113	111	108	106	111	109	107	105	106	104	103	103	102	101	101	100	99	97
3	111	107	105	103	109	106	104	102	104	102	100	102	100	99	100	98	97	96
4	109	105	102	100	108	104	101	99	102	100	98	100	99	97	99	97	96	95
5	107	103	100	98	106	102	99	97	101	98	96	99	97	96	98	96	95	94
6	105	101	98	96	104	100	98	95	99	97	95	98	96	94	97	95	94	93
7	104	99	96	94	103	99	96	94	98	95	94	97	95	93	96	94	93	92
8	102	98	95	93	102	97	95	93	97	94	92	96	94	92	95	93	92	91
9	101	96	94	92	100	96	93	92	95	93	91	95	93	91	94	92	91	90
10	100	95	93	91	99	95	92	91	94	92	90	94	92	90	93	91	90	89

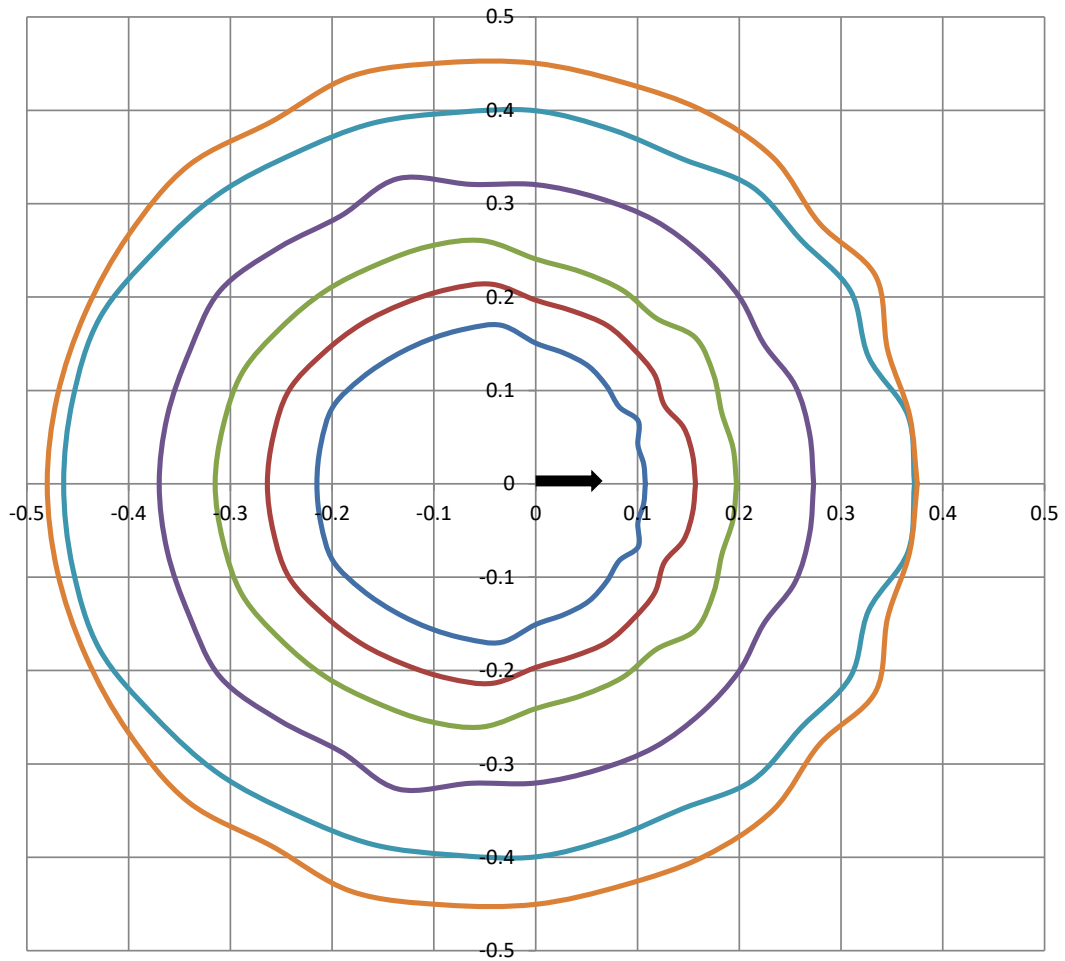
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	17130 Candela
Central Cone Intensity:	14790 Candela
Beam Flux:	550.2 Lumens
Beam Angle (0-180):	12.6 Degrees
Beam Angle (90-270):	11.4 Degrees
Field Angle (0-180):	22.1 Degrees
Field Angle (90-270):	21.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		1070	0.880
6.00		476	1.32
8.00		268	1.76
10.0		171	2.20
12.0		119	2.64
14.0		87.4	3.08
16.0		66.9	3.52



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