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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
2DS-L15/835-DIM-UNV-OW-OF-SG-x-xx
Order Number
13257153
Test Number
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Test Date

2020-03-11

Prepared By

Jesse Litchfield, Technician

Approved By

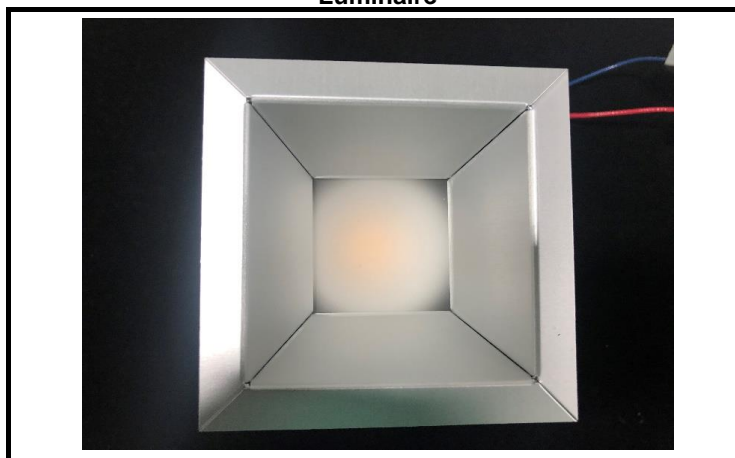
Alexa Lambert, Project Handler

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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: 1233 Lumens
Luminaire Efficacy: 71.2 lm/w
Maximum Candela: 1360 Candela

Test Conditions

Test Temperature: 25.1 °C
Voltage: 120.1 VAC
Current: 0.1454 A
Power: 17.32 W
Power Factor: 0.992
Frequency: 60 Hz
Current THD: 10.8 %

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



Distribution - Goniophotometer

Distribution Test Conditions

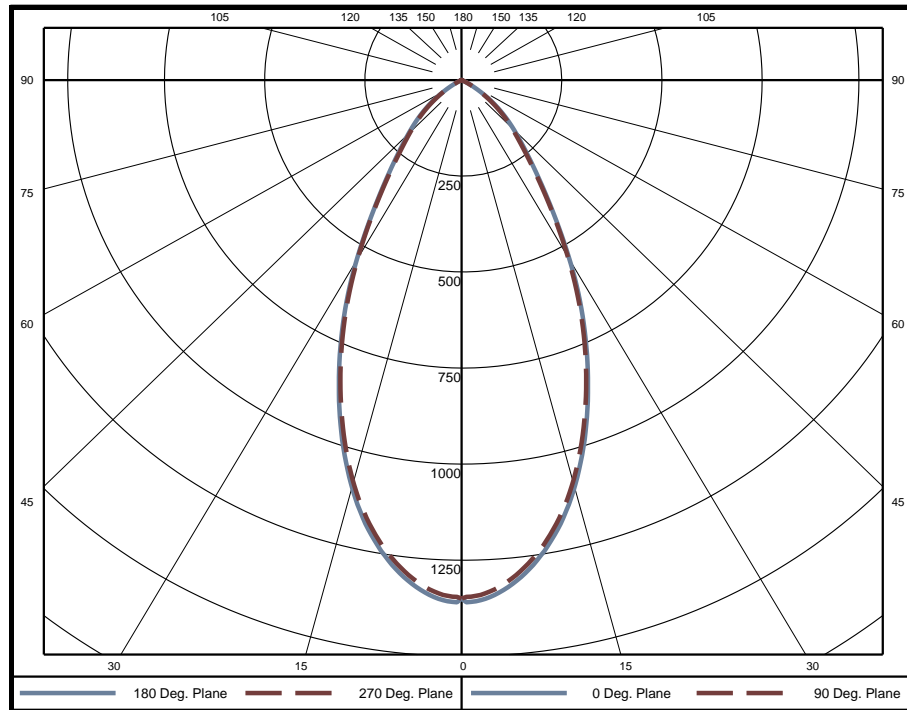
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.1454 A	17.32 W	0.992	60 Hz	10.8 %

Summary of Results

Spacing Criteria
 0-180: 0.80
 90-270: 0.79

Total Lumen Output: 1233 Lumens
Luminaire Efficacy: 71.2 lm/w
Maximum Candela: 1360 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	31.9	2.6%	60-65	11.5	0.9%	120-125	0	0.0%
5-10	90.6	7.3%	65-70	3.8	0.3%	125-130	0	0.0%
10-15	136.3	11.1%	70-75	1.9	0.2%	130-135	0	0.0%
15-20	162.8	13.2%	75-80	1.0	0.1%	135-140	0	0.0%
20-25	169.1	13.7%	80-85	0.4	0.0%	140-145	0	0.0%
25-30	158.2	12.8%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	133.5	10.8%	90-95	0	0.0%	150-155	0	0.0%
35-40	105.7	8.6%	95-100	0	0.0%	155-160	0	0.0%
40-45	83.5	6.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	66.0	5.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	47.9	3.9%	110-115	0	0.0%	170-175	0	0.0%
55-60	28.3	2.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	988	80.1%
0-60	1214	98.4%
0-90	1233	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	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
	5	1325	1315	1313	1311	1310	1311	1313	1315	1325	1315	1313	1311	1310	1311	1313
	10	1231	1222	1219	1217	1216	1217	1219	1222	1231	1222	1219	1217	1216	1217	1219
	15	1089	1080	1077	1075	1075	1075	1077	1080	1089	1080	1077	1075	1075	1075	1077
	20	911	904	900	899	898	899	900	904	911	904	900	899	898	899	900
	25	721	719	719	715	712	715	719	719	721	719	719	715	712	715	719
	30	529	540	551	537	522	537	551	540	529	540	551	537	522	537	551
	35	364	379	401	374	357	374	401	379	364	379	401	374	357	374	401
	40	254	266	284	260	245	260	284	266	254	266	284	260	245	260	284
	45	184	195	206	188	176	188	206	195	184	195	206	188	176	188	206
	50	128	139	150	133	121	133	150	139	128	139	150	133	121	133	150
	55	74	87	98	83	70	83	98	87	74	87	98	83	70	83	98
	60	30	41	49	39	29	39	49	41	30	41	49	39	29	39	49
	65	7	12	16	12	7	12	16	12	7	12	16	12	7	12	16
	70	4	5	6	5	4	5	6	5	4	5	6	5	4	5	6
	75	2	3	3	3	2	3	3	3	2	3	3	3	2	3	3
	80	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	85	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
	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)

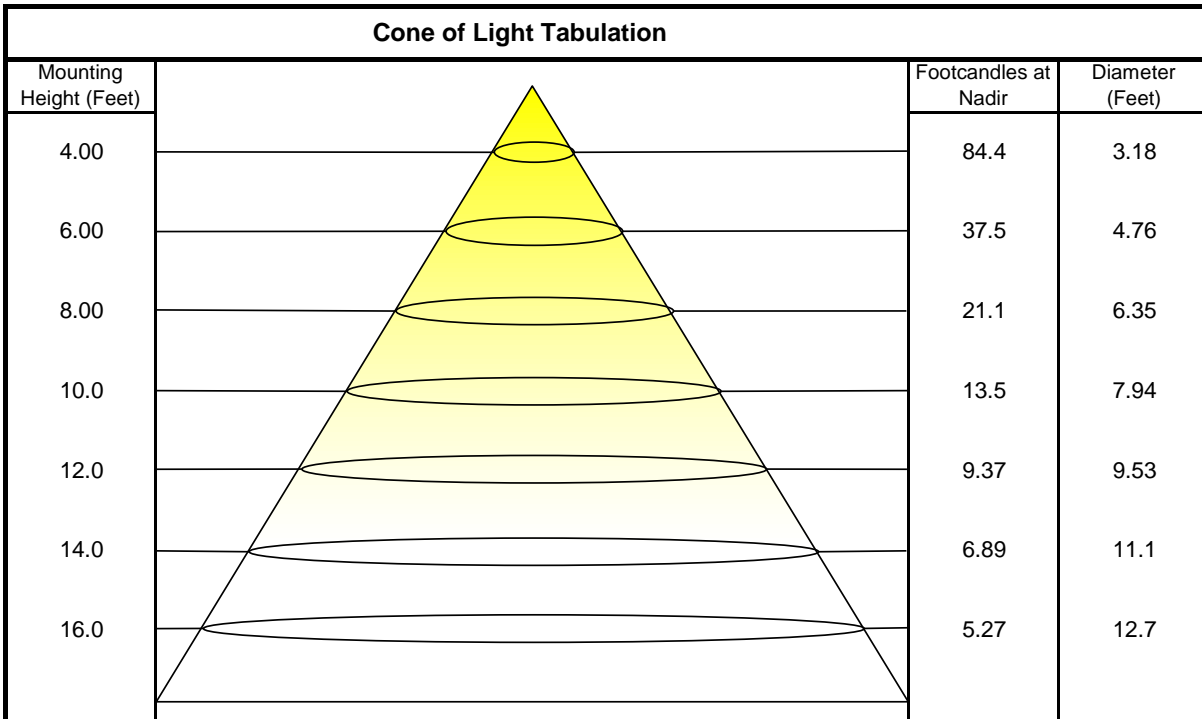
Vertical Angle (Degrees)	0	45	90
	0	334700	334700
	45	64490	72410
	55	31900	42410
	65	4383	9608
	75	1966	2827
	85	1122	1505



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	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86	84
3	100	93	88	84	98	92	87	83	89	85	81	87	83	80	84	81	79	77
4	95	86	80	76	93	85	80	75	83	78	74	81	77	73	79	75	73	71
5	89	80	74	69	88	79	73	69	77	72	68	76	71	67	74	70	67	65
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60
7	80	70	63	59	78	69	63	58	68	62	58	66	61	58	65	61	57	56
8	76	65	59	54	74	65	59	54	64	58	54	62	57	54	61	57	53	52
9	72	61	55	51	71	61	55	51	60	54	50	59	54	50	58	53	50	49
10	68	58	52	47	67	57	51	47	57	51	47	56	51	47	55	50	47	46

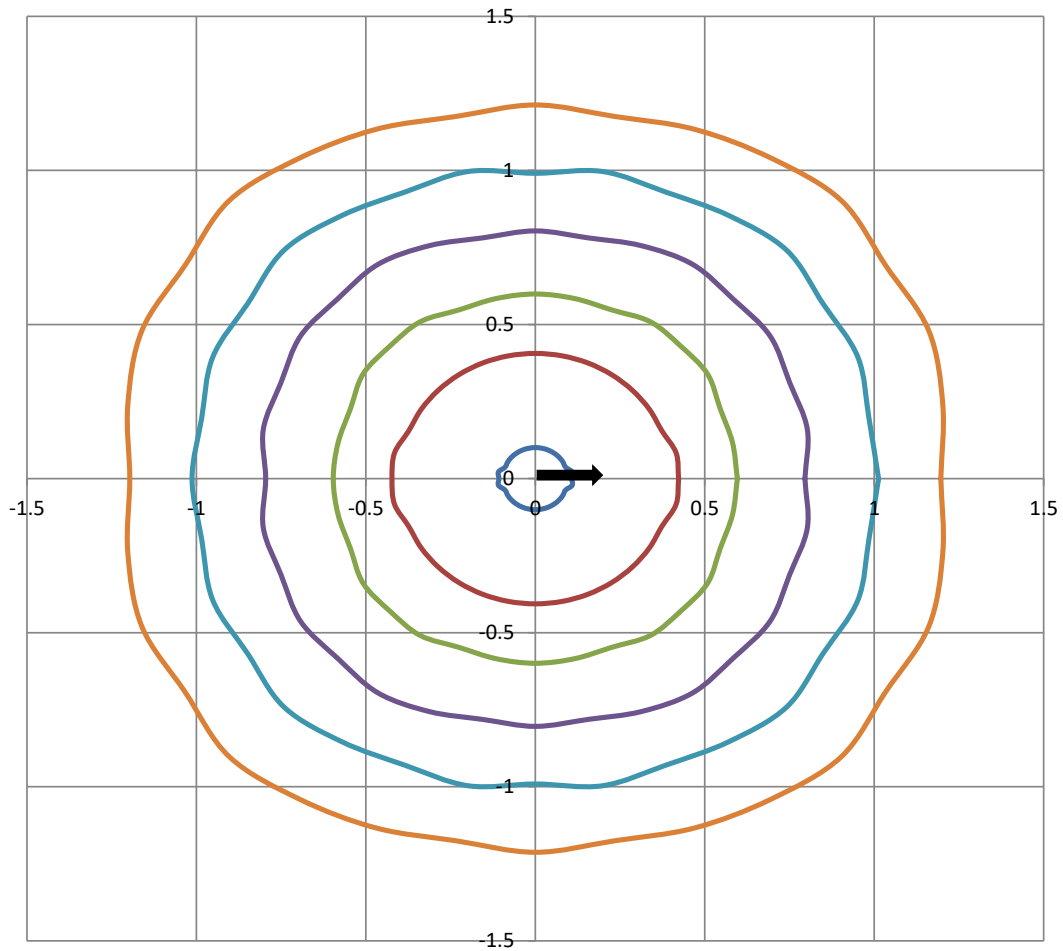
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1350 Candela
Central Cone Intensity:	1337 Candela
Beam Flux:	629.7 Lumens
Beam Angle (0-180):	52.5 Degrees
Beam Angle (90-270):	52.0 Degrees
Field Angle (0-180):	98.7 Degrees
Field Angle (90-270):	97.4 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

20 fc 10 fc 5 fc 2 fc 1 fc 0.5 fc