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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-RM-OF-WH-x-xx
Order Number
13257153
Test Number
13257153.20

Test Date

2020-03-12

Prepared By

Jesse Litchfield, Technician

Approved By

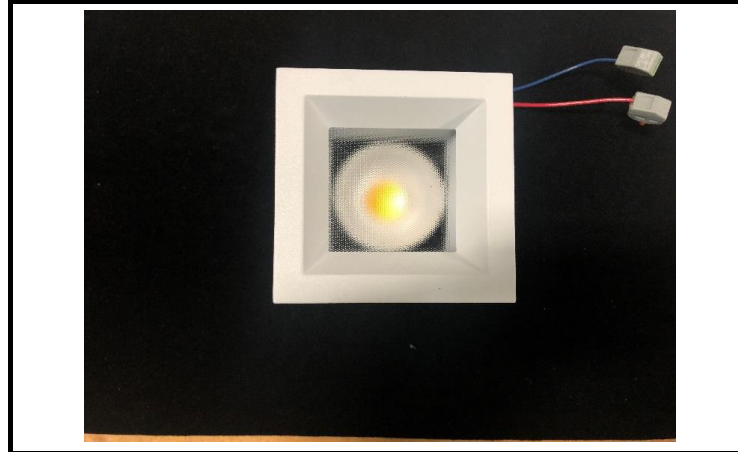
Alexa Lambert, Project Handler

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: 1583 Lumens
Luminaire Efficacy: 91.5 lm/w
Maximum Candela: 3979 Candela

Test Conditions

Test Temperature: 25.3 °C
Voltage: 120.1 VAC
Current: 0.1453 A
Power: 17.31 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

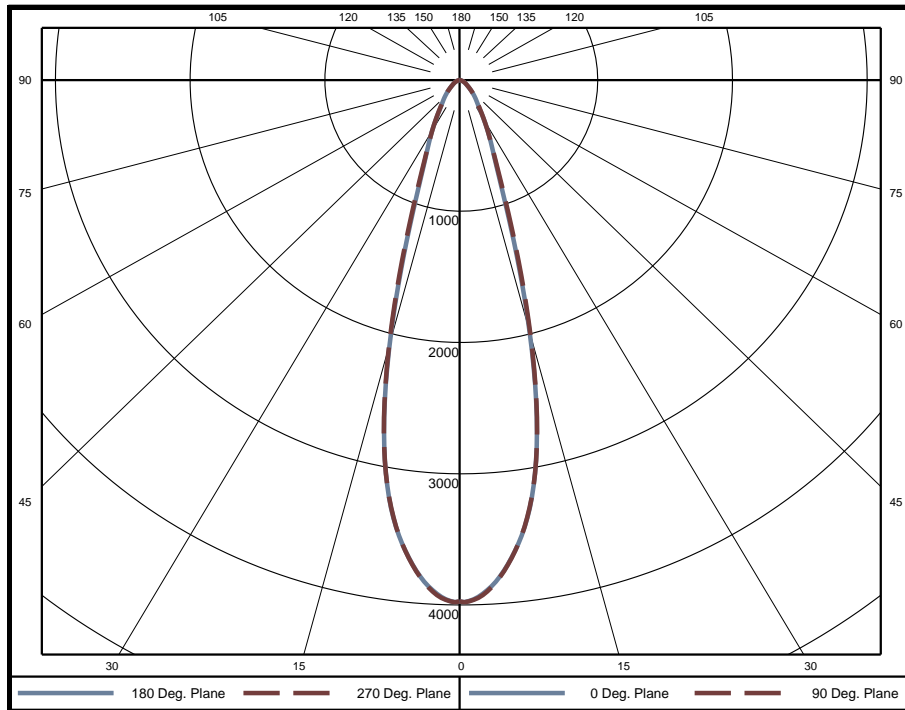
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.3 °C	120.1 VAC	0.1453 A	17.31 W	0.992	60 Hz	10.9 %

Summary of Results

Spacing Criteria
0-180: 0.51
90-270: 0.51

Total Lumen Output: 1583 Lumens
Luminaire Efficacy: 91.5 lm/w
Maximum Candela: 3979 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	92.3	5.8%	60-65	21.1	1.3%	120-125	0	0.0%
5-10	246.9	15.6%	65-70	15.2	1.0%	125-130	0	0.0%
10-15	307.3	19.4%	70-75	9.5	0.6%	130-135	0	0.0%
15-20	240.8	15.2%	75-80	4.3	0.3%	135-140	0	0.0%
20-25	162.2	10.2%	80-85	1.8	0.1%	140-145	0	0.0%
25-30	127.1	8.0%	85-90	0.5	0.0%	145-150	0	0.0%
30-35	100.3	6.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	77.5	4.9%	95-100	0	0.0%	155-160	0	0.0%
40-45	62.0	3.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	49.0	3.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	37.0	2.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	27.8	1.8%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1354	85.6%
0-60	1530	96.7%
0-90	1583	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	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972	3972
	5	3752	3737	3745	3755	3757	3755	3745	3737	3752	3737	3745	3755	3757	3755	3745
	10	3139	3140	3157	3146	3138	3146	3157	3140	3139	3140	3157	3146	3138	3146	3157
	15	1998	2023	2058	2051	2024	2051	2058	2023	1998	2023	2058	2051	2024	2051	2058
	20	962	1015	1072	1045	1005	1045	1072	1015	962	1015	1072	1045	1005	1045	1072
	25	567	600	652	606	572	606	652	600	567	600	652	606	572	606	652
	30	374	411	464	411	376	411	464	411	374	411	464	411	376	411	464
	35	245	271	319	275	251	275	319	271	245	271	319	275	251	275	319
	40	182	191	215	194	182	194	215	191	182	191	215	194	182	194	215
	45	132	142	154	143	133	143	154	142	132	142	154	143	133	143	154
	50	92	101	110	102	93	102	110	101	92	101	110	102	93	102	110
	55	66	71	75	72	67	72	75	71	66	71	75	72	67	72	75
	60	50	51	51	52	50	52	51	51	50	51	51	52	50	52	51
	65	37	37	35	37	37	37	35	37	37	37	35	37	37	35	37
	70	25	24	22	24	25	24	22	24	25	24	22	24	25	24	22
	75	13	13	12	13	13	13	12	13	13	13	12	13	13	13	12
	80	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	85	2	2	2	2	2	2	2	2	2	2	2	2	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)

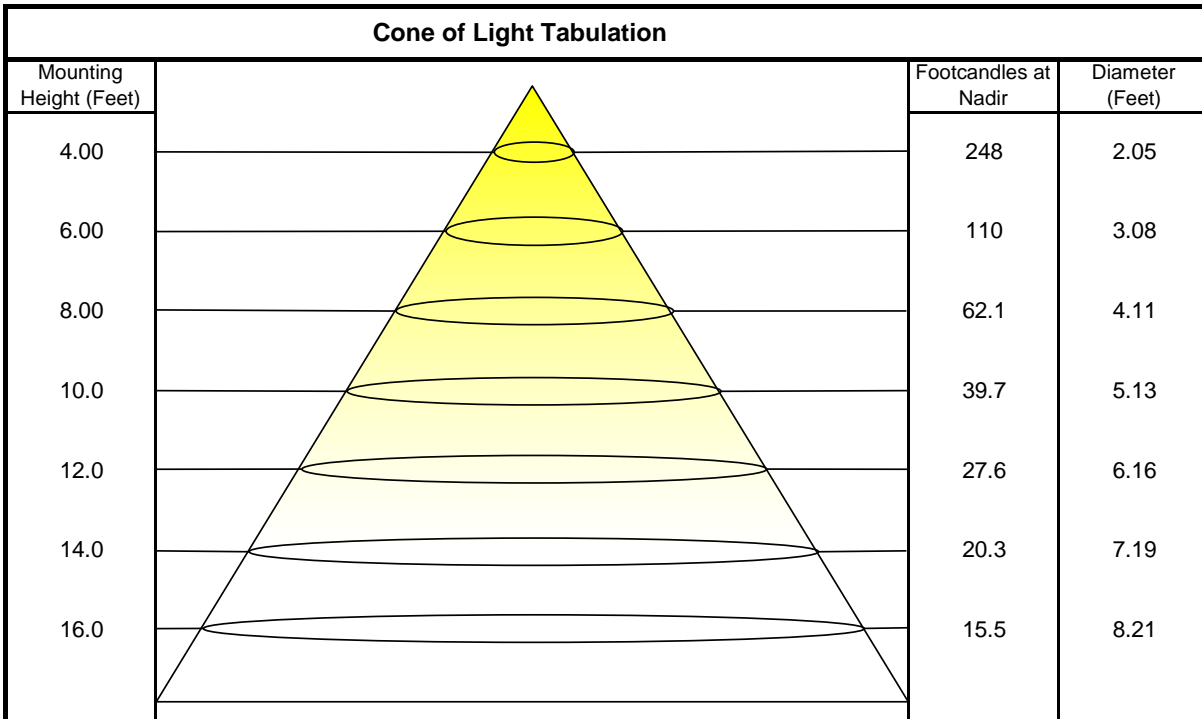
Vertical Angle (Degrees)	0	45	90
	0	985100	985100
	45	46430	54010
	55	28430	32310
	65	21920	20320
	75	12650	11630
	85	5686	5782



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	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	94
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87
3	103	97	92	88	101	95	91	87	93	89	86	90	87	85	88	85	83	82
4	98	91	86	82	96	90	85	81	88	84	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	73
6	90	81	76	72	88	81	75	72	79	75	71	78	74	71	77	73	70	69
7	86	78	72	68	85	77	72	68	76	71	67	74	70	67	73	70	67	65
8	83	74	68	65	82	73	68	65	72	68	64	71	67	64	70	67	64	62
9	80	71	65	62	79	70	65	62	69	65	61	69	64	61	68	64	61	60
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	58	57

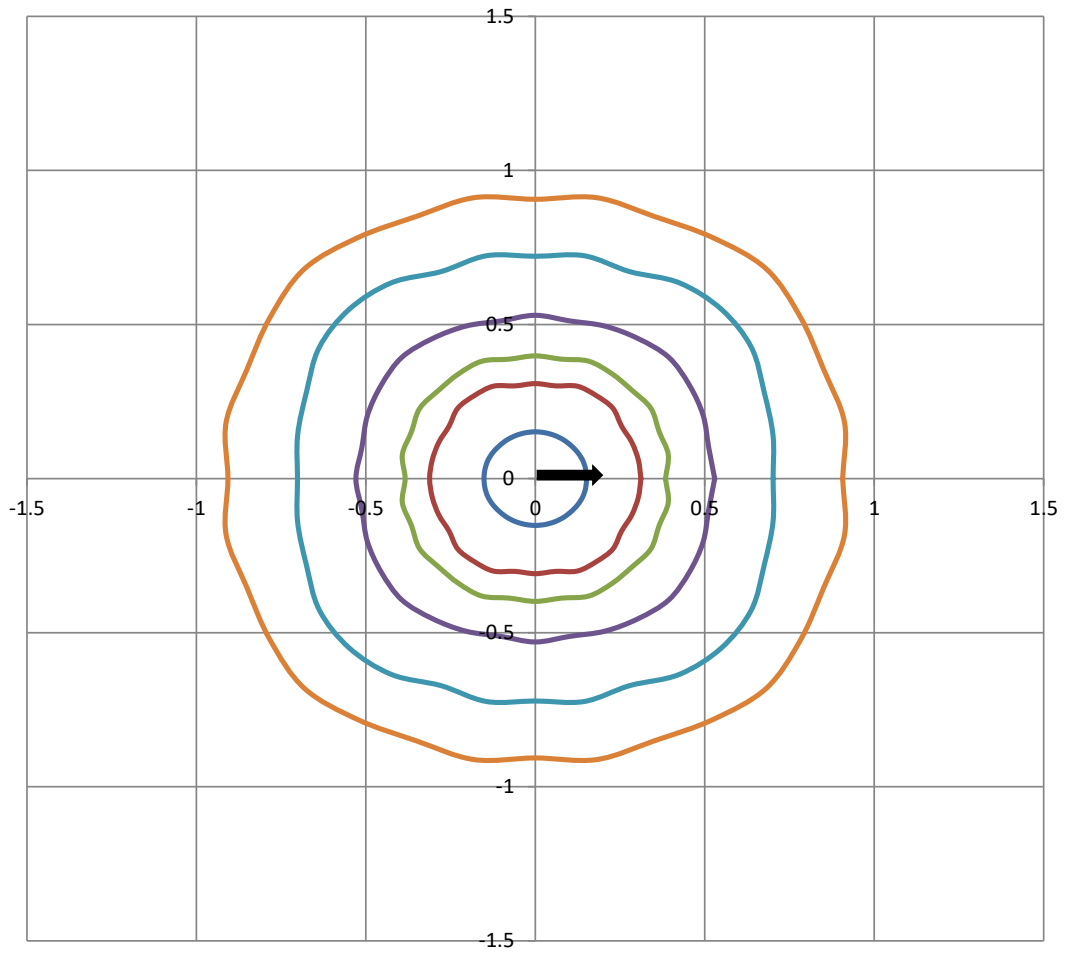
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	3972 Candela
Central Cone Intensity:	3892 Candela
Beam Flux:	656.8 Lumens
Beam Angle (0-180):	30.1 Degrees
Beam Angle (90-270):	30.3 Degrees
Field Angle (0-180):	58.7 Degrees
Field Angle (90-270):	58.7 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

