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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
2DR-L15/835-DIM-UNV-LW-OF-WH-AD-x-xx
Order Number
13257153
Test Number
13257153.02

Test Date

2020-03-10

Prepared By

Jesse Litchfield, Technician

Approved By

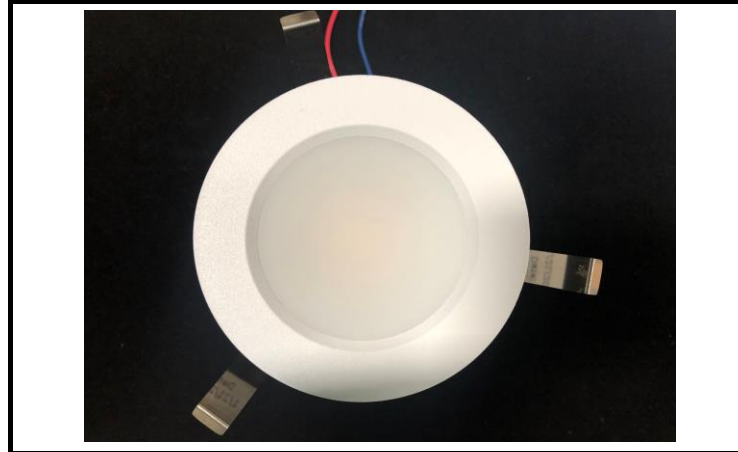
Alexa Lambert, Project Handler

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:	1429 Lumens
Luminaire Efficacy:	82.6 lm/w
Maximum Candela:	1054 Candela

Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.1 VAC
Current:	0.1451 A
Power:	17.29 W
Power Factor:	0.992
Frequency:	60 Hz
Current THD:	11.0 %

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



Distribution - Goniophotometer

Distribution Test Conditions

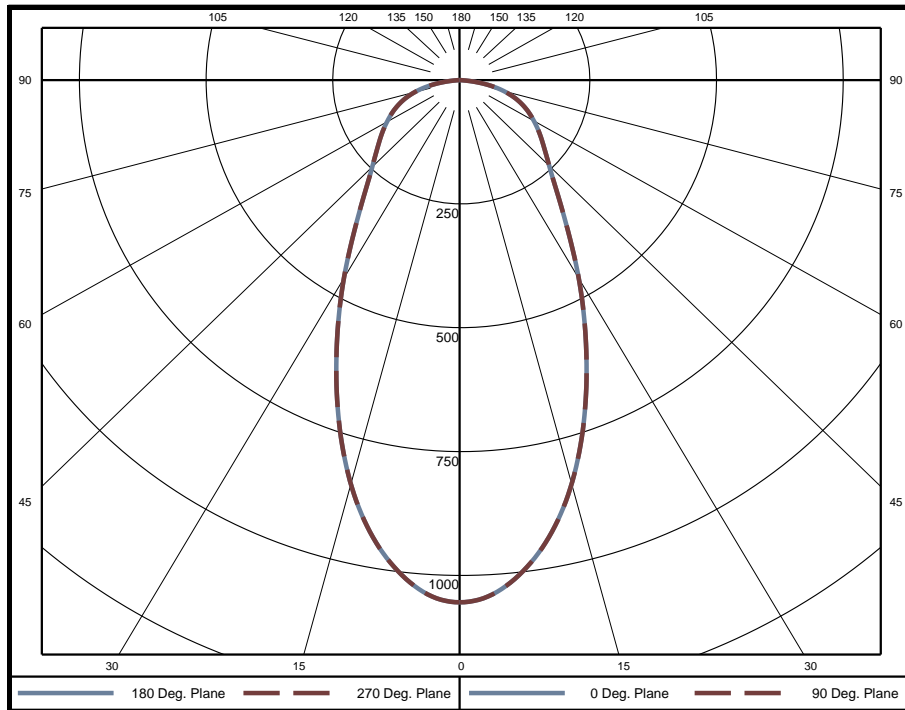
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.1 °C	120.1 VAC	0.1451 A	17.29 W	0.992	60 Hz	11.0 %

Summary of Results

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

Total Lumen Output: 1429 Lumens
Luminaire Efficacy: 82.6 lm/w
Maximum Candela: 1054 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	24.9	1.7%	60-65	74.7	5.2%	120-125	0	0.0%
5-10	70.5	4.9%	65-70	66.3	4.6%	125-130	0	0.0%
10-15	105.8	7.4%	70-75	54.8	3.8%	130-135	0	0.0%
15-20	126.7	8.9%	75-80	39.1	2.7%	135-140	0	0.0%
20-25	133.3	9.3%	80-85	19.1	1.3%	140-145	0	0.0%
25-30	129.4	9.1%	85-90	2.5	0.2%	145-150	0	0.0%
30-35	118.7	8.3%	90-95	0	0.0%	150-155	0	0.0%
35-40	106.9	7.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	97.6	6.8%	100-105	0	0.0%	160-165	0	0.0%
45-50	91.5	6.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	86.5	6.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	81.2	5.7%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	816	57.1%
0-60	1173	82.1%
0-90	1430	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	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054	1054
	5	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025	1025
	10	949	949	949	949	949	949	949	949	949	949	949	949	949	949	949
	15	838	838	838	838	838	838	838	838	838	838	838	838	838	838	838
	20	704	704	704	704	704	704	704	704	704	704	704	704	704	704	704
	25	573	573	573	573	573	573	573	573	573	573	573	573	573	573	573
	30	456	456	456	456	456	456	456	456	456	456	456	456	456	456	456
	35	358	358	358	358	358	358	358	358	358	358	358	358	358	358	358
	40	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289
	45	243	243	243	243	243	243	243	243	243	243	243	243	243	243	243
	50	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
	55	187	187	187	187	187	187	187	187	187	187	187	187	187	187	187
	60	165	165	165	165	165	165	165	165	165	165	165	165	165	165	165
	65	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143
	70	119	119	119	119	119	119	119	119	119	119	119	119	119	119	119
	75	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90
	80	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
	85	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	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)

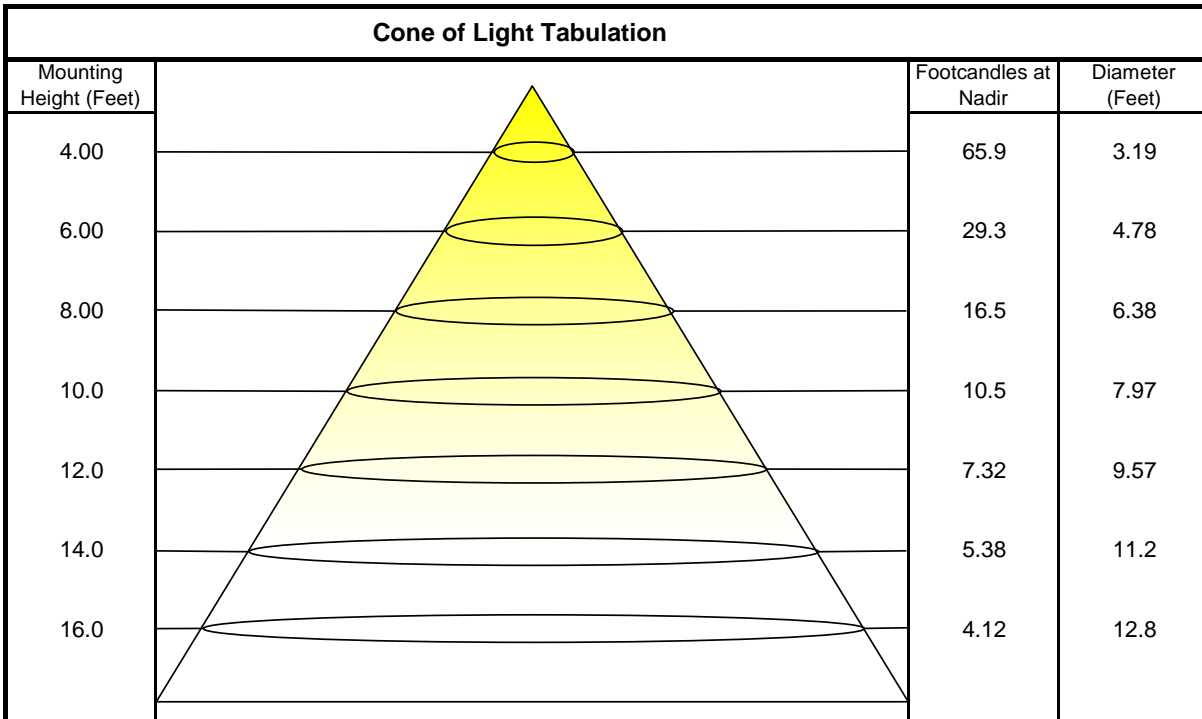
Vertical Angle (Degrees)	0	45	90
	0	332900	332900
	45	108400	108400
	55	103100	103100
	65	106700	106700
	75	109800	109800
	85	54610	54610



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	110	105	101	98	107	103	100	96	99	96	93	95	93	91	91	90	88	86
2	101	93	87	82	98	92	86	81	88	83	79	85	81	77	82	79	76	74
3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	63	59	57
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	51
6	75	63	55	49	73	62	54	49	60	53	48	59	53	48	57	52	47	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41
8	66	54	46	41	65	53	46	40	52	45	40	51	44	40	49	44	40	38
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33

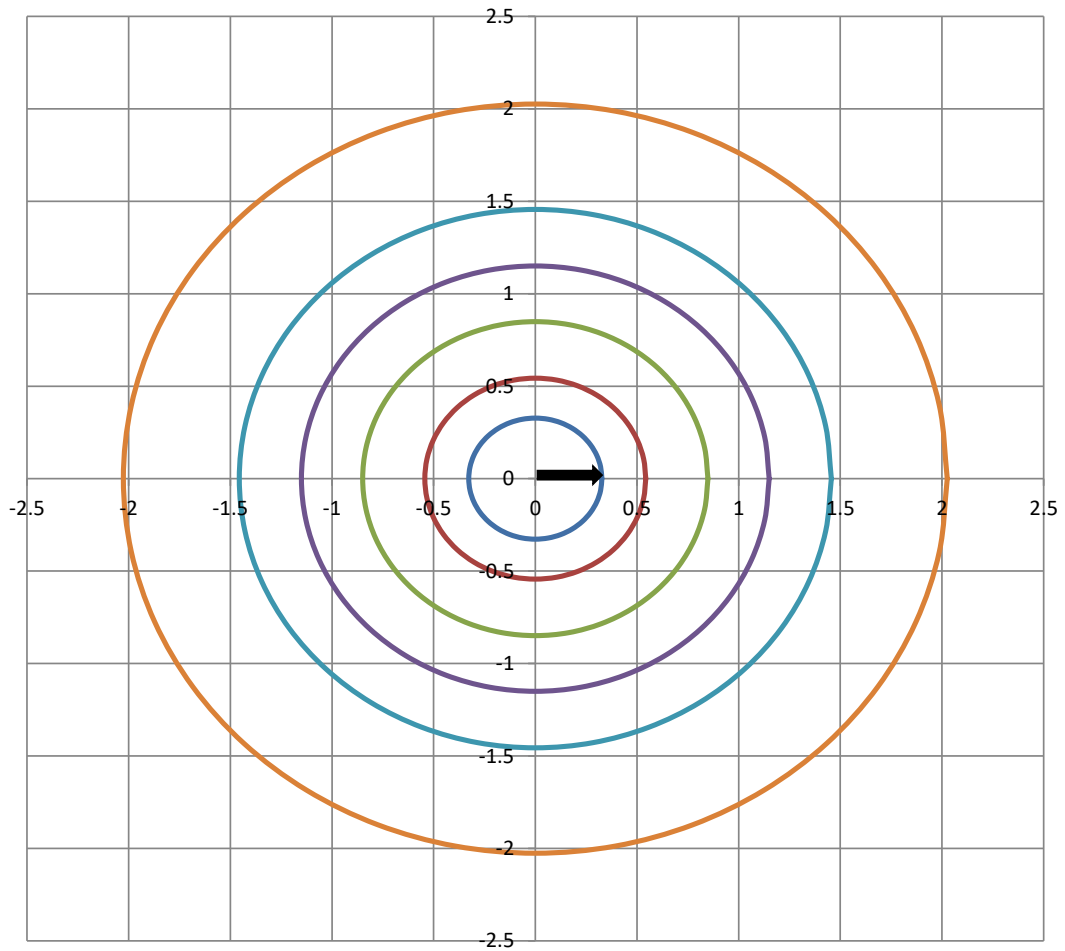
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1054 Candela
Central Cone Intensity:	1044 Candela
Beam Flux:	509.9 Lumens
Beam Angle (0-180):	53.7 Degrees
Beam Angle (90-270):	53.7 Degrees
Field Angle (0-180):	144.9 Degrees
Field Angle (90-270):	144.9 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

10 fc 5 fc 2 fc 1 fc 0.5 fc 0.2 fc