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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-L12/9DW-DIM-UNV-OM-OF-CS-x-xx
Order Number
13131414
Test Number
13131414.30

Test Date

2019-12-02

Prepared By

Josh Mitchell, Technician

Approved By

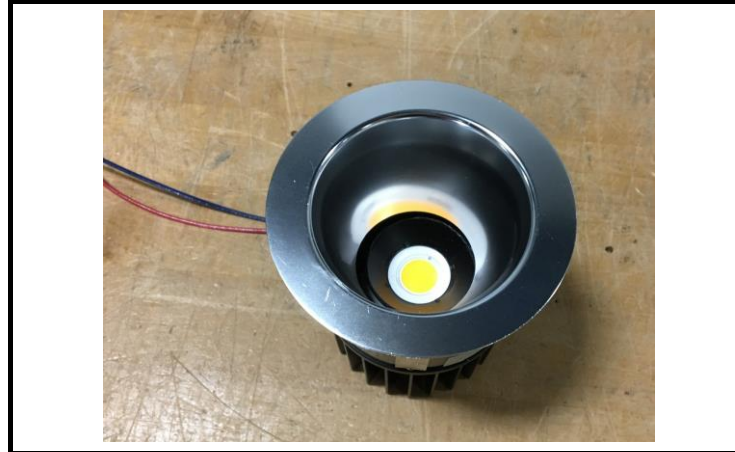
Alexa Lambert, Project Handler

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Luminaire Description: Aluminum housing and reflector, no lens enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: Philips Advance XI025C070V054DSM1

Luminaire



Luminaire Characteristics
Luminous Diameter: 2.50 in.

Summary of Results

Total Luminaire Output:	1243 Lumens
Luminaire Efficacy:	53.3 lm/w
Maximum Candela:	2904 Candela

Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.1 VAC
Current:	0.1951 A
Power:	23.33 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	7.78 %

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



Distribution - Goniophotometer

Distribution Test Conditions

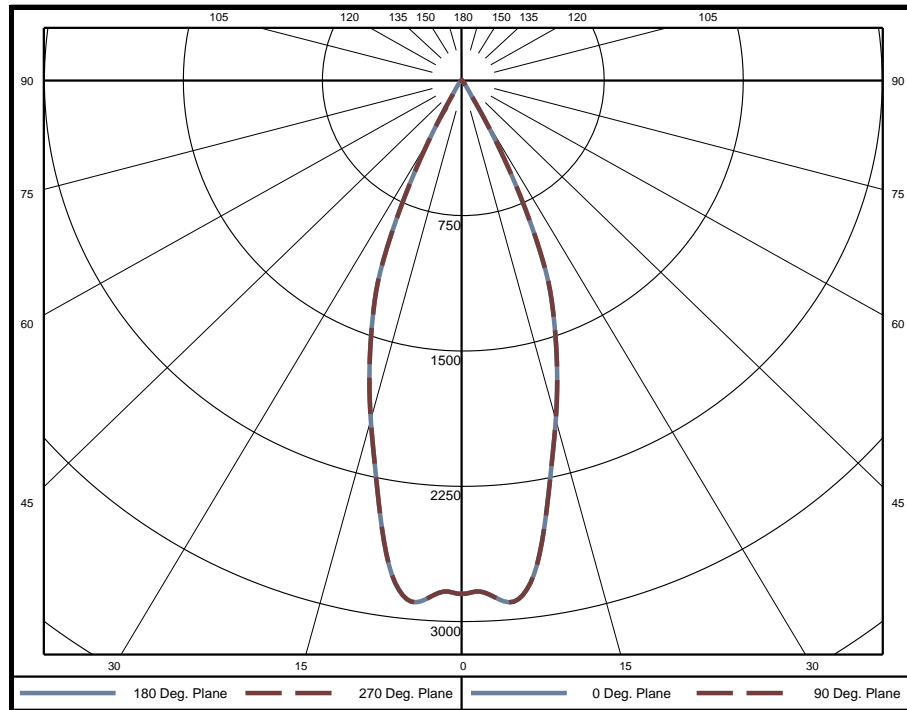
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.8 °C	120.1 VAC	0.1951 A	23.33 W	0.996	60 Hz	7.78 %

Summary of Results

Spacing Criteria
0-180: 0.65
90-270: 0.65

Total Lumen Output: 1243 Lumens
Luminaire Efficacy: 53.3 lm/w
Maximum Candela: 2904 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	68.6	5.5%	60-65	0.8	0.1%	120-125	0	0.0%
5-10	197.4	15.9%	65-70	0.5	0.0%	125-130	0	0.0%
10-15	260.7	21.0%	70-75	0.3	0.0%	130-135	0	0.0%
15-20	277.4	22.3%	75-80	0.1	0.0%	135-140	0	0.0%
20-25	247.0	19.9%	80-85	0.1	0.0%	140-145	0	0.0%
25-30	129.5	10.4%	85-90	0.0	0.0%	145-150	0	0.0%
30-35	30.2	2.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	13.1	1.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	8.3	0.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	5.3	0.4%	105-110	0	0.0%	165-170	0	0.0%
50-55	2.8	0.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	1.5	0.1%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1224	98.5%
0-60	1242	99.9%
0-90	1244	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	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847	2847
	5	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904	2904
	10	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528	2528
	15	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941	1941
	20	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450
	25	863	863	863	863	863	863	863	863	863	863	863	863	863	863	863
	30	225	225	225	225	225	225	225	225	225	225	225	225	225	225	225
	35	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
	40	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
	45	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	50	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	55	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	60	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	70	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	75	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
	85	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
	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)

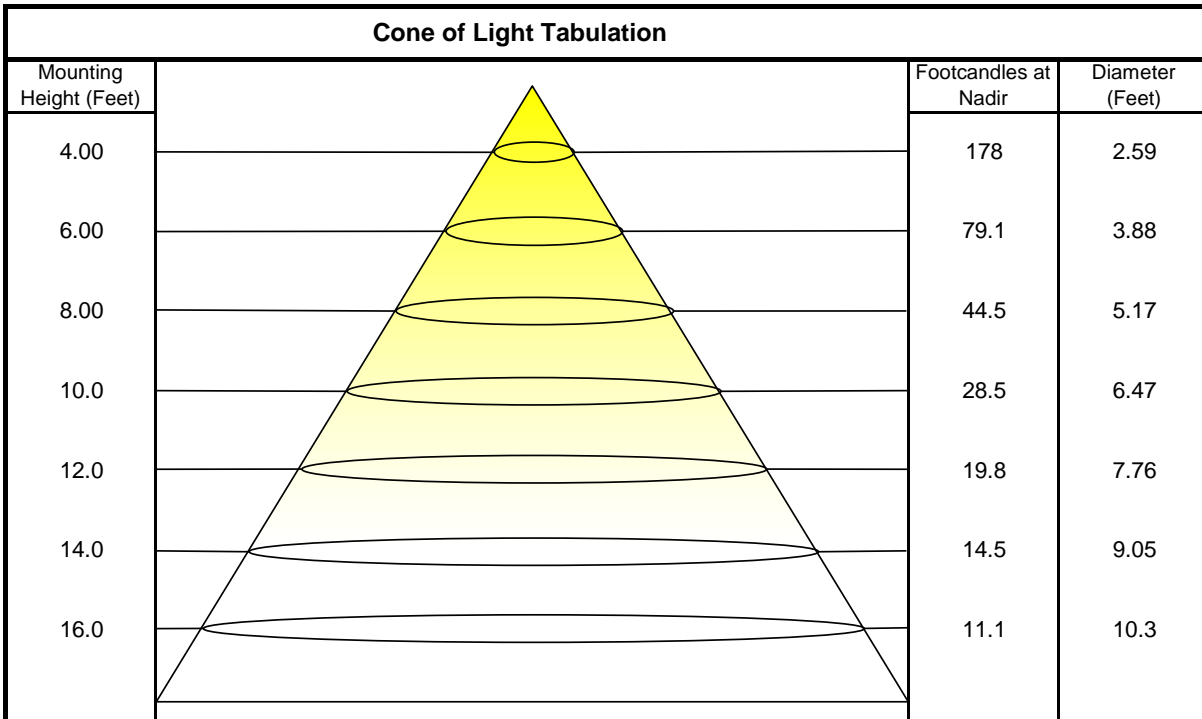
Vertical Angle (Degrees)	0	45	90
	0	898900	898900
	45	7774	7774
	55	2396	2396
	65	956	956
	75	454	454
	85	222	222



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	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	96
2	110	106	103	100	108	105	102	99	101	99	97	98	97	95	96	94	93	91
3	106	101	97	94	104	100	96	93	97	94	91	95	92	90	93	90	89	87
4	102	96	92	88	101	95	91	88	93	90	87	91	88	86	89	87	85	84
5	98	92	87	84	97	91	87	83	89	86	83	88	84	82	86	83	81	80
6	95	88	83	80	94	87	83	79	86	82	79	84	81	78	83	80	78	77
7	92	84	79	76	90	84	79	76	82	78	76	81	78	75	80	77	75	74
8	88	81	76	73	87	80	76	73	79	75	72	78	75	72	78	74	72	71
9	85	78	73	70	84	77	73	70	76	72	70	76	72	69	75	72	69	68
10	83	75	70	67	82	74	70	67	74	70	67	73	69	67	72	69	67	66

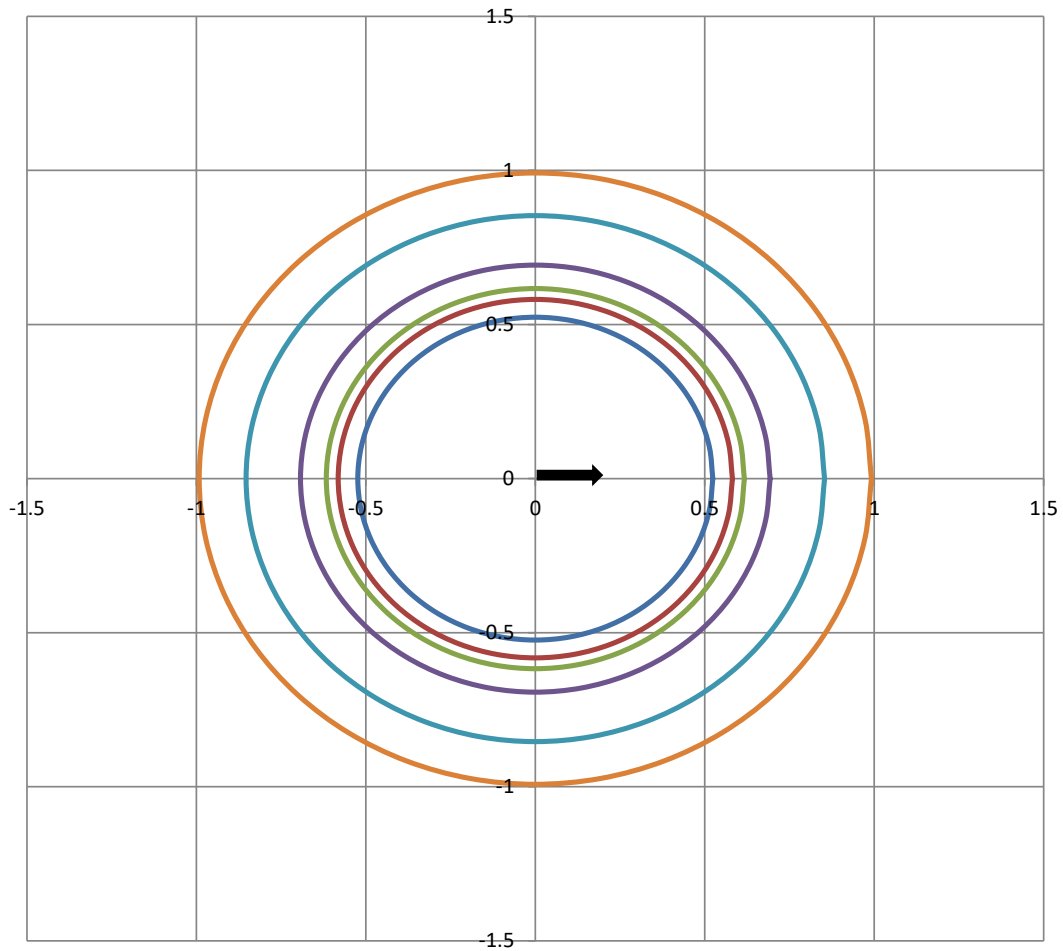
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2847 Candela
Central Cone Intensity:	2859 Candela
Beam Flux:	817.3 Lumens
Beam Angle (0-180):	40.6 Degrees
Beam Angle (90-270):	40.6 Degrees
Field Angle (0-180):	58.8 Degrees
Field Angle (90-270):	58.8 Degrees





ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc