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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

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United States

Catalog Number
2DR-L25/835-DIM-UNV-ON-OF-CS-x-xx

Order Number
13131414
Test Number
13131414.09

Test Date

2019-11-26

Prepared By

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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 and reflector, no lens enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: Philips Advance XI036C100V054DSM1

Luminaire



Luminaire Characteristics
Luminous Diameter: 2.50 in.

Summary of Results

Total Luminaire Output:	1957 Lumens
Luminaire Efficacy:	65.1 lm/w
Maximum Candela:	12931 Candela

Test Conditions

Test Temperature:	24.4 °C
Voltage:	120.0 VAC
Current:	0.2512 A
Power:	30.04 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.67 %

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



Distribution - Goniophotometer

Distribution Test Conditions

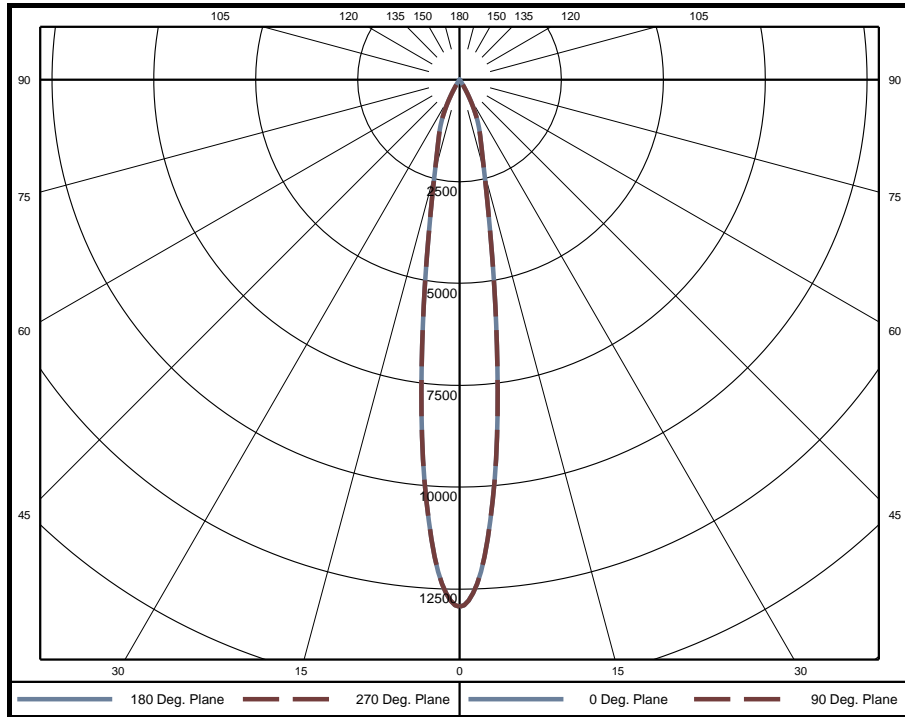
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.2512 A	30.04 W	0.996	60 Hz	6.67 %

Summary of Results

Spacing Criteria
 0-180: 0.28
 90-270: 0.28

Total Lumen Output: 1957 Lumens
Luminaire Efficacy: 65.1 lm/w
Maximum Candela: 12931 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	271.1	13.9%	60-65	2.6	0.1%	120-125	0	0.0%
5-10	495.0	25.3%	65-70	2.4	0.1%	125-130	0	0.0%
10-15	386.1	19.7%	70-75	2.1	0.1%	130-135	0	0.0%
15-20	301.5	15.4%	75-80	1.9	0.1%	135-140	0	0.0%
20-25	252.7	12.9%	80-85	2.0	0.1%	140-145	0	0.0%
25-30	154.7	7.9%	85-90	1.8	0.1%	145-150	0	0.0%
30-35	47.1	2.4%	90-95	0	0.0%	150-155	0	0.0%
35-40	13.4	0.7%	95-100	0	0.0%	155-160	0	0.0%
40-45	9.2	0.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	6.0	0.3%	105-110	0	0.0%	165-170	0	0.0%
50-55	4.2	0.2%	110-115	0	0.0%	170-175	0	0.0%
55-60	3.2	0.2%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1922	98.2%
0-60	1944	99.3%
0-90	1957	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	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930	12930
	5	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878	9878
	10	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764	4764
	15	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338	2338
	20	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487	1487
	25	926	926	926	926	926	926	926	926	926	926	926	926	926	926	926
	30	334	334	334	334	334	334	334	334	334	334	334	334	334	334	334
	35	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
	40	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	45	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
	50	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	55	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	60	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	65	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	70	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	75	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	80	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	90	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	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	4083000	4083000
	45	8600	8600
	55	4622	4622
	65	3575	3575
	75	4775	4775
	85	12040	12040



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	113	111	109	113	111	109	107	107	105	104	103	102	101	100	99	98	96
2	111	107	104	102	109	106	103	101	103	100	99	100	98	96	97	96	94	93
3	108	103	99	96	106	101	98	95	99	96	94	97	94	93	95	93	91	90
4	104	99	95	92	103	98	94	91	96	93	90	94	91	89	92	90	88	87
5	101	95	91	88	100	94	90	88	93	89	87	91	88	86	90	87	85	84
6	98	92	88	85	97	91	87	84	90	86	84	89	86	83	88	85	83	82
7	95	89	85	82	94	88	84	82	87	84	81	86	83	81	85	83	80	79
8	93	86	82	79	92	86	82	79	85	81	79	84	81	79	83	80	78	77
9	90	84	80	77	90	83	80	77	83	79	77	82	79	76	81	78	76	75
10	88	81	77	75	87	81	77	75	80	77	75	80	77	74	79	76	74	73

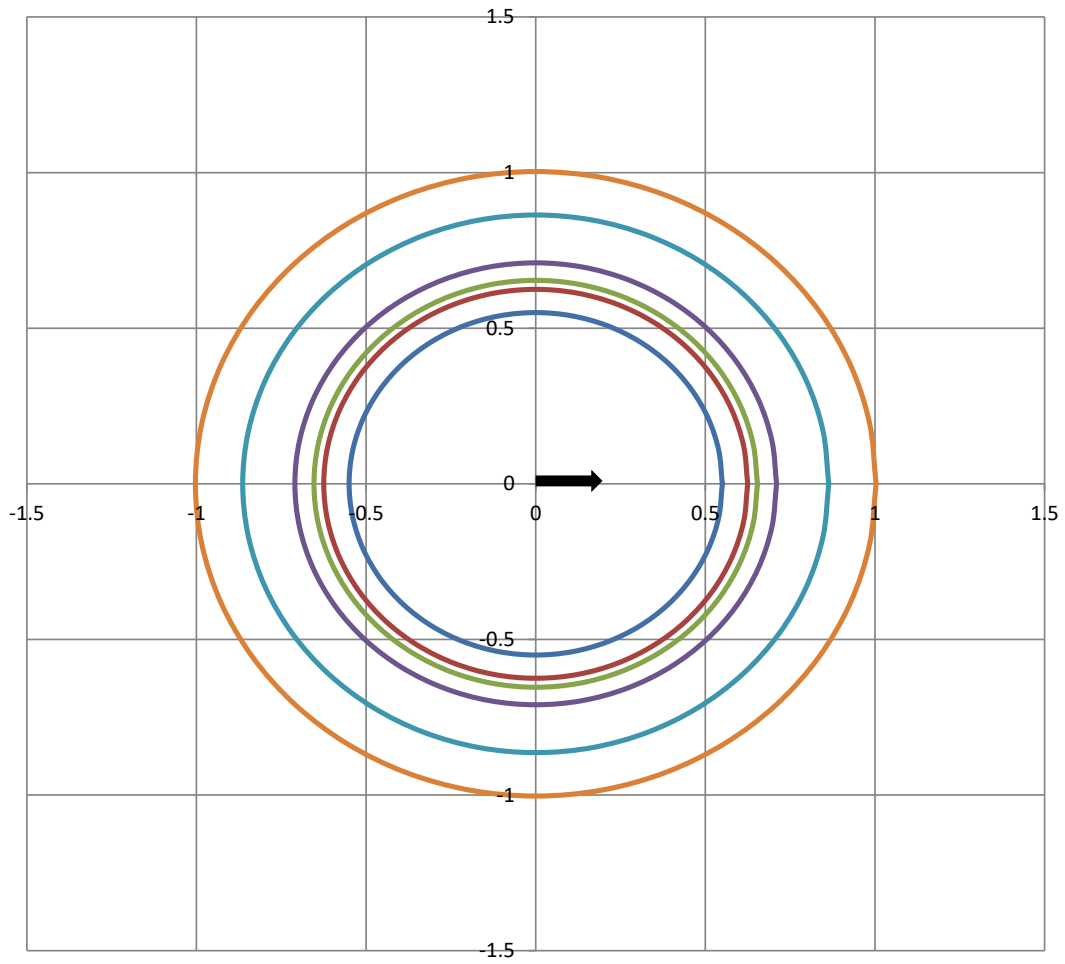
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	12930 Candela
Central Cone Intensity:	11796 Candela
Beam Flux:	587.6 Lumens
Beam Angle (0-180):	16.2 Degrees
Beam Angle (90-270):	16.2 Degrees
Field Angle (0-180):	43.6 Degrees
Field Angle (90-270):	43.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		808	1.12
6.00		359	1.67
8.00		202	2.23
10.0		129	2.79
12.0		89.8	3.35
14.0		66.0	3.90
16.0		50.5	4.46



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

