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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-OM-OF-SG-x-xx

Order Number
13131414
Test Number
13131414.08

Test Date

2019-11-26

Prepared By

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Approved By

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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:	2124 Lumens
Luminaire Efficacy:	70.7 lm/w
Maximum Candela:	4241 Candela

Test Conditions

Test Temperature:	24.4 °C
Voltage:	120.0 VAC
Current:	0.2513 A
Power:	30.05 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

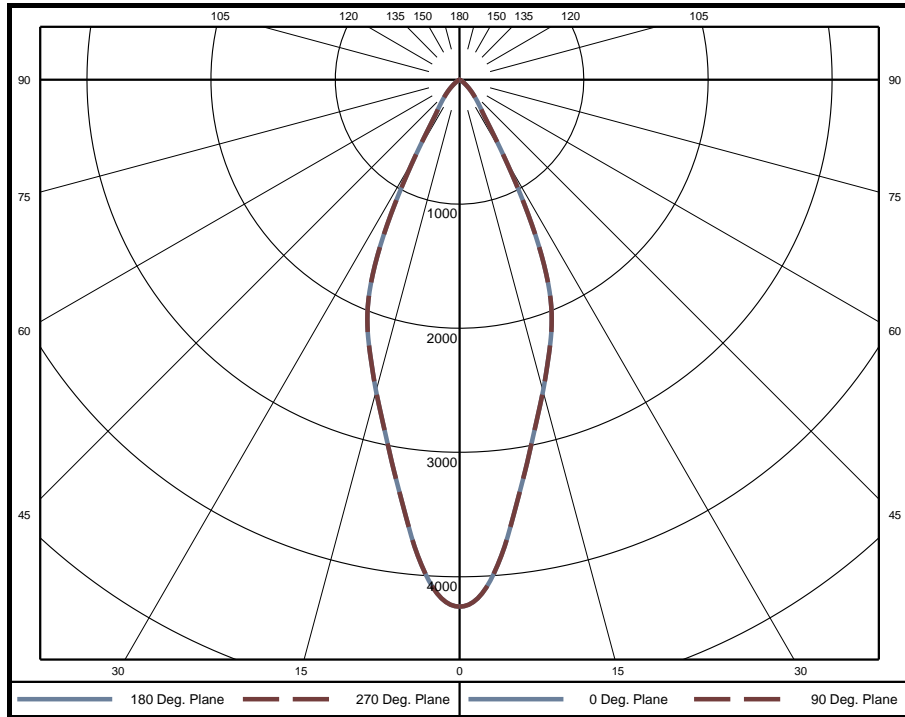
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.4 °C	120.0 VAC	0.2513 A	30.05 W	0.996	60 Hz	6.67 %

Summary of Results

Spacing Criteria
 0-180: 0.61
 90-270: 0.61

Total Lumen Output: 2124 Lumens
 Luminaire Efficacy: 70.7 lm/w
 Maximum Candela: 4241 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	96.7	4.6%	60-65	6.5	0.3%	120-125	0	0.0%
5-10	245.9	11.6%	65-70	3.5	0.2%	125-130	0	0.0%
10-15	335.6	15.8%	70-75	1.8	0.1%	130-135	0	0.0%
15-20	389.1	18.3%	75-80	0.9	0.0%	135-140	0	0.0%
20-25	395.3	18.6%	80-85	0.3	0.0%	140-145	0	0.0%
25-30	282.5	13.3%	85-90	0.1	0.0%	145-150	0	0.0%
30-35	139.4	6.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	87.4	4.1%	95-100	0	0.0%	155-160	0	0.0%
40-45	62.6	2.9%	100-105	0	0.0%	160-165	0	0.0%
45-50	41.1	1.9%	105-110	0	0.0%	165-170	0	0.0%
50-55	23.1	1.1%	110-115	0	0.0%	170-175	0	0.0%
55-60	12.2	0.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1972	92.8%
0-60	2111	99.4%
0-90	2124	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	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241	4241
	5	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847	3847
	10	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130	3130
	15	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594	2594
	20	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158	2158
	25	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561	1561
	30	719	719	719	719	719	719	719	719	719	719	719	719	719	719	719
	35	326	326	326	326	326	326	326	326	326	326	326	326	326	326	326
	40	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
	45	133	133	133	133	133	133	133	133	133	133	133	133	133	133	133
	50	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
	55	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
	60	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	65	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	70	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	75	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	80	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	1339000	1339000
	45	59520	59520
	55	20210	20210
	65	7102	7102
	75	2889	2889
	85	1209	1209



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	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	109	104	101	97	107	103	99	96	99	97	94	96	94	92	94	92	90	89
3	104	98	93	90	102	97	92	89	94	91	88	92	89	86	89	87	85	83
4	99	92	87	83	98	91	87	83	89	85	82	87	84	81	85	82	80	79
5	95	87	82	78	93	86	81	78	85	80	77	83	79	76	81	78	76	74
6	91	83	77	73	89	82	77	73	80	76	72	79	75	72	78	74	72	70
7	87	78	73	69	86	78	73	69	77	72	69	75	71	68	74	71	68	67
8	83	75	69	65	82	74	69	65	73	68	65	72	68	65	71	67	64	63
9	80	71	66	62	79	71	65	62	70	65	62	69	65	62	68	64	61	60
10	77	68	63	59	76	67	62	59	67	62	59	66	62	59	65	61	59	57

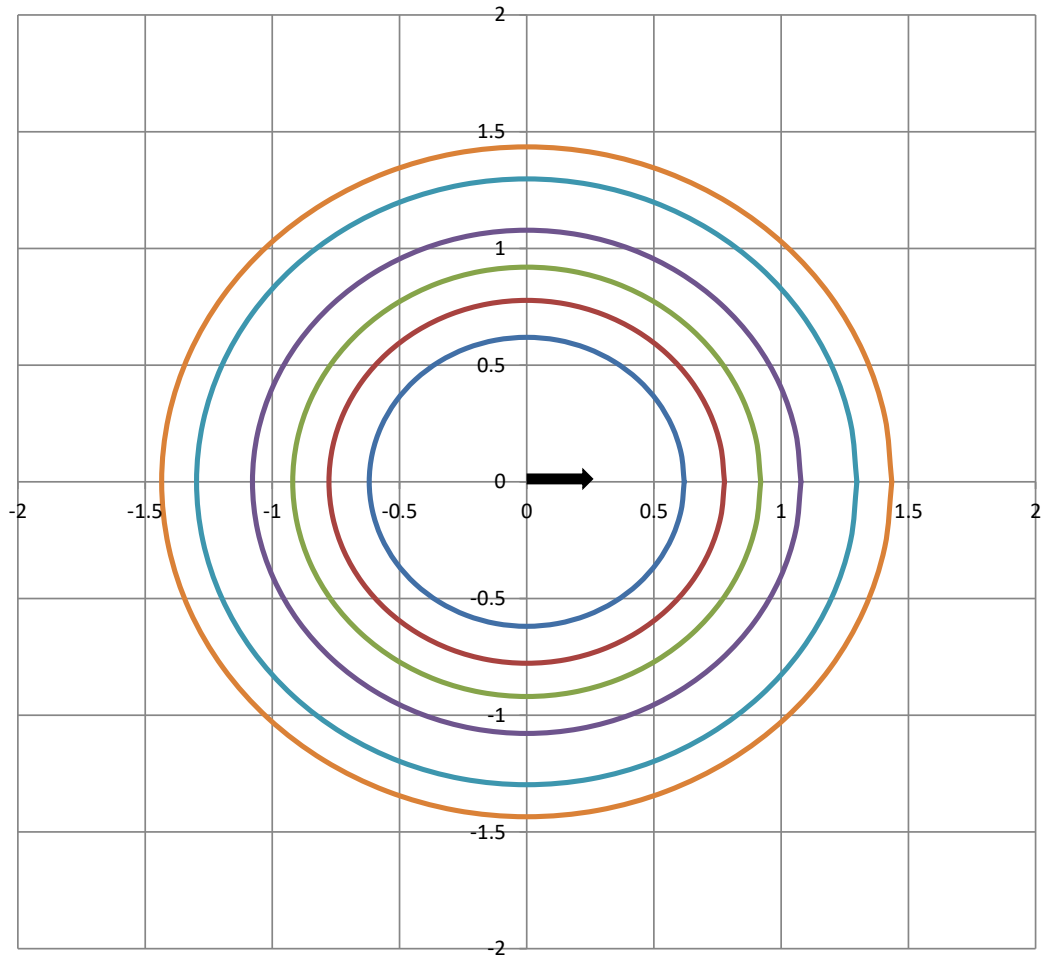
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	4241 Candela
Central Cone Intensity:	4100 Candela
Beam Flux:	1103.5 Lumens
Beam Angle (0-180):	40.8 Degrees
Beam Angle (90-270):	40.8 Degrees
Field Angle (0-180):	65.9 Degrees
Field Angle (90-270):	65.9 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		265	2.43
6.00		118	3.64
8.00		66.3	4.86
10.0		42.4	6.07
12.0		29.5	7.29
14.0		21.6	8.50
16.0		16.6	9.71



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

