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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
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United States

Catalog Number
2DR-L25/835-DIM-UNV-ON-OF-SG-x-xx
Order Number
13131414
Test Number
13131414.11

Test Date

2019-11-27

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:	1754 Lumens
Luminaire Efficacy:	58.4 lm/w
Maximum Candela:	6207 Candela

Test Conditions

Test Temperature:	24.3 °C
Voltage:	120.0 VAC
Current:	0.2511 A
Power:	30.03 W
Power Factor:	0.996
Frequency:	60 Hz
Current THD:	6.68 %

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



Distribution - Goniophotometer

Distribution Test Conditions

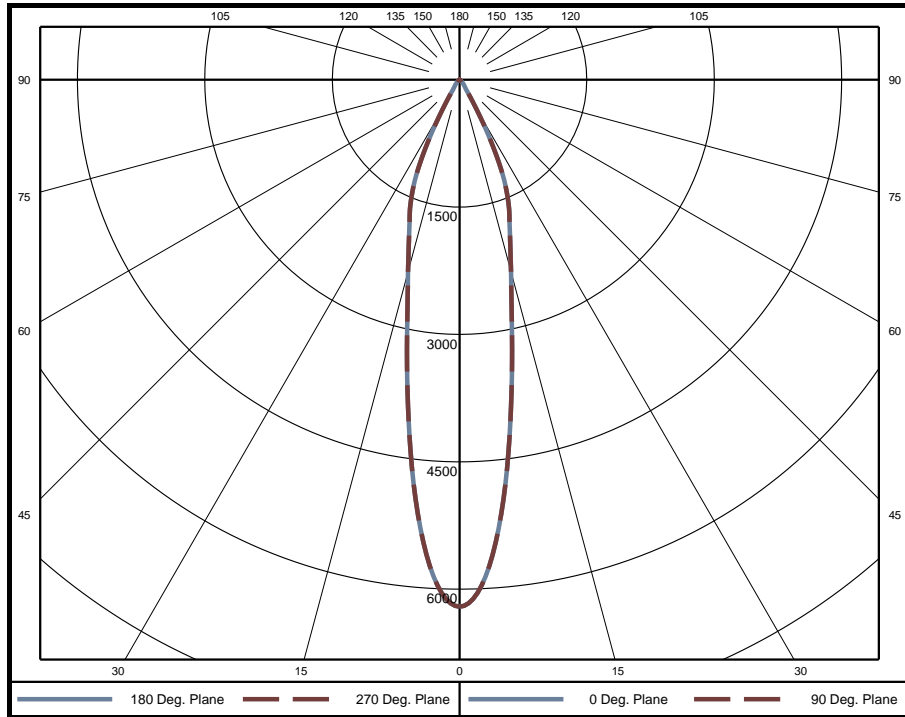
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.3 °C	120.0 VAC	0.2511 A	30.03 W	0.996	60 Hz	6.68 %

Summary of Results

Spacing Criteria
 0-180: 0.39
 90-270: 0.39

Total Lumen Output: 1754 Lumens
Luminaire Efficacy: 58.4 lm/w
Maximum Candela: 6207 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	137.4	7.8%	60-65	2.7	0.2%	120-125	0	0.0%
5-10	310.1	17.7%	65-70	1.6	0.1%	125-130	0	0.0%
10-15	337.6	19.2%	70-75	0.9	0.1%	130-135	0	0.0%
15-20	327.8	18.7%	75-80	0.4	0.0%	135-140	0	0.0%
20-25	305.3	17.4%	80-85	0.2	0.0%	140-145	0	0.0%
25-30	187.8	10.7%	85-90	0.0	0.0%	145-150	0	0.0%
30-35	61.5	3.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	32.1	1.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	22.4	1.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	13.9	0.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	7.9	0.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	4.6	0.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1700	96.9%
0-60	1748	99.7%
0-90	1754	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	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207	6207
	5	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304	5304
	10	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560	3560
	15	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351	2351
	20	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722	1722
	25	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152
	30	389	389	389	389	389	389	389	389	389	389	389	389	389	389	389
	35	121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
	40	77	77	77	77	77	77	77	77	77	77	77	77	77	77	77
	45	46	46	46	46	46	46	46	46	46	46	46	46	46	46	46
	50	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	55	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
	60	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	65	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	70	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	75	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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	1960000	1960000
	45	20650	20650
	55	7342	7342
	65	3119	3119
	75	1405	1405
	85	585	585



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

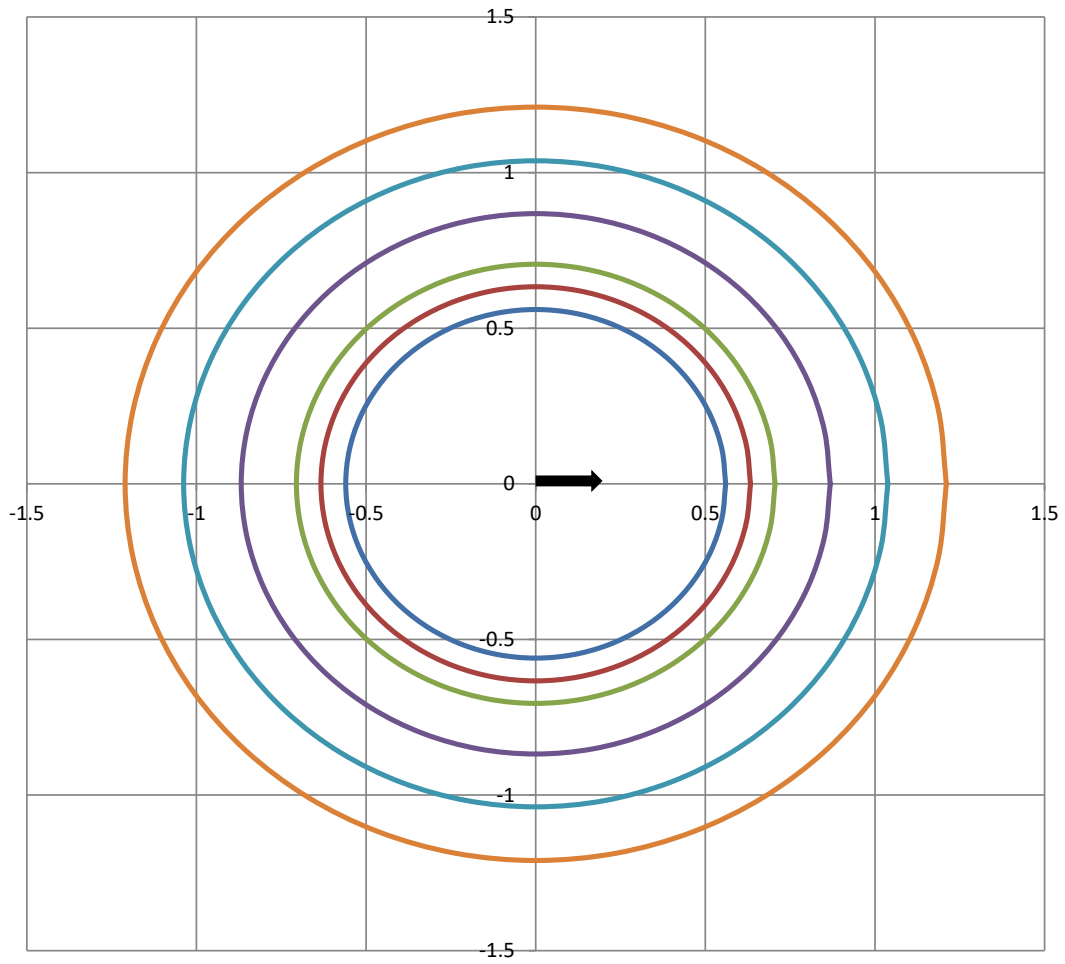
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	6207 Candela
Central Cone Intensity:	5880 Candela
Beam Flux:	552.4 Lumens
Beam Angle (0-180):	23.0 Degrees
Beam Angle (90-270):	23.0 Degrees
Field Angle (0-180):	56.6 Degrees
Field Angle (90-270):	56.6 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		388	1.54
6.00		172	2.31
8.00		97.0	3.09
10.0		62.1	3.86
12.0		43.1	4.63
14.0		31.7	5.40
16.0		24.2	6.17



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