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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-OW-OF-CS-WET/CC-x-xx
Order Number
13131414
Test Number
13131414.02

Test Date

2019-11-25

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, clear plastic 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:	2162 Lumens
Luminaire Efficacy:	71.8 lm/w
Maximum Candela:	1853 Candela

Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.2516 A
Power:	30.09 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
25.1 °C	120.0 VAC	0.2516 A	30.09 W	0.996	60 Hz	6.67 %

Summary of Results

Spacing Criteria

0-180: 1.10

90-270: 1.10

Total Lumen Output:

2162 Lumens

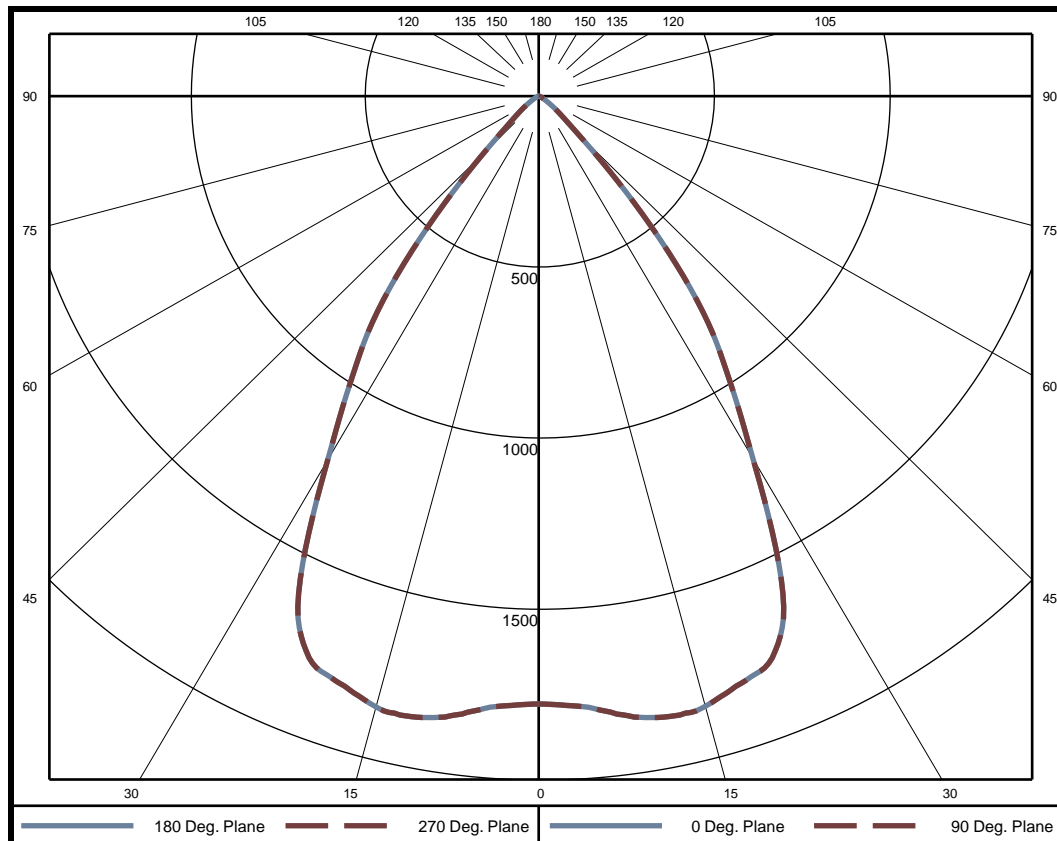
Luminaire Efficacy:

71.8 lm/w

Maximum Candela:

1853 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	42.7	2.0%	60-65	6.1	0.3%	120-125	0	0.0%
5-10	130.6	6.0%	65-70	3.2	0.1%	125-130	0	0.0%
10-15	219.5	10.2%	70-75	1.4	0.1%	130-135	0	0.0%
15-20	299.8	13.9%	75-80	0.5	0.0%	135-140	0	0.0%
20-25	365.7	16.9%	80-85	0.2	0.0%	140-145	0	0.0%
25-30	361.6	16.7%	85-90	0.0	0.0%	145-150	0	0.0%
30-35	304.3	14.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	232.7	10.8%	95-100	0	0.0%	155-160	0	0.0%
40-45	114.7	5.3%	100-105	0	0.0%	160-165	0	0.0%
45-50	44.1	2.0%	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	11.4	0.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1957	90.5%
0-60	2150	99.5%
0-90	2162	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	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777	1777
	5	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797	1797
	10	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
	15	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
	20	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798	1798
	25	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647	1647
	30	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211	1211
	35	881	881	881	881	881	881	881	881	881	881	881	881	881	881	881
	40	497	497	497	497	497	497	497	497	497	497	497	497	497	497	497
	45	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
	50	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74
	55	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	60	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	65	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
	70	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	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	561100	561100
	45	74600	74600
	55	19560	19560
	65	6719	6719
	75	1908	1908
	85	563	563



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	113	110	108	106	111	108	106	104	104	102	101	100	99	98	97	96	95	93
2	107	102	98	95	105	101	97	93	97	94	91	94	92	89	92	89	88	86
3	102	95	90	86	100	93	89	85	91	87	84	88	85	82	86	83	81	79
4	96	88	82	78	94	87	82	78	85	80	77	83	79	76	81	78	75	73
5	91	82	76	72	89	81	75	71	79	74	71	78	73	70	76	72	69	68
6	86	77	70	66	84	76	70	66	74	69	65	73	68	65	72	67	64	63
7	81	72	65	61	80	71	65	61	70	64	60	68	64	60	67	63	60	58
8	77	67	61	57	76	67	61	56	65	60	56	64	60	56	63	59	56	54
9	73	63	57	53	72	63	57	53	62	56	52	61	56	52	60	55	52	51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47

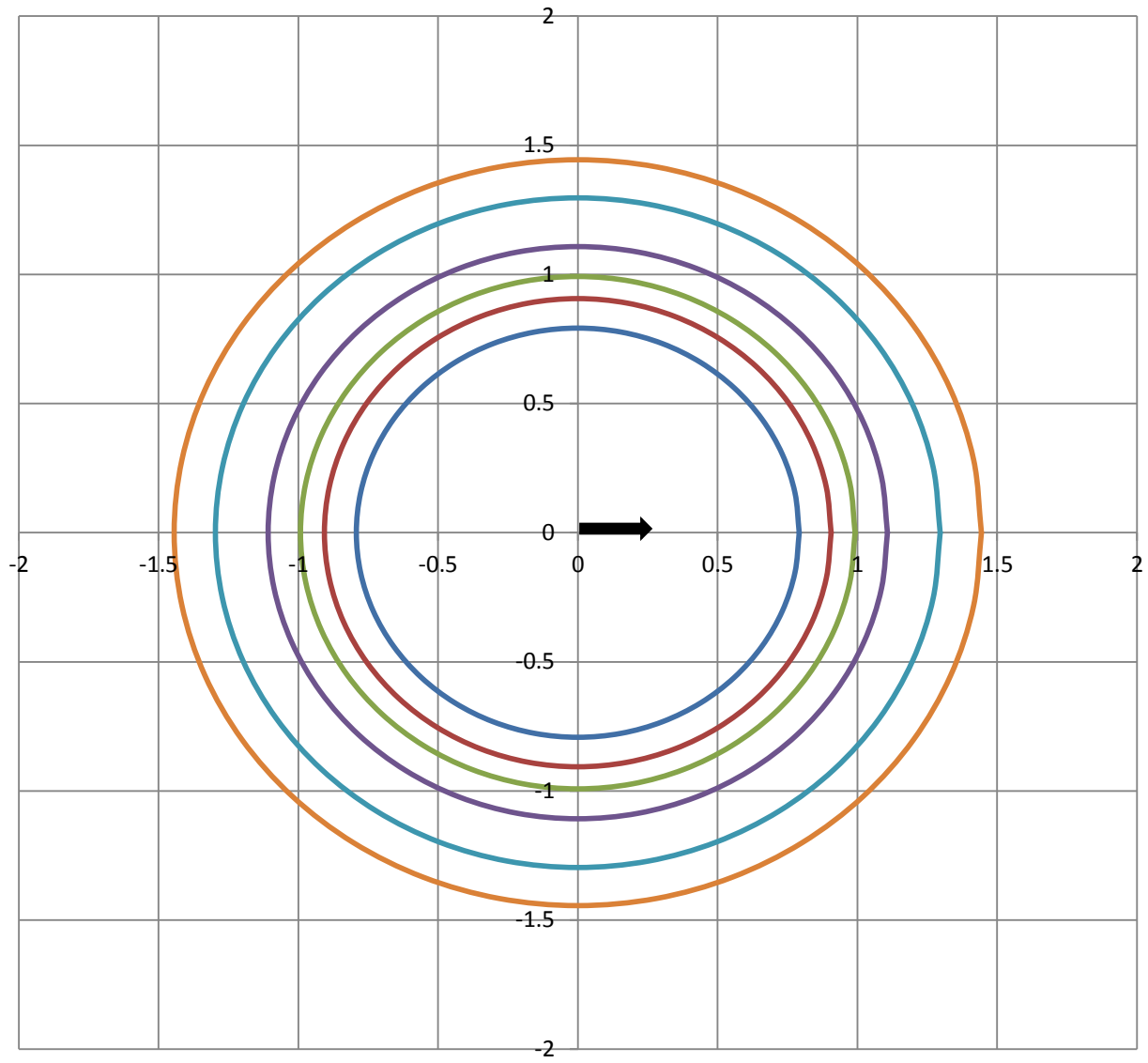
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1777 Candela
Central Cone Intensity:	1784 Candela
Beam Flux:	1715.7 Lumens
Beam Angle (0-180):	69.7 Degrees
Beam Angle (90-270):	69.7 Degrees
Field Angle (0-180):	89.5 Degrees
Field Angle (90-270):	89.5 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		111	4.39
6.00		49.4	6.59
8.00		27.8	8.79
10.0		17.8	11.0
12.0		12.3	13.2
14.0		9.07	15.4
16.0		6.94	17.6



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

