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Indoor Distribution Test Report

Relevant Standards
IES LM-79-2008, ANSI C82.77-2002

Prepared For
H E Williams Inc

831 W Fairview Ave
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United States

Catalog Number
6DR-L20/835-DIM-UNV-A-WW-OF-WH-AD

Order Number
12326812
Test Number
12326812.17

Test Date

2018-06-04

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: Black formed aluminum housing, white reflector, clear patterned glass lens enclosure
Lamp: One white LED
Mounting: Recessed
Ballast/Driver: Philips XI025C070V054DSM5

Luminaire



Luminaire Characteristics

Luminous Diameter: 5.50 in.

Summary of Results

Total Luminaire Output:	1089 Lumens
Luminaire Efficacy:	57 lm/w
Maximum Candela:	869 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.1602 A
Power:	19.11 W
Power Factor:	0.994
Frequency:	60 Hz
Current THD:	9.65 %

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



Distribution - Goniophotometer

Distribution Test Conditions

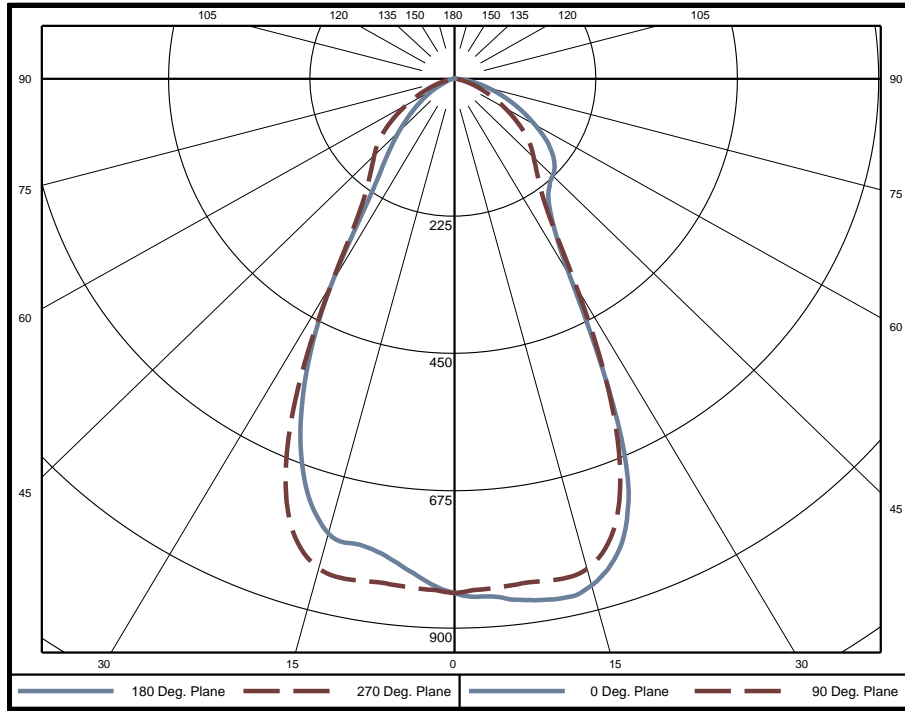
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.1602 A	19.11 W	0.994	60 Hz	9.65 %

Summary of Results

Spacing Criteria
 0-180: 0.97
 90-270: 0.96

Total Lumen Output: 1089 Lumens
Luminaire Efficacy: 57.0 lm/w
Maximum Candela: 869 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	20.0	1.8%	60-65	38.5	3.5%	120-125	0	0.0%
5-10	59.4	5.5%	65-70	27.2	2.5%	125-130	0	0.0%
10-15	97.9	9.0%	70-75	17.6	1.6%	130-135	0	0.0%
15-20	130.1	11.9%	75-80	10.1	0.9%	135-140	0	0.0%
20-25	142.7	13.1%	80-85	4.5	0.4%	140-145	0	0.0%
25-30	123.3	11.3%	85-90	1.0	0.1%	145-150	0	0.0%
30-35	92.4	8.5%	90-95	0	0.0%	150-155	0	0.0%
35-40	76.3	7.0%	95-100	0	0.0%	155-160	0	0.0%
40-45	70.8	6.5%	100-105	0	0.0%	160-165	0	0.0%
45-50	66.8	6.1%	105-110	0	0.0%	165-170	0	0.0%
50-55	59.9	5.5%	110-115	0	0.0%	170-175	0	0.0%
55-60	49.9	4.6%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	742	68.1%
0-60	990	90.9%
0-90	1088	99.9%
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	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8	842.8
	5	852.6	853.6	849.8	844.1	836.0	827.0	818.2	814.3	810.0	814.3	818.2	827.0	836.0	844.1	849.8
	10	866.3	859.2	854.6	846.3	835.7	819.2	801.7	789.0	780.7	789.0	801.7	819.2	835.7	846.3	854.6
	15	857.8	841.6	835.6	834.1	830.3	815.8	790.5	777.2	771.7	777.2	790.5	815.8	830.3	834.1	835.6
	20	796.1	761.6	759.0	766.3	765.4	761.2	741.4	723.7	696.9	723.7	741.4	761.2	765.4	766.3	759.0
	25	620.0	568.7	575.6	595.2	607.5	614.2	610.0	597.2	567.8	597.2	610.0	614.2	607.5	595.2	575.6
	30	366.1	344.8	353.9	374.3	392.4	411.9	425.3	429.1	394.0	429.1	425.3	411.9	392.4	374.3	353.9
	35	269.4	257.4	255.7	256.1	258.5	265.3	269.8	261.4	231.4	261.4	269.8	265.3	258.5	256.1	255.7
	40	235.9	228.0	222.0	215.3	208.8	202.1	191.1	183.6	168.5	183.6	191.1	202.1	208.8	215.3	222.0
	45	223.5	216.7	207.8	194.8	180.1	163.7	147.5	138.6	127.5	138.6	147.5	163.7	180.1	194.8	207.8
	50	208.9	199.3	190.4	175.5	154.8	130.1	112.8	103.6	93.9	103.6	112.8	130.1	154.8	175.5	190.4
	55	183.1	171.0	161.5	146.0	123.4	100.5	84.0	74.9	66.7	74.9	84.0	100.5	123.4	146.0	161.5
	60	147.9	136.7	127.7	111.9	91.3	72.3	58.6	51.1	44.1	51.1	58.6	72.3	91.3	111.9	127.7
	65	114.3	103.4	94.7	79.6	62.5	47.9	37.3	31.0	25.0	31.0	37.3	47.9	62.5	79.6	94.7
	70	82.2	72.7	64.3	52.1	39.2	27.9	20.3	16.6	14.4	16.6	20.3	27.9	39.2	52.1	64.3
	75	54.5	46.1	39.5	30.3	21.0	13.8	10.6	10.7	9.8	10.7	10.6	13.8	21.0	30.3	39.5
	80	30.6	24.4	20.0	14.0	8.7	6.1	6.3	6.6	5.8	6.6	6.3	6.1	8.7	14.0	20.0
	85	11.4	7.2	5.5	3.6	2.5	2.7	2.9	3.0	2.4	3.0	2.9	2.7	2.5	3.6	5.5
	90	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.1	0.4	0.4	0.4	0.4	0.3	0.2
	95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)

Horizontal Angle (Degrees)

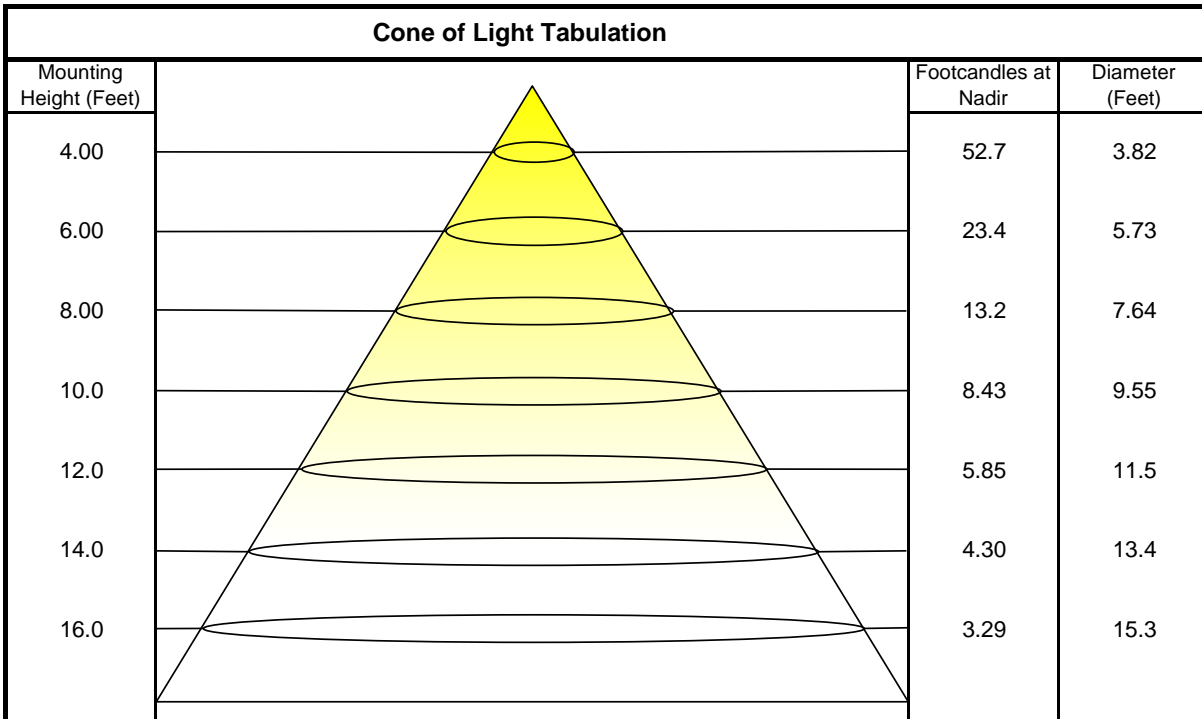
Vertical Angle (Degrees)	0	45	90
	0	54990	54990
	45	20620	16620
	55	20830	14030
	65	17640	9652
	75	13730	5286
	85	8564	1835



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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	91	81	74	69	89	80	73	68	77	72	67	75	70	67	73	69	66	64
5	85	74	67	62	83	73	67	61	71	65	61	70	64	60	68	63	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	64	56	51	73	63	56	51	62	55	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

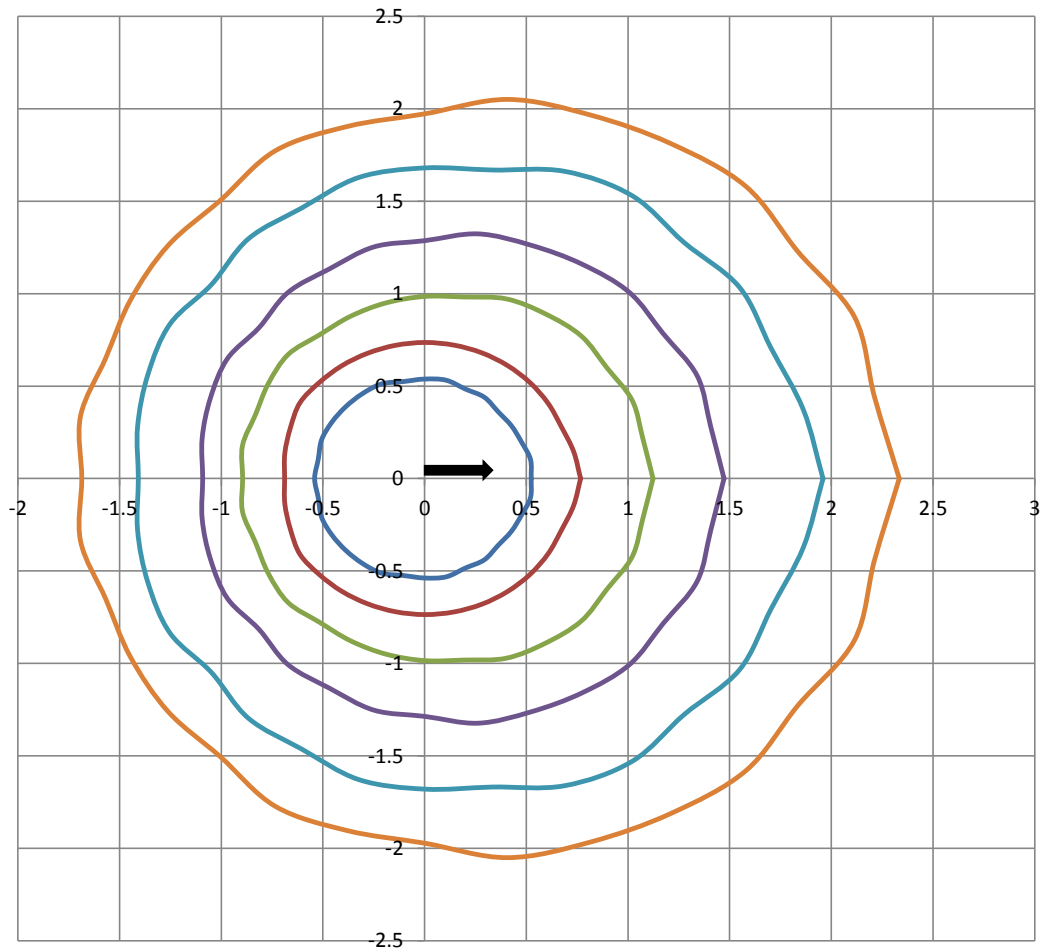
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	842.8 Candela
Central Cone Intensity:	839 Candela
Beam Flux:	555.9 Lumens
Beam Angle (0-180):	58.0 Degrees
Beam Angle (90-270):	58.6 Degrees
Field Angle (0-180):	121.3 Degrees
Field Angle (90-270):	122.3 Degrees





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