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Indoor Distribution Test Report

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

Prepared For
H E Williams Inc

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United States

Catalog Number
6DR-L20/835-DIM-UNV-R-W-OF-WH

Order Number
12326812
Test Number
12326812.12

Test Date

2018-06-05

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

Luminaire



Luminaire Characteristics
Luminous Diameter: 5.75 in.

Summary of Results

Total Luminaire Output:	1445 Lumens
Luminaire Efficacy:	75.7 lm/w
Maximum Candela:	1069 Candela

Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.1600 A
Power:	19.08 W
Power Factor:	0.994
Frequency:	60 Hz
Current THD:	9.69 %

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



Distribution - Goniophotometer

Distribution Test Conditions

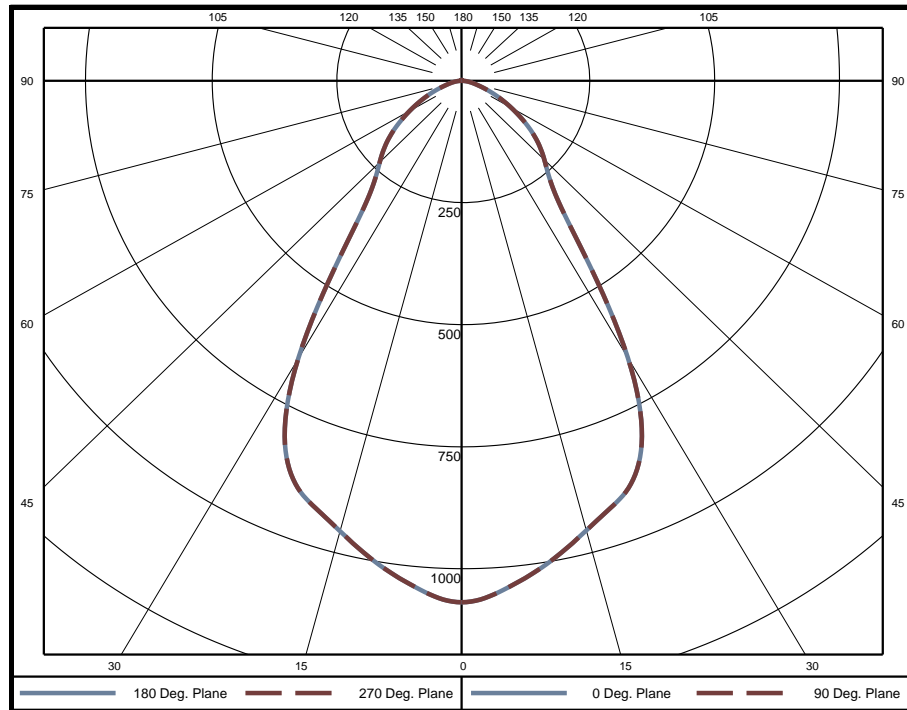
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.5 °C	120.0 VAC	0.1600 A	19.08 W	0.994	60 Hz	9.69 %

Summary of Results

Spacing Criteria
 0-180: 1.04
 90-270: 1.04

Total Lumen Output: 1445 Lumens
Luminaire Efficacy: 75.7 lm/w
Maximum Candela: 1069 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	25.2	1.7%	60-65	47.8	3.3%	120-125	0	0.0%
5-10	73.0	5.1%	65-70	33.4	2.3%	125-130	0	0.0%
10-15	115.7	8.0%	70-75	21.0	1.5%	130-135	0	0.0%
15-20	153.4	10.6%	75-80	12.8	0.9%	135-140	0	0.0%
20-25	184.5	12.8%	80-85	7.0	0.5%	140-145	0	0.0%
25-30	190.9	13.2%	85-90	2.2	0.2%	145-150	0	0.0%
30-35	152.5	10.6%	90-95	0	0.0%	150-155	0	0.0%
35-40	107.0	7.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	92.8	6.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	86.3	6.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	76.7	5.3%	110-115	0	0.0%	170-175	0	0.0%
55-60	62.8	4.3%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1002	69.4%
0-60	1321	91.4%
0-90	1445	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	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069	1069
	5	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043	1043
	10	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001	1001
	15	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953
	20	912	912	912	912	912	912	912	912	912	912	912	912	912	912	912
	25	836	836	836	836	836	836	836	836	836	836	836	836	836	836	836
	30	655	655	655	655	655	655	655	655	655	655	655	655	655	655	655
	35	394	394	394	394	394	394	394	394	394	394	394	394	394	394	394
	40	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
	45	231	231	231	231	231	231	231	231	231	231	231	231	231	231	231
	50	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196
	55	156	156	156	156	156	156	156	156	156	156	156	156	156	156	156
	60	116	116	116	116	116	116	116	116	116	116	116	116	116	116	116
	65	81	81	81	81	81	81	81	81	81	81	81	81	81	81	81
	70	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
	75	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	80	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
	85	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	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)

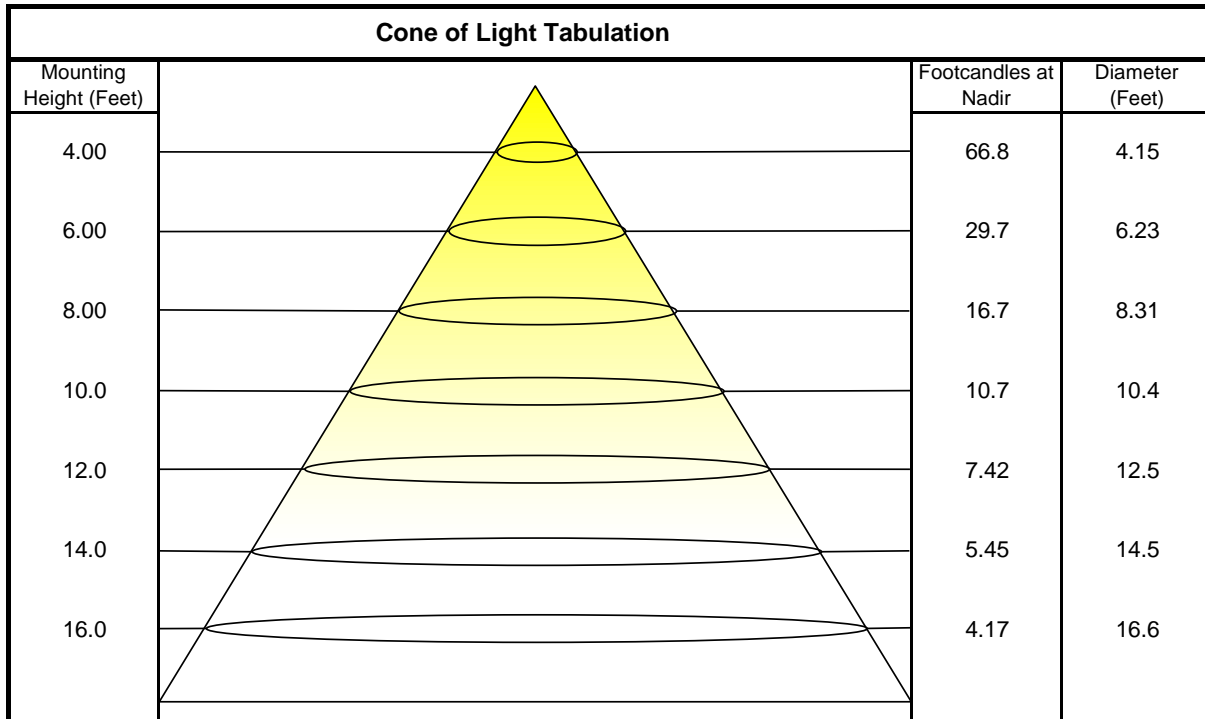
Vertical Angle (Degrees)	0	45	90
	0	63790	63790
	45	19520	19520
	55	16270	16270
	65	11480	11480
	75	7035	7035
	85	5519	5519



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	111	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	77	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	61	69	64	60	68	63	59	58
6	79	68	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38

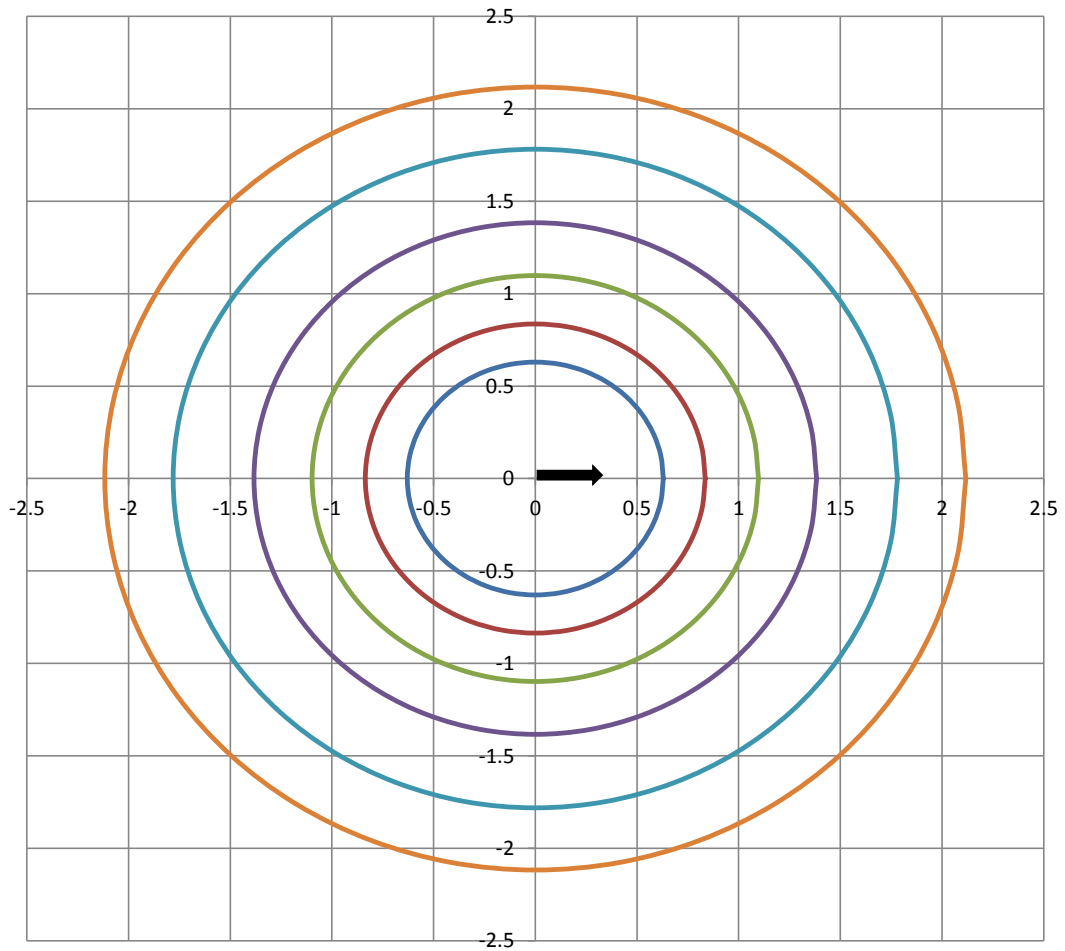
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	1069 Candela
Central Cone Intensity:	1059 Candela
Beam Flux:	818.3 Lumens
Beam Angle (0-180):	64.5 Degrees
Beam Angle (90-270):	64.5 Degrees
Field Angle (0-180):	122.6 Degrees
Field Angle (90-270):	122.6 Degrees





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