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Indoor Distribution Test Report

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

Prepared For
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United States

Catalog Number
4PR-L40/835-DIM-UNV-L-W-OF-WH

Order Number
12316380
Test Number
12316380.33

Test Date

2018-06-14

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 XI050C140V054DSM5

Luminaire



Luminaire Characteristics

Luminous Diameter: 4.25 in.

Summary of Results

Total Luminaire Output:	3127 Lumens
Luminaire Efficacy:	67.1 lm/w
Maximum Candela:	2545 Candela

Test Conditions

Test Temperature:	25.4 °C
Voltage:	120.0 VAC
Current:	0.3888 A
Power:	46.57 W
Power Factor:	0.998
Frequency:	60 Hz
Current THD:	5.17 %

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



Distribution - Goniophotometer

Distribution Test Conditions

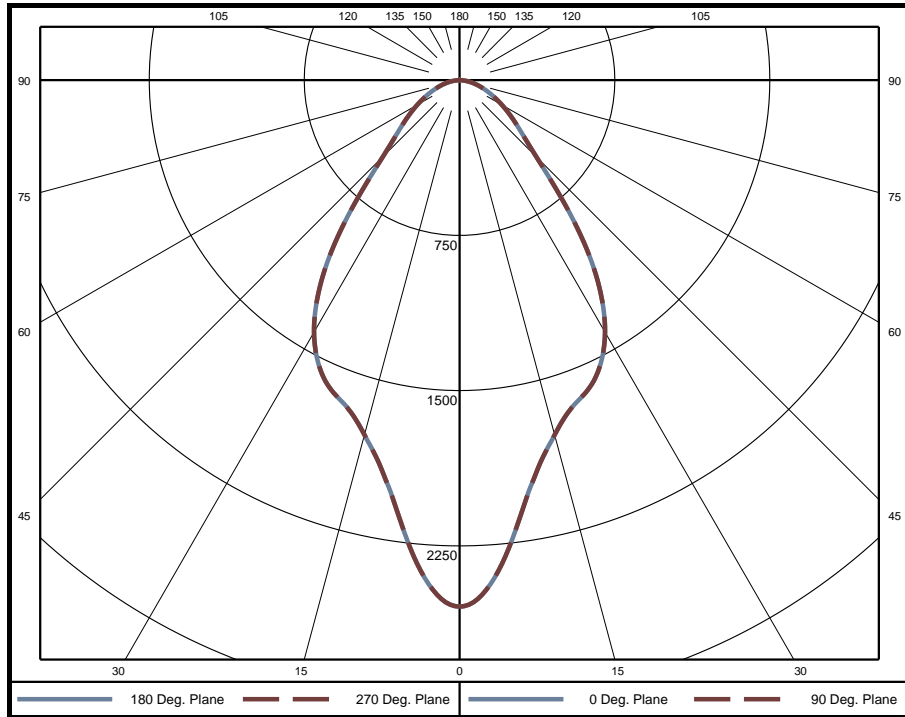
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.4 °C	120.0 VAC	0.3888 A	46.57 W	0.998	60 Hz	5.17 %

Summary of Results

Spacing Criteria
 0-180: 0.83
 90-270: 0.83

Total Lumen Output: 3127 Lumens
Luminaire Efficacy: 67.1 lm/w
Maximum Candela: 2545 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	58.4	1.9%	60-65	99.0	3.2%	120-125	0	0.0%
5-10	153.4	4.9%	65-70	76.6	2.4%	125-130	0	0.0%
10-15	221.3	7.1%	70-75	55.8	1.8%	130-135	0	0.0%
15-20	281.0	9.0%	75-80	37.3	1.2%	135-140	0	0.0%
20-25	339.2	10.8%	80-85	20.0	0.6%	140-145	0	0.0%
25-30	378.1	12.1%	85-90	4.7	0.2%	145-150	0	0.0%
30-35	378.5	12.1%	90-95	0	0.0%	150-155	0	0.0%
35-40	327.9	10.5%	95-100	0	0.0%	155-160	0	0.0%
40-45	242.3	7.7%	100-105	0	0.0%	160-165	0	0.0%
45-50	181.1	5.8%	105-110	0	0.0%	165-170	0	0.0%
50-55	149.1	4.8%	110-115	0	0.0%	170-175	0	0.0%
55-60	123.4	3.9%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	2138	68.4%
0-60	2834	90.6%
0-90	3127	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	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545	2545
	5	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348	2348
	10	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
	15	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776	1776
	20	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656	1656
	25	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571	1571
	30	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408	1408
	35	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152	1152
	40	812	812	812	812	812	812	812	812	812	812	812	812	812	812	812
	45	527	527	527	527	527	527	527	527	527	527	527	527	527	527	527
	50	388	388	388	388	388	388	388	388	388	388	388	388	388	388	388
	55	303	303	303	303	303	303	303	303	303	303	303	303	303	303	303
	60	234	234	234	234	234	234	234	234	234	234	234	234	234	234	234
	65	176	176	176	176	176	176	176	176	176	176	176	176	176	176	176
	70	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
	75	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
	80	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
	85	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
	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	278000	278000
	45	81500	81500
	55	57660	57660
	65	45490	45490
	75	36890	36890
	85	26890	26890



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	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70
4	90	80	73	67	88	79	72	67	76	70	66	74	69	65	72	68	64	62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47
8	69	57	50	45	68	57	50	45	56	49	45	54	49	45	53	48	44	43
9	65	54	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36

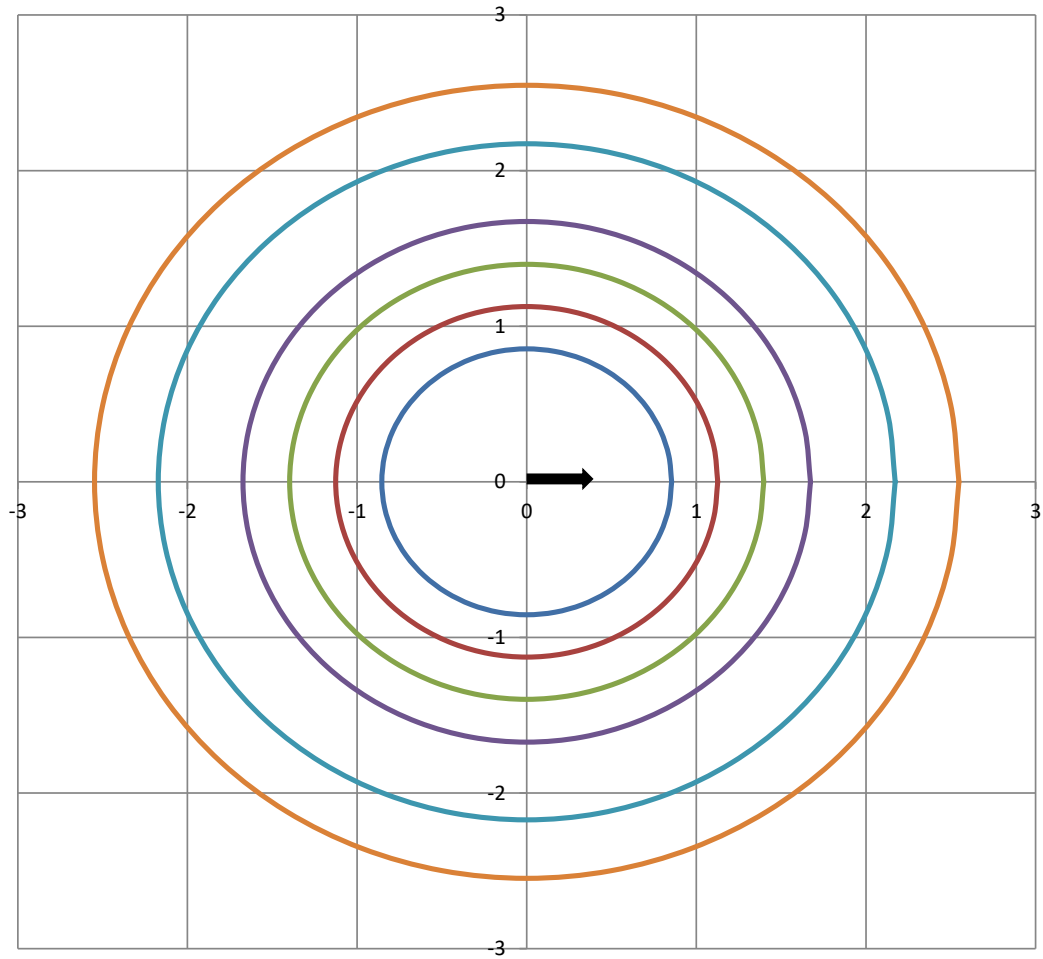
Beam and Field Information	
CIE Type:	Direct
Center Beam Intensity:	2545 Candela
Central Cone Intensity:	2472 Candela
Beam Flux:	1649.9 Lumens
Beam Angle (0-180):	65.7 Degrees
Beam Angle (90-270):	65.7 Degrees
Field Angle (0-180):	116.8 Degrees
Field Angle (90-270):	116.8 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		159	3.34
6.00		70.7	5.01
8.00		39.8	6.67
10.0		25.4	8.34
12.0		17.7	10.0
14.0		13.0	11.7
16.0		9.94	13.3



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