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Indoor Distribution Test Report

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

Prepared For
Jesco Lighting Group LLC

Vic Nasrudin
15 Harbor Park Dr
Port Washington, NY 11050

Catalog Number
RLR-4110-40-WH/WH

Order Number
10761525
Test Number
1046659

Test Date

2015-05-05

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: Aluminum heatsink, white enamel aluminum reflector, frosted plastic lens enclosure
Lamp: 10 white LEDs
Mounting: Recessed

Luminaire



Luminaire Characteristics
Luminous Diameter: 4.00 in.

Summary of Results

Total Luminaire Output:	733.8 Lumens
Luminaire Efficacy:	69.1 lm/w
Maximum Candela:	310 Candela

Electrical Data

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.08870 A
Power:	10.62 W
Power Factor:	0.997
Frequency:	60 Hz
Current THD:	7.40 %

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	0.08870 A	10.62 W	0.997	60 Hz	7.40 %

Summary of Results

Spacing Criteria

0-180: 1.23
90-270: 1.23

Total Lumen Output:

733.8 Lumens

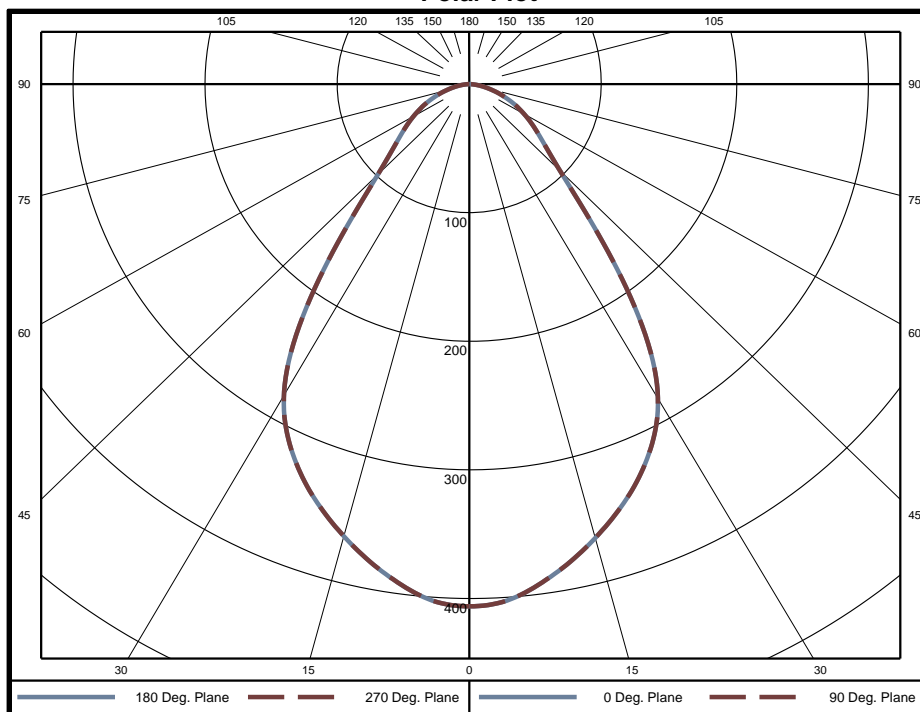
Luminaire Efficacy:

69.1 lm/w

Maximum Candela:

310 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	7.38	1.0%	60-65	40.08	5.5%	120-125	0	0.0%
5-10	21.64	2.9%	65-70	22.49	3.1%	125-130	0	0.0%
10-15	34.78	4.7%	70-75	10.78	1.5%	130-135	0	0.0%
15-20	46.88	6.4%	75-80	4.12	0.6%	135-140	0	0.0%
20-25	57.54	7.8%	80-85	1.59	0.2%	140-145	0	0.0%
25-30	66.24	9.0%	85-90	0.40	0.1%	145-150	0	0.0%
30-35	72.58	9.9%	90-95	0	0.0%	150-155	0	0.0%
35-40	76.22	10.4%	95-100	0	0.0%	155-160	0	0.0%
40-45	76.67	10.4%	100-105	0	0.0%	160-165	0	0.0%
45-50	73.49	10.0%	105-110	0	0.0%	165-170	0	0.0%
50-55	66.00	9.0%	110-115	0	0.0%	170-175	0	0.0%
55-60	54.98	7.5%	115-120	0	0.0%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	383	52.2%
0-60	654	89.2%
0-90	734	100.0%
90-180	0	0.0%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal 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	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0	310.0
5	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4	307.4
10	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8	297.8
15	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1	289.1
20	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0
25	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7	268.7
30	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6	254.6
35	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1	238.1
40	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4	218.4
45	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4	195.4
50	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7	167.7
55	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6	135.6
60	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6
65	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
70	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2
75	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
80	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
85	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
90	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	0.0
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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	38240	38240	38240
45	34080	34080	34080
55	29170	29170	29170
65	18000	18000	18000
75	6079	6079	6079
85	2617	2617	2617



Utilization of Lumens - 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 Lumens delivered to the task surface **																	
0	874	874	874	874	853	853	853	853	815	815	815	781	781	781	749	749	749	734
1	812	782	756	732	792	766	742	720	735	716	698	707	691	677	681	669	657	642
2	747	694	650	613	728	680	640	606	655	621	592	632	604	579	610	587	567	552
3	686	617	563	520	669	605	556	516	584	542	507	564	528	498	546	516	490	475
4	631	551	492	447	615	541	486	444	523	475	438	507	465	432	491	456	426	411
5	582	495	433	388	567	487	429	386	471	421	382	457	413	378	444	405	374	359
6	539	447	385	341	525	440	382	339	427	375	336	415	369	334	404	363	331	317
7	500	406	345	302	488	400	342	301	389	337	299	379	332	297	369	327	295	281
8	466	371	311	271	455	366	309	270	357	305	268	348	301	267	339	297	265	252
9	435	341	283	244	425	337	281	243	328	278	242	321	274	241	313	271	240	227
10	408	315	259	222	399	311	257	221	304	254	220	297	251	219	291	249	218	206

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	19.4	4.90
6.00	8.61	7.35
8.00	4.84	9.80
10.0	3.10	12.3
12.0	2.15	14.7
14.0	1.58	17.2
16.0	1.21	19.6

Cone of Light Plot

