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## Indoor Distribution Test Report

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

**Prepared For**  
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**Catalog Number**  
**2545**  
Order Number  
10776086  
Test Number  
1053172

Test Date

2015-05-07

Prepared By

Javier Caban, Technician

Approved By

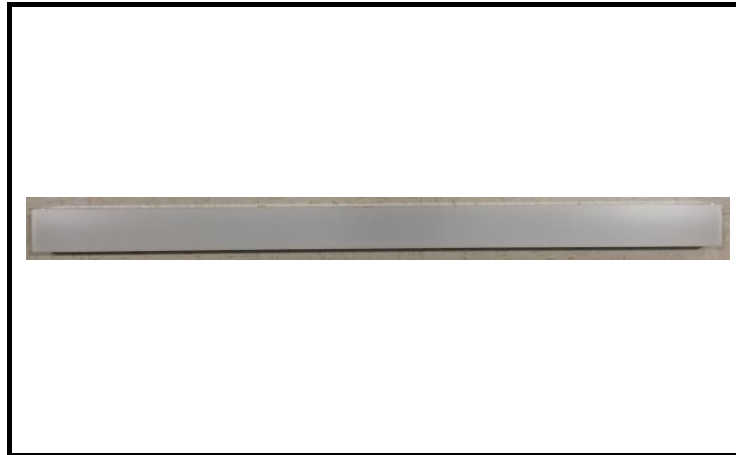
Kyle Spaziani, Project Handler

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**Luminaire Description:** Formed aluminum housing, frosted plastic enclosure  
**Lamp:** 120 white LEDs  
**Mounting:** Surface - Wall  
**Ballast/Driver:** One L.T.F. Electronic Transformer TA60WA12LED-0000

**Luminaire**



**Luminaire Characteristics**

Luminous Length: 0.75 in.  
Luminous Width: 48.25 in.  
Luminous Height: 3.00 in.

**Summary of Results**

Total Luminaire Output:	2340 Lumens
Luminaire Efficacy:	45.8 lm/w
Maximum Candela:	646 Candela

**Electrical Data**

Test Temperature:	25.7 °C
Voltage:	120.0 VAC
Current:	0.4464 A
Power:	51.10 W
Power Factor:	0.954
Frequency:	60 Hz
Current THD:	31.3 %

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



## Distribution - Goniophotometer

### Distribution Test Conditions

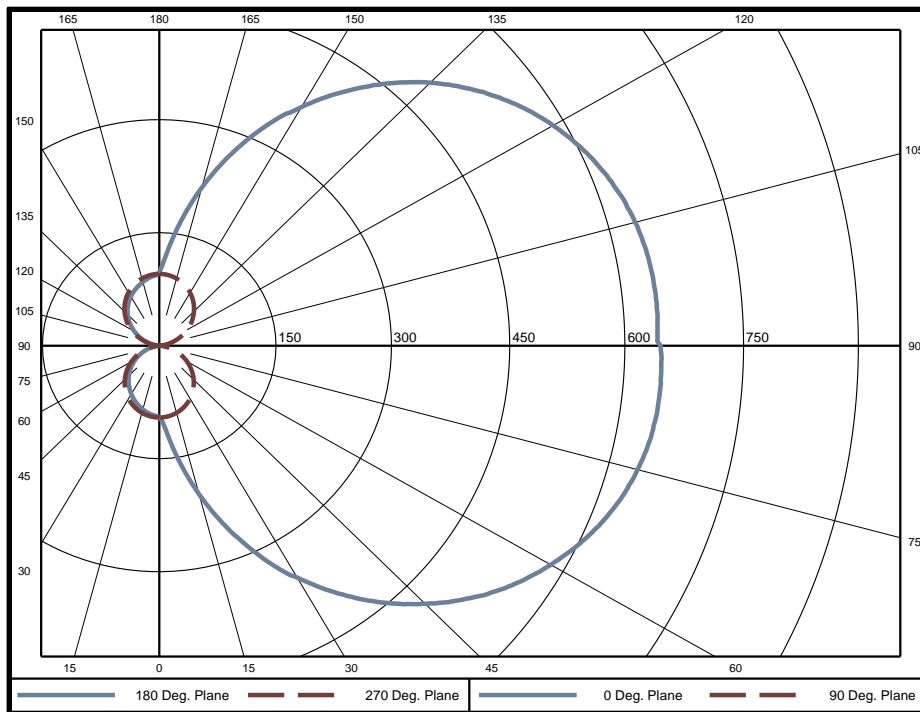
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.0 VAC	0.4464 A	51.10 W	0.954	60 Hz	31.3 %

### Summary of Results

**Spacing Criteria**  
 0-180: 4.21  
 90-270: 1.15

**Total Lumen Output:** 2340 Lumens  
**Luminaire Efficacy:** 45.8 lm/w  
**Maximum Candela:** 646 Candela

### Polar Plot



### Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	2.3	0.1%	60-65	97.8	4.2%	120-125	92.5	4.0%
5-10	7.6	0.3%	65-70	102.4	4.4%	125-130	85.5	3.7%
10-15	14.0	0.6%	70-75	105.4	4.5%	130-135	77.3	3.3%
15-20	21.5	0.9%	75-80	106.8	4.6%	135-140	68.4	2.9%
20-25	29.9	1.3%	80-85	106.9	4.6%	140-145	58.9	2.5%
25-30	39.1	1.7%	85-90	106.3	4.5%	145-150	49.2	2.1%
30-35	48.5	2.1%	90-95	105.7	4.5%	150-155	39.6	1.7%
35-40	58.2	2.5%	95-100	106.5	4.6%	155-160	30.4	1.3%
40-45	67.6	2.9%	100-105	106.5	4.6%	160-165	21.8	0.9%
45-50	76.5	3.3%	105-110	105.3	4.5%	165-170	14.2	0.6%
50-55	84.7	3.6%	110-115	102.5	4.4%	170-175	7.7	0.3%
55-60	91.8	3.9%	115-120	98.2	4.2%	175-180	2.4	0.1%

Zone	Lumens	% of Luminaire
0-40	221	9.4%
0-60	503	23.1%
0-90	1167	49.9%
90-180	1173	50.1%



**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	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
	5	117.3	117.6	109.0	100.5	94.7	93.0	92.3	91.9	92.2	91.9	92.3	93.0	94.7	100.5	109.0
	10	160.2	157.0	135.8	109.2	93.4	91.1	90.0	89.3	89.8	89.3	90.0	91.1	93.4	109.2	135.8
	15	208.4	201.2	166.3	121.3	91.3	88.5	87.0	86.3	86.4	86.3	87.0	88.5	91.3	121.3	166.3
	20	258.9	246.9	198.5	134.3	88.3	85.3	83.5	82.6	82.4	82.6	83.5	85.3	88.3	134.3	198.5
	25	309.4	292.1	231.1	147.2	84.6	81.3	79.4	78.4	77.9	78.4	79.4	81.3	84.6	147.2	231.1
	30	356.1	335.6	262.4	159.5	80.1	76.6	74.7	73.6	72.9	73.6	74.7	76.6	80.1	159.5	262.4
	35	401.9	374.8	292.7	170.7	74.8	71.3	69.4	68.3	67.5	68.3	69.4	71.3	74.8	170.7	292.7
	40	445.2	413.2	320.5	181.0	68.9	65.3	63.7	62.5	61.7	62.5	63.7	65.3	68.9	181.0	320.5
	45	484.6	449.0	345.9	189.9	62.5	59.1	57.6	56.2	55.3	56.2	57.6	59.1	62.5	189.9	345.9
	50	521.4	480.8	365.6	197.4	55.7	52.3	51.0	49.7	48.8	49.7	51.0	52.3	55.7	197.4	365.6
	55	553.9	509.2	384.6	203.4	48.4	45.4	44.0	42.8	41.8	42.8	44.0	45.4	48.4	203.4	384.6
	60	581.4	532.9	400.1	208.5	40.9	38.1	36.7	35.6	34.6	35.6	36.7	38.1	40.9	208.5	400.1
	65	604.7	553.4	412.7	212.2	33.0	30.6	29.3	28.5	27.4	28.5	29.3	30.6	33.0	212.2	412.7
	70	623.2	569.6	422.4	213.1	24.7	22.8	21.9	21.2	20.2	21.2	21.9	22.8	24.7	213.1	422.4
	75	636.0	581.2	428.5	212.0	16.5	15.1	14.5	14.1	13.3	14.1	14.5	15.1	16.5	212.0	428.5
	80	643.9	587.8	431.5	210.2	8.7	8.0	7.6	7.5	6.7	7.5	7.6	8.0	8.7	210.2	431.5
	85	646.0	589.8	431.9	208.2	2.0	2.0	1.9	2.0	1.5	2.0	1.9	2.0	2.0	208.2	431.9
	90	644.0	588.7	430.5	206.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	206.4	430.5
	95	641.5	585.9	430.6	209.4	2.0	1.9	1.5	1.4	1.8	1.4	1.5	1.9	2.0	209.4	430.6
	100	639.1	584.3	429.9	211.7	8.7	8.1	7.5	7.2	7.6	7.2	7.5	8.1	8.7	211.7	429.9
	105	632.9	578.6	427.2	214.2	16.4	15.2	14.5	13.9	14.4	13.9	14.5	15.2	16.4	214.2	427.2
	110	621.3	567.6	422.1	215.0	24.6	23.0	21.9	21.3	21.7	21.3	21.9	23.0	24.6	215.0	422.1
	115	605.7	552.2	414.2	214.3	33.0	30.8	29.5	28.7	29.2	28.7	29.5	30.8	33.0	214.3	414.2
	120	584.5	533.1	402.6	211.7	41.2	38.5	37.1	36.1	36.6	36.1	37.1	38.5	41.2	211.7	402.6
	125	559.1	509.6	387.8	207.6	48.9	45.8	44.4	43.3	43.9	43.3	44.4	45.8	48.9	207.6	387.8
	130	528.2	481.9	369.4	201.6	56.3	52.7	51.4	50.2	50.8	50.2	51.4	52.7	56.3	201.6	369.4
	135	493.7	450.4	349.1	194.2	63.1	59.5	58.0	56.7	57.3	56.7	58.0	59.5	63.1	194.2	349.1
	140	454.6	415.5	324.5	185.4	69.4	65.6	64.2	62.8	63.4	62.8	64.2	65.6	69.4	185.4	324.5
	145	411.3	376.8	296.5	175.2	75.2	71.3	69.6	68.5	69.1	68.5	69.6	71.3	75.2	175.2	296.5
	150	366.1	338.6	266.7	163.7	80.2	76.6	74.7	73.7	74.3	73.7	74.7	76.6	80.2	163.7	266.7
	155	321.1	295.2	234.9	151.1	84.7	81.2	79.3	78.3	78.7	78.3	79.3	81.2	84.7	151.1	234.9
	160	271.2	249.9	202.8	138.0	88.4	85.2	83.4	82.4	82.8	82.4	83.4	85.2	88.4	138.0	202.8
	165	221.0	204.4	170.2	124.9	91.3	88.5	86.9	86.0	86.5	86.0	86.9	88.5	91.3	124.9	170.2
	170	172.0	160.0	139.1	112.3	93.4	91.1	89.8	89.0	89.9	89.0	89.8	91.1	93.4	112.3	139.1
	175	127.6	119.9	111.6	102.3	94.8	93.0	92.0	91.5	92.4	91.5	92.0	93.0	94.8	102.3	111.6
	180	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0

**Average Luminance (cd/m<sup>2</sup>)**  
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	4089	4089
	45	5871	5411
	55	6162	5629
	65	6399	5842
	75	6608	6051
	85	6795	6274



### 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	2506	2506	2506	2506	2312	2312	2312	2312	1949	1949	1949	1616	1616	1616	1311	1311	1311	1167
1	2179	2032	1900	1781	1992	1863	1747	1641	1547	1457	1375	1256	1189	1126	988	938	892	761
2	1941	1714	1526	1368	1767	1568	1402	1261	1294	1166	1055	1041	944	858	808	735	670	553
3	1745	1471	1259	1090	1585	1345	1157	1005	1107	960	839	886	773	679	681	597	524	420
4	1581	1280	1059	891	1434	1170	973	821	962	807	685	769	649	552	589	498	423	331
5	1440	1125	905	742	1306	1029	831	684	846	690	570	677	555	459	519	425	350	268
6	1319	998	782	628	1196	913	720	579	753	598	482	603	481	388	462	368	295	221
7	1214	893	684	538	1102	818	630	497	675	524	414	542	422	332	417	324	252	186
8	1122	804	604	466	1020	737	556	430	610	464	359	491	374	288	379	287	219	159
9	1042	729	537	408	948	669	495	376	555	414	314	448	334	253	347	258	192	138
10	970	664	481	359	884	611	444	332	508	372	277	412	301	223	320	233	170	121

### Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	5.97	9.94
6.00	2.65	14.9
8.00	1.49	19.9
10.0	0.955	24.8
12.0	0.663	29.8
14.0	0.487	34.8
16.0	0.373	39.7

### Cone of Light Plot

