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Indoor Distribution Test Report

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

Prepared For
Renova Lighting Systems Inc

Rick Edwards
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Mansfield, MA 02048-1828
United States

Catalog Number
WDG2-S-L65-UNV-DM-C50-FA

Order Number
10809933
Test Number
1080115

Test Date

2015-05-28

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: White aluminum housing, specular aluminum reflector, frosted patterned plastic lens
Lamp: 192 white LEDs
Mounting: Pendant
Ballast/Driver: One Philips Advance XI075C200V054BPT1

Luminaire



Luminaire Characteristics

Luminous Length: 24.50 in.
Luminous Width: 5.750 in.
Luminous Height: 3.00 in.

Summary of Results

Total Luminaire Output: 6490 Lumens
Luminaire Efficacy: 89.4 lm/w
Maximum Candela: 1284 Candela

Electrical Data

Test Temperature: 24.9 °C
Voltage: 120.0 VAC
Current: 0.6062 A
Power: 72.58 W
Power Factor: 0.998
Frequency: 60 Hz
Current THD: 4.88 %

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
24.9 °C	120.0 VAC	0.6062 A	72.58 W	0.998	60 Hz	4.88 %

Summary of Results

Spacing Criteria

0-180: 1.38
90-270: 1.38

Total Lumen Output:

6490 Lumens

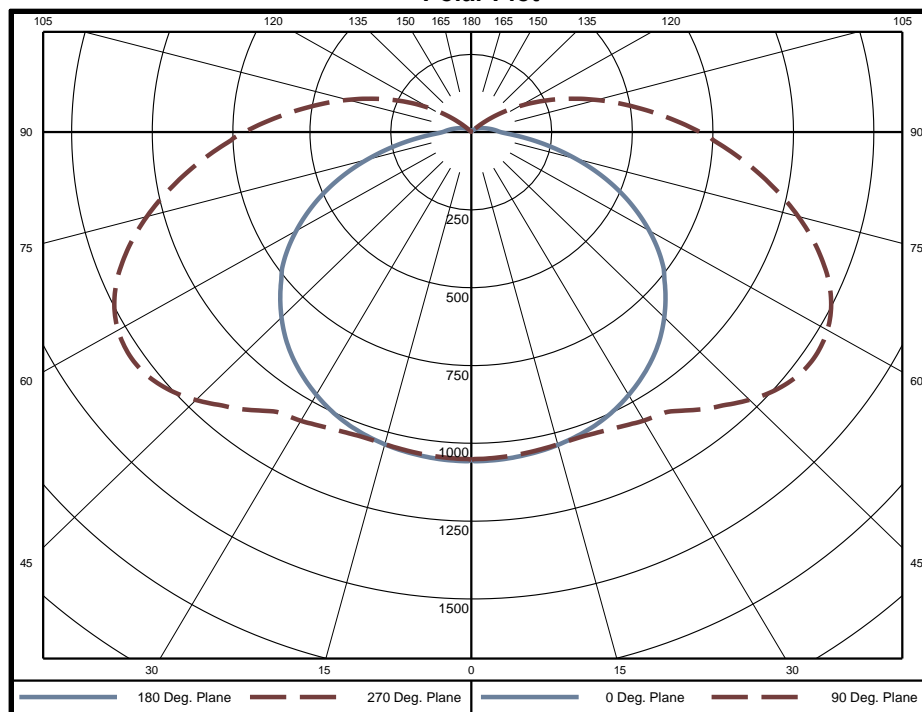
Luminaire Efficacy:

89.4 lm/w

Maximum Candela:

1284 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	25.2	0.4%	60-65	469.7	7.2%	120-125	26.1	0.4%
5-10	75.0	1.2%	65-70	459.7	7.1%	125-130	12.2	0.2%
10-15	123.6	1.9%	70-75	434.1	6.7%	130-135	4.9	0.1%
15-20	170.3	2.6%	75-80	395.6	6.1%	135-140	2.3	0.0%
20-25	215.3	3.3%	80-85	349.0	5.4%	140-145	1.7	0.0%
25-30	258.6	4.0%	85-90	298.4	4.6%	145-150	1.3	0.0%
30-35	299.8	4.6%	90-95	247.4	3.8%	150-155	1.0	0.0%
35-40	340.0	5.2%	95-100	196.4	3.0%	155-160	0	0.0%
40-45	379.2	5.8%	100-105	148.9	2.3%	160-165	0	0.0%
45-50	416.1	6.4%	105-110	107.1	1.7%	165-170	0	0.0%
50-55	446.3	6.9%	110-115	73.7	1.1%	170-175	0	0.0%
55-60	464.7	7.2%	115-120	47.0	0.7%	175-180	0	0.0%

Zone	Lumens	% of Luminaire
0-40	1508	23.2%
0-60	2956	49.5%
0-90	5621	86.6%
90-180	870	13.4%



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	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053	1053
5	1055	1053	1050	1048	1048	1048	1050	1053	1055	1053	1050	1048	1048	1048	1050	1053
10	1049	1047	1045	1044	1044	1044	1045	1047	1049	1047	1045	1044	1044	1044	1045	1047
15	1039	1038	1037	1037	1038	1037	1037	1038	1039	1038	1037	1037	1038	1037	1037	1038
20	1024	1025	1028	1034	1037	1034	1028	1025	1024	1025	1028	1034	1037	1034	1028	1025
25	1003	1008	1021	1040	1050	1040	1021	1008	1003	1008	1021	1040	1050	1040	1021	1008
30	973	985	1017	1056	1070	1056	1017	985	973	985	1017	1056	1070	1056	1017	985
35	937	959	1020	1071	1095	1071	1020	959	937	959	1020	1071	1095	1071	1020	959
40	894	928	1021	1115	1156	1115	1021	928	894	928	1021	1115	1156	1115	1021	928
45	841	894	1019	1165	1217	1165	1019	894	841	894	1019	1165	1217	1165	1019	894
50	780	854	1034	1210	1264	1210	1034	854	780	854	1034	1210	1264	1210	1034	854
55	716	806	1040	1232	1284	1232	1040	806	716	806	1040	1232	1284	1232	1040	806
60	633	747	1031	1224	1271	1224	1031	747	633	747	1031	1224	1271	1224	1031	747
65	541	694	1000	1185	1226	1185	1000	694	541	694	1000	1185	1226	1185	1000	694
70	442	636	944	1114	1146	1114	944	636	442	636	944	1114	1146	1114	944	636
75	335	570	866	1020	1046	1020	866	570	335	570	866	1020	1046	1020	866	570
80	232	494	774	912	933	912	774	494	232	494	774	912	933	912	774	494
85	144	413	680	799	818	799	680	413	144	413	680	799	818	799	680	413
90	90	329	575	689	707	689	575	329	90	329	575	689	707	689	575	329
95	73	242	470	577	596	577	470	242	73	242	470	577	596	577	470	242
100	58	159	367	471	494	471	367	159	58	159	367	471	494	471	367	159
105	46	89	272	374	400	374	272	89	46	89	272	374	400	374	272	89
110	37	44	187	285	313	285	187	44	37	44	187	285	313	285	187	44
115	29	30	113	204	233	204	113	30	29	30	113	204	233	204	113	30
120	23	23	52	132	160	132	52	23	23	23	52	132	160	132	52	23
125	18	17	18	69	94	69	18	17	18	17	18	69	94	69	18	17
130	14	13	9	23	40	23	9	13	14	13	9	23	40	23	9	13
135	11	10	7	4	9	4	7	10	11	10	7	4	9	4	7	10
140	9	8	5	3	3	3	5	8	9	8	5	3	3	3	5	8
145	7	6	4	3	2	3	4	6	7	6	4	3	2	3	4	6
150	6	5	4	3	2	3	4	5	6	5	4	3	2	3	4	5
155	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
165	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
175	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

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

Vertical Angle (Degrees)	Horizontal Angle (Degrees)		
	0	45	90
0	11580	11580	11580
45	11660	10890	12440
55	11680	12090	14120
65	11160	13170	15060
75	9781	13640	15090
85	7559	13820	14820



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	7520	7520	7520	7520	7243	7243	7243	7243	6728	6728	6728	6257	6257	6257	5824	5824	5824	5621
1	6544	6104	5709	5354	6261	5864	5506	5182	5416	5123	4855	5005	4767	4548	4625	4436	4259	4046
2	5814	5128	4561	4085	5543	4924	4405	3966	4539	4108	3736	4184	3829	3518	3856	3567	3309	3100
3	5217	4388	3747	3235	4964	4213	3623	3148	3883	3386	2977	3578	3161	2812	3294	2949	2652	2452
4	4723	3814	3148	2640	4491	3663	3048	2572	3380	2855	2439	3117	2671	2309	2872	2495	2184	1995
5	4307	3357	2693	2204	4095	3228	2611	2149	2984	2451	2043	2756	2298	1939	2544	2152	1837	1660
6	3951	2986	2339	1874	3760	2875	2270	1830	2663	2136	1743	2466	2007	1657	2281	1884	1573	1407
7	3645	2681	2057	1619	3471	2584	1998	1582	2400	1884	1509	2227	1775	1437	2065	1669	1366	1211
8	3378	2426	1828	1416	3221	2342	1778	1385	2180	1680	1323	2028	1586	1262	1886	1494	1202	1057
9	3146	2211	1639	1253	3003	2137	1596	1226	1994	1511	1173	1860	1430	1121	1734	1350	1069	933
10	2941	2028	1482	1119	2811	1962	1444	1095	1836	1371	1049	1717	1299	1004	1604	1230	959	832

Cone of Light Tabulation

Mounting Height	Footcandles at Nadir	Diameter (Feet)
4.00	65.8	5.94
6.00	29.2	8.91
8.00	16.4	11.9
10.0	10.5	14.9
12.0	7.31	17.8
14.0	5.37	20.8
16.0	4.11	23.8

Cone of Light Plot

