



7036 Snowdrift Road Suite 200
Allentown, PA 18106
610-774-1300

Photometric Indoor Test Report

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

Prepared For
Renova Lighting Systems Inc.
Rick Edwards
20 Middlesex Rd.
Mansfield, MA 02048

Catalog Number
L-GLT2-RF-UNV-V1-P3-50K
Project Number
10130861
Test Number
387522

Test Date

2013-11-22

Prepared By

Handwritten signature of Eric M. Gaudreau in black ink.

Eric Gaudreau, Engineering Project Handler

Approved By

Handwritten signature of Zachary Mooney in black ink.

Zachary Mooney, Engineer Project Associate

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Cast and extruded aluminum housing, formed specular aluminum reflectors, clear and linear prismatic plastic enclosure
Catalog Number: L-GLT2-RF-UNV-V1-P3-50K
Lamp: 24 white LEDs
Mounting: Surface
Ballast/Driver: One Mean Well HLG-80H-48A

Luminaire

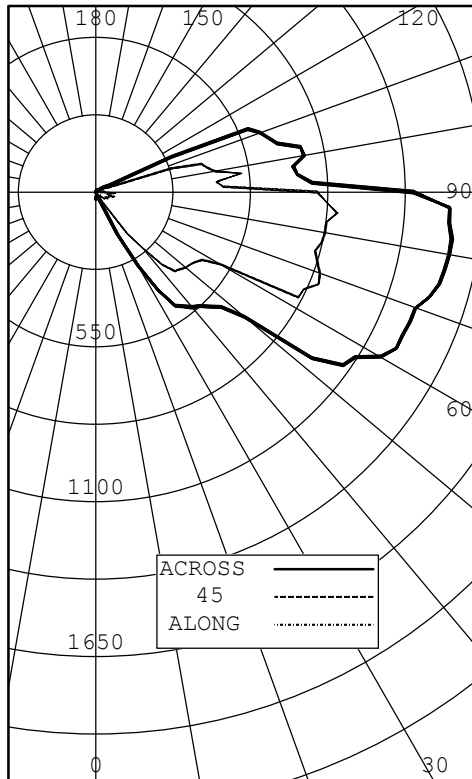


Test Conditions

Test Temperature:	25.2 °C
Voltage:	120.0 VAC
Current:	0.4139 A
Power:	49.30 W
Power Factor:	0.993
Frequency:	60 Hz
Current THD:	9.55 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	22	22	22	22	22	
5	24	27	27	24	23	2
15	25	23	19	19	15	6
25	24	14	15	16	22	16
35	25	10	53	417	493	118
45	24	11	398	528	576	237
55	39	110	434	937	1074	433
65	49	256	816	1115	1203	683
75	69	426	807	1138	1263	786
85	65	415	860	1132	1261	823
90	26	373	787	1033	1128	
95	16	238	431	619	719	492
105	5	43	389	569	669	347
115	9	29	28	65	297	106
125	3	7	19	25	24	15
135	2	2	14	20	3	6
145	3	2	10	12	3	4
155	1	0	3	8	6	2
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	25	0.60
0-40	143	3.50
0-60	813	19.94
0-90	3106	76.16
40-90	2963	72.66
60-90	2293	56.22
90-180	972	23.84
0-180	4078	100.00

EFFICACY (LUMENS PER WATT): 82.7

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 27.500 INS
 WIDTH: 8.750 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 9.6
 SC (ALONG): 1.6, SC (ACROSS): 9.6

ANGLE	ALONG	45	ACROSS
45	214	2354	2975
55	436	2749	5758
65	749	5752	6934
75	1706	6626	8131
85	4782	8815	9532

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE					AVERAGE	OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS		
0	22	22	22	22	22	22	
5	24	27	27	24	23	25	2
10	25	27	25	19	19	23	
15	25	23	19	19	15	20	6
20	23	21	18	15	14	18	
25	24	14	15	16	22	17	16
30	25	13	16	201	306	99	
35	25	10	53	417	493	185	118
40	21	8	263	494	534	261	
45	24	11	398	528	576	309	237
50	26	15	418	577	692	342	
55	39	110	434	937	1074	509	433
60	45	161	515	1066	1170	587	
65	49	256	816	1115	1203	703	683
70	50	230	848	1106	1208	703	
75	69	426	807	1138	1263	759	786
80	43	444	828	1136	1276	767	
85	65	415	860	1132	1261	767	823
90	26	373	787	1033	1128	692	
95	16	238	431	619	719	414	492
100	5	100	431	659	753	392	
105	5	43	389	569	669	334	347
110	13	30	51	528	621	232	
115	9	29	28	65	297	69	106
120	5	15	19	37	40	24	
125	3	7	19	25	24	16	15
130	2	12	10	14	11	11	
135	2	2	14	20	3	10	6
140	2	1	11	4	1	4	
145	3	2	10	12	3	7	4
150	2	0	8	10	9	6	
155	1	0	3	8	6	4	2
160	1	0	0	2	3	1	
165	0	0	0	0	0	0	0
170	0	0	0	0	0	0	
175	0	0	0	0	0	0	0
180	0	0	0	0	0	0	



COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

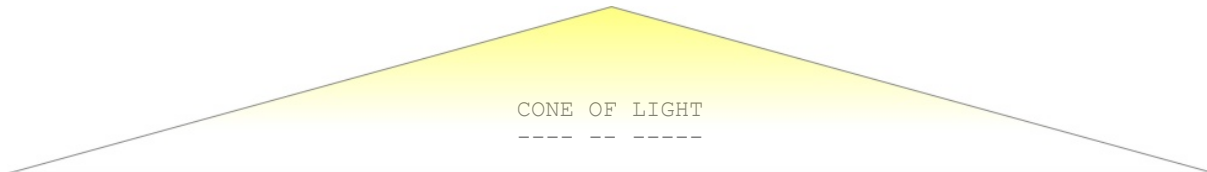
EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0	
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																										
0	1.191	1.191	1.191	1.19	1.131	1.131	1.131	1.13	1.081	1.081	1.081	1.08	0.980	0.980	0.98	0.890	0.890	0.89	0.800	0.800	0.80	0.76				
1	0.990	0.900	0.810	0.74	0.940	0.850	0.770	0.70	0.880	0.800	0.730	0.66	0.710	0.650	0.60	0.630	0.580	0.54	0.550	0.510	0.48	0.43				
2	0.860	0.720	0.600	0.50	0.810	0.680	0.570	0.48	0.750	0.630	0.540	0.45	0.560	0.470	0.40	0.480	0.420	0.36	0.420	0.360	0.31	0.27				
3	0.760	0.590	0.460	0.36	0.710	0.550	0.440	0.34	0.660	0.520	0.410	0.32	0.450	0.360	0.29	0.390	0.310	0.25	0.330	0.270	0.21	0.18				
4	0.680	0.500	0.370	0.28	0.630	0.470	0.350	0.26	0.590	0.440	0.330	0.25	0.380	0.290	0.22	0.330	0.250	0.19	0.280	0.210	0.16	0.13				
5	0.610	0.430	0.310	0.21	0.570	0.400	0.290	0.20	0.530	0.380	0.270	0.19	0.330	0.230	0.17	0.280	0.200	0.14	0.230	0.170	0.12	0.08				
6	0.560	0.370	0.260	0.17	0.520	0.350	0.240	0.16	0.480	0.330	0.220	0.15	0.280	0.190	0.13	0.240	0.160	0.11	0.200	0.140	0.09	0.06				
7	0.500	0.330	0.210	0.14	0.470	0.310	0.200	0.13	0.440	0.290	0.190	0.12	0.250	0.160	0.10	0.210	0.140	0.08	0.180	0.110	0.06	0.04				
8	0.460	0.290	0.190	0.11	0.430	0.270	0.170	0.10	0.400	0.260	0.160	0.10	0.220	0.140	0.08	0.190	0.120	0.07	0.160	0.100	0.05	0.03				
9	0.430	0.260	0.160	0.09	0.400	0.250	0.150	0.09	0.370	0.230	0.140	0.08	0.200	0.120	0.07	0.170	0.100	0.05	0.150	0.080	0.04	0.02				
10	0.390	0.240	0.140	0.08	0.370	0.220	0.130	0.07	0.350	0.210	0.120	0.07	0.180	0.110	0.06	0.160	0.090	0.04	0.130	0.070	0.03	0.01				

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS
 BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.
 LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD
 THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

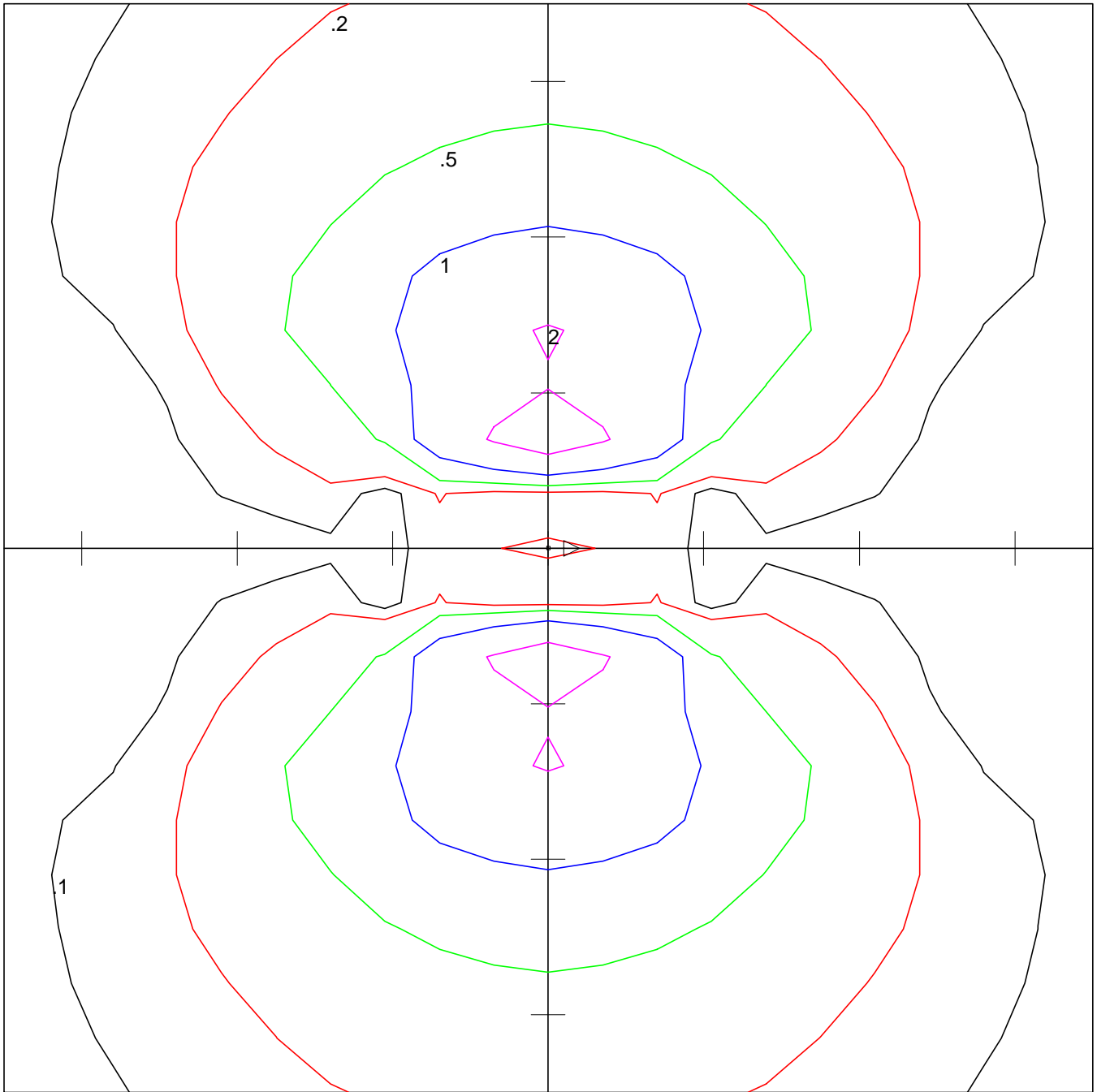
LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.
 BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST
 LUMINOUS OPENING OF LUMINAIRE.



MOUNTING HEIGHT ABOVE WORK PLANE (FT)	INITIAL FC AT NADIR -FCN (FC)	.1*FCN (FC)	10% LIGHTED DIAMETER (FT)	.5*FCN (FC)	50% LIGHTED DIAMETER (FT)
1	28.0	2.8	13.1	14.0	7.3
2	7.0	0.7	26.2	3.5	14.6
3	3.1	0.3	39.3	1.6	21.9
4	1.8	0.2	52.4	0.9	29.2
5	1.1	0.1	65.6	0.6	36.6
6	0.8	0.1	78.7	0.4	43.9
7	0.6	0.1	91.8	0.3	51.2
8	0.4	0.0	104.9	0.2	58.5

10% CONE ANGLE: 162.7 DEGREES
 50% CONE ANGLE: 149.4 DEGREES



Horizontal Footcandles
Scale: 1 Inch = 10 Ft.
Light Loss Factor = 1.00
Luminaire Lumens = 4080
Mounting Height = 10.00 Ft
Maximum Calculated Value = 2.71 Fc
Arrangement: Single