



UL Verification Services Inc.  
7036 Snowdrift Road  
Allentown, PA 18106  
610-774-1300

## Photometric Indoor Test Report

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

Prepared For  
Optolum  
Karen Baker  
1407 W. 10th Place, Suite 107  
Tempe, AZ 85018  
United States

Catalog Number  
14 B2-LP-L-358USD-A072000  
Project Number  
10520546  
Test Number  
785425

Test Date

2014-10-16

Prepared By

Approved By

Todd Heiland, Technician

Zachary Mooney, Engineer Project Associate

The results contained in this report pertain only to the tested sample.  
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Luminaire Description: Grey aluminum housing, clear plastic enclosure  
Catalog Number: 14 B2-LP-L-358USD-A072000  
Lamp: 72 white LEDs  
Mounting: Surface  
Ballast/Driver: One High Perfection Tech. LP1090-24-GG-290

Luminaire

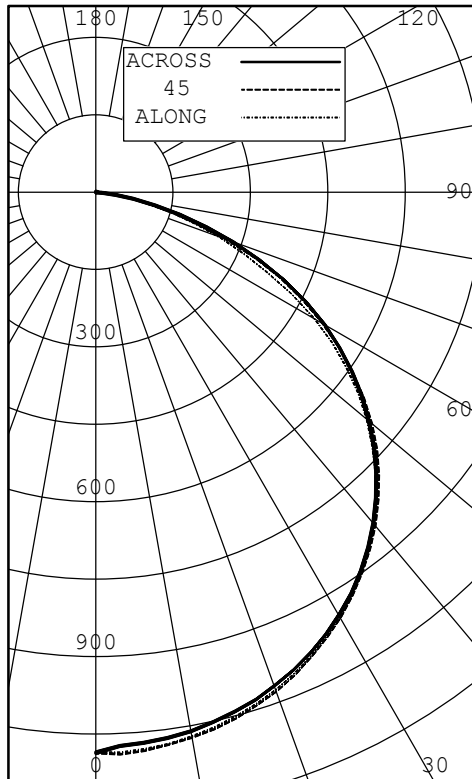


Test Conditions

Test Temperature:	24.5 °C
Voltage:	120.0 VAC
Current:	0.3779 A
Power:	44.45 W
Power Factor:	0.980
Frequency:	60 Hz
Current THD:	11.1 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG 22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	1086	1086	1086	1086	1086
5	1084	1080	1087	1086	1072
15	1052	1047	1056	1055	1043
25	990	987	993	994	985
35	899	897	900	901	896
45	767	769	776	777	768
55	594	597	608	616	606
65	366	374	394	408	402
75	153	156	157	168	170
85	17	19	24	25	17
90	8	9	10	6	0
95	6	6	5	0	0
105	1	1	0	0	0
115	0	0	0	0	0
125	0	0	0	0	0
135	0	0	0	0	0
145	0	0	0	0	0
155	0	0	0	0	0
165	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	857	27.25
0-40	1418	45.11
0-60	2551	81.14
0-90	3140	99.85
40-90	1721	54.75
60-90	589	18.72
90-180	5	0.15
0-180	3145	100.00

EFFICACY (LUMENS PER WATT): 70.7

\*\*\* THIS IS AN ABSOLUTE TEST \*\*\*

LUMINOUS LENGTH: 72.250 INS  
 WIDTH: 0.500 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3  
 SC: 1.3

ANGLE	ALONG	45	ACROSS
45	46531	47239	46800
55	44404	45647	45490
65	37173	40188	40994
75	25281	25975	28348
85	8197	11697	8203

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	1086	1086	1086	1086	1086	1086	
5	1084	1080	1087	1086	1072	1083	104
10	1072	1067	1074	1074	1061	1070	
15	1052	1047	1056	1055	1043	1051	296
20	1025	1021	1029	1028	1017	1025	
25	990	987	993	994	985	990	456
30	949	946	951	953	944	949	
35	899	897	900	901	896	899	561
40	838	839	843	843	836	841	
45	767	769	776	777	768	772	594
50	686	689	699	702	691	695	
55	594	597	608	616	606	605	539
60	489	495	506	519	512	505	
65	366	374	394	408	402	390	385
70	257	258	270	286	285	271	
75	153	156	157	168	170	161	173
80	70	72	75	73	74	73	
85	17	19	24	25	17	21	31
90	8	9	10	6	0	7	
95	6	6	5	0	0	3	4
100	3	3	1	0	0	1	
105	1	1	0	0	0	0	1
110	0	0	0	0	0	0	
115	0	0	0	0	0	0	0
120	0	0	0	0	0	0	
125	0	0	0	0	0	0	0
130	0	0	0	0	0	0	
135	0	0	0	0	0	0	0
140	0	0	0	0	0	0	
145	0	0	0	0	0	0	0
150	0	0	0	0	0	0	
155	0	0	0	0	0	0	0
160	0	0	0	0	0	0	
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	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.111	.11	1.061	.061	.061	.06	1.021	.021	.021	.02	1.00
	1	1.131	.081	.041	.00	1.101	.061	.020	.98	1.071	.041	.000	.97	0.990	.960	.94	0.950	.930	.91	0.920	.900	.88	0.86			
	2	1.030	.960	.890	.83	1.010	.940	.880	.82	0.990	.920	.860	.81	0.880	.840	.80	0.850	.810	.78	0.820	.790	.76	0.74			
	3	0.950	.840	.760	.70	0.930	.830	.750	.70	0.900	.810	.750	.69	0.790	.730	.68	0.760	.710	.67	0.730	.690	.65	0.63			
	4	0.870	.760	.670	.60	0.850	.740	.660	.60	0.830	.730	.660	.59	0.710	.640	.59	0.680	.630	.58	0.660	.610	.57	0.55			
	5	0.810	.680	.580	.52	0.780	.660	.580	.51	0.760	.650	.570	.51	0.630	.560	.51	0.610	.550	.50	0.590	.540	.49	0.48			
	6	0.740	.600	.510	.45	0.720	.590	.510	.45	0.700	.580	.500	.44	0.560	.490	.44	0.550	.480	.44	0.530	.480	.43	0.41			
	7	0.680	.540	.450	.39	0.660	.530	.440	.39	0.650	.520	.440	.38	0.510	.430	.38	0.490	.420	.37	0.480	.420	.37	0.35			
	8	0.630	.490	.400	.34	0.610	.480	.400	.34	0.600	.470	.390	.34	0.460	.390	.34	0.450	.380	.33	0.430	.370	.33	0.31			
	9	0.580	.440	.350	.30	0.570	.440	.350	.30	0.550	.430	.350	.30	0.420	.340	.29	0.410	.340	.29	0.400	.330	.29	0.27			
	10	0.540	.400	.310	.26	0.530	.400	.310	.26	0.510	.390	.310	.26	0.380	.310	.26	0.370	.300	.26	0.360	.300	.26	0.24			

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.



CONE OF LIGHT

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	1086.0	108.6	2.9	543.0	1.3
2	271.5	27.1	5.8	135.8	2.6
3	120.7	12.1	8.7	60.3	3.9
4	67.9	6.8	11.6	33.9	5.2
5	43.4	4.3	14.6	21.7	6.5
6	30.2	3.0	17.5	15.1	7.8
7	22.2	2.2	20.4	11.1	9.1
8	17.0	1.7	23.3	8.5	10.4

10% CONE ANGLE: 111.0 DEGREES  
 50% CONE ANGLE: 66.0 DEGREES