



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  
SL-358U-D-A059400  
Project Number  
10472056  
Test Number  
735339

Test Date

2014-08-27

Prepared By

Handwritten signature of Derek Smarr in black ink.

Derek Smarr, Technician

Approved By

Handwritten signature of Zachary Mooney in black ink.

Zachary Mooney, Engineer Project Associate

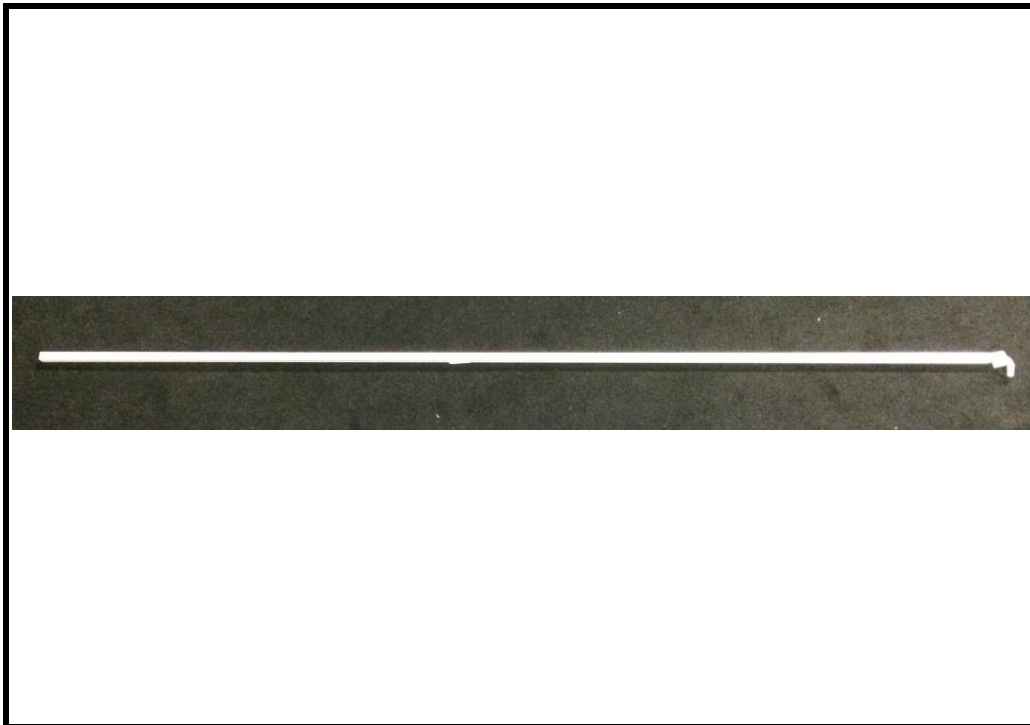
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Luminaire Description: Grey aluminum housing, frosted lens  
Catalog Number: SL-358U-D-A059400  
Lamp: White LEDs  
Mounting: Surface  
Ballast/Driver: One High Perfection Tech. LP1090-24-GG-290

Luminaire

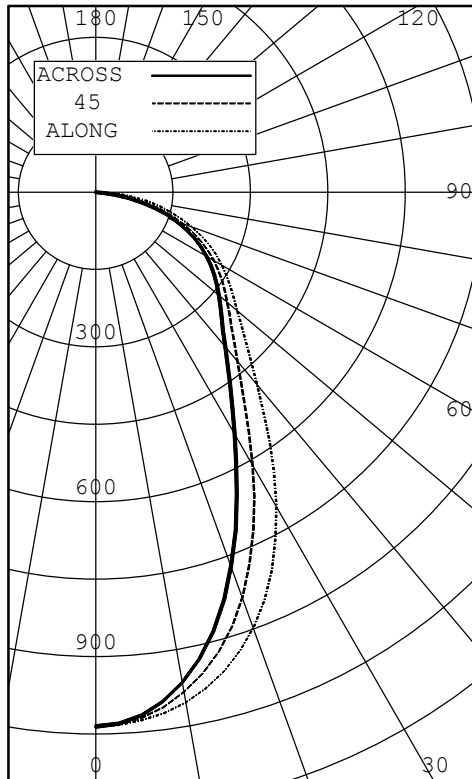


Test Conditions

Test Temperature:	24.7 °C
Voltage:	120.0 VAC
Current:	0.3495 A
Power:	40.95 W
Power Factor:	0.977
Frequency:	60 Hz
Current THD:	42.8 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	1035	1035	1035	1035	1035	
5	1028	1027	1023	1017	1018	98
10	1004	999	984	969	965	
15	961	950	922	892	881	257
20	896	879	833	786	768	
25	808	782	723	667	647	331
30	701	674	607	554	538	
35	586	559	504	465	453	321
40	486	466	428	399	390	
45	412	399	373	352	345	291
50	359	350	333	316	312	
55	318	313	298	285	280	267
60	282	277	264	252	248	
65	243	237	225	215	211	223
70	200	194	181	171	168	
75	152	146	131	122	119	140
80	103	93	78	66	64	
85	49	36	21	16	17	34
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	686	34.95
0-40	1007	51.32
0-60	1565	79.79
0-90	1962	100.00
40-90	955	48.68
60-90	396	20.21
90-180	0	0.00
0-180	1962	100.00

EFFICACY (LUMENS PER WATT): 47.8

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

LUMINOUS LENGTH: 59.750 INS  
 WIDTH: 0.375 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 0.9  
 SC (ALONG): 1.1, SC (ACROSS): 0.9

ANGLE	ALONG	45	ACROSS
45	40267	36615	33895
55	38395	36120	33953
65	39816	36959	34645
75	40707	35176	31807
85	38853	16432	13226

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA  
 IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0.0	1035	1035	1035	1035	1035	1035	
2.5	1033	1034	1033	1030	1031	1032	
5.0	1028	1027	1023	1017	1018	1023	98
7.5	1018	1015	1007	997	996	1006	
10.0	1004	999	984	969	965	984	
12.5	985	977	956	934	927	956	
15.0	961	950	922	892	881	921	257
17.5	932	918	881	842	827	880	
20.0	896	879	833	786	768	832	
22.5	855	833	779	727	708	780	
25.0	808	782	723	667	647	725	331
27.5	755	729	665	608	589	669	
30.0	701	674	607	554	538	614	
32.5	642	615	552	506	493	560	
35.0	586	559	504	465	453	512	321
37.5	533	509	462	429	419	469	
40.0	486	466	428	399	390	433	
42.5	445	430	398	373	366	402	
45.0	412	399	373	352	345	375	291
47.5	383	372	351	333	328	353	
50.0	359	350	333	316	312	334	
52.5	338	331	316	301	296	316	
55.0	318	313	298	285	280	299	267
57.5	300	295	281	269	265	282	
60.0	282	277	264	252	248	264	
62.5	263	258	245	234	230	246	
65.0	243	237	225	215	211	226	223
67.5	222	216	204	194	190	205	
70.0	200	194	181	171	168	182	
72.5	177	170	157	147	144	159	
75.0	152	146	131	122	119	133	140
77.5	128	120	105	95	92	107	
80.0	103	93	78	66	64	80	
82.5	77	66	49	38	36	52	
85.0	49	36	21	16	17	26	34
87.5	20	9	5	4	4	7	
90.0	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	1.040	.960	.900	.84	1.010	.940	.880	.83	0.990	.920	.870	.82	0.890	.840	.80	0.860	.820	.78	0.830	.800	.77	0.75			
	3	0.960	.850	.780	.72	0.930	.840	.770	.71	0.910	.820	.760	.70	0.800	.740	.69	0.770	.720	.68	0.750	.710	.67	0.65			
	4	0.890	.770	.690	.63	0.870	.760	.680	.62	0.850	.750	.680	.62	0.720	.660	.61	0.700	.650	.60	0.680	.630	.60	0.58			
	5	0.830	.700	.610	.55	0.810	.690	.610	.55	0.780	.680	.600	.54	0.660	.590	.54	0.640	.580	.53	0.620	.570	.53	0.51			
	6	0.770	.640	.550	.49	0.750	.630	.550	.49	0.730	.620	.540	.48	0.600	.530	.48	0.580	.520	.48	0.570	.510	.47	0.45			
	7	0.710	.580	.490	.44	0.690	.570	.490	.43	0.680	.560	.490	.43	0.550	.480	.43	0.530	.470	.42	0.520	.460	.42	0.40			
	8	0.660	.530	.450	.39	0.650	.520	.450	.39	0.640	.520	.440	.39	0.500	.440	.39	0.490	.430	.38	0.480	.420	.38	0.36			
	9	0.620	.490	.410	.35	0.610	.480	.410	.35	0.590	.480	.400	.35	0.460	.400	.35	0.450	.390	.35	0.440	.390	.34	0.33			
	10	0.580	.450	.370	.32	0.570	.450	.370	.32	0.560	.440	.370	.32	0.430	.360	.32	0.420	.360	.32	0.410	.360	.31	0.30			

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	1035.0	103.5	2.2	517.5	1.0
2	258.8	25.9	4.5	129.4	1.9
3	115.0	11.5	6.7	57.5	2.9
4	64.7	6.5	8.9	32.3	3.9
5	41.4	4.1	11.2	20.7	4.8
6	28.8	2.9	13.4	14.4	5.8
7	21.1	2.1	15.6	10.6	6.8
8	16.2	1.6	17.9	8.1	7.7

10% CONE ANGLE: 96.3 DEGREES  
 50% CONE ANGLE: 51.5 DEGREES