



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
15 B2-LP-L-358UOD-A072000
Project Number
10520546
Test Number
785428

Test Date

2014-10-14

Prepared By

A handwritten signature in black ink, appearing to read 'Todd Heiland'.

Todd Heiland, Technician

Approved By

A handwritten signature in black ink, appearing to read 'Zachary Mooney'.

Zachary Mooney, Engineer Project Associate

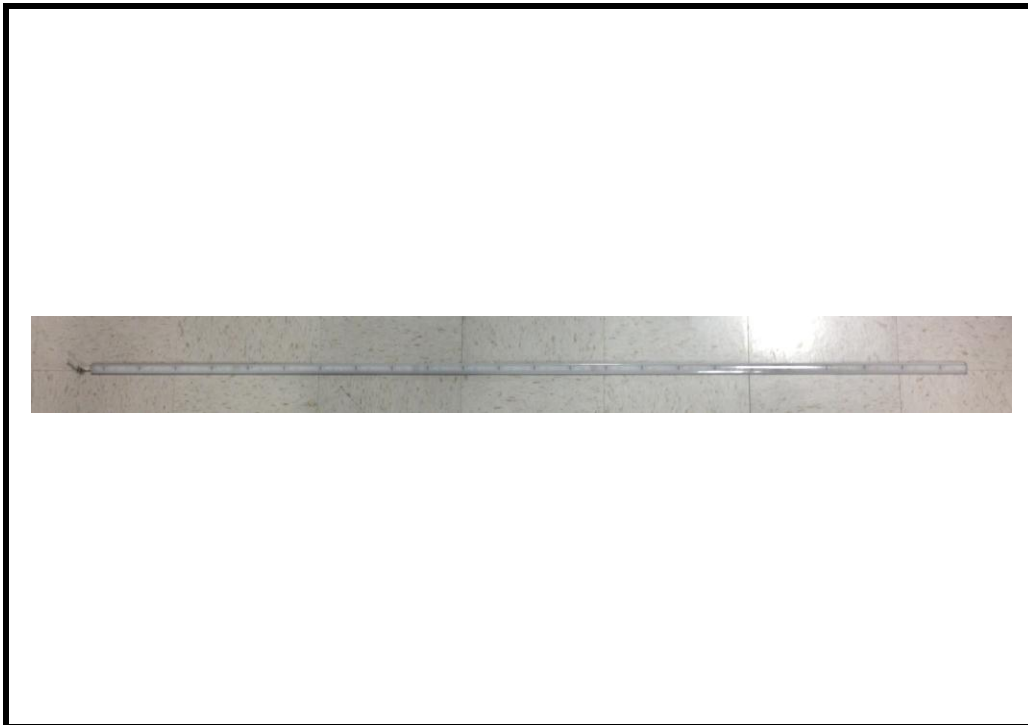
The results contained in this report pertain only to the tested sample.
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Luminaire Description: Grey aluminum housing, frosted plastic enclosure
Catalog Number: 15 B2-LP-L-358UOD-A072000
Lamp: 72 white LEDs
Mounting: Surface
Ballast/Driver: One High Perfection Tech. LP1090-24-GG-290

Luminaire

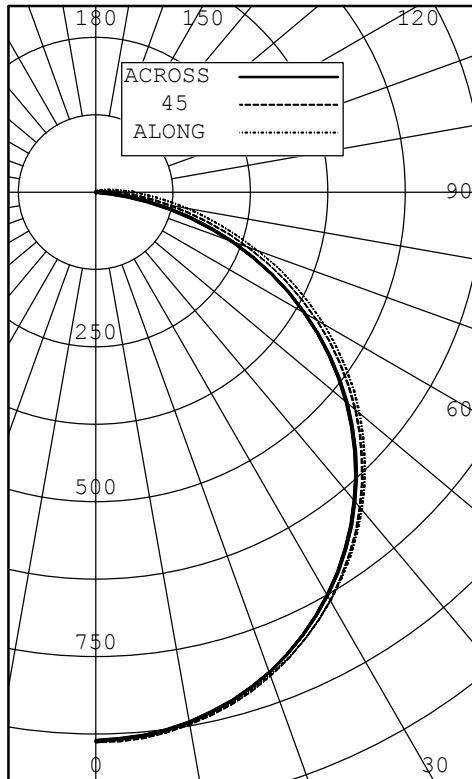


Test Conditions

Test Temperature:	24.6 °C
Voltage:	120.0 VAC
Current:	0.3784 A
Power:	44.51 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	886	886	886	886	886	
5	882	881	885	883	881	85
15	853	852	855	852	850	240
25	798	796	797	793	790	366
35	717	715	714	709	703	445
45	614	612	607	601	592	467
55	492	490	481	471	461	428
65	354	350	339	324	314	332
75	211	205	189	169	158	198
85	98	91	69	41	25	76
90	61	54	34	10	0	
95	36	30	15	1	0	19
105	11	9	3	0	0	5
115	6	5	2	0	0	3
125	5	4	0	0	0	1
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
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	691	25.94
0-40	1136	42.63
0-60	2030	76.20
0-90	2636	98.93
40-90	1500	56.30
60-90	606	22.74
90-180	28	1.07
0-180	2665	100.00

EFFICACY (LUMENS PER WATT): 59.9

*** 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	37284	37000	36068
55	36830	36137	34598
65	35940	34492	31990
75	34962	31345	26326
85	48443	34155	12404

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	886	886	886	886	886	886	
5	882	881	885	883	881	883	85
10	871	870	873	871	869	871	
15	853	852	855	852	850	853	240
20	828	827	830	826	824	827	
25	798	796	797	793	790	795	366
30	760	758	759	753	750	757	
35	717	715	714	709	703	712	445
40	669	667	664	658	650	662	
45	614	612	607	601	592	606	467
50	556	553	547	539	529	545	
55	492	490	481	471	461	480	428
60	425	421	411	399	389	410	
65	354	350	339	324	314	336	332
70	280	278	263	246	236	261	
75	211	205	189	169	158	187	198
80	151	143	121	97	84	120	
85	98	91	69	41	25	66	76
90	61	54	34	10	0	32	
95	36	30	15	1	0	16	19
100	20	16	6	0	0	8	
105	11	9	3	0	0	4	5
110	7	6	3	0	0	3	
115	6	5	2	0	0	2	3
120	5	5	2	0	0	2	
125	5	4	0	0	0	1	1
130	4	2	0	0	0	1	
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	1.011	.011	.011	.01	0.99
	1	1.121	.061	.020	.98	1.091	.041	.000	.96	1.061	.020	.980	.94	0.970	.940	.91	0.930	.910	.88	0.890	.870	.85	0.83			
	2	1.020	.940	.870	.80	0.990	.920	.850	.79	0.970	.900	.840	.78	0.860	.810	.76	0.830	.780	.75	0.790	.760	.73	0.71			
	3	0.930	.820	.740	.67	0.910	.810	.730	.67	0.880	.790	.720	.66	0.760	.700	.65	0.730	.680	.63	0.710	.660	.62	0.60			
	4	0.860	.740	.640	.58	0.840	.720	.640	.57	0.820	.710	.630	.57	0.680	.610	.56	0.660	.600	.55	0.630	.580	.54	0.52			
	5	0.790	.660	.560	.49	0.770	.640	.560	.49	0.750	.630	.550	.49	0.610	.540	.48	0.590	.520	.48	0.570	.520	.47	0.45			
	6	0.730	.590	.490	.43	0.710	.580	.490	.43	0.690	.570	.480	.42	0.550	.470	.42	0.530	.460	.41	0.510	.450	.41	0.39			
	7	0.670	.520	.430	.38	0.650	.520	.430	.37	0.630	.510	.420	.36	0.490	.410	.36	0.470	.410	.36	0.460	.400	.35	0.33			
	8	0.620	.470	.390	.33	0.600	.470	.380	.32	0.590	.460	.380	.32	0.440	.370	.32	0.430	.370	.32	0.420	.360	.31	0.29			
	9	0.570	.430	.340	.28	0.560	.430	.340	.28	0.540	.420	.340	.28	0.400	.330	.28	0.390	.330	.28	0.380	.320	.28	0.26			
	10	0.530	.390	.300	.25	0.520	.390	.300	.25	0.510	.380	.300	.25	0.370	.300	.25	0.360	.290	.25	0.350	.290	.24	0.23			

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	886.0	88.6	2.9	443.0	1.3
2	221.5	22.1	5.8	110.8	2.5
3	98.4	9.8	8.6	49.2	3.8
4	55.4	5.5	11.5	27.7	5.1
5	35.4	3.5	14.4	17.7	6.3
6	24.6	2.5	17.3	12.3	7.6
7	18.1	1.8	20.2	9.0	8.9
8	13.8	1.4	23.0	6.9	10.2

10% CONE ANGLE: 110.5 DEGREES
 50% CONE ANGLE: 64.8 DEGREES