



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
Elemental LED Inc, DBA Diode LED
Wes Buck
Suite 211, 1195 Park Ave.
Emeryville, CA 94608
United States

Catalog Number
LINAIRE™ LED Wall Washer DI-LIN-RGB45-40
Project Number
10459969
Test Number
741500

Test Date

2014-09-03

Prepared By

Handwritten signature of Javier Caban in black ink.

Javier Caban, Technician

Approved By

Handwritten signature of Eric M. Gaudreau in black ink.

Eric Gaudreau, Engineering Project Handler

The results contained in this report pertain only to the tested sample.
This report shall not be reproduced, except in full, without written approval of Underwriters Laboratories.



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

Luminaire Description: Black aluminum housing, glass lens enclosure
Catalog Number: LINAIRE™ LED Wall Washer DI-LIN-RGB45-40
Lamp: 30 white LEDs, with frosted plastic optics below each
Mounting: Pendant
Ballast/Driver: LED power supply

Luminaire

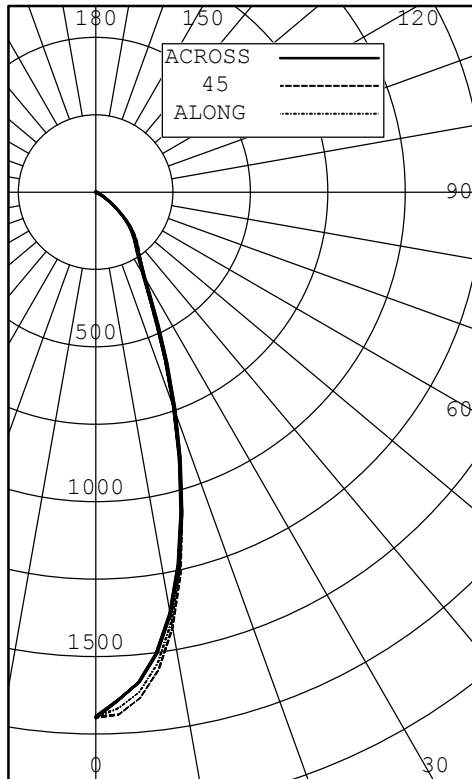


Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.7598 A
Power:	48.31 W
Power Factor:	0.530
Frequency:	60 Hz
Current THD:	156 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	1695	1695	1695	1695	1695	
5	1620	1635	1641	1655	1589	151
10	1408	1424	1429	1440	1383	
15	1076	1078	1077	1101	1069	294
20	737	731	726	745	744	
25	455	461	463	470	470	218
30	306	309	314	313	310	
35	243	242	246	241	236	154
40	202	199	205	199	194	
45	160	155	161	158	153	119
50	106	102	108	107	103	
55	58	56	59	60	57	54
60	29	28	29	30	29	
65	14	13	14	14	14	15
70	6	6	6	7	6	
75	2	2	2	3	2	3
80	0	0	0	0	0	
85	0	0	0	0	0	0
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	663	65.78
0-40	817	81.01
0-60	990	98.24
0-90	1008	100.00
40-90	191	18.99
60-90	18	1.76
90-180	0	0.00
0-180	1008	100.00

EFFICACY (LUMENS PER WATT): 20.9

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 2.500 INS
 WIDTH: 39.000 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 0.6
 SC: 0.6

ANGLE	ALONG	45	ACROSS
45	3588	3643	3456
55	1615	1637	1591
65	519	522	519
75	147	147	151
85	0	0	0

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA
 IN 2.5 DEGREE STEPS

ANGLE	PLANE					AVERAGE	OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS		
0.0	1695	1695	1695	1695	1695	1695	
2.5	1669	1684	1690	1707	1643	1684	
5.0	1620	1635	1641	1655	1589	1634	151
7.5	1535	1551	1556	1566	1503	1548	
10.0	1408	1424	1429	1440	1383	1422	
12.5	1249	1260	1262	1282	1233	1261	
15.0	1076	1078	1077	1101	1069	1082	294
17.5	903	897	893	917	903	903	
20.0	737	731	726	745	744	736	
22.5	585	584	581	594	596	587	
25.0	455	461	463	470	470	464	218
27.5	364	369	375	377	375	373	
30.0	306	309	314	313	310	311	
32.5	269	270	274	271	267	271	
35.0	243	242	246	241	236	242	154
37.5	222	220	224	219	213	220	
40.0	202	199	205	199	194	200	
42.5	182	178	184	180	174	180	
45.0	160	155	161	158	153	158	119
47.5	134	129	135	134	129	132	
50.0	106	102	108	107	103	105	
52.5	80	77	81	82	78	80	
55.0	58	56	59	60	57	58	54
57.5	41	40	42	42	41	41	
60.0	29	28	29	30	29	29	
62.5	20	19	20	21	20	20	
65.0	14	13	14	14	14	14	15
67.5	10	9	10	10	10	10	
70.0	6	6	6	7	6	6	
72.5	4	4	4	4	4	4	
75.0	2	2	2	3	2	2	3
77.5	1	1	1	1	1	1	
80.0	0	0	0	0	0	0	
82.5	0	0	0	0	0	0	
85.0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	
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	1.161	.131	.111	.09	1.141	.111	.091	.07	1.121	.091	.071	.05	1.051	.031	.021	.02	1.011	.000	.99	0.980	.970	.96	0.94		
	2	1.111	.061	.030	.99	1.091	.051	.010	.98	1.071	.030	.990	.97	0.990	.970	.95	0.970	.950	.93	0.940	.920	.91	0.89			
	3	1.061	.000	.950	.91	1.040	.980	.940	.90	1.020	.970	.930	.90	0.950	.910	.88	0.920	.890	.87	0.900	.880	.86	0.84			
	4	1.010	.940	.880	.85	1.000	.930	.880	.84	0.980	.920	.870	.84	0.900	.860	.83	0.880	.840	.82	0.860	.830	.81	0.79			
	5	0.970	.890	.830	.79	0.950	.880	.820	.78	0.930	.870	.820	.78	0.850	.810	.77	0.830	.800	.77	0.820	.790	.76	0.75			
	6	0.930	.840	.780	.74	0.910	.830	.780	.74	0.900	.820	.770	.73	0.810	.760	.73	0.790	.750	.72	0.780	.750	.72	0.71			
	7	0.880	.790	.730	.70	0.870	.780	.730	.69	0.860	.780	.730	.69	0.760	.720	.68	0.750	.710	.68	0.740	.700	.68	0.66			
	8	0.840	.750	.690	.65	0.830	.740	.690	.65	0.820	.730	.680	.65	0.720	.680	.65	0.720	.670	.64	0.710	.670	.64	0.63			
	9	0.800	.710	.650	.61	0.790	.700	.650	.61	0.780	.700	.650	.61	0.690	.640	.61	0.680	.640	.61	0.670	.630	.60	0.59			
	10	0.770	.670	.620	.58	0.760	.670	.620	.58	0.750	.660	.620	.58	0.660	.610	.58	0.650	.610	.57	0.640	.600	.57	0.56			

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

Cone Of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	106	2.39
6.00	47.2	3.58
8.00	26.5	4.78
10.0	17.0	5.97
12.0	11.8	7.17
14.0	8.67	8.36
16.0	6.64	9.56

Cone of Light Plot

