



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-RGB45-20  
Project Number  
10459969  
Test Number  
741499

Test Date

2014-09-04

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-RGB45-20  
Lamp: 12 white LEDs, with frosted plastic optics below each  
Mounting: Pendant  
Ballast/Driver: LED power supply

Luminaire

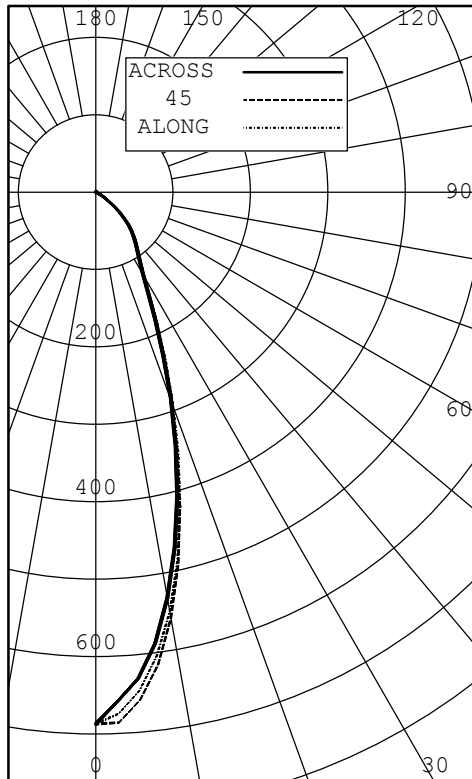


Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.4018 A
Power:	24.61 W
Power Factor:	0.510
Frequency:	60 Hz
Current THD:	163 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	687	687	687	687	687	
5	647	652	659	658	631	60
10	550	555	560	557	532	
15	421	420	420	423	407	114
20	291	288	285	291	283	
25	189	186	185	188	182	87
30	125	126	126	125	122	
35	96	97	96	95	94	61
40	78	79	79	78	77	
45	61	61	62	62	60	46
50	41	41	42	41	39	
55	22	22	23	23	21	21
60	11	11	11	11	11	
65	5	5	5	5	5	6
70	3	2	2	3	2	
75	1	1	1	1	1	1
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	261	65.87
0-40	322	81.24
0-60	389	98.30
0-90	396	100.00
40-90	74	18.76
60-90	7	1.70
90-180	0	0.00
0-180	396	100.00

EFFICACY (LUMENS PER WATT): 16.1

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

LUMINOUS LENGTH: 2.500 INS  
 WIDTH: 19.250 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 0.6  
 SC: 0.6

ANGLE	ALONG	45	ACROSS
45	2783	2846	2743
55	1257	1287	1203
65	411	412	386
75	99	99	93
85	0	0	0

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	687	687	687	687	687	687	
2.5	675	680	686	685	658	679	
5.0	647	652	659	658	631	652	60
7.5	604	610	616	614	588	609	
10.0	550	555	560	557	532	553	
12.5	488	490	492	491	470	488	
15.0	421	420	420	423	407	419	114
17.5	354	351	349	355	344	351	
20.0	291	288	285	291	283	288	
22.5	237	232	230	234	228	232	
25.0	189	186	185	188	182	186	87
27.5	151	151	150	151	147	150	
30.0	125	126	126	125	122	125	
32.5	108	109	109	108	106	108	
35.0	96	97	96	95	94	96	61
37.5	87	87	87	86	85	86	
40.0	78	79	79	78	77	78	
42.5	70	71	71	70	69	70	
45.0	61	61	62	62	60	61	46
47.5	51	51	52	52	50	51	
50.0	41	41	42	41	39	41	
52.5	31	31	31	31	29	31	
55.0	22	22	23	23	21	22	21
57.5	16	16	16	16	15	16	
60.0	11	11	11	11	11	11	
62.5	8	8	8	8	7	8	
65.0	5	5	5	5	5	5	6
67.5	4	4	4	4	3	4	
70.0	3	2	2	3	2	2	
72.5	2	2	2	2	1	2	
75.0	1	1	1	1	1	1	1
77.5	0	0	0	0	0	0	
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	.041	.02	1.011	.000	.99	0.980	.970	.96	0.94			
	2	1.111	.061	.030	.99	1.091	.051	.010	.98	1.071	.031	.000	.97	1.000	.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	.890	.85	1.000	.930	.880	.84	0.980	.920	.880	.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	.78	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	.74	0.810	.760	.73	0.790	.760	.73	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	.69	0.750	.710	.68	0.740	.710	.68	0.66			
	8	0.840	.750	.690	.66	0.830	.740	.690	.65	0.820	.730	.690	.65	0.730	.680	.65	0.720	.670	.64	0.710	.670	.64	0.63			
	9	0.800	.710	.650	.61	0.790	.710	.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	.670	.620	.58	0.660	.610	.58	0.650	.610	.58	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	43.1	2.31
6.00	19.1	3.46
8.00	10.8	4.62
10.0	6.89	5.77
12.0	4.79	6.93
14.0	3.52	8.08
16.0	2.69	9.24

**Cone of Light Plot**

