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
SUNRISE™ 12V Light Bar DI-0211
Project Number
10461972
Test Number
748165

Test Date

2014-09-15

Prepared By

Javier Caban, Technician

Approved By

Eric Gaudreau, Engineering Project Handler

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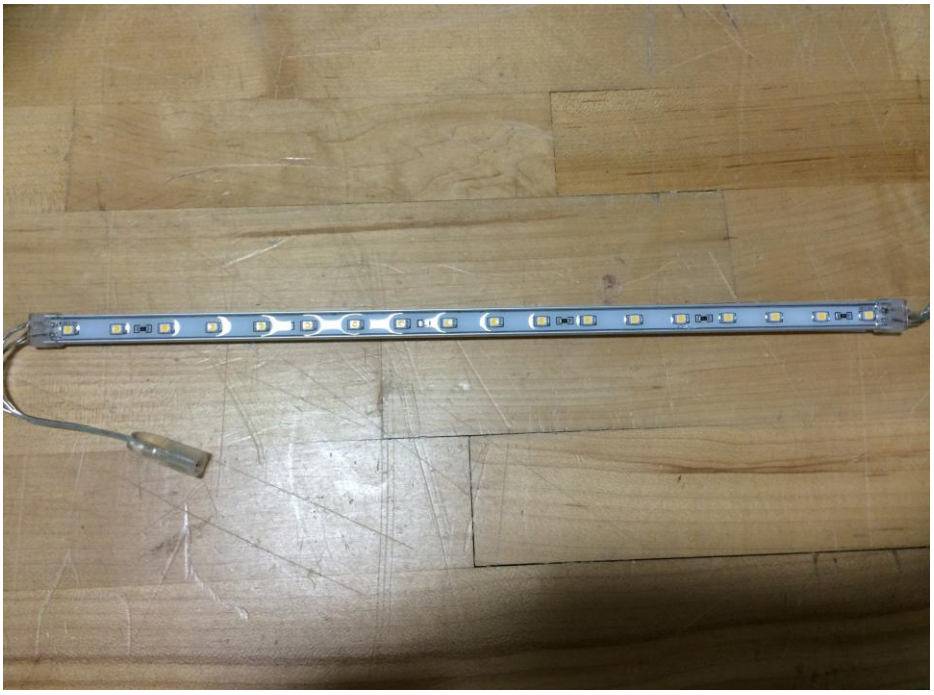
Luminaire Description:	Grey plastic housing, no enclosure
Catalog Number:	SUNRISE™ 12V Light Bar DI-0211
Lamp:	18 white LEDs
Mounting:	Surface
Ballast/Driver:	One Meanwell LPV-60-12

Luminaire



Test Conditions

Test Temperature:	24.6	°C
Voltage:	120.0	VAC
Current:	0.05041	A
Power:	2.316	W
Power Factor:	0.383	
Frequency:	60	Hz
Current THD:	158	%

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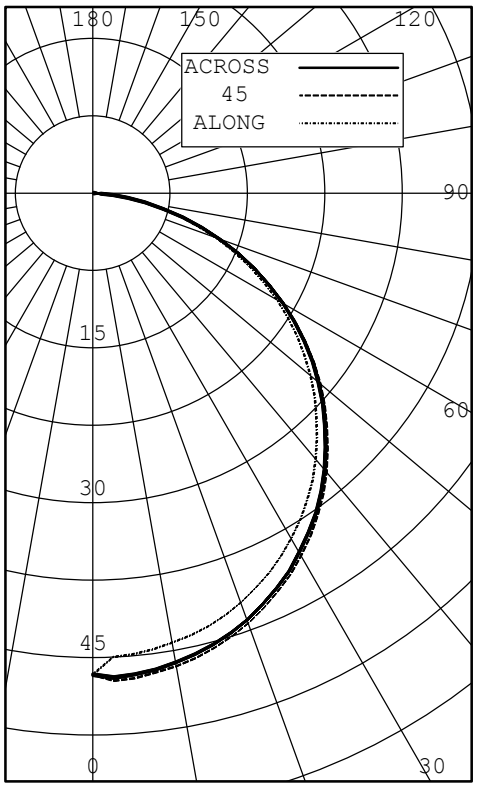

INTENSITY(CANDLEPOWER) SUMMARY

ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	47	47	47	47	47	
5	45	47	47	47	47	4
10	44	46	47	46	46	
15	43	45	46	45	45	13
20	42	44	44	44	44	
25	41	42	43	42	42	19
30	39	40	40	40	40	
35	36	38	38	38	38	23
40	34	35	35	35	35	
45	31	32	32	32	32	24
50	28	29	29	29	29	
55	24	25	25	25	25	22
60	21	21	21	21	21	
65	17	17	17	17	17	17
70	13	13	13	13	13	
75	9	9	9	9	9	10
80	5	5	5	5	5	
85	2	2	2	2	2	2
90	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	37	26.91
0-40	60	44.20
0-60	107	78.62
0-90	136	100.00
40-90	76	55.80
60-90	29	21.38
90-180	0	0.00
0-180	136	100.00

EFFICACY (LUMENS PER WATT): 59.0

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 11.380 INS
WIDTH: 0.375 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
SC(ALONG): 1.2, SC(ACROSS): 1.3

ANGLE	ALONG	45	ACROSS
45	15743	16525	16396
55	15292	16018	15923
65	14352	15049	14924
75	12279	12785	12748
85	7709	8356	8366

TESTED IN ACCORDANCE WITH IES PROCEDURES.

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INTENSITY(CANDLEPOWER) DATA
IN 2.5 DEGREE STEPS

ANGLE	PLANE						OUTPUT
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	LUMENS
0.0	47	47	47	47	47	47	
2.5	45	47	47	47	47	47	
5.0	45	47	47	47	47	47	4
7.5	45	46	47	46	47	46	
10.0	44	46	47	46	46	46	
12.5	44	46	46	46	46	46	
15.0	43	45	46	45	45	45	13
17.5	43	45	45	45	45	44	
20.0	42	44	44	44	44	44	
22.5	41	43	43	43	43	43	
25.0	41	42	43	42	42	42	19
27.5	40	41	42	41	41	41	
30.0	39	40	40	40	40	40	
32.5	37	39	39	39	39	39	
35.0	36	38	38	38	38	38	23
37.5	35	37	37	36	36	36	
40.0	34	35	35	35	35	35	
42.5	32	34	34	33	33	33	
45.0	31	32	32	32	32	32	24
47.5	29	30	30	30	30	30	
50.0	28	29	29	29	29	29	
52.5	26	27	27	27	27	27	
55.0	24	25	25	25	25	25	22
57.5	22	23	23	23	23	23	
60.0	21	21	21	21	21	21	
62.5	19	19	19	19	19	19	
65.0	17	17	17	17	17	17	17
67.5	15	15	15	15	15	15	
70.0	13	13	13	13	13	13	
72.5	11	11	11	11	11	11	
75.0	9	9	9	9	9	9	10
77.5	7	7	7	7	7	7	
80.0	5	5	5	5	5	5	
82.5	3	3	4	4	3	3	
85.0	2	2	2	2	2	2	2
87.5	1	1	1	1	1	1	
90.0	0	0	0	0	0	0	

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COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC	90				80				70				50			30			10			0
WALL	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																						
0	1.22	1.22	1.22	1.22	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.12	1.06	1.02	0.98	1.09	1.04	1.00	0.96	1.06	1.02	0.98	0.95	0.98	0.95	0.92	0.94	0.91	0.89	0.90	0.88	0.86	0.84
2	1.02	0.94	0.87	0.81	1.00	0.92	0.86	0.80	0.97	0.90	0.84	0.79	0.86	0.81	0.77	0.83	0.79	0.75	0.80	0.77	0.74	0.72
3	0.93	0.83	0.74	0.68	0.91	0.81	0.73	0.67	0.89	0.79	0.72	0.66	0.77	0.70	0.65	0.74	0.69	0.64	0.71	0.67	0.63	0.61
4	0.86	0.74	0.65	0.58	0.84	0.73	0.64	0.58	0.82	0.71	0.64	0.57	0.69	0.62	0.57	0.66	0.61	0.56	0.64	0.59	0.55	0.53
5	0.80	0.66	0.57	0.50	0.77	0.65	0.56	0.49	0.75	0.64	0.55	0.49	0.61	0.54	0.49	0.60	0.53	0.48	0.58	0.52	0.48	0.46
6	0.73	0.59	0.50	0.43	0.71	0.58	0.49	0.43	0.69	0.57	0.49	0.43	0.55	0.48	0.42	0.53	0.47	0.42	0.52	0.46	0.41	0.40
7	0.67	0.53	0.44	0.38	0.65	0.52	0.43	0.37	0.64	0.51	0.43	0.37	0.49	0.42	0.37	0.48	0.41	0.36	0.47	0.41	0.36	0.34
8	0.62	0.48	0.39	0.33	0.61	0.47	0.39	0.33	0.59	0.46	0.38	0.33	0.45	0.38	0.32	0.44	0.37	0.32	0.42	0.36	0.32	0.30
9	0.58	0.44	0.35	0.29	0.56	0.43	0.34	0.29	0.55	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.28	0.39	0.33	0.28	0.26
10	0.53	0.40	0.31	0.26	0.52	0.39	0.31	0.26	0.51	0.38	0.31	0.25	0.37	0.30	0.25	0.36	0.30	0.25	0.36	0.29	0.25	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.

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Cone of Light

Cone Of Light Tabulation

Mounting Height (Feet)	Footcandles at Nadir	Diameter (Feet)
4.00	2.94	5.07
6.00	1.31	7.61
8.00	0.734	10.1
10.0	0.470	12.7
12.0	0.326	15.2
14.0	0.240	17.8
16.0	0.184	20.3

Cone of Light Plot