



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  
LF Illumination LLC  
Scott Hershman  
9200 Deering Avenue  
Chatsworth, CA 91311  
United States

Catalog Number  
9421-16L-9030-N-MW  
Project Number  
10581561  
Test Number  
835668

Test Date

2014-12-03

Prepared By

Handwritten signature of Dane Hernandez-Adams in black ink.

Dane Hernandez-Adams, Technician

Approved By

Handwritten signature of Eric M. Gaudreau in black ink.

Eric Gaudreau, Engineering Project Handler

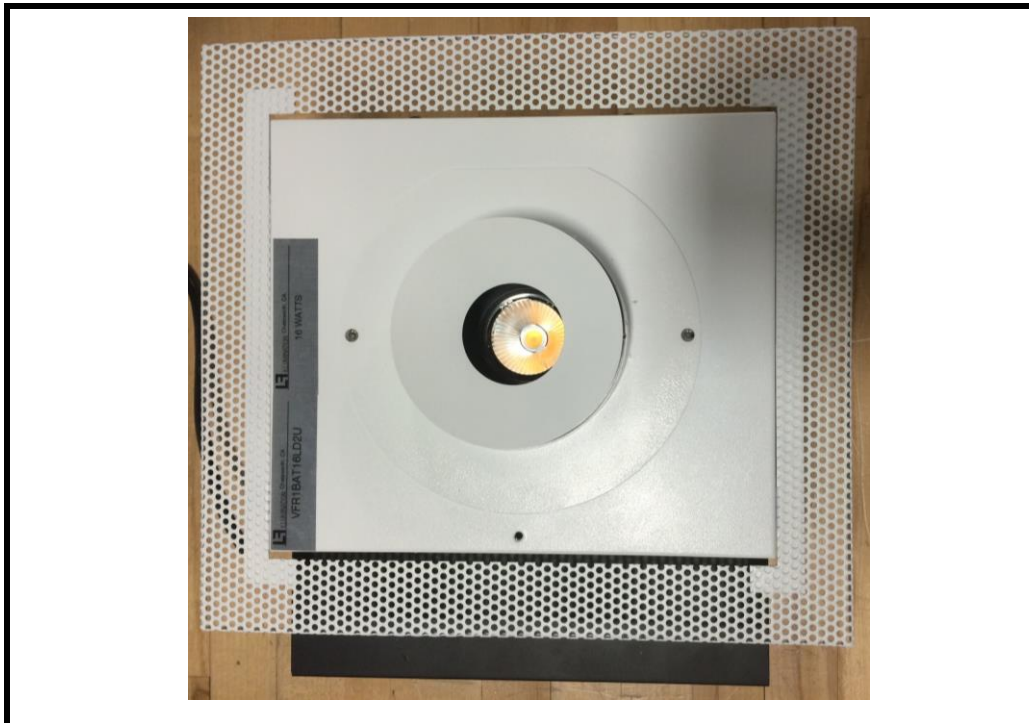
The results contained in this report pertain only to the tested sample.  
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Luminaire Description: Black steel housing, black aluminum heatsink, patterned specular reflector above white aluminum trim  
Catalog Number: 9421-16L-9030-N-MW  
Lamp: One white LED  
Mounting: Recessed  
Ballast/Driver: One ERP ESS030W-0500-42

Luminaire

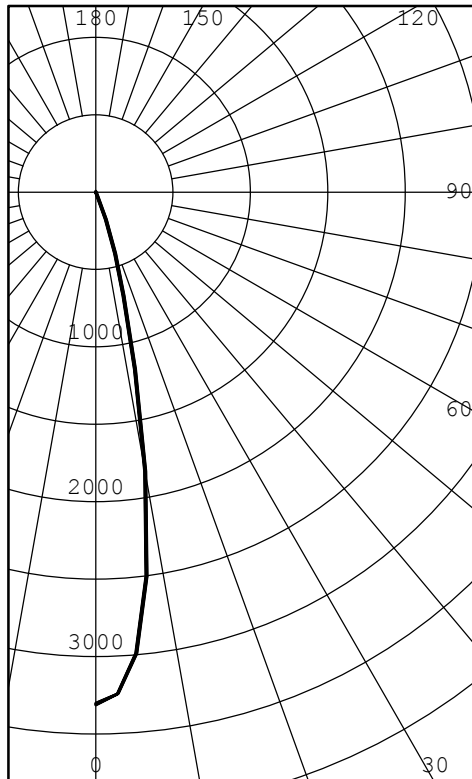


Test Conditions

Test Temperature:	24.9 °C
Voltage:	120.0 VAC
Current:	0.1316 A
Power:	15.53 W
Power Factor:	0.984
Frequency:	60 Hz
Current THD:	14.7 %



INTENSITY (CANDLEPOWER) SUMMARY



ANGLE	MEAN CP	LUMENS
0	3307	
5	2991	248
10	1834	
15	693	206
20	188	
25	4	14
30	2	
35	1	1
40	1	
45	0	0
50	0	
55	0	0
60	0	
65	0	0
70	0	
75	0	0
80	0	
85	0	0
90	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	468	99.79
0-40	468	99.95
0-60	469	100.00
0-90	469	100.00
40-90	0	0.05
60-90	0	0.00
90-180	0	0.00
0-180	469	100.00

EFFICACY (LUMENS PER WATT): 30.2

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

LUMINOUS DIAMETER: 4.000 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 0.4  
 SC: 0.4

ANGLE	MEAN CD/SQ M
45	47
55	1
65	0
75	0
85	0

TESTED IN ACCORDANCE WITH IES PROCEDURES.



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INTENSITY (CANDLEPOWER) DATA  
IN 2.5 DEGREE STEPS

ANGLE	INTENSITY (CANDLEPOWER)	LUMENS
0.0	3307	
2.5	3245	
5.0	2991	248
7.5	2503	
10.0	1834	
12.5	1174	
15.0	693	206
17.5	418	
20.0	188	
22.5	37	
25.0	4	14
27.5	3	
30.0	2	
32.5	1	
35.0	1	1
37.5	1	
40.0	1	
42.5	0	
45.0	0	0
47.5	0	
50.0	0	
52.5	0	
55.0	0	0
57.5	0	
60.0	0	
62.5	0	
65.0	0	0
67.5	0	
70.0	0	
72.5	0	
75.0	0	0
77.5	0	
80.0	0	
82.5	0	
85.0	0	0
87.5	0	
90.0	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	1.221	1.221	1.221	1.191	1.191	1.191	1.191	1.161	1.161	1.161	1.161	1.111	1.111	1.111	1.111	1.061	1.061	1.061	1.061	1.021	1.021	1.021	1.021	1.00
1	1.181	1.161	1.151	1.14	1.161	1.151	1.131	1.12	1.141	1.131	1.111	1.10	1.091	1.081	1.07	1.051	1.051	1.041	1.04	1.021	1.021	1.011	1.01	1.01	0.99
2	1.151	1.131	1.111	1.08	1.141	1.111	1.091	1.07	1.121	1.091	1.071	1.06	1.061	1.051	1.03	1.041	1.041	1.031	1.01	1.011	1.011	1.000	1.00	1.00	0.98
3	1.131	1.091	1.071	1.04	1.111	1.081	1.061	1.04	1.101	1.071	1.051	1.03	1.051	1.031	1.02	1.031	1.031	1.011	1.00	1.011	1.011	1.000	1.00	1.00	0.98
4	1.111	1.071	1.041	1.02	1.101	1.061	1.031	1.01	1.081	1.051	1.031	1.01	1.031	1.011	1.00	1.021	1.021	1.000	1.00	1.000	1.000	1.000	1.00	1.00	0.97
5	1.091	1.051	1.010	1.00	1.081	1.041	1.010	1.00	1.071	1.031	1.000	1.00	1.021	1.000	1.00	1.000	1.000	1.000	1.00	1.000	1.000	1.000	1.00	1.00	0.96
6	1.081	1.031	1.000	1.00	1.071	1.031	1.000	1.00	1.061	1.020	1.000	1.00	1.010	1.000	1.00	1.000	1.000	1.000	1.00	1.000	1.000	1.000	1.00	1.00	0.95
7	1.061	1.010	1.000	1.00	1.051	1.010	1.000	1.00	1.041	1.000	1.000	1.00	0.990	1.000	1.00	0.980	0.980	1.000	1.00	0.980	0.980	1.000	1.00	1.00	0.94
8	1.051	1.000	1.000	1.00	1.040	1.000	1.000	1.00	1.030	1.000	1.000	1.00	0.980	1.000	1.00	0.970	0.970	1.000	1.00	0.970	0.970	1.000	1.00	1.00	0.93
9	1.030	1.000	1.000	1.00	1.020	1.000	1.000	1.00	1.020	1.000	1.000	1.00	0.970	1.000	1.00	0.970	0.970	1.000	1.00	0.960	0.960	1.000	1.00	1.00	0.92
10	1.020	1.000	1.000	1.00	1.010	1.000	1.000	1.00	1.000	1.000	1.000	1.00	0.960	1.000	1.00	0.960	0.960	1.000	1.00	0.950	0.950	1.000	1.00	1.00	0.91

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.