



7036 Snowdrift Road Suite 200
Allentown, PA 18106
610-774-1300

Photometric Indoor Test Report

Relevant Standards
IES LM-79-2008
ANSI C82.77-2002

Catalog Number
SR4-RAF415-4K
Project Number
10310836
Test Number
604497

Test Date

2014-05-01

Prepared By

A handwritten signature in black ink, reading 'Derek Smarr'.

Derek Smarr, Technician

Approved By

A handwritten signature in black ink, reading '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: Aluminum heatsink, white plastic with frosted plastic lens, aluminum semi-specular outer reflector
Catalog Number: SR4-RAF415-4K
Lamp: 8 white LEDs
Mounting: Recessed
Ballast/Driver: One ISDM-A15-U

Luminaire



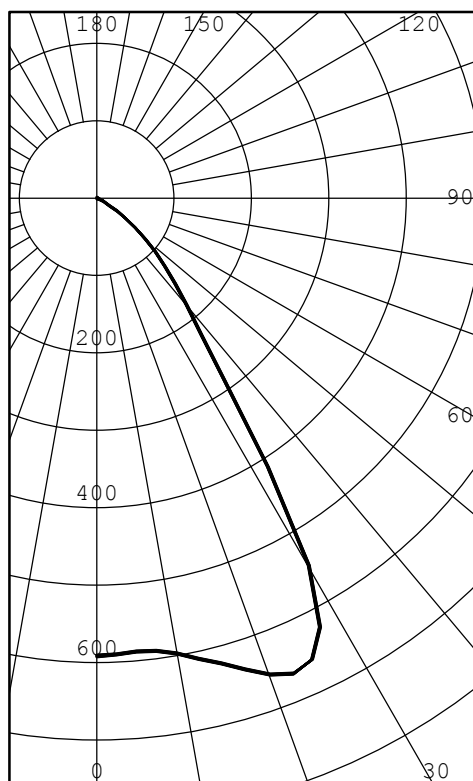
Test Conditions

Test Temperature:	24.8 °C
Voltage:	120.0 VAC
Current:	0.1182 A
Power:	14.12 W
Power Factor:	0.995
Frequency:	60 Hz
Current THD:	3.26 %



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INTENSITY (CANDLEPOWER) SUMMARY



ANGLE	MEAN CP	LUMENS
0	592	
5	588	57
10	597	
15	622	178
20	655	
25	658	293
30	548	
35	288	196
40	180	
45	125	97
50	82	
55	46	42
60	19	
65	9	10
70	4	
75	2	2
80	1	
85	0	0
90	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	528	60.32
0-40	724	82.71
0-60	863	98.62
0-90	875	100.00
40-90	151	17.29
60-90	12	1.38
90-180	0	0.00
0-180	875	100.00

EFFICACY (LUMENS PER WATT): 62.1

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS DIAMETER: 4.000 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.2
SC: 1.0

ANGLE	MEAN CD/SQ M
45	21822
55	9963
65	2638
75	899
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	592	
2.5	590	
5.0	588	57
7.5	590	
10.0	597	
12.5	610	
15.0	622	178
17.5	639	
20.0	655	
22.5	665	
25.0	658	293
27.5	625	
30.0	548	
32.5	411	
35.0	288	196
37.5	221	
40.0	180	
42.5	150	
45.0	125	97
47.5	102	
50.0	82	
52.5	63	
55.0	46	42
57.5	32	
60.0	19	
62.5	13	
65.0	9	10
67.5	6	
70.0	4	
72.5	3	
75.0	2	2
77.5	1	
80.0	1	
82.5	0	
85.0	0	0
87.5	0	
90.0	0	



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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	1.22	1.191	1.191	1.191	1.19	1.161	1.161	1.161	1.16	1.111	1.111	1.11	1.061	1.061	1.06	1.021	1.021	1.02	1.00			
1	1.161	1.131	1.101	1.08	1.141	1.111	1.081	1.06	1.111	1.091	1.071	1.04	1.051	1.031	1.01	1.011	1.000	0.98	0.980	0.960	0.95	0.94			
2	1.101	1.061	1.020	0.98	1.081	1.041	1.000	0.96	1.061	1.020	0.980	0.95	0.990	0.960	0.93	0.960	0.940	0.91	0.930	0.910	0.89	0.88			
3	1.050	0.980	0.930	0.89	1.030	0.970	0.920	0.88	1.010	0.950	0.910	0.88	0.930	0.890	0.86	0.910	0.880	0.85	0.880	0.860	0.84	0.82			
4	1.000	0.920	0.860	0.82	0.980	0.910	0.860	0.82	0.960	0.900	0.850	0.81	0.880	0.830	0.80	0.860	0.820	0.79	0.840	0.810	0.78	0.77			
5	0.950	0.860	0.800	0.75	0.930	0.850	0.790	0.75	0.910	0.840	0.790	0.75	0.820	0.780	0.74	0.810	0.770	0.73	0.790	0.760	0.73	0.71			
6	0.900	0.810	0.740	0.70	0.880	0.800	0.740	0.70	0.870	0.790	0.730	0.69	0.770	0.730	0.69	0.760	0.720	0.69	0.750	0.710	0.68	0.67			
7	0.850	0.750	0.690	0.65	0.830	0.740	0.680	0.64	0.820	0.740	0.680	0.64	0.720	0.670	0.64	0.710	0.670	0.63	0.700	0.660	0.63	0.62			
8	0.810	0.700	0.640	0.60	0.790	0.700	0.640	0.60	0.780	0.690	0.630	0.59	0.680	0.630	0.59	0.670	0.620	0.59	0.660	0.620	0.59	0.57			
9	0.760	0.660	0.590	0.55	0.750	0.650	0.590	0.55	0.740	0.640	0.590	0.55	0.640	0.580	0.55	0.630	0.580	0.54	0.620	0.570	0.54	0.53			
10	0.720	0.610	0.550	0.51	0.710	0.610	0.550	0.51	0.700	0.610	0.550	0.51	0.600	0.540	0.51	0.590	0.540	0.51	0.580	0.540	0.50	0.49			

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.