



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

Prepared For
Sonneman
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106 Pierces Rd.
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United States

Catalog Number
2345
Project Number
10362498
Test Number
644264

Test Date

2014-06-13

Prepared By

Handwritten signature of Javier Caban in black ink.

Javier Caban, Technician

Approved By

Handwritten signature of Jeff A. Smith Jr. in black ink.

Jeff Smith Jr., Project Handler

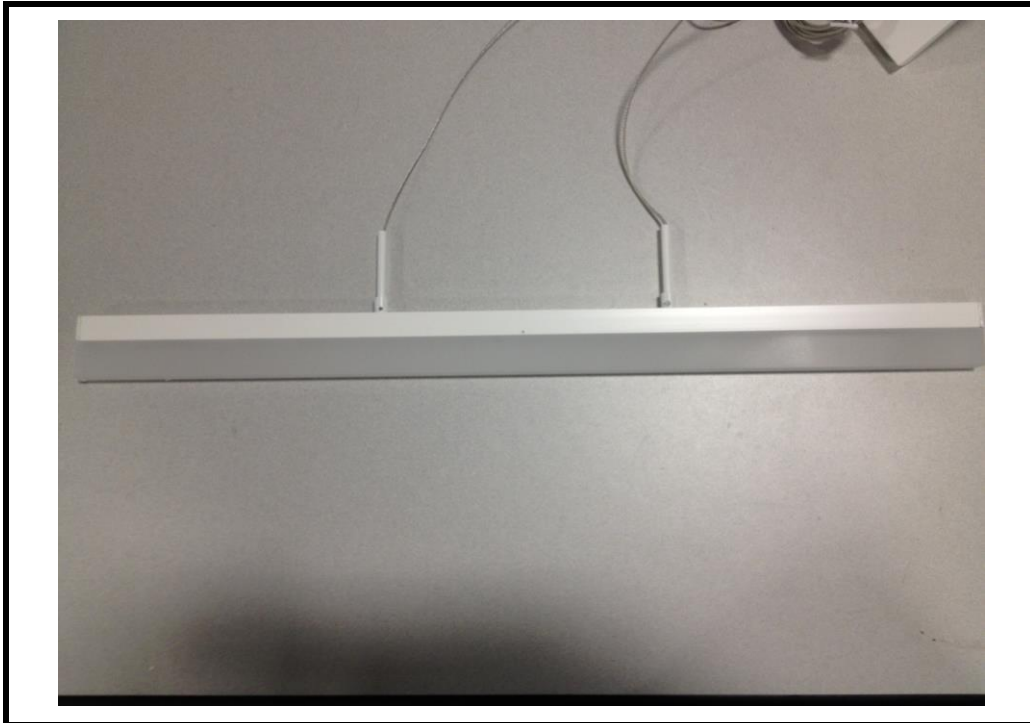
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Luminaire Description: White aluminum housing, frosted plastic lens
Catalog Number: 2345
Lamp: One square array
Mounting: Pendant
Ballast/Driver: One ERP EBR020U-0700-24

Luminaire

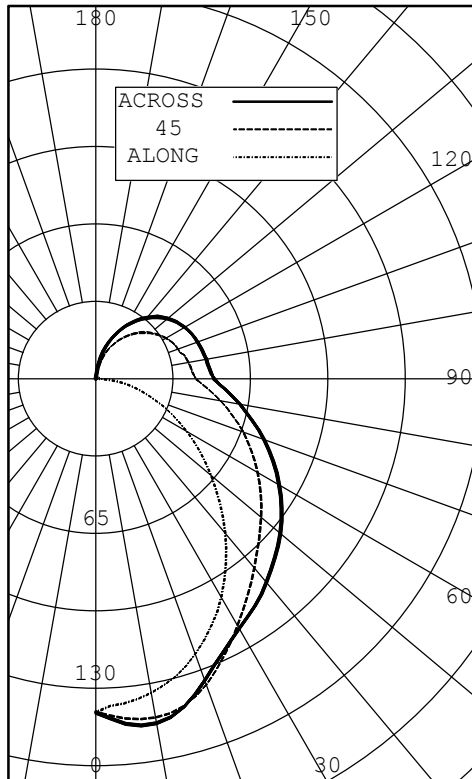


Test Conditions

Test Temperature:	25.1 °C
Voltage:	120.0 VAC
Current:	0.07324 A
Power:	8.660 W
Power Factor:	0.985
Frequency:	60 Hz
Current THD:	13.0 %



INTENSITY (CANDLEPOWER) SUMMARY OUTPUT LUMENS



ANGLE	ALONG	22.5	45	67.5	ACROSS	OUTPUT LUMENS
0	140	140	140	140	140	
5	137	143	143	145	146	14
15	130	140	142	143	143	39
25	115	128	128	126	127	58
35	95	110	111	114	116	69
45	74	90	97	104	106	73
55	53	72	85	93	95	72
65	35	56	72	80	82	66
75	20	43	59	67	68	56
85	7	30	47	54	55	44
90	2	25	42	49	50	
95	2	24	41	47	48	37
105	2	23	39	45	46	34
115	1	21	36	43	45	30
125	1	18	32	40	42	25
135	1	15	28	35	37	19
145	0	11	22	28	30	12
155	0	6	15	20	21	6
165	0	1	6	11	12	2
175	0	0	0	0	0	0
180	0	0	0	0	0	

ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	111	16.89
0-40	180	27.38
0-60	326	49.53
0-90	493	74.87
40-90	313	47.50
60-90	167	25.34
90-180	165	25.13
0-180	658	100.00

EFFICACY (LUMENS PER WATT): 75.6

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 24.630 INS
 WIDTH: 0.625 INS

LUMINANCE SUMMARY CD./SQ.M.

S/MH: 1.3
 SC (ALONG): 1.1, SC (ACROSS): 1.3

ANGLE	ALONG	45	ACROSS
45	10480	6485	5844
55	9374	5695	5112
65	8410	5037	4436
75	7742	4433	3820
85	7798	3922	3303

TESTED IN ACCORDANCE WITH IES PROCEDURES.



INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	22.5	45	67.5	ACROSS	AVERAGE	
0	140	140	140	140	140	140	
5	137	143	143	145	146	143	14
10	134	142	145	146	147	143	
15	130	140	142	143	143	140	39
20	123	135	136	135	135	134	
25	115	128	128	126	127	126	58
30	106	120	119	120	121	118	
35	95	110	111	114	116	110	69
40	85	100	104	109	112	103	
45	74	90	97	104	106	95	73
50	63	81	91	99	101	88	
55	53	72	85	93	95	81	72
60	44	64	78	87	89	74	
65	35	56	72	80	82	67	66
70	27	49	66	74	75	60	
75	20	43	59	67	68	53	56
80	13	36	53	60	61	47	
85	7	30	47	54	55	40	44
90	2	25	42	49	50	35	
95	2	24	41	47	48	34	37
100	2	23	40	46	47	33	
105	2	23	39	45	46	33	34
110	2	22	37	44	46	32	
115	1	21	36	43	45	31	30
120	1	20	34	42	43	29	
125	1	18	32	40	42	28	25
130	1	17	30	37	39	26	
135	1	15	28	35	37	24	19
140	1	13	25	31	34	22	
145	0	11	22	28	30	19	12
150	0	9	18	24	26	16	
155	0	6	15	20	21	13	6
160	0	2	11	15	17	9	
165	0	1	6	11	12	6	2
170	0	0	1	3	5	2	
175	0	0	0	0	0	0	0
180	0	0	0	0	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	1.191	1.191	1.191	1.19	1.131	1.131	1.131	1.13	1.081	1.081	1.081	1.08	0.970	0.970	0.97	0.880	0.880	0.88	0.790	0.790	0.79	0.75				
1	1.061	1.000	0.950	0.90	1.010	0.950	0.900	0.86	0.960	0.910	0.860	0.82	0.820	0.780	0.75	0.740	0.710	0.68	0.660	0.640	0.62	0.58				
2	0.960	0.870	0.790	0.72	0.910	0.830	0.750	0.69	0.860	0.780	0.720	0.66	0.710	0.660	0.61	0.640	0.600	0.56	0.570	0.540	0.51	0.47				
3	0.870	0.750	0.660	0.59	0.830	0.720	0.640	0.57	0.780	0.690	0.610	0.55	0.620	0.560	0.51	0.560	0.510	0.47	0.500	0.460	0.43	0.40				
4	0.800	0.670	0.570	0.50	0.760	0.640	0.550	0.48	0.720	0.610	0.530	0.47	0.550	0.490	0.43	0.500	0.450	0.40	0.450	0.410	0.37	0.34				
5	0.740	0.590	0.500	0.43	0.700	0.570	0.480	0.41	0.660	0.540	0.460	0.40	0.490	0.420	0.37	0.450	0.390	0.34	0.400	0.360	0.32	0.29				
6	0.680	0.530	0.440	0.37	0.640	0.510	0.420	0.36	0.610	0.480	0.400	0.34	0.440	0.370	0.32	0.400	0.340	0.30	0.360	0.310	0.28	0.25				
7	0.620	0.470	0.380	0.32	0.590	0.450	0.370	0.31	0.560	0.430	0.350	0.30	0.400	0.330	0.28	0.360	0.300	0.26	0.330	0.280	0.24	0.22				
8	0.580	0.430	0.340	0.28	0.550	0.410	0.330	0.27	0.520	0.390	0.320	0.26	0.360	0.290	0.24	0.330	0.270	0.23	0.300	0.250	0.21	0.19				
9	0.530	0.390	0.300	0.24	0.510	0.380	0.290	0.24	0.480	0.360	0.280	0.23	0.330	0.260	0.22	0.300	0.240	0.20	0.270	0.220	0.19	0.17				
10	0.490	0.360	0.270	0.22	0.470	0.340	0.260	0.21	0.450	0.330	0.250	0.20	0.300	0.240	0.19	0.280	0.220	0.18	0.250	0.200	0.17	0.15				

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.