



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
Sonneman
Nicolas Carmichael
106 Pierces Rd.
Newburgh, NY 12550-9369

Catalog Number
2432
Project Number
10517633
Test Number
781279

Test Date

2014-10-20

Prepared By

A handwritten signature in black ink that reads 'Derek Smarr'.

Derek Smarr, Technician

Approved By

A handwritten signature in black ink that reads 'Jeff A. Smith Jr.'.

Jeff Smith Jr., Project Handler

The results contained in this report pertain only to the tested sample.
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Luminaire Description: Formed steel housing, frosted glass enclosure
Catalog Number: 2432
Lamp: White LEDs
Mounting: Surface - Wall
Ballast/Driver: One Eaglerise EEP60SE

Luminaire

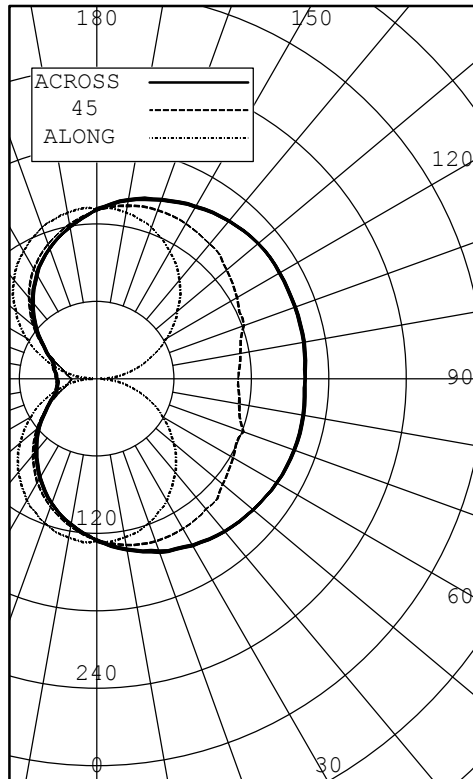


Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.1982 A
Power:	22.66 W
Power Factor:	0.953
Frequency:	60 Hz
Current THD:	31.5 %



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INTENSITY (CANDLEPOWER)				SUMMARY		OUTPUT LUMENS
ANGLE	ALONG	BEAM SIDE	67.5	45	22.5 ACROSS	
0	126	126	126	126	126	
5	127	127	128	130	130	6
15	123	128	133	138	139	19
25	114	124	135	143	146	31
35	102	116	133	147	152	41
45	87	106	132	150	157	49
55	69	93	125	151	160	54
65	50	79	119	151	162	57
75	30	69	115	150	163	57
85	11	59	110	149	162	55
90	3	57	110	148	162	
95	12	58	111	149	163	55
105	32	69	116	151	164	57
115	53	82	122	153	164	58
125	73	96	129	155	164	56
135	92	109	136	154	162	51
145	108	120	138	152	157	42
155	120	128	139	148	151	32
165	128	132	138	143	144	19
175	133	132	134	136	136	7
180	131	131	131	131	131	

BOTH SIDES
ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	101	9.20
0-40	169	15.44
0-60	325	29.64
0-90	539	49.22
40-90	370	33.78
60-90	214	19.57
90-180	556	50.78
0-180	1095	100.00

EFFICACY (LUMENS PER WATT): 39.0

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 2.000 INS
WIDTH: 31.750 INS

LUMINANCE SUMMARY - CD./SQ.M.

BEAM SIDE			
ANGLE	ALONG	45	ACROSS
45	1501	2611	5108
55	1209	2564	6263
65	918	2641	8290
75	597	2841	12494
85	247	3225	26430

TESTED IN ACCORDANCE WITH IES PROCEDURES.



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BEAM SIDE
INTENSITY (CANDLEPOWER) DATA

ANGLE	ALONG	67.5	PLANE 45	22.5	ACROSS	AVERAGE	OUTPUT LUMENS
0	126	126	126	126	126	126	
5	127	127	128	130	130	128	6
10	125	128	131	134	135	131	
15	123	128	133	138	139	132	19
20	119	126	134	141	143	133	
25	114	124	135	143	146	133	31
30	109	121	134	145	149	132	
35	102	116	133	147	152	131	41
40	95	113	132	149	155	130	
45	87	106	132	150	157	127	49
50	78	100	128	150	158	124	
55	69	93	125	151	160	121	54
60	59	89	122	151	161	118	
65	50	79	119	151	162	114	57
70	40	74	121	151	163	112	
75	30	69	115	150	163	108	57
80	21	63	112	150	162	104	
85	11	59	110	149	162	101	55
90	3	57	110	148	162	99	
95	12	58	111	149	163	101	55
100	22	64	113	150	164	105	
105	32	69	116	151	164	108	57
110	42	75	122	152	164	113	
115	53	82	122	153	164	116	58
120	63	89	126	154	164	121	
125	73	96	129	155	164	125	56
130	82	102	132	155	163	128	
135	92	109	136	154	162	131	51
140	100	116	137	153	160	134	
145	108	120	138	152	157	135	42
150	114	125	139	150	154	137	
155	120	128	139	148	151	138	32
160	125	131	139	145	148	138	
165	128	132	138	143	144	137	19
170	131	133	136	139	141	136	
175	133	132	134	136	136	134	7
180	131	131	131	131	131	131	



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OPPOSITE SIDE TO BEAM
INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	112.5	135	157.5	ACROSS	AVERAGE	
0	126	126	126	126	126	126	
5	127	123	121	120	120	122	6
10	125	120	117	115	115	118	
15	123	116	112	109	109	113	16
20	119	111	106	103	103	108	
25	114	105	100	97	96	102	23
30	109	98	93	90	89	95	
35	102	90	85	82	81	87	27
40	95	83	77	75	74	80	
45	87	75	69	67	66	72	28
50	78	66	61	60	59	64	
55	69	57	53	52	51	55	25
60	59	48	45	44	45	47	
65	50	39	37	39	39	40	20
70	40	30	31	34	35	33	
75	30	22	26	31	33	27	15
80	21	16	23	29	31	24	
85	11	12	21	28	31	21	11
90	3	10	20	28	31	19	
95	12	13	22	29	32	22	12
100	22	17	25	31	33	25	
105	32	23	27	32	35	29	15
110	42	32	32	35	36	35	
115	53	41	38	40	41	42	21
120	63	51	47	46	46	50	
125	73	61	56	54	53	58	26
130	82	70	64	62	61	67	
135	92	79	73	70	69	76	29
140	100	88	82	78	77	84	
145	108	96	90	87	85	92	29
150	114	104	98	95	93	100	
155	120	110	105	102	101	107	25
160	125	116	111	109	108	113	
165	128	121	117	115	114	118	17
170	131	125	122	120	120	123	
175	133	128	127	126	125	127	6
180	131	131	131	131	131	131	



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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	1.151	1.151	1.151	1.15	1.071	1.071	1.071	1.07	0.990	0.990	0.990	0.99	0.830	0.830	0.83	0.690	0.690	0.69	0.550	0.550	0.55	0.49			
1	1.030	0.970	0.920	0.87	0.950	0.900	0.850	0.81	0.870	0.830	0.780	0.74	0.690	0.660	0.63	0.570	0.540	0.52	0.450	0.440	0.42	0.37			
2	0.930	0.840	0.760	0.69	0.860	0.770	0.700	0.64	0.790	0.710	0.650	0.60	0.590	0.550	0.51	0.490	0.450	0.42	0.390	0.360	0.34	0.29			
3	0.850	0.730	0.640	0.56	0.780	0.670	0.590	0.53	0.710	0.620	0.550	0.49	0.520	0.460	0.42	0.420	0.380	0.35	0.340	0.310	0.28	0.24			
4	0.770	0.640	0.540	0.47	0.710	0.590	0.510	0.44	0.650	0.550	0.470	0.41	0.460	0.400	0.35	0.380	0.330	0.30	0.300	0.270	0.24	0.20			
5	0.710	0.560	0.470	0.40	0.650	0.520	0.440	0.37	0.590	0.480	0.410	0.35	0.410	0.350	0.30	0.330	0.290	0.25	0.270	0.230	0.20	0.17			
6	0.650	0.500	0.410	0.34	0.600	0.470	0.380	0.32	0.540	0.430	0.350	0.30	0.360	0.300	0.26	0.300	0.250	0.22	0.240	0.200	0.17	0.14			
7	0.590	0.450	0.360	0.30	0.550	0.420	0.330	0.28	0.500	0.380	0.310	0.26	0.320	0.260	0.22	0.270	0.220	0.18	0.210	0.180	0.15	0.12			
8	0.550	0.410	0.320	0.26	0.510	0.380	0.300	0.24	0.460	0.350	0.270	0.22	0.290	0.230	0.19	0.240	0.200	0.16	0.190	0.160	0.13	0.11			
9	0.510	0.370	0.280	0.22	0.470	0.340	0.260	0.21	0.430	0.320	0.240	0.19	0.270	0.210	0.17	0.220	0.170	0.14	0.180	0.140	0.11	0.09			
10	0.470	0.330	0.250	0.20	0.440	0.310	0.230	0.18	0.400	0.290	0.220	0.17	0.240	0.190	0.15	0.200	0.160	0.12	0.160	0.130	0.10	0.08			

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.