



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
2433
Project Number
10517633
Test Number
781283

Test Date

2014-10-17

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: 2433
Lamp: White LEDs
Mounting: Surface - Wall
Ballast/Driver: One Eaglerise EEP60SE

Luminaire

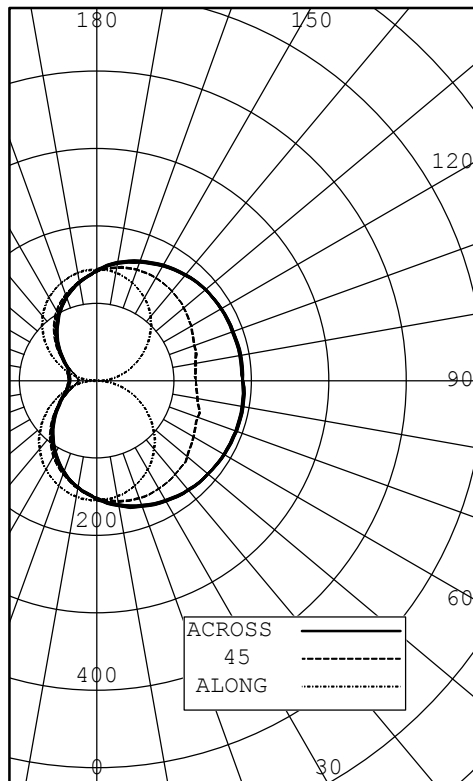


Test Conditions

Test Temperature:	25.0 °C
Voltage:	120.0 VAC
Current:	0.2442 A
Power:	27.86 W
Power Factor:	0.951
Frequency:	60 Hz
Current THD:	32.5 %



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INTENSITY (CANDLEPOWER)				SUMMARY		OUTPUT LUMENS
ANGLE	ALONG	BEAM	SIDE	22.5	ACROSS	
0	153	153	153	153	153	
5	154	155	156	158	159	8
15	149	155	161	167	169	23
25	139	150	162	173	176	37
35	124	140	160	177	182	49
45	106	129	156	179	187	59
55	84	111	148	178	189	64
65	60	94	141	178	191	67
75	36	81	137	176	192	67
85	13	68	130	174	191	65
90	2	65	128	173	189	
95	12	68	129	173	189	64
105	34	78	134	173	188	65
115	57	91	138	174	187	65
125	79	106	145	174	185	62
135	100	122	150	173	182	56
145	117	133	153	170	176	47
155	130	141	154	165	168	35
165	139	144	151	158	160	21
175	144	144	145	148	149	7
180	142	142	142	142	142	

BOTH SIDES
ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	122	9.70
0-40	205	16.25
0-60	392	31.09
0-90	646	51.23
40-90	441	34.98
60-90	254	20.14
90-180	615	48.77
0-180	1262	100.00

EFFICACY (LUMENS PER WATT): 45.2

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 2.000 INS
WIDTH: 39.750 INS

LUMINANCE SUMMARY - CD./SQ.M.

BEAM SIDE			
ANGLE	ALONG	45	ACROSS
45	1461	2475	4922
55	1175	2449	6013
65	880	2508	7987
75	573	2735	12197
85	233	3054	27159

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	153	153	153	153	153	153	
5	154	155	156	158	159	156	8
10	152	155	159	163	164	159	
15	149	155	161	167	169	160	23
20	145	153	162	170	173	161	
25	139	150	162	173	176	161	37
30	132	146	161	175	180	160	
35	124	140	160	177	182	158	49
40	115	135	158	178	185	155	
45	106	129	156	179	187	152	59
50	95	120	153	178	188	148	
55	84	111	148	178	189	144	64
60	73	105	144	178	190	140	
65	60	94	141	178	191	135	67
70	48	88	139	177	192	131	
75	36	81	137	176	192	127	67
80	24	72	132	176	191	122	
85	13	68	130	174	191	118	65
90	2	65	128	173	189	115	
95	12	68	129	173	189	117	64
100	23	70	130	173	189	120	
105	34	78	134	173	188	124	65
110	46	85	135	174	188	127	
115	57	91	138	174	187	131	65
120	69	101	141	174	186	136	
125	79	106	145	174	185	139	62
130	90	114	147	174	184	143	
135	100	122	150	173	182	146	56
140	109	127	151	172	179	148	
145	117	133	153	170	176	150	47
150	124	137	154	168	172	152	
155	130	141	154	165	168	152	35
160	135	143	153	161	164	152	
165	139	144	151	158	160	151	21
170	142	145	149	153	155	149	
175	144	144	145	148	149	146	7
180	142	142	142	142	142	142	



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OPPOSITE SIDE TO BEAM
INTENSITY (CANDLEPOWER) DATA

ANGLE	PLANE						OUTPUT LUMENS
	ALONG	112.5	135	157.5	ACROSS	AVERAGE	
0	153	153	153	153	153	153	
5	154	150	147	147	147	149	7
10	152	146	142	141	140	144	
15	149	141	136	134	133	138	19
20	145	135	129	127	125	131	
25	139	128	121	119	117	124	28
30	132	120	113	110	108	116	
35	124	111	104	100	99	107	33
40	115	101	94	91	90	97	
45	106	92	85	82	81	88	34
50	95	81	75	72	72	78	
55	84	70	65	63	63	68	30
60	73	59	55	55	55	58	
65	60	48	45	48	49	49	24
70	48	37	38	41	42	40	
75	36	28	32	38	40	34	18
80	24	20	29	36	38	29	
85	13	15	26	34	37	25	14
90	2	12	24	33	36	22	
95	12	15	25	33	36	24	13
100	23	18	27	34	37	27	
105	34	25	29	36	39	31	17
110	46	34	34	37	39	37	
115	57	43	40	42	42	44	22
120	69	54	49	48	48	52	
125	79	64	58	56	55	61	27
130	90	75	67	64	63	71	
135	100	85	77	73	72	80	31
140	109	95	86	82	81	89	
145	117	103	95	91	90	98	31
150	124	112	104	100	98	107	
155	130	119	112	109	107	114	26
160	135	125	119	116	115	121	
165	139	131	125	124	123	128	18
170	142	136	131	130	130	133	
175	144	139	137	136	136	138	7
180	142	142	142	142	142	142	



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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	1.161	1.161	1.161	1.16	1.071	1.071	1.071	1.07	0.990	0.990	0.990	0.99	0.840	0.840	0.84	0.700	0.700	0.70	0.570	0.570	0.57	0.51			
1	1.030	0.970	0.920	0.88	0.960	0.900	0.860	0.81	0.880	0.830	0.790	0.75	0.700	0.670	0.64	0.580	0.560	0.54	0.470	0.450	0.44	0.38			
2	0.930	0.840	0.760	0.69	0.860	0.780	0.710	0.65	0.790	0.720	0.650	0.60	0.600	0.560	0.51	0.500	0.460	0.43	0.400	0.380	0.35	0.31			
3	0.850	0.730	0.640	0.57	0.780	0.680	0.600	0.53	0.720	0.620	0.550	0.49	0.530	0.470	0.42	0.430	0.390	0.36	0.350	0.320	0.29	0.25			
4	0.780	0.640	0.550	0.48	0.720	0.600	0.510	0.45	0.660	0.550	0.480	0.42	0.470	0.410	0.36	0.390	0.340	0.30	0.310	0.280	0.25	0.21			
5	0.710	0.560	0.470	0.40	0.650	0.520	0.440	0.38	0.600	0.490	0.410	0.35	0.410	0.350	0.30	0.340	0.290	0.26	0.280	0.240	0.21	0.18			
6	0.650	0.510	0.410	0.34	0.600	0.470	0.380	0.32	0.550	0.430	0.360	0.30	0.370	0.310	0.26	0.310	0.260	0.22	0.250	0.210	0.18	0.15			
7	0.600	0.450	0.360	0.30	0.550	0.420	0.340	0.28	0.500	0.390	0.310	0.26	0.330	0.270	0.22	0.270	0.230	0.19	0.220	0.190	0.16	0.13			
8	0.550	0.410	0.320	0.26	0.510	0.380	0.300	0.24	0.470	0.350	0.280	0.23	0.300	0.240	0.20	0.250	0.200	0.17	0.200	0.170	0.14	0.11			
9	0.510	0.370	0.280	0.22	0.470	0.340	0.260	0.21	0.430	0.320	0.250	0.20	0.270	0.210	0.17	0.230	0.180	0.15	0.180	0.150	0.12	0.10			
10	0.470	0.340	0.250	0.20	0.440	0.310	0.240	0.19	0.400	0.290	0.220	0.17	0.250	0.190	0.15	0.210	0.160	0.13	0.170	0.130	0.11	0.09			

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.