

REPORT NUMBER: ITL84344

PAGE: 1 OF 8

ISSUE DATE: 03/11/15

PREPARED FOR: BEGHELLI

CATALOG NUMBER: PLM-1

LUMINAIRE: MOLDED WHITE PLASTIC EXTERIOR HOUSING, MOLDED WHITE PLASTIC ADJUSTABLE INTERIOR HOUSING, 1 WHITE CIRCUIT BOARD WITH 3 LEDS, INTERIOR-FROSTED LENS WITH ONE CLEAR CONICAL OPTIC PER LED WITH RECESSED SEMI-HEMISPHERICAL END TOWARDS LED, MOLDED WHITE PLASTIC LENS FRAME, MOLDED WHITE PLASTIC FACEPLATE. INTERIOR HOUSING AIMED 45-DEGREES BELOW THE HORIZON.

LAMPS: THREE WHITE LIGHT EMITTING DIODES (LEDS) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, AIMED 45-DEGREES BELOW THE HORIZON.

INPUT ELECTRICAL: 3.60 VOLTS, 1.11 WATTS, 0.308 AMPS

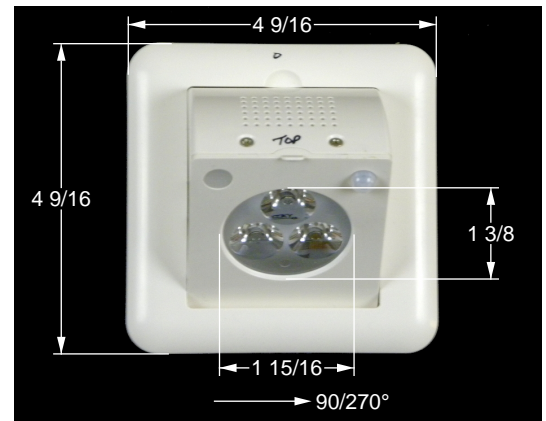
MOUNTING: RECESSED WALL

LED DRIVER: BEGHELLI PROPRIETARY

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (3.60VDC) TO THE DRIVER. LED DRIVER INFORMATION PROVIDED BY CLIENT.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 20.0 FEET



CANDELA DISTRIBUTION

FLUX

	0.0	45.0	90.0	135.0	180.0	
0	2	2	2	2	2	
5	3	3	2	2	2	0.2
15	11	4	2	1	1	1.1
25	58	8	2	1	0	4.9
35	204	10	2	0	0	16.4
45	307	8	1	0	0	26.6
55	209	4	1	0	0	21.3
65	94	3	0	0	0	9.6
75	13	2	0	0	0	2.2
85	3	2	0	0	0	0.9
90	2	1	0	0	0	
95	2	1	0	0	0	0.5
105	1	1	0	0	0	0.3
115	1	0	0	0	0	0.2
125	0	0	0	0	0	0.0
135	0	0	0	0	0	0.0
145	0	0	0	0	0	0.0
155	0	0	0	0	0	0.0
165	0	0	0	0	0	0.0
175	0	0	0	0	0	0.0
180	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	6.3	7.4
0- 40	22.7	26.9
0- 60	70.6	83.6
0- 90	83.4	98.7
90-120	1.1	1.3
90-130	1.1	1.3
90-150	1.1	1.3
90-180	1.1	1.3
0-180	84.5	100.0

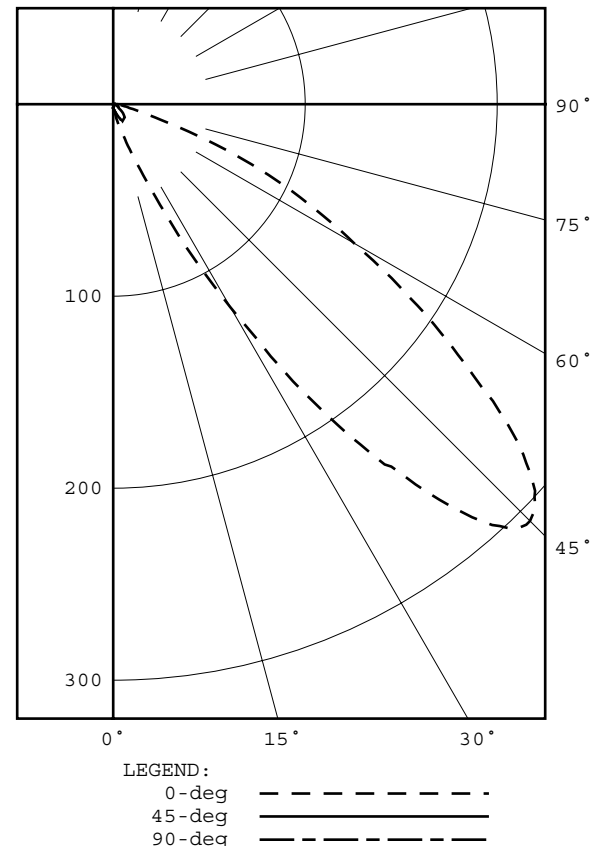
EFFICACY = 76.1 lm/W

CIE TYPE - DIRECT

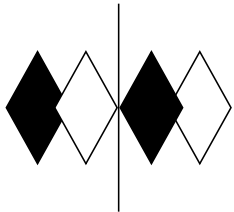
PLANE : 0-DEG 90-DEG

BEAM ANGLE (50%) : 27.4 X N/A DEGREES

FIELD ANGLE (10%) : 50.3 X N/A DEGREES



Checked B. HYRE
Approved R. BEATTIE
Lighting Engineer

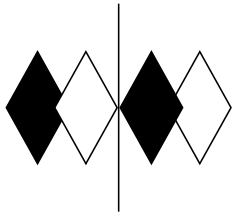


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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.5	15.0	17.5
0.0	2	2	2	2	2	2	2	2	2	2	2	2	2	2
2.5	2	3	2	2	3	2	3	2	2	2	2	2	2	2
5.0	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7.5	4	4	4	4	4	4	4	4	4	4	4	4	4	3
10.0	5	5	5	5	5	5	5	5	5	5	5	5	5	4
12.5	7	7	7	7	7	7	7	7	7	7	7	7	7	6
15.0	11	11	11	11	11	11	11	11	10	10	10	10	10	9
17.5	16	17	16	16	16	16	16	16	15	15	15	15	14	13
20.0	25	25	24	25	24	24	24	23	23	23	23	22	21	19
22.5	37	38	37	38	36	37	36	35	35	34	34	32	30	27
25.0	58	59	58	59	56	57	55	54	54	52	52	47	44	39
26.0	69	71	69	70	67	68	65	65	63	62	61	56	52	46
27.0	83	83	81	82	79	80	77	76	74	73	72	65	60	53
28.0	95	96	94	95	92	93	89	88	86	84	82	76	69	61
29.0	108	110	108	108	106	104	103	101	99	97	94	87	79	70
30.0	122	122	122	123	120	118	116	114	112	110	107	99	90	80
30.5	129	130	129	130	127	125	123	121	118	116	113	105	95	84
31.0	136	137	137	136	134	132	130	128	125	123	119	111	100	89
31.5	144	145	144	143	141	140	137	135	132	129	126	116	105	94
32.0	155	151	152	149	149	148	145	142	139	136	132	122	111	99
32.5	163	159	160	157	157	155	152	149	146	143	138	128	116	103
33.0	172	168	168	165	165	163	160	157	153	150	145	134	121	107
33.5	180	176	176	174	173	169	167	165	160	157	152	139	126	112
34.0	188	185	185	182	181	177	175	171	168	164	158	145	131	116
34.5	196	193	193	190	189	185	183	178	175	171	165	152	136	120
35.0	204	201	201	198	197	193	191	186	182	178	172	158	141	124
35.5	212	209	209	206	204	201	198	193	189	185	178	163	146	128
36.0	219	216	216	213	212	208	205	200	196	190	185	169	150	132
36.5	227	224	224	221	219	215	212	207	203	197	191	175	155	136
37.0	235	231	231	228	227	222	219	214	209	203	198	180	160	140
37.5	238	238	238	235	233	229	226	220	216	209	203	185	164	143
38.0	245	246	245	242	240	236	232	226	222	215	209	190	168	146
38.5	253	253	252	249	247	242	239	233	228	222	214	195	172	150
39.0	260	260	259	256	254	249	245	239	233	227	219	199	176	153
39.5	267	266	266	262	260	255	251	244	239	232	224	203	180	156
40.0	273	273	272	268	266	260	256	249	243	237	228	207	183	158
40.5	279	278	278	274	271	266	262	254	248	241	232	210	186	161
41.0	285	284	283	279	276	270	266	259	253	245	236	214	188	163
41.5	290	289	288	284	281	275	270	264	256	249	240	216	190	165
42.0	295	293	292	288	285	279	274	266	260	252	242	219	192	166
42.5	298	297	296	292	288	282	277	270	263	254	245	220	194	167
43.0	302	300	299	295	291	285	280	272	265	256	247	222	195	168
43.5	304	303	301	297	293	288	282	274	267	258	248	223	196	169
44.0	306	304	303	299	295	289	283	275	268	258	249	223	196	169
44.5	307	306	304	300	296	290	284	276	268	259	249	224	197	169
45.0	307	306	304	301	296	290	284	276	268	259	249	223	196	169
45.5	306	306	303	300	295	290	283	275	267	258	248	222	195	168
46.0	305	305	302	299	294	289	282	275	266	257	247	221	195	167
46.5	303	302	300	297	292	287	280	273	264	255	245	219	193	166
47.0	300	299	297	294	290	285	278	270	262	253	243	218	192	164
47.5	298	296	294	291	286	281	275	267	259	250	240	215	190	163
48.0	294	292	290	287	282	278	271	264	256	247	237	213	187	161
48.5	290	287	286	282	278	273	267	260	252	243	234	210	185	159
49.0	285	282	281	277	274	269	263	256	248	239	231	207	182	156
49.5	281	277	276	272	269	263	257	251	244	235	227	203	179	154
50.0	276	272	270	267	263	258	252	246	239	231	223	200	176	151
50.5	270	266	265	261	258	252	247	241	234	226	219	196	173	149
51.0	264	260	259	255	252	246	242	236	229	222	214	192	170	146
51.5	257	253	252	249	246	241	236	230	224	217	209	188	166	143
52.0	251	247	246	243	239	235	230	225	219	212	204	183	162	140
52.5	242	241	239	236	233	229	224	220	214	206	199	179	159	137
53.0	235	234	233	230	227	223	218	214	208	201	194	174	155	133
53.5	229	228	227	224	221	217	212	208	203	196	189	170	151	130
54.0	222	221	220	218	214	210	206	202	197	190	183	165	147	126

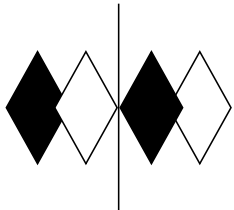


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LATERAL ANGLE

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54.5	216	215	214	211	208	204	200	195	191	185	178	160	143	123
55.0	209	208	207	205	202	198	194	189	185	179	173	156	138	119
55.5	203	202	201	199	196	192	188	183	179	174	167	151	134	115
56.0	197	195	194	192	189	186	182	177	173	168	162	146	129	111
56.5	190	188	187	186	183	179	175	171	167	162	156	141	125	107
57.0	183	182	181	179	176	173	169	165	162	157	151	137	121	103
57.5	177	176	175	173	170	167	163	159	156	151	146	132	116	99
58.0	171	169	168	166	164	161	157	153	151	146	141	127	112	95
58.5	164	163	161	160	158	155	152	148	145	140	136	122	108	91
59.0	158	156	155	154	152	149	146	142	139	135	130	117	103	87
59.5	151	150	149	148	146	143	140	136	134	130	125	113	99	83
60.0	145	144	143	142	140	138	135	131	129	125	120	108	95	79
61.0	135	133	132	131	129	127	124	121	119	114	111	99	86	72
62.0	124	123	122	121	119	117	114	111	109	104	101	90	77	64
63.0	114	112	112	111	109	107	104	101	98	94	91	81	69	56
64.0	104	102	102	101	99	97	95	92	88	85	82	72	61	49
65.0	94	92	91	90	89	87	85	82	78	75	73	63	53	42
67.5	68	66	66	64	63	61	59	57	54	52	49	42	34	26
70.0	42	40	40	39	39	37	36	35	33	32	30	25	21	17
72.5	23	23	23	23	23	22	21	20	20	19	17	15	12	10
75.0	13	13	14	13	13	13	12	12	11	11	10	9	8	7
77.5	8	8	8	8	8	8	7	7	7	7	7	6	5	5
80.0	6	5	5	5	5	5	5	5	5	5	5	4	4	4
82.5	4	4	4	4	4	4	4	4	4	4	4	3	3	3
85.0	3	3	3	3	3	3	3	3	3	3	3	3	3	3
87.5	3	3	3	3	3	3	3	3	3	3	3	2	2	2
90.0	2	2	2	2	2	2	2	2	2	2	2	2	2	2
92.5	2	2	2	2	2	2	2	2	2	2	2	2	2	2
95.0	2	2	2	2	2	2	2	2	2	2	2	2	2	2
97.5	2	2	2	2	2	2	2	2	2	2	2	2	2	2
100.0	2	2	2	2	2	2	2	2	2	2	2	2	2	2
102.5	1	1	1	2	2	2	1	1	1	1	1	1	1	1
105.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
107.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
110.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
112.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
115.0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
117.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
120.0	1	1	1	1	1	1	1	1	1	1	1	1	0	0
122.5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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175.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

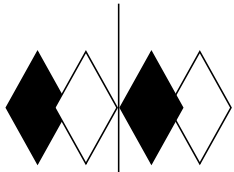
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CANDELA DISTRIBUTION
LATERAL ANGLE

	20.0	22.5	25.0	30.0	35.0	40.0	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	2	2	2	2	2	2	2	2	2	2	2	2	2
2.5	3	2	2	2	2	2	2	2	2	2	2	2	2
5.0	3	3	3	3	3	3	3	2	2	2	2	2	2
7.5	3	3	3	3	3	3	3	3	2	2	2	2	2
10.0	4	4	4	4	4	3	3	3	2	2	2	2	2
12.5	6	6	6	5	5	4	4	3	2	2	2	1	1
15.0	9	8	8	7	6	5	4	3	2	2	1	1	1
17.5	13	12	11	10	8	6	5	3	2	2	1	1	1
20.0	18	17	15	13	10	8	6	3	2	2	1	1	1
22.5	26	23	21	16	13	9	7	3	2	1	1	1	0
25.0	36	32	28	21	16	11	8	3	2	1	1	0	0
26.0	41	36	31	23	17	12	9	3	2	1	1	0	0
27.0	47	41	35	26	18	13	9	3	2	1	1	0	0
28.0	54	46	40	28	20	13	9	3	2	1	1	0	0
29.0	62	52	44	31	21	14	10	3	2	1	0	0	0
30.0	68	59	49	34	22	15	10	3	2	1	0	0	0
30.5	72	62	52	35	23	15	10	3	2	1	0	0	0
31.0	76	66	55	37	24	15	10	3	2	1	0	0	0
31.5	80	69	58	38	25	16	10	3	2	1	0	0	0
32.0	85	73	61	40	25	16	10	3	2	1	0	0	0
32.5	89	76	63	41	26	16	10	3	2	1	0	0	0
33.0	93	80	66	43	27	16	10	3	2	1	0	0	0
33.5	97	83	69	44	27	17	10	3	2	1	0	0	0
34.0	100	86	71	46	28	17	10	2	2	1	0	0	0
34.5	104	89	74	47	29	17	10	2	2	1	0	0	0
35.0	107	92	76	49	29	17	10	2	2	1	0	0	0
35.5	110	95	78	50	30	17	10	2	2	1	0	0	0
36.0	114	98	80	52	30	17	10	2	2	1	0	0	0
36.5	117	101	82	53	31	17	10	2	2	1	0	0	0
37.0	120	103	84	54	31	18	10	2	2	1	0	0	0
37.5	123	105	86	55	32	18	10	2	2	1	0	0	0
38.0	125	108	88	56	32	18	10	2	2	1	0	0	0
38.5	128	109	90	57	32	18	10	2	2	1	0	0	0
39.0	130	111	91	58	33	18	10	2	2	1	0	0	0
39.5	133	113	93	59	33	18	10	2	2	1	0	0	0
40.0	135	114	94	60	33	17	10	2	2	1	0	0	0
40.5	136	116	95	60	33	17	10	2	2	1	0	0	0
41.0	138	117	96	61	33	17	9	2	2	1	0	0	0
41.5	139	118	97	61	33	17	9	2	1	1	0	0	0
42.0	141	119	97	61	33	17	9	2	1	1	0	0	0
42.5	142	119	98	61	33	17	9	2	1	0	0	0	0
43.0	142	120	98	61	33	17	9	2	1	0	0	0	0
43.5	143	120	98	61	33	16	9	2	1	0	0	0	0
44.0	143	120	98	61	32	16	8	2	1	0	0	0	0
44.5	143	120	98	60	32	16	8	2	1	0	0	0	0
45.0	142	119	97	60	32	16	8	2	1	0	0	0	0
45.5	142	118	96	59	31	15	8	2	1	0	0	0	0
46.0	141	118	96	59	31	15	8	2	1	0	0	0	0
46.5	140	117	95	58	30	15	8	2	1	0	0	0	0
47.0	139	115	94	57	30	14	7	2	1	0	0	0	0
47.5	137	114	92	56	29	14	7	2	1	0	0	0	0
48.0	136	113	91	55	28	13	7	2	1	0	0	0	0
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49.0	132	109	88	53	27	13	7	2	1	0	0	0	0
49.5	130	107	86	52	26	12	6	2	1	0	0	0	0
50.0	128	106	85	50	25	12	6	2	1	0	0	0	0
50.5	126	104	83	49	24	11	6	2	1	0	0	0	0
51.0	123	102	81	47	23	11	6	2	1	0	0	0	0
51.5	121	99	79	46	23	10	5	2	1	0	0	0	0
52.0	118	97	77	44	22	10	5	2	1	0	0	0	0
52.5	116	95	75	43	21	9	5	2	1	0	0	0	0
53.0	113	92	73	41	20	9	5	2	1	0	0	0	0
53.5	110	90	70	39	19	9	5	2	1	0	0	0	0
54.0	107	87	68	38	18	8	5	2	1	0	0	0	0



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LATERAL ANGLE

	20.0	22.5	25.0	30.0	35.0	40.0	45.0	67.5	90.0	112.5	135.0	157.5	180.0
54.5	104	84	66	36	17	8	4	2	1	0	0	0	0
55.0	100	81	63	34	17	7	4	2	1	0	0	0	0
55.5	97	78	61	32	16	7	4	2	1	0	0	0	0
56.0	93	75	59	31	15	7	4	2	1	0	0	0	0
56.5	90	72	56	29	14	7	4	2	1	0	0	0	0
57.0	86	69	54	28	13	6	4	2	1	0	0	0	0
57.5	83	66	51	26	13	6	4	2	1	0	0	0	0
58.0	79	63	49	25	12	6	4	2	1	0	0	0	0
58.5	75	60	46	23	11	5	3	2	1	0	0	0	0
59.0	72	57	44	22	11	5	3	2	1	0	0	0	0
59.5	68	54	41	21	10	5	3	2	1	0	0	0	0
60.0	65	51	38	19	9	5	3	2	1	0	0	0	0
61.0	58	45	33	17	8	4	3	2	1	0	0	0	0
62.0	51	39	29	15	7	4	3	2	1	0	0	0	0
63.0	45	34	25	13	6	4	3	2	0	0	0	0	0
64.0	38	29	21	11	6	4	3	2	0	0	0	0	0
65.0	33	24	18	9	5	3	3	1	0	0	0	0	0
67.5	20	16	12	6	4	3	3	1	0	0	0	0	0
70.0	13	10	8	5	4	3	2	1	0	0	0	0	0
72.5	8	7	5	4	3	3	2	1	0	0	0	0	0
75.0	6	5	4	3	3	2	2	1	0	0	0	0	0
77.5	4	4	3	3	2	2	2	1	0	0	0	0	0
80.0	3	3	3	3	2	2	2	1	0	0	0	0	0
82.5	3	3	2	2	2	2	2	1	0	0	0	0	0
85.0	3	2	2	2	2	2	2	1	0	0	0	0	0
87.5	2	2	2	2	2	2	2	1	0	0	0	0	0
90.0	2	2	2	2	2	2	1	0	0	0	0	0	0
92.5	2	2	2	2	2	1	1	0	0	0	0	0	0
95.0	2	2	2	2	1	1	1	0	0	0	0	0	0
97.5	2	2	2	1	1	1	1	0	0	0	0	0	0
100.0	1	1	1	1	1	1	1	0	0	0	0	0	0
102.5	1	1	1	1	1	1	1	0	0	0	0	0	0
105.0	1	1	1	1	1	1	1	0	0	0	0	0	0
107.5	1	1	1	1	1	1	1	0	0	0	0	0	0
110.0	1	1	1	1	1	1	1	0	0	0	0	0	0
112.5	1	1	1	1	1	1	0	0	0	0	0	0	0
115.0	1	1	1	1	1	0	0	0	0	0	0	0	0
117.5	1	1	1	0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0	0	0	0



INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL84344
ISSUE DATE: 03/11/15
PREPARED FOR: BEGHELLI

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0.1
5- 10	0.2
10- 15	0.4
15- 20	0.7
20- 25	1.6
25- 30	3.4
30- 35	6.4
35- 40	10.0
40- 45	12.9
45- 50	13.6
50- 55	12.1
55- 60	9.3
60- 65	6.2
65- 70	3.4
70- 75	1.5
75- 80	0.7
80- 85	0.5
85- 90	0.4
90- 95	0.3
95-100	0.3
100-105	0.2
105-110	0.2
110-115	0.1
115-120	0.1
120-125	0.0
125-130	0.0
130-135	0.0
135-140	0.0
140-145	0.0
145-150	0.0
150-155	0.0
155-160	0.0
160-165	0.0
165-170	0.0
170-175	0.0
175-180	0.0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	0.2
0- 20	1.3
0- 30	6.3
0- 40	22.7
0- 50	49.3
0- 60	70.6
0- 70	80.2
0- 80	82.5
0- 90	83.4
0-100	83.9
0-110	84.3
0-120	84.5
0-130	84.5
0-140	84.5
0-150	84.5
0-160	84.5
0-170	84.5
0-180	84.5



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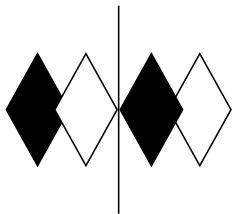
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	101	101	101	99
1	109	104	99	96	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	67
3	88	77	68	61	85	75	67	61	72	65	59	69	63	58	66	61	57	55
4	79	66	57	50	77	65	56	49	62	54	48	60	53	48	57	52	47	44
5	72	58	48	41	69	56	47	40	54	46	40	52	45	39	50	44	39	36
6	65	50	41	34	63	49	40	33	47	39	33	45	38	32	44	37	32	30
7	59	44	35	28	57	43	34	28	42	33	27	40	33	27	38	32	27	25
8	54	39	30	23	52	38	29	23	37	29	23	35	28	23	34	27	22	20
9	50	35	26	20	48	34	26	20	33	25	19	32	24	19	31	24	19	17
10	46	31	23	17	44	31	22	17	30	22	17	29	21	16	27	21	16	14

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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