



IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-30W-3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] LED-13300
 [TESTLAB] LSI INDUSTRIES, INC.
 [ISSUEDATE] 04/06/22
 [TESTDATE] 03/11/22
 [MANUFAC] LSI INDUSTRIES, INC.
 [LUMCAT] CLRM4-FS1-UNV-30W-3000K
 [OTHER] TEST PROCEDURE: IESNA LM-79-19
 [ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
 [OTHER] SCALED FROM ORIGINAL TEST DATA
 [SEARCH_SOURCETYPE] LED
 [SEARCH_APPLICATION] Indoor
 [SEARCH_COLORTEMP] 3000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3247
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	30
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	2.96
Spacing Criterion (Diagonal)	2.54
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	0.02 ft
Luminous Height	0.33 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	21491	6904	6196
55	18377	6058	5083
65	14322	5202	4098
75	9951	4462	3347
85	6199	3940	2844

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
0.0	179	179	179	179	179	179	179	179	179	179
2.5	174	152	143	129	126	134	144	153	175	196
5.0	171	131	102	97	102	98	102	131	175	228
7.5	169	108	118	141	149	144	122	108	175	201
10.0	166	97	150	192	211	194	150	98	174	205
12.5	163	116	187	225	250	228	189	118	173	261
15.0	160	138	216	261	283	267	220	142	170	301
17.5	157	149	254	309	319	315	258	152	168	278
20.0	151	161	267	347	362	352	270	162	165	300
22.5	147	187	304	374	406	378	311	191	162	344
25.0	142	200	325	406	440	415	335	204	160	322
27.5	137	207	345	439	468	448	355	211	154	320
30.0	132	229	373	466	495	475	384	234	150	352
32.5	126	234	386	483	511	494	396	239	145	344
35.0	120	236	406	500	527	508	416	240	141	335
37.5	114	252	418	513	538	522	427	256	135	350
40.0	107	255	427	521	544	529	439	262	129	340
42.5	101	258	437	524	546	533	446	261	124	331
45.0	92	268	439	525	545	533	449	270	116	336
47.5	87	267	443	523	539	529	452	272	111	329
50.0	79	269	443	517	532	524	451	271	104	319
52.5	73	272	442	510	523	516	448	275	98	317
55.0	66	271	438	500	511	504	443	276	90	308
57.5	58	271	433	489	498	493	439	274	84	305
60.0	53	270	426	475	483	478	430	272	77	298
62.5	46	267	419	461	467	464	423	270	68	292
65.0	40	264	410	447	451	450	414	266	60	284
67.5	34	260	399	432	434	435	404	262	52	280
70.0	29	256	390	417	417	419	393	258	43	271
72.5	23	250	379	404	403	405	382	252	36	264
75.0	19	246	370	391	389	391	373	247	29	261
77.5	15	241	361	379	374	378	363	241	22	255
80.0	12	236	352	367	361	366	354	236	17	247
82.5	8	233	343	353	349	354	343	231	12	242
85.0	6	229	333	343	338	343	333	226	7	241
87.5	4	224	326	332	329	332	325	222	5	234
90.0	3	220	319	324	319	323	317	215	2	223
92.5	3	217	313	317	311	319	309	210	1	223
95.0	2	215	307	311	306	309	304	207	1	224
97.5	1	211	304	306	299	304	298	203	1	222
100.0	1	211	301	302	295	299	293	199	1	219
102.5	1	215	308	311	304	307	299	202	1	222
105.0	1	215	310	314	307	310	301	202	1	222
107.5	1	212	310	316	309	311	301	200	1	217
110.0	1	209	309	317	312	313	301	196	1	212
112.5	1	204	308	319	315	315	300	192	1	209
115.0	1	200	307	320	317	317	299	188	1	204
117.5	1	195	306	322	319	318	298	184	1	198
120.0	1	190	304	323	321	319	296	179	1	191
122.5	1	185	300	325	324	319	293	174	1	184
125.0	1	179	295	326	326	321	289	169	1	175
127.5	1	173	292	326	328	320	285	162	1	166
130.0	1	166	285	323	327	319	280	156	1	153
132.5	1	160	280	321	326	316	273	149	1	139

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CANDELA TABULATION - (Cont.)

135.0	1	150	273	318	324	312	267	140	1	129
137.5	1	140	264	313	320	307	259	131	1	119
140.0	1	127	256	307	316	301	249	119	1	104
142.5	1	113	244	298	309	293	238	104	1	87
145.0	1	96	232	288	301	283	226	89	1	71
147.5	1	79	217	276	290	271	213	75	1	60
150.0	1	66	196	262	276	257	197	63	1	46
152.5	1	54	174	244	259	239	178	54	1	32
155.0	1	44	148	226	241	221	157	45	2	18
157.5	1	34	120	204	220	198	127	36	1	2
160.0	1	23	86	177	192	171	98	26	1	1
162.5	1	14	63	138	160	130	77	12	1	1
165.0	1	4	50	96	113	96	59	1	1	1
167.5	1	0	34	63	80	70	42	1	1	1
170.0	1	0	19	47	56	47	20	1	1	1
172.5	1	0	0	22	30	21	1	1	1	1
175.0	1	0	0	0	0	1	1	1	1	1
177.5	1	0	0	0	0	0	1	1	1	1
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	179	179	179	179	179	179	179
2.5	210	222	222	222	214	200	174
5.0	196	210	222	209	198	228	171
7.5	282	290	283	295	273	200	169
10.0	284	367	359	368	284	202	166
12.5	365	385	414	383	359	262	163
15.0	351	415	451	415	346	295	160
17.5	409	462	476	462	405	272	157
20.0	419	501	506	500	421	307	151
22.5	443	518	529	520	438	339	147
25.0	468	525	545	526	464	315	142
27.5	467	532	544	529	462	327	137
30.0	481	531	539	527	471	348	132
32.5	476	523	528	522	470	334	126
35.0	474	511	511	510	464	336	120
37.5	469	496	491	493	459	343	114
40.0	459	476	467	473	449	332	107
42.5	448	454	444	451	438	330	101
45.0	434	434	422	432	424	328	92
47.5	420	415	403	411	411	319	87
50.0	408	396	383	391	399	314	79
52.5	395	378	365	373	387	308	73
55.0	380	360	348	355	372	304	66
57.5	368	345	335	343	361	301	58
60.0	355	332	323	330	349	294	53
62.5	344	321	311	319	339	287	46
65.0	334	309	302	307	329	282	40
67.5	323	300	293	296	318	275	34
70.0	313	292	285	289	308	267	29
72.5	305	285	279	282	301	261	23
75.0	297	277	272	273	294	258	19
77.5	290	269	265	265	285	251	15
80.0	283	261	260	259	278	244	12

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CANDELA TABULATION - (Cont.)

82.5	276	257	257	256	272	239	8
85.0	271	254	250	252	269	235	6
87.5	265	247	244	246	261	224	4
90.0	260	244	240	243	258	218	3
92.5	259	242	239	240	255	221	3
95.0	258	238	237	236	251	218	2
97.5	254	235	235	234	247	211	1
100.0	256	238	240	241	254	211	1
102.5	267	251	248	249	263	214	1
105.0	271	255	251	253	265	212	1
107.5	273	257	253	255	268	207	1
110.0	275	259	255	257	270	203	1
112.5	278	262	258	260	272	199	1
115.0	280	266	260	263	273	194	1
117.5	279	270	263	266	272	187	1
120.0	279	271	265	269	272	181	1
122.5	279	275	269	272	272	172	1
125.0	278	278	272	274	272	162	1
127.5	276	281	275	277	270	151	1
130.0	272	283	279	280	266	138	1
132.5	269	286	283	282	262	129	1
135.0	264	288	285	283	257	122	1
137.5	256	287	286	283	248	109	1
140.0	247	285	287	281	238	92	1
142.5	236	282	285	276	225	76	1
145.0	221	274	282	269	210	63	1
147.5	200	264	274	257	186	47	1
150.0	170	251	263	241	168	38	1
152.5	155	229	243	221	151	21	1
155.0	126	201	220	194	126	5	1
157.5	94	176	189	172	96	1	1
160.0	66	149	166	143	72	1	1
162.5	49	109	128	102	49	1	1
165.0	27	72	89	72	22	1	1
167.5	0	42	57	41	0	1	1
170.0	0	1	18	0	0	1	1
172.5	0	0	0	0	0	0	1
175.0	0	0	0	0	0	0	1
177.5	0	0	0	0	0	0	1
180.0	0	0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	97.79	N.A.	3.00
0-30	265.00	N.A.	8.20
0-40	509.65	N.A.	15.70
0-60	1110.98	N.A.	34.20
0-80	1707.52	N.A.	52.60
0-90	1975.23	N.A.	60.80
10-90	1957.31	N.A.	60.30
20-40	411.87	N.A.	12.70
20-50	703.33	N.A.	21.70
40-70	908.02	N.A.	28.00
60-80	596.54	N.A.	18.40
70-80	289.84	N.A.	8.90
80-90	267.71	N.A.	8.20
90-110	489.87	N.A.	15.10
90-120	718.46	N.A.	22.10
90-130	920.99	N.A.	28.40
90-150	1199.4	N.A.	36.90
90-180	1271.71	N.A.	39.20
110-180	781.84	N.A.	24.10
0-180	3246.94	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	17.92
10-20	79.86
20-30	167.21
30-40	244.66
40-50	291.47
50-60	309.86
60-70	306.70
70-80	289.84
80-90	267.71
90-100	247.42
100-110	242.45
110-120	228.59
120-130	202.53
130-140	164.60
140-150	113.81
150-160	57.64
160-170	14.20
170-180	0.46

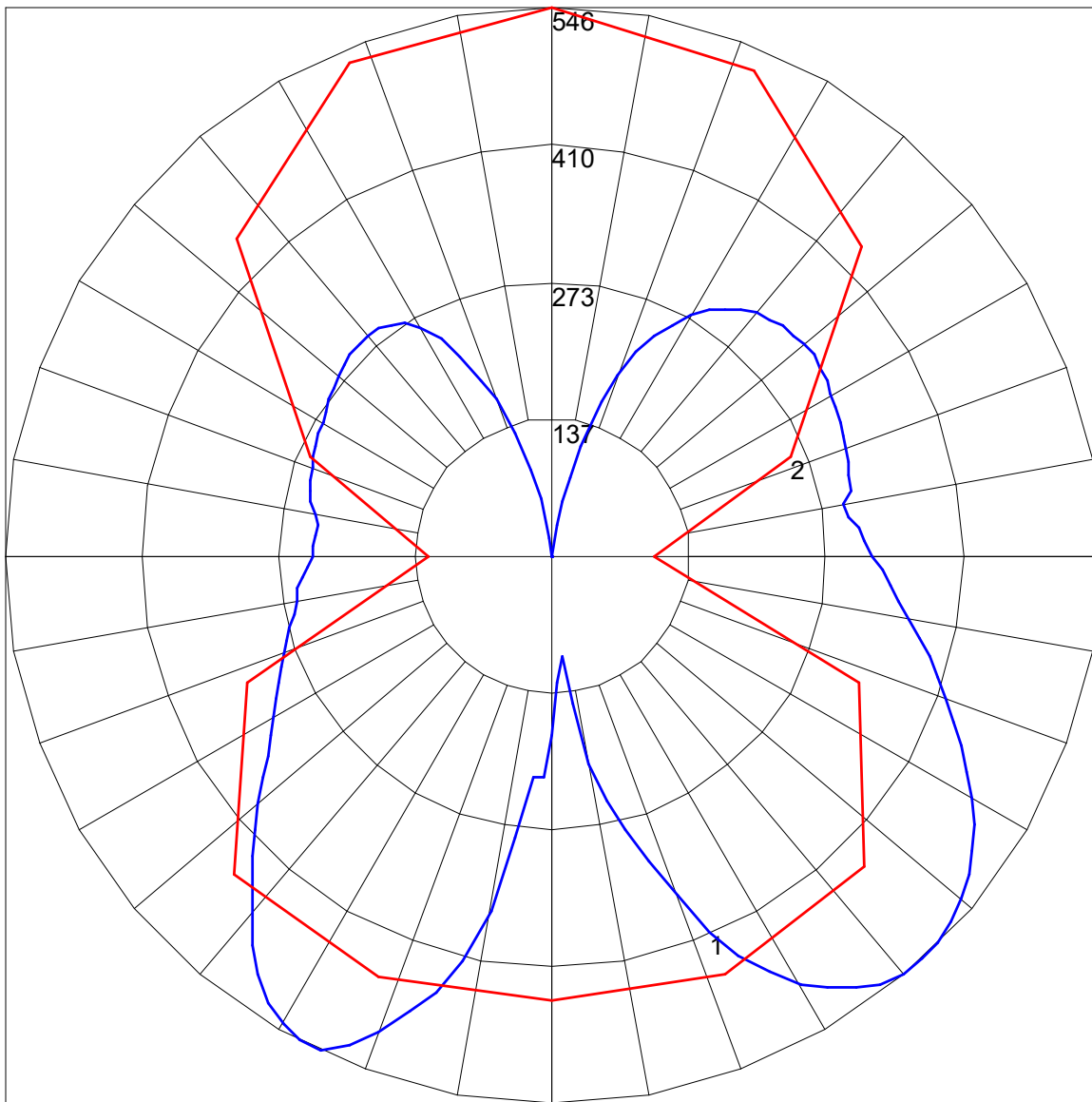
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	96	90	84	80	89	84	79	75	72	69	65	62	59	56	52	50	48	43
2	86	76	68	62	79	71	64	58	61	55	51	52	48	44	43	40	37	33
3	77	66	57	49	71	61	53	46	52	46	41	44	39	35	37	33	30	26
4	70	57	48	41	65	53	45	38	46	39	33	39	33	29	32	28	24	21
5	64	50	41	34	59	47	38	32	40	33	28	34	29	24	29	24	20	17
6	59	45	35	29	54	42	33	27	36	29	24	31	25	21	25	21	17	14
7	54	40	31	25	50	37	29	23	32	25	21	27	22	18	23	18	15	12
8	50	36	27	22	46	34	26	20	29	23	18	25	19	15	21	16	13	11
9	46	33	24	19	43	31	23	18	27	20	16	23	17	14	19	15	12	9
10	43	30	22	17	40	28	21	16	24	18	14	21	16	12	18	13	10	8

POLAR GRAPH



Maximum Candela = 546 Located At Horizontal Angle = 90, Vertical Angle = 42.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (42.5) (Through Max. Cd.)