



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-3000K.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-13294  
[TESTLAB] LSI INDUSTRIES, INC.  
[ISSUEDATE] 04/06/22  
[TESTDATE] 03/11/22  
[MANUFAC] LSI INDUSTRIES, INC.  
[LUMCAT] CLRM4-FS1-UNV-40W-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	4243
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	40
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	2.98
Spacing Criterion (Diagonal)	2.56
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	35507	8932	8095
55	32856	7815	6635
65	28287	6712	5343
75	19902	5776	4354
85	10332	5099	3710

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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	231	231	231	231	231	231	231	231	231	231
2.5	222	203	183	169	165	174	189	203	225	252
5.0	223	175	135	127	133	129	135	170	223	302
7.5	221	145	157	187	199	191	163	141	220	281
10.0	220	127	197	252	281	261	202	131	218	267
12.5	218	146	241	295	333	304	259	163	214	312
15.0	216	179	283	344	374	351	289	190	212	388
17.5	212	192	330	406	420	416	344	202	206	376
20.0	210	200	344	453	475	469	371	229	202	367
22.5	206	231	395	486	534	505	411	266	198	433
25.0	202	257	415	531	580	550	453	274	192	443
27.5	198	261	451	575	620	591	472	296	187	408
30.0	192	282	480	610	649	629	515	319	178	435
32.5	187	303	499	632	672	653	533	319	172	454
35.0	180	299	525	651	691	670	553	335	162	431
37.5	173	309	539	668	704	685	574	353	154	435
40.0	166	325	554	678	712	696	582	352	145	447
42.5	158	324	563	684	715	701	593	363	136	427
45.0	152	331	568	684	712	700	597	370	126	421
47.5	143	338	572	681	705	696	600	368	116	426
50.0	135	336	572	674	695	688	599	374	107	412
52.5	126	337	569	664	682	675	594	377	96	401
55.0	118	340	565	651	667	661	587	375	88	397
57.5	109	338	559	635	650	645	579	374	79	391
60.0	99	336	551	618	631	628	569	372	71	381
62.5	89	333	540	601	610	609	559	367	62	372
65.0	79	328	529	582	588	588	547	363	55	365
67.5	68	325	516	563	567	568	533	358	49	359
70.0	58	319	503	545	546	549	520	352	42	348
72.5	48	312	491	528	524	529	505	344	35	339
75.0	38	305	479	510	506	510	491	336	29	333
77.5	30	300	468	492	489	494	479	329	24	326
80.0	22	294	455	476	472	477	464	321	18	316
82.5	15	289	442	460	455	461	451	314	14	310
85.0	10	283	431	446	441	447	438	308	11	309
87.5	6	278	423	434	428	434	427	301	8	299
90.0	2	272	414	423	417	422	416	293	6	283
92.5	1	270	407	414	406	416	407	286	5	283
95.0	1	267	400	406	398	404	398	282	4	288
97.5	1	263	393	399	391	397	392	276	3	285
100.0	1	264	391	394	385	390	384	270	3	280
102.5	1	267	401	408	399	403	395	277	2	282
105.0	0	266	402	410	402	406	396	275	2	279
107.5	0	263	402	413	405	408	396	273	2	274
110.0	0	257	402	415	408	410	396	268	2	267
112.5	1	252	400	417	411	412	395	263	2	261
115.0	1	247	398	419	414	414	394	258	2	253
117.5	1	240	397	422	418	416	393	251	2	243
120.0	1	234	393	423	421	418	391	245	2	233
122.5	1	228	387	425	424	419	387	238	2	222
125.0	1	220	382	426	426	421	383	231	2	211
127.5	1	212	376	424	429	420	377	222	2	201
130.0	1	204	369	422	428	418	370	213	2	188
132.5	1	193	360	419	426	414	362	204	1	170

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**CANDELA TABULATION - (Cont.)**

135.0	1	182	350	414	424	410	353	194	1	161
137.5	1	168	341	407	420	404	343	181	2	143
140.0	1	150	326	399	413	395	331	166	2	123
142.5	1	129	313	388	405	385	317	148	1	105
145.0	1	111	297	375	392	372	301	125	1	87
147.5	1	95	276	360	378	357	282	107	1	73
150.0	1	78	247	340	361	336	262	89	2	56
152.5	1	64	220	317	338	316	239	76	2	38
155.0	1	51	185	293	312	290	210	65	2	19
157.5	2	37	146	264	285	261	172	51	2	2
160.0	1	25	105	224	251	224	135	38	2	2
162.5	1	14	78	176	207	173	104	21	2	1
165.0	1	1	59	123	148	129	79	2	2	1
167.5	1	0	42	84	107	92	55	2	2	1
170.0	1	1	22	60	74	62	28	1	1	1
172.5	1	1	0	27	39	28	1	1	1	1
175.0	1	0	0	0	0	0	1	1	2	1
177.5	1	1	0	0	0	1	1	1	2	1
180.0	1	1	1	1	1	1	1	1	1	1

**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	231	231	231	231	231	231	231
2.5	282	293	292	289	279	254	222
5.0	260	271	282	272	262	304	223
7.5	351	386	371	390	356	267	221
10.0	378	481	479	484	373	268	220
12.5	469	494	544	499	473	358	218
15.0	455	543	588	544	463	384	216
17.5	535	610	622	606	530	359	212
20.0	535	656	663	658	557	417	210
22.5	588	673	695	683	575	442	206
25.0	598	687	713	692	612	413	202
27.5	613	698	715	695	609	447	198
30.0	628	696	710	692	619	457	192
32.5	617	689	692	685	622	441	187
35.0	619	672	671	669	612	455	180
37.5	610	651	644	646	604	452	173
40.0	598	627	613	620	591	440	166
42.5	585	599	584	591	574	445	158
45.0	569	573	554	566	558	433	152
47.5	551	548	529	538	541	428	143
50.0	536	523	503	512	523	420	135
52.5	517	497	477	488	505	411	126
55.0	501	472	456	467	487	406	118
57.5	482	453	439	448	471	402	109
60.0	468	438	424	431	456	392	99
62.5	454	422	410	416	442	383	89
65.0	439	407	395	400	428	375	79
67.5	426	394	384	388	414	367	68
70.0	413	384	375	378	403	357	58
72.5	403	375	365	368	392	350	48
75.0	392	364	356	357	381	345	38
77.5	380	353	348	347	372	336	30
80.0	370	343	341	339	363	324	22

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**CANDELA TABULATION - (Cont.)**

82.5	361	337	335	333	355	317	15
85.0	357	332	327	328	348	313	10
87.5	351	325	320	321	338	302	6
90.0	345	319	314	317	334	294	2
92.5	342	317	313	314	331	295	1
95.0	339	312	310	309	327	290	1
97.5	334	309	306	304	323	282	1
100.0	335	313	314	314	330	283	1
102.5	351	329	325	326	342	289	1
105.0	356	333	329	330	345	285	0
107.5	360	337	330	333	349	278	0
110.0	362	340	333	336	351	271	0
112.5	364	343	337	339	355	263	1
115.0	366	349	341	343	356	254	1
117.5	366	353	345	347	356	244	1
120.0	364	357	348	350	356	234	1
122.5	363	360	350	353	355	220	1
125.0	361	364	355	358	354	204	1
127.5	358	368	359	361	350	204	1
130.0	353	371	365	365	344	197	1
132.5	346	373	368	366	338	184	1
135.0	336	374	370	366	329	169	1
137.5	326	373	373	365	317	151	1
140.0	311	369	372	361	303	127	1
142.5	296	362	368	354	281	107	1
145.0	277	351	363	342	274	91	1
147.5	254	335	350	326	256	68	1
150.0	219	314	331	303	229	56	1
152.5	196	294	307	289	205	40	1
155.0	153	261	286	261	170	19	1
157.5	119	230	254	228	132	2	2
160.0	84	190	218	187	99	2	1
162.5	62	140	165	135	71	1	1
165.0	34	91	117	96	38	1	1
167.5	0	59	78	57	1	1	1
170.0	0	4	28	1	1	1	1
172.5	0	0	0	0	1	1	1
175.0	0	0	0	0	1	1	1
177.5	0	0	0	1	1	1	1
180.0	1	1	1	1	1	1	1

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	128.25	N.A.	3.00
0-30	347.79	N.A.	8.20
0-40	668.65	N.A.	15.80
0-60	1456.21	N.A.	34.30
0-80	2236.72	N.A.	52.70
0-90	2586.26	N.A.	60.90
10-90	2562.72	N.A.	60.40
20-40	540.41	N.A.	12.70
20-50	922.60	N.A.	21.70
40-70	1188.86	N.A.	28.00
60-80	780.51	N.A.	18.40
70-80	379.20	N.A.	8.90
80-90	349.54	N.A.	8.20
90-110	640.12	N.A.	15.10
90-120	938.11	N.A.	22.10
90-130	1201.55	N.A.	28.30
90-150	1562.66	N.A.	36.80
90-180	1656.99	N.A.	39.00
110-180	1016.87	N.A.	24.00
0-180	4243.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	23.54
10-20	104.71
20-30	219.54
30-40	320.86
40-50	382.20
50-60	405.36
60-70	401.31
70-80	379.20
80-90	349.54
90-100	323.26
100-110	316.86
110-120	297.99
120-130	263.44
130-140	213.91
140-150	147.20
150-160	75.10
160-170	18.60
170-180	0.62

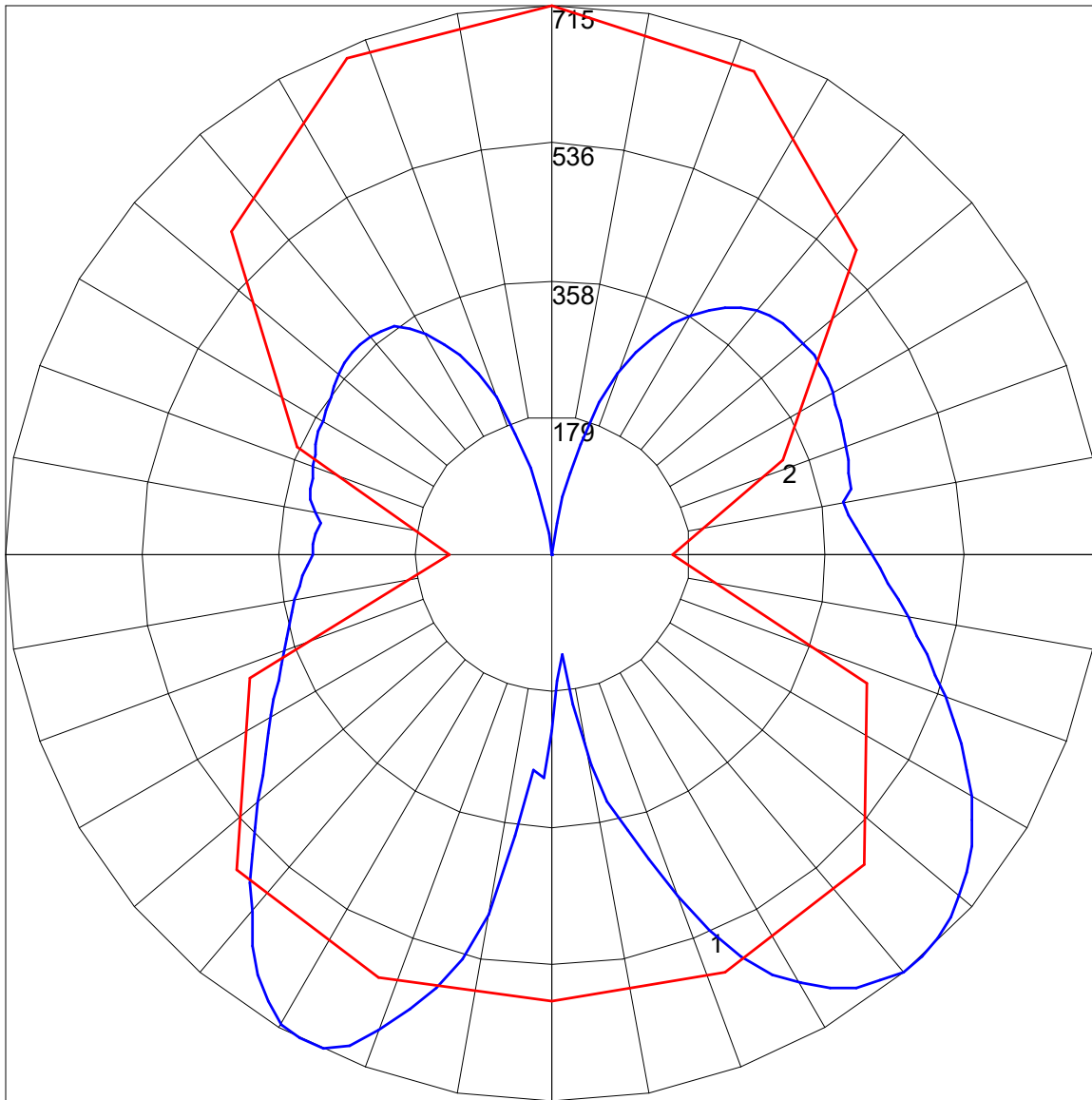
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	85	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	56	51	52	48	44	43	40	37	33
3	77	66	57	49	71	61	53	46	53	46	41	45	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	26	21	17	15
7	54	40	31	25	50	37	29	23	32	26	21	28	22	18	23	19	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 = 715 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.)