



IES INDOOR REPORT

PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-3500K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-13298
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUE DATE] 04/06/22
[TEST DATE] 03/11/22
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] CLRM4-FS1-UNV-40W-3500K
[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] 3500

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4630
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	40
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.22
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	36441	9734	8800
55	33413	8534	7222
65	27571	7321	5825
75	19378	6307	4741
85	8265	5584	4047

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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	256	256	256	256	256	256	256	256	256	256
2.5	245	222	203	189	185	194	210	222	246	281
5.0	244	192	145	134	139	136	146	188	244	330
7.5	244	155	166	202	211	206	170	154	241	303
10.0	242	136	212	266	300	278	216	138	239	294
12.5	239	158	258	315	357	325	275	177	235	357
15.0	236	198	306	374	402	380	312	207	231	426
17.5	233	211	357	439	453	450	377	219	227	404
20.0	228	219	374	487	518	511	399	244	222	407
22.5	223	253	429	526	580	552	445	285	216	482
25.0	218	280	450	578	631	594	488	295	211	481
27.5	212	286	491	624	671	641	511	315	205	449
30.0	206	312	523	662	702	681	557	345	197	494
32.5	199	331	544	685	728	708	575	347	190	496
35.0	190	328	573	707	750	727	601	359	179	471
37.5	182	345	586	726	765	744	621	380	170	483
40.0	174	357	603	738	773	756	632	380	161	489
42.5	164	355	614	743	776	762	643	390	151	467
45.0	156	366	619	744	774	761	648	401	140	465
47.5	148	374	624	741	767	756	652	399	130	469
50.0	138	371	624	734	756	747	651	403	119	450
52.5	129	374	622	721	743	735	645	407	109	441
55.0	120	376	617	708	726	720	639	405	98	436
57.5	110	373	610	692	708	703	630	405	88	429
60.0	99	372	601	674	687	683	619	402	79	419
62.5	89	368	589	654	664	662	608	397	69	409
65.0	77	364	577	634	641	640	595	392	60	401
67.5	66	359	564	614	618	619	579	386	52	394
70.0	56	353	549	594	592	595	564	380	44	382
72.5	46	346	536	575	571	575	549	372	38	372
75.0	37	338	523	555	551	556	534	365	31	366
77.5	28	332	511	537	533	538	520	357	25	357
80.0	20	326	497	519	514	519	506	348	20	346
82.5	13	320	484	502	496	502	491	340	14	340
85.0	8	315	472	486	481	486	476	333	10	339
87.5	4	310	461	473	467	472	464	326	8	327
90.0	1	304	452	461	453	459	452	318	5	311
92.5	1	300	444	451	442	453	443	311	5	312
95.0	1	298	437	442	434	440	434	306	4	316
97.5	1	293	430	435	426	432	426	300	3	311
100.0	0	292	427	430	420	425	418	293	2	307
102.5	1	298	438	443	433	438	429	299	2	309
105.0	0	296	440	447	438	442	431	298	2	307
107.5	1	293	439	449	441	444	431	296	2	301
110.0	0	287	438	452	444	446	430	291	2	293
112.5	1	282	437	454	449	449	430	285	2	287
115.0	1	276	436	457	451	451	429	279	2	277
117.5	1	268	433	459	455	452	428	272	2	267
120.0	1	261	429	462	458	454	426	265	2	256
122.5	1	254	424	462	462	456	422	259	2	245
125.0	1	246	418	463	464	457	417	250	2	234
127.5	1	237	411	462	466	457	410	241	2	222
130.0	1	228	404	460	466	454	403	232	1	208
132.5	1	217	394	457	465	451	394	222	1	188

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CANDELA TABULATION - (Cont.)

135.0	1	205	384	452	462	447	384	211	2	177
137.5	1	189	372	444	457	440	374	197	1	159
140.0	1	169	358	435	450	431	361	180	1	136
142.5	1	147	343	424	441	420	345	158	2	116
145.0	1	127	326	410	429	406	329	137	2	97
147.5	1	108	304	393	414	387	308	116	2	81
150.0	1	90	270	373	393	367	286	97	2	63
152.5	1	73	241	346	368	344	260	84	2	43
155.0	1	58	204	318	340	316	229	70	2	21
157.5	1	43	162	285	312	284	189	56	2	2
160.0	2	29	112	247	275	246	148	42	2	2
162.5	1	16	87	195	227	191	115	23	2	1
165.0	1	2	67	137	163	143	87	2	2	2
167.5	1	0	47	92	118	99	62	2	2	1
170.0	1	1	27	68	82	66	29	2	2	1
172.5	1	0	0	31	45	29	1	1	2	1
175.0	1	0	0	0	0	1	1	1	2	1
177.5	1	1	0	0	0	1	1	2	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	256	256	256	256	256	256	256
2.5	310	319	320	318	308	284	245
5.0	283	298	316	299	285	332	244
7.5	392	418	405	423	395	291	244
10.0	410	527	523	530	409	300	242
12.5	516	549	597	573	524	396	239
15.0	500	594	647	604	510	417	236
17.5	587	667	685	663	578	393	233
20.0	589	718	730	719	611	457	228
22.5	641	744	761	747	629	484	223
25.0	661	754	780	758	667	452	218
27.5	667	763	783	761	667	490	212
30.0	689	762	776	758	677	500	206
32.5	678	754	759	750	681	482	199
35.0	677	735	734	731	669	496	190
37.5	669	713	705	707	661	492	182
40.0	655	685	671	678	646	482	174
42.5	640	655	637	648	627	484	164
45.0	621	625	607	617	609	474	156
47.5	603	598	576	590	592	465	148
50.0	585	572	548	561	573	458	138
52.5	566	541	522	533	553	449	129
55.0	545	516	499	510	533	444	120
57.5	527	495	481	490	515	438	110
60.0	509	478	464	473	499	428	99
62.5	494	460	447	455	482	417	89
65.0	479	445	432	437	469	409	77
67.5	465	431	420	424	452	400	66
70.0	450	420	408	413	441	388	56
72.5	439	409	398	403	430	381	46
75.0	427	396	389	391	419	376	37
77.5	416	385	381	380	407	365	28
80.0	404	375	374	372	397	354	20

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CANDELA TABULATION - (Cont.)

82.5	396	369	367	365	388	346	13
85.0	389	363	358	358	381	341	8
87.5	383	356	350	352	372	329	4
90.0	376	349	344	347	365	319	1
92.5	374	346	343	343	364	321	1
95.0	369	342	340	338	359	316	1
97.5	364	338	336	333	355	308	1
100.0	367	343	344	345	362	309	0
102.5	383	360	356	357	375	313	1
105.0	389	365	359	361	378	309	0
107.5	393	369	363	365	382	302	1
110.0	394	371	365	367	384	294	0
112.5	398	377	370	372	389	286	1
115.0	399	382	373	376	390	275	1
117.5	399	386	377	380	389	263	1
120.0	397	390	380	383	388	251	1
122.5	396	394	384	388	388	238	1
125.0	394	397	389	391	386	220	1
127.5	391	401	393	395	382	221	1
130.0	385	405	398	399	376	213	1
132.5	378	408	402	400	368	197	1
135.0	368	409	406	401	359	182	1
137.5	356	407	407	399	345	161	1
140.0	341	402	407	394	327	135	1
142.5	323	395	402	386	306	114	1
145.0	304	383	395	373	299	96	1
147.5	279	366	381	352	277	71	1
150.0	240	342	358	331	248	58	1
152.5	213	318	336	315	222	39	1
155.0	169	285	312	283	182	16	1
157.5	132	250	276	248	141	2	1
160.0	94	207	238	203	107	1	2
162.5	69	153	180	146	75	1	1
165.0	38	100	128	105	35	1	1
167.5	0	63	84	61	1	1	1
170.0	0	3	30	1	1	1	1
172.5	0	0	0	0	1	1	1
175.0	0	0	0	0	0	1	1
177.5	0	0	0	0	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	140.10	N.A.	3.00
0-30	379.61	N.A.	8.20
0-40	729.52	N.A.	15.80
0-60	1588.08	N.A.	34.30
0-80	2438.87	N.A.	52.70
0-90	2820.46	N.A.	60.90
10-90	2794.8	N.A.	60.40
20-40	589.42	N.A.	12.70
20-50	1005.94	N.A.	21.70
40-70	1295.85	N.A.	28.00
60-80	850.79	N.A.	18.40
70-80	413.50	N.A.	8.90
80-90	381.60	N.A.	8.20
90-110	699.33	N.A.	15.10
90-120	1024.8	N.A.	22.10
90-130	1312.46	N.A.	28.30
90-150	1706.87	N.A.	36.90
90-180	1809.81	N.A.	39.10
110-180	1110.48	N.A.	24.00
0-180	4630.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	25.66
10-20	114.44
20-30	239.51
30-40	349.91
40-50	416.52
50-60	442.04
60-70	437.29
70-80	413.50
80-90	381.60
90-100	353.25
100-110	346.07
110-120	325.47
120-130	287.66
130-140	233.66
140-150	160.76
150-160	81.87
160-170	20.39
170-180	0.69

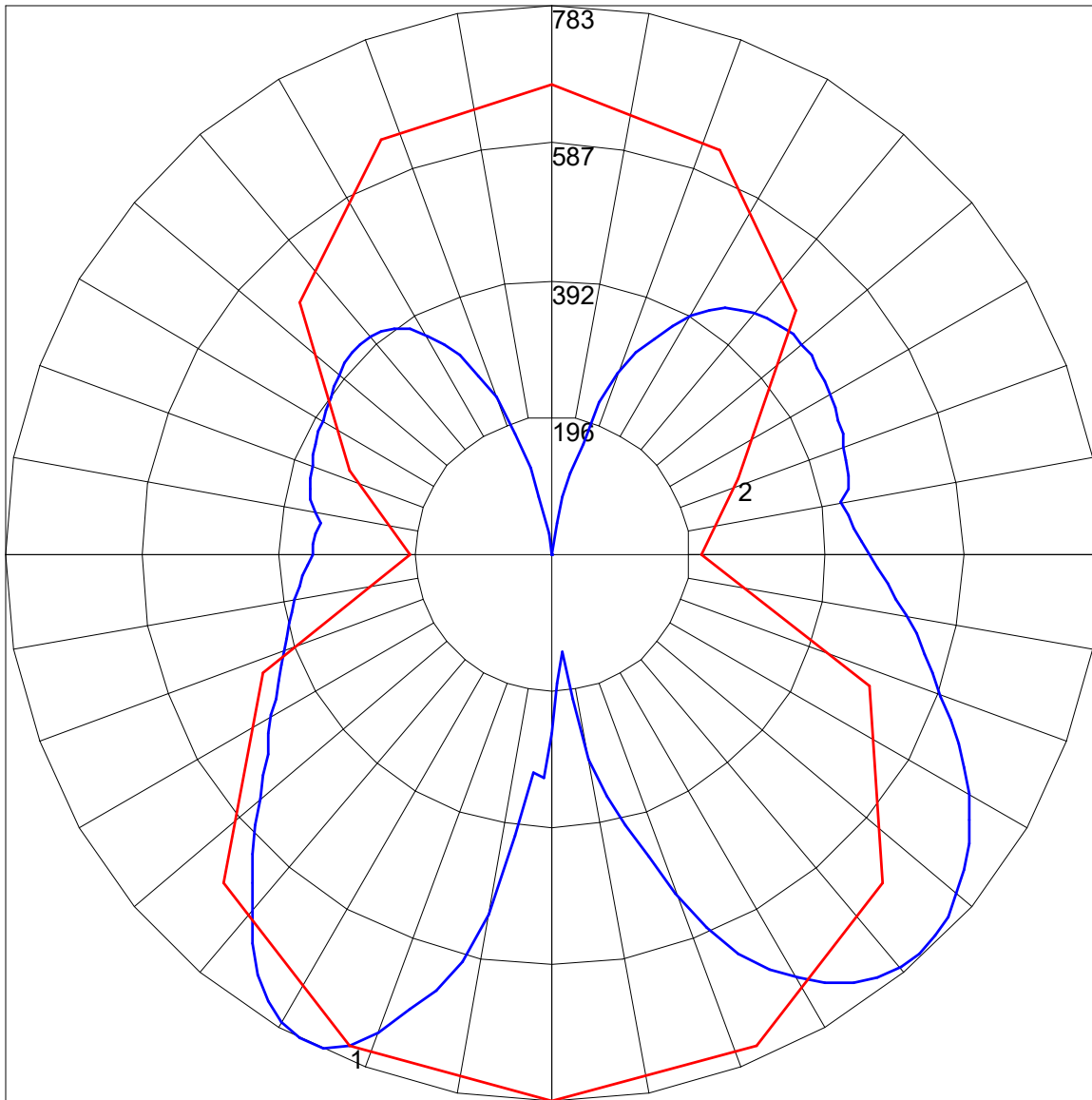
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	52	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 = 783 Located At Horizontal Angle = 270, Vertical Angle = 27.5
1 - Vertical Plane Through Horizontal Angles (270 - 90) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (27.5) (Through Max. Cd.)