



IES INDOOR REPORT

PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-13299
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUE DATE] 04/06/22
[TEST DATE] 03/11/22
[MANUFACT] LSI INDUSTRIES, INC.
[LUMCAT] CLRM4-FS1-UNV-40W-4000K
[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] 4000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4596
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	40
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.16
Spacing Criterion (90-270)	3.02
Spacing Criterion (Diagonal)	2.60
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	32237	9766	8766
55	28680	8534	7192
65	23632	7321	5771
75	15712	6295	4724
85	7232	5572	4013

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

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	242	242	242	242	242	242	242	242	242	242
2.5	229	211	194	181	168	177	193	211	232	258
5.0	228	177	139	142	152	143	137	173	232	317
7.5	226	147	175	205	217	208	185	143	230	311
10.0	224	137	214	282	303	290	220	141	228	286
12.5	221	169	273	326	363	334	284	182	226	341
15.0	217	198	306	374	411	381	313	205	221	419
17.5	213	212	363	440	460	448	373	217	218	404
20.0	208	229	381	497	516	508	396	244	213	400
22.5	203	265	431	536	577	548	442	286	208	473
25.0	197	283	462	578	628	591	483	294	203	474
27.5	191	292	490	622	669	638	509	316	197	443
30.0	186	322	530	661	705	679	554	343	191	484
32.5	178	331	546	686	728	706	573	343	182	493
35.0	171	332	574	707	749	725	596	357	176	469
37.5	162	353	590	726	763	740	616	378	166	481
40.0	154	359	605	738	771	751	626	377	158	485
42.5	146	360	617	742	773	757	638	385	148	464
45.0	138	374	621	743	771	756	642	398	139	466
47.5	130	375	625	739	763	751	646	395	129	465
50.0	122	375	625	731	753	743	645	398	119	448
52.5	112	380	623	720	739	731	640	403	110	442
55.0	103	379	617	706	723	715	632	400	100	435
57.5	93	377	610	689	703	697	623	400	91	428
60.0	85	375	600	672	682	677	612	397	81	420
62.5	75	371	591	651	659	656	602	392	73	410
65.0	66	367	577	630	635	635	588	387	64	400
67.5	57	363	563	610	613	614	574	382	55	394
70.0	48	356	548	590	590	592	560	375	46	382
72.5	38	348	535	571	569	573	545	367	38	372
75.0	30	341	522	553	549	554	530	359	30	366
77.5	23	334	509	535	528	533	514	350	24	358
80.0	16	328	496	516	510	515	500	342	18	347
82.5	11	322	482	498	493	499	486	334	13	340
85.0	7	317	471	484	477	483	473	328	9	339
87.5	4	311	459	470	463	469	460	321	6	329
90.0	2	305	450	458	451	457	449	313	4	314
92.5	2	302	442	448	440	451	439	306	3	313
95.0	1	299	435	441	432	437	430	301	3	316
97.5	1	293	428	432	424	429	422	295	2	312
100.0	1	294	427	428	418	423	414	288	2	308
102.5	1	298	437	442	433	436	426	294	2	311
105.0	1	297	438	446	437	440	428	293	2	309
107.5	1	293	438	448	440	442	427	290	2	303
110.0	1	287	437	450	443	444	427	285	2	295
112.5	1	281	436	452	445	446	426	278	2	289
115.0	1	275	434	455	449	448	424	273	2	281
117.5	1	268	431	456	452	450	423	266	2	271
120.0	1	261	428	458	456	452	421	259	2	261
122.5	1	254	422	460	458	453	416	251	2	249
125.0	1	246	416	462	462	454	411	244	2	237
127.5	1	236	409	460	464	454	405	235	2	226
130.0	1	227	401	457	463	451	398	225	2	212
132.5	1	216	392	454	461	448	389	215	1	192

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

CANDELA TABULATION - (Cont.)

135.0	1	204	381	449	458	442	378	203	2	182
137.5	1	188	370	442	453	435	367	190	2	166
140.0	1	170	358	433	446	426	354	173	2	144
142.5	1	147	342	420	437	415	338	152	2	121
145.0	1	126	323	405	424	401	321	131	2	101
147.5	1	105	301	388	409	383	302	110	2	85
150.0	1	88	268	368	390	363	281	91	2	67
152.5	1	71	239	342	365	341	255	78	2	47
155.0	2	57	201	316	338	310	221	66	2	27
157.5	2	42	159	284	307	278	179	51	2	2
160.0	1	28	113	246	269	238	139	36	2	2
162.5	1	15	86	195	221	181	107	16	2	1
165.0	1	1	66	131	156	134	82	2	2	1
167.5	1	1	45	88	111	97	57	2	2	1
170.0	1	1	23	64	77	64	26	2	2	1
172.5	1	1	0	27	40	27	1	2	2	1
175.0	1	1	0	0	0	1	1	2	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	242	242	242	242	242	242	242
2.5	286	297	308	306	295	266	229
5.0	288	292	303	293	283	319	228
7.5	354	421	403	427	372	297	226
10.0	409	516	518	519	407	286	224
12.5	503	533	588	535	504	358	221
15.0	493	588	635	590	491	421	217
17.5	579	660	673	661	576	387	213
20.0	580	710	718	712	595	427	208
22.5	634	729	754	733	623	482	203
25.0	652	745	777	747	659	449	197
27.5	662	758	778	755	657	463	191
30.0	681	757	771	752	672	495	186
32.5	670	748	753	745	671	475	178
35.0	673	730	730	727	662	479	171
37.5	663	707	701	704	655	488	162
40.0	650	679	668	675	641	472	154
42.5	635	649	634	645	625	471	146
45.0	617	621	603	617	607	468	138
47.5	599	594	576	590	587	455	130
50.0	581	567	547	562	569	449	122
52.5	561	540	521	531	550	440	112
55.0	543	515	498	507	530	435	103
57.5	524	494	477	488	512	431	93
60.0	508	474	460	471	496	420	85
62.5	491	458	444	453	482	410	75
65.0	476	441	429	436	468	403	66
67.5	461	428	417	423	453	394	57
70.0	446	416	406	413	438	382	48
72.5	436	407	397	401	429	375	38
75.0	424	395	387	389	417	370	30
77.5	413	383	378	377	405	360	23
80.0	402	372	371	369	395	349	16

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

CANDELA TABULATION - (Cont.)

82.5	393	366	365	363	387	343	11
85.0	386	361	357	357	381	337	7
87.5	379	353	347	350	372	322	4
90.0	373	347	342	346	364	313	2
92.5	371	344	340	341	362	316	2
95.0	367	340	338	336	357	312	1
97.5	361	335	333	331	352	303	1
100.0	362	337	338	339	359	302	1
102.5	378	356	353	354	373	308	1
105.0	385	361	357	359	377	305	1
107.5	389	365	360	362	379	296	1
110.0	392	369	362	365	383	289	1
112.5	394	372	366	368	386	279	1
115.0	395	377	370	373	386	269	1
117.5	395	382	374	377	386	258	1
120.0	394	385	376	380	385	246	1
122.5	393	389	380	384	385	232	1
125.0	391	393	385	388	383	217	1
127.5	388	397	389	392	378	217	1
130.0	383	401	395	395	372	208	1
132.5	376	403	398	396	364	193	1
135.0	367	404	401	397	355	178	1
137.5	354	404	403	395	341	159	1
140.0	340	399	403	391	324	133	1
142.5	322	392	399	383	305	112	1
145.0	304	380	392	369	297	93	1
147.5	279	363	378	352	277	69	1
150.0	241	342	358	331	247	57	1
152.5	217	320	335	315	221	38	1
155.0	177	290	314	285	180	16	2
157.5	135	251	276	248	139	2	2
160.0	94	209	238	202	105	1	1
162.5	70	153	180	146	75	1	1
165.0	39	101	127	104	39	1	1
167.5	0	65	85	63	1	1	1
170.0	0	7	32	3	1	1	1
172.5	0	0	0	0	1	1	1
175.0	0	0	0	1	1	1	1
177.5	0	0	0	0	1	1	1
180.0	1	1	1	1	1	1	1

IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	138.15	N.A.	3.00
0-30	375.33	N.A.	8.20
0-40	722.60	N.A.	15.70
0-60	1575.24	N.A.	34.30
0-80	2420.36	N.A.	52.70
0-90	2799.53	N.A.	60.90
10-90	2774.4	N.A.	60.40
20-40	584.45	N.A.	12.70
20-50	998.05	N.A.	21.70
40-70	1287.04	N.A.	28.00
60-80	845.12	N.A.	18.40
70-80	410.72	N.A.	8.90
80-90	379.17	N.A.	8.30
90-110	694.81	N.A.	15.10
90-120	1017.8	N.A.	22.10
90-130	1303.18	N.A.	28.40
90-150	1694.16	N.A.	36.90
90-180	1796.08	N.A.	39.10
110-180	1101.27	N.A.	24.00
0-180	4595.61	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	25.12
10-20	113.02
20-30	237.18
30-40	347.27
40-50	413.60
50-60	439.04
60-70	434.40
70-80	410.72
80-90	379.17
90-100	350.90
100-110	343.91
110-120	322.98
120-130	285.39
130-140	231.62
140-150	159.36
150-160	81.31
160-170	19.95
170-180	0.66

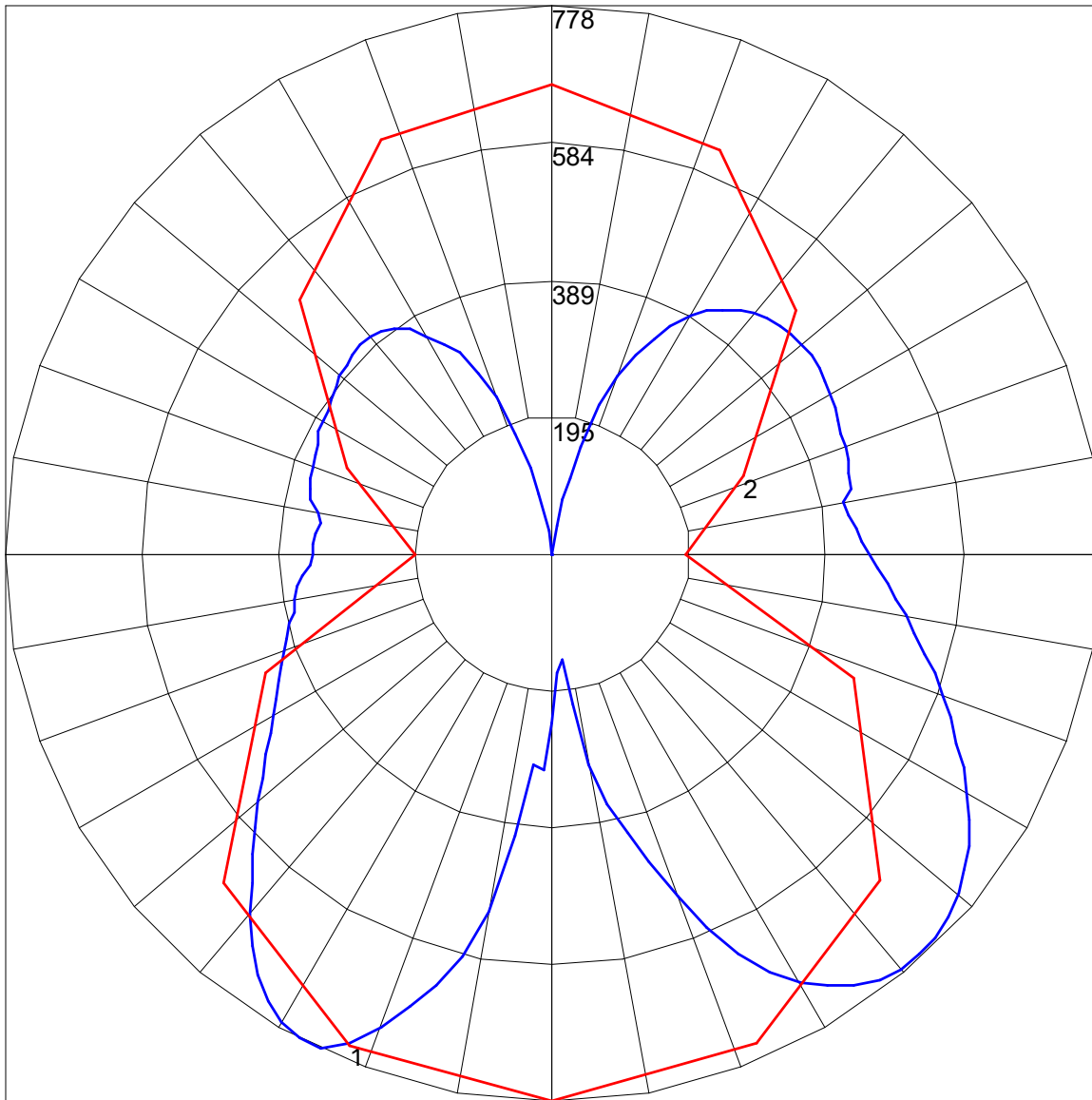
IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-40W-4000K.IES

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	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	26	21	17	14
7	54	40	31	25	50	37	29	23	32	25	21	28	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 = 778 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.)