



IES INDOOR REPORT
PHOTOMETRIC FILENAME : CLRM4-FS1-UNV-30W-4000K.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-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	3517
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	23360	7485	6708
55	19769	6556	5501
65	15397	5634	4435
75	10998	4836	3623
85	7232	4271	3079

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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	194	194	194	194	194	194	194	194	194	194
2.5	188	165	155	140	137	145	156	166	190	212
5.0	185	142	111	105	110	106	110	142	190	247
7.5	183	117	128	153	161	156	132	117	190	218
10.0	180	105	163	208	229	210	163	106	188	222
12.5	177	126	203	244	271	247	205	128	187	283
15.0	173	150	234	283	306	289	238	154	184	326
17.5	170	161	275	335	346	341	279	165	182	301
20.0	164	174	289	376	392	381	292	176	179	325
22.5	159	203	329	405	440	409	337	207	176	373
25.0	154	217	352	440	477	450	363	221	173	349
27.5	148	224	374	475	507	485	384	229	167	347
30.0	143	248	404	505	536	515	416	253	163	381
32.5	136	253	418	523	554	535	429	259	157	373
35.0	130	256	440	542	571	550	451	260	153	363
37.5	123	273	453	556	583	565	463	277	146	379
40.0	116	276	463	564	589	573	475	284	140	368
42.5	109	279	473	568	591	577	483	283	134	359
45.0	100	290	476	569	590	577	486	292	126	364
47.5	94	289	480	566	584	573	490	295	120	356
50.0	86	291	480	560	576	568	488	294	113	346
52.5	79	295	479	552	567	559	485	298	106	343
55.0	71	293	474	542	553	546	480	299	98	334
57.5	63	294	469	530	539	534	475	297	91	330
60.0	57	292	461	514	523	518	466	295	83	323
62.5	50	289	454	499	506	503	458	292	74	316
65.0	43	286	444	484	488	487	448	288	65	308
67.5	37	282	432	468	470	471	438	284	56	303
70.0	31	277	422	452	452	454	426	279	47	294
72.5	25	271	411	438	436	439	414	273	39	286
75.0	21	266	401	424	421	424	404	268	31	283
77.5	16	261	391	410	405	409	393	261	24	276
80.0	13	256	381	397	391	396	383	256	18	268
82.5	9	252	371	382	378	383	372	250	13	262
85.0	7	248	361	371	366	371	361	245	8	261
87.5	4	243	353	360	356	360	352	240	5	253
90.0	3	238	345	351	345	350	343	233	2	242
92.5	3	235	339	343	337	345	335	228	1	242
95.0	2	233	333	337	331	335	329	224	1	243
97.5	1	229	329	331	324	329	323	220	1	240
100.0	1	229	326	327	320	324	317	216	1	237
102.5	1	233	334	337	329	333	324	219	1	240
105.0	1	233	336	340	333	336	326	219	1	240
107.5	1	230	336	342	335	337	326	217	1	235
110.0	1	226	335	343	338	339	326	212	1	230
112.5	1	221	334	345	341	341	325	208	1	226
115.0	1	217	333	347	343	343	324	204	1	221
117.5	1	211	331	349	346	344	323	199	1	214
120.0	1	206	329	350	348	345	321	194	1	207
122.5	1	200	325	352	351	346	317	188	1	199
125.0	1	194	320	353	353	348	313	183	1	190
127.5	1	187	316	353	355	347	309	176	1	180
130.0	1	180	309	350	354	345	303	169	1	166
132.5	1	173	303	348	353	342	296	161	1	151

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CANDELA TABULATION - (Cont.)

135.0	1	163	296	344	351	338	289	152	1	140
137.5	1	152	286	339	347	333	280	142	1	129
140.0	1	138	277	332	342	326	270	129	1	113
142.5	1	122	264	323	335	317	258	113	1	94
145.0	1	104	251	312	326	306	245	96	1	77
147.5	1	86	235	299	314	294	231	81	1	65
150.0	1	71	212	284	299	278	213	68	1	50
152.5	1	59	189	264	281	259	193	58	1	35
155.0	1	48	160	245	261	239	170	49	2	19
157.5	1	37	130	221	238	215	138	39	1	2
160.0	1	25	93	192	208	185	106	28	1	1
162.5	1	15	68	149	173	141	83	13	1	1
165.0	1	4	54	104	122	104	64	1	1	1
167.5	1	0	37	68	87	76	45	1	1	1
170.0	1	0	21	51	61	51	22	1	1	1
172.5	1	0	0	24	33	23	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	194	194	194	194	194	194	194
2.5	228	240	241	240	232	217	188
5.0	212	227	240	226	214	247	185
7.5	305	314	306	320	296	217	183
10.0	308	397	389	399	308	219	180
12.5	395	417	448	415	389	284	177
15.0	380	450	489	450	375	320	173
17.5	443	500	516	500	439	295	170
20.0	454	543	548	542	456	333	164
22.5	480	561	573	563	474	367	159
25.0	507	569	590	570	503	341	154
27.5	506	576	589	573	500	354	148
30.0	521	575	584	571	510	377	143
32.5	516	567	572	565	509	362	136
35.0	513	554	553	552	503	364	130
37.5	508	537	532	534	497	371	123
40.0	497	516	506	512	486	360	116
42.5	485	492	481	489	474	357	109
45.0	470	470	457	468	459	355	100
47.5	455	450	436	445	445	346	94
50.0	442	429	415	424	432	340	86
52.5	428	409	395	404	419	334	79
55.0	412	390	377	385	403	329	71
57.5	399	374	363	371	391	326	63
60.0	385	360	350	357	378	318	57
62.5	373	348	337	345	367	311	50
65.0	362	335	327	332	356	305	43
67.5	350	325	317	321	344	298	37
70.0	339	316	309	313	334	289	31
72.5	330	309	302	305	326	283	25
75.0	322	300	295	296	318	279	21
77.5	314	291	287	287	309	272	16
80.0	306	283	282	281	301	264	13

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CANDELA TABULATION - (Cont.)

82.5	299	278	278	277	295	259	9
85.0	294	275	271	273	291	255	7
87.5	287	268	264	266	283	243	4
90.0	282	264	260	263	279	236	3
92.5	281	262	259	260	276	239	3
95.0	279	258	257	256	272	236	2
97.5	275	255	254	253	268	229	1
100.0	277	258	260	261	275	229	1
102.5	289	272	269	270	285	232	1
105.0	293	276	272	274	287	230	1
107.5	296	278	274	276	290	224	1
110.0	298	281	276	278	292	220	1
112.5	301	284	279	282	295	216	1
115.0	303	288	282	285	296	210	1
117.5	302	292	285	288	295	203	1
120.0	302	294	287	291	295	196	1
122.5	302	298	291	295	295	186	1
125.0	301	301	295	297	295	175	1
127.5	299	304	298	300	292	164	1
130.0	295	307	302	303	288	149	1
132.5	291	310	306	305	284	140	1
135.0	286	312	309	306	278	132	1
137.5	277	311	310	306	269	118	1
140.0	268	309	311	304	258	100	1
142.5	256	305	309	299	244	82	1
145.0	239	297	305	291	227	68	1
147.5	217	286	297	278	201	51	1
150.0	184	272	285	261	182	41	1
152.5	168	248	263	239	164	23	1
155.0	137	218	238	210	137	5	1
157.5	102	191	205	186	104	1	1
160.0	72	161	180	155	78	1	1
162.5	53	118	139	111	53	1	1
165.0	29	78	96	78	24	1	1
167.5	0	46	62	44	0	1	1
170.0	0	1	19	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	105.94	N.A.	3.00
0-30	287.07	N.A.	8.20
0-40	552.08	N.A.	15.70
0-60	1203.4	N.A.	34.20
0-80	1849.51	N.A.	52.60
0-90	2139.44	N.A.	60.80
10-90	2120.03	N.A.	60.30
20-40	446.14	N.A.	12.70
20-50	761.82	N.A.	21.70
40-70	983.48	N.A.	28.00
60-80	646.11	N.A.	18.40
70-80	313.95	N.A.	8.90
80-90	289.93	N.A.	8.20
90-110	530.63	N.A.	15.10
90-120	778.23	N.A.	22.10
90-130	997.59	N.A.	28.40
90-150	1299.13	N.A.	36.90
90-180	1377.45	N.A.	39.20
110-180	846.82	N.A.	24.10
0-180	3516.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	19.41
10-20	86.53
20-30	181.13
30-40	265.01
40-50	315.68
50-60	335.63
60-70	332.16
70-80	313.95
80-90	289.93
90-100	267.99
100-110	262.64
110-120	247.60
120-130	219.37
130-140	178.28
140-150	123.25
150-160	62.44
160-170	15.37
170-180	0.50

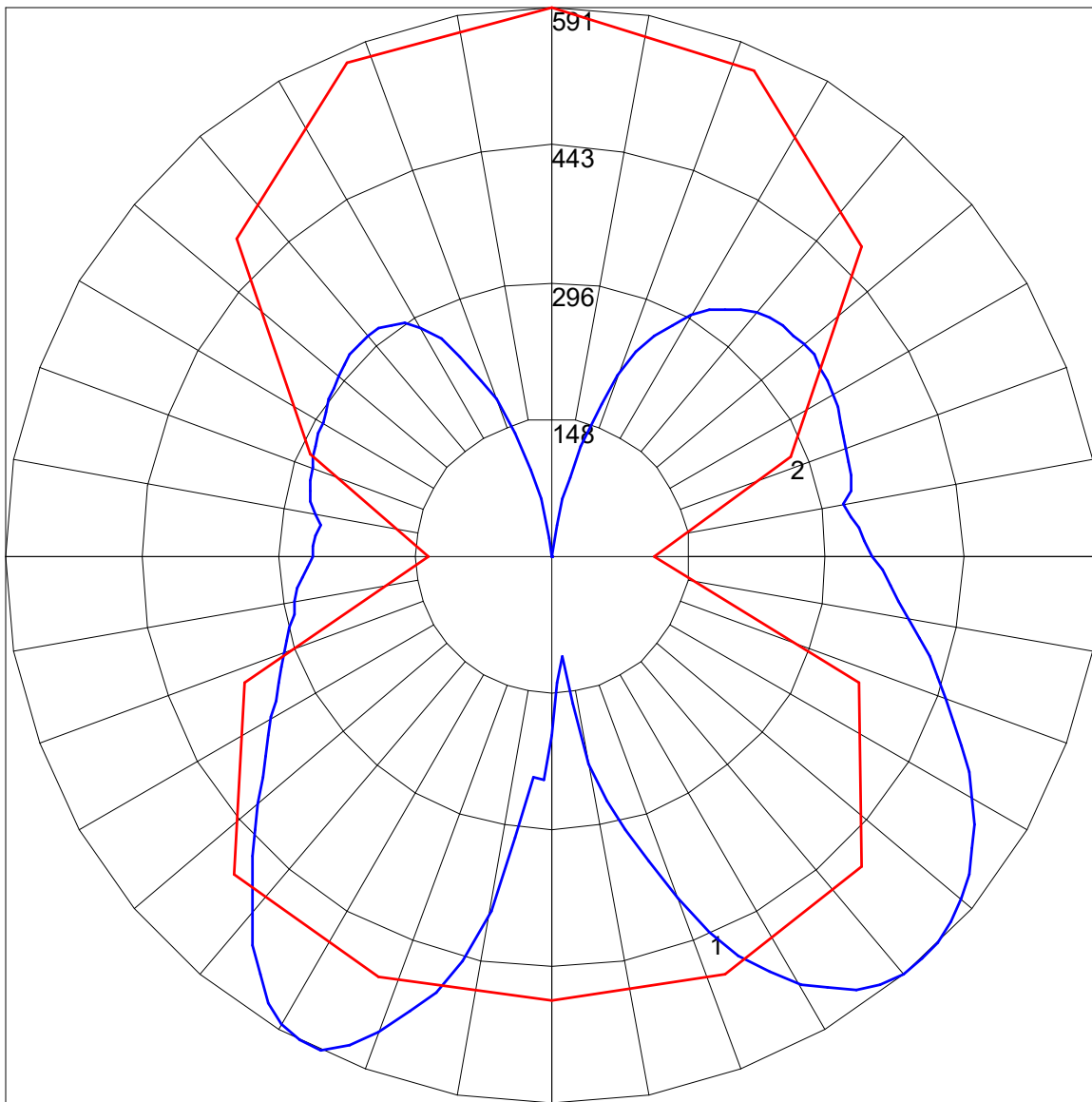
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 = 591 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.)