



IES INDOOR REPORT

PHOTOMETRIC FILENAME : CLRT14-FS1-UNV-20W-3000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-14649
[TESTLAB] LSI INDUSTRIES, INC.
[TESTDATE] 03/08/24
[ISSUEDATE] 04/15/24
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] CLRT14-FS1-UNV-20W-3000K
[TEST PROCEDURE] IESNA LM-79-19
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[FACTORED] 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	2064
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	104
Total Luminaire Watts	19.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.52
Spacing Criterion (90-270)	1.52
Spacing Criterion (Diagonal)	1.68
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1576	1590	1662
55	1812	1893	2163
65	2064	2139	2735
75	2153	2416	3455
85	2391	2697	4198

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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>
0.0	445.263	445.263	445.263	445.263	445.263
2.5	452.474	447.967	446.165	444.362	440.757
5.0	455.178	449.770	447.967	446.165	443.461
7.5	456.981	452.474	450.671	448.869	446.165
10.0	458.784	453.376	450.671	448.869	447.066
12.5	459.685	453.376	447.967	447.066	446.165
15.0	458.784	452.474	445.263	446.165	445.263
17.5	456.080	449.770	442.559	445.263	443.461
20.0	452.474	448.869	441.658	444.362	439.855
22.5	448.869	447.066	442.559	442.559	435.349
25.0	446.165	446.165	442.559	441.658	434.447
27.5	443.461	443.461	438.954	439.855	436.250
30.0	441.658	440.757	434.447	438.053	437.151
32.5	440.757	435.349	429.039	434.447	435.349
35.0	438.053	429.941	426.335	429.941	434.447
37.5	434.447	425.434	426.335	429.039	435.349
40.0	429.039	421.829	426.335	432.645	434.447
42.5	422.730	419.124	423.631	436.250	434.447
45.0	414.618	414.618	418.223	438.053	437.151
47.5	407.407	408.308	412.815	438.053	446.165
50.0	400.196	400.196	410.111	439.855	454.277
52.5	393.887	390.282	408.308	442.559	460.586
55.0	386.676	380.367	403.802	441.658	461.488
57.5	377.663	369.551	393.887	436.250	461.488
60.0	365.044	357.833	378.564	428.138	456.080
62.5	347.017	342.510	358.735	417.322	444.362
65.0	324.483	321.779	336.201	401.999	429.941
67.5	297.443	297.443	313.667	378.564	411.012
70.0	268.600	270.403	289.331	353.326	392.084
72.5	237.955	241.560	262.291	327.188	364.143
75.0	207.309	210.914	232.546	296.542	332.596
77.5	176.663	179.367	200.098	263.192	292.936
80.0	145.116	146.919	164.044	221.730	248.771
82.5	111.767	113.569	126.188	176.663	196.493
85.0	77.515	75.713	87.430	123.484	136.103
87.5	39.659	38.758	45.968	63.995	68.502
90.0	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	170.00	N.A.	8.20
0-30	374.55	N.A.	18.10
0-40	645.63	N.A.	31.30
0-60	1341.8	N.A.	65.00
0-80	1959.56	N.A.	95.00
0-90	2063.76	N.A.	100.00
10-90	2020.84	N.A.	97.90
20-40	475.64	N.A.	23.00
20-50	803.97	N.A.	39.00
40-70	1049.54	N.A.	50.90
60-80	617.76	N.A.	29.90
70-80	264.38	N.A.	12.80
80-90	104.21	N.A.	5.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2063.76	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	42.92
10-20	127.08
20-30	204.55
30-40	271.09
40-50	328.33
50-60	367.84
60-70	353.38
70-80	264.38
80-90	104.21
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	106	100	94	89	103	97	92	88	93	89	85	89	86	82	85	82	80	78
2	94	84	76	69	91	82	75	68	79	72	67	75	70	65	72	67	63	61
3	85	72	63	55	82	71	62	55	67	60	53	65	58	52	62	56	51	49
4	77	63	53	45	74	61	52	45	59	51	44	56	49	43	54	48	43	40
5	70	55	45	38	68	54	45	37	52	43	37	50	42	37	48	41	36	34
6	64	49	39	32	62	48	39	32	46	38	32	45	37	31	43	36	31	29
7	59	44	35	28	57	43	34	28	42	34	27	40	33	27	39	32	27	25
8	55	40	31	24	53	39	31	24	38	30	24	37	29	24	35	29	24	22
9	51	37	28	22	50	36	27	22	35	27	21	34	26	21	33	26	21	19
10	48	34	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	17

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UGR TABLE - CORRECTED

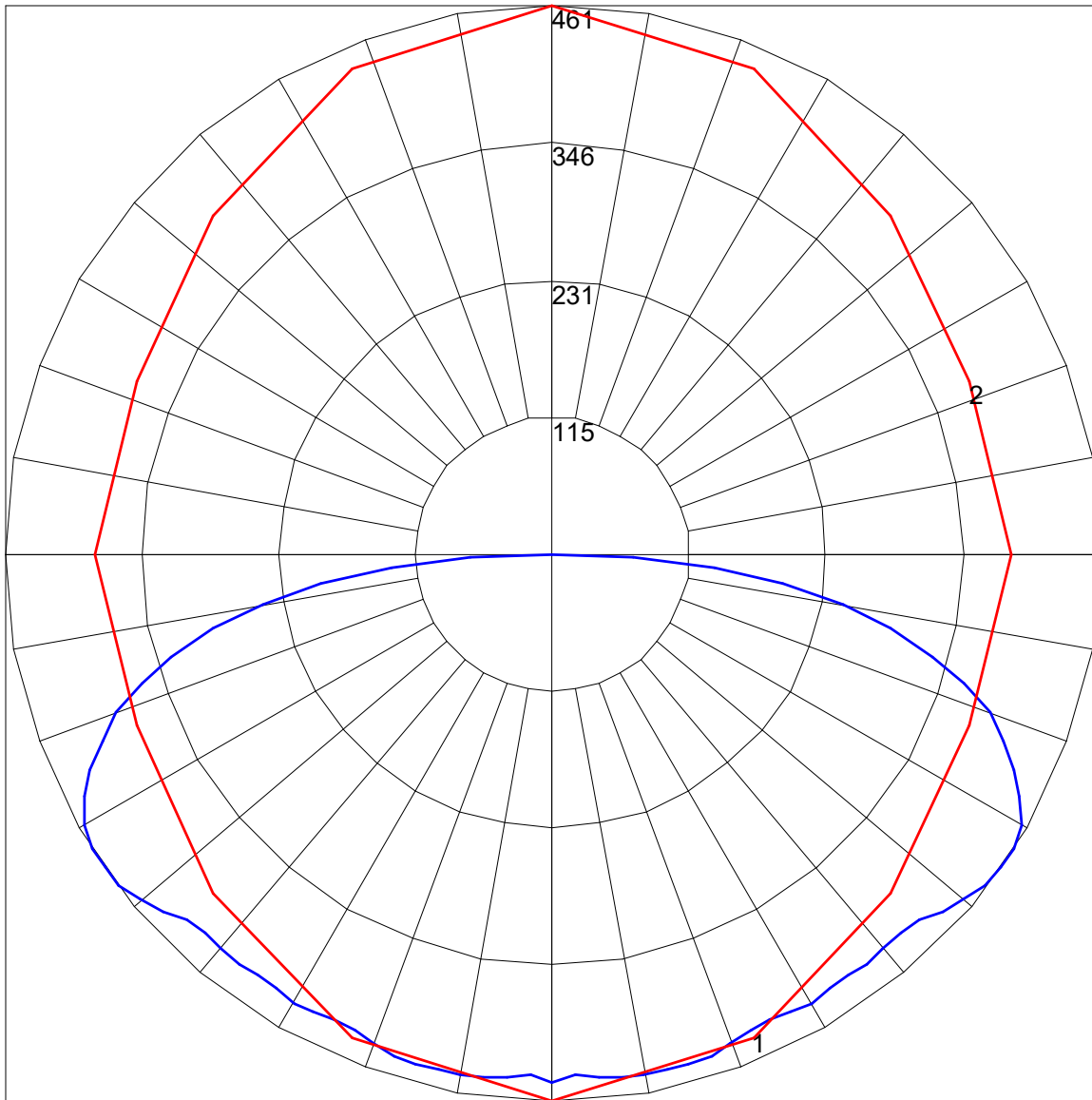
Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	14.4	16.2	14.8	16.5	16.8	15.6	17.4	16.0	17.7	18.1
	3H	16.9	18.6	17.3	18.9	19.3	18.6	20.3	19.0	20.6	21.0
	4H	17.9	19.5	18.3	19.9	20.2	20.0	21.6	20.4	21.9	22.3
	6H	18.8	20.3	19.2	20.7	21.0	21.2	22.7	21.6	23.1	23.5
	8H	19.2	20.6	19.6	21.0	21.4	21.7	23.2	22.1	23.5	23.9
	12H	19.4	20.8	19.9	21.2	21.6	22.1	23.5	22.6	23.9	24.3
4H	2H	15.4	16.9	15.7	17.3	17.7	16.3	17.9	16.7	18.2	18.6
	3H	18.1	19.4	18.5	19.8	20.2	19.5	20.9	19.9	21.3	21.7
	4H	19.2	20.5	19.7	20.9	21.3	21.1	22.3	21.5	22.7	23.2
	6H	20.2	21.3	20.7	21.8	22.2	22.5	23.6	22.9	24.0	24.5
	8H	20.6	21.7	21.1	22.1	22.6	23.1	24.1	23.5	24.6	25.0
	12H	21.0	21.9	21.5	22.4	22.9	23.6	24.5	24.1	25.0	25.5
8H	4H	19.9	20.9	20.3	21.3	21.8	21.4	22.5	21.9	22.9	23.4
	6H	21.0	21.9	21.5	22.4	22.9	23.0	23.9	23.5	24.4	24.9
	8H	21.5	22.3	22.0	22.8	23.3	23.8	24.6	24.3	25.1	25.5
	12H	22.0	22.7	22.5	23.2	23.7	24.4	25.1	24.9	25.6	26.2
12H	4H	20.0	21.0	20.5	21.4	21.9	21.5	22.4	22.0	22.9	23.4
	6H	21.3	22.1	21.8	22.5	23.0	23.1	23.9	23.7	24.4	24.9
	8H	21.8	22.5	22.3	23.0	23.6	23.9	24.6	24.4	25.1	25.7

Maximum UGR = 26.2

POLAR GRAPH



Maximum Candela = 461.488 Located At Horizontal Angle = 90, Vertical Angle = 55
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (55) (Through Max. Cd.)