



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : W448-LED-HO-NW.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] LED-4270  
[TESTLAB] LSI INDUSTRIES, INC.  
[TESTDATE] 07/17/13  
[ISSUEDATE] 05/02/23  
[MANUFAC] LSI INDUSTRIES, INC.  
[LUMCAT] W448-LED-HO-NW  
[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	10534
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	122
Total Luminaire Watts	86
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.33 ft
Luminous Height	0.00 ft



**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23839	24135	24557
55	19278	22569	24270
65	14485	21527	23645
75	10471	22624	24649
85	9624	40347	44234

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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	3401	3401	3401	3401	3401
2.5	3503	3434	3399	3359	3334
5.0	3496	3427	3399	3364	3338
7.5	3480	3413	3392	3357	3336
10.0	3454	3394	3378	3345	3320
12.5	3422	3369	3352	3322	3297
15.0	3383	3332	3320	3287	3262
17.5	3334	3287	3274	3239	3213
20.0	3276	3236	3218	3178	3151
22.5	3209	3171	3148	3104	3074
25.0	3130	3097	3067	3016	2984
27.5	3042	3011	2974	2919	2886
30.0	2942	2916	2870	2812	2782
32.5	2830	2807	2758	2703	2675
35.0	2707	2687	2636	2589	2566
37.5	2571	2557	2508	2475	2459
40.0	2422	2415	2378	2364	2357
42.5	2260	2264	2248	2253	2255
45.0	2090	2107	2116	2146	2153
47.5	1912	1944	1986	2037	2051
50.0	1731	1782	1856	1930	1946
52.5	1550	1622	1731	1819	1837
55.0	1371	1464	1605	1708	1726
57.5	1199	1311	1482	1592	1608
60.0	1039	1167	1362	1473	1487
62.5	889	1030	1244	1353	1364
65.0	759	902	1128	1232	1239
67.5	640	789	1016	1114	1118
70.0	527	689	909	998	998
72.5	427	592	810	886	889
75.0	336	506	726	791	791
77.5	258	427	643	705	701
80.0	213	360	566	622	617
82.5	153	299	499	545	543
85.0	104	253	436	480	478
87.5	60	223	378	422	418
90.0	23	181	329	374	369
92.5	12	162	304	346	343
95.0	12	155	288	327	327
97.5	12	148	274	313	313
100.0	12	144	264	304	302
102.5	12	139	253	295	292
105.0	12	135	248	285	288
107.5	9	128	246	276	278
110.0	9	125	237	269	271
112.5	12	121	237	260	264
115.0	9	116	230	253	258
117.5	9	111	220	244	248
120.0	9	107	209	244	241
122.5	9	102	202	244	241
125.0	9	97	193	234	232
127.5	12	93	181	223	234
130.0	12	88	172	213	223
132.5	12	84	162	202	211

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**CANDELA TABULATION - (Cont.)**

<b>135.0</b>	12	79	153	193	202
<b>137.5</b>	12	74	142	181	190
<b>140.0</b>	12	67	132	169	179
<b>142.5</b>	12	63	123	158	167
<b>145.0</b>	12	58	114	146	158
<b>147.5</b>	12	53	104	135	144
<b>150.0</b>	12	49	95	123	132
<b>152.5</b>	12	44	86	111	118
<b>155.0</b>	14	39	77	100	107
<b>157.5</b>	14	35	67	90	97
<b>160.0</b>	14	32	58	79	86
<b>162.5</b>	14	28	51	70	74
<b>165.0</b>	14	26	42	58	63
<b>167.5</b>	14	21	35	49	51
<b>170.0</b>	14	19	28	39	42
<b>172.5</b>	14	16	23	30	32
<b>175.0</b>	14	14	16	21	21
<b>177.5</b>	14	12	12	14	14
<b>180.0</b>	12	12	12	12	12

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1258.91	N.A.	12.00
0-30	2666.59	N.A.	25.30
0-40	4314.74	N.A.	41.00
0-60	7366.66	N.A.	69.90
0-80	9115.46	N.A.	86.50
0-90	9519.86	N.A.	90.40
10-90	9196.00	N.A.	87.30
20-40	3055.83	N.A.	29.00
20-50	4692.86	N.A.	44.50
40-70	4111.27	N.A.	39.00
60-80	1748.8	N.A.	16.60
70-80	689.45	N.A.	6.50
80-90	404.39	N.A.	3.80
90-110	475.59	N.A.	4.50
90-120	656.90	N.A.	6.20
90-130	801.51	N.A.	7.60
90-150	967.79	N.A.	9.20
90-180	1014.4	N.A.	9.60
110-180	538.81	N.A.	5.10
0-180	10534.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	323.86
10-20	935.06
20-30	1407.68
30-40	1648.14
40-50	1637.04
50-60	1414.89
60-70	1059.35
70-80	689.45
80-90	404.39
90-100	259.26
100-110	216.34
110-120	181.30
120-130	144.61
130-140	102.78
140-150	63.51
150-160	32.48
160-170	12.11
170-180	2.02

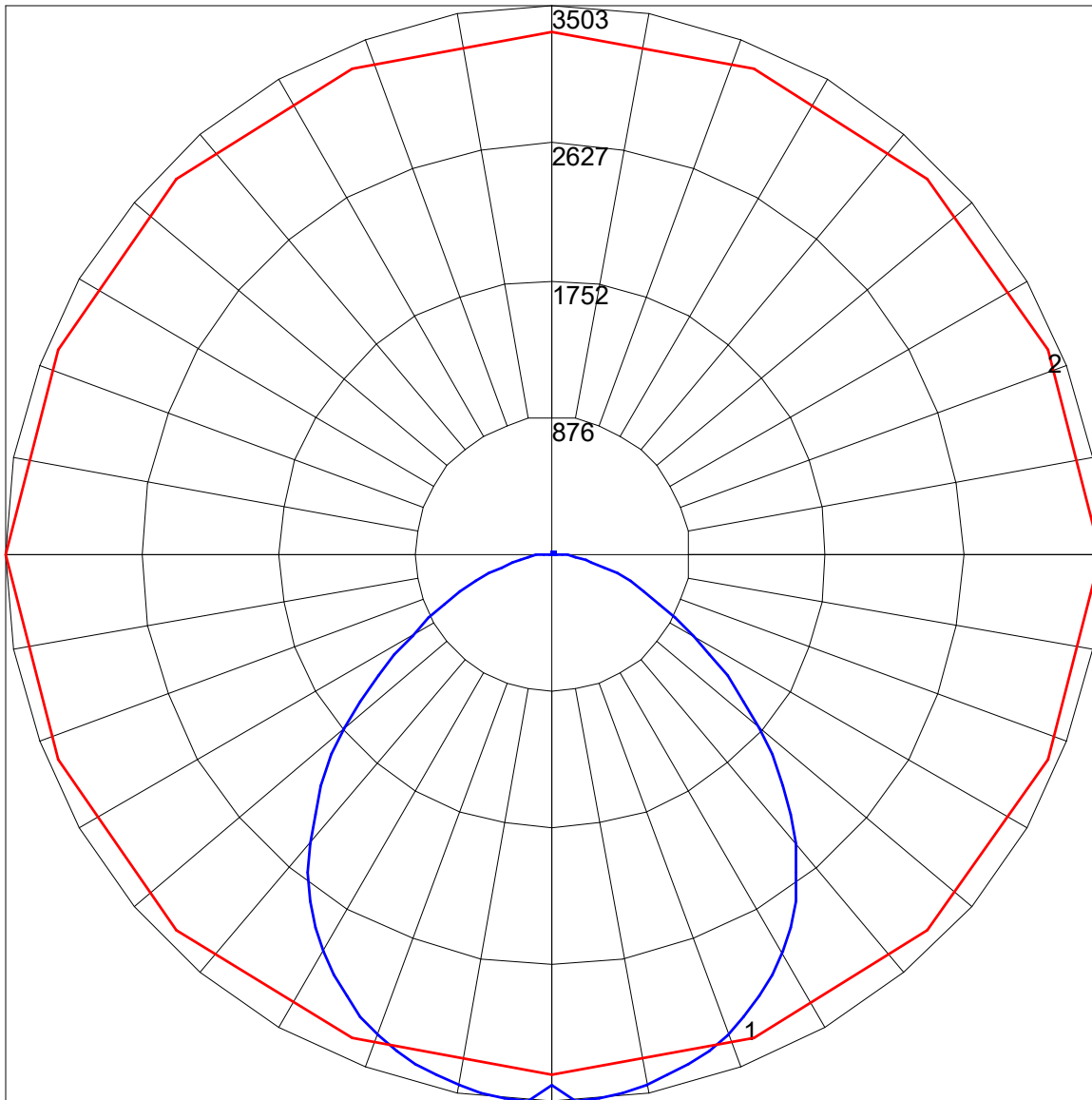
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	106	101	96	92	102	98	94	90	92	88	85	86	83	81	81	79	77	74
2	96	88	81	75	93	85	79	73	80	75	70	75	71	67	71	67	64	62
3	88	77	69	63	85	75	67	61	71	64	59	67	61	57	63	58	55	52
4	80	69	60	53	77	67	58	52	63	56	50	59	54	49	56	51	47	45
5	74	61	52	46	71	60	51	45	56	49	44	53	47	42	51	45	41	39
6	68	55	46	40	66	54	45	39	51	44	38	48	42	37	46	41	36	34
7	63	50	41	35	61	49	41	35	46	39	34	44	38	33	42	36	32	30
8	59	46	37	32	57	45	37	31	43	35	30	41	34	30	39	33	29	27
9	55	42	34	28	53	41	33	28	39	32	27	37	31	27	36	30	26	24
10	52	39	31	26	50	38	30	25	36	30	25	35	29	24	33	28	24	22

POLAR GRAPH



Maximum Candela = 3503 Located At Horizontal Angle = 0, Vertical Angle = 2.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)