IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-02-LED-30L-CPW-50-80CRI.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] 3829
[TESTLAB] TUV SUD America
[TESTDATE] 1/27/2020 2:14:46 PM
[ISSUEDATE] 04/05/2022
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] MHB-02-LED-30L-CPW-50-80CRI
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[_ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED
[OTHER] SCALED FROM ORIGINAL TEST DATA
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor
[_SEARCH_COLORTEMP] 5000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	29134
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	165
Total Luminaire Watts	177
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.28 ft
Luminous Width (90-270)	1.16 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	42506	39711	42345
55	39407	39457	38989
65	27997	33019	32375
75	22434	20894	20124
85	16515	13343	6765

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0.0	10599	10599	10599	10599	10599	10599	10599	10599	10599	10599
2.5	10526	10582	10611	10579	10663	10578	10614	10591	10543	10591
5.0	10488	10550	10577	10545	10634	10548	10582	10559	10518	10559
7.5	10431	10502	10522	10491	10580	10496	10534	10511	10472	10511
10.0	10352	10430	10453	10425	10505	10427	10463	10439	10406	10439
12.5	10242	10329	10361	10329	10418	10333	10375	10340	10311	10340
15.0	10093	10206	10251	10222	10307	10225	10260	10209	10177	10209
17.5	9912	10041	10117	10089	10177	10099	10121	10034	10001	10034
20.0	9686	9838	9956	9941	10024	9947	9953	9821	9785	9821
22.5	9403	9589	9752	9771	9849	9776	9743	9567	9534	9567
25.0	9202	9315	9513	9577	9647	9577	9494	9311	9262	9311
27.5	8918	9083	9300	9355	9430	9392	9265	9067	9037	9067
30.0	8614	8773	9027	9209	9260	9197	9005	8764	8751	8764
32.5	8372	8470	8700	8946	9029	8937	8672	8479	8488	8479
35.0	8144	8183	8343	8649	8748	8635	8326	8213	8265	8213
37.5	7977	7928	7976	8324	8441	8304	7969	7977	8103	7977
40.0	7823	7712	7610	7964	8105	7947	7613	7787	7973	7787
42.5	7634	7511	7248	7579	7745	7562	7276	7608	7812	7608
45.0	7392	7284	6906	7156	7364	7143	6953	7381	7590	7381
47.5	7099	7023	6583	6706	6947	6695	6651	7121	7336	7121
50.0	6713	6709	6262	6229	6479	6213	6344	6804	7008	6804
52.5	6177	6311	5921	5712	5993	5709	6011	6387	6564	6387
55.0	5559	5804	5566	5182	5500	5175	5649	5869	5983	5869
57.5	4915	5206	5141	4659	4992	4668	5221	5269	5322	5269
60.0	4244	4545	4635	4160	4479	4179	4703	4599	4644	4599
62.5	3528	3856	4051	3657	3924	3685	4103	3914	3961	3914
65.0	2910	3206	3432	3168	3365	3211	3449	3243	3322	3243
67.5	2411	2613	2804	2690	2808	2731	2834	2665	2760	2665
70.0	2083	2153	2206	2227	2272	2256	2255	2205	2305	2205
72.5	1788	1822	1709	1760	1752	1777	1752	1872	1996	1872
75.0	1428	1493	1330	1309	1281	1327	1370	1551	1663	1551
77.5	1032	1145	1037	918	861	930	1075	1196	1302	1196
80.0	738	792	752	606	528	618	783	838	933	838
82.5	567	567	480	379	292	392	511	593	683	593
85.0	354	379	286	203	145	218	306	409	522	409
87.5	118	150	107	76	60	84	128	185	290	185
90.0	0	0	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0

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CANDELA TABULATION - (Cont.)

135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	**Horizontal Angles**						
	225.0	**247.5**	**270.0**	**292.5**	**315.0**	**337.5**	**360.0**
0.0	10599	10599	10599	10599	10599	10599	10599
2.5	10614	10578	10663	10579	10611	10582	10526
5.0	10582	10548	10634	10545	10577	10550	10488
7.5	10534	10496	10580	10491	10522	10502	10431
10.0	10463	10427	10505	10425	10453	10430	10352
12.5	10375	10333	10418	10329	10361	10329	10242
15.0	10260	10225	10307	10222	10251	10206	10093
17.5	10121	10099	10177	10089	10117	10041	9912
20.0	9953	9947	10024	9941	9956	9838	9686
22.5	9743	9776	9849	9771	9752	9589	9403
25.0	9494	9577	9647	9577	9513	9315	9202
27.5	9265	9392	9430	9355	9300	9083	8918
30.0	9005	9197	9260	9209	9027	8773	8614
32.5	8672	8937	9029	8946	8700	8470	8372
35.0	8326	8635	8748	8649	8343	8183	8144
37.5	7969	8304	8441	8324	7976	7928	7977
40.0	7613	7947	8105	7964	7610	7712	7823
42.5	7276	7562	7745	7579	7248	7511	7634
45.0	6953	7143	7364	7156	6906	7284	7392
47.5	6651	6695	6947	6706	6583	7023	7099
50.0	6344	6213	6479	6229	6262	6709	6713
52.5	6011	5709	5993	5712	5921	6311	6177
55.0	5649	5175	5500	5182	5566	5804	5559
57.5	5221	4668	4992	4659	5141	5206	4915
60.0	4703	4179	4479	4160	4635	4545	4244
62.5	4103	3685	3924	3657	4051	3856	3528
65.0	3449	3211	3365	3168	3432	3206	2910
67.5	2834	2731	2808	2690	2804	2613	2411
70.0	2255	2256	2272	2227	2206	2153	2083
72.5	1752	1777	1752	1760	1709	1822	1788
75.0	1370	1327	1281	1309	1330	1493	1428
77.5	1075	930	861	918	1037	1145	1032
80.0	783	618	528	606	752	792	738

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CANDELA TABULATION - (Cont.)

82.5	511	392	292	379	480	567	567
85.0	306	218	145	203	286	379	354
87.5	128	84	60	76	107	150	118
90.0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0
97.5	0	0	0	0	0	0	0
100.0	0	0	0	0	0	0	0
102.5	0	0	0	0	0	0	0
105.0	0	0	0	0	0	0	0
107.5	0	0	0	0	0	0	0
110.0	0	0	0	0	0	0	0
112.5	0	0	0	0	0	0	0
115.0	0	0	0	0	0	0	0
117.5	0	0	0	0	0	0	0
120.0	0	0	0	0	0	0	0
122.5	0	0	0	0	0	0	0
125.0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3889.56	N.A.	13.40
0-30	8254.43	N.A.	28.30
0-40	13524.88	N.A.	46.40
0-60	24026.37	N.A.	82.50
0-80	28790.76	N.A.	98.80
0-90	29133.94	N.A.	100.00
10-90	28129.61	N.A.	96.60
20-40	9635.32	N.A.	33.10
20-50	15190.97	N.A.	52.10
40-70	13763.13	N.A.	47.20
60-80	4764.38	N.A.	16.40
70-80	1502.75	N.A.	5.20
80-90	343.19	N.A.	1.20
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	29133.94	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1004.34
10-20	2885.22
20-30	4364.87
30-40	5270.45
40-50	5555.65
50-60	4945.84
60-70	3261.63
70-80	1502.75
80-90	343.19
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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

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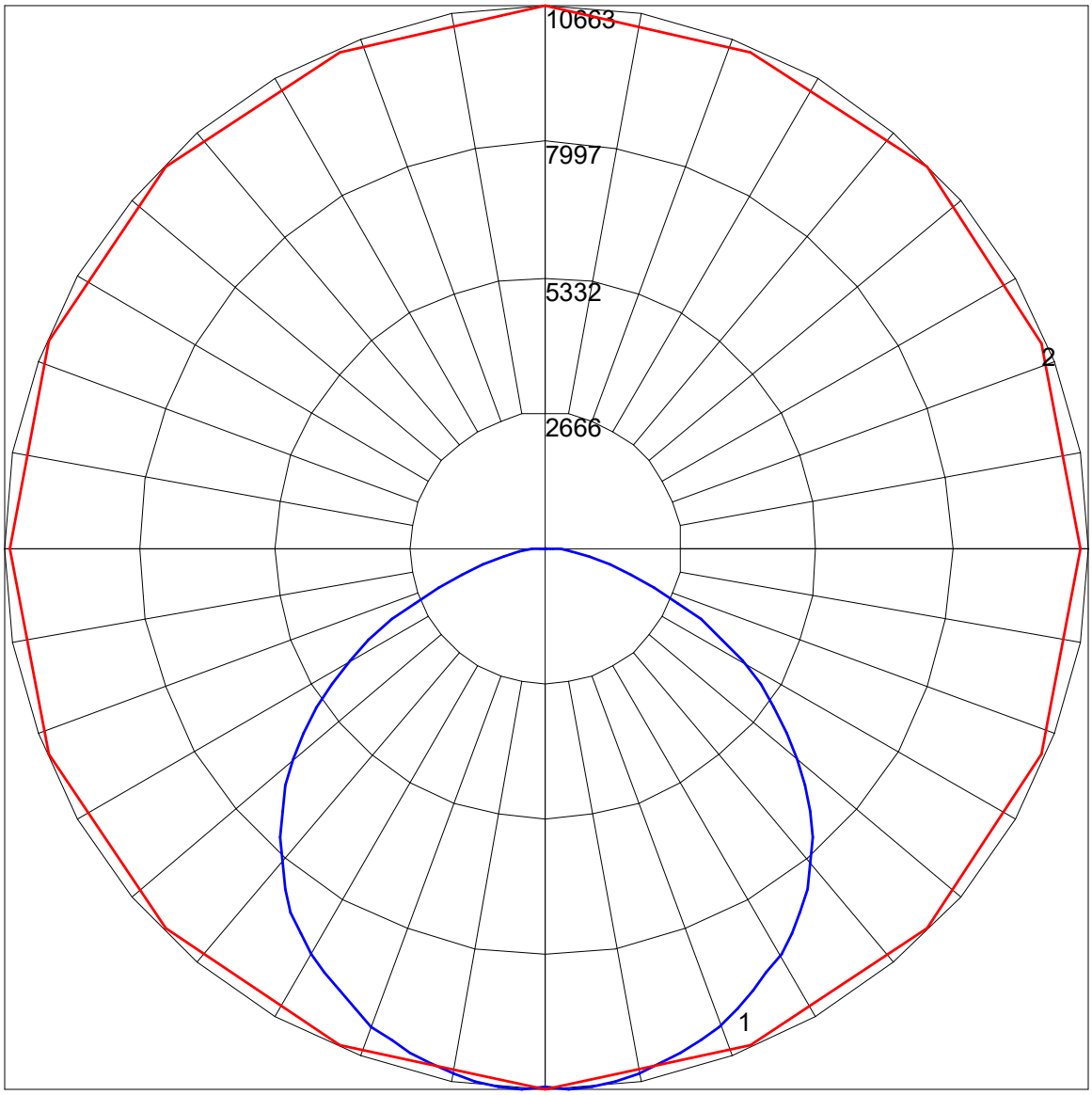
POLAR GRAPH



Maximum Candela = 10663 Located At Horizontal Angle = 90, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)

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