IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-01-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-01-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	30370
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	166
Total Luminaire Watts	183
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.14 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	88600	82769	88301
55	82160	82260	81281
65	58361	68848	67482
75	46753	43517	41977
85	34336	27712	13996

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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	11052	11052	11052	11052	11052	11052	11052	11052	11052	11052
2.5	10973	11029	11061	11027	11115	11027	11066	11039	10990	11039
5.0	10936	10997	11024	10992	11086	10995	11029	11008	10965	11008
7.5	10872	10948	10971	10939	11029	10944	10980	10958	10914	10958
10.0	10789	10872	10897	10868	10951	10870	10904	10882	10848	10882
12.5	10677	10767	10799	10767	10861	10772	10816	10779	10748	10779
15.0	10521	10640	10689	10654	10744	10659	10696	10642	10610	10642
17.5	10333	10468	10546	10517	10610	10527	10549	10461	10426	10461
20.0	10098	10257	10380	10362	10451	10369	10374	10238	10203	10238
22.5	9801	9997	10166	10188	10267	10194	10157	9975	9941	9975
25.0	9592	9711	9916	9982	10056	9982	9897	9707	9654	9707
27.5	9295	9470	9695	9752	9831	9789	9659	9453	9421	9453
30.0	8980	9146	9408	9600	9651	9590	9387	9136	9124	9136
32.5	8729	8833	9068	9325	9411	9315	9040	8840	8849	8840
35.0	8488	8531	8697	9016	9120	9001	8678	8560	8617	8560
37.5	8315	8265	8315	8678	8798	8656	8308	8315	8445	8315
40.0	8155	8040	7932	8302	8447	8283	7934	8118	8310	8118
42.5	7957	7830	7555	7901	8072	7883	7584	7930	8143	7930
45.0	7704	7591	7197	7459	7678	7444	7248	7695	7913	7695
47.5	7400	7322	6864	6993	7244	6981	6932	7425	7648	7425
50.0	7000	6996	6527	6496	6756	6476	6616	7092	7304	7092
52.5	6439	6579	6172	5954	6248	5951	6267	6657	6841	6657
55.0	5795	6050	5802	5402	5733	5395	5890	6117	6238	6117
57.5	5122	5427	5358	4855	5204	4865	5443	5492	5547	5492
60.0	4424	4737	4833	4337	4668	4355	4905	4794	4840	4794
62.5	3678	4022	4222	3813	4090	3840	4279	4080	4127	4080
65.0	3033	3339	3578	3303	3507	3347	3595	3379	3463	3379
67.5	2511	2725	2923	2805	2928	2847	2955	2776	2876	2776
70.0	2173	2244	2300	2322	2369	2352	2352	2297	2403	2297
72.5	1863	1898	1780	1835	1826	1851	1826	1952	2082	1952
75.0	1488	1557	1385	1363	1336	1383	1430	1616	1734	1616
77.5	1076	1194	1081	956	897	971	1120	1248	1359	1248
80.0	768	826	782	633	549	644	816	873	973	873
82.5	591	591	501	395	304	407	532	618	713	618
85.0	368	395	297	214	150	228	322	424	542	424
87.5	122	157	110	81	64	88	135	193	301	193
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	11052	11052	11052	11052	11052	11052	11052
2.5	11066	11027	11115	11027	11061	11029	10973
5.0	11029	10995	11086	10992	11024	10997	10936
7.5	10980	10944	11029	10939	10971	10948	10872
10.0	10904	10870	10951	10868	10897	10872	10789
12.5	10816	10772	10861	10767	10799	10767	10677
15.0	10696	10659	10744	10654	10689	10640	10521
17.5	10549	10527	10610	10517	10546	10468	10333
20.0	10374	10369	10451	10362	10380	10257	10098
22.5	10157	10194	10267	10188	10166	9997	9801
25.0	9897	9982	10056	9982	9916	9711	9592
27.5	9659	9789	9831	9752	9695	9470	9295
30.0	9387	9590	9651	9600	9408	9146	8980
32.5	9040	9315	9411	9325	9068	8833	8729
35.0	8678	9001	9120	9016	8697	8531	8488
37.5	8308	8656	8798	8678	8315	8265	8315
40.0	7934	8283	8447	8302	7932	8040	8155
42.5	7584	7883	8072	7901	7555	7830	7957
45.0	7248	7444	7678	7459	7197	7591	7704
47.5	6932	6981	7244	6993	6864	7322	7400
50.0	6616	6476	6756	6496	6527	6996	7000
52.5	6267	5951	6248	5954	6172	6579	6439
55.0	5890	5395	5733	5402	5802	6050	5795
57.5	5443	4865	5204	4855	5358	5427	5122
60.0	4905	4355	4668	4337	4833	4737	4424
62.5	4279	3840	4090	3813	4222	4022	3678
65.0	3595	3347	3507	3303	3578	3339	3033
67.5	2955	2847	2928	2805	2923	2725	2511
70.0	2352	2352	2369	2322	2300	2244	2173
72.5	1826	1851	1826	1835	1780	1898	1863
75.0	1430	1383	1336	1363	1385	1557	1488
77.5	1120	971	897	956	1081	1194	1076
80.0	816	644	549	633	782	826	768

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82.5	532	407	304	395	501	591	591
85.0	322	228	150	214	297	395	368
87.5	135	88	64	81	110	157	122
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	4054.68	N.A.	13.40
0-30	8604.94	N.A.	28.30
0-40	14098.98	N.A.	46.40
0-60	25046.14	N.A.	82.50
0-80	30012.49	N.A.	98.80
0-90	30370.24	N.A.	100.00
10-90	29323.26	N.A.	96.60
20-40	10044.3	N.A.	33.10
20-50	15835.79	N.A.	52.10
40-70	14347.11	N.A.	47.20
60-80	4966.35	N.A.	16.40
70-80	1566.41	N.A.	5.20
80-90	357.74	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	30370.24	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1046.97
10-20	3007.71
20-30	4550.26
30-40	5494.03
40-50	5791.49
50-60	5155.67
60-70	3399.94
70-80	1566.41
80-90	357.74
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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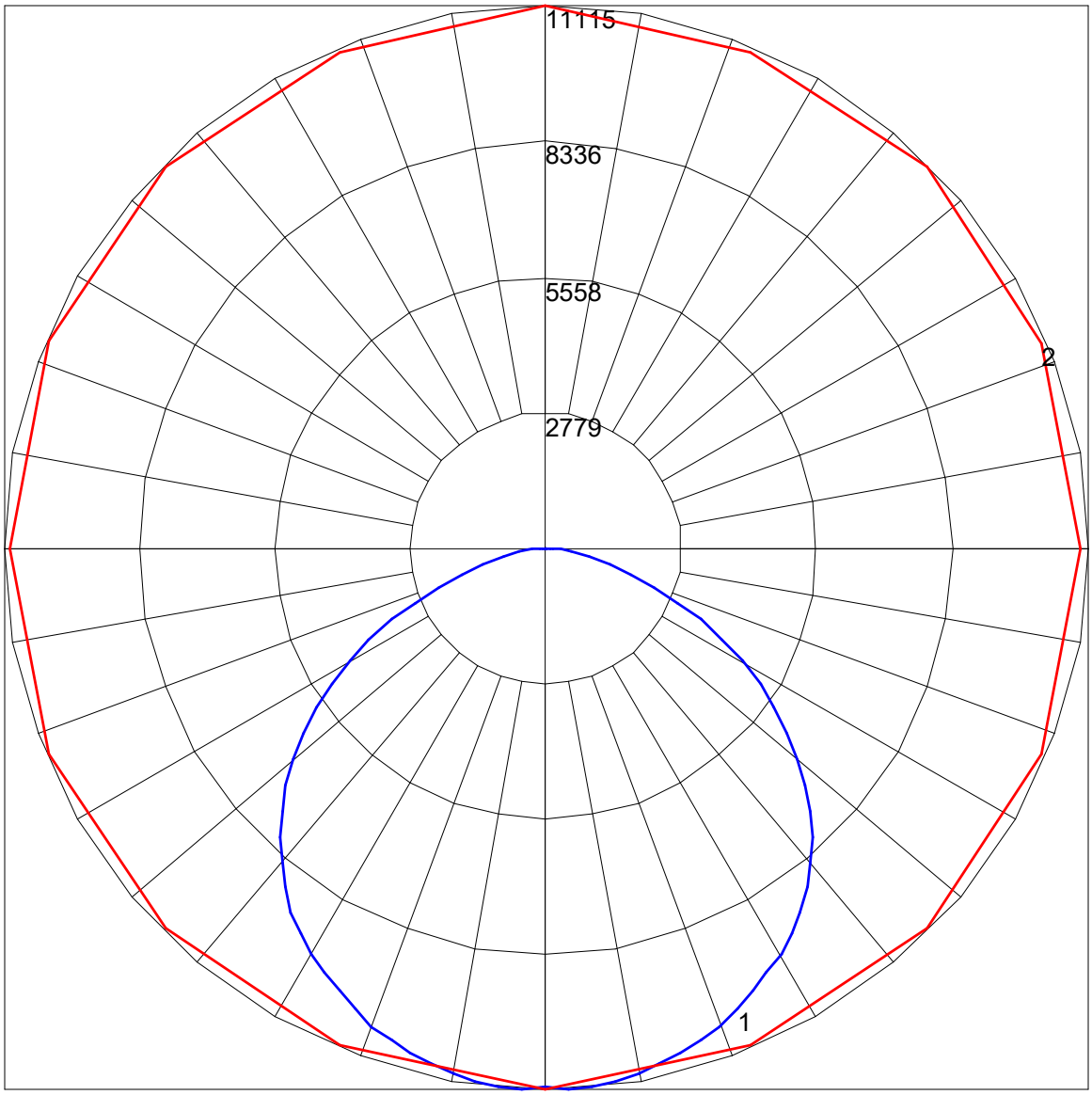
POLAR GRAPH



Maximum Candela = 11115 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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