IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-03-LED-90L-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-03-LED-90L-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	91927
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	165
Total Luminaire Watts	557
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)	3.42 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	89408	83528	89075
55	82888	82997	82019
65	58881	69458	68104
75	47182	43967	42323
85	34647	28054	14245

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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	33445	33445	33445	33445	33445	33445	33445	33445	33445	33445
2.5	33214	33390	33480	33380	33646	33376	33490	33419	33264	33419
5.0	33096	33287	33374	33272	33552	33280	33390	33319	33187	33319
7.5	32913	33137	33201	33104	33384	33117	33236	33166	33040	33166
10.0	32662	32909	32984	32893	33146	32899	33011	32938	32836	32938
12.5	32316	32592	32691	32592	32874	32605	32736	32627	32532	32627
15.0	31847	32201	32345	32254	32522	32262	32374	32212	32112	32212
17.5	31273	31683	31923	31833	32112	31866	31937	31660	31559	31660
20.0	30562	31042	31414	31366	31630	31385	31404	30988	30876	30988
22.5	29670	30255	30773	30831	31078	30847	30742	30188	30082	30188
25.0	29035	29390	30018	30217	30437	30217	29957	29377	29224	29377
27.5	28139	28660	29345	29518	29753	29634	29233	28609	28517	28609
30.0	27178	27680	28481	29058	29217	29022	28413	27652	27612	27652
32.5	26415	26727	27450	28224	28487	28200	27363	26755	26784	26755
35.0	25696	25820	26326	27290	27604	27248	26272	25913	26080	25913
37.5	25169	25016	25167	26266	26633	26202	25145	25169	25568	25169
40.0	24684	24336	24011	25128	25574	25074	24020	24572	25157	24572
42.5	24088	23701	22868	23913	24437	23860	22958	24005	24649	24005
45.0	23323	22984	21789	22579	23236	22538	21939	23291	23950	23291
47.5	22396	22160	20770	21162	21920	21123	20986	22471	23147	22471
50.0	21184	21171	19759	19656	20445	19603	20018	21469	22112	21469
52.5	19490	19916	18684	18024	18910	18014	18969	20152	20713	20152
55.0	17539	18311	17562	16353	17355	16326	17822	18517	18879	18517
57.5	15507	16426	16220	14700	15750	14729	16474	16627	16791	16627
60.0	13391	14342	14626	13128	14133	13186	14841	14511	14655	14511
62.5	11132	12167	12782	11539	12382	11626	12945	12350	12498	12350
65.0	9180	10115	10829	9993	10618	10132	10884	10230	10480	10230
67.5	7607	8246	8847	8489	8860	8617	8941	8408	8707	8408
70.0	6574	6794	6958	7028	7170	7117	7115	6954	7276	6954
72.5	5641	5751	5392	5552	5529	5606	5529	5904	6298	5904
75.0	4505	4714	4198	4131	4041	4188	4322	4893	5247	4893
77.5	3256	3613	3273	2895	2718	2936	3391	3775	4108	3775
80.0	2327	2501	2372	1915	1668	1950	2472	2641	2945	2641
82.5	1789	1789	1514	1197	923	1236	1611	1870	2159	1870
85.0	1114	1197	902	644	458	689	967	1290	1647	1290
87.5	372	473	336	240	189	266	407	583	917	583
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	33445	33445	33445	33445	33445	33445	33445
2.5	33490	33376	33646	33380	33480	33390	33214
5.0	33390	33280	33552	33272	33374	33287	33096
7.5	33236	33117	33384	33104	33201	33137	32913
10.0	33011	32899	33146	32893	32984	32909	32662
12.5	32736	32605	32874	32592	32691	32592	32316
15.0	32374	32262	32522	32254	32345	32201	31847
17.5	31937	31866	32112	31833	31923	31683	31273
20.0	31404	31385	31630	31366	31414	31042	30562
22.5	30742	30847	31078	30831	30773	30255	29670
25.0	29957	30217	30437	30217	30018	29390	29035
27.5	29233	29634	29753	29518	29345	28660	28139
30.0	28413	29022	29217	29058	28481	27680	27178
32.5	27363	28200	28487	28224	27450	26727	26415
35.0	26272	27248	27604	27290	26326	25820	25696
37.5	25145	26202	26633	26266	25167	25016	25169
40.0	24020	25074	25574	25128	24011	24336	24684
42.5	22958	23860	24437	23913	22868	23701	24088
45.0	21939	22538	23236	22579	21789	22984	23323
47.5	20986	21123	21920	21162	20770	22160	22396
50.0	20018	19603	20445	19656	19759	21171	21184
52.5	18969	18014	18910	18024	18684	19916	19490
55.0	17822	16326	17355	16353	17562	18311	17539
57.5	16474	14729	15750	14700	16220	16426	15507
60.0	14841	13186	14133	13128	14626	14342	13391
62.5	12945	11626	12382	11539	12782	12167	11132
65.0	10884	10132	10618	9993	10829	10115	9180
67.5	8941	8617	8860	8489	8847	8246	7607
70.0	7115	7117	7170	7028	6958	6794	6574
72.5	5529	5606	5529	5552	5392	5751	5641
75.0	4322	4188	4041	4131	4198	4714	4505
77.5	3391	2936	2718	2895	3273	3613	3256
80.0	2472	1950	1668	1915	2372	2501	2327

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CANDELA TABULATION - (Cont.)

82.5	1611	1236	923	1197	1514	1789	1789
85.0	967	689	458	644	902	1197	1114
87.5	407	266	189	240	336	473	372
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	12272.75	N.A.	13.40
0-30	26045.16	N.A.	28.30
0-40	42675.06	N.A.	46.40
0-60	75810.66	N.A.	82.50
0-80	90843.65	N.A.	98.80
0-90	91926.87	N.A.	100.00
10-90	88757.89	N.A.	96.60
20-40	30402.32	N.A.	33.10
20-50	47932.13	N.A.	52.10
40-70	43426.8	N.A.	47.20
60-80	15033.00	N.A.	16.40
70-80	4741.78	N.A.	5.20
80-90	1083.21	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	91926.87	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	3168.97
10-20	9103.78
20-30	13772.41
30-40	16629.9
40-50	17529.82
50-60	15605.78
60-70	10291.22
70-80	4741.78
80-90	1083.21
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	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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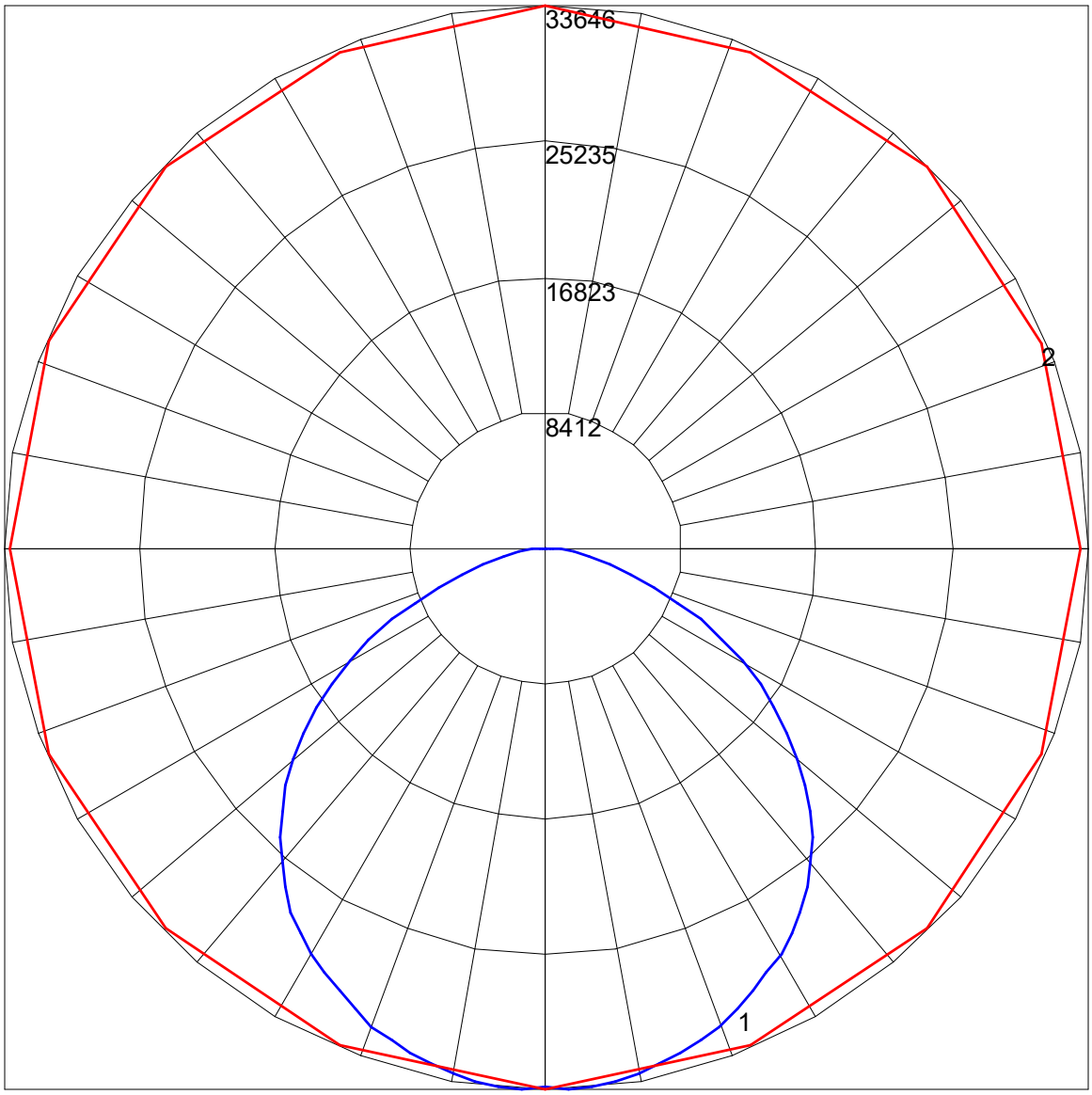
POLAR GRAPH



Maximum Candela = 33646 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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