IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-02-LED-36L-CPW-40-80CRI.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-36L-CPW-40-80CRI
[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] 4000

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	37194
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	152
Total Luminaire Watts	244
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	54265	50694	54058
55	50310	50374	49771
65	35742	42150	41332
75	28639	26675	25686
85	21040	17028	8631

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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	13532	13532	13532	13532	13532	13532	13532	13532	13532	13532
2.5	13438	13509	13546	13505	13613	13504	13550	13521	13459	13521
5.0	13390	13469	13503	13462	13576	13466	13509	13480	13428	13480
7.5	13316	13407	13433	13394	13507	13399	13448	13419	13369	13419
10.0	13215	13315	13345	13309	13411	13311	13357	13327	13285	13327
12.5	13075	13187	13227	13187	13301	13192	13246	13201	13163	13201
15.0	12885	13029	13087	13050	13159	13054	13099	13033	12992	13033
17.5	12654	12819	12916	12880	12992	12893	12922	12810	12768	12810
20.0	12365	12559	12710	12691	12797	12698	12706	12538	12492	12538
22.5	12004	12242	12450	12474	12574	12481	12439	12214	12171	12214
25.0	11747	11892	12145	12226	12315	12226	12121	11886	11825	11886
27.5	11385	11596	11873	11943	12038	11990	11829	11575	11537	11575
30.0	10997	11200	11524	11756	11822	11742	11497	11188	11173	11188
32.5	10688	10813	11107	11420	11527	11410	11071	10825	10837	10825
35.0	10397	10447	10652	11041	11169	11024	10629	10485	10552	10485
37.5	10184	10122	10183	10627	10776	10602	10174	10184	10345	10184
40.0	9988	9846	9715	10167	10347	10145	9719	9942	10179	9942
42.5	9746	9589	9253	9675	9888	9654	9288	9712	9973	9712
45.0	9437	9299	8816	9136	9401	9119	8876	9423	9690	9423
47.5	9063	8966	8404	8561	8868	8547	8491	9092	9366	9092
50.0	8571	8565	7995	7953	8271	7932	8100	8686	8947	8686
52.5	7886	8058	7559	7293	7651	7289	7674	8153	8380	8153
55.0	7097	7409	7106	6616	7021	6606	7211	7492	7638	7492
57.5	6274	6646	6563	5948	6373	5960	6665	6727	6794	6727
60.0	5418	5802	5918	5311	5718	5335	6004	5872	5929	5872
62.5	4504	4923	5172	4668	5010	4704	5238	4996	5057	4996
65.0	3715	4092	4381	4044	4296	4099	4403	4140	4241	4140
67.5	3078	3335	3579	3434	3585	3486	3617	3402	3523	3402
70.0	2660	2749	2816	2843	2901	2880	2879	2814	2943	2814
72.5	2283	2326	2182	2246	2237	2269	2237	2389	2548	2389
75.0	1823	1906	1698	1672	1635	1694	1749	1980	2123	1980
77.5	1317	1462	1324	1172	1100	1187	1372	1527	1662	1527
80.0	942	1012	960	774	674	789	1000	1069	1191	1069
82.5	724	724	613	484	373	500	652	757	873	757
85.0	451	484	365	260	185	278	391	522	667	522
87.5	151	192	136	97	76	108	164	236	370	236
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	13532	13532	13532	13532	13532	13532	13532
2.5	13550	13504	13613	13505	13546	13509	13438
5.0	13509	13466	13576	13462	13503	13469	13390
7.5	13448	13399	13507	13394	13433	13407	13316
10.0	13357	13311	13411	13309	13345	13315	13215
12.5	13246	13192	13301	13187	13227	13187	13075
15.0	13099	13054	13159	13050	13087	13029	12885
17.5	12922	12893	12992	12880	12916	12819	12654
20.0	12706	12698	12797	12691	12710	12559	12365
22.5	12439	12481	12574	12474	12450	12242	12004
25.0	12121	12226	12315	12226	12145	11892	11747
27.5	11829	11990	12038	11943	11873	11596	11385
30.0	11497	11742	11822	11756	11524	11200	10997
32.5	11071	11410	11527	11420	11107	10813	10688
35.0	10629	11024	11169	11041	10652	10447	10397
37.5	10174	10602	10776	10627	10183	10122	10184
40.0	9719	10145	10347	10167	9715	9846	9988
42.5	9288	9654	9888	9675	9253	9589	9746
45.0	8876	9119	9401	9136	8816	9299	9437
47.5	8491	8547	8868	8561	8404	8966	9063
50.0	8100	7932	8271	7953	7995	8565	8571
52.5	7674	7289	7651	7293	7559	8058	7886
55.0	7211	6606	7021	6616	7106	7409	7097
57.5	6665	5960	6373	5948	6563	6646	6274
60.0	6004	5335	5718	5311	5918	5802	5418
62.5	5238	4704	5010	4668	5172	4923	4504
65.0	4403	4099	4296	4044	4381	4092	3715
67.5	3617	3486	3585	3434	3579	3335	3078
70.0	2879	2880	2901	2843	2816	2749	2660
72.5	2237	2269	2237	2246	2182	2326	2283
75.0	1749	1694	1635	1672	1698	1906	1823
77.5	1372	1187	1100	1172	1324	1462	1317
80.0	1000	789	674	774	960	1012	942

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82.5	652	500	373	484	613	724	724
85.0	391	278	185	260	365	484	451
87.5	164	108	76	97	136	192	151
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	4965.6	N.A.	13.40
0-30	10537.98	N.A.	28.30
0-40	17266.58	N.A.	46.40
0-60	30673.26	N.A.	82.50
0-80	36755.51	N.A.	98.80
0-90	37193.7	N.A.	100.00
10-90	35911.52	N.A.	96.60
20-40	12300.99	N.A.	33.10
20-50	19393.56	N.A.	52.10
40-70	17570.43	N.A.	47.20
60-80	6082.25	N.A.	16.40
70-80	1918.49	N.A.	5.20
80-90	438.19	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	37193.7	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1282.17
10-20	3683.43
20-30	5572.38
30-40	6728.61
40-50	7092.57
50-60	6314.11
60-70	4163.75
70-80	1918.49
80-90	438.19
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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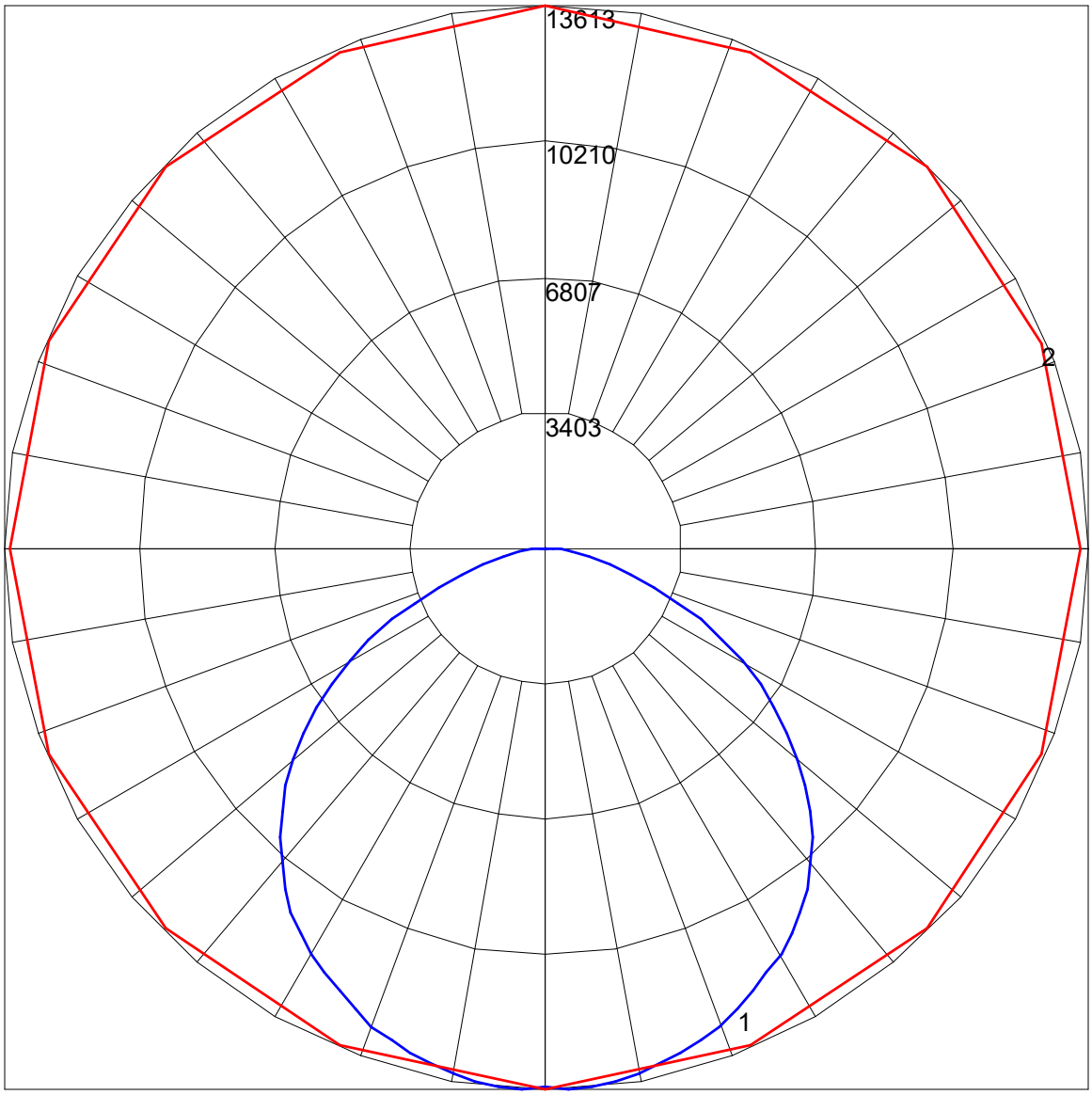
POLAR GRAPH



Maximum Candela = 13613 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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