IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-02-LED-36L-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-36L-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	38044
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	156
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	55507	51850	55294
55	51458	51522	50905
65	36560	43112	42275
75	29299	27288	26267
85	21507	17401	8817

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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	13841	13841	13841	13841	13841	13841	13841	13841	13841	13841
2.5	13745	13818	13856	13814	13924	13813	13860	13830	13767	13830
5.0	13696	13777	13812	13770	13886	13774	13818	13788	13735	13788
7.5	13620	13713	13740	13700	13816	13705	13755	13726	13675	13726
10.0	13517	13619	13650	13613	13717	13615	13662	13632	13589	13632
12.5	13374	13488	13529	13488	13605	13493	13549	13503	13464	13503
15.0	13179	13327	13386	13348	13460	13352	13398	13331	13289	13331
17.5	12943	13112	13211	13174	13289	13188	13217	13103	13060	13103
20.0	12648	12846	13000	12981	13089	12988	12996	12825	12777	12825
22.5	12278	12522	12735	12759	12861	12766	12723	12493	12449	12493
25.0	12015	12164	12423	12505	12596	12505	12398	12158	12095	12158
27.5	11645	11861	12144	12216	12313	12264	12099	11840	11801	11840
30.0	11248	11456	11787	12025	12092	12010	11760	11444	11428	11444
32.5	10932	11060	11361	11681	11790	11671	11324	11072	11085	11072
35.0	10635	10686	10895	11293	11424	11276	10872	10725	10793	10725
37.5	10417	10353	10416	10870	11022	10844	10407	10417	10581	10417
40.0	10216	10071	9937	10399	10583	10377	9941	10169	10412	10169
42.5	9969	9808	9464	9896	10114	9875	9500	9934	10201	9934
45.0	9653	9512	9017	9345	9616	9327	9079	9638	9911	9638
47.5	9270	9171	8596	8757	9071	8742	8685	9300	9580	9300
50.0	8767	8761	8178	8135	8460	8113	8285	8885	9151	8885
52.5	8066	8242	7732	7460	7826	7456	7849	8339	8572	8339
55.0	7259	7578	7268	6767	7181	6757	7376	7663	7813	7663
57.5	6417	6798	6713	6084	6519	6096	6817	6881	6949	6881
60.0	5542	5935	6053	5432	5849	5457	6141	6006	6064	6006
62.5	4607	5036	5290	4775	5124	4812	5358	5110	5173	5110
65.0	3800	4186	4481	4136	4394	4193	4504	4235	4338	4235
67.5	3148	3411	3661	3512	3667	3566	3700	3480	3604	3480
70.0	2721	2812	2880	2908	2967	2946	2945	2878	3010	2878
72.5	2335	2379	2232	2297	2288	2321	2288	2444	2606	2444
75.0	1865	1950	1737	1710	1672	1733	1789	2025	2172	2025
77.5	1347	1495	1354	1199	1125	1214	1403	1562	1700	1562
80.0	964	1035	982	792	689	807	1023	1093	1218	1093
82.5	741	741	627	495	382	511	667	774	893	774
85.0	461	495	373	266	189	284	400	534	682	534
87.5	154	196	139	99	78	110	168	241	378	241
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	13841	13841	13841	13841	13841	13841	13841
2.5	13860	13813	13924	13814	13856	13818	13745
5.0	13818	13774	13886	13770	13812	13777	13696
7.5	13755	13705	13816	13700	13740	13713	13620
10.0	13662	13615	13717	13613	13650	13619	13517
12.5	13549	13493	13605	13488	13529	13488	13374
15.0	13398	13352	13460	13348	13386	13327	13179
17.5	13217	13188	13289	13174	13211	13112	12943
20.0	12996	12988	13089	12981	13000	12846	12648
22.5	12723	12766	12861	12759	12735	12522	12278
25.0	12398	12505	12596	12505	12423	12164	12015
27.5	12099	12264	12313	12216	12144	11861	11645
30.0	11760	12010	12092	12025	11787	11456	11248
32.5	11324	11671	11790	11681	11361	11060	10932
35.0	10872	11276	11424	11293	10895	10686	10635
37.5	10407	10844	11022	10870	10416	10353	10417
40.0	9941	10377	10583	10399	9937	10071	10216
42.5	9500	9875	10114	9896	9464	9808	9969
45.0	9079	9327	9616	9345	9017	9512	9653
47.5	8685	8742	9071	8757	8596	9171	9270
50.0	8285	8113	8460	8135	8178	8761	8767
52.5	7849	7456	7826	7460	7732	8242	8066
55.0	7376	6757	7181	6767	7268	7578	7259
57.5	6817	6096	6519	6084	6713	6798	6417
60.0	6141	5457	5849	5432	6053	5935	5542
62.5	5358	4812	5124	4775	5290	5036	4607
65.0	4504	4193	4394	4136	4481	4186	3800
67.5	3700	3566	3667	3512	3661	3411	3148
70.0	2945	2946	2967	2908	2880	2812	2721
72.5	2288	2321	2288	2297	2232	2379	2335
75.0	1789	1733	1672	1710	1737	1950	1865
77.5	1403	1214	1125	1199	1354	1495	1347
80.0	1023	807	689	792	982	1035	964

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82.5	667	511	382	495	627	741	741
85.0	400	284	189	266	373	495	461
87.5	168	110	78	99	139	196	154
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	5079.06	N.A.	13.40
0-30	10778.76	N.A.	28.30
0-40	17661.12	N.A.	46.40
0-60	31374.16	N.A.	82.50
0-80	37595.44	N.A.	98.80
0-90	38043.56	N.A.	100.00
10-90	36732.09	N.A.	96.60
20-40	12582.06	N.A.	33.10
20-50	19836.71	N.A.	52.10
40-70	17972.02	N.A.	47.20
60-80	6221.27	N.A.	16.40
70-80	1962.3	N.A.	5.20
80-90	448.13	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	38043.56	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1311.48
10-20	3767.59
20-30	5699.7
30-40	6882.36
40-50	7254.66
50-60	6458.39
60-70	4258.97
70-80	1962.3
80-90	448.13
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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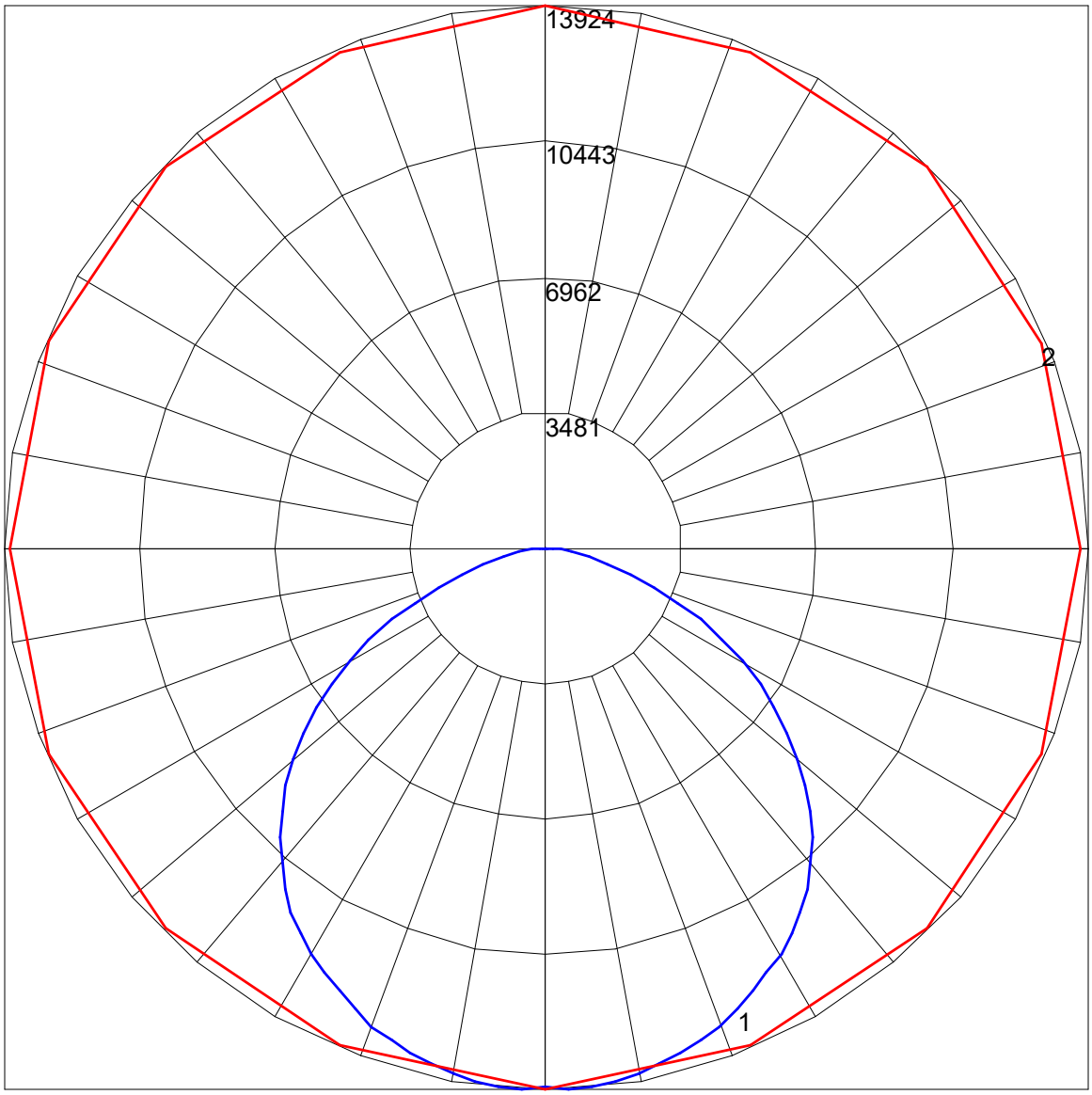
POLAR GRAPH



Maximum Candela = 13924 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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