IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-03-LED-72L-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-03-LED-72L-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	73035
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	496
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	71035	66362	70770
55	65856	65941	65161
65	46778	55180	54109
75	37484	34928	33619
85	27525	22300	11321

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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	26571	26571	26571	26571	26571	26571	26571	26571	26571	26571
2.5	26388	26528	26599	26520	26731	26517	26607	26551	26428	26551
5.0	26294	26446	26515	26434	26657	26441	26528	26472	26367	26472
7.5	26149	26327	26378	26301	26523	26311	26406	26350	26250	26350
10.0	25950	26146	26205	26133	26334	26138	26227	26169	26088	26169
12.5	25675	25894	25973	25894	26118	25904	26009	25922	25846	25922
15.0	25302	25584	25698	25625	25838	25632	25721	25592	25513	25592
17.5	24846	25172	25363	25291	25513	25317	25373	25154	25073	25154
20.0	24281	24663	24958	24920	25129	24935	24950	24620	24531	24620
22.5	23572	24037	24449	24495	24691	24508	24424	23984	23900	23984
25.0	23068	23350	23849	24007	24182	24007	23801	23340	23218	23340
27.5	22356	22770	23315	23452	23638	23544	23226	22730	22656	22730
30.0	21593	21992	22628	23086	23213	23058	22574	21969	21938	21969
32.5	20987	21234	21809	22424	22633	22404	21740	21257	21280	21257
35.0	20415	20514	20916	21682	21931	21648	20873	20588	20720	20588
37.5	19997	19875	19995	20868	21160	20817	19977	19997	20313	19997
40.0	19611	19334	19077	19964	20318	19921	19084	19522	19987	19522
42.5	19138	18830	18168	18998	19415	18957	18240	19072	19583	19072
45.0	18530	18260	17311	17939	18461	17906	17431	18504	19028	18504
47.5	17794	17606	16502	16813	17415	16782	16673	17853	18390	17853
50.0	16830	16820	15698	15617	16243	15574	15904	17057	17568	17057
52.5	15485	15823	14844	14320	15024	14312	15070	16011	16456	16011
55.0	13935	14548	13953	12992	13788	12971	14159	14711	14999	14711
57.5	12320	13050	12887	11679	12513	11702	13088	13210	13340	13210
60.0	10639	11394	11620	10430	11229	10476	11791	11529	11643	11529
62.5	8845	9667	10155	9168	9837	9237	10285	9812	9929	9812
65.0	7293	8036	8603	7939	8436	8049	8647	8128	8326	8128
67.5	6044	6551	7029	6744	7039	6846	7103	6680	6917	6680
70.0	5223	5398	5528	5584	5696	5655	5653	5525	5780	5525
72.5	4482	4569	4284	4411	4393	4454	4393	4691	5004	4691
75.0	3579	3745	3335	3282	3210	3327	3434	3887	4169	3887
77.5	2587	2870	2600	2300	2160	2333	2694	2999	3264	2999
80.0	1849	1987	1885	1521	1325	1549	1964	2099	2340	2099
82.5	1422	1422	1203	951	733	982	1280	1486	1715	1486
85.0	885	951	717	511	364	547	768	1025	1308	1025
87.5	295	376	267	191	150	211	323	463	728	463
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	26571	26571	26571	26571	26571	26571	26571
2.5	26607	26517	26731	26520	26599	26528	26388
5.0	26528	26441	26657	26434	26515	26446	26294
7.5	26406	26311	26523	26301	26378	26327	26149
10.0	26227	26138	26334	26133	26205	26146	25950
12.5	26009	25904	26118	25894	25973	25894	25675
15.0	25721	25632	25838	25625	25698	25584	25302
17.5	25373	25317	25513	25291	25363	25172	24846
20.0	24950	24935	25129	24920	24958	24663	24281
22.5	24424	24508	24691	24495	24449	24037	23572
25.0	23801	24007	24182	24007	23849	23350	23068
27.5	23226	23544	23638	23452	23315	22770	22356
30.0	22574	23058	23213	23086	22628	21992	21593
32.5	21740	22404	22633	22424	21809	21234	20987
35.0	20873	21648	21931	21682	20916	20514	20415
37.5	19977	20817	21160	20868	19995	19875	19997
40.0	19084	19921	20318	19964	19077	19334	19611
42.5	18240	18957	19415	18998	18168	18830	19138
45.0	17431	17906	18461	17939	17311	18260	18530
47.5	16673	16782	17415	16813	16502	17606	17794
50.0	15904	15574	16243	15617	15698	16820	16830
52.5	15070	14312	15024	14320	14844	15823	15485
55.0	14159	12971	13788	12992	13953	14548	13935
57.5	13088	11702	12513	11679	12887	13050	12320
60.0	11791	10476	11229	10430	11620	11394	10639
62.5	10285	9237	9837	9168	10155	9667	8845
65.0	8647	8049	8436	7939	8603	8036	7293
67.5	7103	6846	7039	6744	7029	6551	6044
70.0	5653	5655	5696	5584	5528	5398	5223
72.5	4393	4454	4393	4411	4284	4569	4482
75.0	3434	3327	3210	3282	3335	3745	3579
77.5	2694	2333	2160	2300	2600	2870	2587
80.0	1964	1549	1325	1521	1885	1987	1849

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CANDELA TABULATION - (Cont.)

82.5	1280	982	733	951	1203	1422	1422
85.0	768	547	364	511	717	951	885
87.5	323	211	150	191	267	376	295
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	9750.58	N.A.	13.40
0-30	20692.66	N.A.	28.30
0-40	33905.00	N.A.	46.40
0-60	60230.8	N.A.	82.50
0-80	72174.29	N.A.	98.80
0-90	73034.86	N.A.	100.00
10-90	70517.15	N.A.	96.60
20-40	24154.42	N.A.	33.10
20-50	38081.66	N.A.	52.10
40-70	34501.98	N.A.	47.20
60-80	11943.49	N.A.	16.40
70-80	3767.3	N.A.	5.20
80-90	860.58	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	73034.86	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2517.71
10-20	7232.87
20-30	10942.08
30-40	13212.34
40-50	13927.24
50-60	12398.56
60-70	8176.18
70-80	3767.3
80-90	860.58
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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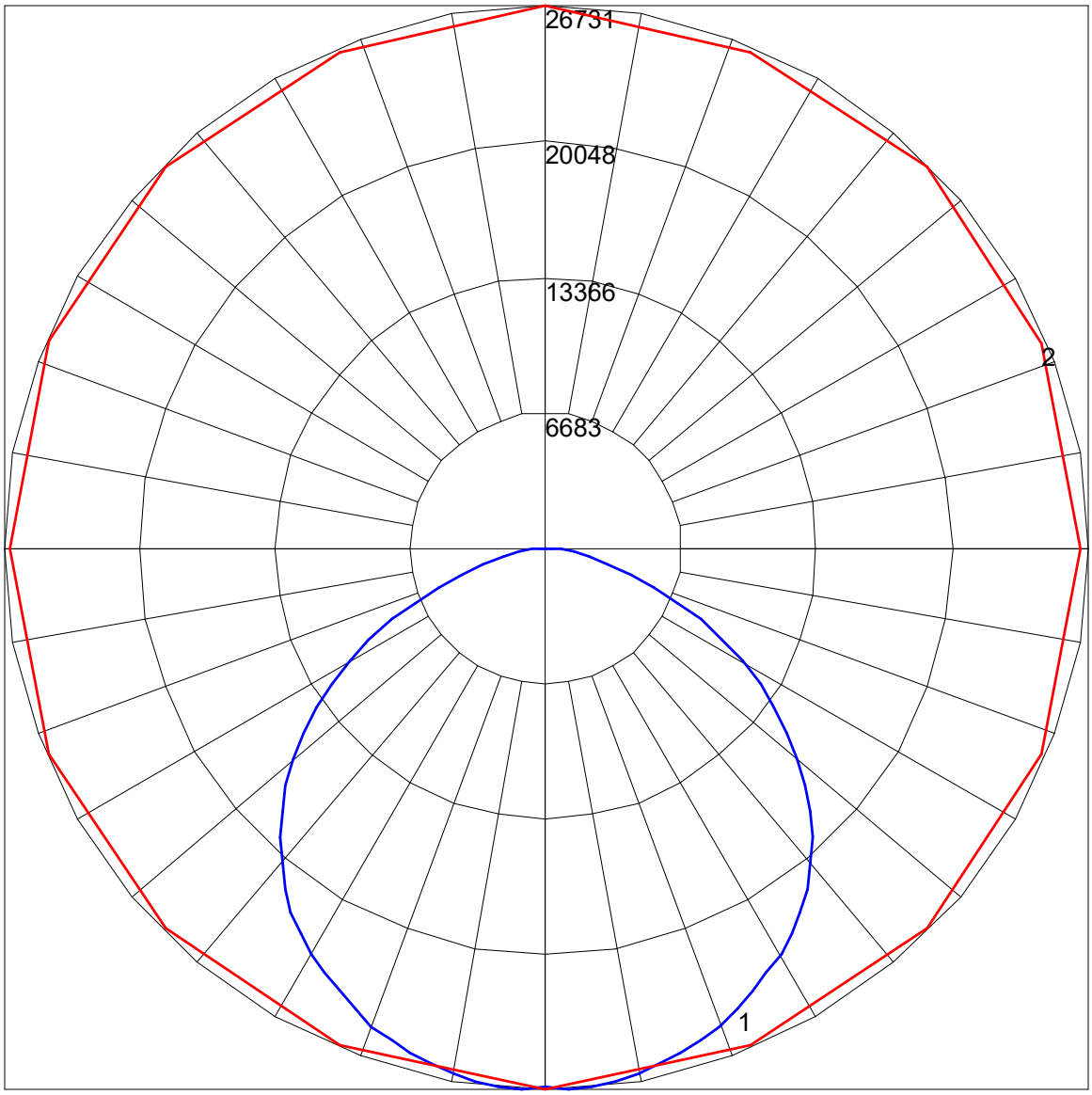
POLAR GRAPH



Maximum Candela = 26731 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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