IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-01-LED-15L-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-01-LED-15L-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	16144
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	154
Total Luminaire Watts	105
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)	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	47094	43989	46933
55	43668	43724	43200
65	31018	36598	35867
75	24853	23125	22308
85	18288	14742	7464

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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	5874	5874	5874	5874	5874	5874	5874	5874	5874	5874
2.5	5833	5863	5880	5861	5908	5861	5882	5868	5842	5868
5.0	5813	5846	5860	5843	5893	5844	5863	5851	5829	5851
7.5	5779	5820	5831	5814	5863	5817	5837	5825	5801	5825
10.0	5735	5779	5792	5777	5821	5778	5796	5785	5766	5785
12.5	5675	5723	5740	5723	5773	5726	5749	5730	5713	5730
15.0	5593	5655	5682	5663	5712	5666	5685	5657	5640	5657
17.5	5493	5564	5606	5590	5640	5596	5607	5560	5542	5560
20.0	5367	5452	5517	5508	5555	5512	5515	5442	5423	5442
22.5	5210	5314	5404	5416	5457	5418	5399	5302	5284	5302
25.0	5099	5161	5271	5306	5345	5306	5261	5160	5132	5160
27.5	4941	5034	5154	5184	5225	5203	5134	5025	5008	5025
30.0	4773	4862	5001	5103	5130	5098	4989	4856	4850	4856
32.5	4640	4695	4820	4957	5002	4952	4806	4699	4704	4699
35.0	4512	4535	4623	4793	4847	4785	4613	4550	4580	4550
37.5	4420	4394	4420	4613	4677	4601	4416	4420	4489	4420
40.0	4335	4274	4217	4413	4490	4403	4218	4316	4417	4316
42.5	4230	4162	4016	4200	4291	4190	4031	4215	4329	4215
45.0	4095	4035	3825	3965	4081	3957	3853	4090	4206	4090
47.5	3934	3892	3648	3717	3850	3711	3685	3947	4065	3947
50.0	3721	3719	3470	3453	3591	3442	3517	3769	3883	3769
52.5	3423	3497	3281	3165	3321	3163	3332	3539	3637	3539
55.0	3080	3216	3084	2871	3047	2867	3131	3252	3316	3252
57.5	2723	2884	2848	2581	2766	2586	2894	2920	2948	2920
60.0	2351	2518	2569	2306	2482	2315	2607	2548	2573	2548
62.5	1955	2138	2244	2027	2174	2041	2274	2169	2194	2169
65.0	1612	1775	1902	1756	1864	1779	1911	1796	1840	1796
67.5	1335	1448	1554	1491	1556	1513	1571	1475	1529	1475
70.0	1155	1193	1223	1234	1259	1250	1250	1221	1277	1221
72.5	991	1009	946	975	971	984	971	1038	1107	1038
75.0	791	828	736	725	710	735	760	859	922	859
77.5	572	635	575	508	477	516	596	663	722	663
80.0	408	439	416	336	292	343	434	464	517	464
82.5	314	314	266	210	162	216	283	328	379	328
85.0	196	210	158	113	80	121	171	225	288	225
87.5	65	83	59	43	34	47	72	103	160	103
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	5874	5874	5874	5874	5874	5874	5874
2.5	5882	5861	5908	5861	5880	5863	5833
5.0	5863	5844	5893	5843	5860	5846	5813
7.5	5837	5817	5863	5814	5831	5820	5779
10.0	5796	5778	5821	5777	5792	5779	5735
12.5	5749	5726	5773	5723	5740	5723	5675
15.0	5685	5666	5712	5663	5682	5655	5593
17.5	5607	5596	5640	5590	5606	5564	5493
20.0	5515	5512	5555	5508	5517	5452	5367
22.5	5399	5418	5457	5416	5404	5314	5210
25.0	5261	5306	5345	5306	5271	5161	5099
27.5	5134	5203	5225	5184	5154	5034	4941
30.0	4989	5098	5130	5103	5001	4862	4773
32.5	4806	4952	5002	4957	4820	4695	4640
35.0	4613	4785	4847	4793	4623	4535	4512
37.5	4416	4601	4677	4613	4420	4394	4420
40.0	4218	4403	4490	4413	4217	4274	4335
42.5	4031	4190	4291	4200	4016	4162	4230
45.0	3853	3957	4081	3965	3825	4035	4095
47.5	3685	3711	3850	3717	3648	3892	3934
50.0	3517	3442	3591	3453	3470	3719	3721
52.5	3332	3163	3321	3165	3281	3497	3423
55.0	3131	2867	3047	2871	3084	3216	3080
57.5	2894	2586	2766	2581	2848	2884	2723
60.0	2607	2315	2482	2306	2569	2518	2351
62.5	2274	2041	2174	2027	2244	2138	1955
65.0	1911	1779	1864	1756	1902	1775	1612
67.5	1571	1513	1556	1491	1554	1448	1335
70.0	1250	1250	1259	1234	1223	1193	1155
72.5	971	984	971	975	946	1009	991
75.0	760	735	710	725	736	828	791
77.5	596	516	477	508	575	635	572
80.0	434	343	292	336	416	439	408

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82.5	283	216	162	210	266	314	314
85.0	171	121	80	113	158	210	196
87.5	72	47	34	43	59	83	65
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	2155.27	N.A.	13.40
0-30	4573.97	N.A.	28.30
0-40	7494.43	N.A.	46.40
0-60	13313.48	N.A.	82.50
0-80	15953.4	N.A.	98.80
0-90	16143.55	N.A.	100.00
10-90	15587.03	N.A.	96.60
20-40	5339.16	N.A.	33.10
20-50	8417.65	N.A.	52.10
40-70	7626.26	N.A.	47.20
60-80	2639.92	N.A.	16.40
70-80	832.71	N.A.	5.20
80-90	190.15	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	16143.55	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	556.52
10-20	1598.75
20-30	2418.7
30-40	2920.46
40-50	3078.49
50-60	2740.56
60-70	1807.21
70-80	832.71
80-90	190.15
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	66	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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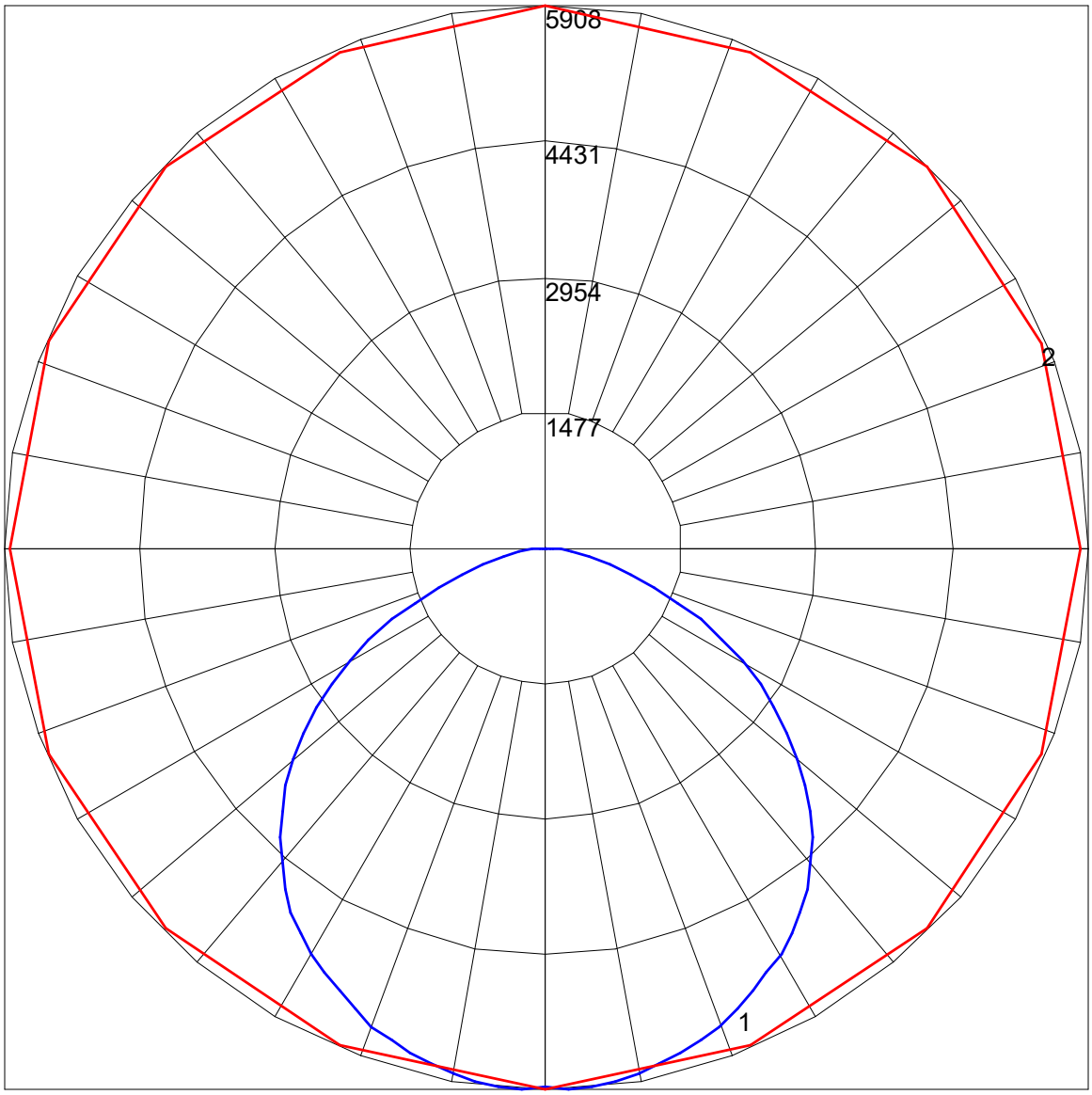
POLAR GRAPH



Maximum Candela = 5908 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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