IES INDOOR REPORT
PHOTOMETRIC FILENAME : MHB-01-LED-18L-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-01-LED-18L-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	19022
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	157
Total Luminaire Watts	121
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	55501	51844	55306
55	51451	51508	50898
65	36560	43122	42256
75	29283	27241	26298
85	21460	17355	8771

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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	6922	6922	6922	6922	6922	6922	6922	6922	6922	6922
2.5	6873	6909	6928	6907	6962	6907	6931	6915	6884	6915
5.0	6849	6888	6906	6885	6944	6887	6909	6894	6868	6894
7.5	6809	6858	6872	6851	6909	6855	6878	6864	6836	6864
10.0	6757	6809	6825	6806	6859	6808	6830	6816	6794	6816
12.5	6687	6744	6763	6744	6802	6747	6775	6751	6732	6751
15.0	6591	6664	6695	6673	6730	6677	6699	6665	6646	6665
17.5	6472	6557	6606	6588	6646	6594	6607	6552	6530	6552
20.0	6325	6425	6502	6490	6546	6495	6499	6413	6391	6413
22.5	6138	6261	6368	6382	6431	6385	6361	6248	6226	6248
25.0	6009	6082	6211	6252	6298	6252	6199	6080	6046	6080
27.5	5822	5932	6073	6108	6157	6131	6049	5921	5901	5921
30.0	5624	5728	5893	6013	6045	6007	5880	5722	5715	5722
32.5	5467	5532	5679	5841	5895	5835	5663	5537	5543	5537
35.0	5317	5344	5448	5647	5712	5638	5436	5362	5397	5362
37.5	5208	5177	5208	5436	5510	5421	5204	5208	5289	5208
40.0	5108	5036	4968	5200	5292	5188	4970	5085	5205	5085
42.5	4984	4904	4732	4949	5056	4938	4750	4967	5100	4967
45.0	4826	4754	4508	4672	4809	4662	4540	4820	4956	4820
47.5	4635	4586	4299	4380	4537	4373	4342	4650	4790	4650
50.0	4385	4382	4089	4068	4232	4056	4144	4441	4575	4441
52.5	4033	4120	3866	3730	3914	3727	3926	4169	4285	4169
55.0	3629	3789	3633	3384	3590	3379	3689	3832	3908	3832
57.5	3209	3399	3356	3041	3259	3047	3409	3440	3474	3440
60.0	2771	2967	3027	2717	2924	2728	3072	3002	3032	3002
62.5	2304	2518	2645	2388	2561	2405	2680	2555	2585	2555
65.0	1900	2092	2241	2068	2196	2096	2251	2116	2169	2116
67.5	1572	1706	1831	1757	1834	1783	1850	1739	1801	1739
70.0	1360	1405	1440	1455	1483	1473	1473	1439	1505	1439
72.5	1167	1189	1115	1149	1145	1160	1145	1222	1304	1222
75.0	932	975	867	854	837	866	895	1012	1086	1012
77.5	674	748	677	599	563	609	702	782	851	782
80.0	481	518	490	396	344	404	511	547	610	547
82.5	370	370	313	248	190	255	333	387	447	387
85.0	230	248	186	134	94	143	202	266	340	266
87.5	77	98	70	51	40	55	85	122	189	122
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	6922	6922	6922	6922	6922	6922	6922
2.5	6931	6907	6962	6907	6928	6909	6873
5.0	6909	6887	6944	6885	6906	6888	6849
7.5	6878	6855	6909	6851	6872	6858	6809
10.0	6830	6808	6859	6806	6825	6809	6757
12.5	6775	6747	6802	6744	6763	6744	6687
15.0	6699	6677	6730	6673	6695	6664	6591
17.5	6607	6594	6646	6588	6606	6557	6472
20.0	6499	6495	6546	6490	6502	6425	6325
22.5	6361	6385	6431	6382	6368	6261	6138
25.0	6199	6252	6298	6252	6211	6082	6009
27.5	6049	6131	6157	6108	6073	5932	5822
30.0	5880	6007	6045	6013	5893	5728	5624
32.5	5663	5835	5895	5841	5679	5532	5467
35.0	5436	5638	5712	5647	5448	5344	5317
37.5	5204	5421	5510	5436	5208	5177	5208
40.0	4970	5188	5292	5200	4968	5036	5108
42.5	4750	4938	5056	4949	4732	4904	4984
45.0	4540	4662	4809	4672	4508	4754	4826
47.5	4342	4373	4537	4380	4299	4586	4635
50.0	4144	4056	4232	4068	4089	4382	4385
52.5	3926	3727	3914	3730	3866	4120	4033
55.0	3689	3379	3590	3384	3633	3789	3629
57.5	3409	3047	3259	3041	3356	3399	3209
60.0	3072	2728	2924	2717	3027	2967	2771
62.5	2680	2405	2561	2388	2645	2518	2304
65.0	2251	2096	2196	2068	2241	2092	1900
67.5	1850	1783	1834	1757	1831	1706	1572
70.0	1473	1473	1483	1455	1440	1405	1360
72.5	1145	1160	1145	1149	1115	1189	1167
75.0	895	866	837	854	867	975	932
77.5	702	609	563	599	677	748	674
80.0	511	404	344	396	490	518	481

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82.5	333	255	190	248	313	370	370
85.0	202	143	94	134	186	248	230
87.5	85	55	40	51	70	98	77
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	2539.67	N.A.	13.40
0-30	5389.71	N.A.	28.30
0-40	8830.96	N.A.	46.40
0-60	15687.64	N.A.	82.50
0-80	18798.21	N.A.	98.80
0-90	19022.43	N.A.	100.00
10-90	18366.64	N.A.	96.60
20-40	6291.29	N.A.	33.10
20-50	9918.77	N.A.	52.10
40-70	8986.00	N.A.	47.20
60-80	3110.57	N.A.	16.40
70-80	981.25	N.A.	5.20
80-90	224.22	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	19022.43	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	655.78
10-20	1883.89
20-30	2850.04
30-40	3441.25
40-50	3627.48
50-60	3229.2
60-70	2129.32
70-80	981.25
80-90	224.22
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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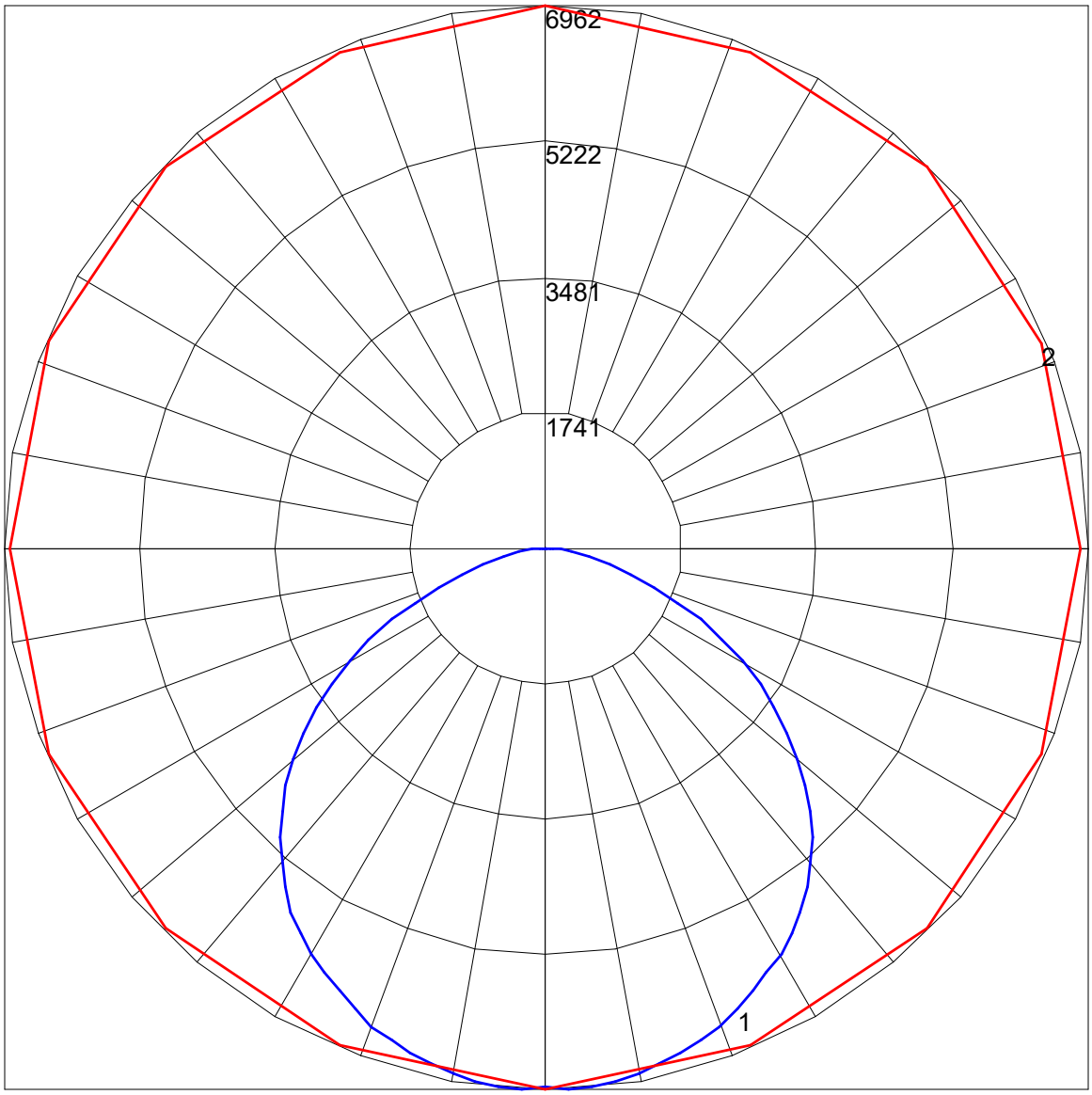
POLAR GRAPH



Maximum Candela = 6962 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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