



IES INDOOR REPORT

PHOTOMETRIC FILENAME : ABP14-FS1-UNV-20W-4000K.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-14550
[TESTLAB] LSI INDUSTRIES, INC.
[TESTDATE] 12/14/23
[ISSUEDATE] 12/19/23
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] ABP14-FS1-UNV-20W-4000K
[TEST PROCEDURE] IESNA LM-79-19
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[FACTORED] 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	2613
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	20
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.38
Spacing Criterion (90-270)	1.34
Spacing Criterion (Diagonal)	1.46
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2334	2285	2236
55	2330	2269	2222
65	2290	2207	2157
75	2171	2109	2057
85	2252	2098	2005

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0.0	801	801	801	801	801
2.5	811	807	803	800	796
5.0	811	808	803	800	796
7.5	810	806	802	798	795
10.0	808	804	800	796	792
12.5	805	800	796	791	788
15.0	800	796	791	787	784
17.5	794	790	785	780	777
20.0	787	782	776	772	768
22.5	777	774	766	762	758
25.0	766	762	755	750	746
27.5	754	750	743	736	732
30.0	740	736	728	721	717
32.5	723	720	711	704	699
35.0	705	702	693	685	680
37.5	685	681	673	665	659
40.0	663	659	651	643	637
42.5	640	635	627	619	613
45.0	614	609	601	594	588
47.5	586	583	574	568	562
50.0	558	554	545	539	535
52.5	527	523	515	509	505
55.0	497	493	484	478	474
57.5	463	460	452	445	440
60.0	430	426	418	412	408
62.5	394	390	384	377	373
65.0	360	356	347	342	339
67.5	321	317	311	307	303
70.0	283	280	276	272	268
72.5	246	244	239	235	232
75.0	209	207	203	199	198
77.5	174	173	167	163	161
80.0	139	138	134	131	128
82.5	106	104	100	97	96
85.0	73	70	68	66	65
87.5	39	38	37	35	33
90.0	0	0	0	0	0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	300.25	N.A.	11.50
0-30	648.91	N.A.	24.80
0-40	1082.51	N.A.	41.40
0-60	1979.34	N.A.	75.80
0-80	2538.69	N.A.	97.20
0-90	2612.8	N.A.	100.00
10-90	2536.23	N.A.	97.10
20-40	782.26	N.A.	29.90
20-50	1246.08	N.A.	47.70
40-70	1241.18	N.A.	47.50
60-80	559.35	N.A.	21.40
70-80	215.00	N.A.	8.20
80-90	74.11	N.A.	2.80
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	2612.8	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	76.57
10-20	223.68
20-30	348.66
30-40	433.60
40-50	463.82
50-60	433.01
60-70	344.36
70-80	215.00
80-90	74.11
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	108	103	98	94	105	101	96	93	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	68	55	45	39	67	54	45	39	52	44	38	50	43	38	49	42	38	35
7	63	49	40	34	62	49	40	34	47	39	34	46	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

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UGR TABLE - CORRECTED

Reflectances

Ceiling Cavity	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20

Room Size UGR Viewed Crosswise

X=2H	Y=2H	15.2	16.9	15.6	17.2	17.5	15.0	16.6	15.3	17.0	17.3
	3H	17.2	18.7	17.6	19.1	19.4	16.9	18.4	17.3	18.8	19.1
	4H	18.0	19.4	18.4	19.8	20.2	17.7	19.2	18.1	19.5	19.9
	6H	18.7	20.0	19.1	20.4	20.8	18.3	19.7	18.7	20.0	20.4
	8H	18.9	20.2	19.4	20.6	21.0	18.6	19.9	19.0	20.2	20.6
	12H	19.1	20.4	19.6	20.7	21.2	18.8	20.0	19.2	20.4	20.8

UGR Viewed Endwise

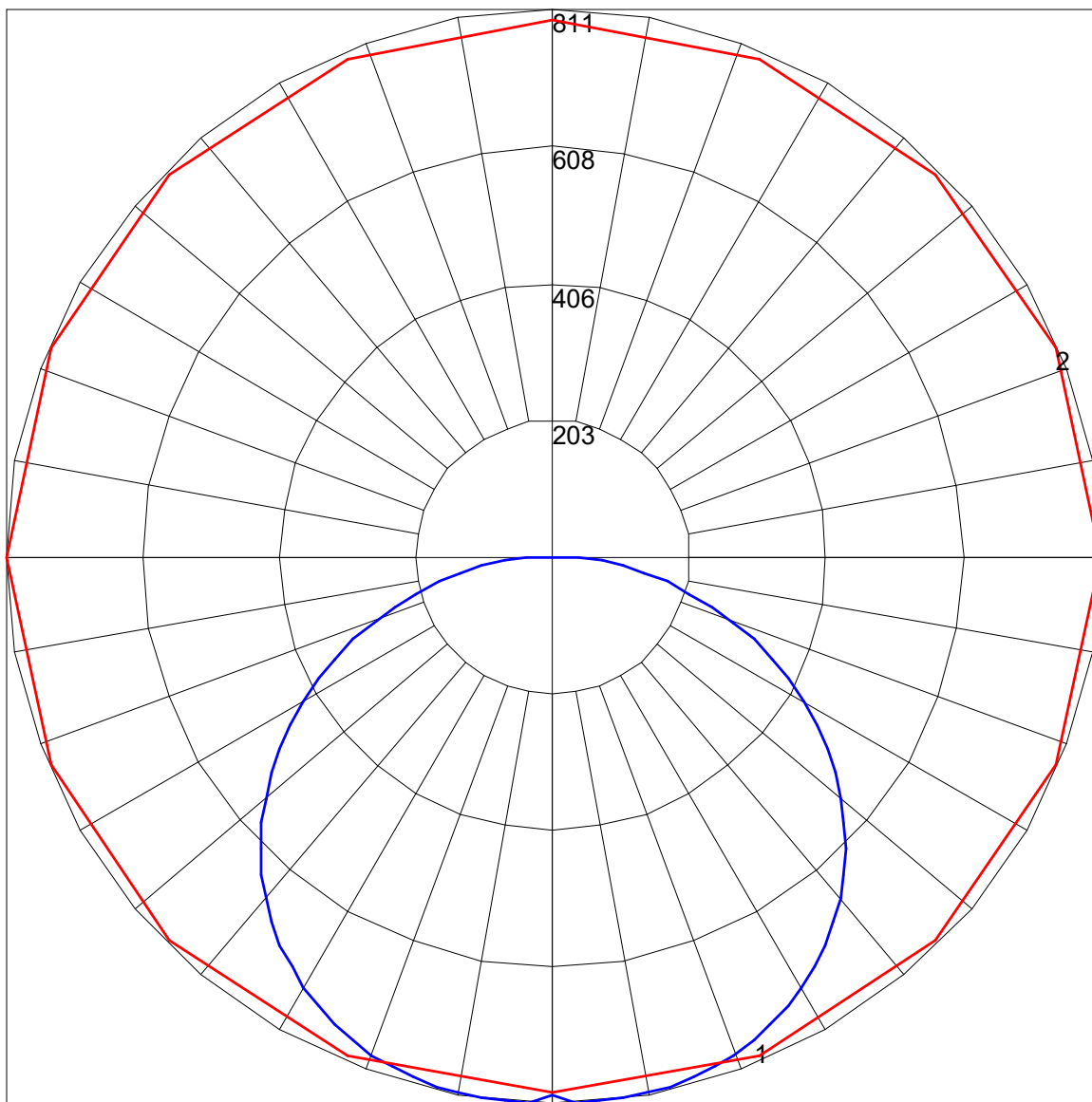
4H	2H	15.9	17.3	16.3	17.7	18.0	15.7	17.1	16.1	17.5	17.8
	3H	18.1	19.3	18.5	19.7	20.1	17.9	19.1	18.3	19.5	19.9
	4H	19.0	20.1	19.5	20.6	21.0	18.8	19.9	19.2	20.3	20.7
	6H	19.9	20.8	20.3	21.3	21.7	19.6	20.5	20.0	21.0	21.4
	8H	20.2	21.1	20.6	21.5	22.0	19.9	20.8	20.3	21.2	21.7
	12H	20.5	21.3	20.9	21.8	22.2	20.1	20.9	20.6	21.4	21.9

8H	4H	19.4	20.3	19.9	20.8	21.2	19.2	20.1	19.6	20.5	21.0
	6H	20.4	21.1	20.9	21.6	22.1	20.1	20.9	20.6	21.4	21.8
	8H	20.8	21.5	21.3	22.0	22.5	20.5	21.2	21.0	21.7	22.2
	12H	21.2	21.8	21.7	22.3	22.8	20.9	21.5	21.4	22.0	22.5

12H	4H	19.4	20.3	19.9	20.7	21.2	19.2	20.1	19.7	20.5	21.0
	6H	20.5	21.2	21.0	21.6	22.2	20.2	20.9	20.7	21.4	21.9
	8H	21.0	21.6	21.5	22.1	22.6	20.7	21.3	21.2	21.8	22.3

Maximum UGR = 22.8

POLAR GRAPH



Maximum Candela = 811 Located At Horizontal Angle = 0, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)