



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MDBAERX-XX-L44-840-XX-SAPL15 EXAM ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19083.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 4-MAY-2020

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.

[LUMINAIRE] 4-72 LED 2x4'3" APERATURE MEDICAL BED LUMINAIRE-EXAM SECTION

[MORE] FROST ACRYLIC LENS OVER 20-CELL SEMI-SPEC LOUVER w/WHITE REFL

[MORE] & CLEAR ACRYLIC LENS

[LUMCAT] MDBAERx-xx-L44-840-SAPL15-FCHA118-EXAM ONLY

[_SEARCH_APPLICATION] Indoor, Healthcare, Direct

[_SEARCH_MOUNTING] Recessed

[_SEARCH_SOURCETYPE] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6818
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	106
Total Luminaire Watts	64.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.02
Spacing Criterion (90-270)	1.06
Spacing Criterion (Diagonal)	1.16
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.33 ft
Luminous Width (90-270)	1.69 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8834	10304	11696
55	6662	7345	9184
65	5252	5204	6416
75	2968	3046	3318
85	1440	1440	1613

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
0	3654.338	3654.338	3654.338	3654.338	3654.338	3654.338	3654.338	3654.338	3654.338
5	3593.397	3589.195	3586.043	3586.043	3594.448	3612.310	3631.223	3648.034	3653.287
10	3498.834	3492.530	3476.770	3474.668	3495.682	3536.660	3590.245	3641.730	3659.592
15	3298.151	3287.643	3267.680	3273.984	3306.556	3362.243	3434.742	3510.392	3536.660
20	3109.024	3088.010	3069.098	3080.655	3123.734	3194.131	3280.289	3362.243	3400.069
25	2730.772	2711.859	2717.113	2741.279	2787.510	2853.704	2917.797	2961.926	2990.295
30	2347.266	2347.266	2397.700	2456.539	2515.378	2586.826	2632.006	2618.347	2622.550
35	2018.397	2038.360	2137.126	2224.334	2288.427	2353.570	2351.469	2261.109	2235.892
40	1619.130	1658.006	1804.054	1920.681	1981.622	2031.005	1961.659	1804.054	1770.431
45	1307.072	1348.049	1524.567	1672.716	1730.505	1760.975	1626.485	1459.424	1449.967
50	1019.180	1032.839	1182.039	1344.897	1403.737	1417.396	1262.943	1162.075	1188.343
55	799.583	791.178	881.538	1047.549	1102.185	1113.743	975.051	954.037	1000.267
60	624.116	605.204	636.725	765.961	811.141	822.699	733.389	762.809	805.888
65	464.410	454.954	460.207	533.756	567.379	584.190	552.669	592.595	619.914
70	283.689	288.943	299.450	313.109	315.210	348.833	368.796	382.455	368.796
75	160.757	163.909	164.960	173.366	179.670	193.329	205.937	213.292	212.242
80	75.650	77.752	79.853	84.056	88.259	92.462	96.664	100.867	98.766
85	26.268	26.268	26.268	29.420	29.420	29.420	30.470	30.470	29.420
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	1290.26	N.A.	18.90
0-30	2593.34	N.A.	38.00
0-40	3970.17	N.A.	58.20
0-60	6043.27	N.A.	88.60
0-80	6778.72	N.A.	99.40
0-90	6818.39	N.A.	100.00
10-90	6475.97	N.A.	95.00
20-40	2679.91	N.A.	39.30
20-50	3879.14	N.A.	56.90
40-70	2600.62	N.A.	38.10
60-80	735.45	N.A.	10.80
70-80	207.93	N.A.	3.00
80-90	39.67	N.A.	0.60
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	6818.39	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	342.42
10-20	947.84
20-30	1303.08
30-40	1376.83
40-50	1199.23
50-60	873.86
60-70	527.53
70-80	207.93
80-90	39.67
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	125	125	125	125	122	122	122	122	117	117	117	112	112	112	107	107	107	105
1	116	112	108	105	114	110	106	103	105	103	100	101	99	97	98	96	94	92
2	107	100	94	89	105	98	93	88	94	90	86	91	87	84	88	85	82	80
3	99	90	82	76	97	88	81	76	85	79	74	82	77	73	80	75	72	70
4	92	81	72	66	89	79	72	66	77	70	65	74	69	64	72	67	63	61
5	85	73	65	58	83	72	64	58	70	63	57	68	62	57	66	61	56	54
6	79	67	58	52	77	66	58	52	64	57	51	62	56	51	60	55	50	48
7	74	61	53	47	72	60	52	46	59	51	46	57	51	46	56	50	46	44
8	69	56	48	42	68	55	48	42	54	47	42	53	46	42	52	46	41	40
9	65	52	44	38	63	51	44	38	50	43	38	49	43	38	48	42	38	36
10	61	48	40	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33

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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	16.9	18.4	17.3	18.7	19.0	19.0	20.4	19.3	20.7	21.0
	3H	18.1	19.4	18.4	19.7	20.1	19.8	21.1	20.2	21.5	21.8
	4H	18.3	19.6	18.7	19.9	20.3	20.0	21.3	20.4	21.6	22.0
	6H	18.5	19.6	18.9	20.0	20.4	20.1	21.3	20.5	21.6	22.0
	8H	18.5	19.6	18.9	20.0	20.4	20.1	21.2	20.6	21.6	22.0
	12H	18.5	19.5	18.9	19.9	20.3	20.1	21.1	20.6	21.5	22.0

UGR Viewed Endwise

4H	2H	17.4	18.6	17.8	19.0	19.3	19.2	20.4	19.6	20.8	21.2
	3H	18.7	19.7	19.1	20.1	20.5	20.3	21.3	20.7	21.7	22.1
	4H	19.0	19.9	19.5	20.4	20.8	20.5	21.4	21.0	21.9	22.3
	6H	19.2	20.0	19.7	20.5	20.9	20.7	21.5	21.1	21.9	22.4
	8H	19.3	20.0	19.7	20.4	20.9	20.7	21.4	21.2	21.9	22.4
	12H	19.3	19.9	19.8	20.4	20.9	20.7	21.4	21.2	21.9	22.3

8H	4H	19.2	19.9	19.6	20.3	20.8	20.6	21.3	21.1	21.8	22.2
	6H	19.4	20.0	19.9	20.5	21.0	20.8	21.4	21.3	21.9	22.4
	8H	19.5	20.0	20.0	20.5	21.0	20.9	21.4	21.4	21.9	22.4
	12H	19.5	20.0	20.0	20.5	21.0	20.9	21.4	21.4	21.8	22.4

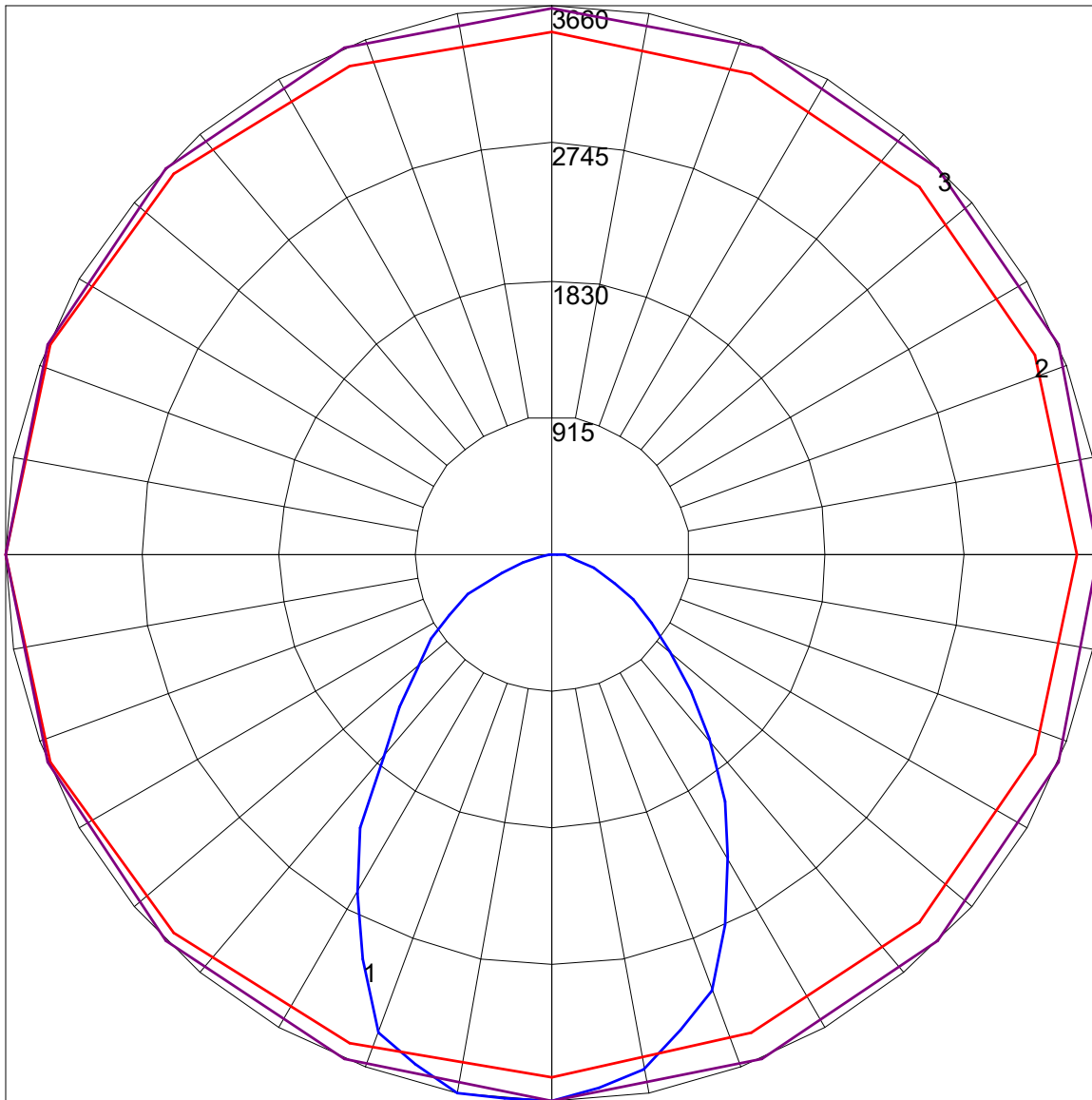
12H	4H	19.1	19.8	19.6	20.3	20.7	20.6	21.2	21.1	21.7	22.2
	6H	19.4	19.9	19.9	20.4	20.9	20.8	21.3	21.3	21.8	22.3
	8H	19.5	20.0	20.0	20.4	21.0	20.9	21.3	21.4	21.8	22.4

Maximum UGR = 22.4

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POLAR GRAPH



Maximum Candela = 3659.592 Located At Horizontal Angle = 180, Vertical Angle = 10

1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (10) (Through Max. Cd.)

3 - Horizontal Cone Through Vertical Angle (0)