



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MDBAERX-XX-L44-840 NL ONLY_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19080.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 20-MAY-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 1X28 LED 2x4' 3 APERATURE MEDICAL BED LUMINAIRE

[MORE] NIGHT LIGHT/EXAM SECTION w/WHITE REFL & PAT12 LENS w/CLEAR

[MORE] ACRYLIC LENS

[LUMCAT] MDBAERx-xx-L44-840-FCHA118-NURSE LIGHT 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	640
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	6.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.34 ft
Luminous Width (90-270)	1.70 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	367	442	918
55	302	369	738
65	250	319	592
75	167	242	372
85	55	55	55

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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	265.391	265.391	265.391	265.391	265.391	265.391	265.391	265.391	265.391
5	239.872	239.872	249.059	256.204	266.412	278.660	289.888	298.054	300.096
10	202.105	206.188	217.416	237.831	260.287	282.743	300.096	313.365	320.510
15	170.463	176.587	194.960	222.520	258.246	292.951	320.510	335.821	347.050
20	143.923	148.006	168.421	202.105	243.955	284.785	318.469	341.946	351.132
25	114.322	118.405	137.799	177.608	228.644	277.640	317.448	343.987	354.195
30	93.908	96.970	116.364	155.152	210.271	265.391	311.324	343.987	358.278
35	83.700	89.825	106.156	140.861	201.085	260.287	313.365	347.050	362.361
40	67.368	69.410	82.679	111.260	168.421	223.541	274.577	313.365	325.614
45	55.120	55.120	66.348	93.908	137.799	189.857	238.852	277.640	291.930
50	46.954	52.057	59.203	77.576	118.405	163.317	209.250	242.935	258.246
55	36.746	36.746	44.912	61.244	89.825	129.633	167.400	199.043	209.250
60	34.705	34.705	35.726	47.974	73.493	102.073	131.675	157.193	167.400
65	22.456	22.456	28.581	35.726	53.078	72.472	93.908	113.301	121.467
70	19.394	19.394	20.415	27.560	35.726	46.954	62.265	74.514	79.617
75	9.187	9.187	13.270	14.290	20.415	27.560	34.705	41.850	44.912
80	6.124	6.124	6.124	8.166	9.187	13.270	14.290	19.394	19.394
85	1.021	1.021	1.021	1.021	1.021	2.041	2.041	2.041	2.041
90	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	97.35	N.A.	15.20
0-30	203.39	N.A.	31.80
0-40	331.20	N.A.	51.70
0-60	548.12	N.A.	85.60
0-80	636.46	N.A.	99.40
0-90	640.30	N.A.	100.00
10-90	615.01	N.A.	96.10
20-40	233.85	N.A.	36.50
20-50	354.02	N.A.	55.30
40-70	278.83	N.A.	43.50
60-80	88.35	N.A.	13.80
70-80	26.43	N.A.	4.10
80-90	3.83	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	640.30	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	25.29
10-20	72.06
20-30	106.04
30-40	127.81
40-50	120.17
50-60	96.75
60-70	61.92
70-80	26.43
80-90	3.83
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	122	122	122	122	119	119	119	119	113	113	113	109	109	109	104	104	104	102
1	112	108	104	101	110	106	102	99	102	99	96	98	95	93	94	92	90	88
2	103	95	89	84	100	94	88	83	90	85	81	87	83	79	84	80	77	75
3	95	85	77	71	92	83	76	70	80	74	69	77	72	68	75	70	67	65
4	87	76	67	61	85	74	66	60	72	65	59	69	63	59	67	62	58	56
5	80	68	59	53	78	67	59	53	65	57	52	63	56	51	61	55	51	49
6	74	61	53	46	72	60	52	46	59	51	46	57	50	45	55	50	45	43
7	69	56	47	41	67	55	47	41	53	46	41	52	45	41	51	45	40	38
8	64	51	43	37	63	50	42	37	49	42	37	48	41	36	47	41	36	34
9	60	47	39	33	59	46	39	33	45	38	33	44	38	33	43	37	33	31
10	57	43	36	30	55	43	35	30	42	35	30	41	35	30	40	34	30	28

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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

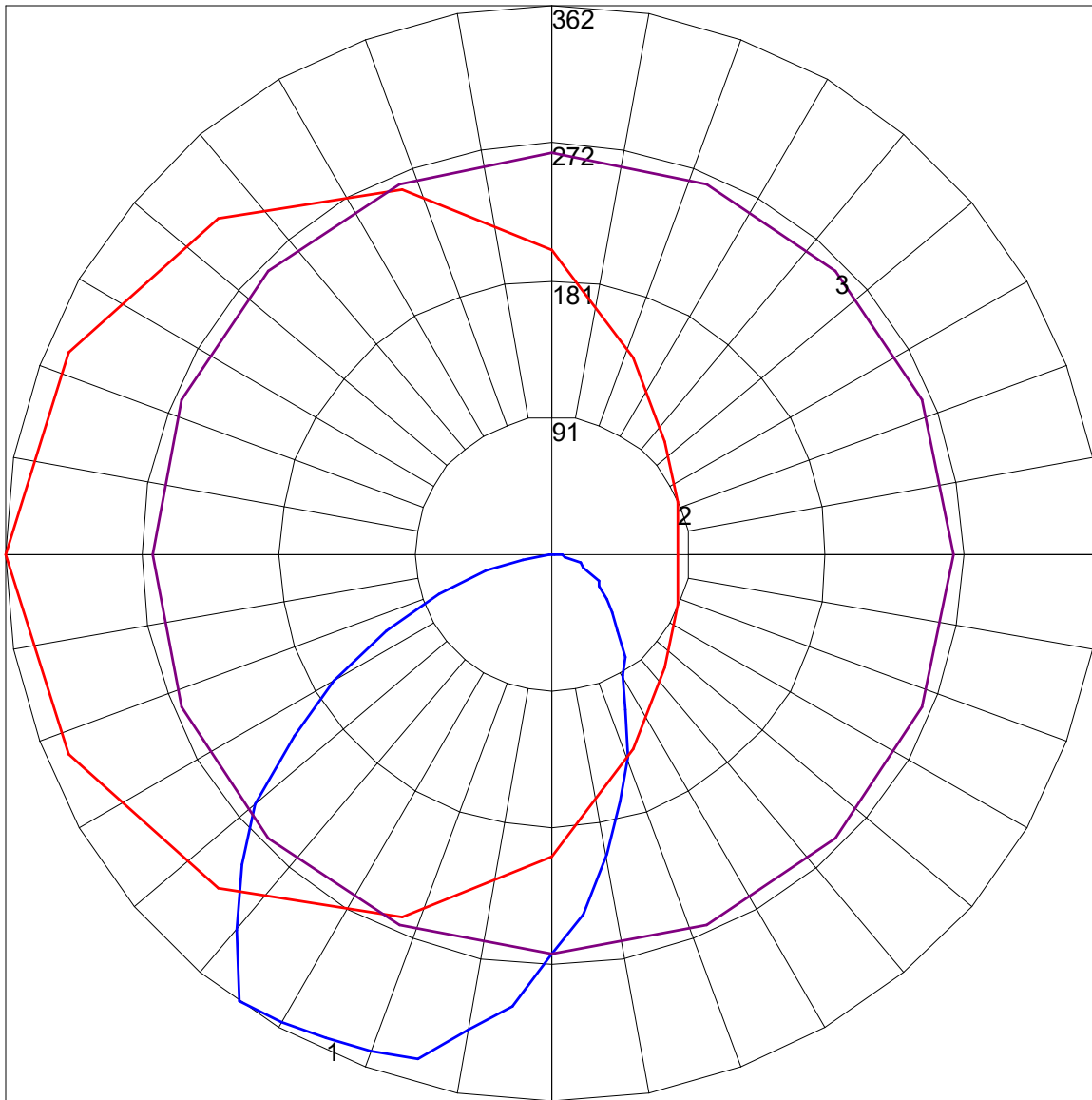
X=2H	Y=2H	4.5	6.0	4.8	6.3	6.6	10.7	12.3	11.1	12.6	12.9
	3H	6.0	7.4	6.4	7.7	8.1	11.8	13.2	12.2	13.6	13.9
	4H	6.4	7.7	6.8	8.0	8.4	12.1	13.4	12.5	13.8	14.2
	6H	6.6	7.8	7.0	8.2	8.6	12.3	13.5	12.7	13.8	14.2
	8H	6.7	7.8	7.1	8.2	8.6	12.3	13.4	12.7	13.8	14.2
	12H	6.7	7.8	7.1	8.2	8.6	12.3	13.4	12.7	13.7	14.2

UGR Viewed Endwise

4H	2H	5.2	6.5	5.6	6.9	7.2	11.4	12.7	11.8	13.1	13.5
	3H	6.9	8.0	7.4	8.4	8.8	12.7	13.8	13.2	14.2	14.6
	4H	7.3	8.3	7.8	8.7	9.1	13.1	14.1	13.5	14.5	14.9
	6H	7.7	8.5	8.1	8.9	9.4	13.3	14.1	13.8	14.6	15.0
	8H	7.8	8.5	8.2	9.0	9.4	13.3	14.1	13.8	14.5	15.0
	12H	7.8	8.5	8.3	8.9	9.4	13.3	14.0	13.8	14.5	15.0
8H	4H	7.7	8.4	8.1	8.9	9.3	13.3	14.1	13.8	14.5	15.0
	6H	8.1	8.7	8.5	9.2	9.7	13.6	14.2	14.1	14.7	15.2
	8H	8.2	8.7	8.7	9.2	9.7	13.6	14.2	14.1	14.7	15.2
	12H	8.2	8.7	8.7	9.2	9.8	13.6	14.1	14.1	14.6	15.2
12H	4H	7.7	8.4	8.2	8.8	9.3	13.3	14.0	13.8	14.5	15.0
	6H	8.1	8.7	8.6	9.1	9.7	13.6	14.2	14.1	14.6	15.2
	8H	8.2	8.7	8.7	9.2	9.8	13.6	14.2	14.1	14.6	15.2

Maximum UGR = 15.2

POLAR GRAPH



Maximum Candela = 362.361 Located At Horizontal Angle = 180, Vertical Angle = 35
1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (35) (Through Max. Cd.)
3 - Horizontal Cone Through Vertical Angle (0)