



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MDBAERX-XX-L44-840 READING WHITE ONLY\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 19081.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 4-MAY-2020  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMINAIRE] 1-56 LED w/HALF ROUND FROST ACRYLIC LIGHT SHIELD  
 [MORE] 2x4' 3 APERATURE MEDICAL BED LUMINAIRE-READING SECTION  
 [MORE] WHITE REFL w/CLEAR ACRYLIC LENS  
 [LUMCAT] MDBAERx-xx-L44-840-FCHA118-READING 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	1646
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	80
Total Luminaire Watts	20.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.52
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.74
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.38 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	25139	16817	7328
55	25785	19507	6890
65	5362	16957	6026
75	882	2579	4072
85	1008	403	1814

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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>
<b>0</b>	460.094	460.094	460.094	460.094	460.094	460.094	460.094	460.094	460.094
<b>5</b>	490.078	490.078	489.044	484.908	475.603	465.264	456.992	447.687	444.585
<b>10</b>	510.756	508.688	495.247	478.704	460.094	438.382	420.805	410.466	403.228
<b>15</b>	557.282	547.977	523.163	489.044	460.094	427.009	404.262	390.821	385.652
<b>20</b>	604.843	584.164	534.536	481.806	443.551	400.127	378.414	364.973	358.770
<b>25</b>	663.776	631.724	555.214	475.603	421.839	378.414	351.532	339.125	333.956
<b>30</b>	759.930	699.963	576.927	462.162	395.991	342.227	315.345	303.972	299.837
<b>35</b>	917.086	825.067	631.724	473.535	387.720	334.990	310.176	295.701	292.599
<b>40</b>	1006.003	904.679	651.369	437.348	342.227	289.497	267.785	259.514	256.412
<b>45</b>	1046.326	954.307	699.963	420.805	305.006	253.310	236.767	231.598	231.598
<b>50</b>	991.528	904.679	699.963	403.228	272.955	223.326	208.852	201.614	201.614
<b>55</b>	870.560	825.067	658.606	380.482	232.632	188.173	180.936	170.597	167.495
<b>60</b>	448.721	583.130	567.622	346.363	192.309	156.122	146.816	134.409	129.240
<b>65</b>	133.376	183.004	421.839	298.803	149.918	126.138	109.595	100.290	97.188
<b>70</b>	52.730	67.205	146.816	219.191	105.460	90.985	77.544	69.273	69.273
<b>75</b>	13.441	21.712	39.289	120.969	62.035	52.730	44.459	41.357	41.357
<b>80</b>	9.305	9.305	9.305	31.018	31.018	26.882	25.848	22.746	22.746
<b>85</b>	5.170	2.068	2.068	5.170	9.305	9.305	9.305	11.373	11.373
<b>90</b>	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	175.25	N.A.	10.60
0-30	386.38	N.A.	23.50
0-40	683.74	N.A.	41.50
0-60	1383.23	N.A.	84.00
0-80	1636.73	N.A.	99.40
0-90	1646.45	N.A.	100.00
10-90	1602.01	N.A.	97.30
20-40	508.49	N.A.	30.90
20-50	865.81	N.A.	52.60
40-70	892.76	N.A.	54.20
60-80	253.50	N.A.	15.40
70-80	60.23	N.A.	3.70
80-90	9.72	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	1646.45	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.44
10-20	130.81
20-30	211.13
30-40	297.36
40-50	357.32
50-60	342.17
60-70	193.28
70-80	60.23
80-90	9.72
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	123	123	123	123	120	120	120	120	115	115	115	110	110	110	106	106	106	103
1	113	109	105	101	110	106	103	99	102	99	96	98	95	93	94	92	90	88
2	103	95	88	82	100	93	87	81	89	84	79	86	81	78	83	79	76	74
3	94	83	75	68	91	81	74	67	78	72	66	75	70	65	73	68	64	62
4	85	73	64	57	83	72	63	57	69	62	56	67	60	55	64	59	54	52
5	78	65	55	49	76	64	55	48	61	54	48	59	53	47	57	51	47	44
6	72	58	49	42	70	57	48	42	55	47	41	53	46	41	52	45	41	38
7	66	52	43	36	65	51	43	36	50	42	36	48	41	36	47	40	35	33
8	61	47	38	32	60	47	38	32	45	37	32	44	37	32	43	36	31	29
9	57	43	34	29	56	42	34	28	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	52	39	31	26	38	31	25	37	30	25	36	30	25	23

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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

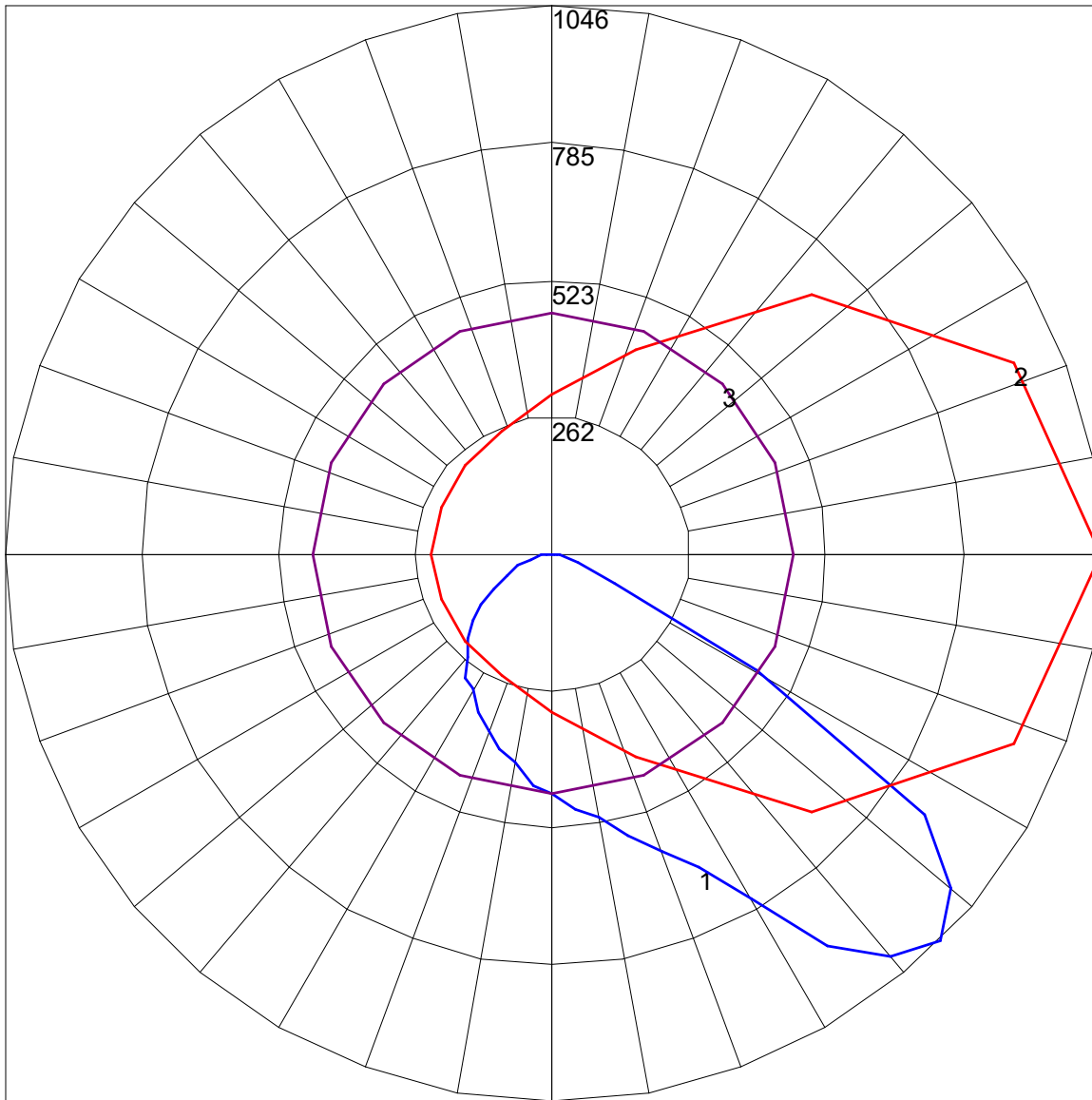
X=2H	Y=2H	25.9	27.6	26.3	27.9	28.2	19.4	21.1	19.8	21.4	21.7
	3H	26.0	27.4	26.3	27.8	28.1	20.9	22.4	21.3	22.8	23.1
	4H	25.9	27.3	26.3	27.7	28.0	21.3	22.7	21.7	23.0	23.4
	6H	25.9	27.1	26.3	27.5	27.9	21.5	22.7	21.9	23.1	23.5
	8H	25.8	27.1	26.3	27.4	27.8	21.5	22.7	21.9	23.1	23.5
	12H	25.8	27.0	26.2	27.4	27.8	21.5	22.7	21.9	23.0	23.5

### UGR Viewed Endwise

4H	2H	26.4	27.8	26.8	28.1	28.5	21.0	22.4	21.4	22.7	23.1
	3H	26.4	27.6	26.8	28.0	28.4	22.4	23.5	22.8	23.9	24.3
	4H	26.4	27.4	26.8	27.8	28.3	22.8	23.9	23.2	24.3	24.7
	6H	26.3	27.2	26.8	27.7	28.1	23.0	23.9	23.4	24.3	24.8
	8H	26.3	27.1	26.8	27.6	28.0	23.0	23.9	23.5	24.3	24.8
	12H	26.3	27.0	26.8	27.5	28.0	23.0	23.8	23.5	24.3	24.7
8H	4H	26.4	27.2	26.8	27.6	28.1	22.8	23.7	23.3	24.1	24.6
	6H	26.3	27.0	26.8	27.5	27.9	23.0	23.7	23.5	24.2	24.7
	8H	26.3	26.9	26.8	27.4	27.9	23.1	23.7	23.6	24.2	24.7
	12H	26.2	26.8	26.7	27.3	27.8	23.1	23.6	23.6	24.1	24.7
12H	4H	26.3	27.1	26.8	27.6	28.0	22.8	23.6	23.3	24.0	24.5
	6H	26.3	26.9	26.8	27.3	27.9	23.0	23.6	23.5	24.1	24.6
	8H	26.2	26.8	26.7	27.3	27.8	23.0	23.6	23.6	24.1	24.7

Maximum UGR = 28.5

POLAR GRAPH



Maximum Candela = 1046.326 Located At Horizontal Angle = 0, Vertical Angle = 45  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (45) (Through Max. Cd.)  
# 3 - Horizontal Cone Through Vertical Angle (0)