



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MDBAERNX-HET-L44-840-A-SAPL15-FA-DIM-UNV ALL ON\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19078.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 6-MAY-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED w/HALF ROUND FROST ACRYLIC LIGHT SHIELDS

[MORE] 2x4' 3 APERATURE MEDICAL LUMINAIRE AMBIENT SECTION w/WHITE

[MORE] REFL & FROSTED ACRYLIC RIBBED LENS w/CLEAR ACRYLIC LENS & EXAM SECTION WITH 1.5" SEMI-SPEC LOU

[LUMCAT] MBDAERNx-HET-L44/840-A/SAPL15-FA-DIM-UNV all on

[\_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	13199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	105
Total Luminaire Watts	125.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.75 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	17511	17261	16719
55	15019	14772	13618
65	8686	11664	9747
75	4693	5308	5281
85	2231	2141	2418

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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>	6129.260	6129.260	6129.260	6129.260	6129.260	6129.260	6129.260	6129.260	6129.260
<b>5</b>	6107.203	6102.174	6093.701	6090.444	6096.082	6108.399	6125.508	6132.795	6130.559
<b>10</b>	5949.704	5945.581	5927.152	5931.028	5941.232	5969.751	6003.248	6044.125	6055.298
<b>15</b>	5723.684	5711.192	5689.053	5685.425	5712.790	5746.771	5797.615	5853.005	5874.062
<b>20</b>	5497.025	5463.559	5423.403	5414.374	5447.140	5482.348	5540.190	5596.384	5621.141
<b>25</b>	5032.257	4994.049	4954.316	4942.484	4973.971	5011.488	5039.636	5057.405	5070.402
<b>30</b>	4615.972	4570.178	4534.743	4526.302	4558.274	4588.658	4592.627	4549.121	4540.845
<b>35</b>	4336.212	4284.770	4232.648	4209.169	4236.400	4257.580	4218.095	4090.011	4048.588
<b>40</b>	3844.171	3803.335	3741.989	3690.969	3701.833	3702.523	3598.094	3406.314	3349.914
<b>45</b>	3421.506	3398.120	3372.651	3289.310	3266.707	3244.959	3073.370	2869.954	2838.785
<b>50</b>	2895.525	2855.648	2855.081	2758.474	2714.835	2680.523	2494.680	2350.795	2353.888
<b>55</b>	2380.314	2359.412	2341.200	2254.189	2158.376	2142.895	1984.190	1912.577	1932.449
<b>60</b>	1632.148	1776.640	1839.450	1730.785	1610.977	1610.555	1529.027	1508.640	1524.265
<b>65</b>	1014.363	1086.346	1362.107	1272.509	1138.272	1154.269	1139.396	1142.560	1146.363
<b>70</b>	621.938	666.042	763.091	807.730	679.234	714.577	753.475	749.198	719.163
<b>75</b>	335.644	363.328	379.644	440.382	377.655	392.631	416.677	420.748	407.370
<b>80</b>	163.220	172.548	168.250	182.463	183.071	187.194	194.955	198.408	189.997
<b>85</b>	53.740	51.565	51.565	54.111	58.234	58.358	59.388	58.729	56.791
<b>90</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : MDBAERNX-HET-L44-840-A-SAPL15-FA-DIM-UNV ALL ON\_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	2199.97	N.A.	16.70
0-30	4511.09	N.A.	34.20
0-40	7116.74	N.A.	53.90
0-60	11505.09	N.A.	87.20
0-80	13118.78	N.A.	99.40
0-90	13198.99	N.A.	100.00
10-90	12620.58	N.A.	95.60
20-40	4916.78	N.A.	37.30
20-50	7373.75	N.A.	55.90
40-70	5554.35	N.A.	42.10
60-80	1613.69	N.A.	12.20
70-80	447.69	N.A.	3.40
80-90	80.20	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	13198.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	578.41
10-20	1621.56
20-30	2311.12
30-40	2605.65
40-50	2456.98
50-60	1931.37
60-70	1166.00
70-80	447.69
80-90	80.20
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	128	128	128	128	125	125	125	125	120	120	120	115	115	115	110	110	110	108
1	119	115	111	107	116	112	109	105	108	105	102	103	101	99	100	98	96	94
2	109	102	95	90	107	100	94	89	96	91	87	92	88	85	89	86	83	81
3	101	90	83	76	98	89	81	76	86	79	74	83	77	73	80	76	72	70
4	93	81	72	66	90	80	72	65	77	70	64	75	68	64	72	67	63	61
5	86	73	64	57	84	72	63	57	70	62	56	68	61	56	66	60	55	53
6	80	66	57	51	78	65	57	50	63	56	50	62	55	50	60	54	49	47
7	74	60	51	45	72	59	51	45	58	50	45	56	50	44	55	49	44	42
8	69	55	47	41	67	55	46	41	53	46	40	52	45	40	51	44	40	38
9	65	51	43	37	63	50	42	37	49	42	37	48	41	36	47	41	36	34
10	61	47	39	34	59	47	39	34	46	38	33	45	38	33	44	38	33	31

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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	19.5	21.0	19.9	21.3	21.7	20.5	22.0	20.8	22.3	22.6
	3H	20.8	22.1	21.2	22.5	22.8	21.7	23.1	22.1	23.4	23.8
	4H	21.2	22.4	21.6	22.8	23.2	22.0	23.3	22.4	23.7	24.0
	6H	21.4	22.5	21.8	22.9	23.3	22.2	23.4	22.6	23.7	24.1
	8H	21.4	22.5	21.8	22.9	23.3	22.2	23.3	22.6	23.7	24.1
	12H	21.4	22.5	21.8	22.9	23.3	22.2	23.3	22.6	23.7	24.1

### UGR Viewed Endwise

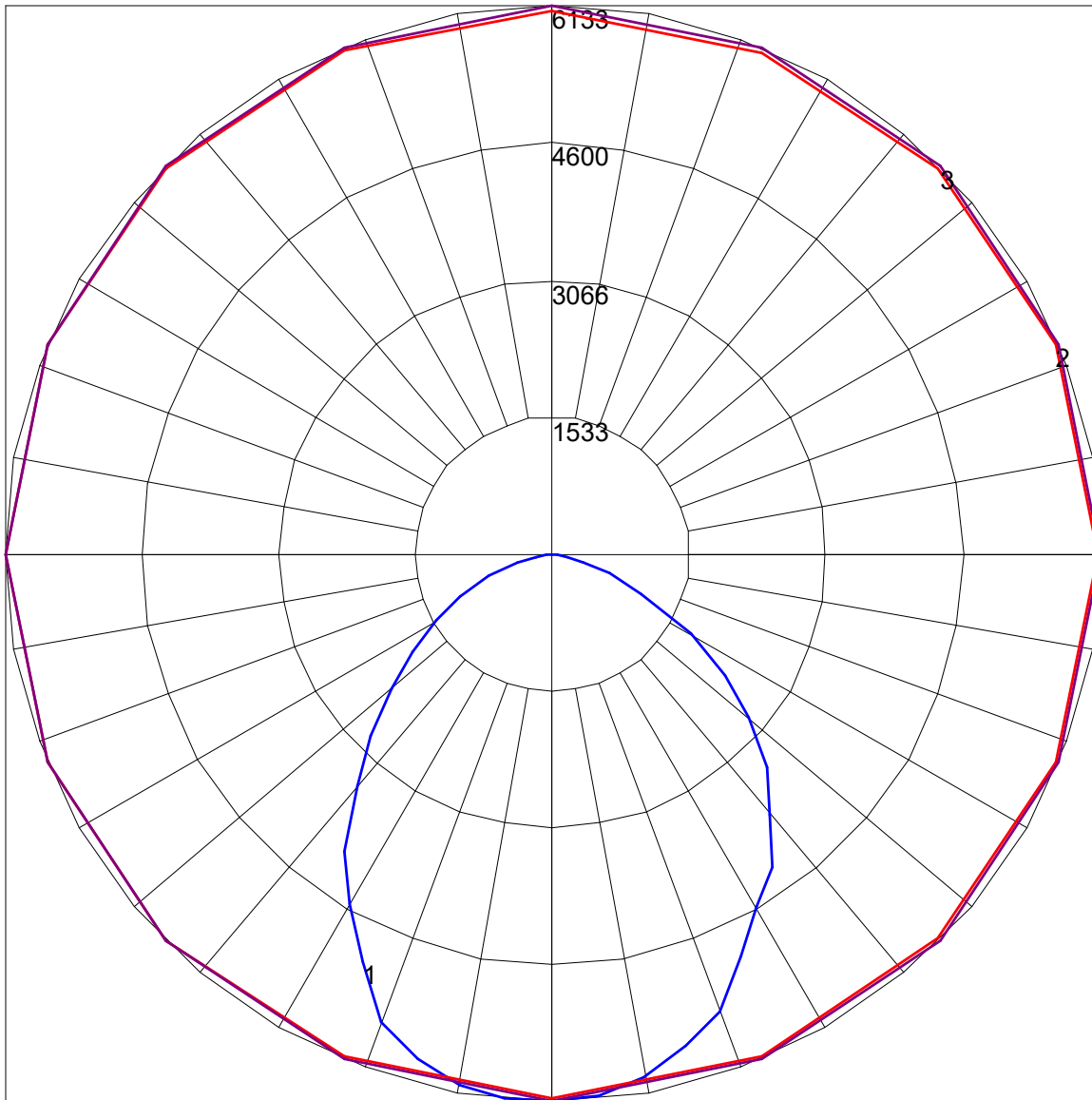
4H	2H	20.0	21.3	20.4	21.7	22.0	20.9	22.1	21.3	22.5	22.9
	3H	21.5	22.6	21.9	23.0	23.4	22.3	23.4	22.7	23.8	24.2
	4H	22.0	22.9	22.4	23.3	23.8	22.7	23.6	23.1	24.1	24.5
	6H	22.2	23.1	22.7	23.5	24.0	22.9	23.7	23.4	24.2	24.6
	8H	22.3	23.1	22.8	23.5	24.0	23.0	23.7	23.4	24.2	24.6
	12H	22.3	23.0	22.8	23.5	24.0	23.0	23.7	23.5	24.1	24.6
8H	4H	22.1	22.9	22.6	23.3	23.8	22.8	23.6	23.3	24.0	24.5
	6H	22.5	23.1	23.0	23.6	24.1	23.1	23.7	23.6	24.2	24.7
	8H	22.6	23.1	23.1	23.6	24.1	23.2	23.7	23.7	24.2	24.7
	12H	22.6	23.1	23.1	23.6	24.2	23.2	23.7	23.7	24.2	24.8
12H	4H	22.1	22.8	22.6	23.3	23.7	22.8	23.5	23.3	24.0	24.4
	6H	22.5	23.0	23.0	23.5	24.0	23.1	23.7	23.6	24.1	24.7
	8H	22.6	23.1	23.1	23.6	24.2	23.2	23.7	23.7	24.2	24.8

Maximum UGR = 24.8

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## POLAR GRAPH



Maximum Candela = 6132.795 Located At Horizontal Angle = 157.5, Vertical Angle = 5

# 1 - Vertical Plane Through Horizontal Angles (157.5 - 337.5) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

# 3 - Horizontal Cone Through Vertical Angle (0)