



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MD2G-4-L30-935-A-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN from BALLABS TEST NO. 16990.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 3-10-2022  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMINAIRE] 4' LINEAR RECESSED ASYMMETRIC LUMINAIRE  
 [MORE] WHITE REFL w/FROSTED ACRYLIC RIBBED ASYMMETRIC DIFFUSER  
 [LUMCAT] MD2G-4-L30-935-A-DIM-UNV  
 [ \_SEARCH\_SOURCETYPE] LED  
 [ \_SEARCH\_APPLICATION] INDOOR, HEALTHCARE, LINEAR, DIRECT  
 [ \_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2411
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	85
Total Luminaire Watts	28.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.44
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.24
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.35 ft
Luminous Width (90-270)	3.84 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8579	9539	6888
55	5525	7331	5632
65	3501	5179	4654
75	2430	3287	3549
85	1556	2193	2547

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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>	1139.840	1139.840	1139.840	1139.840	1139.840	1139.840	1139.840	1139.840	1139.840
<b>5</b>	1196.755	1187.526	1167.528	1140.609	1112.921	1094.462	1066.004	1045.238	1036.778
<b>10</b>	1249.055	1235.211	1202.908	1153.684	1093.693	1042.930	990.630	954.481	939.099
<b>15</b>	1229.827	1214.445	1175.989	1115.997	1036.008	959.865	884.491	835.267	814.501
<b>20</b>	1317.507	1295.203	1242.902	1153.684	1039.854	920.640	814.501	740.665	716.053
<b>25</b>	1230.596	1214.445	1162.914	1071.388	947.559	819.116	705.286	631.450	607.607
<b>30</b>	1189.833	1173.681	1121.381	1019.857	874.493	726.821	606.069	531.464	506.083
<b>35</b>	1083.694	1086.770	1055.236	950.636	799.888	645.294	527.618	457.628	434.554
<b>40</b>	915.256	936.022	949.098	846.804	693.749	540.693	430.709	366.872	347.643
<b>45</b>	756.817	791.427	841.420	764.508	607.607	457.628	359.949	303.034	287.652
<b>50</b>	562.998	604.531	677.597	641.448	503.006	373.794	293.036	248.427	234.582
<b>55</b>	395.329	439.938	524.542	522.234	403.020	294.574	228.429	192.281	177.667
<b>60</b>	273.039	302.265	386.869	409.173	317.648	232.275	179.206	146.133	139.211
<b>65</b>	184.589	209.201	273.039	312.264	245.350	176.898	131.520	111.523	106.908
<b>70</b>	121.521	133.827	176.129	214.585	173.822	123.060	89.218	79.220	76.912
<b>75</b>	78.451	84.604	106.139	135.366	114.599	76.143	57.684	52.300	51.531
<b>80</b>	45.378	48.455	59.222	75.374	67.683	39.994	33.072	29.996	29.996
<b>85</b>	16.921	18.459	23.843	29.227	27.688	15.382	13.844	11.537	11.537
<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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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	401.91	N.A.	16.70
0-30	835.04	N.A.	34.60
0-40	1321.26	N.A.	54.80
0-60	2092.37	N.A.	86.80
0-80	2387.1	N.A.	99.00
0-90	2410.91	N.A.	100.00
10-90	2304.8	N.A.	95.60
20-40	919.35	N.A.	38.10
20-50	1363.68	N.A.	56.60
40-70	971.42	N.A.	40.30
60-80	294.73	N.A.	12.20
70-80	94.42	N.A.	3.90
80-90	23.81	N.A.	1.00
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	2410.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	106.11
10-20	295.80
20-30	433.13
30-40	486.22
40-50	444.32
50-60	326.78
60-70	200.31
70-80	94.42
80-90	23.81
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58	56
5	80	68	60	53	78	67	59	53	65	58	53	63	57	52	61	56	51	49
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	37	47	42	37	35
9	60	48	40	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32
10	57	44	36	31	55	43	36	31	43	36	31	42	35	31	41	35	31	29

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**UGR TABLE - CORRECTED**

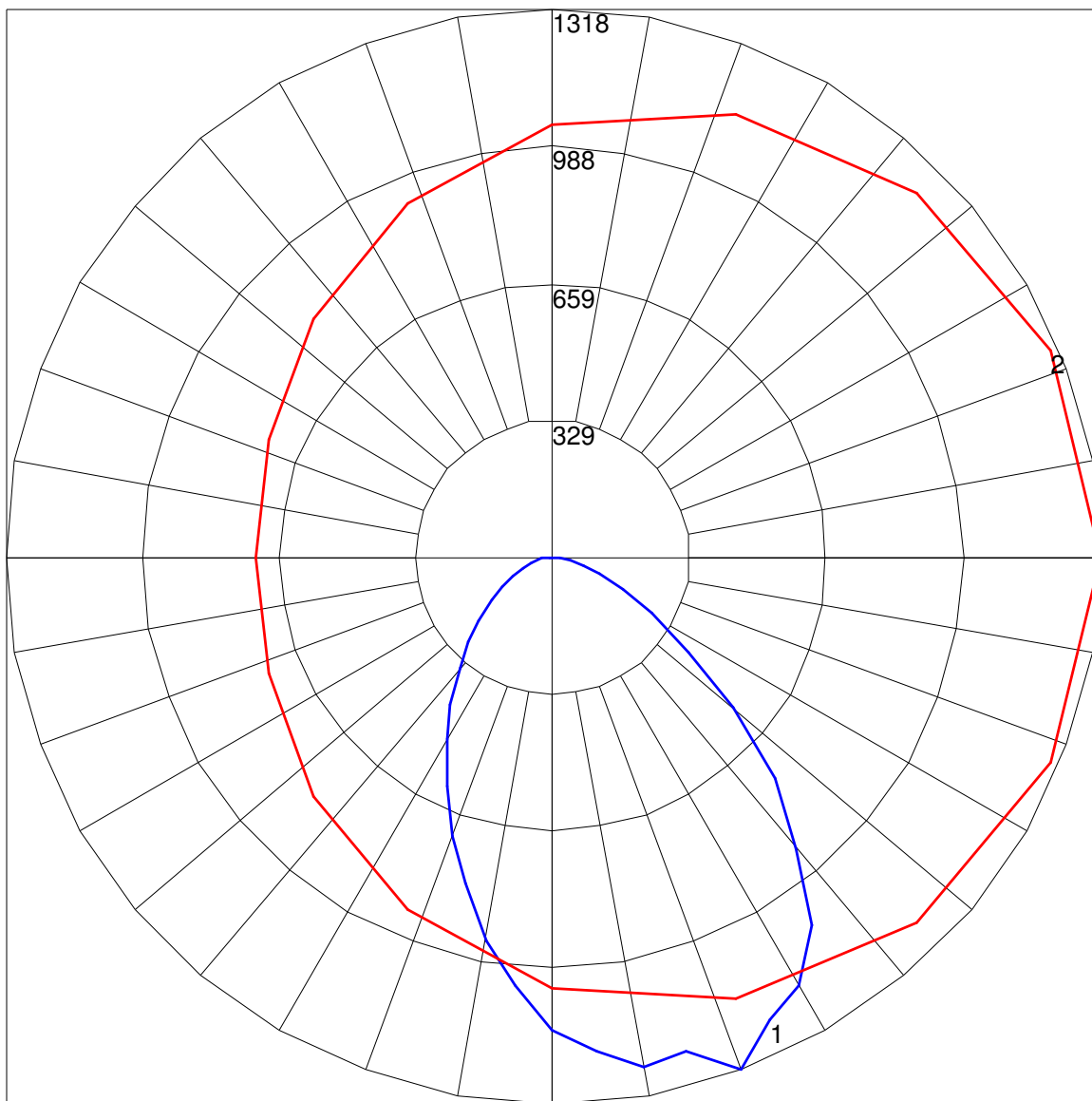
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	17.9	19.4	18.3	19.7	20.0	18.1	19.6	18.5	19.9	20.2
	3H	18.8	20.1	19.1	20.4	20.8	19.5	20.8	19.8	21.1	21.5
	4H	19.0	20.3	19.4	20.6	21.0	19.9	21.2	20.3	21.5	21.9
	6H	19.2	20.4	19.6	20.7	21.1	20.2	21.4	20.6	21.7	22.1
	8H	19.2	20.4	19.7	20.7	21.1	20.3	21.4	20.7	21.8	22.2
	12H	19.3	20.3	19.7	20.7	21.1	20.4	21.4	20.8	21.8	22.2
4H	2H	18.6	19.8	19.0	20.2	20.6	18.4	19.7	18.8	20.0	20.4
	3H	19.6	20.6	20.0	21.0	21.4	20.0	21.0	20.4	21.4	21.8
	4H	19.9	20.9	20.4	21.3	21.7	20.5	21.5	21.0	21.9	22.3
	6H	20.2	21.0	20.6	21.4	21.9	21.0	21.8	21.4	22.2	22.7
	8H	20.2	21.0	20.7	21.5	21.9	21.1	21.9	21.6	22.3	22.8
	12H	20.3	21.0	20.8	21.4	21.9	21.2	21.9	21.7	22.4	22.8
8H	4H	20.2	20.9	20.6	21.4	21.8	20.6	21.4	21.1	21.8	22.3
	6H	20.5	21.1	21.0	21.6	22.1	21.1	21.8	21.6	22.3	22.7
	8H	20.6	21.2	21.2	21.7	22.2	21.3	21.9	21.9	22.4	22.9
	12H	20.7	21.2	21.2	21.7	22.3	21.5	22.0	22.0	22.5	23.0
12H	4H	20.2	20.9	20.7	21.4	21.8	20.6	21.3	21.1	21.8	22.2
	6H	20.6	21.1	21.1	21.6	22.1	21.1	21.7	21.6	22.2	22.7
	8H	20.7	21.2	21.2	21.7	22.3	21.4	21.9	21.9	22.3	22.9

Maximum UGR = 23.0

POLAR GRAPH



Maximum Candela = 1317.507 Located At Horizontal Angle = 0, Vertical Angle = 20  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (20) (Through Max. Cd.)