



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : MD2G-4-L30-8TW-A-DIM-UNV 4000K\_.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-MAR-2020

[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-L30-8TW-A-DIM-UNV 4000k

[\_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	3049
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	92
Total Luminaire Watts	33.1
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	10849	12062	8710
55	6986	9270	7122
65	4427	6549	5885
75	3072	4157	4488
85	1968	2773	3220

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : MD2G-4-L30-8TW-A-DIM-UNV 4000K\_.IES**

**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>	1441.345	1441.345	1441.345	1441.345	1441.345	1441.345	1441.345	1441.345	1441.345
<b>5</b>	1513.315	1501.644	1476.358	1442.318	1407.305	1383.964	1347.979	1321.719	1311.021
<b>10</b>	1579.450	1561.944	1521.096	1458.852	1382.991	1318.802	1252.667	1206.956	1187.505
<b>15</b>	1555.136	1535.684	1487.056	1411.196	1310.049	1213.764	1118.453	1056.208	1029.949
<b>20</b>	1666.008	1637.804	1571.669	1458.852	1314.911	1164.164	1029.949	936.583	905.461
<b>25</b>	1556.108	1535.684	1470.522	1354.787	1198.203	1035.785	891.845	798.478	768.328
<b>30</b>	1504.562	1484.138	1418.004	1289.625	1105.809	919.076	766.383	672.044	639.950
<b>35</b>	1370.348	1374.238	1334.363	1202.094	1011.470	815.984	667.181	578.678	549.501
<b>40</b>	1157.356	1183.615	1200.149	1070.797	877.256	683.715	544.638	463.915	439.601
<b>45</b>	957.007	1000.772	1063.989	966.732	768.328	578.678	455.162	383.192	363.740
<b>50</b>	711.920	764.438	856.832	811.121	636.059	472.668	370.548	314.139	296.633
<b>55</b>	499.900	556.309	663.291	660.373	509.625	372.493	288.853	243.142	224.663
<b>60</b>	345.262	382.219	489.202	517.406	401.670	293.715	226.608	184.788	176.035
<b>65</b>	233.416	264.538	345.262	394.862	310.249	223.691	166.309	141.022	135.187
<b>70</b>	153.666	169.227	222.718	271.346	219.800	155.611	112.818	100.174	97.257
<b>75</b>	99.202	106.982	134.214	171.172	144.913	96.284	72.943	66.135	65.162
<b>80</b>	57.381	61.272	74.888	95.312	85.586	50.574	41.820	37.930	37.930
<b>85</b>	21.396	23.342	30.150	36.958	35.012	19.451	17.506	14.589	14.589
<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 : MD2G-4-L30-8TW-A-DIM-UNV 4000K\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	508.22	N.A.	16.70
0-30	1055.93	N.A.	34.60
0-40	1670.76	N.A.	54.80
0-60	2645.83	N.A.	86.80
0-80	3018.52	N.A.	99.00
0-90	3048.64	N.A.	100.00
10-90	2914.45	N.A.	95.60
20-40	1162.54	N.A.	38.10
20-50	1724.39	N.A.	56.60
40-70	1228.37	N.A.	40.30
60-80	372.69	N.A.	12.20
70-80	119.40	N.A.	3.90
80-90	30.11	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	3048.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	134.18
10-20	374.04
20-30	547.71
30-40	614.83
40-50	561.85
50-60	413.22
60-70	253.30
70-80	119.40
80-90	30.11
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : MD2G-4-L30-8TW-A-DIM-UNV 4000K\_.IES**

**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	120	120	120	120	118	118	118	118	112	112	112	108	108	108	103	103	103	101
1	111	107	103	100	109	105	102	98	101	98	95	97	95	92	93	91	90	88
2	103	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	77	75
3	94	85	77	71	92	83	76	71	80	74	70	78	73	68	75	71	67	65
4	87	76	68	62	85	75	67	61	72	66	60	70	64	60	68	63	59	57
5	81	69	60	54	79	67	60	54	65	58	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	53	48	60	52	47	58	52	47	56	51	46	44
7	70	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	38	63	51	44	38	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	60	47	40	35	46	39	35	45	39	34	44	39	34	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	31	30

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : MD2G-4-L30-8TW-A-DIM-UNV 4000K\_.IES**

**UGR TABLE - CORRECTED**

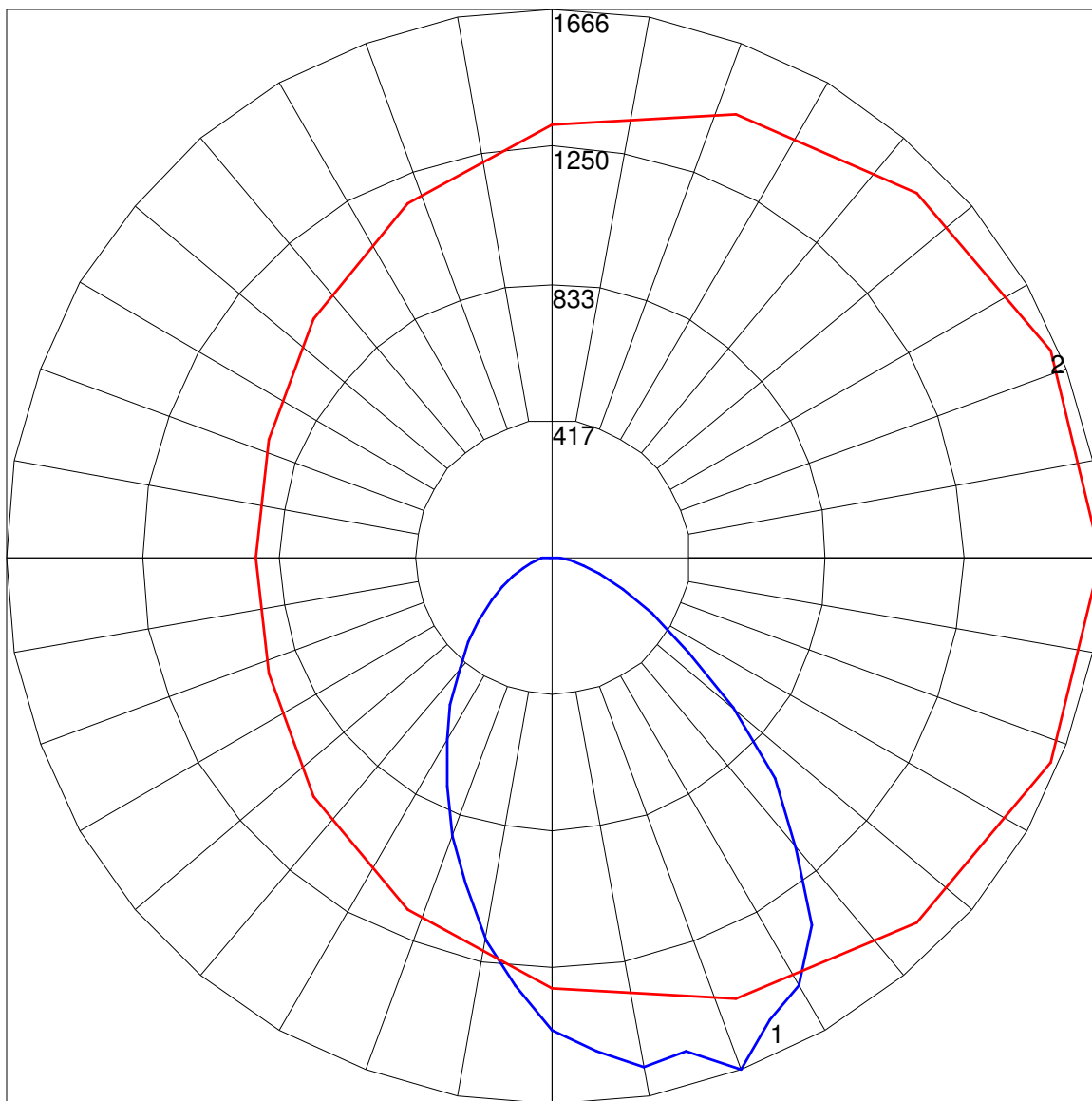
Reflectances

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	18.6	20.1	19.0	20.4	20.7	18.8	20.3	19.2	20.6	20.9
	3H	19.4	20.8	19.8	21.1	21.5	20.2	21.5	20.5	21.8	22.2
	4H	19.7	21.0	20.1	21.3	21.7	20.6	21.9	21.0	22.2	22.6
	6H	19.9	21.1	20.3	21.4	21.8	20.9	22.1	21.3	22.4	22.8
	8H	19.9	21.1	20.4	21.4	21.8	21.0	22.1	21.4	22.5	22.9
	12H	20.0	21.0	20.4	21.4	21.8	21.1	22.1	21.5	22.5	22.9
4H	2H	19.3	20.5	19.7	20.9	21.3	19.1	20.4	19.5	20.7	21.1
	3H	20.3	21.3	20.7	21.7	22.1	20.7	21.7	21.1	22.1	22.5
	4H	20.6	21.6	21.1	22.0	22.4	21.2	22.2	21.7	22.6	23.0
	6H	20.9	21.7	21.3	22.1	22.6	21.7	22.5	22.1	22.9	23.4
	8H	20.9	21.7	21.4	22.2	22.6	21.8	22.6	22.3	23.0	23.5
	12H	21.0	21.7	21.5	22.1	22.6	21.9	22.6	22.4	23.1	23.5
8H	4H	20.9	21.6	21.3	22.1	22.5	21.3	22.1	21.8	22.5	23.0
	6H	21.2	21.8	21.7	22.3	22.8	21.8	22.5	22.3	22.9	23.4
	8H	21.3	21.9	21.9	22.4	22.9	22.0	22.6	22.6	23.1	23.6
	12H	21.4	21.9	21.9	22.4	23.0	22.2	22.7	22.7	23.2	23.7
12H	4H	20.9	21.6	21.4	22.1	22.5	21.3	22.0	21.8	22.5	22.9
	6H	21.3	21.8	21.8	22.3	22.8	21.8	22.4	22.3	22.9	23.4
	8H	21.4	21.9	21.9	22.4	23.0	22.1	22.6	22.6	23.0	23.6

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 1666.008 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.)