



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MD2G-4-P25-8TW-A-CHA118-POE 4000K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 16991.0
 [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 &
 [MORE] CLEAR ACRYLIC LENS
 [LUMCAT] MD2G-4-P25-8TW-A/CHA118-PoE 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	2353
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	94
Total Luminaire Watts	25.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.44
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.26
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	8529	9372	6870
55	5352	7051	5520
65	3078	4610	4322
75	1659	2377	2749
85	809	1029	1103

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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	1123.331	1123.331	1123.331	1123.331	1123.331	1123.331	1123.331	1123.331	1123.331
5	1179.298	1166.506	1151.315	1125.730	1101.744	1083.355	1055.372	1036.983	1031.386
10	1228.869	1212.079	1182.496	1137.723	1084.155	1032.985	983.415	950.634	934.644
15	1209.680	1196.088	1158.511	1099.346	1024.990	953.033	881.875	834.703	814.715
20	1295.229	1271.243	1221.673	1138.522	1030.587	920.252	819.512	749.154	728.367
25	1213.678	1196.888	1145.718	1059.370	941.040	819.512	714.775	643.617	622.829
30	1172.102	1154.513	1107.341	1007.400	870.682	728.367	617.233	546.875	522.889
35	1071.362	1074.561	1039.381	939.441	795.527	653.211	540.478	474.118	451.731
40	909.059	927.448	929.847	834.703	691.588	549.273	445.335	383.772	367.781
45	752.352	789.930	826.708	752.352	606.039	466.922	374.177	320.609	307.817
50	552.471	598.044	659.607	624.428	496.505	376.576	303.819	261.444	248.652
55	382.972	418.151	504.500	504.500	394.965	299.022	238.258	203.879	191.086
60	253.449	281.433	362.984	388.569	306.218	231.062	183.091	153.509	146.313
65	162.303	187.089	243.055	279.034	227.864	167.101	128.723	109.535	107.136
70	98.341	109.535	145.513	179.093	151.110	109.535	83.950	75.155	73.556
75	53.568	59.165	76.754	98.341	88.747	59.165	47.172	43.974	41.575
80	26.384	27.184	33.580	42.375	40.776	26.384	23.186	20.788	20.788
85	8.795	8.795	11.193	11.993	11.993	7.995	7.995	7.995	7.995
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	397.76	N.A.	16.90
0-30	828.81	N.A.	35.20
0-40	1314.58	N.A.	55.90
0-60	2081.27	N.A.	88.40
0-80	2339.78	N.A.	99.40
0-90	2353.07	N.A.	100.00
10-90	2248.23	N.A.	95.50
20-40	916.82	N.A.	39.00
20-50	1361.68	N.A.	57.90
40-70	952.10	N.A.	40.50
60-80	258.51	N.A.	11.00
70-80	73.10	N.A.	3.10
80-90	13.29	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	2353.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	104.83
10-20	292.92
20-30	431.06
30-40	485.77
40-50	444.86
50-60	321.83
60-70	185.40
70-80	73.10
80-90	13.29
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	118	118	118	118	115	115	115	115	110	110	110	105	105	105	101	101	101	99
1	109	105	102	99	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	88	83	98	92	86	82	88	84	80	85	82	78	82	79	77	75
3	93	84	76	71	90	82	75	70	79	74	69	77	72	68	74	70	67	65
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	59	57
5	79	68	60	54	77	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	61	53	47	72	61	53	47	59	52	47	57	51	47	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	42	51	46	41	40
8	64	51	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36
9	60	47	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32
10	56	44	37	32	55	43	36	32	43	36	31	42	36	31	41	35	31	30

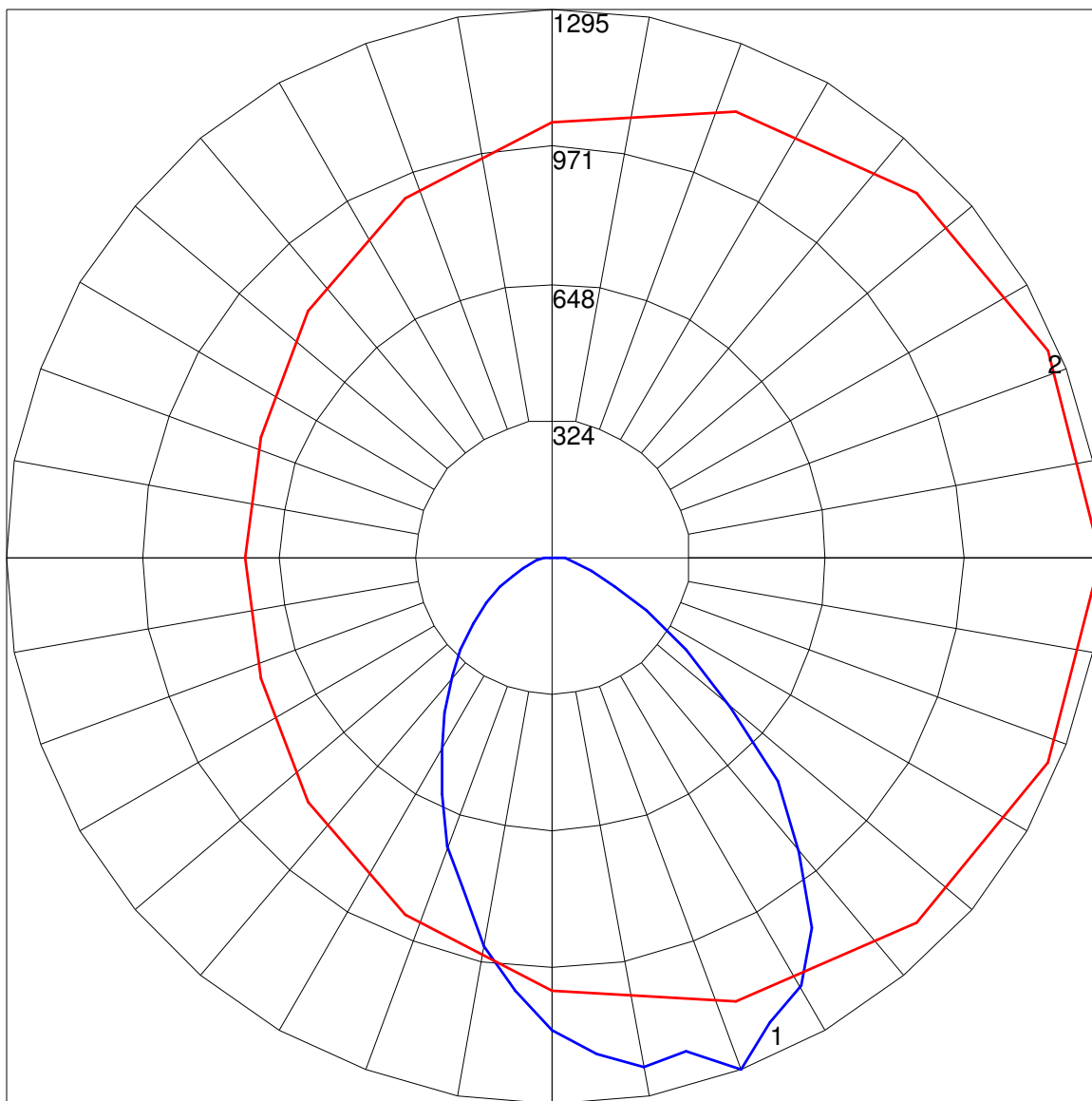
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UGR TABLE - CORRECTED

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	17.6	19.1	18.0	19.4	19.7	18.0	19.5	18.4	19.8	20.1
	3H	18.3	19.6	18.6	19.9	20.3	19.1	20.4	19.5	20.8	21.1
	4H	18.4	19.6	18.8	20.0	20.4	19.4	20.7	19.8	21.0	21.4
	6H	18.5	19.6	18.9	20.0	20.4	19.6	20.7	20.0	21.1	21.5
	8H	18.4	19.5	18.9	19.9	20.3	19.6	20.7	20.0	21.1	21.5
	12H	18.4	19.5	18.9	19.9	20.3	19.6	20.6	20.0	21.0	21.4
4H	2H	18.2	19.4	18.6	19.8	20.2	18.3	19.5	18.7	19.9	20.2
	3H	19.0	20.0	19.4	20.4	20.8	19.6	20.6	20.0	21.0	21.4
	4H	19.2	20.1	19.6	20.5	20.9	19.9	20.8	20.4	21.3	21.7
	6H	19.3	20.1	19.7	20.5	21.0	20.1	20.9	20.6	21.4	21.8
	8H	19.3	20.0	19.7	20.4	20.9	20.2	20.9	20.6	21.4	21.8
	12H	19.3	19.9	19.7	20.4	20.9	20.2	20.8	20.7	21.3	21.8
8H	4H	19.3	20.0	19.8	20.5	21.0	19.9	20.7	20.4	21.1	21.6
	6H	19.4	20.0	19.9	20.5	21.0	20.2	20.8	20.7	21.3	21.8
	8H	19.4	20.0	20.0	20.5	21.0	20.2	20.8	20.7	21.3	21.8
	12H	19.4	19.9	20.0	20.4	21.0	20.3	20.7	20.8	21.2	21.8
12H	4H	19.3	20.0	19.8	20.4	20.9	19.9	20.6	20.4	21.1	21.5
	6H	19.4	20.0	19.9	20.4	21.0	20.2	20.7	20.7	21.2	21.7
	8H	19.5	20.0	20.0	20.4	21.0	20.2	20.7	20.7	21.2	21.8

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 1295.229 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.)