



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MD2G-4-P25-8TW-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-P25-8TW-A-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	2507
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	25.1
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	8920	9918	7162
55	5744	7622	5856
65	3640	5385	4839
75	2526	3418	3690
85	1618	2280	2648

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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	1185.127	1185.127	1185.127	1185.127	1185.127	1185.127	1185.127	1185.127	1185.127
5	1244.304	1234.707	1213.916	1185.927	1157.138	1137.946	1108.358	1086.766	1077.970
10	1298.682	1284.288	1250.701	1199.522	1137.146	1084.367	1029.989	992.404	976.411
15	1278.690	1262.696	1222.712	1160.337	1077.170	998.002	919.633	868.454	846.862
20	1369.854	1346.663	1292.285	1199.522	1081.169	957.218	846.862	770.093	744.503
25	1279.490	1262.696	1209.118	1113.956	985.207	851.660	733.307	656.538	631.748
30	1237.107	1220.313	1165.935	1060.377	909.237	755.699	630.149	552.580	526.190
35	1126.751	1129.949	1097.162	988.406	831.668	670.932	548.581	475.810	451.820
40	951.620	973.212	986.806	880.449	721.312	562.176	447.821	381.448	361.456
45	786.886	822.872	874.851	794.883	631.748	475.810	374.251	315.074	299.081
50	585.366	628.549	704.519	666.934	522.991	388.645	304.678	258.297	243.903
55	411.036	457.418	545.382	542.983	419.033	306.278	237.505	199.920	184.726
60	283.887	314.275	402.240	425.430	330.268	241.504	186.326	151.939	144.742
65	191.923	217.513	283.887	324.670	255.098	183.927	136.745	115.954	111.156
70	126.350	139.144	183.127	223.111	180.728	127.949	92.763	82.367	79.968
75	81.567	87.965	110.356	140.744	119.152	79.168	59.976	54.378	53.579
80	47.181	50.380	61.575	78.369	70.372	41.583	34.386	31.188	31.188
85	17.593	19.192	24.790	30.388	28.789	15.994	14.394	11.995	11.995
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	417.88	N.A.	16.70
0-30	868.22	N.A.	34.60
0-40	1373.76	N.A.	54.80
0-60	2175.5	N.A.	86.80
0-80	2481.94	N.A.	99.00
0-90	2506.7	N.A.	100.00
10-90	2396.37	N.A.	95.60
20-40	955.88	N.A.	38.10
20-50	1417.86	N.A.	56.60
40-70	1010.01	N.A.	40.30
60-80	306.44	N.A.	12.20
70-80	98.17	N.A.	3.90
80-90	24.76	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	2506.7	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	110.33
10-20	307.55
20-30	450.34
30-40	505.54
40-50	461.98
50-60	339.76
60-70	208.27
70-80	98.17
80-90	24.76
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	101	98	106	103	99	96	98	96	93	95	92	90	91	89	88	86
2	100	93	87	82	98	91	86	81	88	83	79	85	81	77	82	79	76	74
3	92	83	76	70	90	81	75	69	78	73	68	76	71	67	73	69	66	64
4	85	74	66	60	83	73	66	60	71	64	59	68	63	58	66	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	73	61	53	47	71	60	52	47	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	66	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	46	39	34	45	39	34	44	38	34	43	38	34	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29

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UGR TABLE - CORRECTED

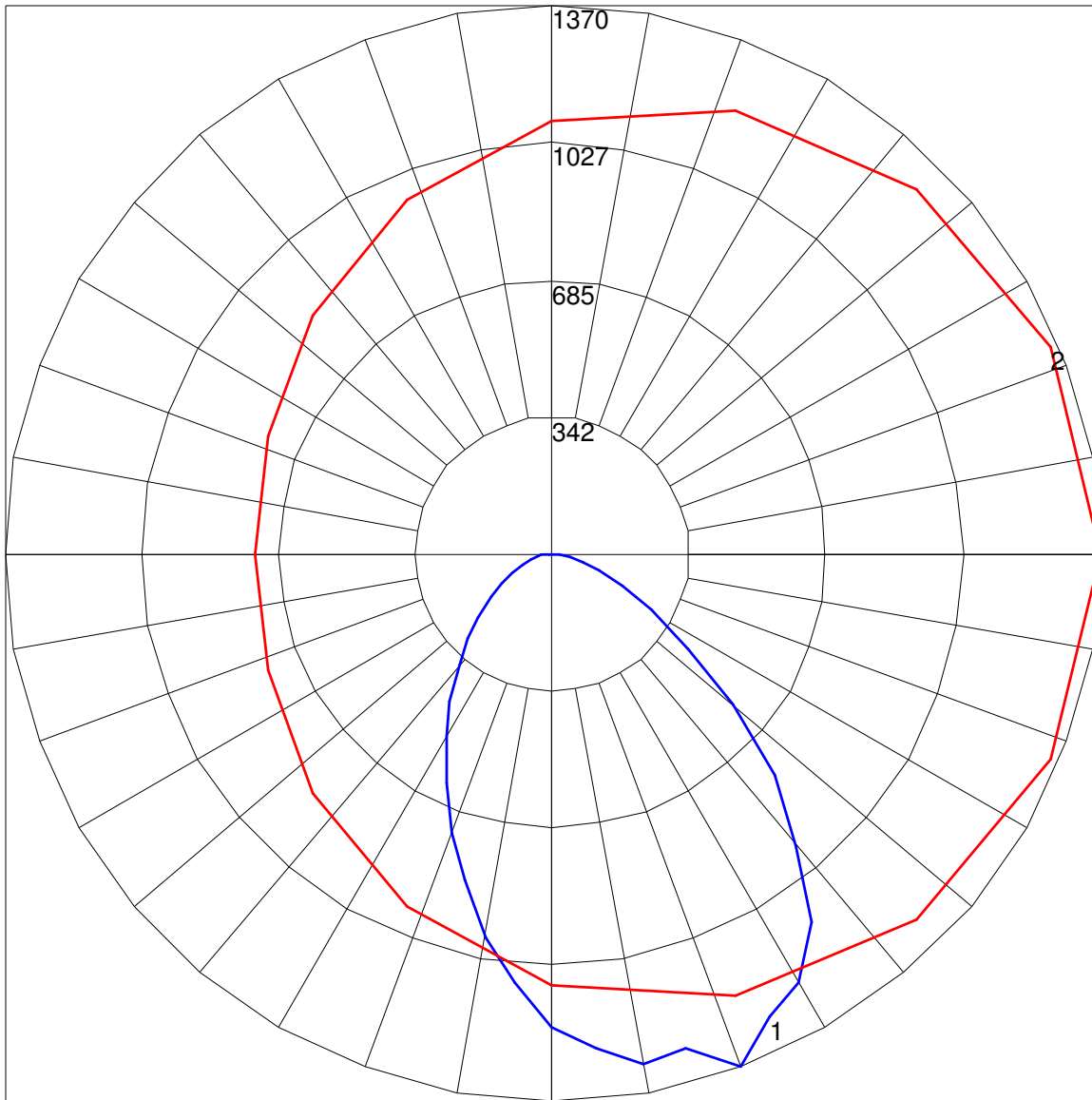
Reflectances

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	18.0	19.5	18.4	19.8	20.1	18.2	19.7	18.6	20.0	20.3
	3H	18.8	20.2	19.2	20.5	20.9	19.6	20.9	19.9	21.2	21.6
	4H	19.1	20.4	19.5	20.7	21.1	20.0	21.3	20.4	21.6	22.0
	6H	19.3	20.5	19.7	20.8	21.2	20.3	21.5	20.7	21.8	22.2
	8H	19.3	20.5	19.8	20.8	21.2	20.4	21.5	20.8	21.9	22.3
	12H	19.4	20.4	19.8	20.8	21.2	20.5	21.5	20.9	21.9	22.3
4H	2H	18.7	19.9	19.1	20.3	20.7	18.5	19.8	18.9	20.1	20.5
	3H	19.7	20.7	20.1	21.1	21.5	20.1	21.1	20.5	21.5	21.9
	4H	20.0	21.0	20.5	21.4	21.8	20.6	21.6	21.1	22.0	22.4
	6H	20.3	21.1	20.7	21.5	22.0	21.1	21.9	21.5	22.3	22.8
	8H	20.3	21.1	20.8	21.6	22.0	21.2	22.0	21.7	22.4	22.9
	12H	20.4	21.1	20.9	21.5	22.0	21.3	22.0	21.8	22.5	22.9
8H	4H	20.3	21.0	20.7	21.5	21.9	20.7	21.5	21.2	21.9	22.4
	6H	20.6	21.2	21.1	21.7	22.2	21.2	21.9	21.7	22.3	22.8
	8H	20.7	21.3	21.3	21.8	22.3	21.4	22.0	22.0	22.5	23.0
	12H	20.8	21.3	21.3	21.8	22.4	21.6	22.1	22.1	22.6	23.1
12H	4H	20.3	21.0	20.8	21.5	21.9	20.7	21.4	21.2	21.9	22.3
	6H	20.7	21.2	21.2	21.7	22.2	21.2	21.8	21.7	22.3	22.8
	8H	20.8	21.3	21.3	21.8	22.4	21.5	22.0	22.0	22.4	23.0

Maximum UGR = 23.1

POLAR GRAPH



Maximum Candela = 1369.854 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.)