



IES INDOOR REPORT

PHOTOMETRIC FILENAME : MDSG-14-L100-940-SYM-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20301.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 09-06-2022
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC. - CARTHAGE, MO
 [LUMINAIRE] 1x4' RECESSED LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED PAT12 ACRYLIC LENS
 [LUMCAT] MDSG-14-L100-940-SYM-DIM-UNV
 [LAMP] LED
 [LAMPCAT] HLM 90 CRI 4000K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Healthcare, Direct
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8552
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	99
Total Luminaire Watts	86
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.69 ft
Luminous Width (90-270)	0.69 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	13211	11619	10320
55	10815	9048	7760
65	8551	6960	6203
75	6757	5832	5751
85	4683	4199	4602

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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>
0	4014.069	4014.069	4014.069	4014.069	4014.069
5	4055.579	3992.483	3975.049	3965.086	3968.407
10	3989.162	3922.745	3904.481	3891.197	3889.537
15	3872.103	3809.007	3781.610	3759.194	3751.722
20	3714.363	3643.795	3604.775	3563.264	3550.811
25	3499.338	3427.940	3370.655	3306.729	3266.879
30	3241.973	3161.442	3068.459	2967.173	2938.116
35	2933.134	2854.264	2713.129	2593.578	2547.086
40	2581.125	2483.160	2337.873	2180.133	2126.170
45	2204.209	2111.226	1938.542	1775.821	1721.857
50	1828.124	1740.122	1569.928	1418.000	1364.866
55	1463.661	1383.961	1224.561	1102.520	1050.217
60	1145.691	1069.311	946.440	841.834	803.644
65	852.626	791.191	694.056	634.281	618.507
70	610.205	572.015	505.598	481.522	471.560
75	412.615	396.841	356.160	348.688	351.179
80	252.384	241.591	226.648	227.478	229.968
85	96.304	96.304	86.342	98.795	94.644
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1445.31	N.A.	16.90
0-30	2993.2	N.A.	35.00
0-40	4691.74	N.A.	54.90
0-60	7320.62	N.A.	85.60
0-80	8436.8	N.A.	98.70
0-90	8551.85	N.A.	100.00
10-90	8173.58	N.A.	95.60
20-40	3246.43	N.A.	38.00
20-50	4752.94	N.A.	55.60
40-70	3348.98	N.A.	39.20
60-80	1116.18	N.A.	13.10
70-80	396.09	N.A.	4.60
80-90	115.05	N.A.	1.30
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	8551.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	378.27
10-20	1067.04
20-30	1547.89
30-40	1698.54
40-50	1506.5
50-60	1122.38
60-70	720.09
70-80	396.09
80-90	115.05
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	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	99	92	86	81	88	84	79	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	68	59	53	77	66	59	53	64	58	52	62	56	52	61	55	51	49
6	74	61	53	47	72	60	53	47	59	52	46	57	51	46	56	50	46	44
7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	50	43	38	48	42	37	47	41	37	35
9	60	47	40	34	59	47	39	34	46	39	34	45	39	34	44	38	34	32
10	57	44	36	31	55	44	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

X=2H	Y=2H	19.8	21.3	20.2	21.7	22.0	18.1	19.6	18.4	19.9	20.2
	3H	21.2	22.6	21.6	22.9	23.3	19.5	20.9	19.9	21.2	21.6
	4H	21.7	23.0	22.1	23.4	23.7	20.1	21.4	20.5	21.7	22.1
	6H	22.1	23.3	22.5	23.7	24.1	20.6	21.8	21.0	22.2	22.6
	8H	22.3	23.4	22.7	23.8	24.2	20.8	21.9	21.2	22.3	22.7
	12H	22.3	23.4	22.8	23.8	24.2	20.9	22.0	21.3	22.4	22.8

UGR Viewed Endwise

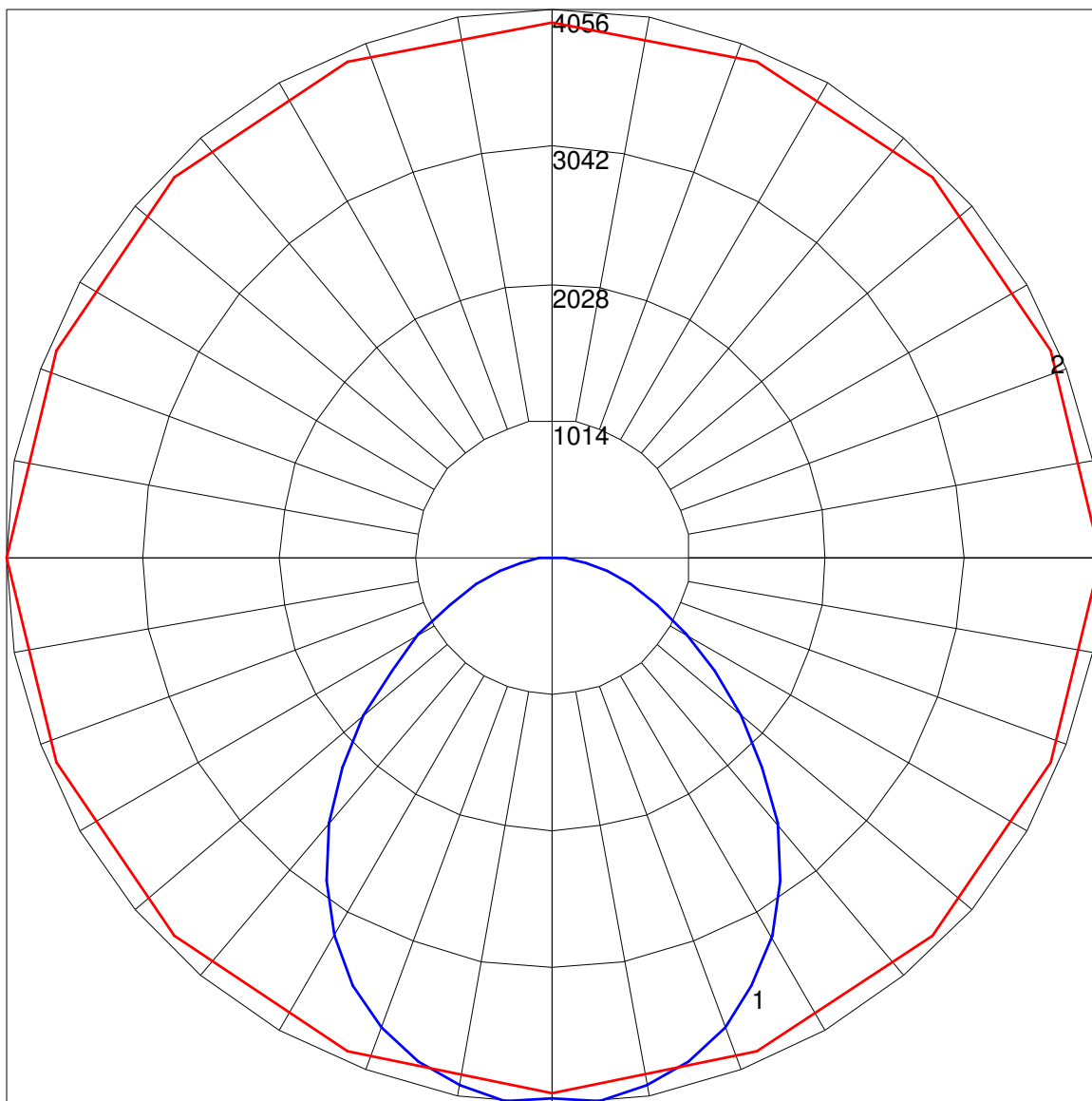
4H	2H	20.1	21.4	20.5	21.8	22.1	18.7	19.9	19.1	20.3	20.7
	3H	21.7	22.8	22.2	23.2	23.6	20.3	21.4	20.7	21.8	22.2
	4H	22.4	23.3	22.8	23.8	24.2	21.0	22.0	21.5	22.4	22.9
	6H	22.9	23.8	23.4	24.2	24.7	21.7	22.5	22.2	23.0	23.4
	8H	23.1	23.9	23.6	24.3	24.8	21.9	22.7	22.4	23.2	23.6
	12H	23.2	23.9	23.7	24.4	24.9	22.1	22.8	22.6	23.3	23.7

8H	4H	22.6	23.3	23.0	23.8	24.3	21.4	22.1	21.8	22.6	23.1
	6H	23.2	23.9	23.7	24.4	24.8	22.2	22.8	22.6	23.3	23.8
	8H	23.5	24.1	24.0	24.6	25.0	22.5	23.0	23.0	23.5	24.0
	12H	23.6	24.2	24.2	24.7	25.2	22.7	23.2	23.2	23.7	24.3

12H	4H	22.6	23.3	23.1	23.8	24.2	21.4	22.1	21.9	22.6	23.0
	6H	23.3	23.8	23.8	24.3	24.8	22.2	22.8	22.7	23.3	23.8
	8H	23.5	24.1	24.1	24.6	25.1	22.6	23.1	23.1	23.6	24.1

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 4055.579 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)