



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39W-8-L168-835-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19087.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 12-NOV-2019

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 4-56 LED 22" ARRAYS 8' SURFACE MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS

[LUMCAT] 39W-8-L168-835-A-DIM-UNV

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Architectural, Commercial, Direct, Linear

[_SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	16796
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	132
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	8.01 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8511	7637	7447
55	7163	6305	6226
65	6010	5194	5408
75	4513	4162	4667
85	2970	3550	4347

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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	6419.999	6419.999	6419.999	6419.999	6419.999
5	6455.648	6452.407	6449.166	6449.166	6452.407
10	6313.053	6309.812	6309.812	6313.053	6319.535
15	6089.439	6095.920	6105.643	6112.124	6118.606
20	5904.714	5907.955	5927.399	5930.640	5930.640
25	5408.874	5421.837	5438.041	5447.763	5447.763
30	4997.294	5013.498	5036.183	5049.146	5052.387
35	4650.529	4676.456	4712.104	4728.308	4738.031
40	4080.151	4112.559	4161.171	4190.338	4203.301
45	3626.441	3671.812	3736.627	3781.998	3798.202
50	3030.136	3075.507	3163.008	3231.065	3256.991
55	2498.647	2553.740	2660.686	2741.706	2777.354
60	1993.084	2051.418	2164.846	2284.755	2333.367
65	1568.541	1630.116	1775.951	1941.231	1993.084
70	1140.757	1215.295	1406.502	1584.745	1656.042
75	745.381	836.123	1046.774	1237.981	1306.037
80	437.506	554.175	784.270	978.718	1046.774
85	191.206	317.597	544.452	729.177	793.993
90	0.000	139.354	324.079	473.155	531.489
95	0.000	58.334	207.410	340.283	392.135
100	0.000	0.000	126.391	230.096	265.745
105	0.000	0.000	81.020	152.317	184.725
110	0.000	0.000	0.000	103.705	126.391
115	0.000	0.000	0.000	77.779	93.983
120	0.000	0.000	0.000	64.816	71.297
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2338.07	N.A.	13.90
0-30	4853.33	N.A.	28.90
0-40	7763.95	N.A.	46.20
0-60	12986.85	N.A.	77.30
0-80	15871.91	N.A.	94.50
0-90	16446.23	N.A.	97.90
10-90	15835.77	N.A.	94.30
20-40	5425.88	N.A.	32.30
20-50	8274.4	N.A.	49.30
40-70	6988.71	N.A.	41.60
60-80	2885.06	N.A.	17.20
70-80	1119.25	N.A.	6.70
80-90	574.32	N.A.	3.40
90-110	311.65	N.A.	1.90
90-120	343.80	N.A.	2.00
90-130	349.61	N.A.	2.10
90-150	349.61	N.A.	2.10
90-180	349.61	N.A.	2.10
110-180	37.96	N.A.	0.20
0-180	16795.83	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	610.46
10-20	1727.61
20-30	2515.26
30-40	2910.62
40-50	2848.51
50-60	2374.39
60-70	1765.81
70-80	1119.25
80-90	574.32
90-100	224.94
100-110	86.71
110-120	32.15
120-130	5.81
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	339	339	339	339	330	330	330	330	314	314	314	299	299	299	286	286	286	280
1	308	294	282	270	300	287	276	265	274	264	256	262	254	247	250	244	238	232
2	281	257	238	221	273	251	233	218	240	225	212	230	217	206	220	210	201	194
3	257	227	204	185	249	222	200	183	212	194	179	204	188	175	196	183	171	165
4	236	202	177	158	229	197	174	156	190	169	154	182	165	151	175	161	148	142
5	217	181	155	137	211	177	153	136	171	150	134	164	146	132	158	143	130	124
6	201	163	138	120	195	160	137	119	155	133	118	149	131	116	144	128	115	109
7	187	149	124	107	181	146	123	106	141	120	105	136	118	104	132	115	102	97
8	174	136	112	95	169	134	111	95	129	109	94	125	107	93	122	105	92	87
9	163	125	102	86	158	123	101	86	119	99	85	116	97	84	113	96	84	78
10	153	116	93	78	149	114	92	78	111	91	77	108	90	77	105	88	76	71

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UGR TABLE - CORRECTED

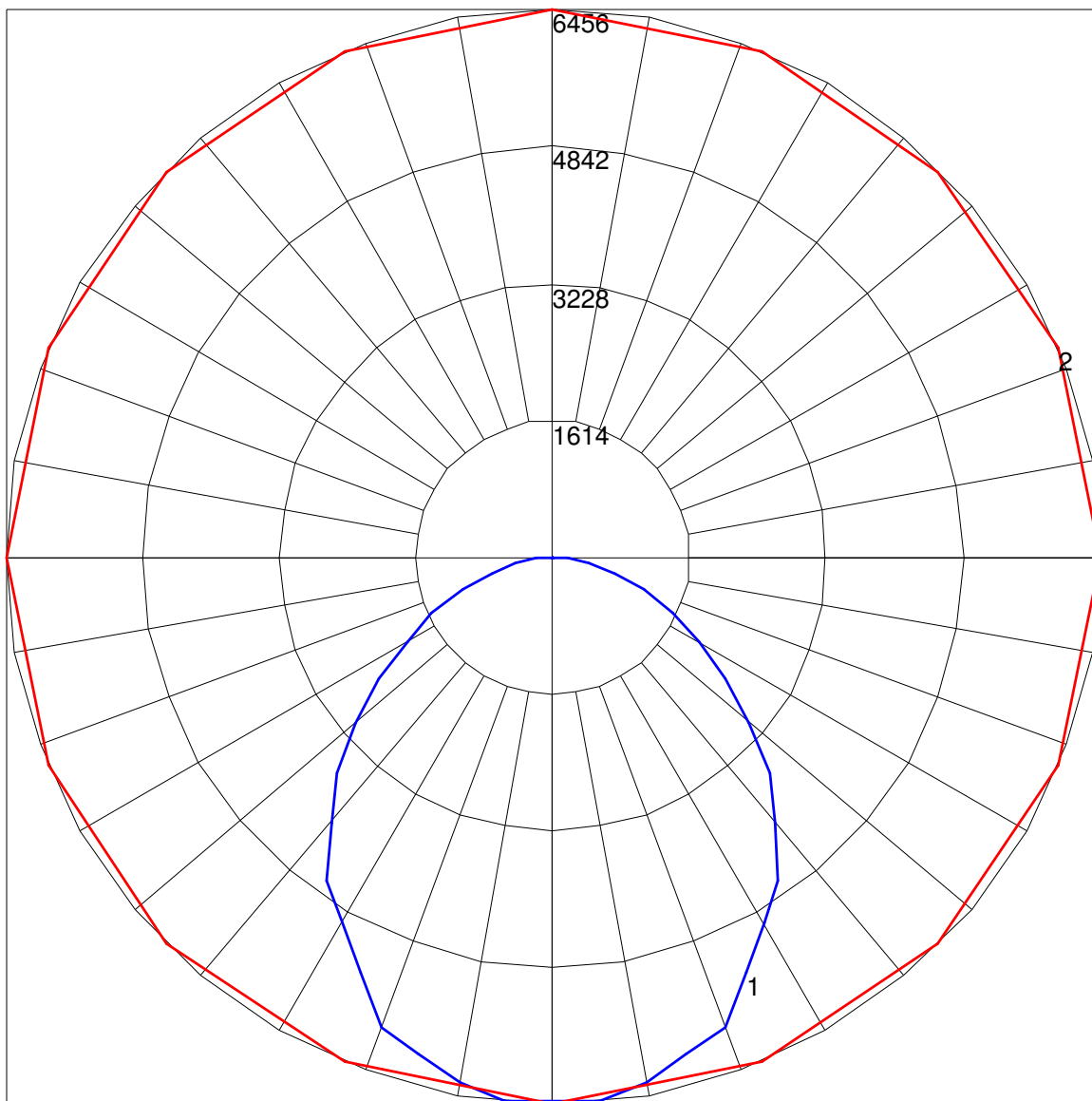
Reflectances

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	16.6	18.1	17.0	18.5	18.9	17.2	18.8	17.6	19.2	19.5
	3H	18.1	19.5	18.5	19.9	20.3	19.3	20.7	19.7	21.1	21.5
	4H	18.6	19.9	19.0	20.3	20.7	20.2	21.5	20.6	21.9	22.3
	6H	18.9	20.2	19.4	20.6	21.0	21.1	22.3	21.5	22.7	23.2
	8H	19.0	20.2	19.5	20.6	21.1	21.5	22.7	22.0	23.1	23.6
	12H	19.1	20.2	19.5	20.7	21.1	21.9	23.1	22.4	23.5	24.0
4H	2H	17.1	18.5	17.5	18.9	19.3	17.7	19.0	18.1	19.4	19.8
	3H	18.8	20.0	19.3	20.4	20.9	19.9	21.1	20.4	21.5	21.9
	4H	19.5	20.5	19.9	20.9	21.4	21.0	22.0	21.5	22.5	22.9
	6H	19.9	20.8	20.4	21.3	21.8	22.1	23.0	22.5	23.4	23.9
	8H	20.1	20.9	20.6	21.4	21.9	22.6	23.4	23.1	23.9	24.4
	12H	20.2	20.9	20.7	21.5	22.0	23.1	23.9	23.7	24.4	24.9
8H	4H	19.8	20.6	20.3	21.1	21.6	21.2	22.0	21.7	22.5	23.0
	6H	20.4	21.1	20.9	21.6	22.2	22.4	23.1	22.9	23.6	24.2
	8H	20.6	21.3	21.2	21.8	22.3	23.0	23.7	23.6	24.2	24.8
	12H	20.8	21.4	21.3	21.9	22.5	23.8	24.3	24.3	24.9	25.5
12H	4H	19.9	20.6	20.4	21.1	21.7	21.2	21.9	21.7	22.5	23.0
	6H	20.5	21.2	21.1	21.7	22.2	22.4	23.1	23.0	23.6	24.2
	8H	20.8	21.4	21.4	21.9	22.5	23.1	23.7	23.7	24.2	24.8

Maximum UGR = 25.5

POLAR GRAPH



Maximum Candela = 6455.648 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.)