



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39W-4-L84-835-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] 2-56 LED 22" ARRAYS 4' SURFACE MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS

[LUMCAT] 39W-4-L84-835-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	8398
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	66
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)	4.01 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	8326	7533	7443
55	6946	6190	6223
65	5747	5067	5405
75	4191	4018	4664
85	2471	3348	4345

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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	3210.191	3210.191	3210.191	3210.191	3210.191
5	3228.016	3226.396	3224.775	3224.775	3226.396
10	3156.714	3155.094	3155.094	3156.714	3159.955
15	3044.901	3048.142	3053.003	3056.244	3059.485
20	2952.533	2954.153	2963.876	2965.497	2965.497
25	2704.598	2711.080	2719.182	2724.044	2724.044
30	2498.796	2506.898	2518.241	2524.723	2526.344
35	2325.403	2338.367	2356.192	2364.295	2369.156
40	2040.197	2056.402	2080.709	2095.294	2101.775
45	1813.328	1836.015	1868.425	1891.112	1899.214
50	1515.158	1537.845	1581.598	1615.628	1628.592
55	1249.398	1276.946	1330.422	1370.935	1388.760
60	996.601	1025.770	1082.487	1142.445	1166.753
65	784.317	815.106	888.028	970.673	996.601
70	570.412	607.684	703.293	792.420	828.070
75	372.713	418.086	523.418	619.027	653.057
80	218.766	277.104	392.159	489.388	523.418
85	95.609	158.808	272.242	364.610	397.020
90	0.000	69.681	162.049	236.592	265.760
95	0.000	29.169	103.711	170.151	196.079
100	0.000	0.000	63.199	115.055	132.880
105	0.000	0.000	40.512	76.163	92.368
110	0.000	0.000	0.000	51.856	63.199
115	0.000	0.000	0.000	38.892	46.994
120	0.000	0.000	0.000	32.410	35.651
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	1169.1	N.A.	13.90
0-30	2426.81	N.A.	28.90
0-40	3882.2	N.A.	46.20
0-60	6493.81	N.A.	77.30
0-80	7936.43	N.A.	94.50
0-90	8223.6	N.A.	97.90
10-90	7918.36	N.A.	94.30
20-40	2713.1	N.A.	32.30
20-50	4137.44	N.A.	49.30
40-70	3494.56	N.A.	41.60
60-80	1442.61	N.A.	17.20
70-80	559.66	N.A.	6.70
80-90	287.18	N.A.	3.40
90-110	155.83	N.A.	1.90
90-120	171.91	N.A.	2.00
90-130	174.81	N.A.	2.10
90-150	174.81	N.A.	2.10
90-180	174.81	N.A.	2.10
110-180	18.98	N.A.	0.20
0-180	8398.42	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	305.25
10-20	863.85
20-30	1257.71
30-40	1455.4
40-50	1424.34
50-60	1187.26
60-70	882.96
70-80	559.66
80-90	287.18
90-100	112.47
100-110	43.36
110-120	16.08
120-130	2.90
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	191	191	191	191	186	186	186	186	177	177	177	169	169	169	162	162	162	158
1	174	166	159	153	169	162	156	150	155	149	144	148	143	139	141	138	135	131
2	159	145	134	125	154	142	132	123	136	127	120	130	123	117	124	119	113	110
3	145	128	115	105	141	125	113	103	120	110	101	115	106	99	111	103	97	93
4	133	114	100	89	129	112	98	88	107	96	87	103	93	85	99	91	84	80
5	123	102	88	77	119	100	87	77	96	85	76	93	82	74	90	81	73	70
6	114	92	78	68	110	91	77	67	87	75	67	84	74	66	81	72	65	61
7	105	84	70	60	102	82	69	60	80	68	59	77	66	59	75	65	58	55
8	98	77	63	54	96	75	63	54	73	61	53	71	60	53	69	59	52	49
9	92	71	58	49	90	70	57	48	67	56	48	65	55	48	64	54	47	44
10	86	65	53	44	84	64	52	44	62	51	44	61	51	43	59	50	43	40

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UGR TABLE - CORRECTED

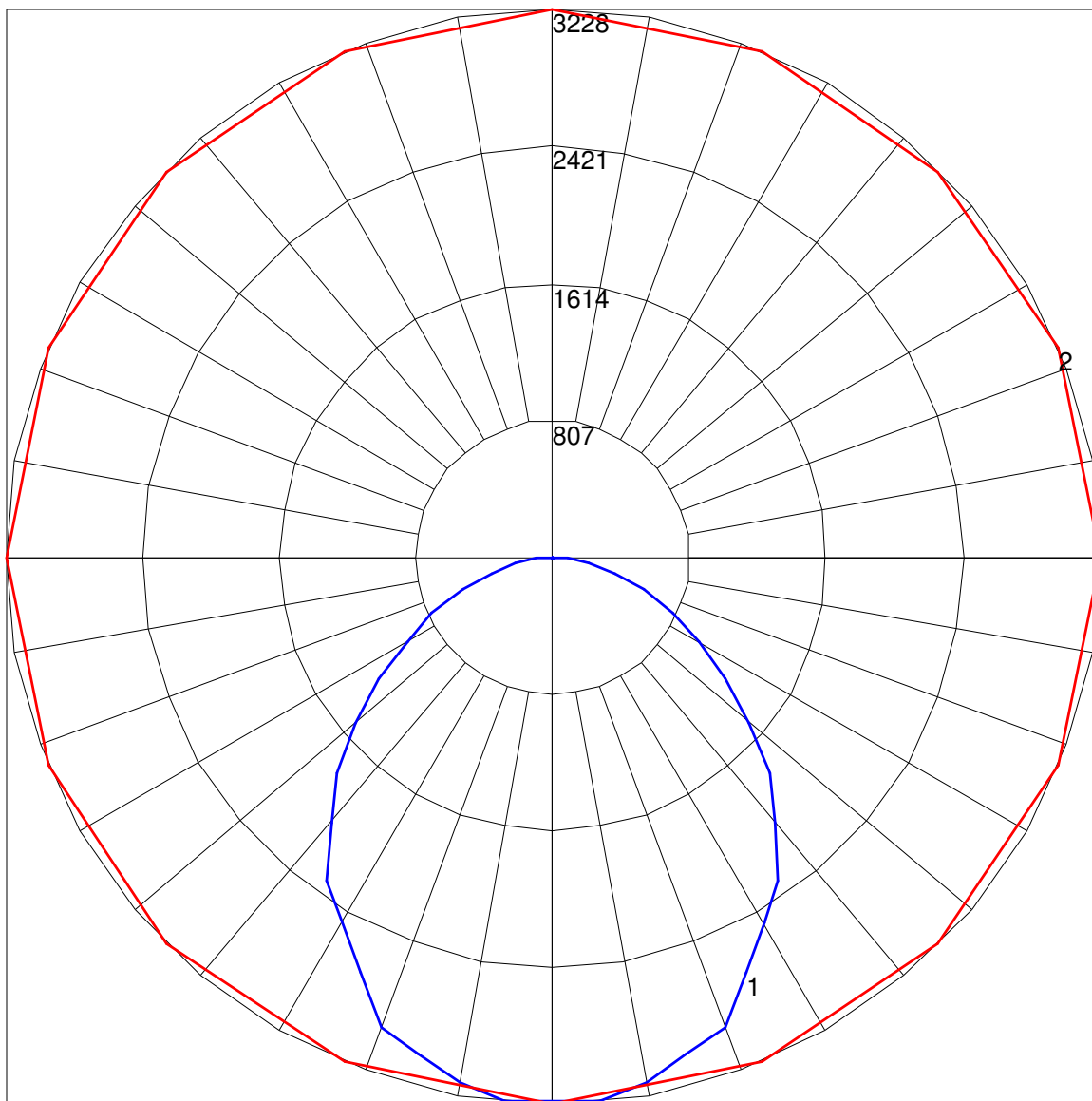
Reflectances

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	16.1	17.6	16.5	18.0	18.4	16.7	18.3	17.1	18.7	19.0
	3H	17.6	19.0	18.0	19.4	19.8	18.8	20.2	19.2	20.6	21.0
	4H	18.1	19.4	18.5	19.8	20.2	19.7	21.0	20.1	21.4	21.8
	6H	18.4	19.7	18.9	20.1	20.5	20.6	21.8	21.0	22.2	22.7
	8H	18.5	19.7	19.0	20.1	20.6	21.0	22.2	21.5	22.6	23.1
	12H	18.6	19.7	19.0	20.2	20.6	21.4	22.6	21.9	23.0	23.5
4H	2H	16.6	18.0	17.1	18.4	18.8	17.2	18.5	17.6	18.9	19.3
	3H	18.3	19.5	18.8	19.9	20.4	19.4	20.6	19.9	21.0	21.4
	4H	19.0	20.0	19.4	20.4	20.9	20.5	21.5	21.0	22.0	22.4
	6H	19.4	20.3	19.9	20.8	21.3	21.6	22.5	22.0	22.9	23.4
	8H	19.6	20.4	20.1	20.9	21.4	22.1	22.9	22.6	23.4	23.9
	12H	19.7	20.4	20.2	21.0	21.5	22.6	23.4	23.2	23.9	24.4
8H	4H	19.3	20.1	19.8	20.6	21.1	20.7	21.5	21.2	22.0	22.5
	6H	19.9	20.6	20.4	21.1	21.7	21.9	22.6	22.4	23.1	23.7
	8H	20.1	20.8	20.7	21.3	21.8	22.5	23.2	23.1	23.7	24.3
	12H	20.3	20.9	20.8	21.4	22.0	23.3	23.8	23.8	24.4	25.0
12H	4H	19.4	20.1	19.9	20.6	21.2	20.7	21.4	21.2	22.0	22.5
	6H	20.0	20.7	20.6	21.2	21.7	21.9	22.6	22.5	23.1	23.7
	8H	20.3	20.9	20.9	21.4	22.0	22.6	23.2	23.2	23.7	24.3

Maximum UGR = 25.0

POLAR GRAPH



Maximum Candela = 3228.016 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.)