



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39W-4-L30-835-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-L30-835-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	3027
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	22.8
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	3001	2715	2682
55	2504	2231	2243
65	2071	1826	1948
75	1510	1448	1681
85	891	1206	1566

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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	1156.953	1156.953	1156.953	1156.953	1156.953
5	1163.377	1162.793	1162.209	1162.209	1162.793
10	1137.680	1137.096	1137.096	1137.680	1138.848
15	1097.382	1098.550	1100.302	1101.470	1102.638
20	1064.093	1064.677	1068.181	1068.765	1068.765
25	974.737	977.073	979.993	981.745	981.745
30	900.566	903.486	907.574	909.910	910.494
35	838.075	842.748	849.172	852.092	853.844
40	735.287	741.127	749.888	755.144	757.480
45	653.524	661.700	673.380	681.557	684.477
50	546.063	554.239	570.008	582.273	586.945
55	450.283	460.211	479.484	494.085	500.509
60	359.175	369.688	390.128	411.737	420.498
65	282.668	293.764	320.045	349.831	359.175
70	205.577	219.009	253.467	285.588	298.437
75	134.326	150.678	188.640	223.097	235.362
80	78.843	99.868	141.334	176.375	188.640
85	34.457	57.234	98.116	131.406	143.086
90	0.000	25.113	58.402	85.268	95.780
95	0.000	10.512	37.378	61.323	70.667
100	0.000	0.000	22.777	41.466	47.890
105	0.000	0.000	14.601	27.449	33.289
110	0.000	0.000	0.000	18.689	22.777
115	0.000	0.000	0.000	14.017	16.937
120	0.000	0.000	0.000	11.680	12.849
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	421.34	N.A.	13.90
0-30	874.62	N.A.	28.90
0-40	1399.15	N.A.	46.20
0-60	2340.37	N.A.	77.30
0-80	2860.29	N.A.	94.50
0-90	2963.79	N.A.	97.90
10-90	2853.78	N.A.	94.30
20-40	977.80	N.A.	32.30
20-50	1491.13	N.A.	49.30
40-70	1259.44	N.A.	41.60
60-80	519.92	N.A.	17.20
70-80	201.70	N.A.	6.70
80-90	103.50	N.A.	3.40
90-110	56.16	N.A.	1.90
90-120	61.96	N.A.	2.00
90-130	63.00	N.A.	2.10
90-150	63.00	N.A.	2.10
90-180	63.00	N.A.	2.10
110-180	6.84	N.A.	0.20
0-180	3026.79	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	110.01
10-20	311.33
20-30	453.28
30-40	524.52
40-50	513.33
50-60	427.89
60-70	318.22
70-80	201.70
80-90	103.50
90-100	40.54
100-110	15.63
110-120	5.79
120-130	1.05
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	69	69	69	69	67	67	67	67	64	64	64	61	61	61	58	58	58	57
1	63	60	57	55	61	58	56	54	56	54	52	53	52	50	51	50	49	47
2	57	52	48	45	56	51	47	44	49	46	43	47	44	42	45	43	41	40
3	52	46	41	38	51	45	41	37	43	40	36	41	38	36	40	37	35	34
4	48	41	36	32	47	40	35	32	39	35	31	37	34	31	36	33	30	29
5	44	37	32	28	43	36	31	28	35	30	27	33	30	27	32	29	26	25
6	41	33	28	24	40	33	28	24	31	27	24	30	27	24	29	26	23	22
7	38	30	25	22	37	30	25	22	29	24	21	28	24	21	27	23	21	20
8	35	28	23	19	34	27	23	19	26	22	19	26	22	19	25	21	19	18
9	33	25	21	18	32	25	21	17	24	20	17	24	20	17	23	20	17	16
10	31	24	19	16	30	23	19	16	23	19	16	22	18	16	21	18	16	15

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UGR TABLE - CORRECTED

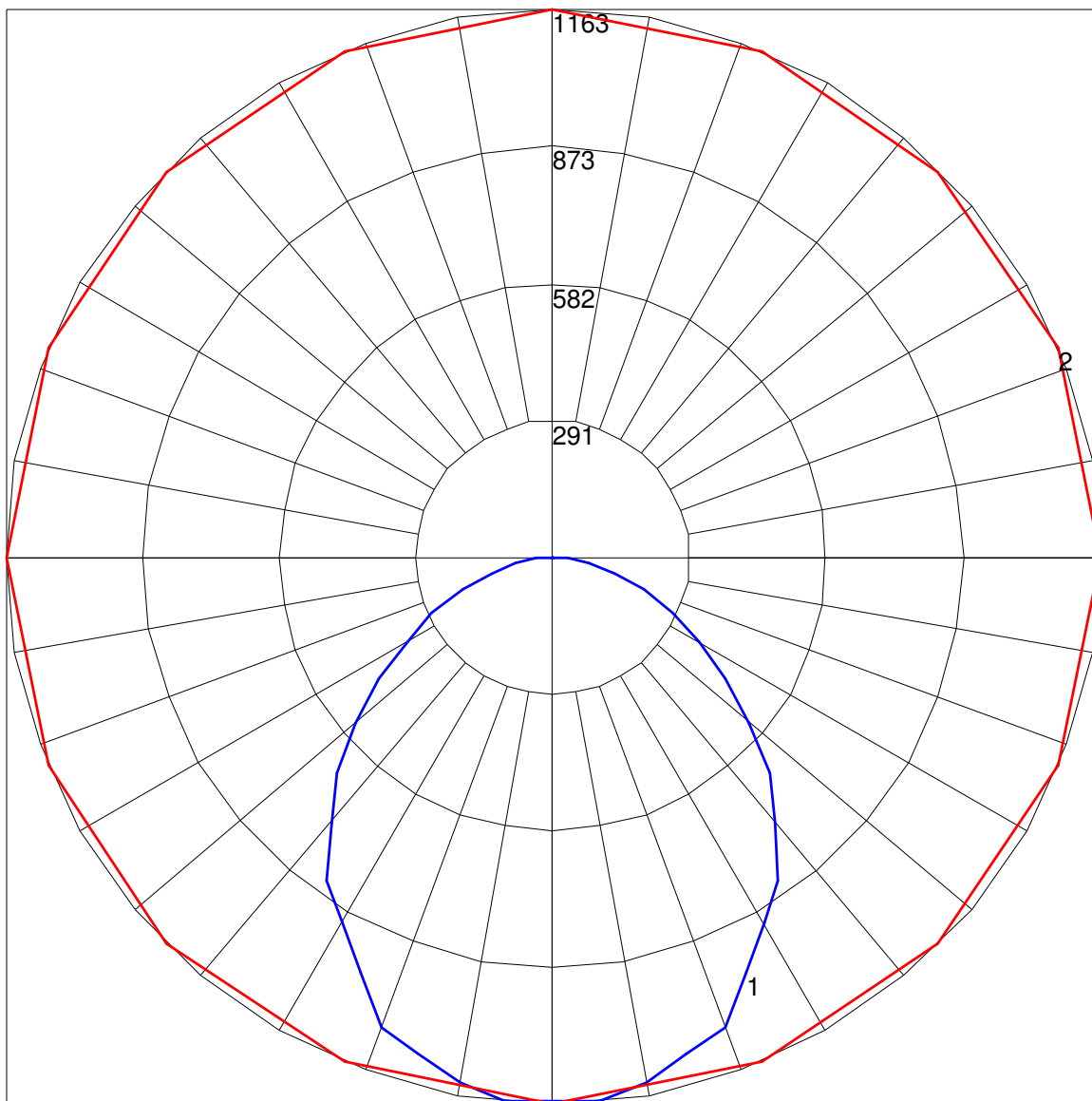
Reflectances

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 = 1163.377 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.)