



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-8-L104-835-A-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19011.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 08-NOV-2019

[MANUFAC] WILLIAMS INDOOR

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

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

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS

[LUMCAT] 39-8-L104-835-A-DIM-UNV

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Architectural, Commercial, Direct, Linear

[\_SEARCH\_MOUNTING] Pendant, Surface

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10472
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	75.6
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	5307	4762	4643
55	4466	3931	3882
65	3748	3238	3372
75	2814	2595	2910
85	1852	2213	2711

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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	4002.896	4002.896	4002.896	4002.896	4002.896
5	4025.123	4023.102	4021.081	4021.081	4023.102
10	3936.214	3934.194	3934.194	3936.214	3940.256
15	3796.790	3800.831	3806.893	3810.934	3814.976
20	3681.613	3683.634	3695.758	3697.778	3697.778
25	3372.455	3380.537	3390.641	3396.702	3396.702
30	3115.833	3125.936	3140.081	3148.163	3150.184
35	2899.624	2915.789	2938.016	2948.120	2954.181
40	2543.991	2564.197	2594.507	2612.693	2620.775
45	2261.101	2289.390	2329.802	2358.091	2368.195
50	1889.302	1917.591	1972.148	2014.582	2030.747
55	1557.916	1592.267	1658.949	1709.465	1731.692
60	1242.696	1279.068	1349.790	1424.554	1454.864
65	977.992	1016.384	1107.313	1210.366	1242.696
70	711.267	757.741	876.959	988.095	1032.549
75	464.748	521.326	652.668	771.886	814.320
80	272.787	345.530	488.996	610.234	652.668
85	119.218	198.023	339.468	454.645	495.058
90	0.000	86.888	202.064	295.014	331.386
95	0.000	36.372	129.321	212.168	244.498
100	0.000	0.000	78.805	143.466	165.693
105	0.000	0.000	50.516	94.970	115.177
110	0.000	0.000	0.000	64.661	78.805
115	0.000	0.000	0.000	48.495	58.599
120	0.000	0.000	0.000	40.413	44.454
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	1457.79	N.A.	13.90
0-30	3026.07	N.A.	28.90
0-40	4840.85	N.A.	46.20
0-60	8097.35	N.A.	77.30
0-80	9896.2	N.A.	94.50
0-90	10254.29	N.A.	97.90
10-90	9873.67	N.A.	94.30
20-40	3383.06	N.A.	32.30
20-50	5159.12	N.A.	49.30
40-70	4357.49	N.A.	41.60
60-80	1798.85	N.A.	17.20
70-80	697.86	N.A.	6.70
80-90	358.09	N.A.	3.40
90-110	194.31	N.A.	1.90
90-120	214.36	N.A.	2.00
90-130	217.98	N.A.	2.10
90-150	217.98	N.A.	2.10
90-180	217.98	N.A.	2.10
110-180	23.67	N.A.	0.20
0-180	10472.27	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	380.62
10-20	1077.17
20-30	1568.28
30-40	1814.78
40-50	1776.06
50-60	1480.44
60-70	1100.99
70-80	697.86
80-90	358.09
90-100	140.25
100-110	54.06
110-120	20.05
120-130	3.62
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	211	211	211	211	206	206	206	206	196	196	196	187	187	187	178	178	178	174
1	192	183	176	168	187	179	172	165	171	165	159	163	158	154	156	152	149	145
2	175	160	148	138	170	157	145	136	150	140	132	143	135	129	137	131	125	121
3	160	141	127	115	155	138	125	114	132	121	112	127	117	109	122	114	107	103
4	147	126	110	98	143	123	109	98	118	106	96	114	103	94	109	100	92	88
5	135	113	97	85	131	111	96	85	106	93	83	102	91	82	99	89	81	77
6	125	102	86	75	122	100	85	74	96	83	73	93	81	72	90	80	72	68
7	116	93	77	66	113	91	76	66	88	75	65	85	73	65	82	72	64	60
8	108	85	70	59	106	83	69	59	81	68	59	78	67	58	76	65	57	54
9	101	78	63	54	99	77	63	53	74	62	53	72	61	53	70	60	52	49
10	95	72	58	49	93	71	58	49	69	57	48	67	56	48	65	55	48	44

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**UGR TABLE - CORRECTED**

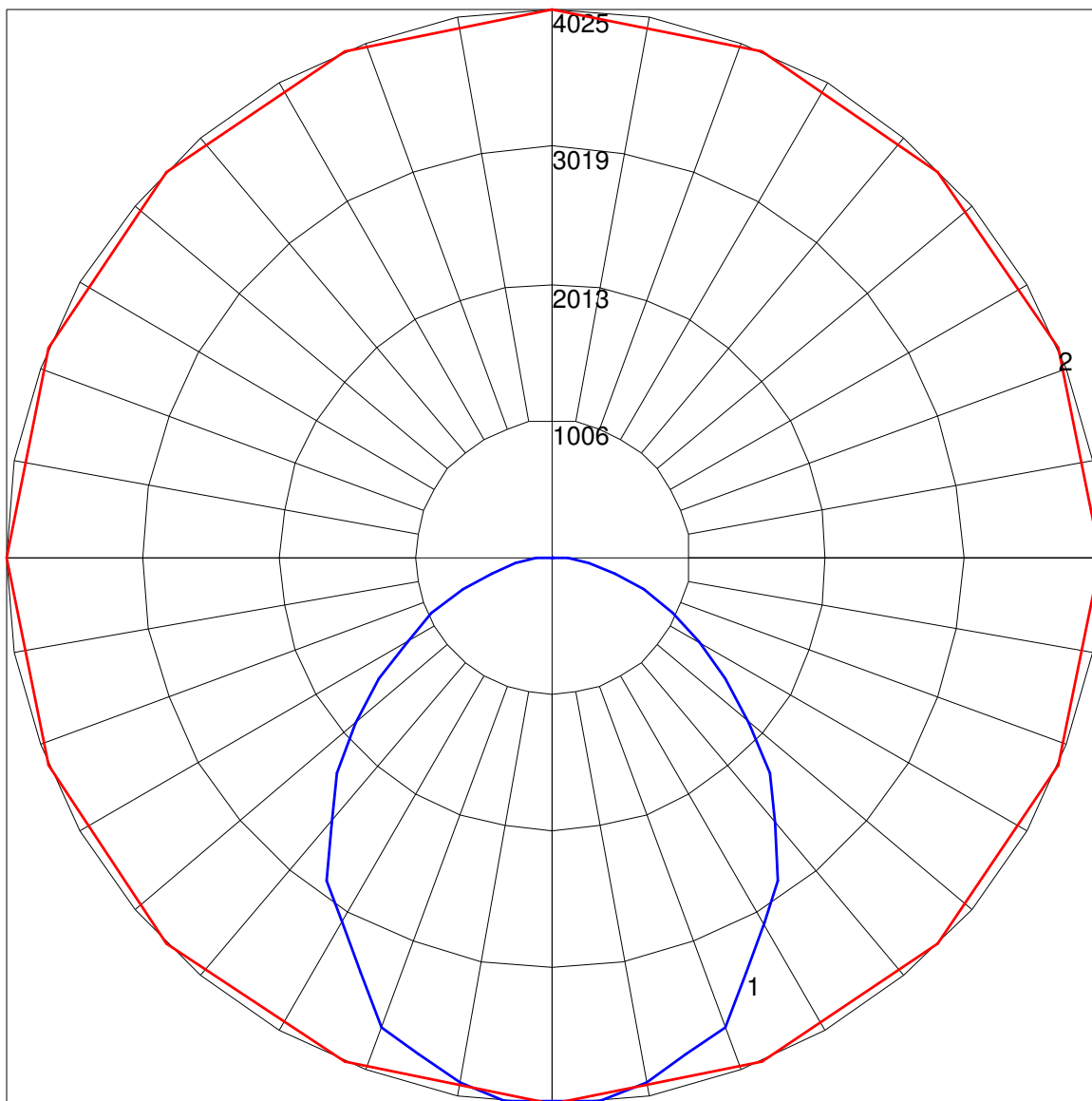
Reflectances

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	14.3	15.8	14.7	16.2	16.5	14.9	16.5	15.3	16.9	17.2
	3H	15.8	17.2	16.2	17.6	18.0	17.0	18.4	17.4	18.8	19.2
	4H	16.3	17.6	16.7	18.0	18.5	17.9	19.3	18.3	19.6	20.1
	6H	16.7	17.9	17.1	18.3	18.8	18.8	20.1	19.3	20.5	20.9
	8H	16.8	18.0	17.2	18.4	18.9	19.3	20.5	19.8	20.9	21.4
	12H	16.9	18.0	17.3	18.4	18.9	19.8	20.9	20.2	21.4	21.8
4H	2H	14.8	16.2	15.2	16.5	17.0	15.4	16.7	15.8	17.1	17.5
	3H	16.6	17.7	17.0	18.1	18.6	17.7	18.8	18.1	19.2	19.7
	4H	17.2	18.2	17.7	18.7	19.1	18.7	19.7	19.2	20.2	20.7
	6H	17.7	18.6	18.2	19.0	19.6	19.8	20.7	20.3	21.2	21.7
	8H	17.8	18.7	18.3	19.2	19.7	20.4	21.2	20.9	21.7	22.2
	12H	18.0	18.7	18.5	19.2	19.7	21.0	21.7	21.5	22.3	22.8
8H	4H	17.5	18.4	18.0	18.9	19.4	18.9	19.8	19.4	20.2	20.8
	6H	18.1	18.9	18.7	19.4	19.9	20.2	20.9	20.7	21.4	21.9
	8H	18.4	19.0	18.9	19.6	20.1	20.8	21.5	21.4	22.0	22.6
	12H	18.6	19.2	19.1	19.7	20.3	21.6	22.2	22.2	22.7	23.3
12H	4H	17.6	18.4	18.1	18.9	19.4	18.9	19.7	19.4	20.2	20.7
	6H	18.3	18.9	18.8	19.4	20.0	20.2	20.9	20.8	21.4	21.9
	8H	18.6	19.1	19.1	19.7	20.3	21.0	21.5	21.5	22.0	22.7

Maximum UGR = 23.3

POLAR GRAPH



Maximum Candela = 4025.123 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.)