



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-8-L220-930-HIAFR-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20206.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 08-25-2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 8' ENCLOSED & GASKETED LED LUMINAIRE

[MORE] w/HIAFR RIBBED ACRYLIC DROP LENS

[LUMCAT] 96-8-L220-930-HIAFR-DIM-UNV

[LAMPCAT] HLM 90 CRI 3000K CCT

[\_SEARCH\_SOURCETYPE] LED

[\_SEARCH\_APPLICATION] Indoor, Industrial, Manufacturing, Direct, Linear, Hose Down, Wet Location

[\_SEARCH\_MOUNTING] Surface, Suspended, Wall

[\_SEARCH\_CLASSIFICATION] IP65, IP66, IP67

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	17800
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	118
Total Luminaire Watts	150.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	8.29 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.17 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14444	10866	11016
55	11895	9584	9690
65	9256	8420	8179
75	6212	6320	6288
85	3348	4911	4860

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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	6668.465	6668.465	6668.465	6668.465	6668.465
5	6617.478	6599.268	6566.490	6548.280	6555.564
10	6530.070	6479.082	6417.169	6362.539	6344.329
15	6424.453	6398.959	6293.341	6136.736	6220.502
20	6176.798	6056.613	5943.711	5696.057	5776.180
25	5881.798	5787.106	5590.439	5288.155	5415.624
30	5368.278	5127.908	4909.389	4712.722	4942.167
35	4858.401	4574.327	4417.722	4388.586	4599.821
40	4388.586	4089.943	4020.746	4111.795	4250.191
45	4017.104	3776.733	3703.894	3885.993	4006.178
50	3372.473	3288.708	3288.708	3565.498	3645.622
55	2705.991	2684.139	2877.164	3132.103	3164.881
60	2083.213	2177.904	2454.694	2655.003	2658.645
65	1573.335	1770.002	2108.706	2268.953	2287.163
70	1074.384	1369.384	1668.027	1806.422	1835.558
75	666.482	925.063	1220.063	1358.459	1409.446
80	349.630	622.779	906.853	1019.754	1074.384
85	138.395	396.976	637.346	739.322	786.668
90	43.704	211.235	389.692	491.667	517.161
95	7.284	138.395	298.642	396.976	426.112
100	0.000	94.691	247.655	331.420	360.556
105	0.000	58.272	196.667	276.790	305.926
110	0.000	43.704	163.889	233.087	251.297
115	0.000	29.136	112.901	178.457	203.951
120	0.000	0.000	83.766	145.679	163.889
125	0.000	0.000	47.346	101.975	112.901
130	0.000	0.000	0.000	76.482	83.766
135	0.000	0.000	0.000	0.000	58.272
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	2383.36	N.A.	13.40
0-30	4924.89	N.A.	27.70
0-40	7769.73	N.A.	43.60
0-60	13318.14	N.A.	74.80
0-80	16536.49	N.A.	92.90
0-90	17157.00	N.A.	96.40
10-90	16533.66	N.A.	92.90
20-40	5386.37	N.A.	30.30
20-50	8330.43	N.A.	46.80
40-70	7536.42	N.A.	42.30
60-80	3218.35	N.A.	18.10
70-80	1230.34	N.A.	6.90
80-90	620.51	N.A.	3.50
90-110	479.98	N.A.	2.70
90-120	587.17	N.A.	3.30
90-130	634.68	N.A.	3.60
90-150	643.48	N.A.	3.60
90-180	643.48	N.A.	3.60
110-180	163.50	N.A.	0.90
0-180	17800.48	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	623.34
10-20	1760.01
20-30	2541.54
30-40	2844.83
40-50	2944.06
50-60	2604.35
60-70	1988.01
70-80	1230.34
80-90	620.51
90-100	295.30
100-110	184.68
110-120	107.19
120-130	47.50
130-140	8.80
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

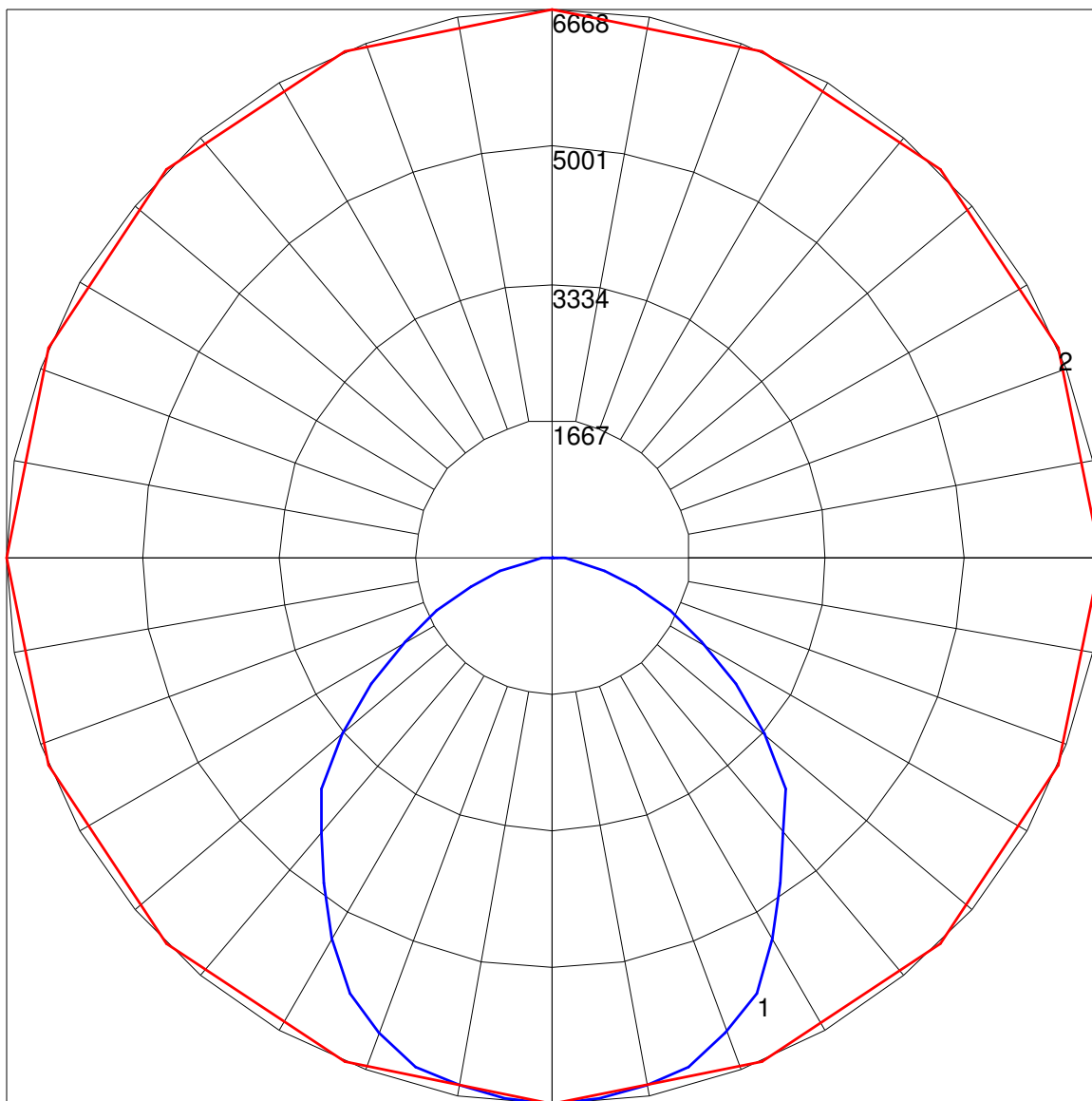
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	98	94	104	100	96	92	95	91	88	90	88	85	86	84	82	80
2	98	89	82	76	95	87	81	75	83	78	73	79	75	71	75	72	69	66
3	89	78	70	64	86	77	69	63	73	67	61	70	64	60	67	62	58	56
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	60	55	50	48
5	75	62	53	47	73	61	53	46	58	51	45	56	50	45	54	48	44	42
6	70	56	47	41	67	55	47	41	53	45	40	51	44	39	49	43	39	37
7	65	51	42	36	63	50	42	36	48	41	35	46	40	35	45	39	34	32
8	60	47	38	32	58	46	38	32	44	37	32	43	36	31	41	35	31	29
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26
10	53	40	32	27	51	39	31	26	38	31	26	37	30	26	35	30	26	24

POLAR GRAPH



Maximum Candela = 6668.465 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)