



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : 80-4-L32-950-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST] GEN FROM BALLABS TEST NO. 18635.0  
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
[ISSUEDATE] 2024-01-08  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 4'SUSPENDED INDUSTRIAL LED LUMINAIRE  
[MORE] WHITE REFLECTOR w/OPEN BOTTOM  
[MORE] 0-10V DIMMING DRIVER  
[LUMCAT] 80-4-L32-950-DIM-UNV  
[LAMPCAT] HLM 90 CRI 5000K CCT  
[\_SEARCH\_SOURCETYPE] LED  
[\_SEARCH\_APPLICATION] INDOOR  
[\_SEARCH\_MOUNTING] SUSPENDED

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2865
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
Total Luminaire Watts	20.3
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.88 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3108	3033	3025
55	2995	2929	2916
65	2852	2789	1491
75	2294	1274	244
85	1030	451	338

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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>
<b>0</b>	1076.531	1076.531	1076.531	1076.531	1076.531
<b>5</b>	1063.743	1060.089	1056.892	1061.002	1065.570
<b>10</b>	1042.276	1038.622	1055.065	1057.805	1047.300
<b>15</b>	1018.069	1028.574	1017.155	1008.934	1008.934
<b>20</b>	987.467	1010.304	977.876	972.852	972.852
<b>25</b>	947.731	952.755	936.769	934.029	934.029
<b>30</b>	897.033	889.269	883.331	880.134	879.220
<b>35</b>	843.138	835.374	828.523	827.609	825.782
<b>40</b>	783.762	770.974	767.320	765.949	765.036
<b>45</b>	715.252	700.636	697.896	696.982	696.069
<b>50</b>	635.322	624.817	621.620	620.707	620.707
<b>55</b>	559.047	547.629	546.715	544.432	544.432
<b>60</b>	472.267	463.589	462.675	460.849	459.478
<b>65</b>	392.338	384.573	383.660	295.509	205.075
<b>70</b>	299.620	292.769	234.307	158.945	162.142
<b>75</b>	193.200	193.200	107.333	92.718	20.553
<b>80</b>	102.309	66.227	18.726	15.529	15.529
<b>85</b>	29.231	15.529	12.789	9.591	9.591
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	388.60	N.A.	13.60
0-30	821.77	N.A.	28.70
0-40	1341.71	N.A.	46.80
0-60	2369.8	N.A.	82.70
0-80	2846.22	N.A.	99.30
0-90	2864.86	N.A.	100.00
10-90	2763.84	N.A.	96.50
20-40	953.10	N.A.	33.30
20-50	1492.83	N.A.	52.10
40-70	1367.8	N.A.	47.70
60-80	476.42	N.A.	16.60
70-80	136.72	N.A.	4.80
80-90	18.65	N.A.	0.70
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	2864.86	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	101.02
10-20	287.58
20-30	433.17
30-40	519.94
40-50	539.72
50-60	488.37
60-70	339.71
70-80	136.72
80-90	18.65
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	88	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	59	54	52
5	77	64	56	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	41	39
7	66	53	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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**UGR TABLE - CORRECTED**

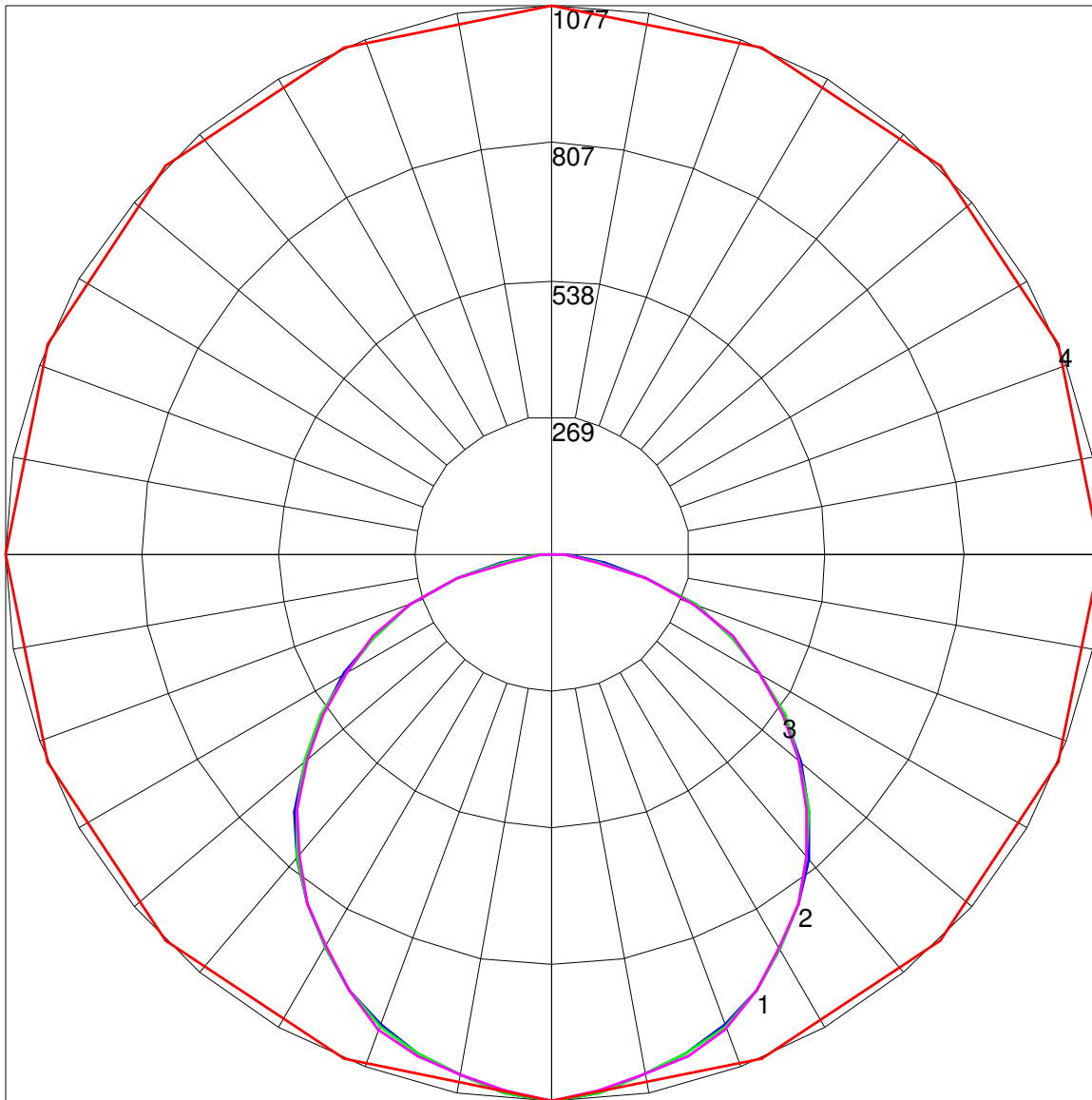
Reflectances

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	16.2	17.8	16.6	18.1	18.4	16.1	17.7	16.5	18.1	18.4
	3H	18.1	19.5	18.5	19.9	20.2	16.8	18.3	17.2	18.6	19.0
	4H	18.7	20.1	19.1	20.4	20.8	16.9	18.2	17.3	18.6	19.0
	6H	19.1	20.3	19.5	20.7	21.1	16.8	18.1	17.2	18.5	18.8
	8H	19.1	20.3	19.6	20.7	21.1	16.8	18.0	17.2	18.4	18.8
	12H	19.2	20.3	19.6	20.7	21.1	16.8	17.9	17.2	18.3	18.7
4H	2H	16.9	18.2	17.3	18.6	19.0	16.8	18.2	17.2	18.5	18.9
	3H	18.9	20.0	19.3	20.4	20.8	17.6	18.8	18.1	19.2	19.6
	4H	19.6	20.6	20.0	21.0	21.5	17.8	18.8	18.2	19.2	19.6
	6H	20.0	20.9	20.5	21.3	21.8	17.7	18.6	18.2	19.1	19.5
	8H	20.1	20.9	20.6	21.4	21.8	17.7	18.6	18.2	19.0	19.5
	12H	20.2	20.9	20.6	21.4	21.8	17.7	18.4	18.2	18.9	19.4
8H	4H	19.7	20.5	20.1	20.9	21.4	18.0	18.8	18.4	19.2	19.7
	6H	20.1	20.7	20.6	21.2	21.7	17.9	18.6	18.4	19.1	19.6
	8H	20.2	20.8	20.7	21.3	21.8	17.9	18.5	18.4	19.0	19.5
	12H	20.2	20.8	20.8	21.3	21.8	17.9	18.4	18.4	18.9	19.5
12H	4H	19.6	20.4	20.1	20.8	21.3	17.9	18.7	18.4	19.2	19.6
	6H	20.1	20.7	20.6	21.1	21.7	17.9	18.5	18.5	19.0	19.5
	8H	20.2	20.7	20.7	21.2	21.8	17.9	18.4	18.4	18.9	19.5

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 1076.531 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)