



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-830-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-L32-830-DIM-UNV
[LAMPCAT] HLM 80 CRI 3000K 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	3198
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	158
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	3469	3385	3376
55	3343	3269	3256
65	3184	3114	1664
75	2560	1422	272
85	1150	503	377

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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	1201.709	1201.709	1201.709	1201.709	1201.709
5	1187.433	1183.355	1179.786	1184.374	1189.473
10	1163.471	1159.392	1177.746	1180.805	1169.079
15	1136.449	1148.175	1135.429	1126.252	1126.252
20	1102.289	1127.781	1091.582	1085.974	1085.974
25	1057.932	1063.541	1045.696	1042.637	1042.637
30	1001.339	992.672	986.044	982.475	981.455
35	941.177	932.510	924.862	923.843	921.803
40	874.897	860.622	856.543	855.013	853.994
45	798.420	782.105	779.046	778.026	777.007
50	709.197	697.471	693.902	692.882	692.882
55	624.053	611.306	610.287	607.738	607.738
60	527.182	517.495	516.475	514.436	512.906
65	437.959	429.291	428.271	329.871	228.921
70	334.460	326.812	261.551	177.427	180.996
75	215.665	215.665	119.814	103.499	22.943
80	114.206	73.928	20.904	17.335	17.335
85	32.630	17.335	14.276	10.707	10.707
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	433.79	N.A.	13.60
0-30	917.32	N.A.	28.70
0-40	1497.72	N.A.	46.80
0-60	2645.36	N.A.	82.70
0-80	3177.17	N.A.	99.30
0-90	3197.99	N.A.	100.00
10-90	3085.22	N.A.	96.50
20-40	1063.93	N.A.	33.30
20-50	1666.41	N.A.	52.10
40-70	1526.84	N.A.	47.70
60-80	531.82	N.A.	16.60
70-80	152.61	N.A.	4.80
80-90	20.81	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	3197.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	112.77
10-20	321.02
20-30	483.54
30-40	580.39
40-50	602.48
50-60	545.15
60-70	379.21
70-80	152.61
80-90	20.81
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

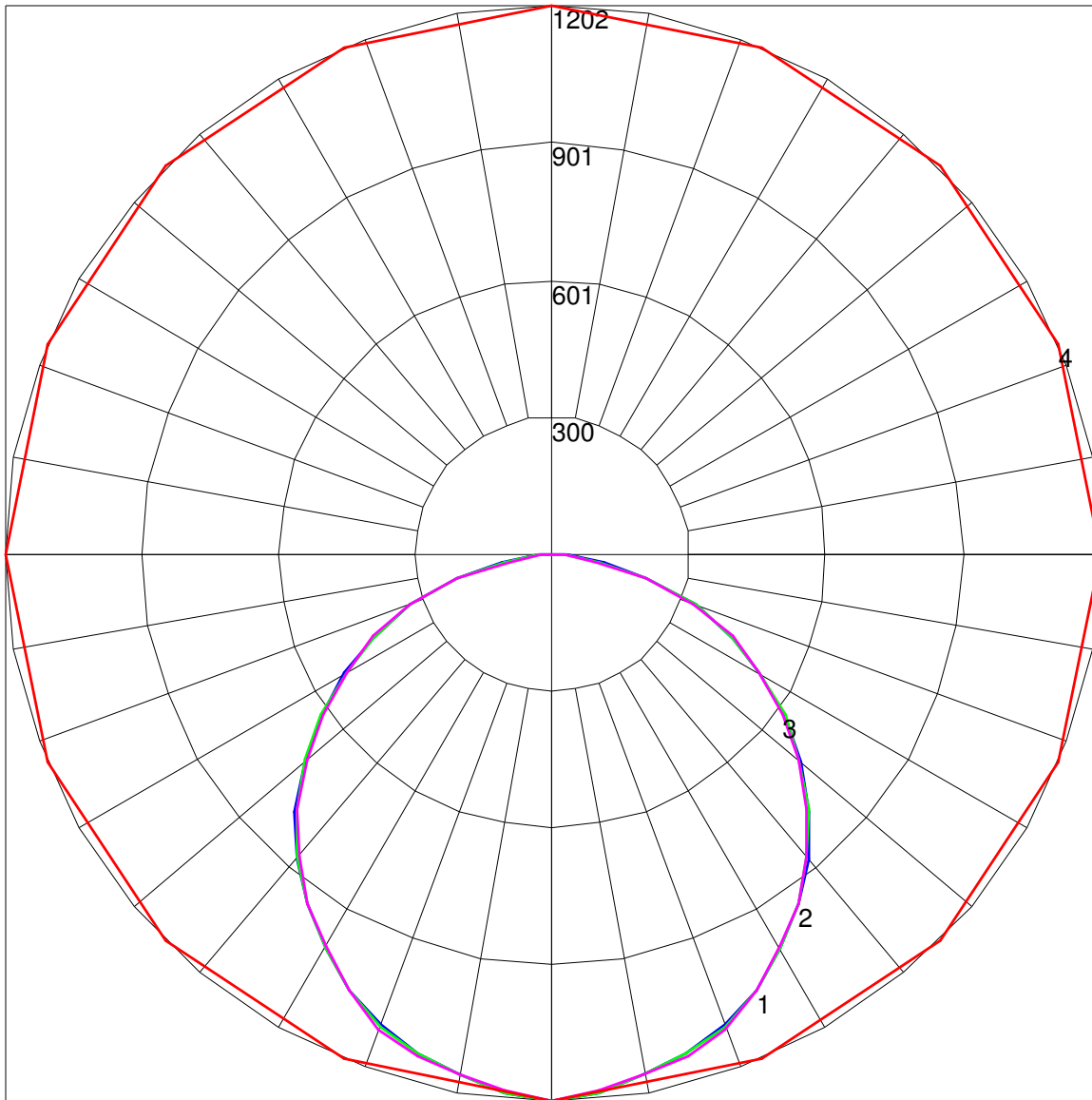
Reflectances

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	16.5	18.1	16.9	18.4	18.7	16.4	18.0	16.8	18.4	18.7
	3H	18.4	19.8	18.8	20.2	20.5	17.1	18.6	17.5	18.9	19.3
	4H	19.0	20.4	19.4	20.7	21.1	17.2	18.5	17.6	18.9	19.3
	6H	19.4	20.6	19.8	21.0	21.4	17.1	18.4	17.5	18.8	19.1
	8H	19.4	20.6	19.9	21.0	21.4	17.1	18.3	17.5	18.7	19.1
	12H	19.5	20.6	19.9	21.0	21.4	17.1	18.2	17.5	18.6	19.0
4H	2H	17.2	18.5	17.6	18.9	19.3	17.1	18.5	17.5	18.8	19.2
	3H	19.2	20.3	19.6	20.7	21.1	17.9	19.1	18.4	19.5	19.9
	4H	19.9	20.9	20.3	21.3	21.8	18.1	19.1	18.5	19.5	19.9
	6H	20.3	21.2	20.8	21.6	22.1	18.0	18.9	18.5	19.4	19.8
	8H	20.4	21.2	20.9	21.7	22.1	18.0	18.9	18.5	19.3	19.8
	12H	20.5	21.2	20.9	21.7	22.1	18.0	18.7	18.5	19.2	19.7
8H	4H	20.0	20.8	20.4	21.2	21.7	18.3	19.1	18.7	19.5	20.0
	6H	20.4	21.0	20.9	21.5	22.0	18.2	18.9	18.7	19.4	19.9
	8H	20.5	21.1	21.0	21.6	22.1	18.2	18.8	18.7	19.3	19.8
	12H	20.5	21.1	21.1	21.6	22.1	18.2	18.7	18.7	19.2	19.8
12H	4H	19.9	20.7	20.4	21.1	21.6	18.2	19.0	18.7	19.5	19.9
	6H	20.4	21.0	20.9	21.4	22.0	18.2	18.8	18.8	19.3	19.8
	8H	20.5	21.0	21.0	21.5	22.1	18.2	18.7	18.7	19.2	19.8

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 1201.709 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.)