



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-835-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-L32-835-DIM-UNV
[LAMPCAT] HLM 80 CRI 3500K 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	3231
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	159
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	3505	3420	3411
55	3378	3303	3289
65	3217	3146	1682
75	2587	1437	275
85	1162	508	381

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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	1214.227	1214.227	1214.227	1214.227	1214.227
5	1199.803	1195.681	1192.075	1196.712	1201.863
10	1175.590	1171.469	1190.015	1193.106	1181.257
15	1148.287	1160.135	1147.256	1137.984	1137.984
20	1113.771	1139.529	1102.953	1097.286	1097.286
25	1068.952	1074.619	1056.589	1053.498	1053.498
30	1011.770	1003.012	996.315	992.709	991.679
35	950.981	942.224	934.496	933.466	931.405
40	884.011	869.586	865.465	863.920	862.889
45	806.737	790.252	787.161	786.131	785.101
50	716.585	704.736	701.130	700.099	700.099
55	630.553	617.674	616.644	614.068	614.068
60	532.673	522.885	521.855	519.794	518.249
65	442.521	433.763	432.733	333.307	231.306
70	337.944	330.216	264.276	179.275	182.881
75	217.912	217.912	121.062	104.577	23.182
80	115.395	74.698	21.121	17.515	17.515
85	32.970	17.515	14.424	10.818	10.818
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	438.31	N.A.	13.60
0-30	926.88	N.A.	28.70
0-40	1513.32	N.A.	46.80
0-60	2672.91	N.A.	82.70
0-80	3210.27	N.A.	99.30
0-90	3231.3	N.A.	100.00
10-90	3117.36	N.A.	96.50
20-40	1075.01	N.A.	33.30
20-50	1683.77	N.A.	52.10
40-70	1542.75	N.A.	47.70
60-80	537.36	N.A.	16.60
70-80	154.20	N.A.	4.80
80-90	21.03	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	3231.3	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	113.94
10-20	324.36
20-30	488.57
30-40	586.44
40-50	608.76
50-60	550.83
60-70	383.16
70-80	154.20
80-90	21.03
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	42	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	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	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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UGR TABLE - CORRECTED

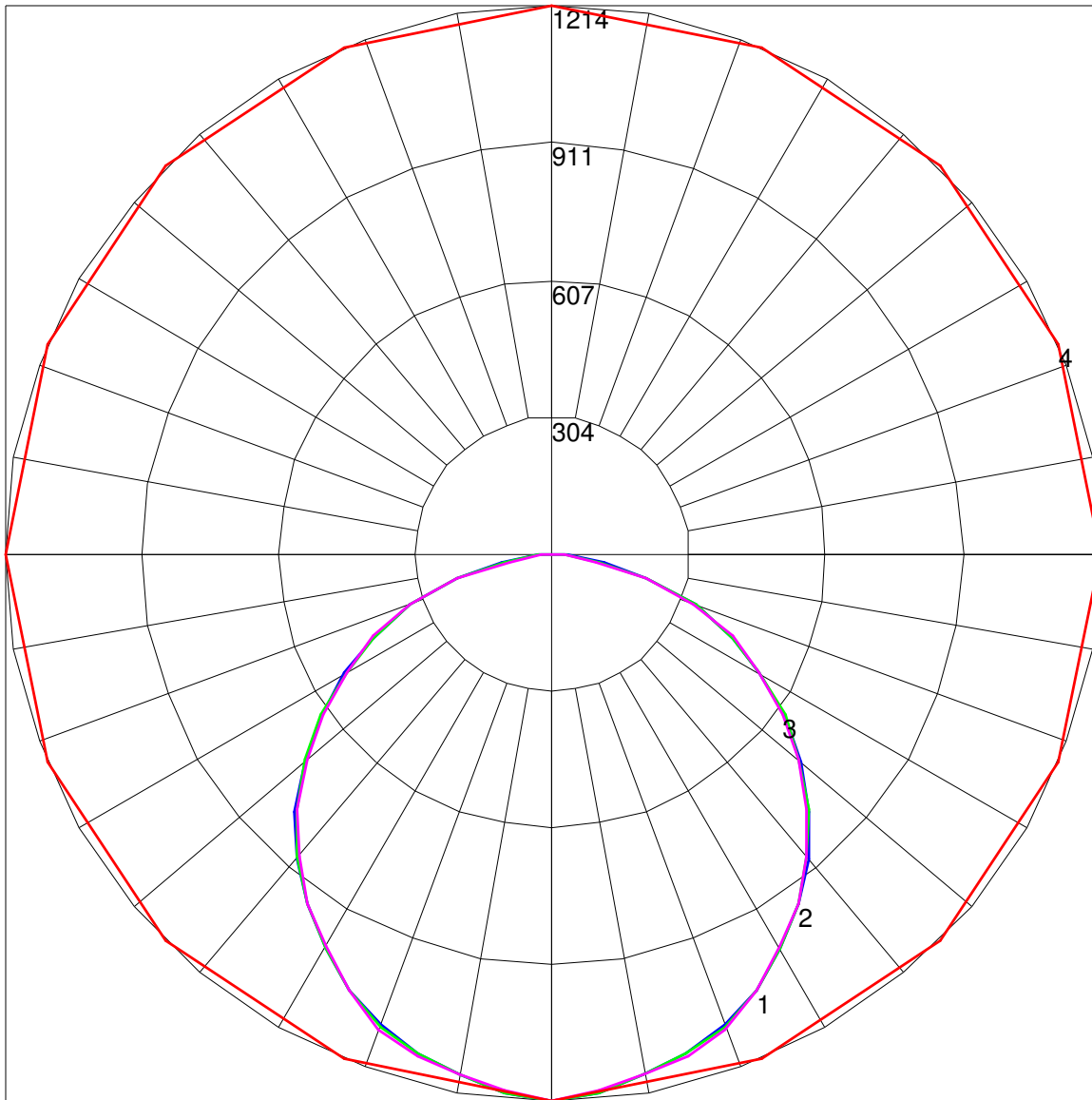
Reflectances

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	16.6	18.2	17.0	18.5	18.8	16.5	18.1	16.9	18.5	18.8
	3H	18.5	19.9	18.9	20.3	20.6	17.2	18.7	17.6	19.0	19.4
	4H	19.1	20.5	19.5	20.8	21.2	17.3	18.6	17.7	19.0	19.4
	6H	19.5	20.7	19.9	21.1	21.5	17.2	18.5	17.6	18.9	19.2
	8H	19.5	20.7	20.0	21.1	21.5	17.2	18.4	17.6	18.8	19.2
	12H	19.6	20.7	20.0	21.1	21.5	17.2	18.3	17.6	18.7	19.1
4H	2H	17.3	18.6	17.7	19.0	19.4	17.2	18.6	17.6	18.9	19.3
	3H	19.3	20.4	19.7	20.8	21.2	18.0	19.2	18.5	19.6	20.0
	4H	20.0	21.0	20.4	21.4	21.9	18.2	19.2	18.6	19.6	20.0
	6H	20.4	21.3	20.9	21.7	22.2	18.1	19.0	18.6	19.5	19.9
	8H	20.5	21.3	21.0	21.8	22.2	18.1	19.0	18.6	19.4	19.9
	12H	20.6	21.3	21.0	21.8	22.2	18.1	18.8	18.6	19.3	19.8
8H	4H	20.1	20.9	20.5	21.3	21.8	18.3	19.2	18.8	19.6	20.1
	6H	20.5	21.1	21.0	21.6	22.1	18.3	19.0	18.8	19.5	20.0
	8H	20.6	21.2	21.1	21.7	22.2	18.3	18.9	18.8	19.4	19.9
	12H	20.6	21.2	21.1	21.7	22.2	18.3	18.8	18.8	19.3	19.9
12H	4H	20.0	20.8	20.5	21.2	21.7	18.3	19.1	18.8	19.5	20.0
	6H	20.5	21.0	21.0	21.5	22.1	18.3	18.9	18.9	19.4	19.9
	8H	20.6	21.1	21.1	21.6	22.2	18.3	18.8	18.8	19.3	19.9

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 1214.227 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.)