



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L32-827-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-L32-827-DIM-UNV
[LAMPCAT] HLM 80 CRI 2700K 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	3131
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	154
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	3397	3315	3306
55	3273	3201	3188
65	3118	3049	1630
75	2507	1393	267
85	1126	493	370

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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	1176.674	1176.674	1176.674	1176.674	1176.674
5	1162.695	1158.701	1155.207	1159.700	1164.692
10	1139.232	1135.238	1153.210	1156.205	1144.723
15	1112.773	1124.255	1111.774	1102.788	1102.788
20	1079.325	1104.286	1068.841	1063.349	1063.349
25	1035.892	1041.384	1023.911	1020.915	1020.915
30	980.478	971.991	965.501	962.007	961.008
35	921.570	913.083	905.594	904.596	902.599
40	856.670	842.692	838.698	837.201	836.202
45	781.787	765.811	762.816	761.818	760.819
50	694.422	682.940	679.445	678.447	678.447
55	611.052	598.571	597.572	595.076	595.076
60	516.199	506.713	505.715	503.718	502.220
65	428.834	420.348	419.349	322.999	224.152
70	327.492	320.003	256.102	173.730	177.225
75	211.172	211.172	117.318	101.343	22.465
80	111.826	72.388	20.468	16.974	16.974
85	31.950	16.974	13.978	10.484	10.484
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	424.75	N.A.	13.60
0-30	898.21	N.A.	28.70
0-40	1466.52	N.A.	46.80
0-60	2590.24	N.A.	82.70
0-80	3110.98	N.A.	99.30
0-90	3131.36	N.A.	100.00
10-90	3020.94	N.A.	96.50
20-40	1041.77	N.A.	33.30
20-50	1631.7	N.A.	52.10
40-70	1495.03	N.A.	47.70
60-80	520.74	N.A.	16.60
70-80	149.43	N.A.	4.80
80-90	20.38	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	3131.36	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	110.42
10-20	314.33
20-30	473.46
30-40	568.30
40-50	589.93
50-60	533.80
60-70	371.31
70-80	149.43
80-90	20.38
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

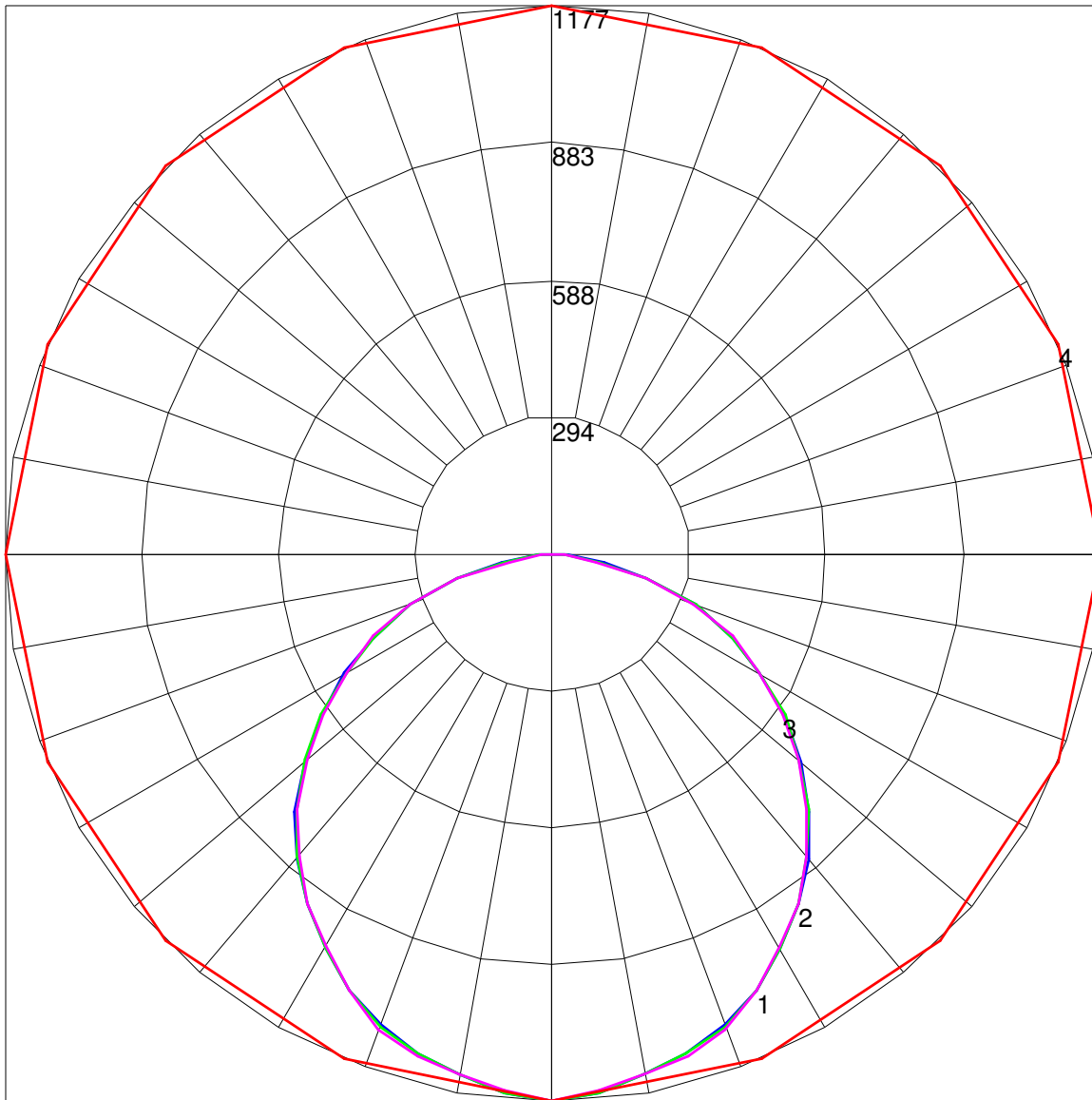
Reflectances

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	16.5	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	18.2	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	21.0	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	19.4	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 = 1176.674 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.)