



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L77-927-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-L77-927-DIM-UNV
[LAMPCAT] HLM 90 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	5991
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
Total Luminaire Watts	51.4
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	6499	6342	6325
55	6263	6124	6099
65	5965	5833	3118
75	4796	2665	510
85	2155	943	707

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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	2251.251	2251.251	2251.251	2251.251	2251.251
5	2224.507	2216.866	2210.180	2218.776	2228.327
10	2179.616	2171.975	2206.359	2212.090	2190.122
15	2128.993	2150.962	2127.083	2109.891	2109.891
20	2065.000	2112.756	2044.942	2034.435	2034.435
25	1981.903	1992.409	1958.980	1953.249	1953.249
30	1875.883	1859.646	1847.229	1840.543	1838.633
35	1763.177	1746.940	1732.613	1730.703	1726.882
40	1639.010	1612.266	1604.625	1601.760	1599.849
45	1495.740	1465.175	1459.445	1457.534	1455.624
50	1328.591	1306.623	1299.937	1298.027	1298.027
55	1169.084	1145.206	1143.295	1138.520	1138.520
60	987.608	969.461	967.551	963.730	960.865
65	820.460	804.223	802.312	617.972	428.855
70	626.568	612.241	489.984	332.387	339.073
75	404.022	404.022	224.456	193.892	42.981
80	213.950	138.494	39.160	32.475	32.475
85	61.129	32.475	26.744	20.058	20.058
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	812.65	N.A.	13.60
0-30	1718.49	N.A.	28.70
0-40	2805.79	N.A.	46.80
0-60	4955.74	N.A.	82.70
0-80	5952.04	N.A.	99.30
0-90	5991.03	N.A.	100.00
10-90	5779.77	N.A.	96.50
20-40	1993.14	N.A.	33.30
20-50	3121.82	N.A.	52.10
40-70	2860.35	N.A.	47.70
60-80	996.30	N.A.	16.60
70-80	285.90	N.A.	4.80
80-90	38.99	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	5991.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	211.26
10-20	601.39
20-30	905.84
30-40	1087.3
40-50	1128.68
50-60	1021.28
60-70	710.40
70-80	285.90
80-90	38.99
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	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	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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UGR TABLE - CORRECTED

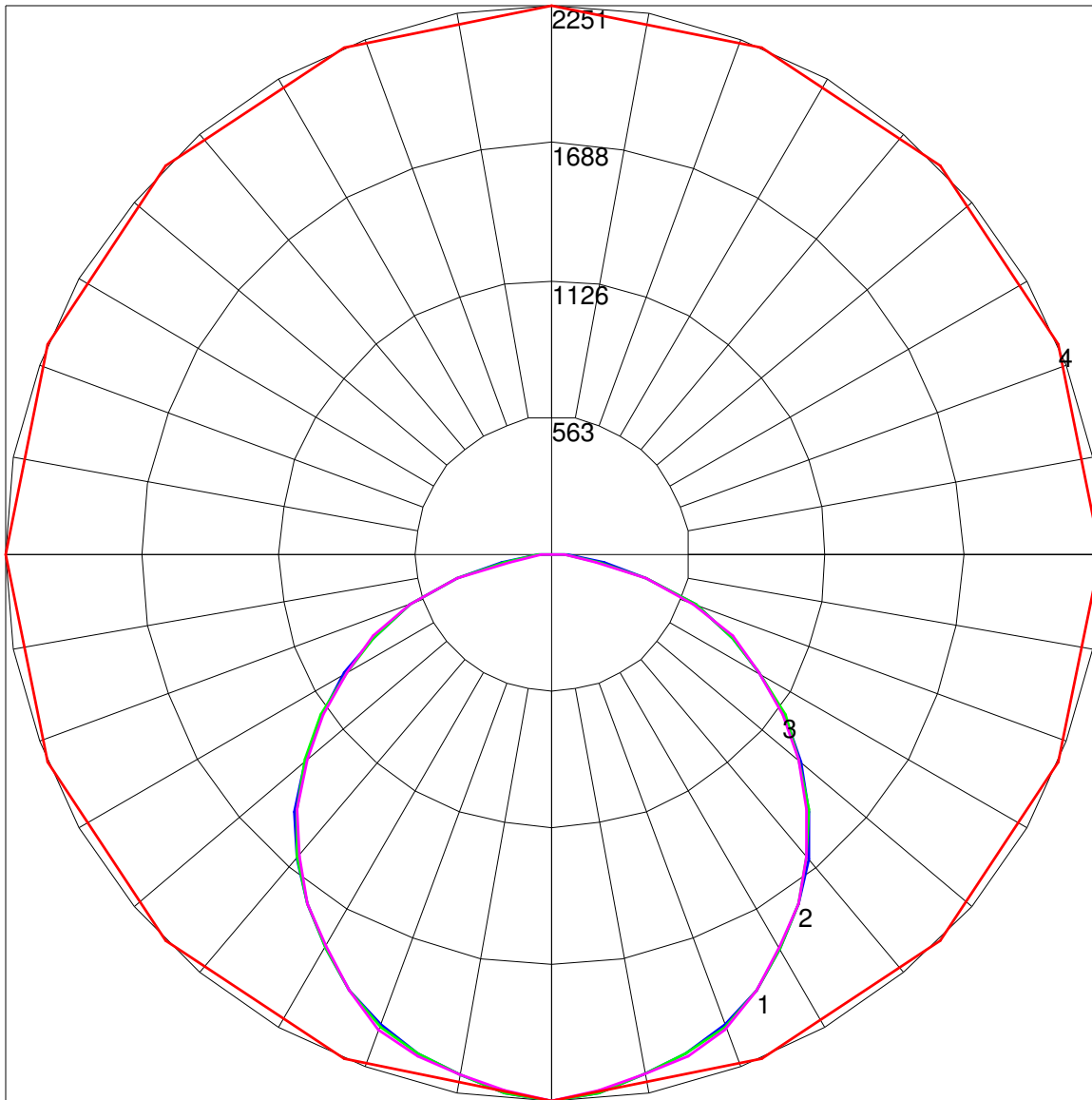
Reflectances

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	18.7	20.3	19.1	20.6	20.9	18.6	20.2	19.0	20.6	20.9
	3H	20.6	22.0	21.0	22.4	22.7	19.3	20.8	19.7	21.1	21.5
	4H	21.2	22.6	21.6	22.9	23.3	19.4	20.7	19.8	21.1	21.5
	6H	21.6	22.8	22.0	23.2	23.6	19.3	20.6	19.7	21.0	21.3
	8H	21.6	22.8	22.1	23.2	23.6	19.3	20.5	19.7	20.9	21.3
	12H	21.7	22.8	22.1	23.2	23.6	19.3	20.4	19.7	20.8	21.2
4H	2H	19.4	20.7	19.8	21.1	21.5	19.3	20.7	19.7	21.0	21.4
	3H	21.4	22.5	21.8	22.9	23.3	20.1	21.3	20.6	21.7	22.1
	4H	22.1	23.1	22.5	23.5	24.0	20.3	21.3	20.7	21.7	22.1
	6H	22.5	23.4	23.0	23.8	24.3	20.2	21.1	20.7	21.6	22.0
	8H	22.6	23.4	23.1	23.9	24.3	20.2	21.1	20.7	21.5	22.0
	12H	22.7	23.4	23.1	23.9	24.3	20.2	20.9	20.7	21.4	21.9
8H	4H	22.2	23.0	22.6	23.4	23.9	20.4	21.3	20.9	21.7	22.2
	6H	22.6	23.2	23.1	23.7	24.2	20.4	21.1	20.9	21.6	22.1
	8H	22.7	23.3	23.2	23.8	24.3	20.4	21.0	20.9	21.5	22.0
	12H	22.7	23.3	23.2	23.8	24.3	20.4	20.9	20.9	21.4	22.0
12H	4H	22.1	22.9	22.6	23.3	23.8	20.4	21.2	20.9	21.6	22.1
	6H	22.6	23.2	23.1	23.6	24.2	20.4	21.0	21.0	21.5	22.0
	8H	22.7	23.2	23.2	23.7	24.3	20.4	20.9	20.9	21.4	22.0

Maximum UGR = 24.3

POLAR GRAPH



Maximum Candela = 2251.251 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.)