



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L77-950-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-L77-950-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	6691
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
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	7259	7083	7064
55	6995	6840	6812
65	6662	6515	3482
75	5357	2976	570
85	2407	1053	790

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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	2514.384	2514.384	2514.384	2514.384	2514.384
5	2484.514	2475.980	2468.513	2478.114	2488.782
10	2434.376	2425.842	2464.246	2470.646	2446.111
15	2377.837	2402.373	2375.704	2356.502	2356.502
20	2306.363	2359.702	2283.961	2272.227	2272.227
25	2213.554	2225.289	2187.952	2181.551	2181.551
30	2095.142	2077.007	2063.139	2055.672	2053.538
35	1969.263	1951.128	1935.126	1932.993	1928.726
40	1830.583	1800.713	1792.179	1788.978	1786.845
45	1670.567	1636.430	1630.029	1627.896	1625.762
50	1483.881	1459.346	1451.878	1449.745	1449.745
55	1305.730	1279.061	1276.927	1271.593	1271.593
60	1103.043	1082.775	1080.641	1076.374	1073.174
65	916.358	898.223	896.089	690.202	478.981
70	699.803	683.802	547.255	371.237	378.704
75	451.245	451.245	250.692	216.555	48.005
80	238.957	154.682	43.738	36.270	36.270
85	68.273	36.270	29.870	22.402	22.402
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	907.63	N.A.	13.60
0-30	1919.35	N.A.	28.70
0-40	3133.74	N.A.	46.80
0-60	5534.98	N.A.	82.70
0-80	6647.73	N.A.	99.30
0-90	6691.28	N.A.	100.00
10-90	6455.33	N.A.	96.50
20-40	2226.1	N.A.	33.30
20-50	3486.7	N.A.	52.10
40-70	3194.67	N.A.	47.70
60-80	1112.75	N.A.	16.60
70-80	319.32	N.A.	4.80
80-90	43.55	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	6691.28	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	235.95
10-20	671.68
20-30	1011.72
30-40	1214.38
40-50	1260.6
50-60	1140.65
60-70	793.43
70-80	319.32
80-90	43.55
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	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	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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UGR TABLE - CORRECTED

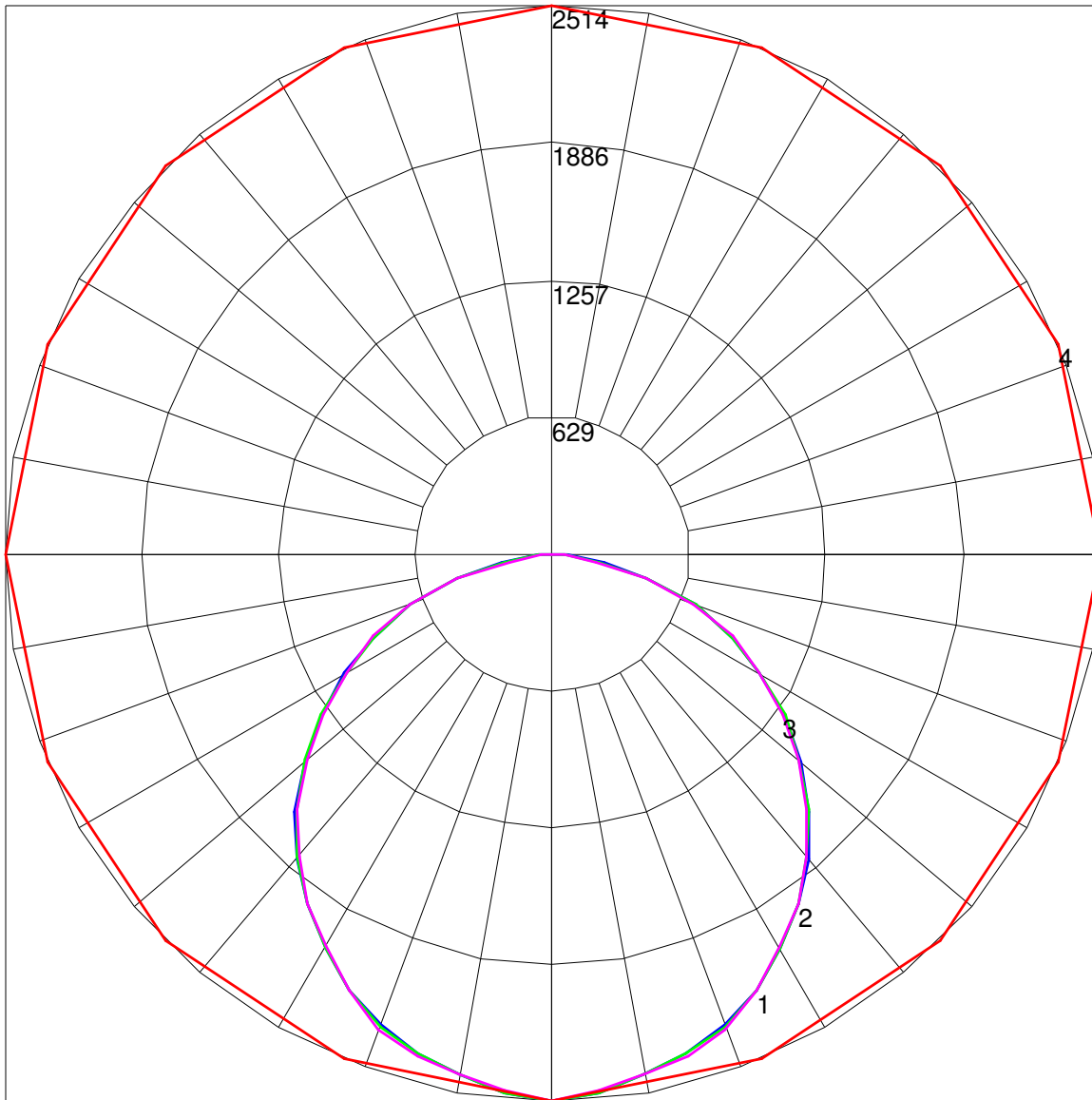
Reflectances

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	19.1	20.7	19.5	21.0	21.3	19.0	20.6	19.4	21.0	21.3
	3H	21.0	22.4	21.4	22.8	23.1	19.7	21.2	20.1	21.5	21.9
	4H	21.6	23.0	22.0	23.3	23.7	19.8	21.1	20.2	21.5	21.9
	6H	22.0	23.2	22.4	23.6	24.0	19.7	21.0	20.1	21.4	21.7
	8H	22.0	23.2	22.5	23.6	24.0	19.7	20.9	20.1	21.3	21.7
	12H	22.1	23.2	22.5	23.6	24.0	19.7	20.8	20.1	21.2	21.6
4H	2H	19.8	21.1	20.2	21.5	21.9	19.7	21.1	20.1	21.4	21.8
	3H	21.8	22.9	22.2	23.3	23.7	20.5	21.7	21.0	22.1	22.5
	4H	22.5	23.5	22.9	23.9	24.4	20.7	21.7	21.1	22.1	22.5
	6H	22.9	23.8	23.4	24.2	24.7	20.6	21.5	21.1	22.0	22.4
	8H	23.0	23.8	23.5	24.3	24.7	20.6	21.5	21.1	21.9	22.4
	12H	23.1	23.8	23.5	24.3	24.7	20.6	21.3	21.1	21.8	22.3
8H	4H	22.6	23.4	23.0	23.8	24.3	20.8	21.7	21.3	22.1	22.6
	6H	23.0	23.6	23.5	24.1	24.6	20.8	21.5	21.3	22.0	22.5
	8H	23.1	23.7	23.6	24.2	24.7	20.8	21.4	21.3	21.9	22.4
	12H	23.1	23.7	23.6	24.2	24.7	20.8	21.3	21.3	21.8	22.4
12H	4H	22.5	23.3	23.0	23.7	24.2	20.8	21.6	21.3	22.0	22.5
	6H	23.0	23.6	23.5	24.0	24.6	20.8	21.4	21.4	21.9	22.4
	8H	23.1	23.6	23.6	24.1	24.7	20.8	21.3	21.3	21.8	22.4

Maximum UGR = 24.7

POLAR GRAPH



Maximum Candela = 2514.384 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.)