



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L77-840-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-L77-840-DIM-UNV
[LAMPCAT] HLM 80 CRI 4000K 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	7781
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
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	8441	8236	8214
55	8133	7954	7921
65	7747	7575	4049
75	6229	3461	663
85	2799	1224	918

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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	2923.703	2923.703	2923.703	2923.703	2923.703
5	2888.971	2879.047	2870.364	2881.528	2893.933
10	2830.671	2820.747	2865.403	2872.845	2844.315
15	2764.927	2793.457	2762.447	2740.119	2740.119
20	2681.818	2743.840	2655.769	2642.125	2642.125
25	2573.901	2587.545	2544.130	2536.688	2536.688
30	2436.212	2415.125	2398.999	2390.316	2387.836
35	2289.841	2268.754	2250.147	2247.666	2242.705
40	2128.585	2093.853	2083.929	2080.208	2077.727
45	1942.520	1902.826	1895.383	1892.902	1890.421
50	1725.444	1696.914	1688.231	1685.750	1685.750
55	1518.291	1487.280	1484.800	1478.597	1478.597
60	1282.609	1259.041	1256.560	1251.598	1247.877
65	1065.533	1044.445	1041.965	802.561	556.955
70	813.725	795.118	636.343	431.671	440.354
75	524.704	524.704	291.502	251.808	55.820
80	277.857	179.863	50.858	42.175	42.175
85	79.388	42.175	34.732	26.049	26.049
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1055.39	N.A.	13.60
0-30	2231.81	N.A.	28.70
0-40	3643.88	N.A.	46.80
0-60	6436.03	N.A.	82.70
0-80	7729.92	N.A.	99.30
0-90	7780.56	N.A.	100.00
10-90	7506.2	N.A.	96.50
20-40	2588.49	N.A.	33.30
20-50	4054.31	N.A.	52.10
40-70	3714.74	N.A.	47.70
60-80	1293.89	N.A.	16.60
70-80	371.30	N.A.	4.80
80-90	50.64	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	7780.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	274.36
10-20	781.03
20-30	1176.42
30-40	1412.07
40-50	1465.81
50-60	1326.33
60-70	922.59
70-80	371.30
80-90	50.64
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

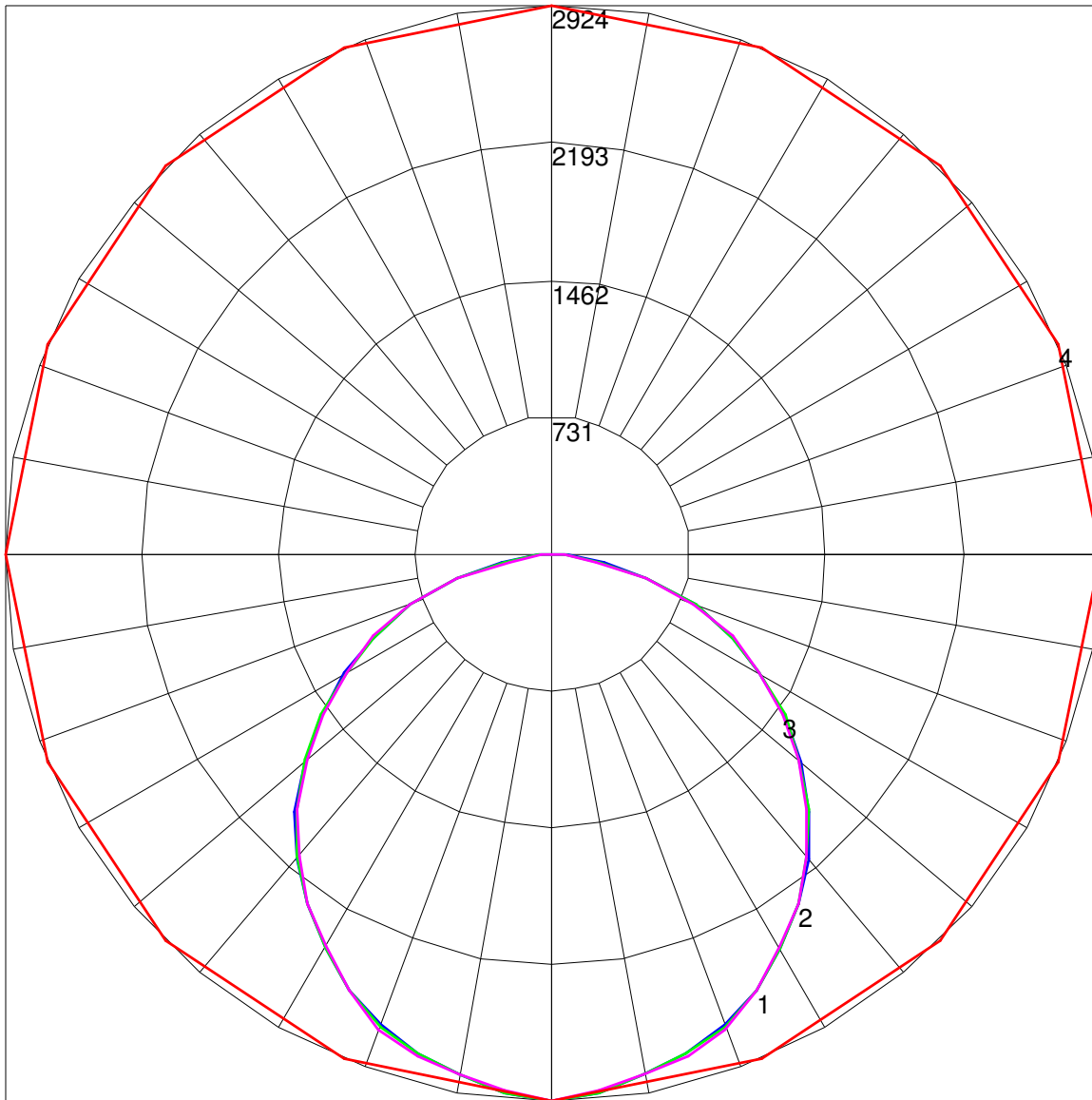
Reflectances

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	19.6	21.2	20.0	21.5	21.8	19.5	21.1	19.9	21.5	21.8
	3H	21.5	22.9	21.9	23.3	23.6	20.2	21.7	20.6	22.0	22.4
	4H	22.1	23.5	22.5	23.8	24.2	20.3	21.6	20.7	22.0	22.4
	6H	22.5	23.7	22.9	24.1	24.5	20.2	21.5	20.6	21.9	22.2
	8H	22.5	23.7	23.0	24.1	24.5	20.2	21.4	20.6	21.8	22.2
	12H	22.6	23.7	23.0	24.1	24.5	20.2	21.3	20.6	21.7	22.1
4H	2H	20.3	21.6	20.7	22.0	22.4	20.2	21.6	20.6	21.9	22.3
	3H	22.3	23.4	22.7	23.8	24.2	21.0	22.2	21.5	22.6	23.0
	4H	23.0	24.0	23.4	24.4	24.9	21.2	22.2	21.6	22.6	23.0
	6H	23.4	24.3	23.9	24.7	25.2	21.1	22.0	21.6	22.5	22.9
	8H	23.5	24.3	24.0	24.8	25.2	21.1	22.0	21.6	22.4	22.9
	12H	23.6	24.3	24.0	24.8	25.2	21.1	21.8	21.6	22.3	22.8
8H	4H	23.1	23.9	23.5	24.3	24.8	21.3	22.2	21.8	22.6	23.1
	6H	23.5	24.1	24.0	24.6	25.1	21.3	22.0	21.8	22.5	23.0
	8H	23.6	24.2	24.1	24.7	25.2	21.3	21.9	21.8	22.4	22.9
	12H	23.6	24.2	24.1	24.7	25.2	21.3	21.8	21.8	22.3	22.9
12H	4H	23.0	23.8	23.5	24.2	24.7	21.3	22.1	21.8	22.5	23.0
	6H	23.5	24.1	24.0	24.5	25.1	21.3	21.9	21.9	22.4	22.9
	8H	23.6	24.1	24.1	24.6	25.2	21.3	21.8	21.8	22.3	22.9

Maximum UGR = 25.2

POLAR GRAPH



Maximum Candela = 2923.703 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.)