



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L77-930-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-L77-930-DIM-UNV
[LAMPCAT] HLM 90 CRI 3000K 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	6147
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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	6668	6506	6489
55	6425	6283	6257
65	6120	5984	3199
75	4921	2734	523
85	2211	967	725

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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	2309.725	2309.725	2309.725	2309.725	2309.725
5	2282.286	2274.447	2267.587	2276.407	2286.206
10	2236.229	2228.390	2263.667	2269.547	2247.008
15	2184.292	2206.831	2182.332	2164.693	2164.693
20	2118.636	2167.633	2098.057	2087.278	2087.278
25	2033.381	2044.160	2009.862	2003.983	2003.983
30	1924.607	1907.948	1895.209	1888.349	1886.390
35	1808.974	1792.315	1777.616	1775.656	1771.736
40	1681.582	1654.143	1646.304	1643.364	1641.404
45	1534.590	1503.232	1497.352	1495.392	1493.433
50	1363.100	1340.562	1333.702	1331.742	1331.742
55	1199.450	1174.951	1172.991	1168.092	1168.092
60	1013.261	994.642	992.682	988.762	985.822
65	841.771	825.112	823.152	634.023	439.994
70	642.842	628.143	502.711	341.020	347.880
75	414.516	414.516	230.287	198.928	44.097
80	219.507	142.092	40.178	33.318	33.318
85	62.716	33.318	27.438	20.579	20.579
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	833.76	N.A.	13.60
0-30	1763.13	N.A.	28.70
0-40	2878.67	N.A.	46.80
0-60	5084.46	N.A.	82.70
0-80	6106.63	N.A.	99.30
0-90	6146.64	N.A.	100.00
10-90	5929.9	N.A.	96.50
20-40	2044.91	N.A.	33.30
20-50	3202.9	N.A.	52.10
40-70	2934.64	N.A.	47.70
60-80	1022.17	N.A.	16.60
70-80	293.33	N.A.	4.80
80-90	40.01	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	6146.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	216.74
10-20	617.01
20-30	929.37
30-40	1115.54
40-50	1157.99
50-60	1047.8
60-70	728.85
70-80	293.33
80-90	40.01
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

X=2H	Y=2H	18.8	20.4	19.2	20.7	21.0	18.7	20.3	19.1	20.7	21.0
	3H	20.7	22.1	21.1	22.5	22.8	19.4	20.9	19.8	21.2	21.6
	4H	21.3	22.7	21.7	23.0	23.4	19.5	20.8	19.9	21.2	21.6
	6H	21.7	22.9	22.1	23.3	23.7	19.4	20.7	19.8	21.1	21.4
	8H	21.7	22.9	22.2	23.3	23.7	19.4	20.6	19.8	21.0	21.4
	12H	21.8	22.9	22.2	23.3	23.7	19.4	20.5	19.8	20.9	21.3

UGR Viewed Endwise

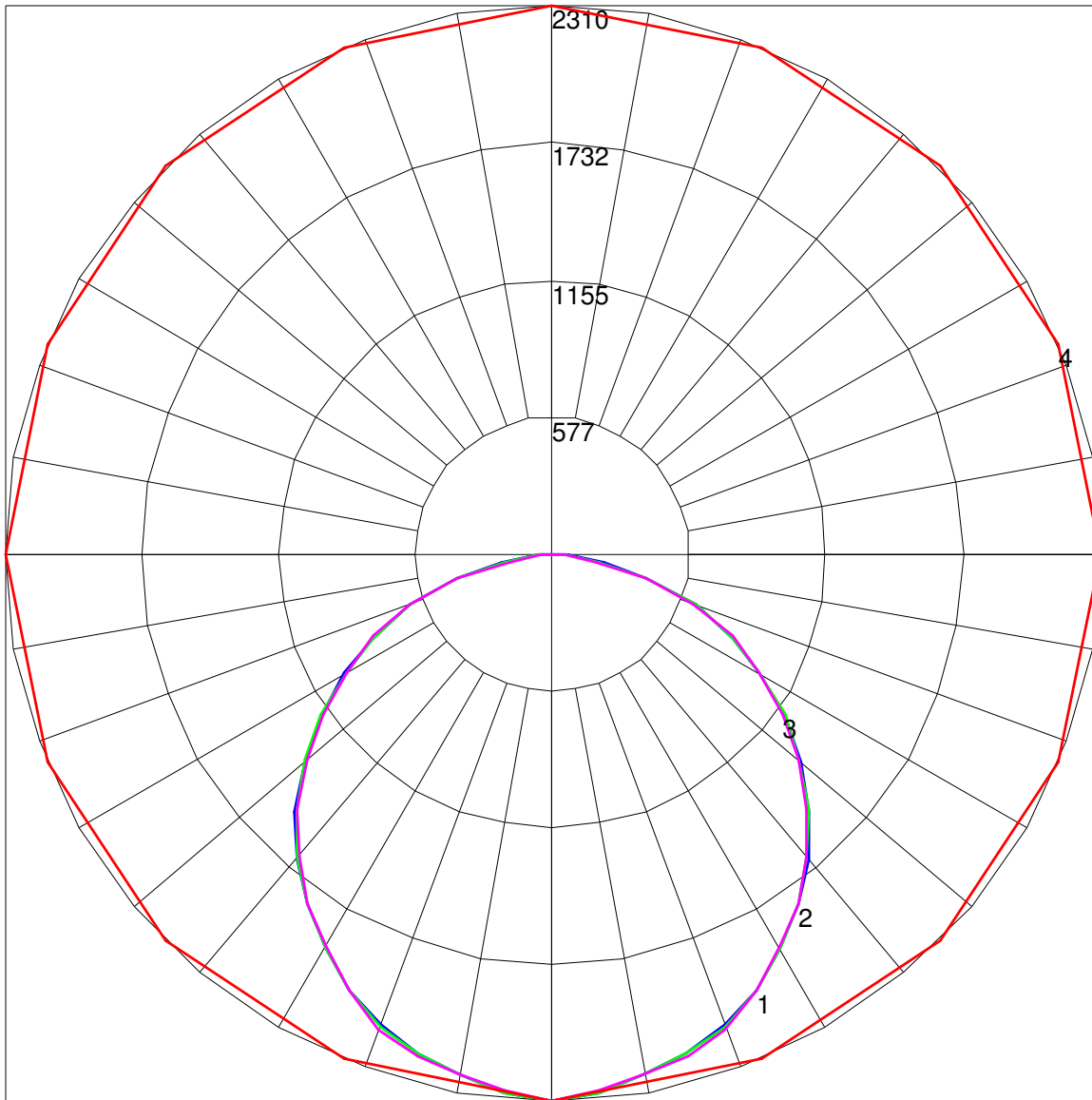
4H	2H	19.5	20.8	19.9	21.2	21.6	19.4	20.8	19.8	21.1	21.5
	3H	21.5	22.6	21.9	23.0	23.4	20.2	21.4	20.7	21.8	22.2
	4H	22.2	23.2	22.6	23.6	24.1	20.4	21.4	20.8	21.8	22.2
	6H	22.6	23.5	23.1	23.9	24.4	20.3	21.2	20.8	21.7	22.1
	8H	22.7	23.5	23.2	24.0	24.4	20.3	21.2	20.8	21.6	22.1
	12H	22.8	23.5	23.2	24.0	24.4	20.3	21.0	20.8	21.5	22.0

8H	4H	22.3	23.1	22.7	23.5	24.0	20.6	21.4	21.0	21.8	22.3
	6H	22.7	23.3	23.2	23.8	24.3	20.5	21.2	21.0	21.7	22.2
	8H	22.8	23.4	23.3	23.9	24.4	20.5	21.1	21.0	21.6	22.1
	12H	22.8	23.4	23.3	23.9	24.4	20.5	21.0	21.0	21.5	22.1

12H	4H	22.2	23.0	22.7	23.4	23.9	20.5	21.3	21.0	21.8	22.2
	6H	22.7	23.3	23.2	23.7	24.3	20.5	21.1	21.1	21.6	22.1
	8H	22.8	23.3	23.3	23.8	24.4	20.5	21.0	21.0	21.5	22.1

Maximum UGR = 24.4

POLAR GRAPH



Maximum Candela = 2309.725 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.)