



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L115-940-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-L115-940-DIM-UNV
[LAMPCAT] HLM 90 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	9556
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	73.1
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	10366	10115	10088
55	9989	9768	9728
65	9514	9304	4973
75	7650	4250	814
85	3437	1504	1128

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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	3590.727	3590.727	3590.727	3590.727	3590.727
5	3548.071	3535.883	3525.219	3538.930	3554.164
10	3476.469	3464.282	3519.125	3528.266	3493.227
15	3395.728	3430.766	3392.681	3365.259	3365.259
20	3293.658	3369.829	3261.666	3244.908	3244.908
25	3161.119	3177.877	3124.557	3115.416	3115.416
30	2992.018	2966.120	2946.315	2935.651	2932.605
35	2812.254	2786.355	2763.504	2760.457	2754.363
40	2614.207	2571.551	2559.364	2554.794	2551.747
45	2385.693	2336.943	2327.802	2324.756	2321.709
50	2119.092	2084.054	2073.390	2070.343	2070.343
55	1864.679	1826.594	1823.547	1815.930	1815.930
60	1575.228	1546.282	1543.236	1537.142	1532.572
65	1308.627	1282.729	1279.682	985.660	684.020
70	999.371	976.519	781.520	530.154	540.818
75	644.411	644.411	358.006	309.256	68.554
80	341.249	220.897	62.461	51.797	51.797
85	97.500	51.797	42.656	31.992	31.992
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1296.17	N.A.	13.60
0-30	2740.98	N.A.	28.70
0-40	4475.21	N.A.	46.80
0-60	7904.36	N.A.	82.70
0-80	9493.45	N.A.	99.30
0-90	9555.64	N.A.	100.00
10-90	9218.69	N.A.	96.50
20-40	3179.04	N.A.	33.30
20-50	4979.27	N.A.	52.10
40-70	4562.23	N.A.	47.70
60-80	1589.08	N.A.	16.60
70-80	456.01	N.A.	4.80
80-90	62.19	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	9555.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	336.95
10-20	959.22
20-30	1444.81
30-40	1734.23
40-50	1800.23
50-60	1628.93
60-70	1133.08
70-80	456.01
80-90	62.19
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

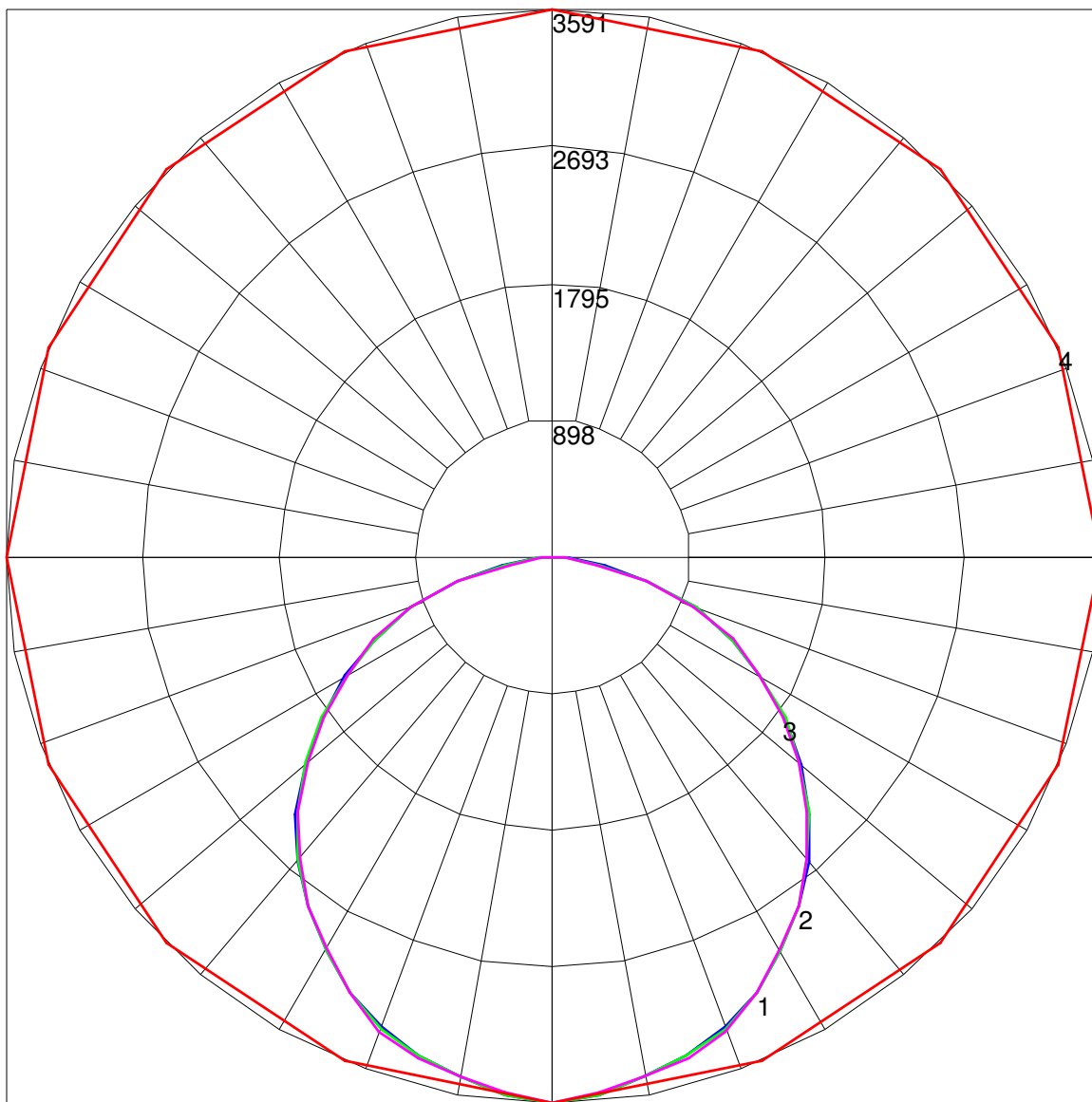
Reflectances

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	20.3	21.9	20.7	22.2	22.5	20.2	21.8	20.6	22.2	22.5
	3H	22.2	23.6	22.6	24.0	24.3	20.9	22.4	21.3	22.7	23.1
	4H	22.8	24.2	23.2	24.5	24.9	21.0	22.3	21.4	22.7	23.1
	6H	23.2	24.4	23.6	24.8	25.2	20.9	22.2	21.3	22.6	22.9
	8H	23.2	24.4	23.7	24.8	25.2	20.9	22.1	21.3	22.5	22.9
	12H	23.3	24.4	23.7	24.8	25.2	20.9	22.0	21.3	22.4	22.8
4H	2H	21.0	22.3	21.4	22.7	23.1	20.9	22.3	21.3	22.6	23.0
	3H	23.0	24.1	23.4	24.5	24.9	21.7	22.9	22.2	23.3	23.7
	4H	23.7	24.7	24.1	25.1	25.6	21.9	22.9	22.3	23.3	23.7
	6H	24.1	25.0	24.6	25.4	25.9	21.8	22.7	22.3	23.2	23.6
	8H	24.2	25.0	24.7	25.5	25.9	21.8	22.7	22.3	23.1	23.6
	12H	24.3	25.0	24.7	25.5	25.9	21.8	22.5	22.3	23.0	23.5
8H	4H	23.8	24.6	24.2	25.0	25.5	22.1	22.9	22.5	23.3	23.8
	6H	24.2	24.8	24.7	25.3	25.8	22.0	22.7	22.5	23.2	23.7
	8H	24.3	24.9	24.8	25.4	25.9	22.0	22.6	22.5	23.1	23.6
	12H	24.3	24.9	24.8	25.4	25.9	22.0	22.5	22.5	23.0	23.6
12H	4H	23.7	24.5	24.2	24.9	25.4	22.0	22.8	22.5	23.3	23.7
	6H	24.2	24.8	24.7	25.2	25.8	22.0	22.6	22.6	23.1	23.6
	8H	24.3	24.8	24.8	25.3	25.9	22.0	22.5	22.5	23.0	23.6

Maximum UGR = 25.9

POLAR GRAPH



Maximum Candela = 3590.727 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.)