



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 80-4-L115-927-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-L115-927-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	8865
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
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	9617	9384	9359
55	9267	9062	9024
65	8826	8631	4613
75	7097	3943	755
85	3189	1395	1046

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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	3331.157	3331.157	3331.157	3331.157	3331.157
5	3291.585	3280.279	3270.385	3283.105	3297.238
10	3225.160	3213.853	3264.732	3273.212	3240.706
15	3150.255	3182.761	3147.428	3121.988	3121.988
20	3055.563	3126.228	3025.884	3010.337	3010.337
25	2932.606	2948.152	2898.686	2890.207	2890.207
30	2775.729	2751.703	2733.330	2723.437	2720.610
35	2608.959	2584.933	2563.733	2560.907	2555.254
40	2425.230	2385.657	2374.351	2370.111	2367.284
45	2213.234	2168.008	2159.528	2156.702	2153.875
50	1965.906	1933.400	1923.507	1920.680	1920.680
55	1729.884	1694.551	1691.725	1684.658	1684.658
60	1461.356	1434.504	1431.677	1426.024	1421.784
65	1214.028	1190.002	1187.175	914.408	634.573
70	927.127	905.928	725.025	491.830	501.723
75	597.828	597.828	332.126	286.901	63.599
80	316.580	204.929	57.945	48.052	48.052
85	90.451	48.052	39.573	29.679	29.679
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1202.47	N.A.	13.60
0-30	2542.84	N.A.	28.70
0-40	4151.7	N.A.	46.80
0-60	7332.97	N.A.	82.70
0-80	8807.18	N.A.	99.30
0-90	8864.87	N.A.	100.00
10-90	8552.28	N.A.	96.50
20-40	2949.23	N.A.	33.30
20-50	4619.32	N.A.	52.10
40-70	4232.43	N.A.	47.70
60-80	1474.21	N.A.	16.60
70-80	423.04	N.A.	4.80
80-90	57.70	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	8864.87	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	312.59
10-20	889.87
20-30	1340.37
30-40	1608.86
40-50	1670.09
50-60	1511.17
60-70	1051.17
70-80	423.04
80-90	57.70
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

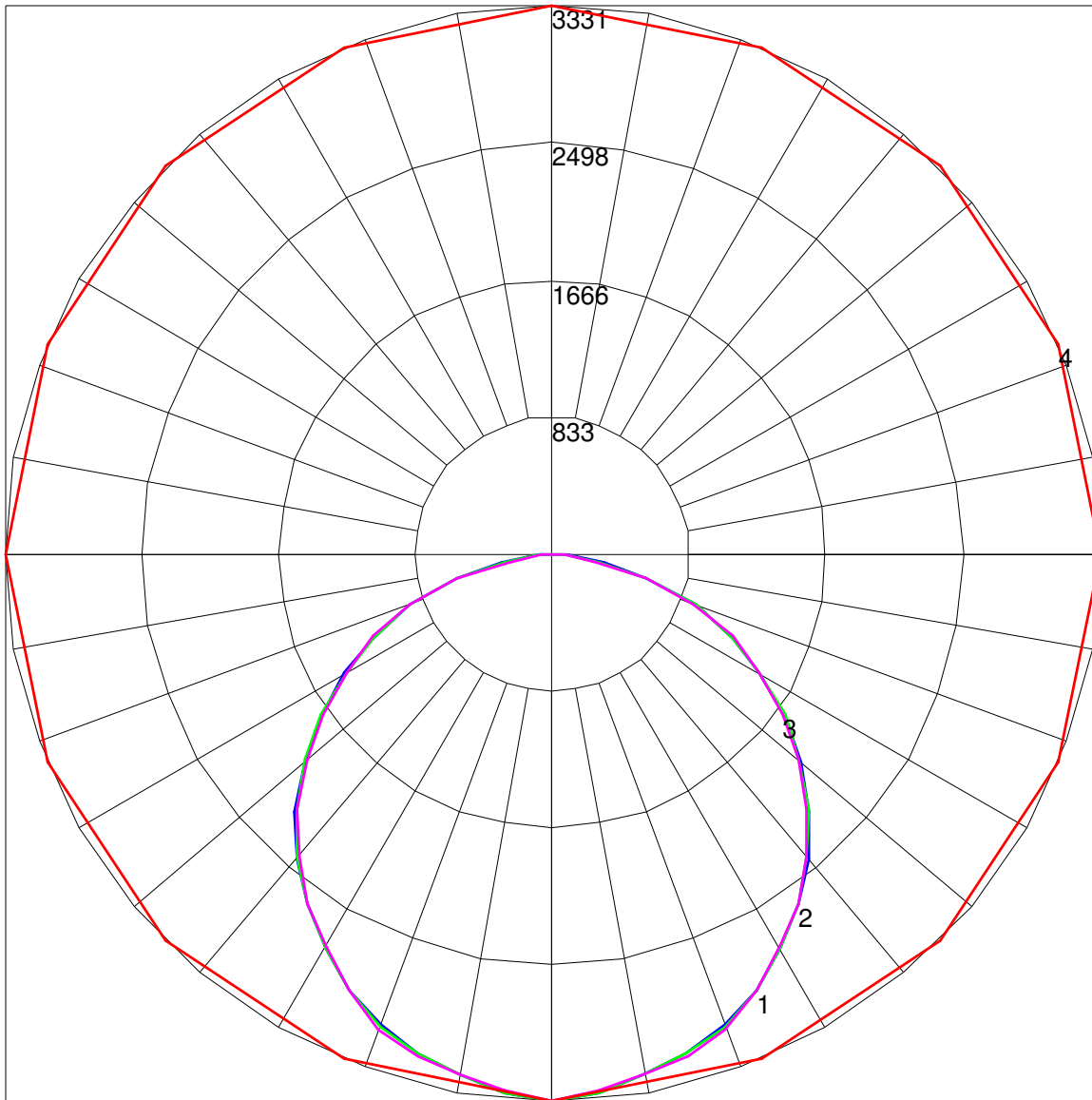
Reflectances

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	20.1	21.7	20.5	22.0	22.3	20.0	21.6	20.4	22.0	22.3
	3H	22.0	23.4	22.4	23.8	24.1	20.7	22.2	21.1	22.5	22.9
	4H	22.6	24.0	23.0	24.3	24.7	20.8	22.1	21.2	22.5	22.9
	6H	23.0	24.2	23.4	24.6	25.0	20.7	22.0	21.1	22.4	22.7
	8H	23.0	24.2	23.5	24.6	25.0	20.7	21.9	21.1	22.3	22.7
	12H	23.1	24.2	23.5	24.6	25.0	20.7	21.8	21.1	22.2	22.6
4H	2H	20.8	22.1	21.2	22.5	22.9	20.7	22.1	21.1	22.4	22.8
	3H	22.8	23.9	23.2	24.3	24.7	21.5	22.7	22.0	23.1	23.5
	4H	23.5	24.5	23.9	24.9	25.4	21.7	22.7	22.1	23.1	23.5
	6H	23.9	24.8	24.4	25.2	25.7	21.6	22.5	22.1	23.0	23.4
	8H	24.0	24.8	24.5	25.3	25.7	21.6	22.5	22.1	22.9	23.4
	12H	24.1	24.8	24.5	25.3	25.7	21.6	22.3	22.1	22.8	23.3
8H	4H	23.6	24.4	24.0	24.8	25.3	21.8	22.7	22.3	23.1	23.6
	6H	24.0	24.6	24.5	25.1	25.6	21.8	22.5	22.3	23.0	23.5
	8H	24.1	24.7	24.6	25.2	25.7	21.8	22.4	22.3	22.9	23.4
	12H	24.1	24.7	24.6	25.2	25.7	21.8	22.3	22.3	22.8	23.4
12H	4H	23.5	24.3	24.0	24.7	25.2	21.8	22.6	22.3	23.0	23.5
	6H	24.0	24.6	24.5	25.0	25.6	21.8	22.4	22.4	22.9	23.4
	8H	24.1	24.6	24.6	25.1	25.7	21.8	22.3	22.3	22.8	23.4

Maximum UGR = 25.7

POLAR GRAPH



Maximum Candela = 3331.157 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.)