



IES INDOOR REPORT
PHOTOMETRIC FILENAME : 39-4-L84-840-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 19011.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 03-01-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836
 [LUMINAIRE] 4' SURFACE MOUNT LED LUMINAIRE
 [MORE] WITH FROSTED ACRYLIC RIBBED LENS
 [LUMCAT] 39-4-L84-840-A-DIM-UNV
 [LAMPCAT] HLM 80 CRI, 4000K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] INDOOR, ARCHITECTURAL, COMMERCIAL, DIRECT, LINEAR
 [_SEARCH_MOUNTING] SURFACE, SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8650
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	66
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.01 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8576	7759	7666
55	7155	6376	6409
65	5920	5219	5567
75	4317	4139	4804
85	2545	3448	4475

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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	3306.509	3306.509	3306.509	3306.509	3306.509
5	3324.869	3323.200	3321.531	3321.531	3323.200
10	3251.428	3249.759	3249.759	3251.428	3254.766
15	3136.260	3139.598	3144.605	3147.943	3151.282
20	3041.120	3042.789	3052.804	3054.473	3054.473
25	2785.746	2792.423	2800.768	2805.776	2805.776
30	2573.769	2582.115	2593.799	2600.475	2602.144
35	2395.174	2408.527	2426.887	2435.233	2440.240
40	2101.411	2118.102	2143.139	2158.161	2164.837
45	1867.735	1891.103	1924.485	1947.853	1956.198
50	1560.619	1583.986	1629.052	1664.104	1677.457
55	1286.885	1315.259	1370.340	1412.068	1430.428
60	1026.503	1056.547	1114.966	1176.723	1201.760
65	807.850	839.563	914.673	999.797	1026.503
70	587.527	625.917	724.394	816.195	852.916
75	383.896	430.631	539.123	637.600	672.652
80	225.330	285.418	403.925	504.072	539.123
85	98.478	163.573	280.411	375.550	408.932
90	0.000	71.772	166.911	243.690	273.734
95	0.000	30.044	106.823	175.257	201.962
100	0.000	0.000	65.095	118.507	136.867
105	0.000	0.000	41.728	78.448	95.139
110	0.000	0.000	0.000	53.412	65.095
115	0.000	0.000	0.000	40.059	48.404
120	0.000	0.000	0.000	33.382	36.720
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1204.18	N.A.	13.90
0-30	2499.62	N.A.	28.90
0-40	3998.69	N.A.	46.20
0-60	6688.65	N.A.	77.30
0-80	8174.55	N.A.	94.50
0-90	8470.34	N.A.	97.90
10-90	8155.94	N.A.	94.30
20-40	2794.51	N.A.	32.30
20-50	4261.58	N.A.	49.30
40-70	3599.42	N.A.	41.60
60-80	1485.9	N.A.	17.20
70-80	576.45	N.A.	6.70
80-90	295.79	N.A.	3.40
90-110	160.51	N.A.	1.90
90-120	177.07	N.A.	2.00
90-130	180.06	N.A.	2.10
90-150	180.06	N.A.	2.10
90-180	180.06	N.A.	2.10
110-180	19.55	N.A.	0.20
0-180	8650.4	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	314.41
10-20	889.77
20-30	1295.44
30-40	1499.06
40-50	1467.08
50-60	1222.89
60-70	909.45
70-80	576.45
80-90	295.79
90-100	115.85
100-110	44.66
110-120	16.56
120-130	2.99
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	110	110	110	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	86	88	86	84	81
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	74	70	68
3	90	79	71	65	87	78	70	64	74	68	63	71	66	61	69	64	60	58
4	83	71	62	55	80	69	61	55	66	59	54	64	58	53	61	56	52	50
5	76	63	54	48	74	62	54	48	60	52	47	58	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	46	40	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	36	30	55	43	35	30	42	35	30	41	34	30	39	34	29	27
10	54	40	33	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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UGR TABLE - CORRECTED

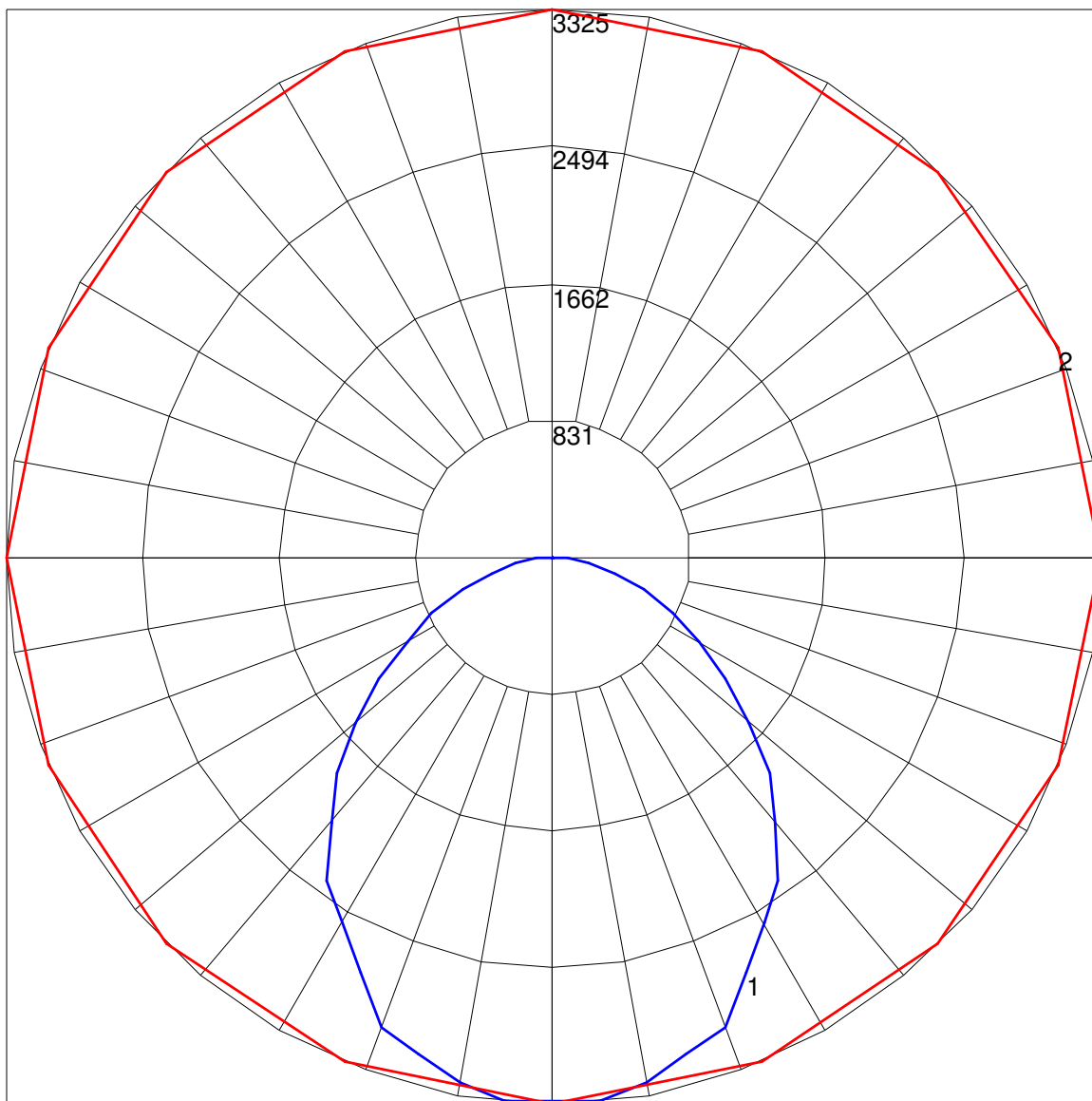
Reflectances

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	17.4	18.9	17.8	19.3	19.7	18.5	20.1	18.9	20.5	20.8
	3H	18.7	20.2	19.1	20.5	20.9	20.6	22.0	21.0	22.4	22.8
	4H	19.1	20.5	19.6	20.9	21.3	21.5	22.8	21.9	23.2	23.6
	6H	19.4	20.7	19.8	21.1	21.5	22.4	23.6	22.8	24.0	24.4
	8H	19.5	20.7	19.9	21.1	21.5	22.8	24.0	23.3	24.4	24.9
	12H	19.5	20.6	20.0	21.1	21.5	23.2	24.4	23.7	24.8	25.3
4H	2H	18.0	19.4	18.5	19.8	20.2	19.0	20.3	19.4	20.7	21.1
	3H	19.6	20.7	20.1	21.2	21.6	21.2	22.4	21.7	22.8	23.2
	4H	20.1	21.2	20.6	21.6	22.1	22.3	23.3	22.8	23.8	24.2
	6H	20.5	21.4	21.0	21.9	22.4	23.4	24.3	23.8	24.7	25.2
	8H	20.6	21.5	21.1	21.9	22.4	23.9	24.7	24.4	25.2	25.7
	12H	20.7	21.4	21.2	21.9	22.5	24.4	25.2	25.0	25.7	26.2
8H	4H	20.6	21.4	21.1	21.9	22.4	22.5	23.3	23.0	23.8	24.3
	6H	21.1	21.8	21.6	22.3	22.8	23.7	24.4	24.2	24.9	25.5
	8H	21.2	21.9	21.8	22.4	23.0	24.3	25.0	24.9	25.5	26.1
	12H	21.4	21.9	21.9	22.5	23.1	25.1	25.6	25.6	26.2	26.8
12H	4H	20.7	21.4	21.2	22.0	22.5	22.5	23.2	23.0	23.8	24.3
	6H	21.2	21.9	21.8	22.4	23.0	23.7	24.4	24.3	24.9	25.5
	8H	21.5	22.1	22.0	22.6	23.2	24.4	25.0	25.0	25.5	26.1

Maximum UGR = 26.8

POLAR GRAPH



Maximum Candela = 3324.869 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)