



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L40-840-AF-(L25)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 19436.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 02-AUG-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS
 [MORE] 0-10V DIMMING DRIVER
 [LUMCAT] LT-24-L40-840-AF-(L25)-DIM-UNV
 [LAMPCAT] HLMX 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2559
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	17.6
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1079	1198	1293
55	917	1118	1249
65	780	1103	1290
75	583	1091	1280
85	396	1035	696

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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	940.870	940.870	940.870	940.870	940.870
5	943.223	942.635	942.635	942.046	942.046
10	924.394	922.040	924.394	924.982	924.982
15	899.092	900.858	903.800	906.153	907.919
20	846.135	848.489	854.373	860.257	862.611
25	787.883	790.236	801.416	810.242	814.361
30	730.807	737.279	751.990	766.111	771.996
35	667.258	674.908	697.267	716.685	725.511
40	594.295	606.652	637.838	662.551	673.142
45	532.512	550.753	591.353	626.070	638.426
50	451.900	473.671	521.921	559.579	573.701
55	367.169	392.470	447.781	486.616	500.150
60	293.617	321.861	380.702	421.302	433.071
65	230.069	262.431	325.391	367.757	380.702
70	162.990	197.118	261.843	302.443	310.681
75	105.326	138.865	197.118	225.950	231.246
80	60.018	96.499	141.219	155.341	147.691
85	24.125	50.015	62.960	48.838	42.366
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	342.58	N.A.	13.40
0-30	712.63	N.A.	27.80
0-40	1148.01	N.A.	44.90
0-60	1993.72	N.A.	77.90
0-80	2498.79	N.A.	97.60
0-90	2559.15	N.A.	100.00
10-90	2469.86	N.A.	96.50
20-40	805.44	N.A.	31.50
20-50	1255.36	N.A.	49.10
40-70	1155.74	N.A.	45.20
60-80	505.07	N.A.	19.70
70-80	195.03	N.A.	7.60
80-90	60.36	N.A.	2.40
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	2559.15	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.29
10-20	253.29
20-30	370.06
30-40	435.38
40-50	449.92
50-60	395.79
60-70	310.03
70-80	195.03
80-90	60.36
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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UGR TABLE - CORRECTED

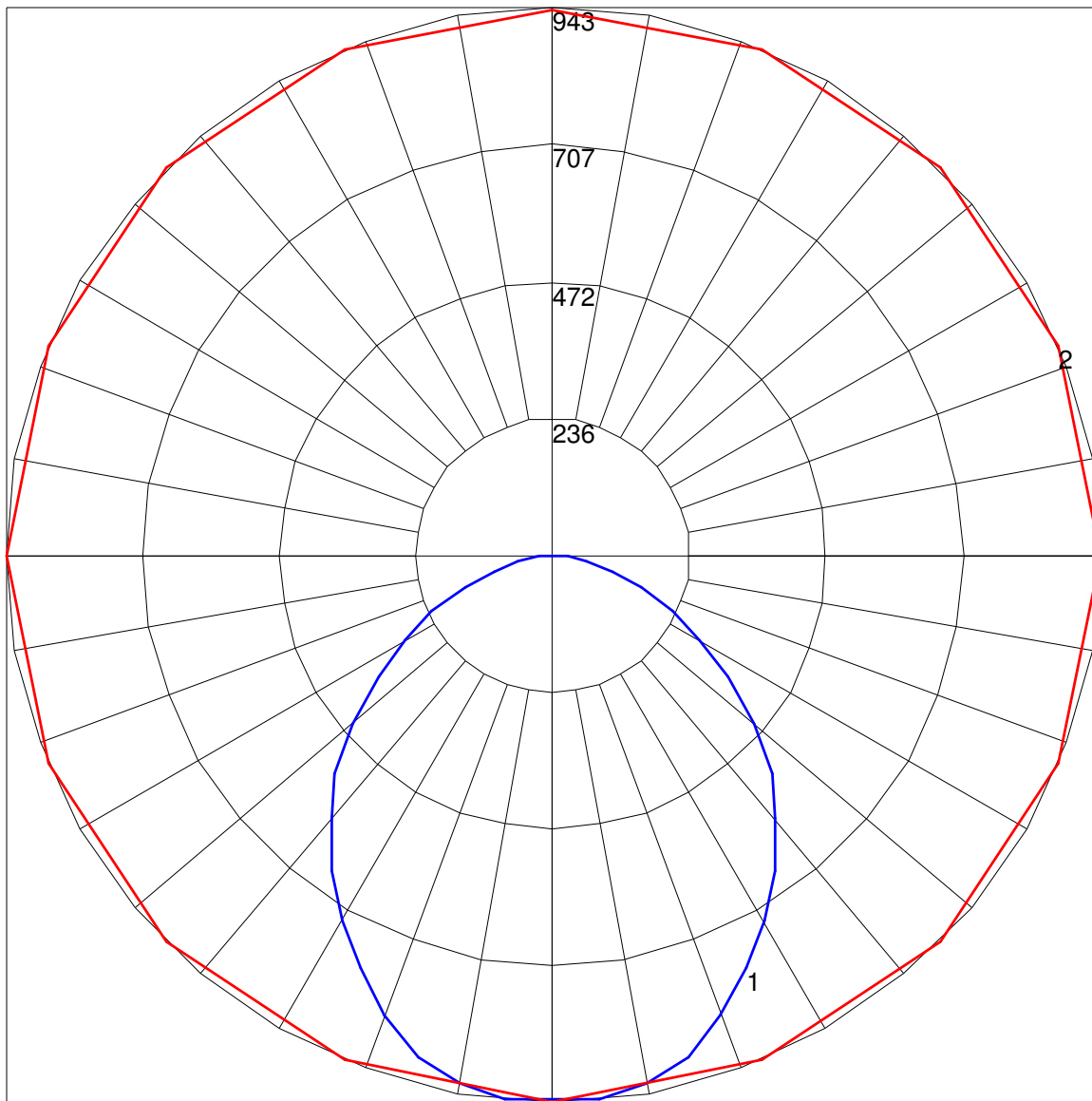
Reflectances

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	11.3	13.0	11.7	13.3	13.6	13.1	14.8	13.5	15.1	15.4
	3H	12.9	14.4	13.3	14.7	15.1	15.4	16.9	15.8	17.2	17.6
	4H	13.4	14.8	13.8	15.2	15.5	16.3	17.7	16.7	18.1	18.4
	6H	13.8	15.1	14.2	15.4	15.8	17.0	18.3	17.4	18.7	19.1
	8H	13.9	15.1	14.3	15.5	15.9	17.2	18.5	17.7	18.9	19.3
	12H	14.0	15.2	14.4	15.5	16.0	17.3	18.5	17.8	18.9	19.3
4H	2H	12.3	13.8	12.7	14.1	14.5	13.7	15.1	14.1	15.5	15.8
	3H	14.1	15.3	14.5	15.7	16.1	16.2	17.4	16.6	17.8	18.2
	4H	14.8	15.9	15.2	16.3	16.7	17.3	18.4	17.7	18.8	19.2
	6H	15.3	16.2	15.7	16.7	17.1	18.2	19.1	18.6	19.6	20.0
	8H	15.5	16.3	15.9	16.8	17.3	18.5	19.4	18.9	19.8	20.3
	12H	15.6	16.4	16.1	16.8	17.3	18.6	19.4	19.1	19.9	20.3
8H	4H	15.5	16.4	15.9	16.8	17.3	17.6	18.5	18.1	18.9	19.4
	6H	16.2	16.9	16.7	17.4	17.9	18.7	19.4	19.2	19.9	20.4
	8H	16.5	17.1	17.0	17.6	18.1	19.0	19.7	19.6	20.2	20.7
	12H	16.7	17.3	17.2	17.7	18.3	19.3	19.8	19.8	20.3	20.9
12H	4H	15.6	16.4	16.1	16.9	17.3	17.6	18.4	18.1	18.9	19.4
	6H	16.4	17.1	16.9	17.5	18.1	18.8	19.4	19.3	19.9	20.4
	8H	16.8	17.4	17.3	17.8	18.4	19.2	19.8	19.7	20.3	20.8

Maximum UGR = 20.9

POLAR GRAPH



Maximum Candela = 943.223 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.)