



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-24-L40-840-AF-(L30)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20802.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 01-09-2024
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
 [LUMINAIRE] WHITE REFLECTOR w/FROSTED CENTER LENS
 [LUMINAIRE] 0-10V DIMMING DRIVER
 [LUMCAT] LT-24-L40-840-AF-(L30)-DIM-UNV
 [LAMPCAT] 22 INCH LED ARRAYS
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] Indoor, Classroom, Office, Direct
 [_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3115
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
Total Luminaire Watts	22.7
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.93 ft
Luminous Width (90-270)	1.91 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1287	1430	1539
55	1171	1388	1551
65	1000	1379	1624
75	737	1448	1817
85	282	1163	1069

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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	1082.080	1082.080	1082.080	1082.080	1082.080
5	1092.455	1079.486	1072.743	1070.149	1070.149
10	1072.224	1058.737	1055.106	1055.624	1054.068
15	1040.062	1030.725	1029.169	1032.800	1034.875
20	998.045	989.745	993.376	1003.232	1005.307
25	943.059	935.797	948.765	962.771	965.883
30	879.774	878.217	895.854	914.529	921.791
35	805.595	811.819	837.756	861.618	870.436
40	727.266	738.678	778.620	806.113	816.488
45	633.375	653.087	703.923	749.571	757.352
50	555.046	579.426	629.225	673.836	686.804
55	467.380	491.760	554.008	601.732	619.369
60	381.270	408.244	474.642	532.221	548.821
65	294.122	331.471	405.650	461.674	477.754
70	212.681	254.699	331.471	391.126	404.094
75	132.796	184.151	260.923	314.353	327.321
80	63.804	119.309	189.338	214.237	206.975
85	17.118	59.136	70.548	62.767	64.842
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	393.42	N.A.	12.60
0-30	831.52	N.A.	26.70
0-40	1355.76	N.A.	43.50
0-60	2387.17	N.A.	76.60
0-80	3038.35	N.A.	97.50
0-90	3114.9	N.A.	100.00
10-90	3012.76	N.A.	96.70
20-40	962.34	N.A.	30.90
20-50	1503.32	N.A.	48.30
40-70	1423.69	N.A.	45.70
60-80	651.18	N.A.	20.90
70-80	258.90	N.A.	8.30
80-90	76.55	N.A.	2.50
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	3114.9	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	102.14
10-20	291.28
20-30	438.09
30-40	524.24
40-50	540.99
50-60	490.43
60-70	392.28
70-80	258.90
80-90	76.55
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	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	90	82	77	95	88	81	76	84	79	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	53	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

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UGR TABLE - CORRECTED

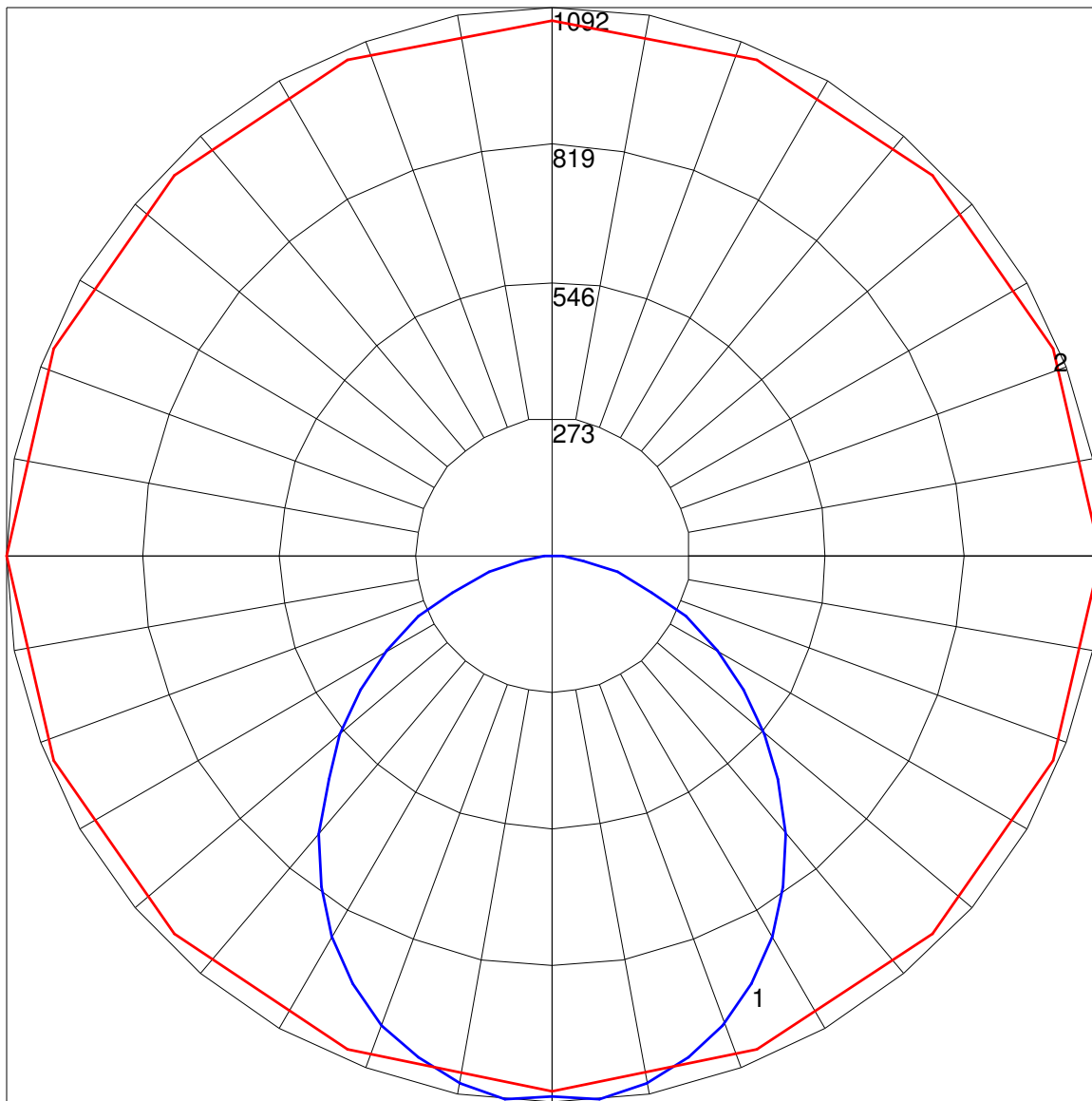
Reflectances

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	12.2	13.9	12.6	14.2	14.5	13.9	15.6	14.3	15.9	16.2
	3H	13.8	15.3	14.2	15.6	16.0	16.3	17.8	16.7	18.1	18.5
	4H	14.3	15.7	14.7	16.1	16.5	17.3	18.8	17.7	19.1	19.5
	6H	14.6	16.0	15.0	16.3	16.7	18.2	19.5	18.6	19.9	20.2
	8H	14.7	16.0	15.1	16.4	16.8	18.4	19.7	18.8	20.1	20.5
	12H	14.7	15.9	15.2	16.3	16.8	18.5	19.8	19.0	20.1	20.6
4H	2H	13.2	14.6	13.6	14.9	15.3	14.5	15.9	14.9	16.3	16.6
	3H	15.0	16.2	15.4	16.6	17.0	17.1	18.3	17.5	18.7	19.1
	4H	15.7	16.8	16.1	17.2	17.6	18.4	19.5	18.8	19.9	20.3
	6H	16.2	17.1	16.6	17.6	18.0	19.4	20.4	19.9	20.8	21.2
	8H	16.3	17.2	16.8	17.6	18.1	19.7	20.6	20.2	21.0	21.5
	12H	16.4	17.2	16.8	17.6	18.1	19.9	20.7	20.3	21.1	21.6
8H	4H	16.5	17.4	16.9	17.8	18.3	18.7	19.6	19.2	20.0	20.5
	6H	17.1	17.9	17.6	18.4	18.8	19.9	20.6	20.4	21.1	21.6
	8H	17.4	18.0	17.9	18.5	19.0	20.3	21.0	20.8	21.5	22.0
	12H	17.5	18.1	18.0	18.6	19.1	20.5	21.1	21.0	21.6	22.2
12H	4H	16.6	17.4	17.1	17.9	18.4	18.7	19.5	19.2	20.0	20.5
	6H	17.4	18.1	17.9	18.5	19.1	20.0	20.6	20.5	21.1	21.6
	8H	17.7	18.3	18.2	18.8	19.3	20.4	21.0	20.9	21.5	22.1

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 1092.455 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.)