

IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-12-L31-835-AF-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20224.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUE DATE] 9 JAN, 2024
[MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x2' RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS
[MORE] 0-10V DIMMING DRIVER
[LUMCAT] LT-12-L31-835-AF-DIM-UNV_
[LAMPCAT] 22 INCH LED ARRAY
[_SEARCH_SOURCE TYPE] LED
[_SEARCH_APPLICATION] INDOOR
[_SEARCH_MOUNTING] RECESSED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2985
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	23.54
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.28
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	0.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5790	5971	6308
55	5322	5832	6310
65	4637	5701	6038
75	3503	5085	5339
85	1510	2475	2097

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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	1038.031	1038.031	1038.031	1038.031	1038.031
5	1054.166	1034.446	1029.067	1026.079	1023.689
10	1036.238	1018.310	1015.322	1013.530	1010.542
15	1011.737	996.797	993.809	996.797	992.614
20	971.698	959.148	959.148	964.526	964.526
25	925.682	916.121	920.902	929.866	930.463
30	873.691	864.130	874.289	888.631	888.631
35	815.126	807.955	818.712	840.226	842.018
40	746.402	745.207	757.159	783.454	789.430
45	669.312	670.507	690.228	721.901	729.072
50	586.246	592.819	620.309	651.982	663.336
55	498.996	515.729	546.804	576.684	591.624
60	412.344	438.041	473.299	497.801	511.546
65	320.314	349.596	393.818	410.551	417.125
70	236.650	271.908	308.959	317.923	326.887
75	148.205	193.622	215.136	213.343	225.893
80	77.090	111.154	122.508	114.142	122.508
85	21.514	38.246	35.258	29.880	29.880
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	379.15	N.A.	12.70
0-30	804.90	N.A.	27.00
0-40	1320.2	N.A.	44.20
0-60	2345.08	N.A.	78.60
0-80	2936.55	N.A.	98.40
0-90	2984.56	N.A.	100.00
10-90	2886.49	N.A.	96.70
20-40	941.05	N.A.	31.50
20-50	1477.48	N.A.	49.50
40-70	1402.27	N.A.	47.00
60-80	591.47	N.A.	19.80
70-80	214.09	N.A.	7.20
80-90	48.01	N.A.	1.60
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	2984.56	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	98.07
10-20	281.07
20-30	425.75
30-40	515.30
40-50	536.43
50-60	488.45
60-70	377.38
70-80	214.09
80-90	48.01
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	177	177	177	177	173	173	173	173	165	165	165	158	158	158	151	151	151	148
1	161	154	148	142	157	151	145	140	145	140	135	139	135	131	133	130	127	124
2	147	134	124	115	143	131	122	114	126	118	111	121	115	109	117	111	106	103
3	133	118	105	96	130	115	104	95	111	101	93	107	98	91	103	96	90	87
4	122	104	91	81	119	102	90	80	98	88	79	95	86	78	92	84	77	74
5	112	93	79	69	109	91	79	69	88	77	68	85	75	68	82	74	67	64
6	103	84	70	61	101	82	69	60	79	68	60	77	67	59	75	66	59	56
7	96	76	63	53	93	74	62	53	72	61	53	70	60	52	68	59	52	49
8	89	69	56	48	87	68	56	47	66	55	47	64	54	47	62	53	46	44
9	83	63	51	43	81	62	51	43	61	50	42	59	49	42	58	49	42	39
10	78	58	47	39	76	58	46	39	56	46	38	55	45	38	53	45	38	35

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UGR TABLE - CORRECTED

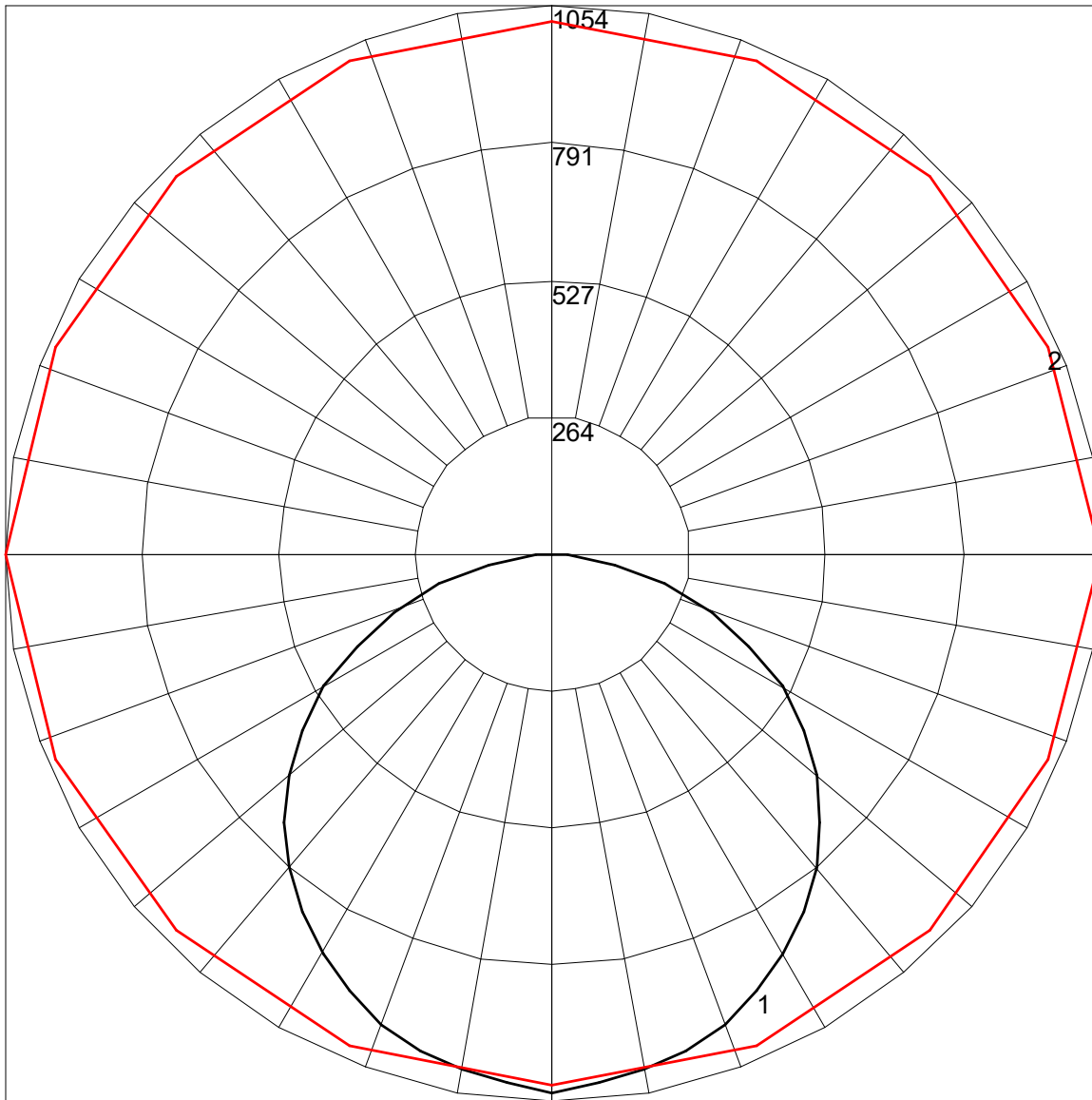
Reflectances

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	16.5	18.1	16.8	18.4	18.7	17.4	19.0	17.8	19.4	19.7
	3H	18.1	19.6	18.5	19.9	20.3	19.3	20.8	19.7	21.1	21.5
	4H	18.7	20.1	19.1	20.4	20.8	20.0	21.4	20.4	21.8	22.1
	6H	19.0	20.3	19.4	20.7	21.1	20.5	21.8	20.9	22.1	22.5
	8H	19.1	20.3	19.5	20.7	21.1	20.6	21.8	21.0	22.2	22.6
	12H	19.1	20.3	19.5	20.7	21.1	20.6	21.8	21.0	22.2	22.6
4H	2H	17.3	18.7	17.7	19.0	19.4	18.0	19.4	18.4	19.8	20.1
	3H	19.2	20.4	19.6	20.8	21.2	20.1	21.3	20.6	21.7	22.1
	4H	19.9	21.0	20.3	21.4	21.8	21.0	22.0	21.4	22.4	22.9
	6H	20.4	21.3	20.8	21.7	22.2	21.5	22.5	22.0	22.9	23.3
	8H	20.5	21.3	20.9	21.8	22.2	21.7	22.5	22.1	23.0	23.4
	12H	20.5	21.3	21.0	21.8	22.2	21.7	22.5	22.2	23.0	23.4
8H	4H	20.3	21.2	20.8	21.6	22.1	21.2	22.1	21.7	22.6	23.0
	6H	20.9	21.6	21.4	22.1	22.6	21.9	22.6	22.4	23.1	23.6
	8H	21.1	21.7	21.6	22.3	22.7	22.1	22.7	22.6	23.2	23.7
	12H	21.2	21.8	21.7	22.3	22.8	22.2	22.8	22.7	23.2	23.8
12H	4H	20.3	21.1	20.8	21.6	22.1	21.3	22.0	21.7	22.5	23.0
	6H	21.0	21.6	21.5	22.1	22.6	22.0	22.6	22.5	23.1	23.6
	8H	21.2	21.8	21.7	22.3	22.8	22.2	22.7	22.7	23.2	23.8

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 1054.166 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)