



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-14-L28-835-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  
 [ISSUEDATE] 2023-07-21  
 [MANUFAC] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 1x4'RECESSED LED LUMINAIRE  
 [MORE] WHITE REFLECTOR w/FROSTED ACRYLIC CENTER LENS  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] LT-14-L28-835-AF-DIM-UNV\_  
 [LAMPCAT] 22 INCH LED ARRAYS  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] INDOOR  
 [\_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2814
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	21.4
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)	3.92 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	2672	2756	2911
55	2456	2691	2912
65	2140	2631	2786
75	1616	2347	2464
85	697	1142	968

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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>
<b>0</b>	978.758	978.758	978.758	978.758	978.758
<b>5</b>	993.972	975.377	970.306	967.488	965.235
<b>10</b>	977.068	960.163	957.346	955.655	952.838
<b>15</b>	953.965	939.878	937.061	939.878	935.934
<b>20</b>	916.212	904.379	904.379	909.450	909.450
<b>25</b>	872.824	863.809	868.317	876.769	877.332
<b>30</b>	823.802	814.786	824.366	837.889	837.889
<b>35</b>	768.581	761.820	771.962	792.247	793.938
<b>40</b>	703.782	702.655	713.924	738.717	744.352
<b>45</b>	631.093	632.220	650.815	680.679	687.441
<b>50</b>	552.770	558.968	584.888	614.752	625.458
<b>55</b>	470.503	486.280	515.581	543.754	557.841
<b>60</b>	388.798	413.028	446.273	469.376	482.336
<b>65</b>	302.023	329.634	371.331	387.108	393.306
<b>70</b>	223.137	256.382	291.317	299.769	308.221
<b>75</b>	139.742	182.566	202.851	201.161	212.994
<b>80</b>	72.688	104.807	115.513	107.624	115.513
<b>85</b>	20.285	36.062	33.245	28.174	28.174
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	357.50	N.A.	12.70
0-30	758.93	N.A.	27.00
0-40	1244.81	N.A.	44.20
0-60	2211.18	N.A.	78.60
0-80	2768.87	N.A.	98.40
0-90	2814.14	N.A.	100.00
10-90	2721.66	N.A.	96.70
20-40	887.31	N.A.	31.50
20-50	1393.12	N.A.	49.50
40-70	1322.19	N.A.	47.00
60-80	557.69	N.A.	19.80
70-80	201.86	N.A.	7.20
80-90	45.27	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	2814.14	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	92.47
10-20	265.02
20-30	401.44
30-40	485.88
40-50	505.80
50-60	460.56
60-70	355.83
70-80	201.86
80-90	45.27
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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	73	61	53	47	59	52	46	57	51	46	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	44	37	32	43	36	32	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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**UGR TABLE - CORRECTED**

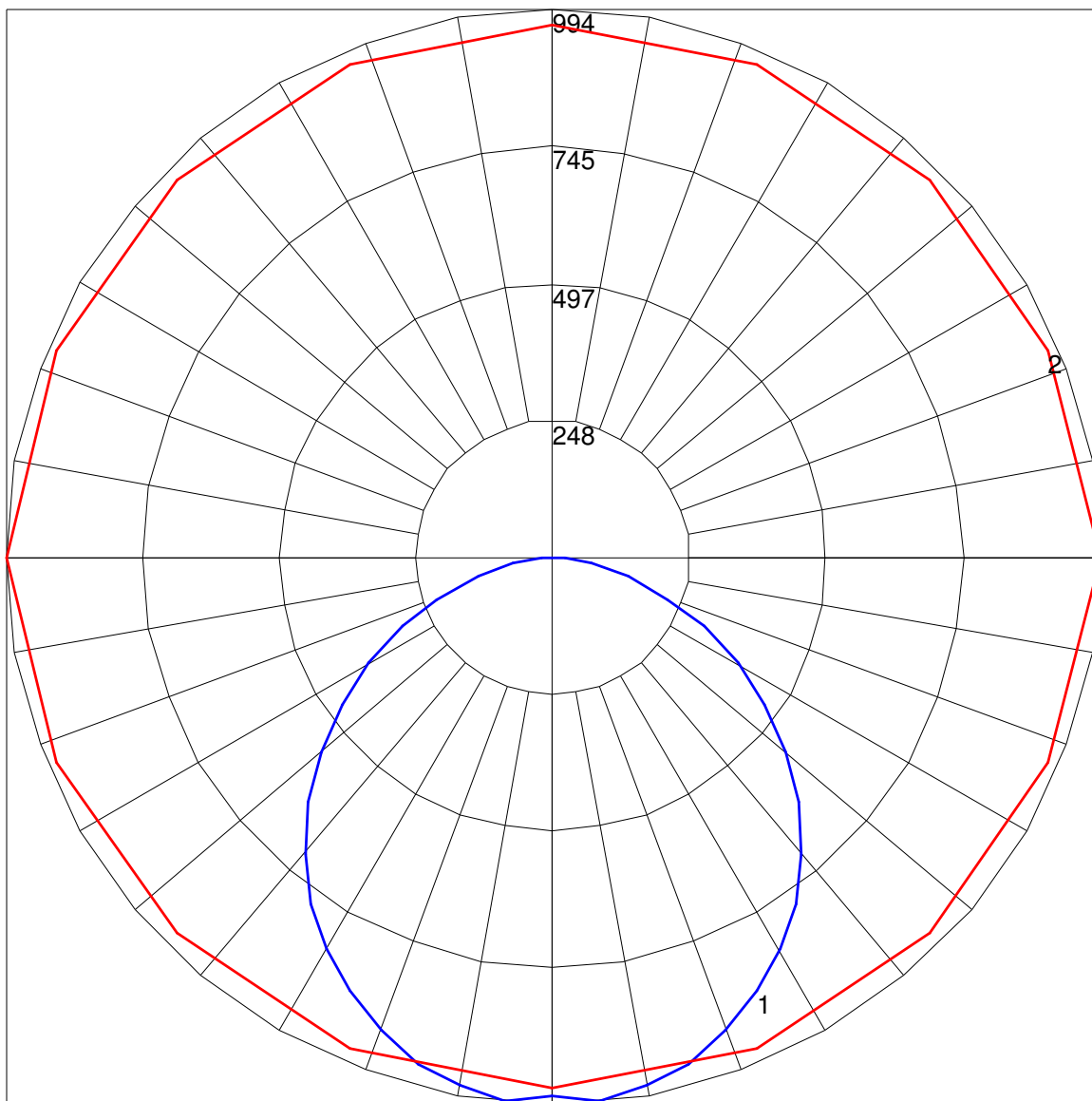
Reflectances

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	15.2	16.8	15.5	17.1	17.5	16.1	17.8	16.5	18.1	18.4
	3H	16.8	18.3	17.2	18.7	19.0	18.0	19.5	18.4	19.9	20.2
	4H	17.4	18.8	17.8	19.1	19.5	18.7	20.1	19.1	20.5	20.9
	6H	17.7	19.0	18.1	19.4	19.8	19.2	20.5	19.6	20.9	21.2
	8H	17.8	19.0	18.2	19.4	19.8	19.3	20.5	19.7	20.9	21.3
	12H	17.8	19.0	18.3	19.4	19.8	19.3	20.5	19.8	20.9	21.3
4H	2H	16.0	17.4	16.4	17.8	18.1	16.7	18.1	17.1	18.5	18.8
	3H	17.9	19.1	18.3	19.5	19.9	18.9	20.0	19.3	20.4	20.8
	4H	18.6	19.7	19.1	20.1	20.5	19.7	20.7	20.1	21.2	21.6
	6H	19.1	20.0	19.5	20.4	20.9	20.2	21.2	20.7	21.6	22.1
	8H	19.2	20.1	19.6	20.5	21.0	20.4	21.2	20.8	21.7	22.2
	12H	19.2	20.0	19.7	20.5	21.0	20.4	21.2	20.9	21.7	22.2
8H	4H	19.0	19.9	19.5	20.3	20.8	20.0	20.8	20.4	21.3	21.7
	6H	19.6	20.4	20.1	20.8	21.3	20.6	21.3	21.1	21.8	22.3
	8H	19.8	20.5	20.3	21.0	21.5	20.8	21.5	21.3	22.0	22.4
	12H	19.9	20.5	20.4	21.0	21.5	20.9	21.5	21.4	22.0	22.5
12H	4H	19.1	19.9	19.5	20.3	20.8	20.0	20.8	20.5	21.2	21.7
	6H	19.7	20.4	20.2	20.8	21.4	20.7	21.3	21.2	21.8	22.3
	8H	19.9	20.5	20.4	21.0	21.6	20.9	21.5	21.4	21.9	22.5

Maximum UGR = 22.5

POLAR GRAPH



Maximum Candela = 993.972 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.)