



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-14-L90-830-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-L90-830-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	8970
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	66.8
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	8517	8783	9277
55	7828	8578	9281
65	6820	8385	8881
75	5152	7479	7853
85	2221	3640	3085

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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>	3119.713	3119.713	3119.713	3119.713	3119.713
<b>5</b>	3168.206	3108.937	3092.772	3083.792	3076.608
<b>10</b>	3114.325	3060.444	3051.464	3046.075	3037.095
<b>15</b>	3040.687	2995.786	2986.806	2995.786	2983.214
<b>20</b>	2920.353	2882.636	2882.636	2898.801	2898.801
<b>25</b>	2782.058	2753.322	2767.690	2794.631	2796.427
<b>30</b>	2625.803	2597.067	2627.599	2670.704	2670.704
<b>35</b>	2449.792	2428.239	2460.568	2525.225	2530.613
<b>40</b>	2243.248	2239.656	2275.576	2354.602	2372.562
<b>45</b>	2011.559	2015.151	2074.420	2169.610	2191.163
<b>50</b>	1761.910	1781.667	1864.284	1959.474	1993.599
<b>55</b>	1499.689	1549.978	1643.372	1733.174	1778.075
<b>60</b>	1239.264	1316.494	1422.460	1496.097	1537.406
<b>65</b>	962.675	1050.681	1183.587	1233.876	1253.632
<b>70</b>	711.230	817.196	928.550	955.491	982.431
<b>75</b>	445.417	581.915	646.573	641.185	678.901
<b>80</b>	231.689	334.063	368.187	343.043	368.187
<b>85</b>	64.657	114.946	105.966	89.802	89.802
<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	1139.49	N.A.	12.70
0-30	2419.04	N.A.	27.00
0-40	3967.74	N.A.	44.20
0-60	7047.95	N.A.	78.60
0-80	8825.55	N.A.	98.40
0-90	8969.84	N.A.	100.00
10-90	8675.08	N.A.	96.70
20-40	2828.24	N.A.	31.50
20-50	4440.45	N.A.	49.50
40-70	4214.39	N.A.	47.00
60-80	1777.6	N.A.	19.80
70-80	643.42	N.A.	7.20
80-90	144.29	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	8969.84	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	294.76
10-20	844.74
20-30	1279.55
30-40	1548.69
40-50	1612.2
50-60	1468.01
60-70	1134.18
70-80	643.42
80-90	144.29
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	53	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**

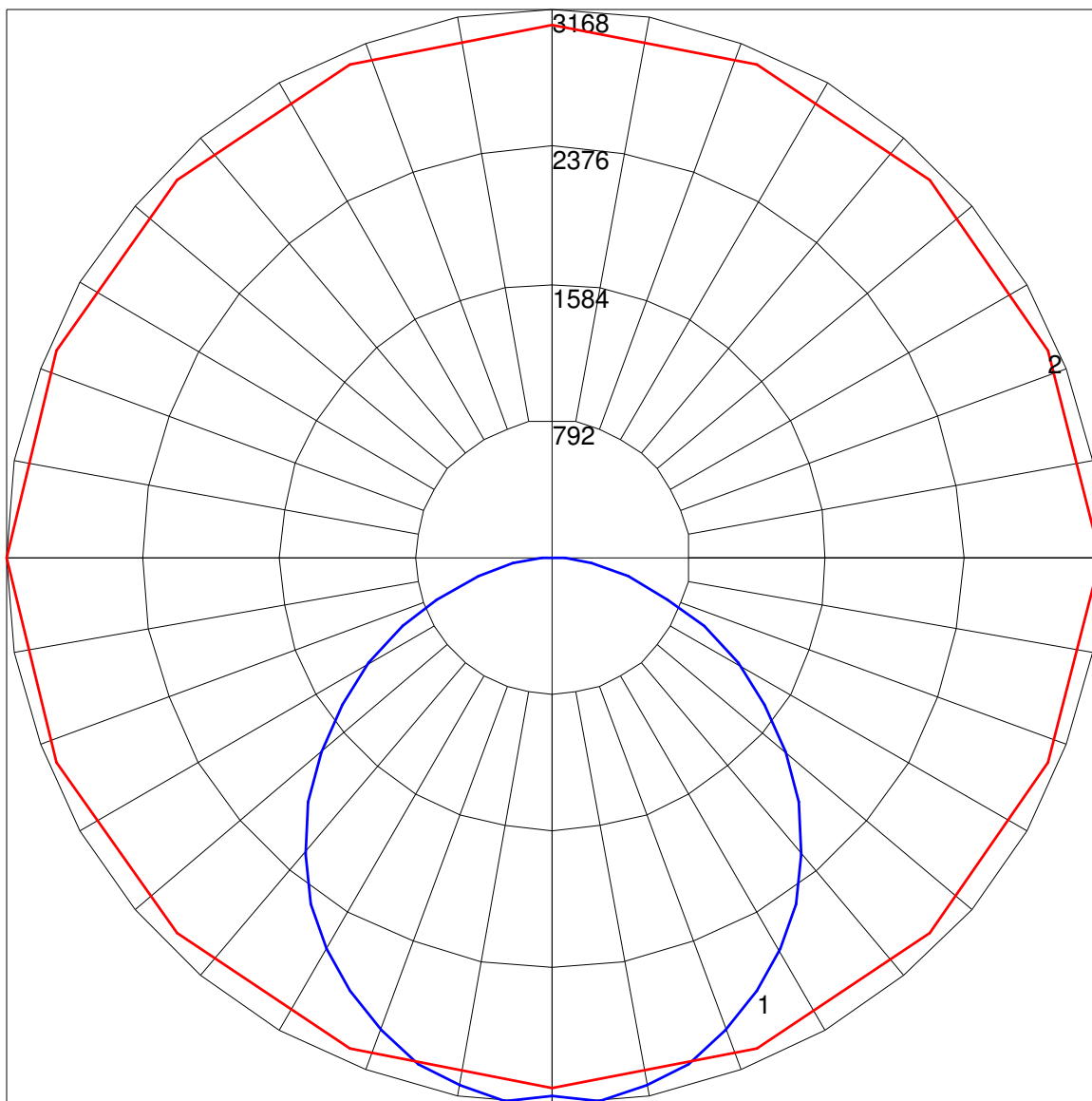
Reflectances

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	19.2	20.8	19.5	21.1	21.5	20.1	21.8	20.5	22.1	22.4
	3H	20.8	22.3	21.2	22.7	23.0	22.0	23.5	22.4	23.9	24.2
	4H	21.4	22.8	21.8	23.1	23.5	22.7	24.1	23.1	24.5	24.9
	6H	21.7	23.0	22.1	23.4	23.8	23.2	24.5	23.6	24.9	25.2
	8H	21.8	23.0	22.2	23.4	23.8	23.3	24.5	23.7	24.9	25.3
	12H	21.8	23.0	22.3	23.4	23.8	23.3	24.5	23.8	24.9	25.3
4H	2H	20.0	21.4	20.4	21.8	22.1	20.7	22.1	21.1	22.5	22.8
	3H	21.9	23.1	22.3	23.5	23.9	22.9	24.0	23.3	24.4	24.8
	4H	22.6	23.7	23.1	24.1	24.5	23.7	24.7	24.1	25.2	25.6
	6H	23.1	24.0	23.5	24.4	24.9	24.2	25.2	24.7	25.6	26.1
	8H	23.2	24.1	23.6	24.5	25.0	24.4	25.2	24.8	25.7	26.2
	12H	23.2	24.0	23.7	24.5	25.0	24.4	25.2	24.9	25.7	26.2
8H	4H	23.0	23.9	23.5	24.3	24.8	24.0	24.8	24.4	25.3	25.7
	6H	23.6	24.4	24.1	24.8	25.3	24.6	25.3	25.1	25.8	26.3
	8H	23.8	24.5	24.3	25.0	25.5	24.8	25.5	25.3	26.0	26.4
	12H	23.9	24.5	24.4	25.0	25.5	24.9	25.5	25.4	26.0	26.5
12H	4H	23.1	23.9	23.5	24.3	24.8	24.0	24.8	24.5	25.2	25.7
	6H	23.7	24.4	24.2	24.8	25.4	24.7	25.3	25.2	25.8	26.3
	8H	23.9	24.5	24.4	25.0	25.6	24.9	25.5	25.4	25.9	26.5

Maximum UGR = 26.5

POLAR GRAPH



Maximum Candela = 3168.206 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.)