



IES INDOOR REPORT

PHOTOMETRIC FILENAME : LT-14-L90-840-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-L90-840-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	9332
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
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	8861	9138	9652
55	8144	8925	9656
65	7095	8724	9240
75	5361	7782	8171
85	2311	3787	3209

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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	3245.762	3245.762	3245.762	3245.762	3245.762
5	3296.214	3234.550	3217.733	3208.390	3200.915
10	3240.156	3184.098	3174.755	3169.149	3159.806
15	3163.543	3116.828	3107.485	3116.828	3103.748
20	3038.347	2999.106	2999.106	3015.924	3015.924
25	2894.465	2864.567	2879.516	2907.545	2909.413
30	2731.896	2701.999	2733.765	2778.611	2778.611
35	2548.773	2526.350	2559.985	2627.254	2632.860
40	2333.884	2330.147	2367.519	2449.737	2468.423
45	2092.834	2096.571	2158.235	2257.271	2279.694
50	1833.099	1853.653	1939.609	2038.645	2074.148
55	1560.283	1612.604	1709.771	1803.201	1849.916
60	1289.335	1369.685	1479.933	1556.545	1599.523
65	1001.571	1093.132	1231.409	1283.730	1304.284
70	739.966	850.214	966.067	994.096	1022.125
75	463.413	605.427	672.697	667.091	706.332
80	241.050	347.560	383.063	356.903	383.063
85	67.270	119.591	110.248	93.430	93.430
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1185.53	N.A.	12.70
0-30	2516.78	N.A.	27.00
0-40	4128.05	N.A.	44.20
0-60	7332.71	N.A.	78.60
0-80	9182.13	N.A.	98.40
0-90	9332.25	N.A.	100.00
10-90	9025.59	N.A.	96.70
20-40	2942.51	N.A.	31.50
20-50	4619.86	N.A.	49.50
40-70	4384.67	N.A.	47.00
60-80	1849.42	N.A.	19.80
70-80	669.42	N.A.	7.20
80-90	150.12	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	9332.25	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	306.66
10-20	878.87
20-30	1331.25
30-40	1611.27
40-50	1677.34
50-60	1527.32
60-70	1180.00
70-80	669.42
80-90	150.12
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

X=2H	Y=2H	19.4	21.0	19.7	21.3	21.7	20.3	22.0	20.7	22.3	22.6
	3H	21.0	22.5	21.4	22.9	23.2	22.2	23.7	22.6	24.1	24.4
	4H	21.6	23.0	22.0	23.3	23.7	22.9	24.3	23.3	24.7	25.1
	6H	21.9	23.2	22.3	23.6	24.0	23.4	24.7	23.8	25.1	25.4
	8H	22.0	23.2	22.4	23.6	24.0	23.5	24.7	23.9	25.1	25.5
	12H	22.0	23.2	22.5	23.6	24.0	23.5	24.7	24.0	25.1	25.5

UGR Viewed Endwise

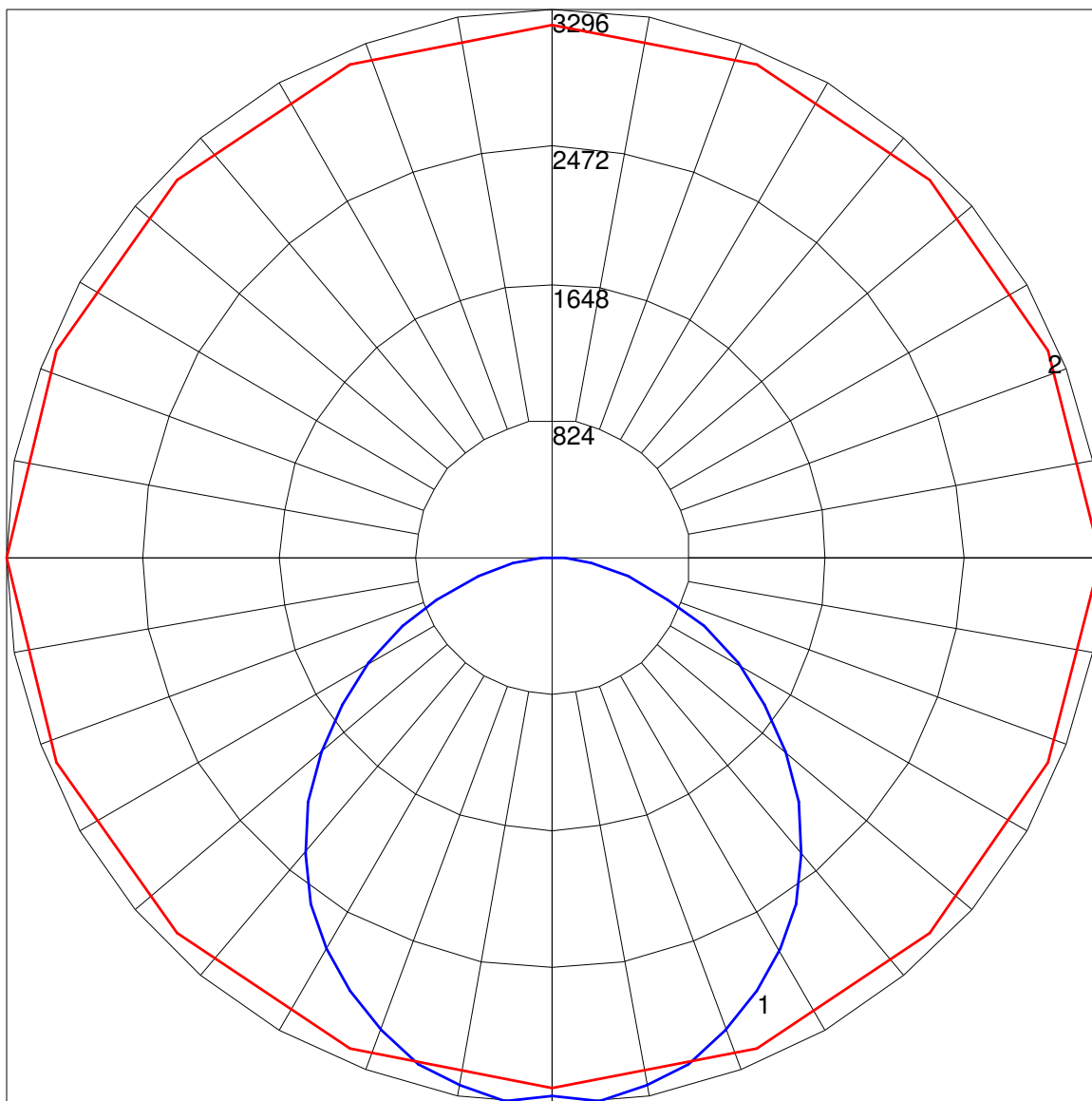
4H	2H	20.2	21.6	20.6	22.0	22.3	20.9	22.3	21.3	22.7	23.0
	3H	22.1	23.3	22.5	23.7	24.1	23.1	24.2	23.5	24.6	25.0
	4H	22.8	23.9	23.3	24.3	24.7	23.9	24.9	24.3	25.4	25.8
	6H	23.3	24.2	23.7	24.6	25.1	24.4	25.4	24.9	25.8	26.3
	8H	23.4	24.3	23.8	24.7	25.2	24.6	25.4	25.0	25.9	26.4
	12H	23.4	24.2	23.9	24.7	25.2	24.6	25.4	25.1	25.9	26.4

8H	4H	23.2	24.1	23.7	24.5	25.0	24.2	25.0	24.6	25.5	25.9
	6H	23.8	24.6	24.3	25.0	25.5	24.8	25.5	25.3	26.0	26.5
	8H	24.0	24.7	24.5	25.2	25.7	25.0	25.7	25.5	26.2	26.6
	12H	24.1	24.7	24.6	25.2	25.7	25.1	25.7	25.6	26.2	26.7

12H	4H	23.3	24.1	23.7	24.5	25.0	24.2	25.0	24.7	25.4	25.9
	6H	23.9	24.6	24.4	25.0	25.6	24.9	25.5	25.4	26.0	26.5
	8H	24.1	24.7	24.6	25.2	25.8	25.1	25.7	25.6	26.1	26.7

Maximum UGR = 26.7

POLAR GRAPH



Maximum Candela = 3296.214 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.)