



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 12-4-L84-840-SAF12125-(L70)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18637.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIE, INC
 [ISSUEDATE] 02-SEP-2021
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2x4' WHITE SURFACE MOUNT LED LUMINAIRE
 [MORE] w/PAT12 FROSTED LENS (PRISMS DOWN)
 [LUMCAT] 12-4-L84-840-SAF12125-(L70)-DIM-UNV
 [LAMPCAT] HLM 80 CRI 4000K CCT
 [_SEARCH_SOURCETYPE] LED
 [_SEARCH_APPLICATION] INDOOR
 [_SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7238
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	54.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.22
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.77 ft
Luminous Width (90-270)	1.77 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3833	3746	3703
55	3203	3080	3027
65	2649	2534	2511
75	2248	2200	2339
85	2337	2369	2750

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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	3307.499	3307.499	3307.499	3307.499	3307.499
5	3229.301	3229.301	3225.005	3223.286	3225.005
10	3177.742	3173.446	3171.727	3173.446	3171.727
15	3023.066	3018.769	3015.332	3015.332	3015.332
20	2944.868	2935.416	2935.416	2932.838	2927.682
25	2698.245	2696.527	2688.793	2685.356	2688.793
30	2457.637	2454.200	2444.748	2438.733	2440.451
35	2217.889	2210.155	2196.406	2190.391	2190.391
40	1955.798	1942.908	1924.004	1906.817	1906.817
45	1680.818	1667.928	1643.008	1624.103	1624.103
50	1392.948	1380.058	1355.138	1336.233	1336.233
55	1139.450	1120.545	1095.625	1074.142	1076.720
60	900.561	881.656	861.032	847.283	849.002
65	694.326	677.139	664.250	658.234	658.234
70	525.041	511.292	500.121	507.854	515.588
75	360.912	353.178	353.178	364.349	375.520
80	240.608	240.608	240.608	256.076	267.247
85	126.319	126.319	128.038	145.224	148.661
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1164.8	N.A.	16.10
0-30	2405.05	N.A.	33.20
0-40	3777.82	N.A.	52.20
0-60	6035.77	N.A.	83.40
0-80	7097.33	N.A.	98.10
0-90	7237.92	N.A.	100.00
10-90	6930.88	N.A.	95.80
20-40	2613.03	N.A.	36.10
20-50	3882.01	N.A.	53.60
40-70	2929.64	N.A.	40.50
60-80	1061.56	N.A.	14.70
70-80	389.87	N.A.	5.40
80-90	140.58	N.A.	1.90
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	7237.92	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	307.04
10-20	857.76
20-30	1240.25
30-40	1372.78
40-50	1268.98
50-60	988.97
60-70	671.70
70-80	389.87
80-90	140.58
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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	65	73	68	64	62
4	85	74	65	59	83	72	64	59	70	63	58	67	62	57	65	60	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	41	66	54	46	40	52	45	40	51	45	40	50	44	40	38
8	63	50	42	37	62	50	42	36	48	41	36	47	41	36	46	40	36	34
9	59	46	38	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	41	34	30	40	34	30	28

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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	15.5	17.1	15.9	17.4	17.7	15.2	16.8	15.6	17.1	17.4
	3H	17.1	18.5	17.5	18.8	19.2	16.8	18.2	17.2	18.5	18.9
	4H	17.6	19.0	18.0	19.3	19.7	17.5	18.8	17.9	19.1	19.5
	6H	18.1	19.4	18.6	19.7	20.1	18.1	19.3	18.5	19.7	20.1
	8H	18.4	19.5	18.8	19.9	20.3	18.4	19.5	18.8	19.9	20.3
	12H	18.5	19.6	18.9	20.0	20.4	18.6	19.7	19.0	20.1	20.5

UGR Viewed Endwise

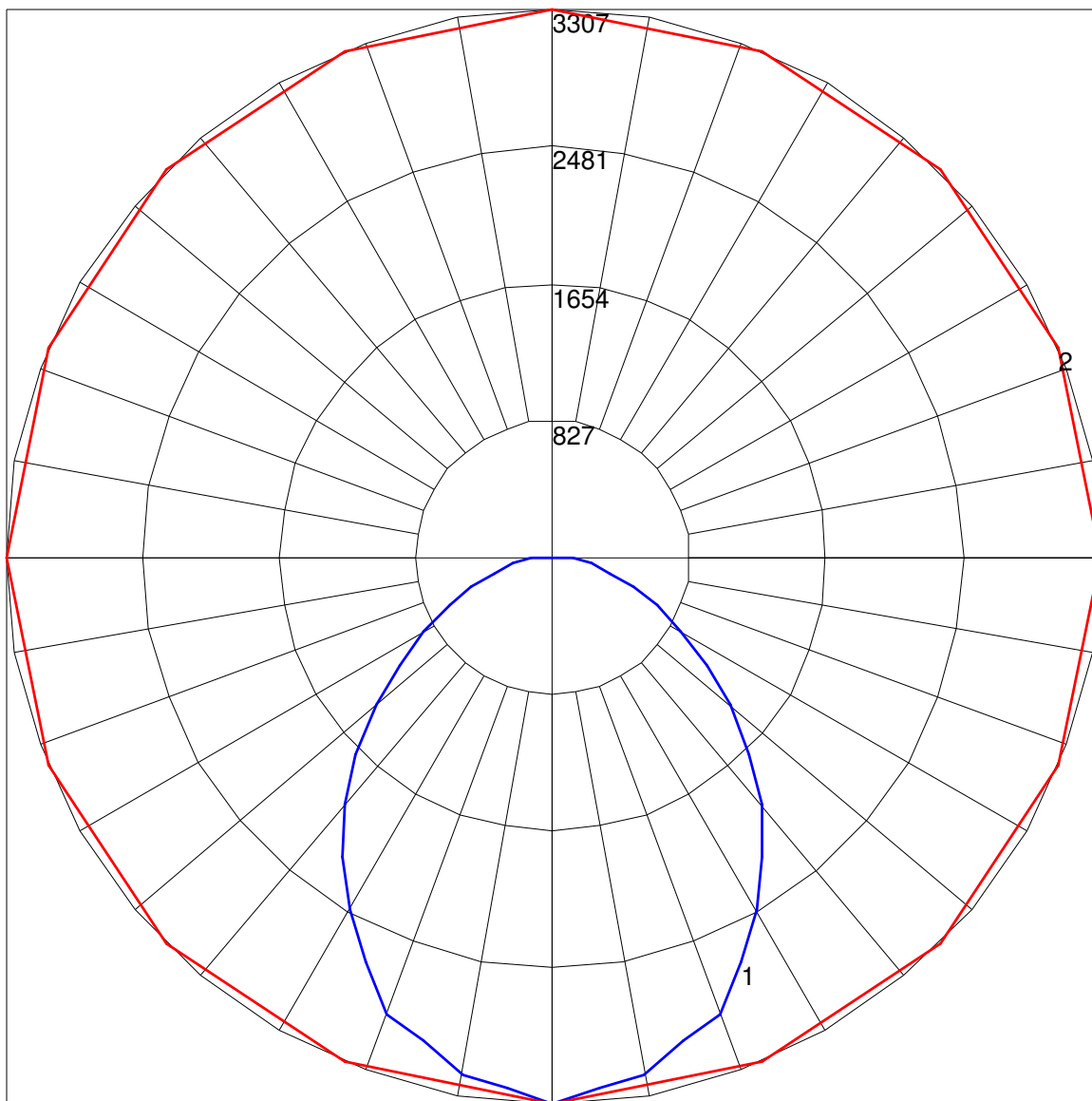
4H	2H	16.0	17.3	16.4	17.7	18.0	15.7	17.1	16.1	17.4	17.8
	3H	17.8	18.9	18.2	19.3	19.7	17.6	18.7	18.0	19.1	19.5
	4H	18.5	19.5	18.9	19.9	20.3	18.4	19.4	18.8	19.8	20.2
	6H	19.1	20.0	19.6	20.4	20.9	19.1	20.0	19.6	20.5	20.9
	8H	19.4	20.2	19.9	20.7	21.1	19.5	20.3	19.9	20.7	21.2
	12H	19.6	20.4	20.1	20.8	21.3	19.8	20.5	20.3	21.0	21.5

8H	4H	18.8	19.6	19.2	20.0	20.5	18.7	19.5	19.1	19.9	20.4
	6H	19.6	20.2	20.1	20.7	21.2	19.6	20.3	20.1	20.8	21.2
	8H	19.9	20.5	20.5	21.0	21.5	20.0	20.6	20.6	21.2	21.6
	12H	20.3	20.8	20.8	21.3	21.9	20.5	21.0	21.0	21.5	22.1

12H	4H	18.8	19.5	19.3	20.0	20.5	18.7	19.4	19.2	19.9	20.4
	6H	19.7	20.3	20.2	20.7	21.3	19.7	20.3	20.2	20.7	21.3
	8H	20.1	20.6	20.6	21.1	21.7	20.2	20.7	20.7	21.2	21.8

Maximum UGR = 22.1

POLAR GRAPH



Maximum Candela = 3307.499 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)