



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-835-HIAFR-(L45)-EM10W-DIM-UNV_(EMERGENCY MODE).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19227.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-16-2021

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 4' SUSPENDED ENCLOSED & GASKETED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED DIFFUSER

[LUMCAT] 96-4-L62-835-HIAFR-(L45)-EM10W-DIM-UNV (EMER MODE)

[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1350
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.23 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2034	1604	1562
55	1731	1365	1348
65	1269	1109	1197
75	778	935	1032
85	287	734	881

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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	476.924	476.924	476.924	476.924	476.924
5	481.105	474.943	471.862	469.661	469.001
10	474.723	467.020	462.178	460.417	458.657
15	462.838	454.035	446.772	442.591	440.170
20	445.672	436.648	425.864	417.061	416.841
25	425.424	415.740	399.894	388.670	385.148
30	399.894	387.569	366.221	362.920	363.360
35	368.422	355.877	335.629	345.533	350.815
40	332.548	321.104	311.200	322.204	326.606
45	294.694	283.909	285.450	287.871	294.033
50	252.217	241.873	251.117	255.298	259.260
55	206.880	201.598	215.463	223.826	228.888
60	160.662	166.164	179.149	193.895	201.158
65	114.884	131.171	147.457	168.805	174.967
70	78.570	96.397	121.927	144.156	147.897
75	45.778	67.126	97.277	117.965	121.927
80	21.568	44.677	72.848	92.656	96.397
85	7.263	28.391	52.820	72.188	76.149
90	3.081	17.167	38.515	54.141	58.102
95	2.421	11.885	30.812	42.696	46.438
100	2.201	7.263	25.310	35.654	37.635
105	1.761	4.402	19.147	28.611	30.592
110	1.100	1.321	13.425	22.229	24.429
115	0.660	0.660	8.803	16.506	19.147
120	0.000	0.000	4.402	11.885	14.306
125	0.000	0.000	1.321	7.263	9.464
130	0.000	0.000	0.000	3.741	5.282
135	0.000	0.000	0.000	0.880	1.981
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT**PHOTOMETRIC FILENAME : 96-4-L62-835-HIAFR-(L45)-EM10W-DIM-UNV_(EMERGENCY MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	171.25	N.A.	12.70
0-30	356.64	N.A.	26.40
0-40	575.03	N.A.	42.60
0-60	989.17	N.A.	73.30
0-80	1234.07	N.A.	91.40
0-90	1288.57	N.A.	95.40
10-90	1243.7	N.A.	92.10
20-40	403.78	N.A.	29.90
20-50	625.42	N.A.	46.30
40-70	561.51	N.A.	41.60
60-80	244.90	N.A.	18.10
70-80	97.52	N.A.	7.20
80-90	54.51	N.A.	4.00
90-110	48.76	N.A.	3.60
90-120	57.78	N.A.	4.30
90-130	60.98	N.A.	4.50
90-150	61.48	N.A.	4.60
90-180	61.48	N.A.	4.60
110-180	12.72	N.A.	0.90
0-180	1350.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	44.87
10-20	126.38
20-30	185.39
30-40	218.39
40-50	221.64
50-60	192.50
60-70	147.38
70-80	97.52
80-90	54.51
90-100	30.58
100-110	18.18
110-120	9.02
120-130	3.19
130-140	0.50
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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	95
1	107	102	97	93	104	99	95	91	94	90	87	89	86	84	85	83	81	78
2	97	89	82	76	94	86	80	74	82	77	72	78	73	70	74	71	67	65
3	89	78	69	63	86	76	68	62	72	66	60	69	63	59	66	61	57	55
4	81	69	60	53	78	67	59	53	64	57	51	61	55	50	59	53	49	47
5	75	62	53	46	72	60	52	46	58	50	45	55	49	44	53	47	43	41
6	69	56	47	40	67	54	46	40	52	45	39	50	43	38	48	42	38	36
7	64	50	42	36	62	49	41	35	47	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	35	31	40	35	30	28
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	37	32	27	25
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

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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	11.7	13.2	12.1	13.6	14.1	13.4	14.9	13.8	15.3	15.8
	3H	12.8	14.2	13.3	14.6	15.1	15.7	17.0	16.1	17.5	18.0
	4H	13.1	14.4	13.6	14.9	15.4	16.7	18.0	17.2	18.5	18.9
	6H	13.2	14.4	13.7	14.9	15.4	17.7	18.9	18.2	19.4	19.9
	8H	13.2	14.4	13.7	14.9	15.4	18.2	19.3	18.7	19.8	20.3
	12H	13.2	14.3	13.7	14.8	15.4	18.7	19.8	19.2	20.3	20.8

UGR Viewed Endwise

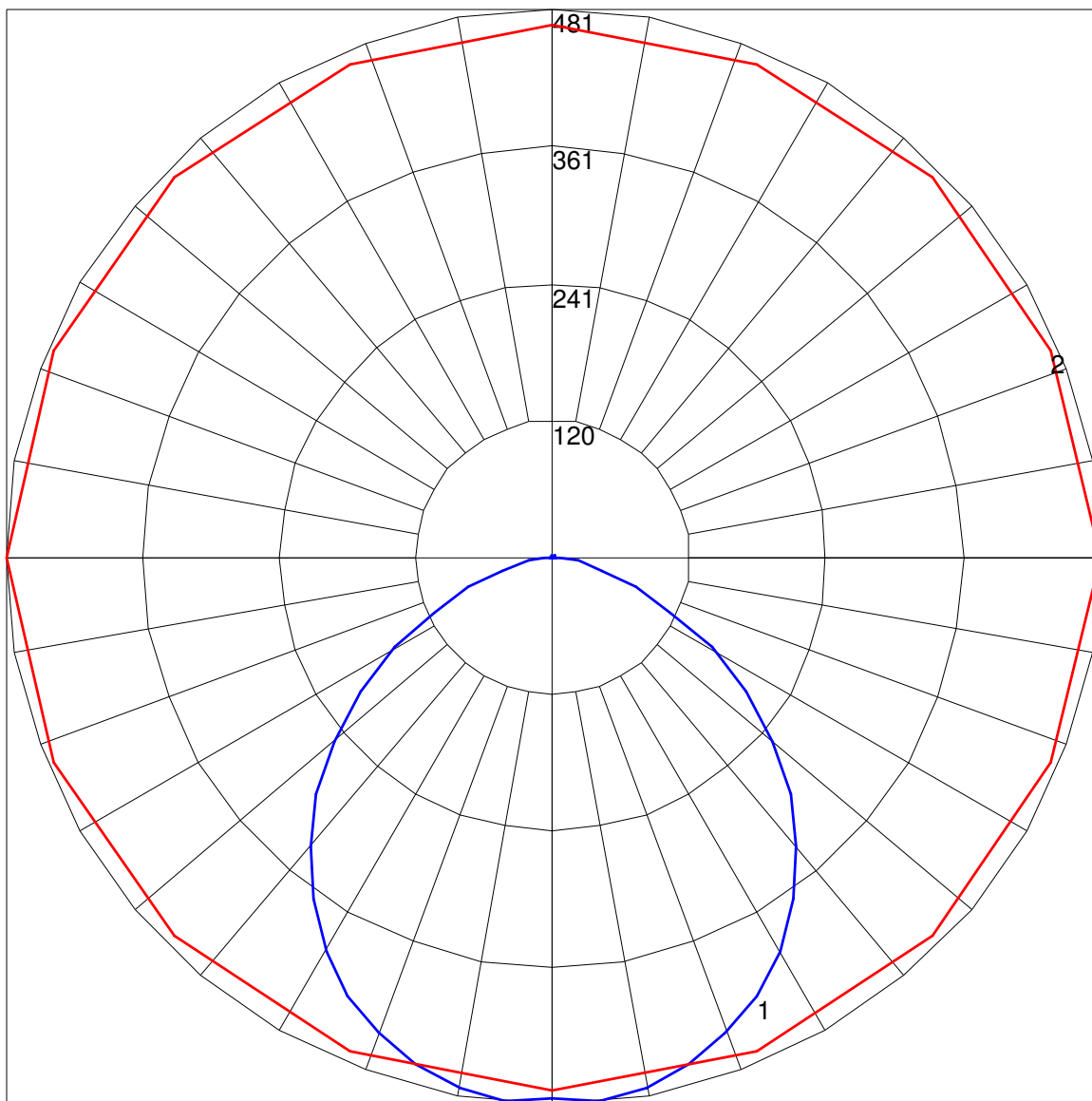
4H	2H	12.4	13.7	12.9	14.1	14.6	13.8	15.1	14.2	15.5	16.0
	3H	13.8	14.9	14.3	15.4	15.9	16.3	17.4	16.8	17.9	18.4
	4H	14.2	15.2	14.7	15.7	16.3	17.5	18.5	18.0	19.0	19.5
	6H	14.4	15.3	15.0	15.9	16.4	18.7	19.5	19.2	20.1	20.6
	8H	14.5	15.3	15.0	15.9	16.4	19.2	20.1	19.8	20.6	21.2
	12H	14.5	15.3	15.1	15.8	16.4	19.9	20.6	20.4	21.2	21.8
8H	4H	14.8	15.6	15.3	16.2	16.8	17.7	18.5	18.2	19.0	19.6
	6H	15.2	15.9	15.8	16.5	17.1	19.0	19.7	19.6	20.3	20.9
	8H	15.3	16.0	15.9	16.5	17.1	19.7	20.3	20.3	20.9	21.5
	12H	15.4	16.0	16.0	16.5	17.2	20.5	21.1	21.1	21.6	22.3
12H	4H	15.0	15.7	15.5	16.3	16.9	17.7	18.4	18.2	19.0	19.6
	6H	15.5	16.1	16.0	16.6	17.3	19.0	19.7	19.6	20.2	20.9
	8H	15.7	16.2	16.2	16.8	17.4	19.8	20.3	20.4	20.9	21.6

Maximum UGR = 22.3

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POLAR GRAPH



Maximum Candela = 481.105 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.)