



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-835-HIAFR-EM10W-DIM-UNV_(EMER 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] 05-01-2024

[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-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	1300
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
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	1959	1545	1504
55	1667	1315	1298
65	1222	1068	1153
75	749	900	994
85	276	707	848

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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	459.332	459.332	459.332	459.332	459.332
5	463.359	457.424	454.457	452.337	451.701
10	457.212	449.794	445.130	443.435	441.739
15	445.766	437.288	430.293	426.265	423.934
20	429.233	420.542	410.156	401.677	401.465
25	409.732	400.405	385.144	374.333	370.942
30	385.144	373.274	352.713	349.533	349.957
35	354.832	342.750	323.249	332.788	337.875
40	320.282	309.260	299.721	310.319	314.559
45	283.824	273.437	274.921	277.253	283.188
50	242.914	232.952	241.854	245.881	249.697
55	199.249	194.162	207.515	215.570	220.445
60	154.736	160.035	172.541	186.743	193.738
65	110.647	126.332	142.018	162.579	168.514
70	75.672	92.841	117.430	138.838	142.442
75	44.089	64.650	93.689	113.614	117.430
80	20.773	43.029	70.161	89.238	92.841
85	6.995	27.344	50.872	69.525	73.341
90	2.968	16.533	37.094	52.144	55.959
95	2.332	11.446	29.675	41.122	44.725
100	2.120	6.995	24.376	34.339	36.246
105	1.696	4.239	18.441	27.556	29.463
110	1.060	1.272	12.930	21.409	23.528
115	0.636	0.636	8.479	15.898	18.441
120	0.000	0.000	4.239	11.446	13.778
125	0.000	0.000	1.272	6.995	9.115
130	0.000	0.000	0.000	3.603	5.087
135	0.000	0.000	0.000	0.848	1.908
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-EM10W-DIM-UNV_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	164.93	N.A.	12.70
0-30	343.49	N.A.	26.40
0-40	553.82	N.A.	42.60
0-60	952.68	N.A.	73.30
0-80	1188.55	N.A.	91.40
0-90	1241.04	N.A.	95.40
10-90	1197.82	N.A.	92.10
20-40	388.89	N.A.	29.90
20-50	602.35	N.A.	46.30
40-70	540.80	N.A.	41.60
60-80	235.86	N.A.	18.10
70-80	93.92	N.A.	7.20
80-90	52.49	N.A.	4.00
90-110	46.96	N.A.	3.60
90-120	55.65	N.A.	4.30
90-130	58.73	N.A.	4.50
90-150	59.22	N.A.	4.60
90-180	59.22	N.A.	4.60
110-180	12.25	N.A.	0.90
0-180	1300.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	43.22
10-20	121.72
20-30	178.55
30-40	210.34
40-50	213.46
50-60	185.40
60-70	141.94
70-80	93.92
80-90	52.49
90-100	29.45
100-110	17.51
110-120	8.69
120-130	3.08
130-140	0.48
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	91	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	11.6	13.1	12.0	13.5	14.0	13.3	14.8	13.7	15.2	15.7
	3H	12.7	14.1	13.2	14.5	15.0	15.6	16.9	16.0	17.4	17.9
	4H	13.0	14.3	13.5	14.8	15.3	16.6	17.9	17.1	18.4	18.8
	6H	13.1	14.3	13.6	14.8	15.3	17.6	18.8	18.1	19.3	19.8
	8H	13.1	14.3	13.6	14.8	15.3	18.1	19.2	18.6	19.7	20.2
	12H	13.1	14.2	13.6	14.7	15.3	18.6	19.7	19.1	20.2	20.7

UGR Viewed Endwise

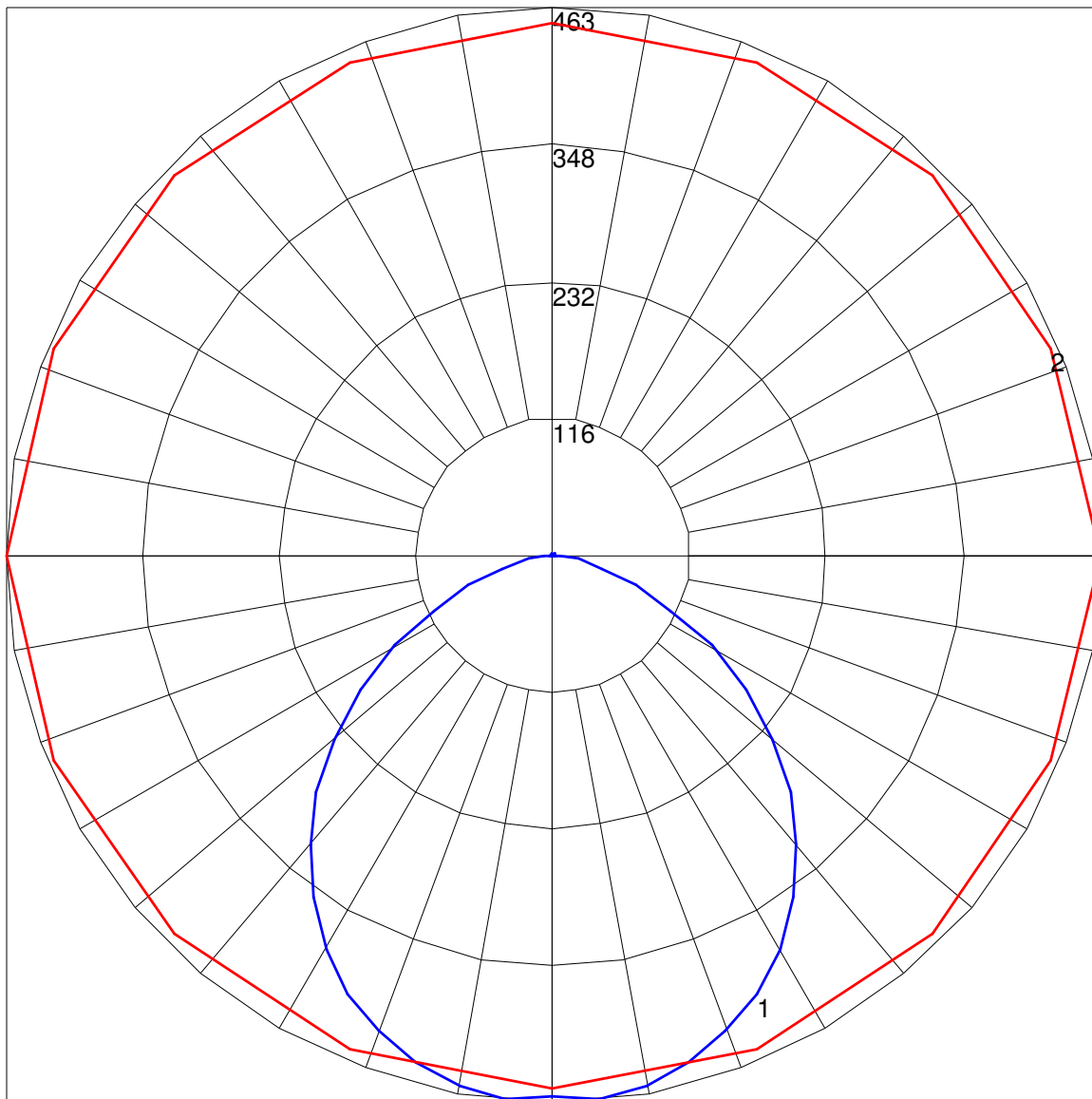
4H	2H	12.3	13.6	12.8	14.0	14.5	13.7	15.0	14.2	15.4	15.9
	3H	13.7	14.8	14.2	15.3	15.8	16.2	17.3	16.7	17.8	18.3
	4H	14.1	15.1	14.6	15.6	16.2	17.4	18.4	17.9	18.9	19.4
	6H	14.3	15.2	14.9	15.8	16.3	18.6	19.4	19.1	20.0	20.5
	8H	14.4	15.2	14.9	15.8	16.3	19.1	20.0	19.7	20.5	21.1
	12H	14.4	15.2	15.0	15.7	16.3	19.8	20.5	20.3	21.1	21.7

8H	4H	14.7	15.5	15.2	16.1	16.7	17.6	18.4	18.1	18.9	19.5
	6H	15.1	15.8	15.7	16.4	17.0	18.9	19.6	19.5	20.2	20.8
	8H	15.2	15.9	15.8	16.4	17.0	19.6	20.2	20.2	20.8	21.4
	12H	15.3	15.9	15.9	16.4	17.1	20.4	21.0	21.0	21.5	22.2

12H	4H	14.9	15.6	15.4	16.2	16.8	17.6	18.3	18.1	18.9	19.5
	6H	15.4	16.0	15.9	16.5	17.2	18.9	19.6	19.5	20.1	20.8
	8H	15.6	16.1	16.1	16.7	17.3	19.7	20.2	20.3	20.8	21.5

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 463.359 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.)