



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] 02-13-2023

[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	1418
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
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	2137	1685	1641
55	1818	1434	1416
65	1333	1165	1257
75	817	982	1084
85	301	771	925

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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	500.946	500.946	500.946	500.946	500.946
5	505.339	498.866	495.630	493.318	492.624
10	498.635	490.544	485.458	483.609	481.759
15	486.152	476.905	469.276	464.884	462.341
20	468.120	458.642	447.315	438.068	437.837
25	446.853	436.681	420.037	408.247	404.548
30	420.037	407.091	384.668	381.200	381.663
35	386.979	373.803	352.535	362.938	368.486
40	349.299	337.278	326.875	338.434	343.057
45	309.537	298.210	299.828	302.371	308.844
50	264.921	254.056	263.766	268.158	272.319
55	217.300	211.752	226.316	235.100	240.417
60	168.754	174.534	188.173	203.661	211.290
65	120.671	137.778	154.884	177.308	183.781
70	82.528	101.253	128.068	151.417	155.347
75	48.083	70.507	102.177	123.907	128.068
80	22.655	46.928	76.517	97.323	101.253
85	7.629	29.821	55.481	75.824	79.985
90	3.236	18.031	40.455	56.868	61.029
95	2.543	12.483	32.364	44.847	48.777
100	2.312	7.629	26.585	37.450	39.530
105	1.849	4.623	20.112	30.052	32.133
110	1.156	1.387	14.101	23.348	25.660
115	0.694	0.694	9.247	17.338	20.112
120	0.000	0.000	4.623	12.483	15.026
125	0.000	0.000	1.387	7.629	9.940
130	0.000	0.000	0.000	3.930	5.548
135	0.000	0.000	0.000	0.925	2.081
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	179.88	N.A.	12.70
0-30	374.60	N.A.	26.40
0-40	604.00	N.A.	42.60
0-60	1038.99	N.A.	73.30
0-80	1296.23	N.A.	91.40
0-90	1353.48	N.A.	95.40
10-90	1306.35	N.A.	92.10
20-40	424.12	N.A.	29.90
20-50	656.93	N.A.	46.30
40-70	589.80	N.A.	41.60
60-80	257.23	N.A.	18.10
70-80	102.43	N.A.	7.20
80-90	57.25	N.A.	4.00
90-110	51.22	N.A.	3.60
90-120	60.70	N.A.	4.30
90-130	64.05	N.A.	4.50
90-150	64.58	N.A.	4.60
90-180	64.58	N.A.	4.60
110-180	13.36	N.A.	0.90
0-180	1418.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	47.13
10-20	132.74
20-30	194.73
30-40	229.39
40-50	232.80
50-60	202.19
60-70	154.80
70-80	102.43
80-90	57.25
90-100	32.12
100-110	19.10
110-120	9.48
120-130	3.36
130-140	0.53
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	11.9	13.4	12.3	13.8	14.3	13.6	15.1	14.0	15.5	16.0
	3H	13.0	14.4	13.5	14.8	15.3	15.9	17.2	16.3	17.7	18.2
	4H	13.3	14.6	13.8	15.1	15.6	16.9	18.2	17.4	18.7	19.1
	6H	13.4	14.6	13.9	15.1	15.6	17.9	19.1	18.4	19.6	20.1
	8H	13.4	14.6	13.9	15.1	15.6	18.4	19.5	18.9	20.0	20.5
	12H	13.4	14.5	13.9	15.0	15.6	18.9	20.0	19.4	20.5	21.0

UGR Viewed Endwise

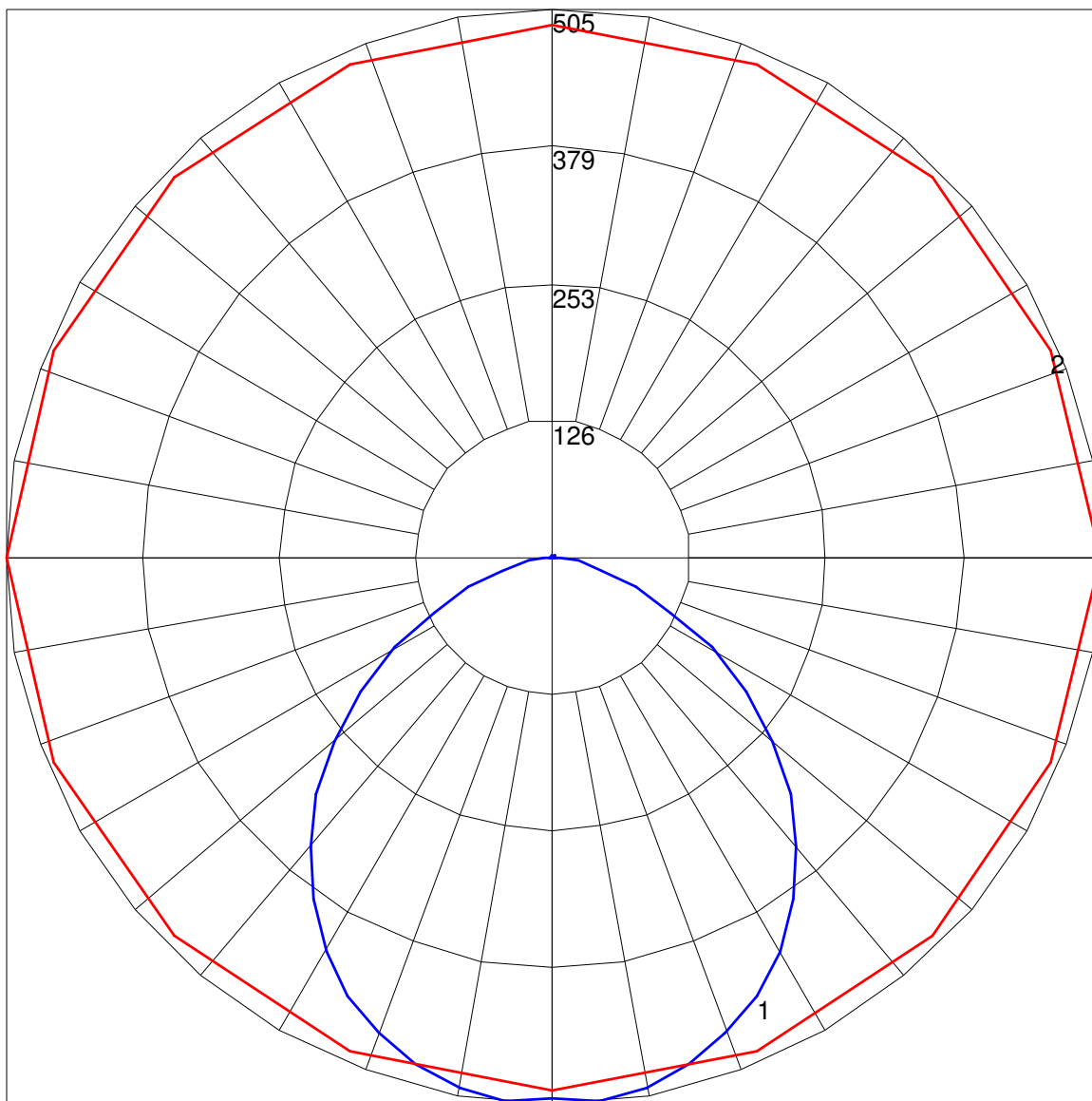
4H	2H	12.6	13.9	13.1	14.3	14.8	14.0	15.3	14.4	15.7	16.2
	3H	14.0	15.1	14.5	15.6	16.1	16.5	17.6	17.0	18.1	18.6
	4H	14.4	15.4	14.9	15.9	16.5	17.7	18.7	18.2	19.2	19.7
	6H	14.6	15.5	15.2	16.1	16.6	18.9	19.7	19.4	20.3	20.8
	8H	14.7	15.5	15.2	16.1	16.6	19.4	20.3	20.0	20.8	21.4
	12H	14.7	15.5	15.3	16.0	16.6	20.1	20.8	20.6	21.4	22.0
8H	4H	15.0	15.8	15.5	16.4	17.0	17.9	18.7	18.4	19.2	19.8
	6H	15.4	16.1	16.0	16.7	17.3	19.2	19.9	19.8	20.5	21.1
	8H	15.5	16.2	16.1	16.7	17.3	19.9	20.5	20.5	21.1	21.7
	12H	15.6	16.2	16.2	16.7	17.4	20.7	21.3	21.3	21.8	22.5
12H	4H	15.2	15.9	15.7	16.5	17.1	17.9	18.6	18.4	19.2	19.8
	6H	15.7	16.3	16.2	16.8	17.5	19.2	19.9	19.8	20.4	21.1
	8H	15.9	16.4	16.4	17.0	17.6	20.0	20.5	20.6	21.1	21.8

Maximum UGR = 22.5

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POLAR GRAPH



Maximum Candela = 505.339 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.)