



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-850-HIAFR-(L60)-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
 [ISSUE DATE] 11-07-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4' SUSPENDED ENCLOSED & GASKETED LED LUMINAIRE
 [MORE] w/FROSTED ACRYLIC LINEAR RIBBED DIFFUSER
 [LUMCAT] 96-4-L62-850-HIAFR-(L60)-EM10W-DIM-UNV
 [LAMPCAT] HLM 80 CRI 5000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1410
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	2125	1675	1631
55	1808	1426	1408
65	1325	1158	1250
75	813	976	1078
85	299	767	920

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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	498.120	498.120	498.120	498.120	498.120
5	502.488	496.051	492.833	490.535	489.845
10	495.822	487.776	482.719	480.880	479.041
15	483.409	474.214	466.629	462.261	459.733
20	465.479	456.055	444.791	435.597	435.367
25	444.332	434.217	417.667	405.944	402.266
30	417.667	404.795	382.498	379.050	379.509
35	384.796	371.694	350.546	360.890	366.407
40	347.328	335.375	325.031	336.524	341.122
45	307.791	296.528	298.137	300.665	307.101
50	263.427	252.623	262.277	266.645	270.782
55	216.074	210.558	225.039	233.774	239.061
60	167.802	173.549	187.111	202.512	210.098
65	119.990	137.000	154.010	176.307	182.744
70	82.062	100.681	127.346	150.562	154.470
75	47.812	70.109	101.601	123.208	127.346
80	22.527	46.663	76.086	96.774	100.681
85	7.586	29.653	55.168	75.396	79.534
90	3.218	17.930	40.227	56.547	60.685
95	2.529	12.413	32.181	44.594	48.502
100	2.299	7.586	26.435	37.238	39.307
105	1.839	4.597	19.998	29.883	31.951
110	1.149	1.379	14.022	23.216	25.515
115	0.690	0.690	9.195	17.240	19.998
120	0.000	0.000	4.597	12.413	14.941
125	0.000	0.000	1.379	7.586	9.884
130	0.000	0.000	0.000	3.908	5.517
135	0.000	0.000	0.000	0.919	2.069
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-L62-850-HIAFR-(L60)-EM10W-DIM-UNV_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.86	N.A.	12.70
0-30	372.49	N.A.	26.40
0-40	600.59	N.A.	42.60
0-60	1033.13	N.A.	73.30
0-80	1288.91	N.A.	91.40
0-90	1345.84	N.A.	95.40
10-90	1298.97	N.A.	92.10
20-40	421.73	N.A.	29.90
20-50	653.22	N.A.	46.30
40-70	586.47	N.A.	41.60
60-80	255.78	N.A.	18.10
70-80	101.85	N.A.	7.20
80-90	56.93	N.A.	4.00
90-110	50.93	N.A.	3.60
90-120	60.35	N.A.	4.30
90-130	63.69	N.A.	4.50
90-150	64.22	N.A.	4.60
90-180	64.22	N.A.	4.60
110-180	13.29	N.A.	0.90
0-180	1410.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.87
10-20	131.99
20-30	193.63
30-40	228.10
40-50	231.49
50-60	201.05
60-70	153.93
70-80	101.85
80-90	56.93
90-100	31.94
100-110	18.99
110-120	9.43
120-130	3.34
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

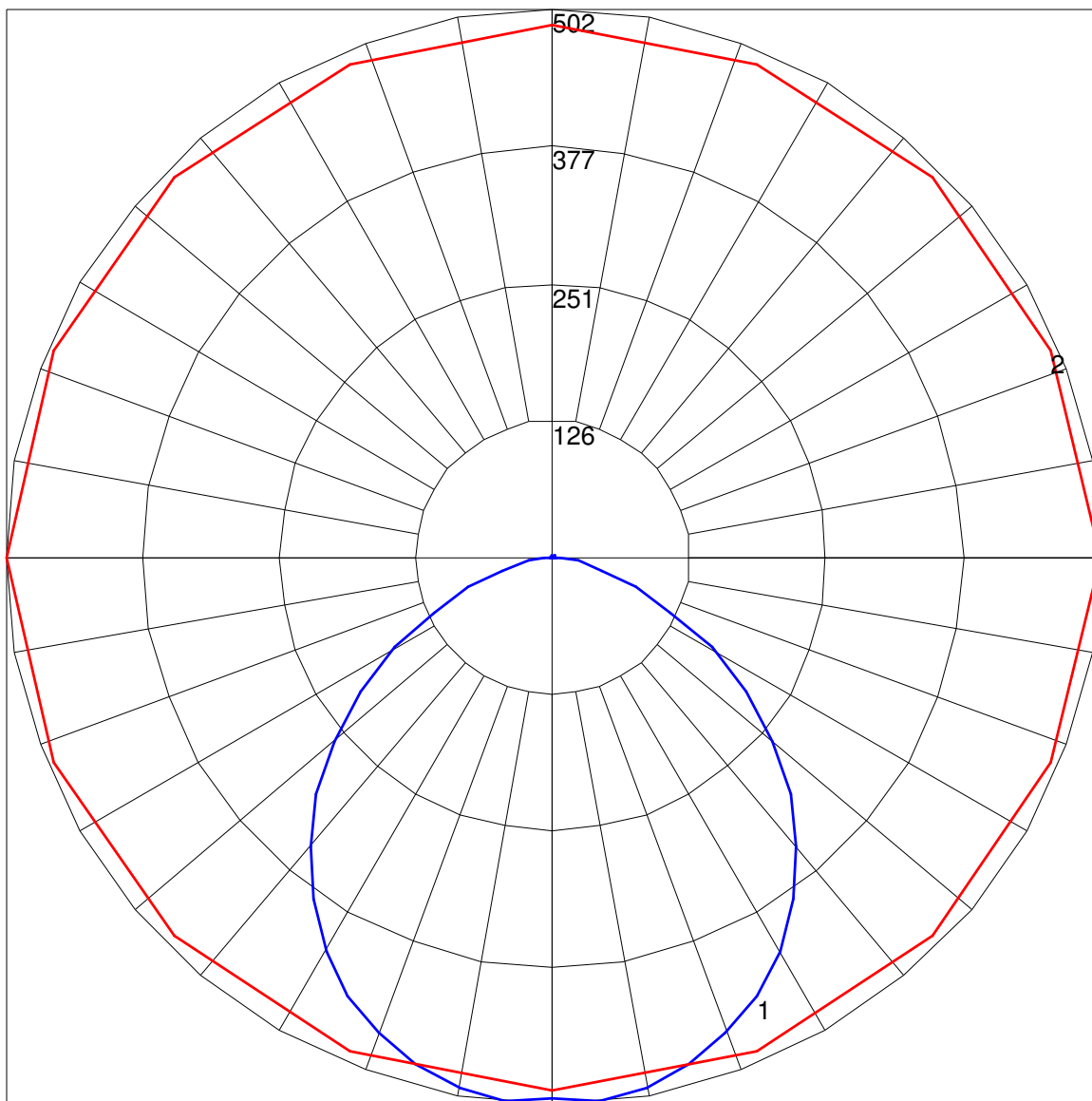
12H	4H	15.2	15.9	15.7	16.5	17.1	17.9	18.6	18.4	19.2	19.8
	6H	15.7	16.3	16.2	16.8	17.5	19.2	19.9	19.8	20.4	21.1
	8H	15.9	16.4	16.4	17.0	17.6	20.0	20.5	20.6	21.1	21.8

Maximum UGR = 22.5

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POLAR GRAPH



Maximum Candela = 502.488 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.)