



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-840-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
 [ISSUE DATE] 08-13-2020
 [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-L62-840-HIAFR-EM10W-DIM-UNV(EMER MODE)
 [LAMPCAT] HLM 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1360
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
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	2049	1616	1573
55	1744	1375	1358
65	1278	1117	1206
75	784	942	1040
85	289	739	887

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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	480.456	480.456	480.456	480.456	480.456
5	484.669	478.461	475.357	473.140	472.475
10	478.239	470.479	465.602	463.828	462.054
15	466.267	457.398	450.081	445.869	443.430
20	448.973	439.883	429.019	420.150	419.928
25	428.575	418.820	402.856	391.549	388.001
30	402.856	390.440	368.934	365.608	366.051
35	371.151	358.513	338.115	348.093	353.414
40	335.011	323.482	313.505	324.591	329.025
45	296.876	286.012	287.564	290.003	296.211
50	254.085	243.665	252.977	257.189	261.180
55	208.412	203.091	217.059	225.484	230.584
60	161.852	167.395	180.476	195.331	202.648
65	115.735	132.142	148.549	170.055	176.263
70	79.152	97.111	122.830	145.223	148.992
75	46.117	67.623	97.998	118.839	122.830
80	21.728	45.008	73.388	93.342	97.111
85	7.317	28.601	53.212	72.723	76.713
90	3.104	17.294	38.800	54.542	58.533
95	2.439	11.973	31.040	43.013	46.782
100	2.217	7.317	25.497	35.918	37.913
105	1.774	4.434	19.289	28.823	30.818
110	1.109	1.330	13.525	22.393	24.610
115	0.665	0.665	8.869	16.629	19.289
120	0.000	0.000	4.434	11.973	14.411
125	0.000	0.000	1.330	7.317	9.534
130	0.000	0.000	0.000	3.769	5.321
135	0.000	0.000	0.000	0.887	1.995
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-L62-840-HIAFR-EM10W-DIM-UNV(EMER MODE)_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	172.52	N.A.	12.70
0-30	359.28	N.A.	26.40
0-40	579.29	N.A.	42.60
0-60	996.50	N.A.	73.30
0-80	1243.21	N.A.	91.40
0-90	1298.12	N.A.	95.40
10-90	1252.91	N.A.	92.10
20-40	406.77	N.A.	29.90
20-50	630.06	N.A.	46.30
40-70	565.67	N.A.	41.60
60-80	246.71	N.A.	18.10
70-80	98.24	N.A.	7.20
80-90	54.91	N.A.	4.00
90-110	49.12	N.A.	3.60
90-120	58.21	N.A.	4.30
90-130	61.43	N.A.	4.50
90-150	61.94	N.A.	4.60
90-180	61.94	N.A.	4.60
110-180	12.82	N.A.	0.90
0-180	1360.05	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.20
10-20	127.31
20-30	186.76
30-40	220.01
40-50	223.28
50-60	193.92
60-70	148.47
70-80	98.24
80-90	54.91
90-100	30.80
100-110	18.32
110-120	9.09
120-130	3.22
130-140	0.51
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

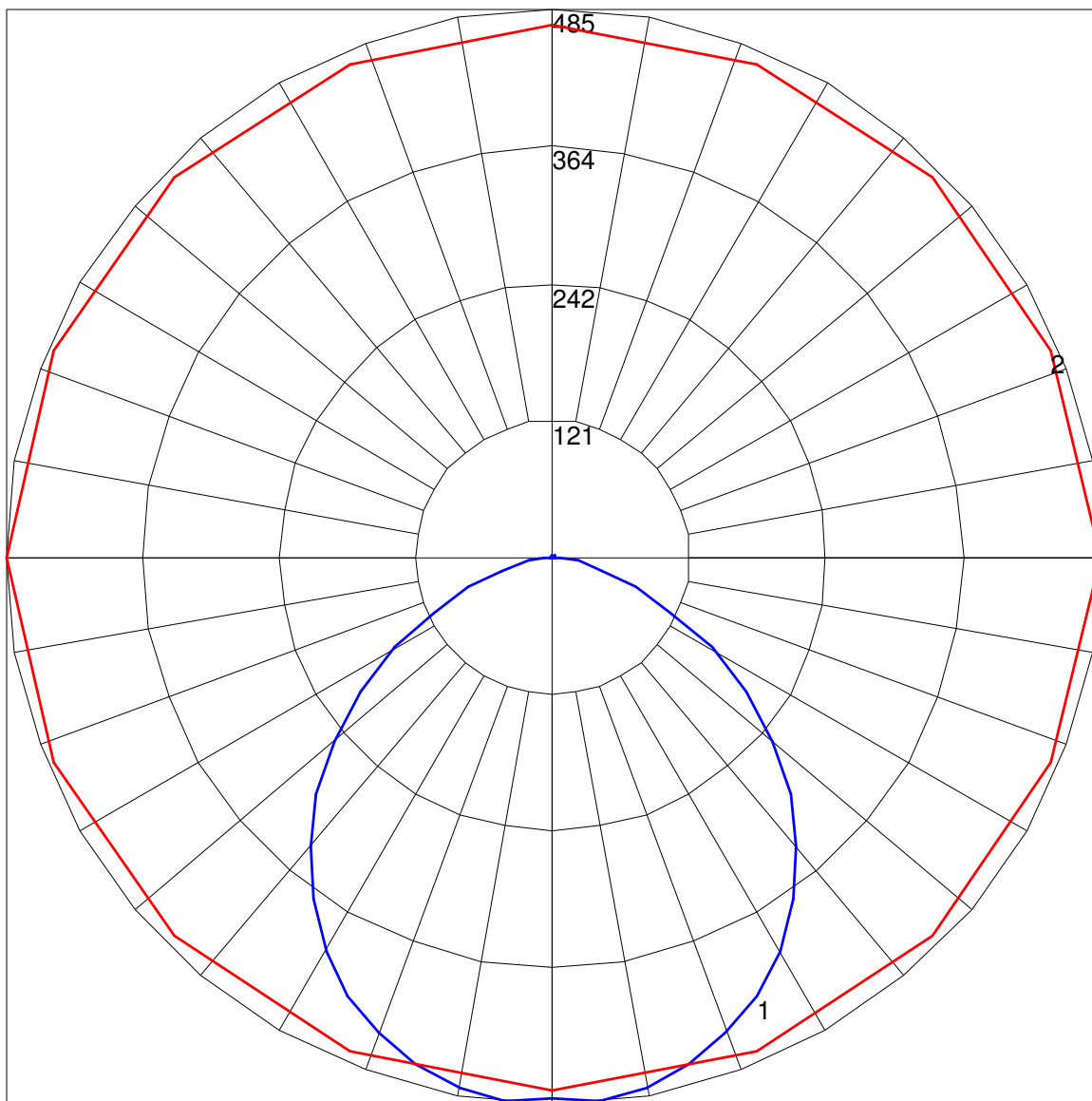
X=2H	Y=2H	11.8	13.3	12.2	13.7	14.2	13.5	15.0	13.9	15.4	15.9
	3H	12.9	14.3	13.4	14.7	15.2	15.8	17.1	16.2	17.6	18.1
	4H	13.2	14.5	13.7	15.0	15.5	16.8	18.1	17.3	18.6	19.0
	6H	13.3	14.5	13.8	15.0	15.5	17.8	19.0	18.3	19.5	20.0
	8H	13.3	14.5	13.8	15.0	15.5	18.3	19.4	18.8	19.9	20.4
	12H	13.3	14.4	13.8	14.9	15.5	18.8	19.9	19.3	20.4	20.9

UGR Viewed Endwise

4H	2H	12.5	13.8	13.0	14.2	14.7	13.9	15.2	14.3	15.6	16.1
	3H	13.9	15.0	14.4	15.5	16.0	16.4	17.5	16.9	18.0	18.5
	4H	14.3	15.3	14.8	15.8	16.4	17.6	18.6	18.1	19.1	19.6
	6H	14.5	15.4	15.1	16.0	16.5	18.8	19.6	19.3	20.2	20.7
	8H	14.6	15.4	15.1	16.0	16.5	19.3	20.2	19.9	20.7	21.3
	12H	14.6	15.4	15.2	15.9	16.5	20.0	20.7	20.5	21.3	21.9
8H	4H	14.9	15.7	15.4	16.3	16.9	17.8	18.6	18.3	19.1	19.7
	6H	15.3	16.0	15.9	16.6	17.2	19.1	19.8	19.7	20.4	21.0
	8H	15.4	16.1	16.0	16.6	17.2	19.8	20.4	20.4	21.0	21.6
	12H	15.5	16.1	16.1	16.6	17.3	20.6	21.2	21.2	21.7	22.4
12H	4H	15.1	15.8	15.6	16.4	17.0	17.8	18.5	18.3	19.1	19.7
	6H	15.6	16.2	16.1	16.7	17.4	19.1	19.8	19.7	20.3	21.0
	8H	15.8	16.3	16.3	16.9	17.5	19.9	20.4	20.5	21.0	21.7

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 484.669 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.)