



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-835-HIAFR-(L53)-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] 010-15-2021

[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-(L53)-EM10W-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	900
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	90
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	1356	1069	1041
55	1154	910	899
65	846	739	798
75	519	623	688
85	191	489	587

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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	317.949	317.949	317.949	317.949	317.949
5	320.737	316.629	314.575	313.107	312.667
10	316.482	311.347	308.119	306.945	305.771
15	308.559	302.690	297.848	295.060	293.446
20	297.114	291.099	283.909	278.040	277.894
25	283.616	277.160	266.596	259.113	256.766
30	266.596	258.380	244.147	241.947	242.240
35	245.615	237.251	223.753	230.355	233.877
40	221.699	214.069	207.467	214.803	217.737
45	196.462	189.273	190.300	191.914	196.022
50	168.145	161.249	167.411	170.199	172.840
55	137.920	134.398	143.642	149.217	152.592
60	107.108	110.776	119.433	129.263	134.105
65	76.590	87.447	98.305	112.537	116.645
70	52.380	64.265	81.285	96.104	98.598
75	30.518	44.751	64.852	78.644	81.285
80	14.379	29.785	48.565	61.770	64.265
85	4.842	18.927	35.214	48.125	50.766
90	2.054	11.444	25.677	36.094	38.735
95	1.614	7.923	20.541	28.464	30.959
100	1.467	4.842	16.873	23.769	25.090
105	1.174	2.934	12.765	19.074	20.395
110	0.734	0.880	8.950	14.819	16.286
115	0.440	0.440	5.869	11.004	12.765
120	0.000	0.000	2.934	7.923	9.537
125	0.000	0.000	0.880	4.842	6.309
130	0.000	0.000	0.000	2.494	3.521
135	0.000	0.000	0.000	0.587	1.321
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-(L53)-EM10W-DIM-UNV_EMER MODE.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	114.17	N.A.	12.70
0-30	237.76	N.A.	26.40
0-40	383.36	N.A.	42.60
0-60	659.45	N.A.	73.30
0-80	822.71	N.A.	91.40
0-90	859.05	N.A.	95.40
10-90	829.13	N.A.	92.10
20-40	269.19	N.A.	29.90
20-50	416.95	N.A.	46.30
40-70	374.34	N.A.	41.60
60-80	163.26	N.A.	18.10
70-80	65.01	N.A.	7.20
80-90	36.34	N.A.	4.00
90-110	32.51	N.A.	3.60
90-120	38.52	N.A.	4.30
90-130	40.65	N.A.	4.50
90-150	40.99	N.A.	4.60
90-180	40.99	N.A.	4.60
110-180	8.48	N.A.	0.90
0-180	900.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	29.92
10-20	84.25
20-30	123.59
30-40	145.60
40-50	147.76
50-60	128.33
60-70	98.25
70-80	65.01
80-90	36.34
90-100	20.38
100-110	12.12
110-120	6.02
120-130	2.13
130-140	0.34
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	10.3	11.8	10.7	12.2	12.7	12.0	13.5	12.4	13.9	14.4
	3H	11.4	12.8	11.9	13.2	13.7	14.3	15.6	14.7	16.1	16.6
	4H	11.7	13.0	12.2	13.5	14.0	15.3	16.6	15.8	17.1	17.5
	6H	11.8	13.0	12.3	13.5	14.0	16.3	17.5	16.8	18.0	18.5
	8H	11.8	13.0	12.3	13.5	14.0	16.8	17.9	17.3	18.4	18.9
	12H	11.8	12.9	12.3	13.4	14.0	17.3	18.4	17.8	18.9	19.4

UGR Viewed Endwise

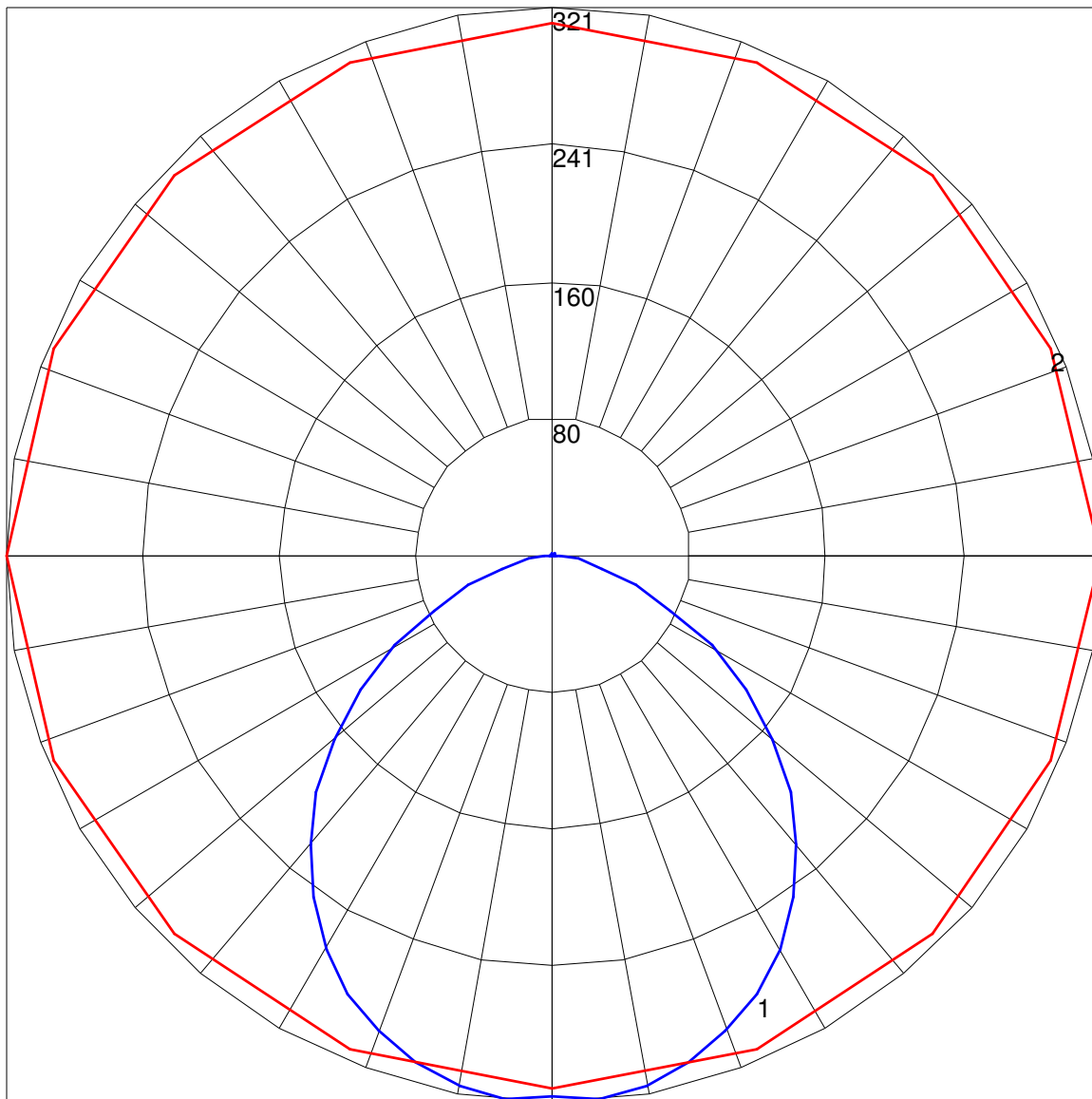
4H	2H	11.0	12.3	11.5	12.7	13.2	12.4	13.7	12.8	14.1	14.6
	3H	12.4	13.5	12.9	14.0	14.5	14.9	16.0	15.4	16.5	17.0
	4H	12.8	13.8	13.3	14.3	14.9	16.1	17.1	16.6	17.6	18.1
	6H	13.0	13.9	13.6	14.5	15.0	17.3	18.1	17.8	18.7	19.2
	8H	13.1	13.9	13.6	14.5	15.0	17.8	18.7	18.4	19.2	19.8
	12H	13.1	13.9	13.7	14.4	15.0	18.5	19.2	19.0	19.8	20.4
8H	4H	13.4	14.2	13.9	14.8	15.4	16.3	17.1	16.8	17.6	18.2
	6H	13.8	14.5	14.4	15.1	15.7	17.6	18.3	18.2	18.9	19.5
	8H	13.9	14.6	14.5	15.1	15.7	18.3	18.9	18.9	19.5	20.1
	12H	14.0	14.6	14.6	15.1	15.8	19.1	19.7	19.7	20.2	20.9
12H	4H	13.6	14.3	14.1	14.9	15.5	16.3	17.0	16.8	17.6	18.2
	6H	14.1	14.7	14.6	15.2	15.9	17.6	18.3	18.2	18.8	19.5
	8H	14.3	14.8	14.8	15.4	16.0	18.4	18.9	19.0	19.5	20.2

Maximum UGR = 20.9

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POLAR GRAPH



Maximum Candela = 320.737 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.)