



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-EM-BSL10LST-DIM-UNV(EMER MODE)_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST]GEN FROM BALLABS TEST NO. 20205.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 08-09-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2-56 LED 22"ARRAYS 4'ENCLOSED & GASKETED LUMINAIRE
 [MORE] WHITE FLAT REFL w/HIAFR RIBBED ACRYLIC DROP LENS
 [MORE] OT150/120-277/1A4 DIM-1-G2 #57452
 [LUMCAT] 96-4-L40-840-HIAFR-EM-BSL10LST-DIM-UNV (EMER MODE)
 [LAMPCAT] HLM2256_5630 REV A 10560223

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)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2069	1645	1562
55	1710	1382	1394
65	1358	1143	1219
75	873	941	1040
85	363	767	854

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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	487.141	487.141	487.141	487.141	487.141
5	496.815	484.644	481.524	477.155	475.282
10	489.637	476.530	470.913	464.360	461.863
15	476.843	462.175	455.310	444.075	441.579
20	459.679	443.451	432.841	420.982	416.925
25	438.770	420.046	402.570	392.584	389.463
30	413.180	393.832	373.860	371.051	371.675
35	382.910	361.689	347.958	352.015	352.015
40	344.837	323.928	322.368	323.304	322.992
45	300.523	284.920	290.537	288.352	291.161
50	251.528	245.599	252.776	254.337	261.826
55	204.718	207.214	215.640	222.818	233.428
60	163.212	169.142	179.752	194.107	203.469
65	122.955	131.381	149.481	167.894	174.759
70	84.571	96.742	122.019	143.240	146.985
75	51.179	66.783	95.493	115.466	119.523
80	24.654	44.314	71.152	89.252	93.933
85	9.050	28.398	53.052	68.655	70.840
90	3.433	17.788	38.697	51.179	53.676
95	3.433	12.171	30.895	41.817	43.378
100	2.809	6.866	24.341	33.391	35.264
105	2.184	4.057	17.788	26.526	27.774
110	1.872	2.184	12.795	20.909	21.845
115	1.248	0.936	8.114	15.291	17.788
120	0.936	0.312	4.369	11.235	12.795
125	0.000	0.000	0.936	6.866	8.426
130	0.000	0.000	0.000	3.433	4.369
135	0.000	0.000	0.000	0.312	1.872
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-L40-840-HIAFR-EM-BSL10LST-DIM-UNV(EMER MODE)_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	173.99	N.A.	12.80
0-30	362.21	N.A.	26.60
0-40	585.17	N.A.	43.00
0-60	1002.58	N.A.	73.70
0-80	1248.02	N.A.	91.80
0-90	1301.2	N.A.	95.70
10-90	1255.47	N.A.	92.30
20-40	411.18	N.A.	30.20
20-50	634.77	N.A.	46.70
40-70	565.95	N.A.	41.60
60-80	245.43	N.A.	18.00
70-80	96.90	N.A.	7.10
80-90	53.18	N.A.	3.90
90-110	46.87	N.A.	3.40
90-120	55.47	N.A.	4.10
90-130	58.44	N.A.	4.30
90-150	58.85	N.A.	4.30
90-180	58.85	N.A.	4.30
110-180	11.98	N.A.	0.90
0-180	1360.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	45.73
10-20	128.27
20-30	188.22
30-40	222.96
40-50	223.59
50-60	193.82
60-70	148.54
70-80	96.90
80-90	53.18
90-100	29.77
100-110	17.09
110-120	8.61
120-130	2.97
130-140	0.40
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	96
1	107	102	97	93	104	99	95	91	94	91	88	89	87	84	85	83	81	78
2	97	89	82	76	94	86	80	75	82	77	72	78	74	70	75	71	68	65
3	89	78	70	63	86	76	68	62	72	66	61	69	64	59	66	61	57	55
4	81	69	60	54	79	68	59	53	64	57	52	62	56	51	59	54	49	47
5	75	62	53	46	72	61	52	46	58	51	45	55	49	44	53	48	43	41
6	69	56	47	40	67	55	46	40	52	45	39	50	44	39	48	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	36	31	41	35	30	28
9	56	42	34	29	54	42	34	29	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	39	31	26	37	30	26	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	13.5	12.4	13.9	14.3	13.5	15.1	13.9	15.4	15.9
	3H	13.1	14.5	13.6	14.9	15.4	15.7	17.2	16.2	17.6	18.0
	4H	13.4	14.8	13.9	15.2	15.7	16.8	18.1	17.2	18.5	19.0
	6H	13.6	14.8	14.1	15.3	15.8	17.7	19.0	18.2	19.4	19.9
	8H	13.6	14.8	14.1	15.3	15.8	18.2	19.4	18.7	19.8	20.3
	12H	13.6	14.7	14.1	15.2	15.7	18.7	19.8	19.1	20.3	20.8

UGR Viewed Endwise

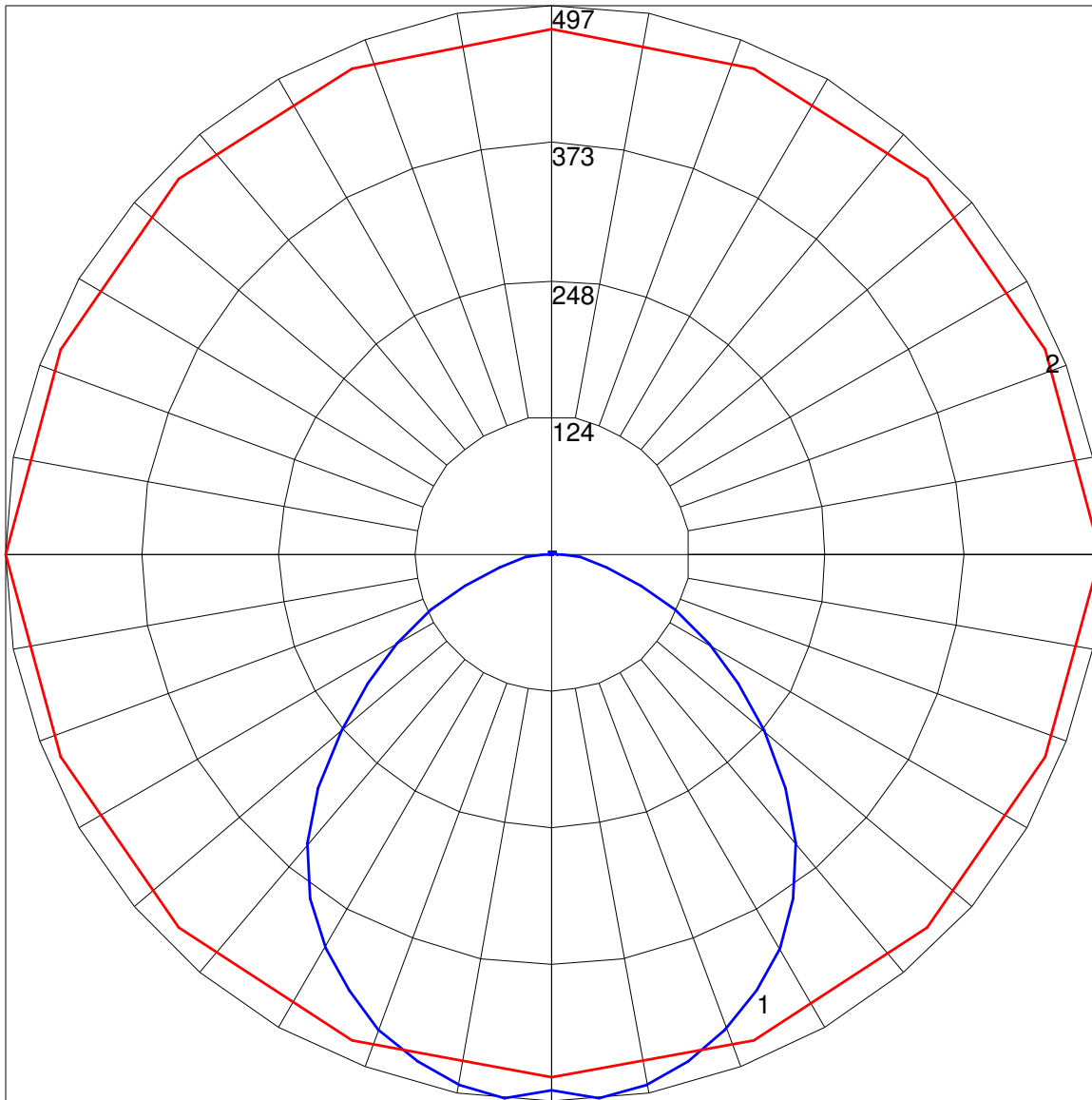
4H	2H	12.6	14.0	13.1	14.4	14.9	13.9	15.2	14.4	15.7	16.1
	3H	14.1	15.2	14.5	15.7	16.2	16.4	17.5	16.9	18.0	18.5
	4H	14.5	15.5	15.0	16.0	16.5	17.6	18.6	18.1	19.1	19.6
	6H	14.8	15.7	15.3	16.2	16.7	18.7	19.6	19.2	20.1	20.7
	8H	14.8	15.7	15.3	16.2	16.7	19.3	20.1	19.8	20.6	21.2
	12H	14.8	15.6	15.4	16.1	16.7	19.8	20.6	20.4	21.1	21.7
8H	4H	15.1	15.9	15.6	16.4	17.0	17.7	18.6	18.3	19.1	19.6
	6H	15.5	16.2	16.0	16.7	17.3	19.0	19.7	19.6	20.3	20.9
	8H	15.6	16.2	16.2	16.8	17.4	19.7	20.3	20.3	20.9	21.5
	12H	15.7	16.2	16.2	16.8	17.4	20.4	21.0	21.0	21.6	22.2
12H	4H	15.2	16.0	15.7	16.5	17.1	17.7	18.5	18.3	19.0	19.6
	6H	15.7	16.3	16.3	16.9	17.5	19.0	19.7	19.6	20.2	20.9
	8H	15.9	16.5	16.4	17.0	17.7	19.8	20.4	20.3	20.9	21.6

Maximum UGR = 22.2

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POLAR GRAPH



Maximum Candela = 496.815 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.)