



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-EM10W-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
 [ISSUEDATE] 07-17-2020
 [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-EM10W-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	1390
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
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	2115	1681	1597
55	1748	1412	1425
65	1388	1168	1246
75	892	961	1063
85	371	784	873

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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	497.887	497.887	497.887	497.887	497.887
5	507.774	495.335	492.145	487.680	485.766
10	500.438	487.042	481.301	474.603	472.051
15	487.361	472.370	465.353	453.871	451.319
20	469.819	453.233	442.389	430.268	426.122
25	448.449	429.312	411.450	401.244	398.054
30	422.295	402.519	382.106	379.236	379.874
35	391.356	369.667	355.633	359.780	359.780
40	352.444	331.074	329.479	330.436	330.117
45	307.152	291.205	296.946	294.713	297.584
50	257.077	251.016	258.352	259.947	267.602
55	209.234	211.785	220.397	227.733	238.577
60	166.813	172.873	183.717	198.389	207.958
65	125.668	134.279	152.779	171.597	178.614
70	86.436	98.876	124.711	146.400	150.227
75	52.308	68.256	97.600	118.013	122.159
80	25.197	45.291	72.721	91.221	96.005
85	9.250	29.025	54.222	70.170	72.402
90	3.508	18.180	39.550	52.308	54.860
95	3.508	12.439	31.576	42.740	44.335
100	2.871	7.017	24.878	34.128	36.042
105	2.233	4.146	18.180	27.111	28.387
110	1.914	2.233	13.077	21.370	22.327
115	1.276	0.957	8.293	15.629	18.180
120	0.957	0.319	4.465	11.482	13.077
125	0.000	0.000	0.957	7.017	8.612
130	0.000	0.000	0.000	3.508	4.465
135	0.000	0.000	0.000	0.319	1.914
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-EM10W-DIM-UNV(EMER MODE)_.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	177.83	N.A.	12.80
0-30	370.20	N.A.	26.60
0-40	598.08	N.A.	43.00
0-60	1024.7	N.A.	73.70
0-80	1275.55	N.A.	91.80
0-90	1329.9	N.A.	95.70
10-90	1283.16	N.A.	92.30
20-40	420.25	N.A.	30.20
20-50	648.77	N.A.	46.70
40-70	578.43	N.A.	41.60
60-80	250.85	N.A.	18.00
70-80	99.03	N.A.	7.10
80-90	54.35	N.A.	3.90
90-110	47.90	N.A.	3.40
90-120	56.70	N.A.	4.10
90-130	59.73	N.A.	4.30
90-150	60.15	N.A.	4.30
90-180	60.15	N.A.	4.30
110-180	12.25	N.A.	0.90
0-180	1390.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.73
10-20	131.10
20-30	192.37
30-40	227.88
40-50	228.52
50-60	198.09
60-70	151.81
70-80	99.03
80-90	54.35
90-100	30.43
100-110	17.47
110-120	8.80
120-130	3.03
130-140	0.41
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

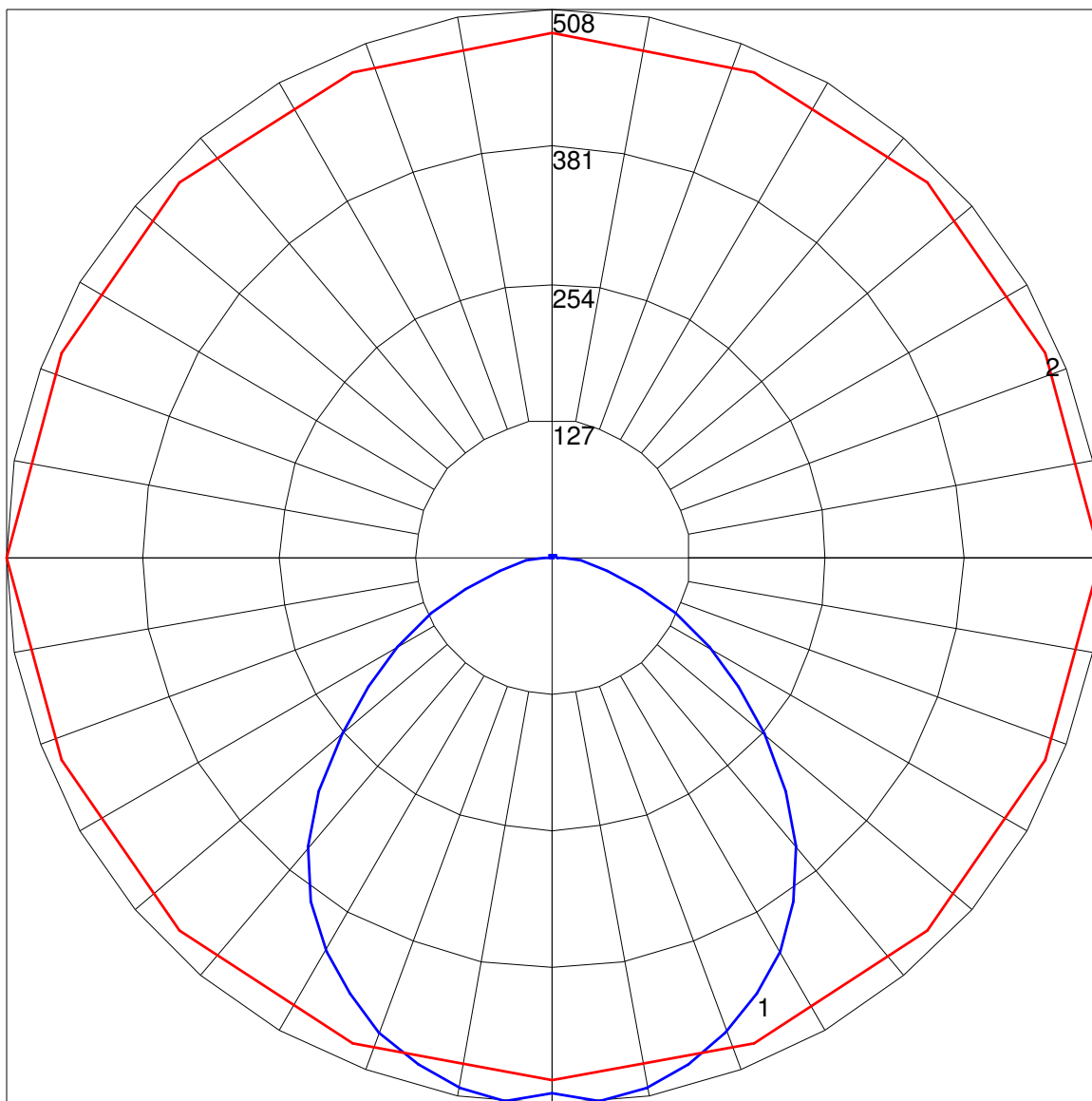
X=2H	Y=2H	11.9	13.5	12.4	13.9	14.3	13.5	15.1	13.9	15.4	15.9
	3H	13.1	14.5	13.6	14.9	15.4	15.7	17.2	16.2	17.6	18.0
	4H	13.4	14.8	13.9	15.2	15.7	16.8	18.1	17.2	18.5	19.0
	6H	13.6	14.8	14.1	15.3	15.8	17.7	19.0	18.2	19.4	19.9
	8H	13.6	14.8	14.1	15.3	15.8	18.2	19.4	18.7	19.8	20.3
	12H	13.6	14.7	14.1	15.2	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

POLAR GRAPH



Maximum Candela = 507.774 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.)