



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
 [ISSUE DATE] 12-14-2021
 [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	1374
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	137
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	2091	1662	1578
55	1728	1396	1409
65	1372	1155	1232
75	882	950	1051
85	366	775	863

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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	492.156	492.156	492.156	492.156	492.156
5	501.929	489.633	486.480	482.066	480.175
10	494.678	481.436	475.761	469.140	466.618
15	481.751	466.933	459.997	448.647	446.124
20	464.411	448.016	437.296	425.316	421.217
25	443.287	424.370	406.714	396.625	393.472
30	417.434	397.886	377.708	374.871	375.501
35	386.851	365.412	351.540	355.638	355.638
40	348.387	327.263	325.687	326.632	326.317
45	303.617	287.853	293.528	291.321	294.158
50	254.117	248.127	255.379	256.955	264.522
55	206.825	209.347	217.860	225.111	235.831
60	164.893	170.883	181.603	196.106	205.564
65	124.221	132.734	151.020	169.622	176.558
70	85.441	97.737	123.275	144.715	148.498
75	51.706	67.470	96.476	116.654	120.753
80	24.907	44.770	71.884	90.171	94.900
85	9.143	28.691	53.598	69.362	71.569
90	3.468	17.971	39.095	51.706	54.229
95	3.468	12.296	31.213	42.248	43.824
100	2.838	6.936	24.592	33.735	35.627
105	2.207	4.099	17.971	26.799	28.060
110	1.892	2.207	12.927	21.124	22.070
115	1.261	0.946	8.197	15.449	17.971
120	0.946	0.315	4.414	11.350	12.927
125	0.000	0.000	0.946	6.936	8.513
130	0.000	0.000	0.000	3.468	4.414
135	0.000	0.000	0.000	0.315	1.892
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	175.78	N.A.	12.80
0-30	365.94	N.A.	26.60
0-40	591.20	N.A.	43.00
0-60	1012.9	N.A.	73.70
0-80	1260.86	N.A.	91.80
0-90	1314.59	N.A.	95.70
10-90	1268.39	N.A.	92.30
20-40	415.41	N.A.	30.20
20-50	641.31	N.A.	46.70
40-70	571.77	N.A.	41.60
60-80	247.96	N.A.	18.00
70-80	97.89	N.A.	7.10
80-90	53.73	N.A.	3.90
90-110	47.35	N.A.	3.40
90-120	56.05	N.A.	4.10
90-130	59.05	N.A.	4.30
90-150	59.45	N.A.	4.30
90-180	59.45	N.A.	4.30
110-180	12.11	N.A.	0.90
0-180	1374.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	46.20
10-20	129.59
20-30	190.16
30-40	225.26
40-50	225.89
50-60	195.81
60-70	150.07
70-80	97.89
80-90	53.73
90-100	30.08
100-110	17.27
110-120	8.70
120-130	3.00
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

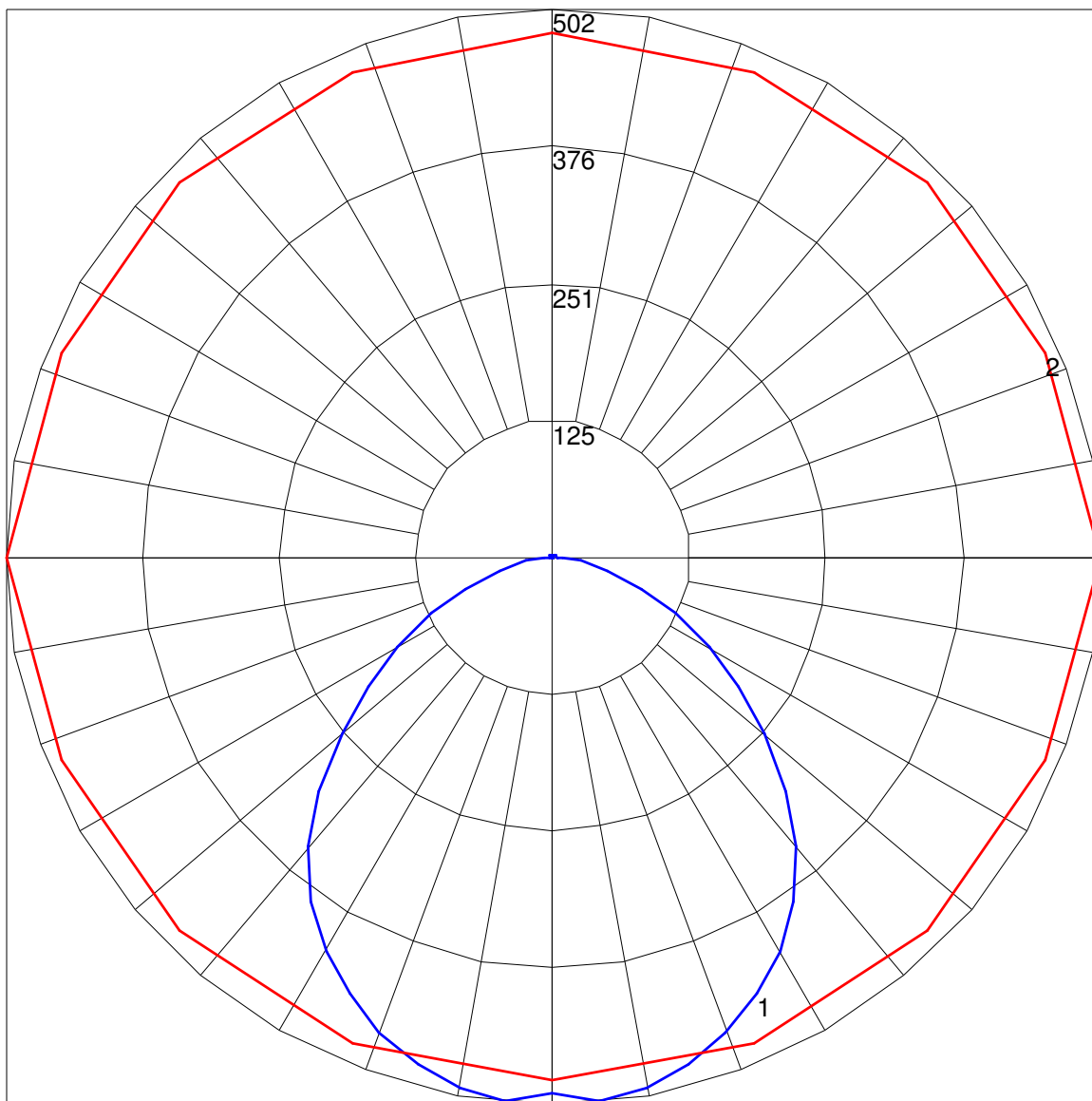
Reflectances

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					UGR Viewed Endwise				
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
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 = 501.929 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.)