



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-(L30)-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] 11-07-2023

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 4' SUSPENDED ENCLOSED & GASKETED LED LUMINAIRE

[MORE] w/FROSTED ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] 96-4-L40-840-HIAFR-(L30)-EM10W-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K CCT

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1420
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	142
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	2140	1687	1643
55	1821	1436	1418
65	1334	1166	1259
75	818	983	1086
85	302	772	926

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-(L30)-EM10W-DIM-UNV\_(EMER MODE).IES

## CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	501.653	501.653	501.653	501.653	501.653
5	506.052	499.570	496.329	494.014	493.319
10	499.338	491.236	486.143	484.291	482.439
15	486.837	477.577	469.938	465.540	462.993
20	468.781	459.289	447.946	438.686	438.455
25	447.483	437.297	420.629	408.823	405.119
30	420.629	407.666	385.210	381.738	382.201
35	387.525	374.330	353.032	363.450	369.006
40	349.791	337.754	327.336	338.911	343.541
45	309.974	298.631	300.251	302.798	309.279
50	265.295	254.415	264.138	268.536	272.703
55	217.607	212.051	226.635	235.432	240.756
60	168.993	174.780	188.438	203.949	211.588
65	120.841	137.972	155.103	177.558	184.040
70	82.644	101.396	128.249	151.630	155.566
75	48.151	70.606	102.321	124.082	128.249
80	22.687	46.994	76.625	97.460	101.396
85	7.639	29.863	55.559	75.931	80.098
90	3.241	18.057	40.512	56.948	61.115
95	2.546	12.501	32.410	44.910	48.846
100	2.315	7.639	26.622	37.502	39.586
105	1.852	4.630	20.140	30.095	32.178
110	1.157	1.389	14.121	23.381	25.696
115	0.694	0.694	9.260	17.362	20.140
120	0.000	0.000	4.630	12.501	15.047
125	0.000	0.000	1.389	7.639	9.954
130	0.000	0.000	0.000	3.935	5.556
135	0.000	0.000	0.000	0.926	2.083
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-(L30)-EM10W-DIM-UNV\_(EMER MODE).IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	180.13	N.A.	12.70
0-30	375.13	N.A.	26.40
0-40	604.85	N.A.	42.60
0-60	1040.46	N.A.	73.30
0-80	1298.06	N.A.	91.40
0-90	1355.39	N.A.	95.40
10-90	1308.19	N.A.	92.10
20-40	424.72	N.A.	29.90
20-50	657.85	N.A.	46.30
40-70	590.63	N.A.	41.60
60-80	257.60	N.A.	18.10
70-80	102.58	N.A.	7.20
80-90	57.33	N.A.	4.00
90-110	51.29	N.A.	3.60
90-120	60.78	N.A.	4.30
90-130	64.14	N.A.	4.50
90-150	64.67	N.A.	4.60
90-180	64.67	N.A.	4.60
110-180	13.38	N.A.	0.90
0-180	1420.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	47.20
10-20	132.93
20-30	195.00
30-40	229.72
40-50	233.13
50-60	202.48
60-70	155.02
70-80	102.58
80-90	57.33
90-100	32.16
100-110	19.13
110-120	9.49
120-130	3.36
130-140	0.53
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-(L30)-EM10W-DIM-UNV\_(EMER MODE).IES

## 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

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-(L30)-EM10W-DIM-UNV\_(EMER MODE).IES

## 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	13.4	12.3	13.8	14.3	13.6	15.1	14.0	15.5	16.0
	3H	13.0	14.4	13.5	14.8	15.3	15.9	17.2	16.3	17.7	18.2
	4H	13.3	14.6	13.8	15.1	15.6	16.9	18.2	17.4	18.7	19.1
	6H	13.4	14.6	13.9	15.1	15.6	17.9	19.1	18.4	19.6	20.1
	8H	13.4	14.6	13.9	15.1	15.6	18.4	19.5	18.9	20.0	20.5
	12H	13.4	14.5	13.9	15.0	15.6	18.9	20.0	19.4	20.5	21.0

### UGR Viewed Endwise

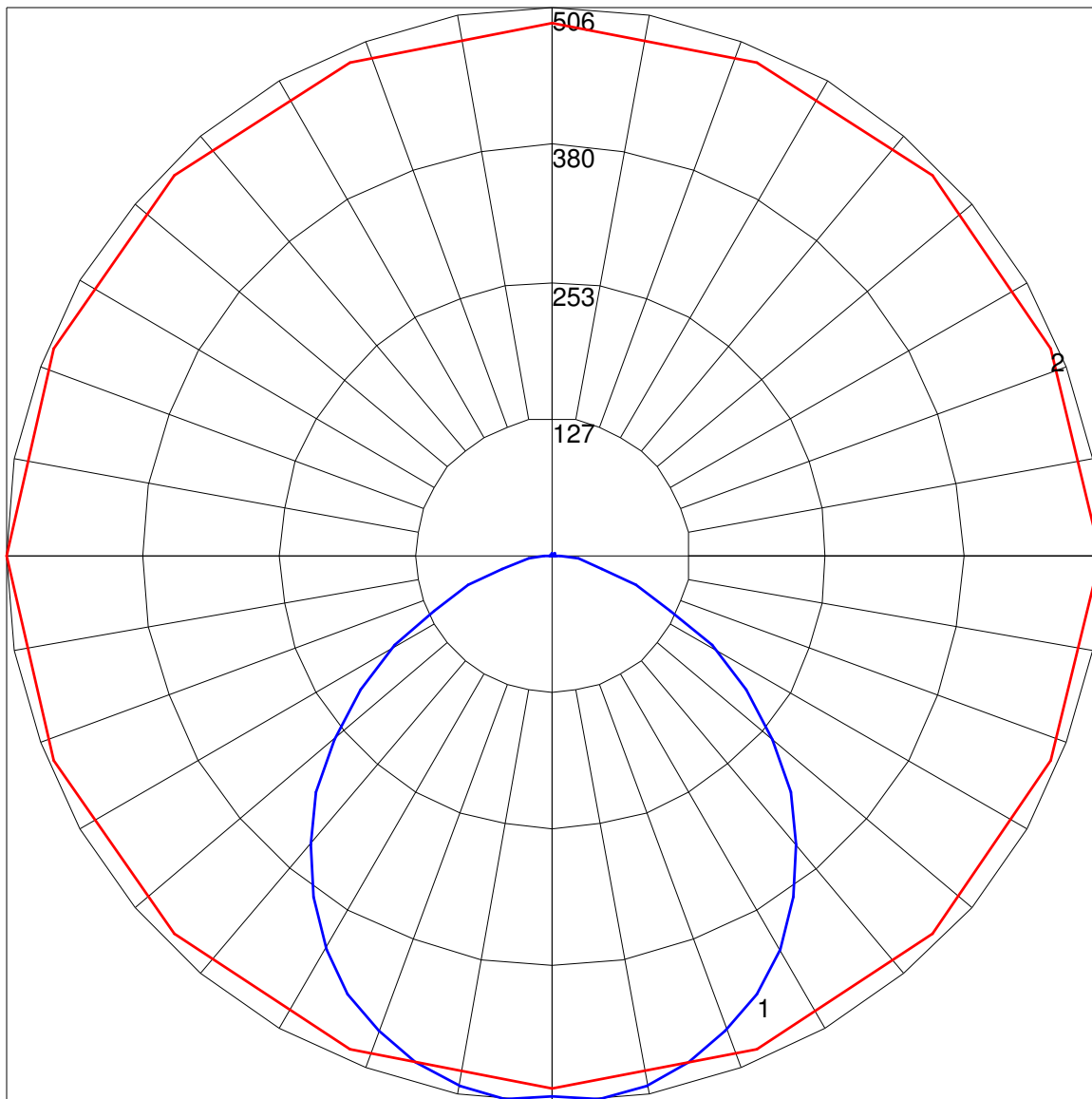
4H	2H	12.6	13.9	13.1	14.3	14.8	14.0	15.3	14.4	15.7	16.2
	3H	14.0	15.1	14.5	15.6	16.1	16.5	17.6	17.0	18.1	18.6
	4H	14.4	15.4	14.9	15.9	16.5	17.7	18.7	18.2	19.2	19.7
	6H	14.6	15.5	15.2	16.1	16.6	18.9	19.7	19.4	20.3	20.8
	8H	14.7	15.5	15.2	16.1	16.6	19.4	20.3	20.0	20.8	21.4
	12H	14.7	15.5	15.3	16.0	16.6	20.1	20.8	20.6	21.4	22.0
8H	4H	15.0	15.8	15.5	16.4	17.0	17.9	18.7	18.4	19.2	19.8
	6H	15.4	16.1	16.0	16.7	17.3	19.2	19.9	19.8	20.5	21.1
	8H	15.5	16.2	16.1	16.7	17.3	19.9	20.5	20.5	21.1	21.7
	12H	15.6	16.2	16.2	16.7	17.4	20.7	21.3	21.3	21.8	22.5
12H	4H	15.2	15.9	15.7	16.5	17.1	17.9	18.6	18.4	19.2	19.8
	6H	15.7	16.3	16.2	16.8	17.5	19.2	19.9	19.8	20.4	21.1
	8H	15.9	16.4	16.4	17.0	17.6	20.0	20.5	20.6	21.1	21.8

Maximum UGR = 22.5

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L40-840-HIAFR-(L30)-EM10W-DIM-UNV\_(EMER MODE).IES

## POLAR GRAPH



Maximum Candela = 506.052 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.)