



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-4-L30-940-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19830.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 14-SEPT-2020

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 2-56 LED 22"ARRAYS 4'SURFACE MOUNT LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] 39-4-L30-940-A-DIM-UNV

[LAMPCAT] HLM 90 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2539
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	115
Total Luminaire Watts	22
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.32
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.75 ft
Luminous Height	0.19 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2637	2382	2373
55	2164	1993	2060
65	1694	1603	1719
75	1184	1202	1404
85	423	938	1219

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 39-4-L30-940-A-DIM-UNV_.IES

CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	944.499	944.499	944.499	944.499	944.499
5	952.399	938.794	936.599	935.282	933.527
10	938.355	923.871	922.555	921.238	920.360
15	912.460	900.610	898.854	898.854	897.538
20	875.593	866.376	863.743	868.132	865.059
25	825.559	821.170	818.976	822.926	823.365
30	769.381	766.747	769.381	772.453	776.403
35	703.108	701.352	708.374	713.202	716.713
40	628.496	626.740	641.663	644.735	649.563
45	544.667	545.984	568.806	576.706	585.484
50	456.011	462.594	492.439	504.289	518.772
55	369.549	380.082	414.755	431.433	447.672
60	290.987	309.420	341.020	359.893	377.449
65	219.886	241.830	274.309	298.009	311.615
70	157.563	177.313	208.913	238.319	250.608
75	100.507	122.890	154.929	186.530	196.185
80	50.473	78.123	111.040	141.324	150.541
85	15.800	44.328	77.684	106.212	114.551
90	0.878	20.189	52.228	76.806	83.829
95	0.878	8.778	32.917	55.740	62.323
100	0.000	3.072	18.872	38.623	44.328
105	0.000	0.878	11.411	25.895	30.284
110	0.000	0.000	6.583	16.678	20.189
115	0.000	0.000	4.389	10.972	13.167
120	0.000	0.000	2.194	7.022	8.778
125	0.000	0.000	0.000	3.950	5.267
130	0.000	0.000	0.000	1.756	3.072
135	0.000	0.000	0.000	0.000	0.878
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 : 39-4-L30-940-A-DIM-UNV_.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	343.11	N.A.	13.50
0-30	721.76	N.A.	28.40
0-40	1164.1	N.A.	45.80
0-60	1965.89	N.A.	77.40
0-80	2398.05	N.A.	94.40
0-90	2480.46	N.A.	97.70
10-90	2391.32	N.A.	94.20
20-40	820.99	N.A.	32.30
20-50	1255.92	N.A.	49.50
40-70	1069.95	N.A.	42.10
60-80	432.16	N.A.	17.00
70-80	164.00	N.A.	6.50
80-90	82.41	N.A.	3.20
90-110	51.10	N.A.	2.00
90-120	56.76	N.A.	2.20
90-130	58.46	N.A.	2.30
90-150	58.67	N.A.	2.30
90-180	58.67	N.A.	2.30
110-180	7.57	N.A.	0.30
0-180	2539.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	89.14
10-20	253.97
20-30	378.65
30-40	442.34
40-50	434.93
50-60	366.86
60-70	268.16
70-80	164.00
80-90	82.41
90-100	36.33
100-110	14.77
110-120	5.66
120-130	1.70
130-140	0.21
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 39-4-L30-940-A-DIM-UNV_.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	119	119	119	119	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	86	88	85	83	81
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	73	70	68
3	90	79	71	65	87	78	70	64	74	68	63	71	66	61	68	64	60	58
4	82	71	62	55	80	69	61	55	66	59	54	64	58	53	61	56	52	50
5	76	63	54	48	74	62	54	47	60	52	47	57	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	45	40	50	44	40	38
7	65	52	43	37	63	51	43	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	42	36	32	30
9	57	44	35	30	55	43	35	30	42	34	30	40	34	29	39	33	29	27
10	53	40	32	27	52	40	32	27	38	32	27	37	31	27	36	31	26	25

IES INDOOR REPORT
PHOTOMETRIC FILENAME : 39-4-L30-940-A-DIM-UNV_.IES

UGR TABLE - CORRECTED

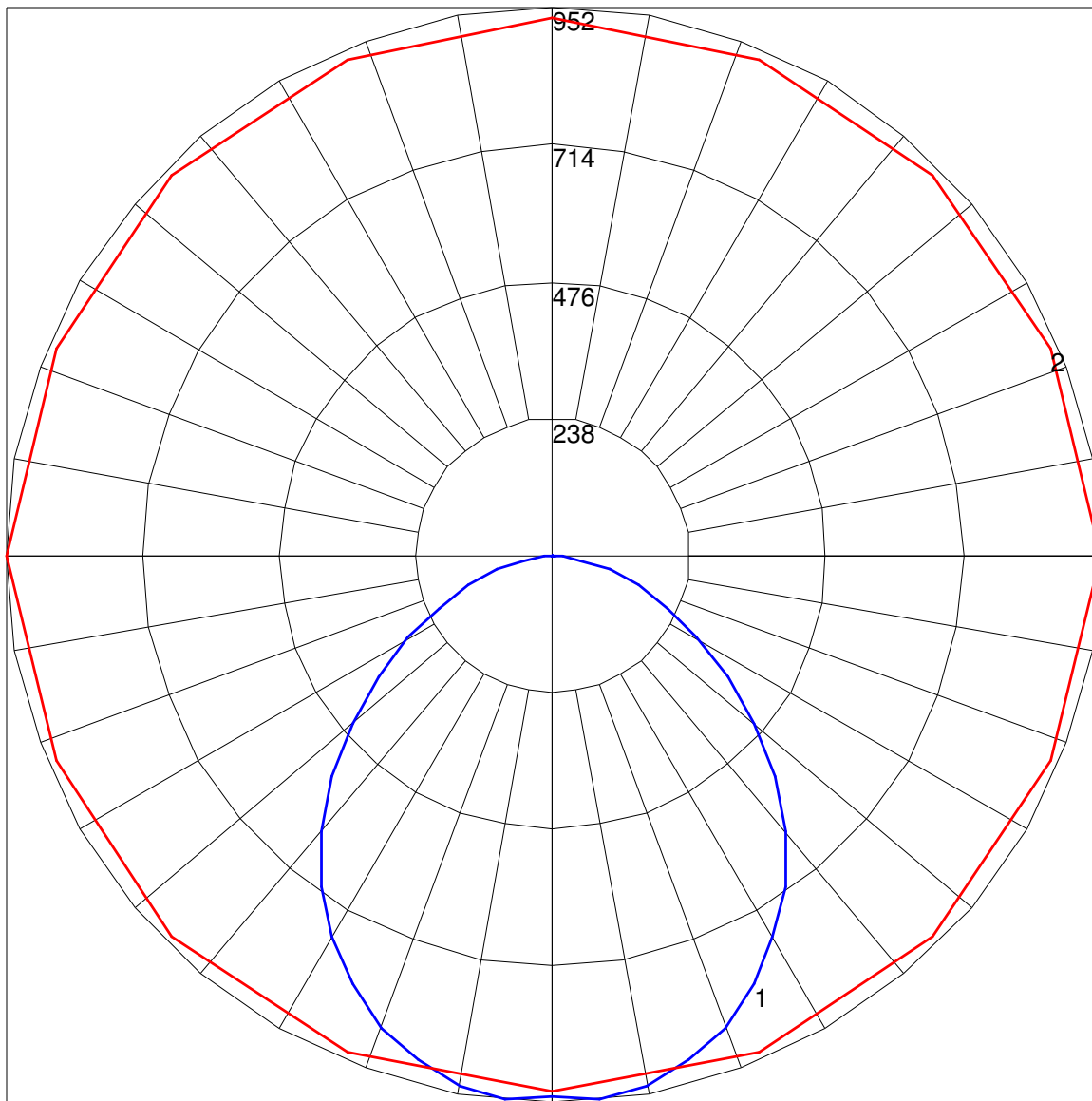
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	13.1	14.6	13.5	15.0	15.4	14.7	16.3	15.1	16.6	17.0
	3H	14.3	15.7	14.7	16.1	16.5	16.6	18.0	17.0	18.4	18.8
	4H	14.7	16.0	15.1	16.4	16.8	17.4	18.8	17.9	19.2	19.6
	6H	14.9	16.1	15.3	16.5	17.0	18.2	19.5	18.7	19.9	20.3
	8H	14.9	16.1	15.4	16.5	17.0	18.6	19.8	19.1	20.3	20.7
	12H	14.9	16.0	15.3	16.5	16.9	19.0	20.2	19.5	20.6	21.1
4H	2H	13.8	15.1	14.2	15.5	15.9	15.1	16.4	15.5	16.8	17.2
	3H	15.2	16.4	15.7	16.8	17.3	17.2	18.3	17.7	18.8	19.2
	4H	15.7	16.7	16.2	17.2	17.7	18.2	19.2	18.7	19.7	20.2
	6H	16.0	16.9	16.5	17.4	17.9	19.2	20.1	19.7	20.6	21.1
	8H	16.1	16.9	16.5	17.4	17.9	19.6	20.5	20.1	21.0	21.5
	12H	16.1	16.8	16.6	17.4	17.9	20.2	20.9	20.7	21.4	22.0
8H	4H	16.1	17.0	16.6	17.5	18.0	18.4	19.2	18.8	19.7	20.2
	6H	16.6	17.3	17.1	17.8	18.3	19.5	20.2	20.0	20.7	21.2
	8H	16.7	17.3	17.2	17.9	18.4	20.1	20.7	20.6	21.3	21.8
	12H	16.8	17.3	17.3	17.9	18.5	20.7	21.3	21.3	21.8	22.4
12H	4H	16.3	17.0	16.8	17.5	18.0	18.4	19.1	18.9	19.6	20.2
	6H	16.7	17.4	17.3	17.9	18.5	19.5	20.2	20.1	20.6	21.2
	8H	16.9	17.5	17.5	18.0	18.6	20.2	20.7	20.7	21.3	21.9

Maximum UGR = 22.4

POLAR GRAPH



Maximum Candela = 952.399 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.)