



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-4-L52-840-A-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 19011.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 04-07-2022

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 4' SURFACE MOUNT LED LUMINAIRE

[MORE] WITH FROSTED ACRYLIC RIBBED LENS

[LUMCAT] 39-4-L52-840-A-DIM-UNV

[LAMPCAT]HLM 80 CRI, 4000K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] INDOOR, ARCHITECTURAL, COMMERCIAL, DIRECT, LINEAR

[_SEARCH_MOUNTING]SURFACE, SUSPENDED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5362
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	37.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.01 ft
Luminous Width (90-270)	0.79 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5316	4809	4752
55	4435	3952	3973
65	3669	3235	3450
75	2676	2565	2978
85	1578	2137	2774

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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	2049.485	2049.485	2049.485	2049.485	2049.485
5	2060.866	2059.831	2058.796	2058.796	2059.831
10	2015.344	2014.310	2014.310	2015.344	2017.414
15	1943.959	1946.028	1949.132	1951.201	1953.270
20	1884.988	1886.023	1892.230	1893.265	1893.265
25	1726.699	1730.837	1736.010	1739.114	1739.114
30	1595.309	1600.481	1607.723	1611.862	1612.896
35	1484.609	1492.886	1504.266	1509.439	1512.543
40	1302.525	1312.871	1328.389	1337.700	1341.839
45	1157.685	1172.169	1192.860	1207.344	1212.517
50	967.324	981.808	1009.741	1031.467	1039.744
55	797.654	815.242	849.383	875.247	886.627
60	636.261	654.883	691.093	729.373	744.891
65	500.732	520.389	566.945	619.708	636.261
70	364.169	387.964	449.004	505.905	528.666
75	237.951	266.919	334.166	395.206	416.932
80	139.667	176.912	250.366	312.440	334.166
85	61.040	101.388	173.808	232.778	253.470
90	0.000	44.487	103.457	151.047	169.670
95	0.000	18.622	66.213	108.630	125.183
100	0.000	0.000	40.348	73.455	84.835
105	0.000	0.000	25.864	48.625	58.971
110	0.000	0.000	0.000	33.106	40.348
115	0.000	0.000	0.000	24.830	30.003
120	0.000	0.000	0.000	20.691	22.761
125	0.000	0.000	0.000	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
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

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	746.39	N.A.	13.90
0-30	1549.35	N.A.	28.90
0-40	2478.52	N.A.	46.20
0-60	4145.85	N.A.	77.30
0-80	5066.86	N.A.	94.50
0-90	5250.2	N.A.	97.90
10-90	5055.32	N.A.	94.30
20-40	1732.13	N.A.	32.30
20-50	2641.47	N.A.	49.30
40-70	2231.04	N.A.	41.60
60-80	921.01	N.A.	17.20
70-80	357.30	N.A.	6.70
80-90	183.34	N.A.	3.40
90-110	99.49	N.A.	1.90
90-120	109.75	N.A.	2.00
90-130	111.61	N.A.	2.10
90-150	111.61	N.A.	2.10
90-180	111.61	N.A.	2.10
110-180	12.12	N.A.	0.20
0-180	5361.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	194.88
10-20	551.51
20-30	802.96
30-40	929.17
40-50	909.34
50-60	757.99
60-70	563.71
70-80	357.30
80-90	183.34
90-100	71.81
100-110	27.68
110-120	10.26
120-130	1.85
130-140	0.00
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	119	119	119	119	116	116	116	116	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	86	84	81
2	98	90	83	77	95	88	82	76	84	79	74	80	76	72	77	74	70	68
3	90	79	71	65	87	78	70	64	74	68	63	71	66	61	69	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	48	60	52	47	58	51	46	55	50	45	43
6	70	57	48	42	68	56	48	42	54	47	41	52	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	46	40	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	36	30	55	43	35	30	42	35	30	41	34	30	39	34	29	27
10	54	40	33	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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	15.7	17.2	16.1	17.6	18.0	16.8	18.4	17.2	18.8	19.1
	3H	17.0	18.5	17.4	18.8	19.2	18.9	20.3	19.3	20.7	21.1
	4H	17.4	18.8	17.9	19.2	19.6	19.8	21.1	20.2	21.5	21.9
	6H	17.7	19.0	18.1	19.4	19.8	20.7	21.9	21.1	22.3	22.8
	8H	17.8	19.0	18.2	19.4	19.8	21.1	22.3	21.6	22.7	23.2
	12H	17.8	18.9	18.3	19.4	19.8	21.5	22.7	22.0	23.1	23.6

UGR Viewed Endwise

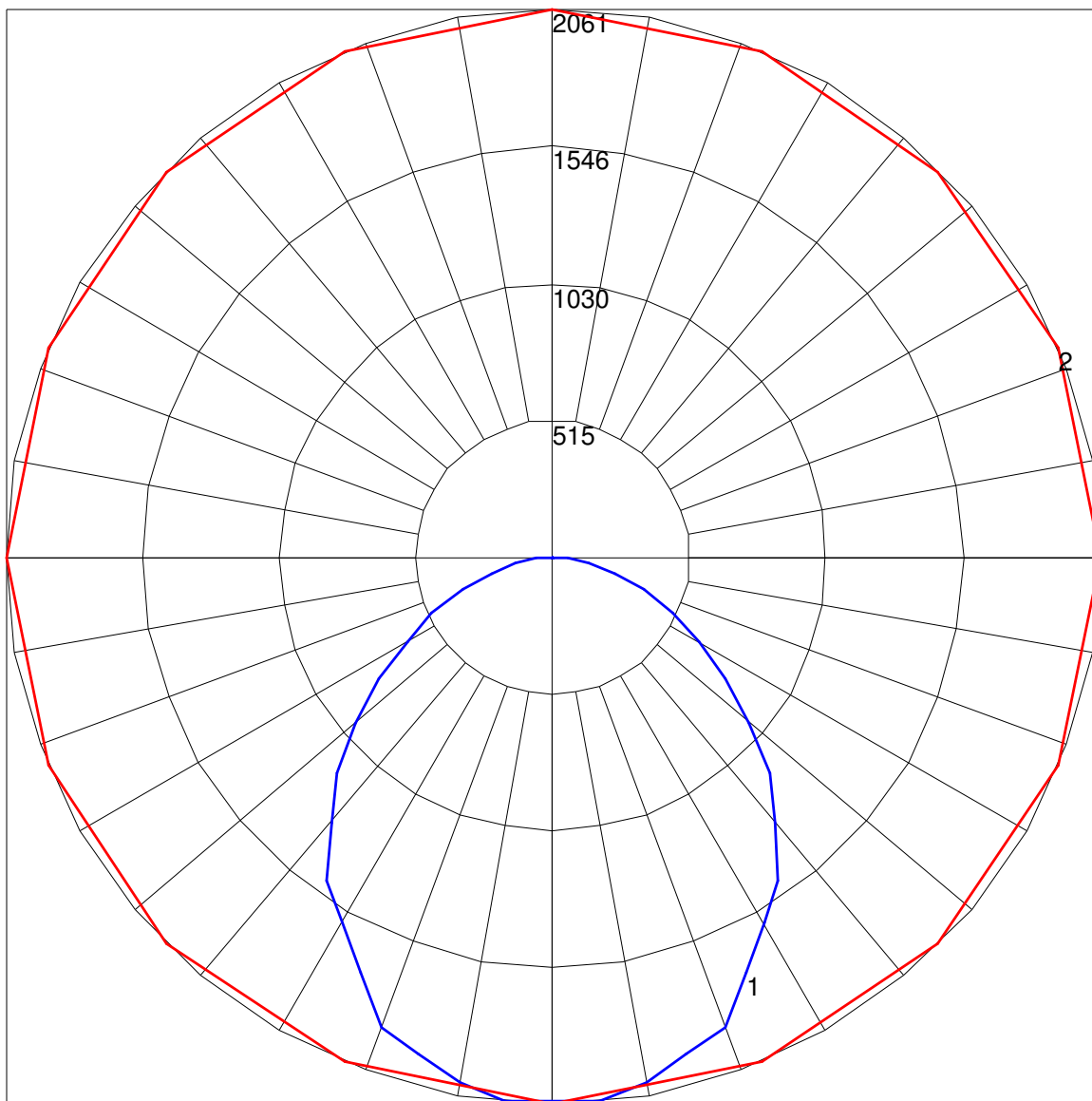
4H	2H	16.3	17.7	16.8	18.1	18.5	17.3	18.6	17.7	19.0	19.4
	3H	17.9	19.0	18.4	19.5	19.9	19.5	20.7	20.0	21.1	21.5
	4H	18.4	19.5	18.9	19.9	20.4	20.6	21.6	21.1	22.1	22.5
	6H	18.8	19.7	19.3	20.2	20.7	21.7	22.6	22.1	23.0	23.5
	8H	18.9	19.8	19.4	20.2	20.7	22.2	23.0	22.7	23.5	24.0
	12H	19.0	19.7	19.5	20.2	20.8	22.7	23.5	23.3	24.0	24.5

8H	4H	18.9	19.7	19.4	20.2	20.7	20.8	21.6	21.3	22.1	22.6
	6H	19.4	20.1	19.9	20.6	21.1	22.0	22.7	22.5	23.2	23.8
	8H	19.5	20.2	20.1	20.7	21.3	22.6	23.3	23.2	23.8	24.4
	12H	19.7	20.2	20.2	20.8	21.4	23.4	23.9	23.9	24.5	25.1

12H	4H	19.0	19.7	19.5	20.3	20.8	20.8	21.5	21.3	22.1	22.6
	6H	19.5	20.2	20.1	20.7	21.3	22.0	22.7	22.6	23.2	23.8
	8H	19.8	20.4	20.3	20.9	21.5	22.7	23.3	23.3	23.8	24.4

Maximum UGR = 25.1

POLAR GRAPH



Maximum Candela = 2060.866 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.)