



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 39-4-L52-840-A-(L44)-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  
[ISSUE DATE] 12-05-2022  
[MANUFAC] WILLIAMS INDOOR  
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
[LUMINAIRE] 4' LINEAR LED LUMINAIRE  
[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC RIBBED LENS  
[LUMCAT] 39-4-L52-840-A-(L44)-DIM-UNV  
[LAMPCAT] HLM 80 CRI 4000K CCT  
[SEARCH\_SOURCETYPE] LED  
[SEARCH\_APPLICATION] Indoor, Architectural, Commercial, Direct, Linear  
[SEARCH\_MOUNTING] Pendant, Surface

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4476
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	30.5
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	4437	4014	3966
55	3702	3299	3316
65	3063	2700	2880
75	2233	2141	2486
85	1317	1784	2315

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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>
<b>0</b>	1710.777	1710.777	1710.777	1710.777	1710.777
<b>5</b>	1720.276	1719.413	1718.549	1718.549	1719.413
<b>10</b>	1682.278	1681.415	1681.415	1682.278	1684.005
<b>15</b>	1622.690	1624.418	1627.008	1628.735	1630.463
<b>20</b>	1573.466	1574.329	1579.511	1580.374	1580.374
<b>25</b>	1441.336	1444.790	1449.108	1451.699	1451.699
<b>30</b>	1331.660	1335.978	1342.023	1345.477	1346.341
<b>35</b>	1239.255	1246.164	1255.664	1259.981	1262.572
<b>40</b>	1087.263	1095.899	1108.853	1116.625	1120.079
<b>45</b>	966.360	978.450	995.722	1007.812	1012.130
<b>50</b>	807.459	819.549	842.866	861.002	867.910
<b>55</b>	665.830	680.511	709.009	730.599	740.099
<b>60</b>	531.109	546.654	576.880	608.833	621.787
<b>65</b>	417.979	434.387	473.249	517.292	531.109
<b>70</b>	303.985	323.847	374.799	422.297	441.296
<b>75</b>	198.626	222.807	278.940	329.892	348.028
<b>80</b>	116.585	147.674	208.989	260.805	278.940
<b>85</b>	50.952	84.632	145.084	194.308	211.580
<b>90</b>	0.000	37.134	86.359	126.085	141.629
<b>95</b>	0.000	15.545	55.270	90.677	104.495
<b>100</b>	0.000	0.000	33.680	61.315	70.815
<b>105</b>	0.000	0.000	21.590	40.589	49.225
<b>110</b>	0.000	0.000	0.000	27.635	33.680
<b>115</b>	0.000	0.000	0.000	20.726	25.044
<b>120</b>	0.000	0.000	0.000	17.272	18.999
<b>125</b>	0.000	0.000	0.000	0.000	0.000
<b>130</b>	0.000	0.000	0.000	0.000	0.000
<b>135</b>	0.000	0.000	0.000	0.000	0.000
<b>140</b>	0.000	0.000	0.000	0.000	0.000
<b>145</b>	0.000	0.000	0.000	0.000	0.000
<b>150</b>	0.000	0.000	0.000	0.000	0.000
<b>155</b>	0.000	0.000	0.000	0.000	0.000
<b>160</b>	0.000	0.000	0.000	0.000	0.000
<b>165</b>	0.000	0.000	0.000	0.000	0.000
<b>170</b>	0.000	0.000	0.000	0.000	0.000
<b>175</b>	0.000	0.000	0.000	0.000	0.000
<b>180</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	623.04	N.A.	13.90
0-30	1293.3	N.A.	28.90
0-40	2068.91	N.A.	46.20
0-60	3460.69	N.A.	77.30
0-80	4229.48	N.A.	94.50
0-90	4382.53	N.A.	97.90
10-90	4219.85	N.A.	94.30
20-40	1445.87	N.A.	32.30
20-50	2204.93	N.A.	49.30
40-70	1862.33	N.A.	41.60
60-80	768.80	N.A.	17.20
70-80	298.25	N.A.	6.70
80-90	153.04	N.A.	3.40
90-110	83.05	N.A.	1.90
90-120	91.61	N.A.	2.00
90-130	93.16	N.A.	2.10
90-150	93.16	N.A.	2.10
90-180	93.16	N.A.	2.10
110-180	10.11	N.A.	0.20
0-180	4475.69	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	162.67
10-20	460.37
20-30	670.26
30-40	775.61
40-50	759.06
50-60	632.72
60-70	470.55
70-80	298.25
80-90	153.04
90-100	59.94
100-110	23.11
110-120	8.57
120-130	1.55
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	83	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	50	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	53	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	15.1	16.6	15.5	17.0	17.4	16.2	17.8	16.6	18.2	18.5
	3H	16.4	17.9	16.8	18.2	18.6	18.3	19.7	18.7	20.1	20.5
	4H	16.8	18.2	17.3	18.6	19.0	19.2	20.5	19.6	20.9	21.3
	6H	17.1	18.4	17.5	18.8	19.2	20.1	21.3	20.5	21.7	22.2
	8H	17.2	18.4	17.6	18.8	19.2	20.5	21.7	21.0	22.1	22.6
	12H	17.2	18.3	17.7	18.8	19.2	20.9	22.1	21.4	22.5	23.0

UGR Viewed Endwise

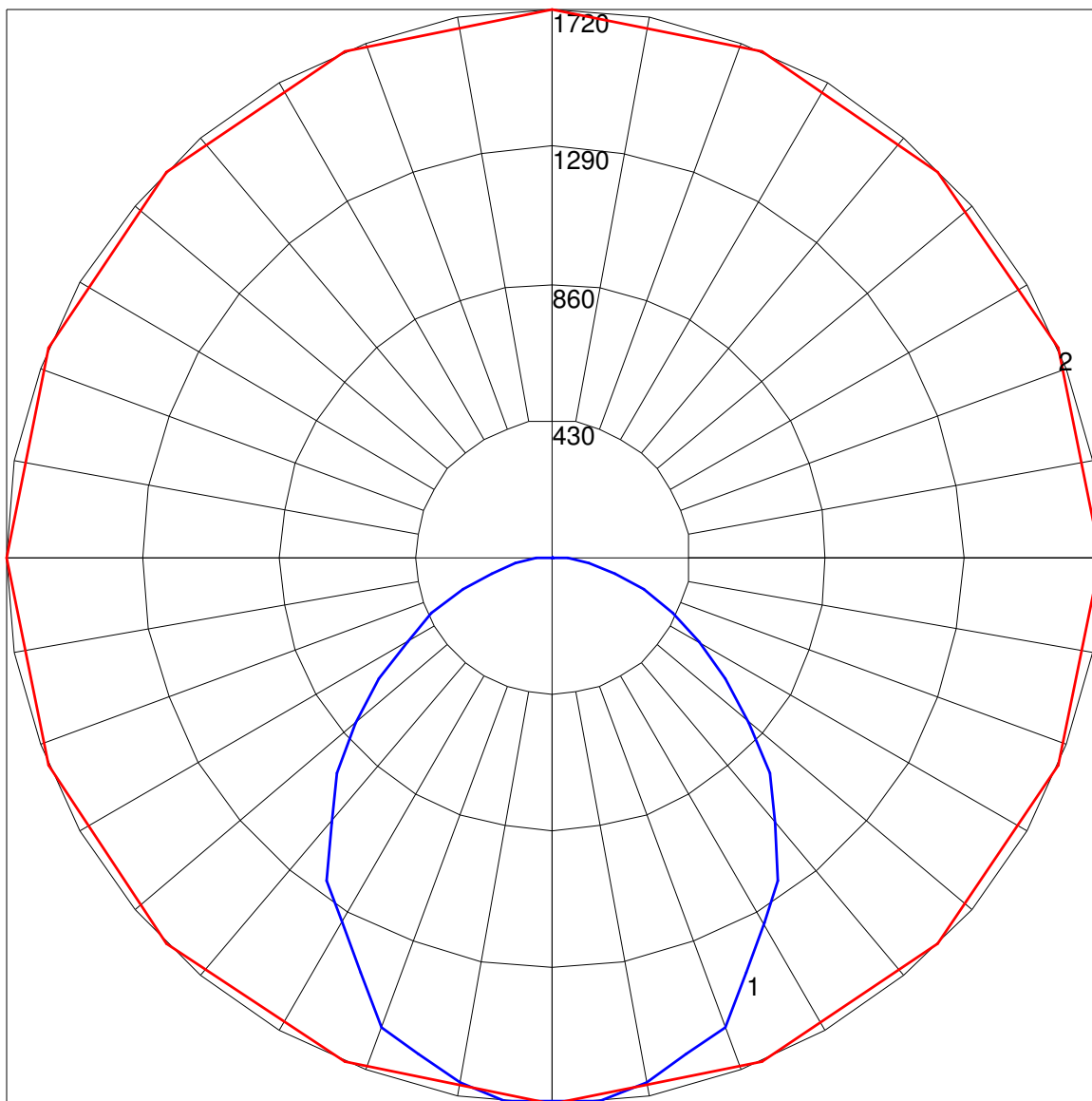
4H	2H	15.7	17.1	16.2	17.5	17.9	16.7	18.0	17.1	18.4	18.8
	3H	17.3	18.4	17.8	18.9	19.3	18.9	20.1	19.4	20.5	20.9
	4H	17.8	18.9	18.3	19.3	19.8	20.0	21.0	20.5	21.5	21.9
	6H	18.2	19.1	18.7	19.6	20.1	21.1	22.0	21.5	22.4	22.9
	8H	18.3	19.2	18.8	19.6	20.1	21.6	22.4	22.1	22.9	23.4
	12H	18.4	19.1	18.9	19.6	20.2	22.1	22.9	22.7	23.4	23.9

8H	4H	18.3	19.1	18.8	19.6	20.1	20.2	21.0	20.7	21.5	22.0
	6H	18.8	19.5	19.3	20.0	20.5	21.4	22.1	21.9	22.6	23.2
	8H	18.9	19.6	19.5	20.1	20.7	22.0	22.7	22.6	23.2	23.8
	12H	19.1	19.6	19.6	20.2	20.8	22.8	23.3	23.3	23.9	24.5

12H	4H	18.4	19.1	18.9	19.7	20.2	20.2	20.9	20.7	21.5	22.0
	6H	18.9	19.6	19.5	20.1	20.7	21.4	22.1	22.0	22.6	23.2
	8H	19.2	19.8	19.7	20.3	20.9	22.1	22.7	22.7	23.2	23.8

Maximum UGR = 24.5

POLAR GRAPH



Maximum Candela = 1720.276 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.)