



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 29-4-L54-930-AF-(L27)-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GEN FROM BALLABS TEST NO. 20306.0  
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC  
 [ISSUEDATE] 01-07-2021  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836  
 [LUMINAIRE] 4' WALL MNT BED LIGHT LED  
 [MORE] WITH FROSTED PRISMATIC DIFFUSER TOP/BTM  
 [LUMCAT] 29-4-L54-930-AF-(L27)-DIM-UNV  
 [LAMPCAT] HLM 90 CRI 3000K CCT  
 [ \_SEARCH\_SOURCETYPE] LED  
 [ \_SEARCH\_APPLICATION] Indoor, Corridor, Healthcare, Direct-Indirect  
 [ \_SEARCH\_MOUNTING] Wall

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2294
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	107
Total Luminaire Watts	21.5
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.40 ft
Luminous Width (90-270)	3.96 ft
Luminous Height	0.23 ft



### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3863	2957	1746
55	4143	3132	1703
65	3887	2942	1608
75	3562	2520	1504
85	3167	2164	1453

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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>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>
<b>0</b>	239.961	239.961	239.961	239.961	239.961	239.961	239.961	239.961	239.961
<b>5</b>	236.767	231.870	235.490	231.444	241.877	211.642	204.190	196.951	194.609
<b>10</b>	270.195	260.827	255.930	240.387	241.238	207.384	194.609	185.666	183.537
<b>15</b>	311.715	298.301	278.499	249.116	239.961	201.848	183.537	175.020	170.975
<b>20</b>	363.242	341.950	306.179	257.633	237.406	192.693	171.614	161.393	157.774
<b>25</b>	424.775	397.735	335.349	266.576	232.722	183.537	158.838	146.489	142.018
<b>30</b>	485.245	450.539	368.139	272.538	226.121	172.465	142.869	129.030	123.281
<b>35</b>	545.288	502.065	399.225	276.583	216.965	157.135	125.623	111.144	104.331
<b>40</b>	595.324	546.779	424.562	276.157	205.255	140.101	107.312	92.833	85.381
<b>45</b>	628.327	577.226	441.809	271.473	190.350	122.429	90.278	75.374	68.134
<b>50</b>	643.657	589.788	444.151	259.762	173.104	104.331	72.393	58.127	51.952
<b>55</b>	632.372	577.226	430.098	242.516	154.154	87.297	55.785	43.010	37.687
<b>60</b>	591.066	540.604	398.586	218.456	133.501	69.625	40.029	27.893	23.208
<b>65</b>	536.345	489.929	356.002	188.221	111.357	53.017	25.337	14.904	10.646
<b>70</b>	482.264	437.764	306.392	156.496	89.852	36.196	10.859	1.916	0.000
<b>75</b>	424.350	375.591	254.652	125.623	68.986	20.653	0.000	0.000	0.000
<b>80</b>	361.112	314.057	208.023	96.666	49.610	5.962	0.000	0.000	0.000
<b>85</b>	306.179	267.215	168.846	70.902	30.660	2.768	0.000	0.000	0.000
<b>90</b>	267.215	227.186	136.695	51.740	25.976	3.833	0.000	0.000	0.639
<b>95</b>	261.892	222.927	132.862	58.127	40.455	14.479	5.962	7.452	8.091
<b>100</b>	258.911	219.946	141.379	77.716	55.146	25.550	18.098	15.969	11.924
<b>105</b>	260.827	232.083	167.142	100.498	69.412	36.622	29.596	28.531	16.182
<b>110</b>	286.590	258.485	199.932	128.391	87.510	43.862	41.519	42.158	42.584
<b>115</b>	327.045	298.727	243.580	163.948	108.589	50.036	52.165	56.850	58.553
<b>120</b>	361.538	338.756	297.662	209.087	131.797	54.082	55.785	70.689	73.244
<b>125</b>	412.639	391.773	348.763	254.652	155.006	61.960	57.488	77.077	83.678
<b>130</b>	472.257	451.390	406.251	292.126	177.788	72.393	62.598	73.883	90.278
<b>135</b>	527.829	504.407	452.881	325.555	199.506	79.845	68.347	64.089	92.620
<b>140</b>	564.664	541.243	482.051	346.847	215.688	82.400	72.393	62.598	90.917
<b>145</b>	577.013	552.314	471.405	351.957	227.399	92.833	75.587	64.728	80.910
<b>150</b>	557.850	535.068	473.108	347.485	235.915	104.331	75.587	70.477	58.766
<b>155</b>	512.711	495.465	440.531	332.581	238.683	122.216	75.374	74.096	48.333
<b>160</b>	453.945	435.634	395.392	313.844	240.174	140.314	86.658	76.225	54.933
<b>165</b>	386.450	371.332	349.189	290.210	240.813	164.587	113.061	83.039	70.902
<b>170</b>	311.502	305.327	295.959	264.660	241.664	182.898	150.747	113.273	100.072
<b>175</b>	244.006	241.664	248.052	242.516	242.942	204.403	189.712	170.975	152.664
<b>180</b>	236.128	236.128	236.128	236.128	236.128	236.128	236.128	236.128	236.128

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	87.94	N.A.	3.80
0-30	203.90	N.A.	8.90
0-40	369.41	N.A.	16.10
0-60	786.83	N.A.	34.30
0-80	1114.3	N.A.	48.60
0-90	1210.45	N.A.	52.80
10-90	1188.92	N.A.	51.80
20-40	281.47	N.A.	12.30
20-50	485.09	N.A.	21.10
40-70	604.52	N.A.	26.40
60-80	327.47	N.A.	14.30
70-80	140.37	N.A.	6.10
80-90	96.15	N.A.	4.20
90-110	193.01	N.A.	8.40
90-120	337.77	N.A.	14.70
90-130	516.34	N.A.	22.50
90-150	877.65	N.A.	38.30
90-180	1083.46	N.A.	47.20
110-180	890.44	N.A.	38.80
0-180	2293.91	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	21.53
10-20	66.41
20-30	115.97
30-40	165.50
40-50	203.62
50-60	213.80
60-70	187.10
70-80	140.37
80-90	96.15
90-100	85.33
100-110	107.68
110-120	144.76
120-130	178.57
130-140	192.27
140-150	169.03
150-160	119.06
160-170	65.68
170-180	21.07

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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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	96	91	86	82	89	84	80	76	71	68	65	59	57	55	49	47	45	40
2	87	78	71	65	80	72	66	61	61	56	52	51	47	44	41	39	36	32
3	78	68	59	53	72	62	55	49	53	47	42	44	40	36	36	32	30	25
4	71	59	50	44	65	55	47	41	46	40	35	38	34	30	31	28	25	21
5	65	52	43	37	59	48	40	34	41	35	30	34	29	25	28	24	21	17
6	60	46	38	31	55	43	35	29	36	30	25	30	25	22	25	21	18	15
7	55	42	33	27	50	39	31	25	33	27	22	27	22	19	22	18	15	13
8	51	38	29	24	47	35	27	22	30	24	19	25	20	16	20	16	14	11
9	47	34	26	21	43	32	24	20	27	21	17	23	18	15	19	15	12	10
10	44	31	24	18	40	29	22	17	25	19	15	21	16	13	17	13	11	9

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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	18.0	19.0	18.9	19.9	21.1	8.2	9.2	9.2	10.2	11.4
	3H	20.7	21.6	21.6	22.5	23.8	9.7	10.6	10.6	11.5	12.8
	4H	22.0	22.8	22.9	23.8	25.0	10.2	11.0	11.1	12.0	13.2
	6H	23.2	24.0	24.2	25.0	26.3	10.6	11.4	11.5	12.3	13.6
	8H	23.9	24.6	24.8	25.6	26.9	10.7	11.4	11.6	12.4	13.7
	12H	24.6	25.3	25.5	26.3	27.6	10.8	11.5	11.7	12.5	13.7

UGR Viewed Endwise

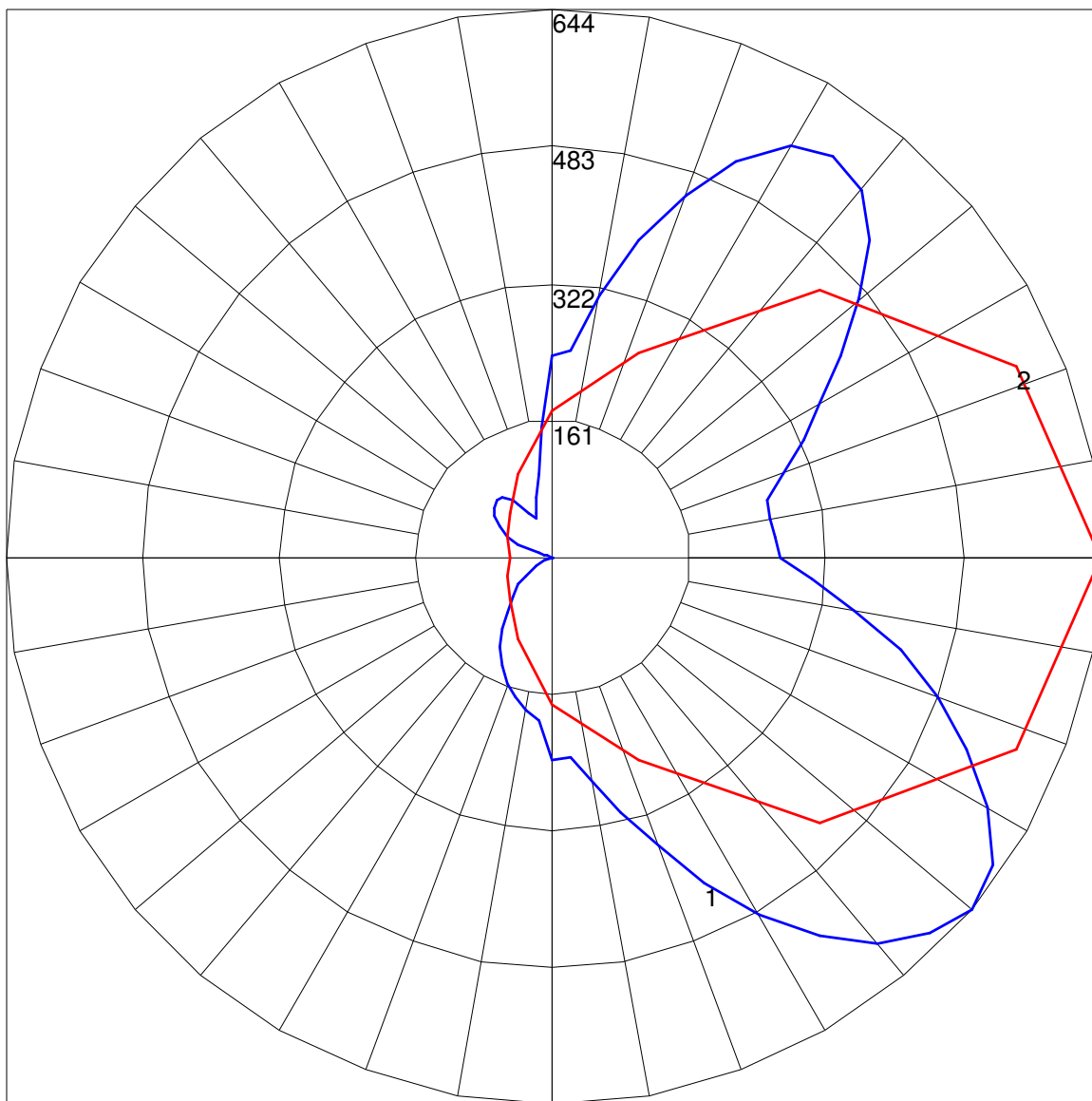
4H	2H	18.1	19.0	19.1	19.9	21.2	10.5	11.4	11.5	12.3	13.6
	3H	21.1	21.8	22.0	22.8	24.0	12.0	12.7	13.0	13.7	15.0
	4H	22.6	23.2	23.5	24.2	25.5	12.5	13.2	13.5	14.2	15.4
	6H	24.0	24.6	25.0	25.6	26.9	12.9	13.5	13.8	14.5	15.7
	8H	24.8	25.3	25.8	26.3	27.6	13.0	13.5	14.0	14.5	15.8
	12H	25.6	26.1	26.6	27.1	28.4	13.1	13.6	14.1	14.6	15.9

8H	4H	22.6	23.2	23.6	24.2	25.5	14.0	14.5	14.9	15.5	16.8
	6H	24.3	24.7	25.3	25.7	27.1	14.5	15.0	15.5	16.0	17.3
	8H	25.1	25.6	26.2	26.6	27.9	14.7	15.1	15.7	16.1	17.4
	12H	26.1	26.5	27.2	27.5	28.9	14.8	15.2	15.8	16.2	17.5

12H	4H	22.6	23.1	23.6	24.1	25.4	14.4	14.9	15.4	15.9	17.2
	6H	24.2	24.7	25.2	25.7	27.0	15.1	15.5	16.1	16.5	17.8
	8H	25.2	25.6	26.2	26.6	27.9	15.3	15.7	16.4	16.7	18.1

Maximum UGR = 28.9

POLAR GRAPH



Maximum Candela = 643.657 Located At Horizontal Angle = 0, Vertical Angle = 50

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

# 2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)