



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : 29-4-L54-940-AF-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] 03-JAN-2024  
 [MANUFAC] WILLIAMS INDOOR  
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO  
 [LUMINAIRE] 4' LED WALL MOUNT LUMINAIRE  
 [MORE] WHITE REFL W/CLEAR PRISMATIC DIFFUSER TOP/BTM  
 [MORE] 0-10V DIMMING DRIVER  
 [LUMCAT] 29-4-L54-940-AF-DIM-UNV  
 [LAMPCAT] HLMX 90 CRI 4000K 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	4656
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	110
Total Luminaire Watts	42.2
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	7840	6001	3544
55	8409	6358	3457
65	7889	5971	3264
75	7229	5115	3053
85	6429	4393	2949

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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>	487.035	487.035	487.035	487.035	487.035	487.035	487.035	487.035	487.035
<b>5</b>	480.552	470.613	477.960	469.749	490.924	429.559	414.433	399.740	394.986
<b>10</b>	548.400	529.386	519.446	487.899	489.628	420.916	394.986	376.836	372.515
<b>15</b>	632.670	605.444	565.254	505.617	487.035	409.680	372.515	355.229	347.018
<b>20</b>	737.250	694.035	621.434	522.903	481.849	391.097	348.314	327.571	320.224
<b>25</b>	862.142	807.259	680.639	541.054	472.342	372.515	322.385	297.320	288.245
<b>30</b>	984.873	914.433	747.190	553.154	458.945	350.043	289.974	261.884	250.216
<b>35</b>	1106.740	1019.013	810.284	561.365	440.362	318.928	254.969	225.583	211.754
<b>40</b>	1208.296	1109.765	861.710	560.500	416.594	284.356	217.804	188.418	173.293
<b>45</b>	1275.279	1171.563	896.714	550.993	386.343	248.487	183.232	152.982	138.288
<b>50</b>	1306.394	1197.060	901.468	527.225	351.339	211.754	146.932	117.977	105.445
<b>55</b>	1283.490	1171.563	872.946	492.221	312.878	177.182	113.224	87.295	76.491
<b>60</b>	1199.653	1097.233	808.988	443.387	270.959	141.314	81.244	56.612	47.105
<b>65</b>	1088.590	994.381	722.557	382.022	226.015	107.606	51.426	30.251	21.608
<b>70</b>	978.823	888.503	621.866	317.631	182.368	73.466	22.040	3.889	0.000
<b>75</b>	861.278	762.315	516.853	254.969	140.017	41.919	0.000	0.000	0.000
<b>80</b>	732.929	637.423	422.212	196.197	100.691	12.100	0.000	0.000	0.000
<b>85</b>	621.434	542.350	342.696	143.906	62.230	5.618	0.000	0.000	0.000
<b>90</b>	542.350	461.106	277.441	105.013	52.722	7.779	0.000	0.000	1.296
<b>95</b>	531.546	452.463	269.663	117.977	82.109	29.386	12.100	15.125	16.422
<b>100</b>	525.496	446.412	286.949	157.735	111.927	51.858	36.733	32.411	24.200
<b>105</b>	529.386	471.045	339.239	203.976	140.881	74.330	60.069	57.908	32.844
<b>110</b>	581.676	524.632	405.790	260.587	177.614	89.023	84.270	85.566	86.430
<b>115</b>	663.785	606.309	494.381	332.757	220.397	101.556	105.877	115.384	118.842
<b>120</b>	733.793	687.553	604.148	424.373	267.502	109.766	113.224	143.474	148.660
<b>125</b>	837.510	795.159	707.864	516.853	314.606	125.756	116.681	156.439	169.836
<b>130</b>	958.512	916.161	824.545	592.912	360.846	146.932	127.053	149.957	183.232
<b>135</b>	1071.304	1023.767	919.186	660.760	404.926	162.057	138.721	130.078	187.986
<b>140</b>	1146.066	1098.529	978.391	703.975	437.769	167.243	146.932	127.053	184.529
<b>145</b>	1171.131	1121.001	956.783	714.346	461.538	188.418	153.414	131.374	164.218
<b>150</b>	1132.237	1085.997	960.241	705.271	478.824	211.754	153.414	143.042	119.274
<b>155</b>	1040.621	1005.617	894.121	675.021	484.442	248.055	152.982	150.389	98.098
<b>160</b>	921.347	884.182	802.505	636.991	487.467	284.788	175.886	154.710	111.495
<b>165</b>	784.355	753.672	708.728	589.022	488.763	334.053	229.472	168.539	143.906
<b>170</b>	632.238	619.705	600.691	537.164	490.492	371.218	305.963	229.905	203.111
<b>175</b>	495.246	490.492	503.456	492.221	493.085	414.865	385.047	347.018	309.853
<b>180</b>	479.256	479.256	479.256	479.256	479.256	479.256	479.256	479.256	479.256

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	178.48	N.A.	3.80
0-30	413.85	N.A.	8.90
0-40	749.77	N.A.	16.10
0-60	1596.98	N.A.	34.30
0-80	2261.62	N.A.	48.60
0-90	2456.78	N.A.	52.80
10-90	2413.08	N.A.	51.80
20-40	571.29	N.A.	12.30
20-50	984.56	N.A.	21.10
40-70	1226.96	N.A.	26.40
60-80	664.64	N.A.	14.30
70-80	284.90	N.A.	6.10
80-90	195.16	N.A.	4.20
90-110	391.75	N.A.	8.40
90-120	685.56	N.A.	14.70
90-130	1047.99	N.A.	22.50
90-150	1781.31	N.A.	38.30
90-180	2199.03	N.A.	47.20
110-180	1807.28	N.A.	38.80
0-180	4655.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	43.70
10-20	134.78
20-30	235.37
30-40	335.91
40-50	413.27
50-60	433.94
60-70	379.74
70-80	284.90
80-90	195.16
90-100	173.19
100-110	218.56
110-120	293.81
120-130	362.43
130-140	390.25
140-150	343.08
150-160	241.65
160-170	133.31
170-180	42.76

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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	20.5	21.5	21.4	22.4	23.6	10.7	11.7	11.7	12.7	13.9
	3H	23.2	24.1	24.1	25.0	26.3	12.2	13.1	13.1	14.0	15.3
	4H	24.5	25.3	25.4	26.3	27.5	12.7	13.5	13.6	14.5	15.7
	6H	25.7	26.5	26.7	27.5	28.8	13.1	13.9	14.0	14.8	16.1
	8H	26.4	27.1	27.3	28.1	29.4	13.2	13.9	14.1	14.9	16.2
	12H	27.1	27.8	28.0	28.8	30.1	13.3	14.0	14.2	15.0	16.2

UGR Viewed Endwise

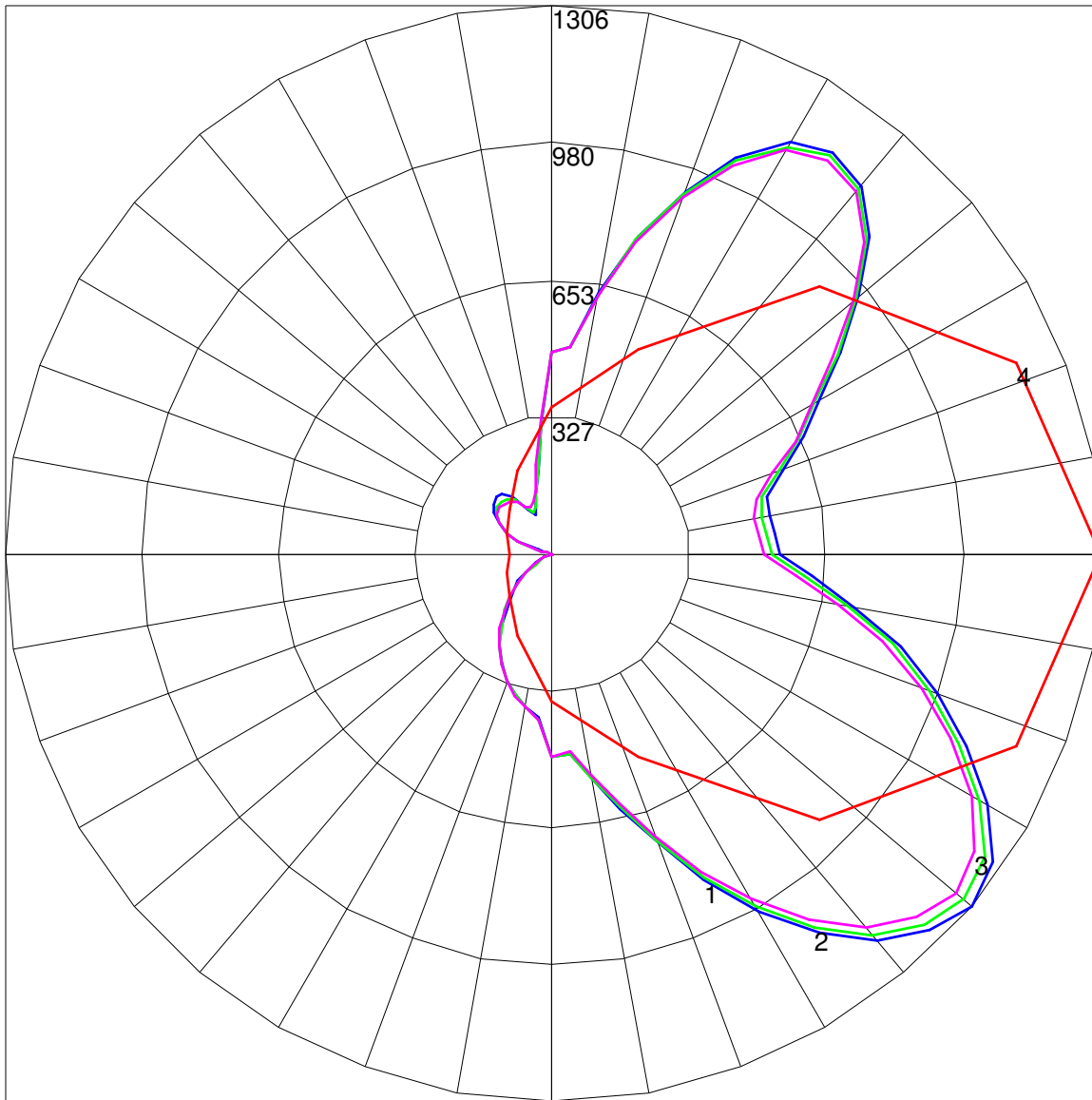
4H	2H	20.6	21.5	21.6	22.4	23.7	13.0	13.9	14.0	14.8	16.1
	3H	23.6	24.3	24.5	25.3	26.5	14.5	15.2	15.5	16.2	17.5
	4H	25.1	25.7	26.0	26.7	28.0	15.0	15.7	16.0	16.7	17.9
	6H	26.5	27.1	27.5	28.1	29.4	15.4	16.0	16.3	17.0	18.2
	8H	27.3	27.8	28.3	28.8	30.1	15.5	16.0	16.5	17.0	18.3
	12H	28.1	28.6	29.1	29.6	30.9	15.6	16.1	16.6	17.1	18.4

8H	4H	25.1	25.7	26.1	26.7	28.0	16.5	17.0	17.4	18.0	19.3
	6H	26.8	27.2	27.8	28.2	29.6	17.0	17.5	18.0	18.5	19.8
	8H	27.6	28.1	28.7	29.1	30.4	17.2	17.6	18.2	18.6	19.9
	12H	28.6	29.0	29.7	30.0	31.4	17.3	17.7	18.3	18.7	20.0

12H	4H	25.1	25.6	26.1	26.6	27.9	16.9	17.4	17.9	18.4	19.7
	6H	26.7	27.2	27.8	28.2	29.5	17.6	18.0	18.6	19.0	20.3
	8H	27.7	28.1	28.7	29.1	30.4	17.8	18.2	18.9	19.2	20.6

Maximum UGR = 31.4

POLAR GRAPH



Maximum Candela = 1306.394 Located At Horizontal Angle = 0, Vertical Angle = 50  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (5 - 185)  
# 3 - Vertical Plane Through Horizontal Angles (10 - 190)  
# 4 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)