



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 29-4-L54-840-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] 27-DEC-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 4' WALL MOUNT LED LUMINAIRE
 [MORE] WHITE REFL W/CLEAR PRISMATIC DIFFUSER TOP/BTM
 [MORE] 0-10V DIMMING DRIVER
 [LUMCAT] 29-4-L54-840-AF-DIM-UNV
 [LAMPCAT] HLMX 80 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	5595
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	41.3
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	9421	7212	4258
55	10104	7640	4154
65	9480	7175	3923
75	8687	6146	3668
85	7725	5279	3543

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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>
0	585.258	585.258	585.258	585.258	585.258	585.258	585.258	585.258	585.258
5	577.468	565.524	574.352	564.485	589.931	516.190	498.014	480.358	474.645
10	658.999	636.149	624.205	586.296	588.373	505.804	474.645	452.835	447.642
15	760.264	727.547	679.252	607.588	585.258	492.302	447.642	426.869	417.002
20	885.936	834.005	746.762	628.360	579.026	469.972	418.560	393.634	384.806
25	1036.015	970.063	817.906	650.171	567.601	447.642	387.402	357.282	346.377
30	1183.498	1098.851	897.880	664.711	551.503	420.638	348.454	314.699	300.678
35	1329.942	1224.523	973.698	674.578	529.173	383.248	306.390	271.078	254.460
40	1451.979	1333.577	1035.496	673.540	500.611	341.703	261.730	226.417	208.242
45	1532.471	1407.838	1077.559	662.115	464.259	298.601	220.186	183.834	166.178
50	1569.861	1438.477	1083.272	633.553	422.196	254.460	176.564	141.770	126.711
55	1542.338	1407.838	1048.998	591.489	375.977	212.915	136.058	104.900	91.917
60	1441.593	1318.517	972.140	532.808	325.605	169.813	97.629	68.029	56.604
65	1308.131	1194.922	868.279	459.066	271.597	129.307	61.797	36.351	25.965
70	1176.227	1067.693	747.281	381.690	219.147	88.282	26.485	4.674	0.000
75	1034.976	916.055	621.090	306.390	168.255	50.373	0.000	0.000	0.000
80	880.742	765.976	507.362	235.765	120.998	14.541	0.000	0.000	0.000
85	746.762	651.729	411.809	172.929	74.780	6.751	0.000	0.000	0.000
90	651.729	554.099	333.394	126.191	63.355	9.348	0.000	0.000	1.558
95	638.746	543.713	324.047	141.770	98.668	35.313	14.541	18.176	19.734
100	631.476	536.443	344.819	189.547	134.500	62.317	44.141	38.948	29.081
105	636.149	566.043	407.655	245.112	169.294	89.321	72.183	69.587	39.467
110	698.985	630.437	487.628	313.141	213.435	106.977	101.265	102.823	103.861
115	797.654	728.586	594.086	399.865	264.846	122.037	127.230	138.655	142.809
120	881.781	826.215	725.989	509.958	321.450	131.904	136.058	172.409	178.641
125	1006.414	955.522	850.623	621.090	378.055	151.118	140.213	187.989	204.087
130	1151.820	1100.928	990.835	712.487	433.620	176.564	152.676	180.199	220.186
135	1287.359	1230.235	1104.563	794.018	486.589	194.740	166.697	156.311	225.898
140	1377.199	1320.075	1175.708	845.949	526.057	200.971	176.564	152.676	221.744
145	1407.318	1347.079	1149.743	858.412	554.618	226.417	184.354	157.869	197.336
150	1360.581	1305.015	1153.897	847.507	575.391	254.460	184.354	171.890	143.328
155	1250.488	1208.424	1074.444	811.156	582.142	298.081	183.834	180.718	117.882
160	1107.160	1062.499	964.351	765.457	585.777	342.222	211.357	185.911	133.981
165	942.540	905.669	851.661	707.814	587.335	401.423	275.751	202.529	172.929
170	759.744	744.684	721.835	645.497	589.412	446.084	367.668	276.271	244.074
175	595.124	589.412	604.991	591.489	592.528	498.533	462.701	417.002	372.342
180	575.910	575.910	575.910	575.910	575.910	575.910	575.910	575.910	575.910

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	214.48	N.A.	3.80
0-30	497.32	N.A.	8.90
0-40	900.98	N.A.	16.10
0-60	1919.05	N.A.	34.30
0-80	2717.73	N.A.	48.60
0-90	2952.25	N.A.	52.80
10-90	2899.74	N.A.	51.80
20-40	686.50	N.A.	12.30
20-50	1183.12	N.A.	21.10
40-70	1474.41	N.A.	26.40
60-80	798.68	N.A.	14.30
70-80	342.35	N.A.	6.10
80-90	234.52	N.A.	4.20
90-110	470.75	N.A.	8.40
90-120	823.82	N.A.	14.70
90-130	1259.34	N.A.	22.50
90-150	2140.56	N.A.	38.30
90-180	2642.52	N.A.	47.20
110-180	2171.77	N.A.	38.80
0-180	5594.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	52.51
10-20	161.96
20-30	282.84
30-40	403.66
40-50	496.62
50-60	521.46
60-70	456.33
70-80	342.35
80-90	234.52
90-100	208.12
100-110	262.63
110-120	353.06
120-130	435.52
130-140	468.95
140-150	412.27
150-160	290.39
160-170	160.19
170-180	51.38

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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

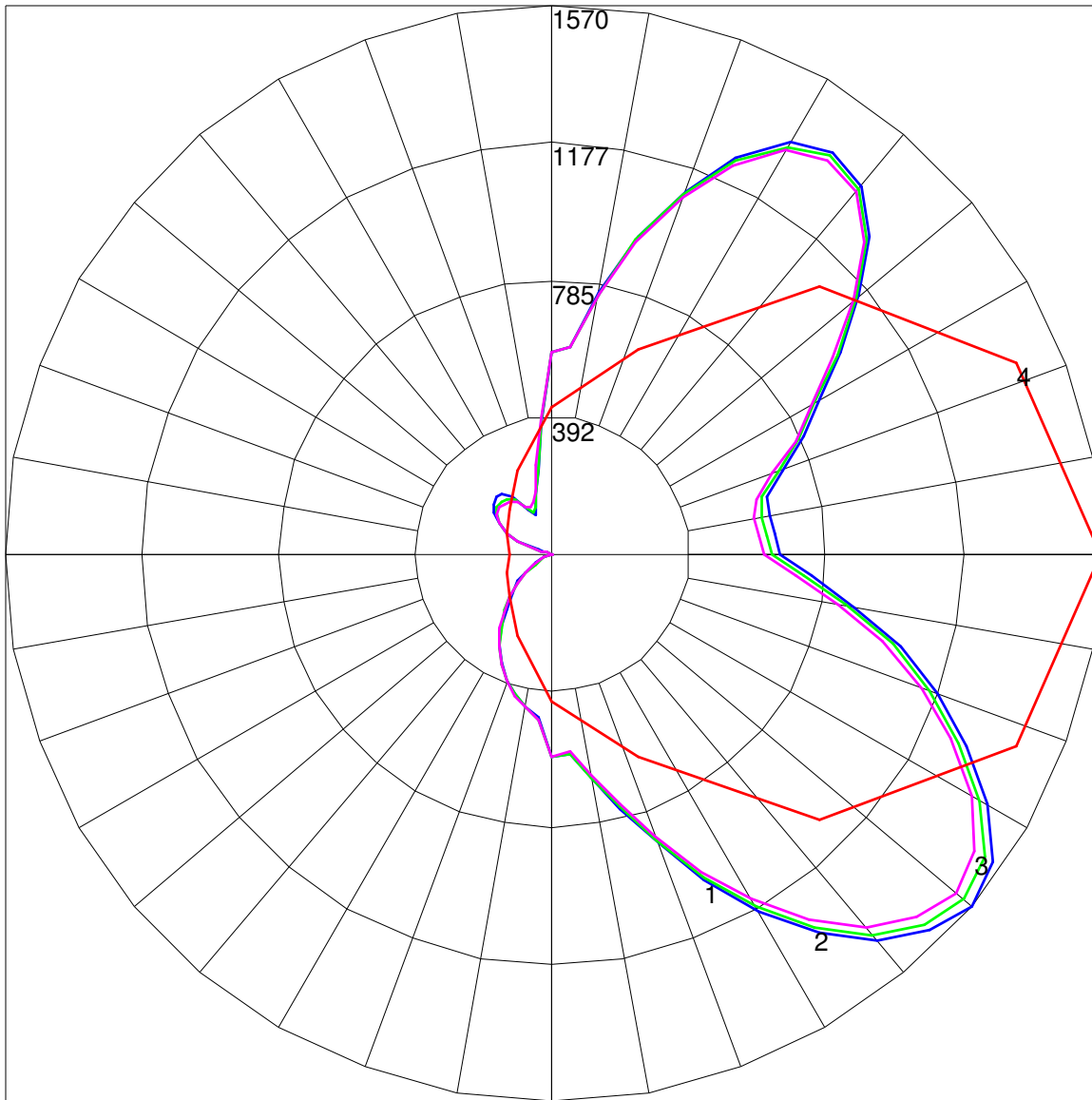
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	21.1	22.1	22.0	23.0	24.2	11.3	12.3	12.3	13.3	14.5
	3H	23.8	24.7	24.7	25.6	26.9	12.8	13.7	13.7	14.6	15.9
	4H	25.1	25.9	26.0	26.9	28.1	13.3	14.1	14.2	15.1	16.3
	6H	26.3	27.1	27.3	28.1	29.4	13.7	14.5	14.6	15.4	16.7
	8H	27.0	27.7	28.0	28.7	30.0	13.8	14.5	14.7	15.5	16.8
	12H	27.7	28.4	28.6	29.4	30.7	13.9	14.6	14.8	15.6	16.8
4H	2H	21.2	22.1	22.2	23.0	24.3	13.6	14.5	14.6	15.4	16.7
	3H	24.2	24.9	25.1	25.9	27.1	15.1	15.8	16.1	16.8	18.1
	4H	25.7	26.3	26.6	27.3	28.6	15.6	16.3	16.6	17.3	18.5
	6H	27.1	27.7	28.1	28.7	30.0	16.0	16.6	16.9	17.6	18.8
	8H	27.9	28.4	28.9	29.4	30.7	16.1	16.6	17.1	17.6	18.9
	12H	28.7	29.2	29.7	30.2	31.5	16.2	16.7	17.2	17.7	19.0
8H	4H	25.7	26.3	26.7	27.3	28.6	17.1	17.6	18.0	18.6	19.9
	6H	27.4	27.8	28.4	28.9	30.2	17.6	18.1	18.6	19.1	20.4
	8H	28.2	28.7	29.3	29.7	31.0	17.8	18.2	18.8	19.2	20.5
	12H	29.2	29.6	30.3	30.6	32.0	17.9	18.3	18.9	19.3	20.6
12H	4H	25.7	26.2	26.7	27.2	28.5	17.5	18.0	18.5	19.0	20.3
	6H	27.3	27.8	28.4	28.8	30.1	18.2	18.6	19.2	19.6	20.9
	8H	28.3	28.7	29.3	29.7	31.0	18.4	18.8	19.5	19.8	21.2

Maximum UGR = 32.0

POLAR GRAPH



Maximum Candela = 1569.861 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.)