



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 17-4-L55-930-AF-(L28)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20112.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 01-07-2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 4' NARROW LOW PROFILE LED WRAP LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED PRISMATIC ACRYLIC DIFFUSER

[LUMCAT] 17-4-L55-930-AF-(L28)-DIM-UNV

[LAMPCAT] HLM 90 CRI 3000K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Classroom, Commercial, Industrial, Manufacturing, Office, Direct

[_SEARCH_MOUNTING] Pendant, Surface, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2370
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	116
Total Luminaire Watts	20.4
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	0.88 ft
Luminous Height	0.15 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2129	1984	2020
55	1763	1686	1763
65	1380	1368	1476
75	1036	1052	1226
85	502	689	973

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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	849.100	849.100	849.100	849.100	849.100
5	858.763	847.839	841.117	839.016	837.756
10	845.318	834.395	828.093	826.832	823.051
15	825.572	815.909	809.607	808.346	805.825
20	795.742	786.079	780.197	783.978	779.357
25	757.089	750.367	744.065	750.367	746.166
30	709.614	705.412	700.371	707.093	706.673
35	651.635	653.315	646.593	658.777	660.878
40	582.312	585.253	583.992	600.378	605.419
45	507.947	512.149	522.232	533.996	542.399
50	426.440	431.482	452.909	462.152	473.076
55	346.194	352.496	379.385	394.930	407.534
60	271.409	280.652	310.062	326.027	341.993
65	204.607	217.632	246.201	263.007	275.611
70	147.889	161.333	187.802	207.548	216.791
75	99.153	110.496	136.125	160.073	167.635
80	57.139	68.903	92.010	115.538	122.680
85	20.167	31.510	51.677	78.566	80.246
90	0.000	9.663	28.569	49.576	54.618
95	0.000	9.663	27.729	45.375	51.677
100	0.000	10.083	27.309	43.274	48.316
105	0.000	9.663	26.889	40.333	44.955
110	0.000	10.924	26.049	38.653	42.434
115	0.000	10.083	24.788	36.552	40.333
120	0.000	11.344	23.528	33.611	37.392
125	0.000	10.083	21.427	30.670	34.031
130	0.000	9.663	18.906	26.889	30.250
135	0.000	9.243	17.646	23.948	26.469
140	0.000	8.823	15.545	21.427	23.948
145	0.000	0.000	13.444	19.326	21.007
150	0.000	0.000	12.184	15.545	18.066
155	0.000	0.000	10.924	14.285	13.444
160	0.000	0.000	9.663	11.764	11.764
165	0.000	0.000	0.000	9.243	10.924
170	0.000	0.000	0.000	0.000	9.243
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	309.24	N.A.	13.00
0-30	654.13	N.A.	27.60
0-40	1061.91	N.A.	44.80
0-60	1801.69	N.A.	76.00
0-80	2187.02	N.A.	92.30
0-90	2248.7	N.A.	94.90
10-90	2168.54	N.A.	91.50
20-40	752.67	N.A.	31.80
20-50	1155.48	N.A.	48.80
40-70	980.90	N.A.	41.40
60-80	385.33	N.A.	16.30
70-80	144.22	N.A.	6.10
80-90	61.67	N.A.	2.60
90-110	56.29	N.A.	2.40
90-120	79.09	N.A.	3.30
90-130	96.84	N.A.	4.10
90-150	116.44	N.A.	4.90
90-180	121.36	N.A.	5.10
110-180	65.07	N.A.	2.70
0-180	2370.06	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	80.16
10-20	229.08
20-30	344.89
30-40	407.77
40-50	402.81
50-60	336.97
60-70	241.11
70-80	144.22
80-90	61.67
90-100	29.81
100-110	26.48
110-120	22.79
120-130	17.76
130-140	12.44
140-150	7.16
150-160	3.73
160-170	1.15
170-180	0.04

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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	118	118	118	118	114	114	114	114	108	108	108	103	103	103	97	97	97	95
1	108	103	99	95	104	100	96	93	95	92	89	90	88	85	86	84	82	79
2	98	90	83	78	95	88	81	76	83	78	74	79	75	71	75	72	69	67
3	90	79	71	65	87	77	70	64	74	67	62	70	65	60	67	63	59	56
4	82	70	62	55	79	69	61	55	66	59	53	63	57	52	60	55	51	48
5	76	63	54	48	73	62	53	47	59	52	46	56	50	45	54	49	44	42
6	70	57	48	42	68	56	47	41	53	46	41	51	45	40	49	44	39	37
7	65	52	43	37	63	51	42	37	49	41	36	47	40	35	45	39	35	33
8	60	47	39	33	59	46	38	33	45	37	32	43	37	32	41	36	31	29
9	57	43	35	30	55	43	35	30	41	34	29	40	33	29	38	33	28	27
10	53	40	32	27	51	39	32	27	38	31	27	37	31	26	36	30	26	24

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UGR TABLE - CORRECTED

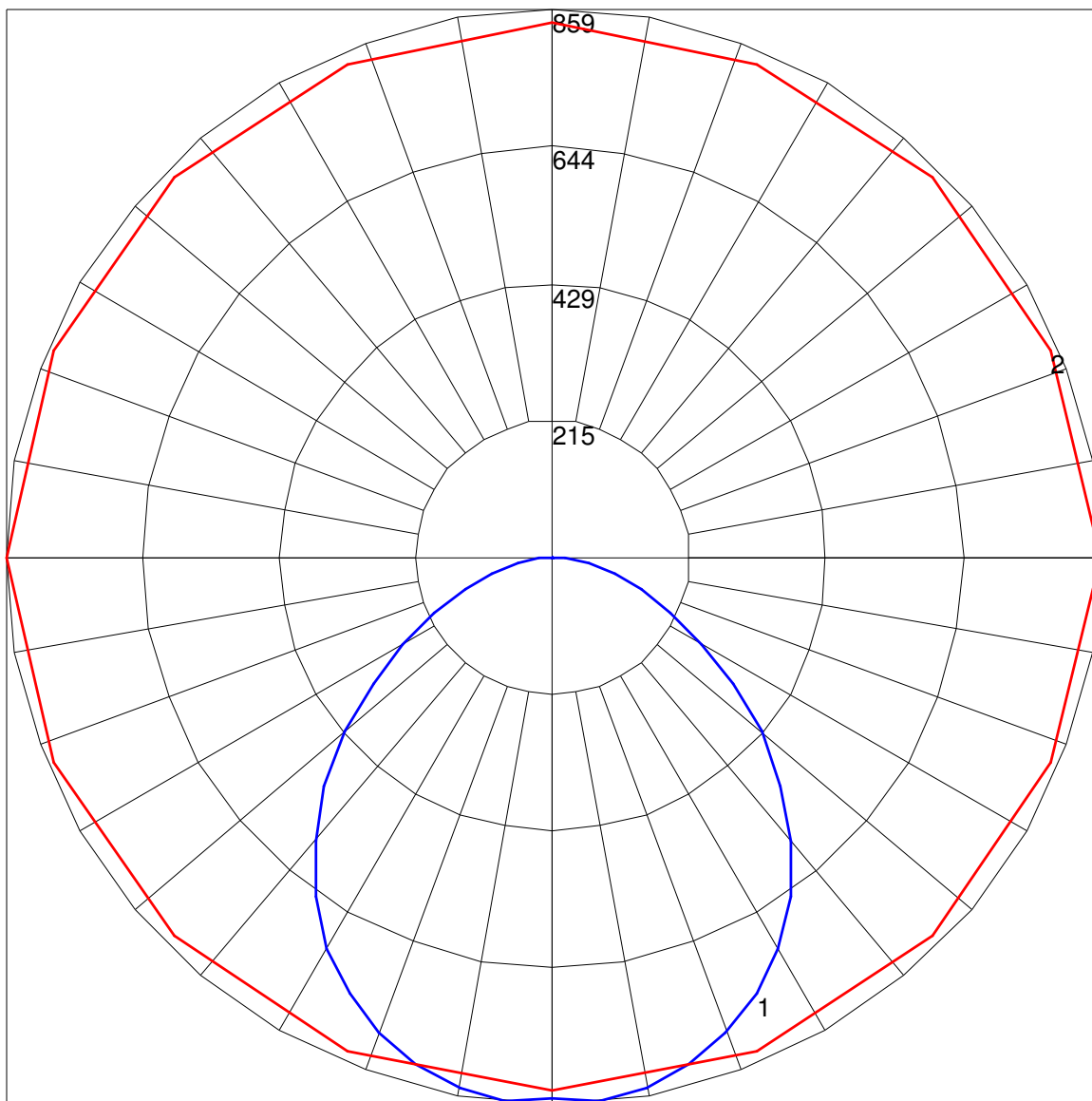
Reflectances

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	12.5	14.0	12.9	14.4	14.8	13.9	15.4	14.3	15.8	16.2
	3H	13.8	15.1	14.2	15.6	16.0	15.7	17.0	16.1	17.4	17.9
	4H	14.2	15.5	14.7	15.9	16.4	16.4	17.7	16.9	18.2	18.7
	6H	14.4	15.6	14.9	16.1	16.6	17.2	18.3	17.6	18.8	19.3
	8H	14.5	15.6	15.0	16.1	16.6	17.5	18.6	18.0	19.1	19.6
	12H	14.5	15.6	15.0	16.1	16.6	17.8	18.8	18.3	19.3	19.9
4H	2H	13.2	14.4	13.6	14.9	15.4	14.3	15.5	14.8	16.0	16.5
	3H	14.7	15.7	15.2	16.2	16.8	16.3	17.4	16.8	17.9	18.4
	4H	15.2	16.1	15.7	16.7	17.2	17.2	18.2	17.7	18.7	19.2
	6H	15.5	16.4	16.1	16.9	17.5	18.1	18.9	18.6	19.5	20.0
	8H	15.6	16.4	16.2	16.9	17.5	18.5	19.3	19.0	19.8	20.4
	12H	15.7	16.4	16.2	16.9	17.5	18.9	19.6	19.4	20.2	20.7
8H	4H	15.6	16.4	16.1	16.9	17.5	17.4	18.2	17.9	18.7	19.3
	6H	16.0	16.7	16.6	17.3	17.9	18.4	19.1	19.0	19.6	20.2
	8H	16.2	16.8	16.8	17.4	18.0	18.9	19.5	19.5	20.1	20.7
	12H	16.3	16.8	16.8	17.4	18.0	19.4	20.0	20.0	20.5	21.2
12H	4H	15.7	16.4	16.2	16.9	17.5	17.4	18.1	18.0	18.7	19.3
	6H	16.2	16.8	16.8	17.3	18.0	18.4	19.0	19.0	19.6	20.2
	8H	16.4	16.9	16.9	17.5	18.1	19.0	19.5	19.6	20.1	20.8

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 858.763 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.)