



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 17-4-L55-835-AF-(L50)-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] 26-AUG-2020

[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-L55-835-AF-(L50)-DIM-UNV

[LAMPCAT] HLM 80 CRI 3500K 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	4917
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	34
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	4418	4116	4190
55	3657	3498	3658
65	2862	2838	3062
75	2149	2182	2544
85	1041	1430	2019

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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	1761.613	1761.613	1761.613	1761.613	1761.613
5	1781.661	1758.998	1745.051	1740.693	1738.078
10	1753.768	1731.105	1718.030	1715.415	1707.570
15	1712.800	1692.752	1679.677	1677.062	1671.832
20	1650.913	1630.864	1618.661	1626.506	1616.918
25	1570.720	1556.774	1543.699	1556.774	1548.057
30	1472.223	1463.507	1453.047	1466.994	1466.122
35	1351.935	1355.422	1341.475	1366.753	1371.112
40	1208.112	1214.214	1211.599	1245.593	1256.053
45	1053.830	1062.546	1083.466	1107.872	1125.305
50	884.729	895.189	939.643	958.819	981.482
55	718.243	731.318	787.103	819.355	845.504
60	563.088	582.265	643.281	676.403	709.526
65	424.495	451.517	510.789	545.655	571.805
70	306.822	334.715	389.629	430.597	449.773
75	205.710	229.245	282.416	332.100	347.790
80	118.545	142.951	190.892	239.705	254.523
85	41.839	65.374	107.213	162.999	166.486
90	0.000	20.048	59.272	102.855	113.315
95	0.000	20.048	57.529	94.139	107.213
100	0.000	20.920	56.658	89.780	100.240
105	0.000	20.048	55.786	83.679	93.267
110	0.000	22.663	54.043	80.192	88.037
115	0.000	20.920	51.428	75.834	83.679
120	0.000	23.535	48.813	69.732	77.577
125	0.000	20.920	44.454	63.631	70.604
130	0.000	20.048	39.224	55.786	62.759
135	0.000	19.176	36.609	49.684	54.914
140	0.000	18.305	32.251	44.454	49.684
145	0.000	0.000	27.893	40.096	43.583
150	0.000	0.000	25.278	32.251	37.481
155	0.000	0.000	22.663	29.636	27.893
160	0.000	0.000	20.048	24.406	24.406
165	0.000	0.000	0.000	19.176	22.663
170	0.000	0.000	0.000	0.000	19.176
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	641.57	N.A.	13.00
0-30	1357.11	N.A.	27.60
0-40	2203.12	N.A.	44.80
0-60	3737.94	N.A.	76.00
0-80	4537.38	N.A.	92.30
0-90	4665.34	N.A.	94.90
10-90	4499.04	N.A.	91.50
20-40	1561.54	N.A.	31.80
20-50	2397.26	N.A.	48.80
40-70	2035.06	N.A.	41.40
60-80	799.44	N.A.	16.30
70-80	299.21	N.A.	6.10
80-90	127.96	N.A.	2.60
90-110	116.79	N.A.	2.40
90-120	164.08	N.A.	3.30
90-130	200.92	N.A.	4.10
90-150	241.59	N.A.	4.90
90-180	251.79	N.A.	5.10
110-180	135.00	N.A.	2.70
0-180	4917.13	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	166.30
10-20	475.27
20-30	715.54
30-40	846.00
40-50	835.71
50-60	699.11
60-70	500.23
70-80	299.21
80-90	127.96
90-100	61.85
100-110	54.94
110-120	47.29
120-130	36.84
130-140	25.81
140-150	14.86
150-160	7.73
160-170	2.39
170-180	0.09

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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

X=2H	Y=2H	15.0	16.5	15.4	16.9	17.3	16.4	17.9	16.8	18.3	18.7
	3H	16.3	17.6	16.7	18.1	18.5	18.2	19.5	18.6	19.9	20.4
	4H	16.7	18.0	17.2	18.4	18.9	18.9	20.2	19.4	20.7	21.2
	6H	16.9	18.1	17.4	18.6	19.1	19.7	20.8	20.1	21.3	21.8
	8H	17.0	18.1	17.5	18.6	19.1	20.0	21.1	20.5	21.6	22.1
	12H	17.0	18.1	17.5	18.6	19.1	20.3	21.3	20.8	21.8	22.4

UGR Viewed Endwise

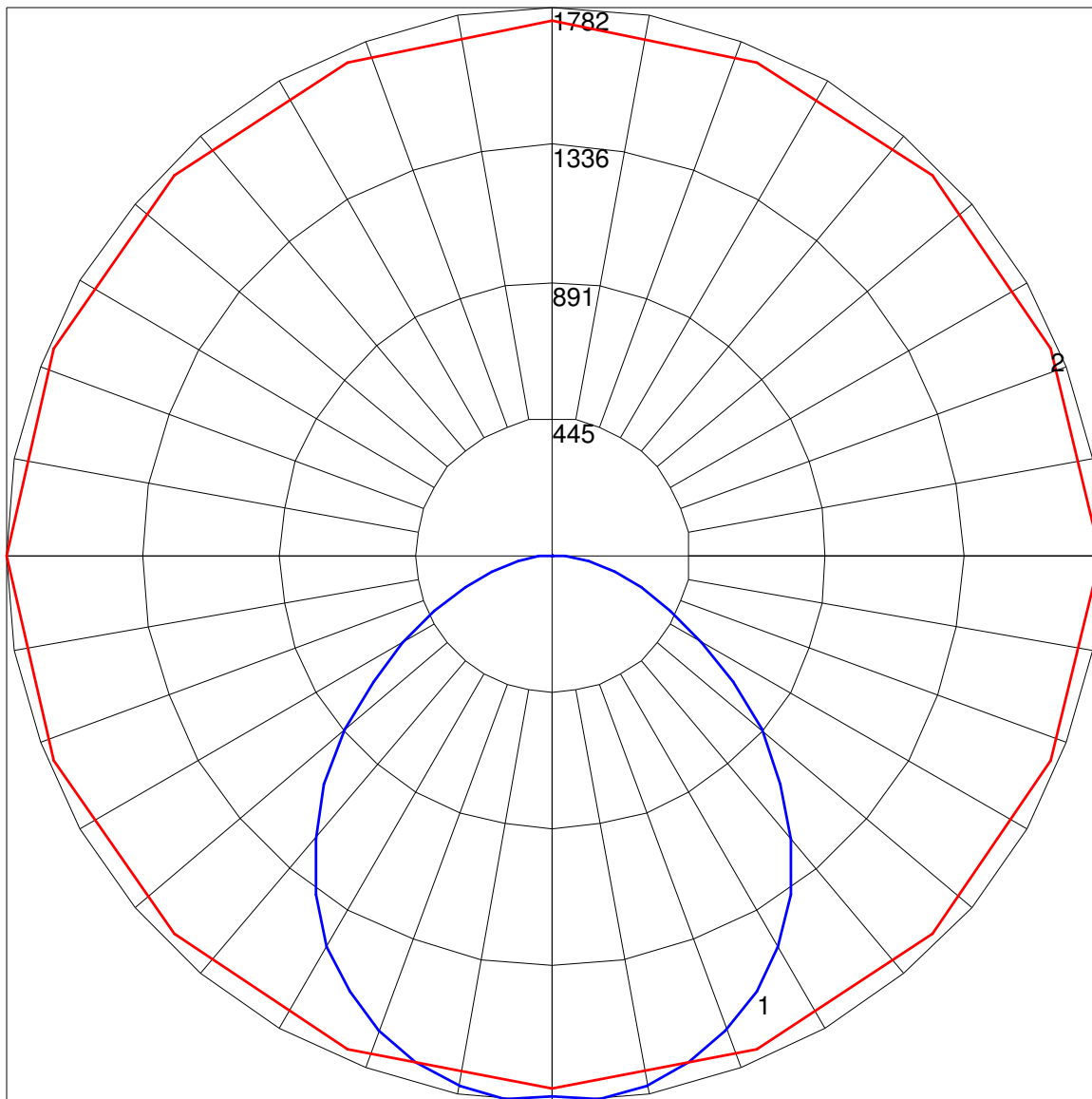
4H	2H	15.7	16.9	16.1	17.4	17.9	16.8	18.0	17.3	18.5	19.0
	3H	17.2	18.2	17.7	18.7	19.3	18.8	19.9	19.3	20.4	20.9
	4H	17.7	18.6	18.2	19.2	19.7	19.7	20.7	20.2	21.2	21.7
	6H	18.0	18.9	18.6	19.4	20.0	20.6	21.4	21.1	22.0	22.5
	8H	18.1	18.9	18.7	19.4	20.0	21.0	21.8	21.5	22.3	22.9
	12H	18.2	18.9	18.7	19.4	20.0	21.4	22.1	21.9	22.7	23.2

8H	4H	18.1	18.9	18.6	19.4	20.0	19.9	20.7	20.4	21.2	21.8
	6H	18.5	19.2	19.1	19.8	20.4	20.9	21.6	21.5	22.1	22.7
	8H	18.7	19.3	19.3	19.9	20.5	21.4	22.0	22.0	22.6	23.2
	12H	18.8	19.3	19.3	19.9	20.5	21.9	22.5	22.5	23.0	23.7

12H	4H	18.2	18.9	18.7	19.4	20.0	19.9	20.6	20.5	21.2	21.8
	6H	18.7	19.3	19.3	19.8	20.5	20.9	21.5	21.5	22.1	22.7
	8H	18.9	19.4	19.4	20.0	20.6	21.5	22.0	22.1	22.6	23.3

Maximum UGR = 23.7

POLAR GRAPH



Maximum Candela = 1781.661 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.)