

IES INDOOR REPORT

PHOTOMETRIC FILENAME : 17-4-L55-840-AF-(L40)-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] 07-29-2026

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO 64836

[LUMINAIRE] 4' LED NARROW LOW PROFILE WRAP LED LUMINAIRE

[MORE] WITH FROSTED PRISMATIC ACRYLIC DIFFUSER

[LUMCAT] 17-4-L55-840-AF-(L40)-DIM-UNV

[LAMPCAT] HLM 80 CRI 4000K 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	4216
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	161
Total Luminaire Watts	26.2
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	3788	3529	3593
55	3136	2999	3136
65	2454	2434	2625
75	1843	1871	2182
85	892	1226	1731

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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	1510.466	1510.466	1510.466	1510.466	1510.466
5	1527.656	1508.224	1496.265	1492.528	1490.286
10	1503.739	1484.307	1473.096	1470.854	1464.128
15	1468.612	1451.422	1440.212	1437.969	1433.485
20	1415.548	1398.358	1387.895	1394.621	1386.400
25	1346.788	1334.830	1323.619	1334.830	1327.356
30	1262.334	1254.860	1245.891	1257.849	1257.102
35	1159.195	1162.184	1150.226	1171.900	1175.637
40	1035.876	1041.108	1038.866	1068.014	1076.982
45	903.589	911.063	929.000	949.927	964.874
50	758.596	767.565	805.681	822.124	841.556
55	615.846	627.056	674.889	702.542	724.964
60	482.811	499.253	551.570	579.971	608.372
65	363.977	387.146	437.968	467.863	490.285
70	263.080	286.996	334.081	369.208	385.651
75	176.383	196.562	242.153	284.754	298.207
80	101.644	122.571	163.677	205.531	218.237
85	35.874	56.054	91.928	139.761	142.751
90	0.000	17.190	50.822	88.191	97.160
95	0.000	17.190	49.327	80.718	91.928
100	0.000	17.937	48.580	76.981	85.949
105	0.000	17.190	47.833	71.749	79.970
110	0.000	19.432	46.338	68.759	75.486
115	0.000	17.937	44.096	65.023	71.749
120	0.000	20.179	41.854	59.791	66.517
125	0.000	17.937	38.117	54.559	60.538
130	0.000	17.190	33.632	47.833	53.812
135	0.000	16.442	31.390	42.601	47.085
140	0.000	15.695	27.653	38.117	42.601
145	0.000	0.000	23.916	34.380	37.369
150	0.000	0.000	21.674	27.653	32.138
155	0.000	0.000	19.432	25.411	23.916
160	0.000	0.000	17.190	20.927	20.927
165	0.000	0.000	0.000	16.442	19.432
170	0.000	0.000	0.000	0.000	16.442
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	550.11	N.A.	13.00
0-30	1163.64	N.A.	27.60
0-40	1889.03	N.A.	44.80
0-60	3205.04	N.A.	76.00
0-80	3890.5	N.A.	92.30
0-90	4000.22	N.A.	94.90
10-90	3857.62	N.A.	91.50
20-40	1338.92	N.A.	31.80
20-50	2055.49	N.A.	48.80
40-70	1744.93	N.A.	41.40
60-80	685.47	N.A.	16.30
70-80	256.55	N.A.	6.10
80-90	109.71	N.A.	2.60
90-110	100.14	N.A.	2.40
90-120	140.69	N.A.	3.30
90-130	172.27	N.A.	4.10
90-150	207.14	N.A.	4.90
90-180	215.90	N.A.	5.10
110-180	115.76	N.A.	2.70
0-180	4216.11	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	142.59
10-20	407.51
20-30	613.53
30-40	725.39
40-50	716.57
50-60	599.44
60-70	428.92
70-80	256.55
80-90	109.71
90-100	53.03
100-110	47.11
110-120	40.55
120-130	31.59
130-140	22.13
140-150	12.74
150-160	6.63
160-170	2.05
170-180	0.07

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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	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	14.5	16.0	14.9	16.4	16.8	15.9	17.4	16.3	17.8	18.2
	3H	15.8	17.1	16.2	17.6	18.0	17.7	19.0	18.1	19.4	19.9
	4H	16.2	17.5	16.7	17.9	18.4	18.4	19.7	18.9	20.2	20.7
	6H	16.4	17.6	16.9	18.1	18.6	19.2	20.3	19.6	20.8	21.3
	8H	16.5	17.6	17.0	18.1	18.6	19.5	20.6	20.0	21.1	21.6
	12H	16.5	17.6	17.0	18.1	18.6	19.8	20.8	20.3	21.3	21.9

UGR Viewed Endwise

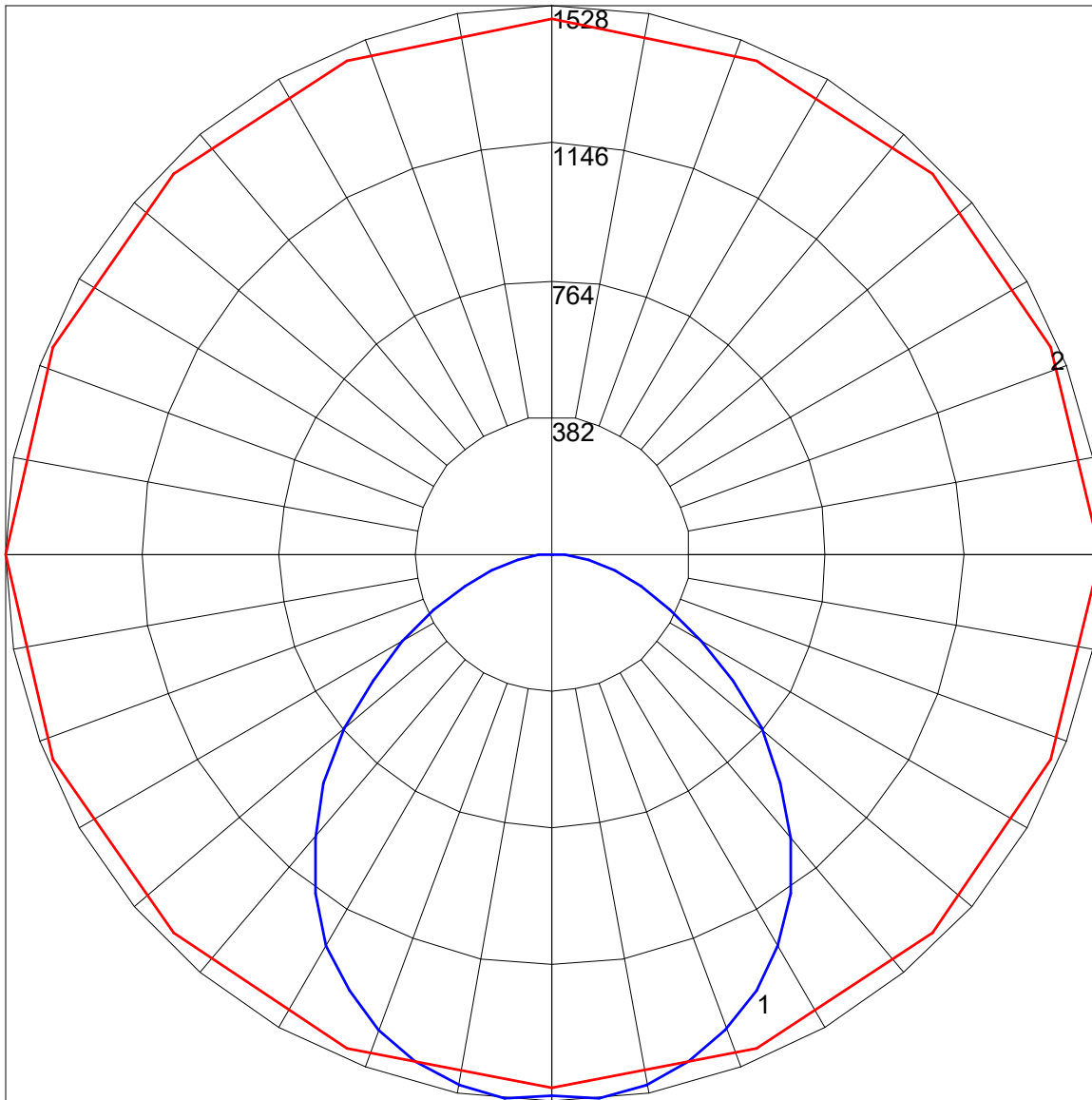
4H	2H	15.2	16.4	15.6	16.9	17.4	16.3	17.5	16.8	18.0	18.5
	3H	16.7	17.7	17.2	18.2	18.8	18.3	19.4	18.8	19.9	20.4
	4H	17.2	18.1	17.7	18.7	19.2	19.2	20.2	19.7	20.7	21.2
	6H	17.5	18.4	18.1	18.9	19.5	20.1	20.9	20.6	21.5	22.0
	8H	17.6	18.4	18.2	18.9	19.5	20.5	21.3	21.0	21.8	22.4
	12H	17.7	18.4	18.2	18.9	19.5	20.9	21.6	21.4	22.2	22.7

8H	4H	17.6	18.4	18.1	18.9	19.5	19.4	20.2	19.9	20.7	21.3
	6H	18.0	18.7	18.6	19.3	19.9	20.4	21.1	21.0	21.6	22.2
	8H	18.2	18.8	18.8	19.4	20.0	20.9	21.5	21.5	22.1	22.7
	12H	18.3	18.8	18.8	19.4	20.0	21.4	22.0	22.0	22.5	23.2

12H	4H	17.7	18.4	18.2	18.9	19.5	19.4	20.1	20.0	20.7	21.3
	6H	18.2	18.8	18.8	19.3	20.0	20.4	21.0	21.0	21.6	22.2
	8H	18.4	18.9	18.9	19.5	20.1	21.0	21.5	21.6	22.1	22.8

Maximum UGR = 23.2

POLAR GRAPH



Maximum Candela = 1527.656 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.)