



IES INDOOR REPORT

PHOTOMETRIC FILENAME : CL-4-L88-840-FAF12125-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN from BALLABS TEST NO. 18716.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 1-SEP-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO. 64836
 [LUMINAIRE] 4' CORNER MOUNT LUMINAIRE
 [MORE] WITH ACRYLIC LENS
 [LUMCAT] CL-4-L88/840-FAF12125-DIM-UNV
 [LAMPCAT] HLM 80 CRI, 4000K CCT
 [SEARCH_SOURCETYPE] LED
 [SEARCH_APPLICATION] INDOOR, COMMERCIAL, EDUCATIONAL, OFFICE
 [SEARCH_MOUNTING] SURFACE

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8879
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	74.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	2.72
Spacing Criterion (90-270)	1.14
Spacing Criterion (Diagonal)	1.66
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	0.48 ft
Luminous Width (90-270)	3.77 ft
Luminous Height	0.48 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18002	14830	6815
55	17445	14066	5739
65	17011	13126	4881
75	15219	11298	4101
85	13804	9664	2838

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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	1731.048	1731.048	1731.048	1731.048	1731.048	1731.048	1731.048	1731.048	1731.048
5	2146.195	2095.729	1998.608	1836.739	1692.961	1616.787	1501.574	1416.831	1387.314
10	2545.154	2451.842	2235.699	1934.812	1637.735	1416.831	1217.827	1094.997	1048.341
15	2995.532	2871.749	2553.724	2108.108	1658.683	1323.518	1069.289	933.128	882.663
20	3338.313	3151.688	2698.454	2045.264	1442.540	1022.632	763.642	627.481	585.585
25	3661.099	3479.235	2935.545	2163.334	1437.779	941.698	666.520	534.168	496.081
30	3911.521	3678.239	3066.944	2142.386	1294.001	763.642	513.220	390.390	343.734
35	4039.112	3809.638	3130.740	2121.438	1204.497	670.329	428.477	292.317	241.852
40	4153.372	3907.712	3165.018	2040.504	1055.958	517.981	292.317	148.539	89.504
45	4276.202	4004.833	3165.018	1921.482	912.180	416.099	182.817	46.656	29.517
50	4217.168	3932.468	3071.705	1798.652	789.350	331.356	72.365	34.278	0.000
55	4081.007	3792.499	2897.458	1620.596	653.190	238.043	29.517	0.000	0.000
60	3902.951	3597.304	2702.263	1459.679	547.499	139.969	0.000	0.000	0.000
65	3797.260	3474.474	2524.207	1289.240	440.855	42.848	0.000	0.000	0.000
70	3533.508	3211.674	2273.786	1111.184	360.873	0.000	0.000	0.000	0.000
75	3130.740	2821.284	1951.952	924.559	262.799	0.000	0.000	0.000	0.000
80	2838.423	2528.015	1688.200	751.263	182.817	0.000	0.000	0.000	0.000
85	2511.828	2206.181	1430.162	611.294	101.882	0.000	0.000	0.000	0.000
90	1947.191	1696.770	1077.858	449.425	0.000	0.000	0.000	0.000	0.000
95	1650.113	1404.453	865.524	314.217	0.000	0.000	0.000	0.000	0.000
100	1264.484	1060.719	649.381	207.573	0.000	0.000	0.000	0.000	0.000
105	954.076	806.489	475.134	105.691	0.000	0.000	0.000	0.000	0.000
110	737.933	623.672	352.303	0.000	0.000	0.000	0.000	0.000	0.000
115	551.307	466.564	238.043	0.000	0.000	0.000	0.000	0.000	0.000
120	411.338	338.973	122.830	0.000	0.000	0.000	0.000	0.000	0.000
125	276.130	203.765	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130	157.108	89.504	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135	20.948	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	665.06	N.A.	7.50
0-30	1477.8	N.A.	16.60
0-40	2553.13	N.A.	28.80
0-60	5048.43	N.A.	56.90
0-80	7242.86	N.A.	81.60
0-90	7991.91	N.A.	90.00
10-90	7826.48	N.A.	88.10
20-40	1888.07	N.A.	21.30
20-50	3120.97	N.A.	35.20
40-70	3687.34	N.A.	41.50
60-80	2194.42	N.A.	24.70
70-80	1002.39	N.A.	11.30
80-90	749.05	N.A.	8.40
90-110	715.26	N.A.	8.10
90-120	838.92	N.A.	9.40
90-130	881.94	N.A.	9.90
90-150	886.70	N.A.	10.00
90-180	886.70	N.A.	10.00
110-180	171.44	N.A.	1.90
0-180	8878.6	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	165.42
10-20	499.64
20-30	812.74
30-40	1075.33
40-50	1232.91
50-60	1262.4
60-70	1192.04
70-80	1002.39
80-90	749.05
90-100	462.76
100-110	252.50
110-120	123.67
120-130	43.02
130-140	4.75
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

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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	117	117	117	117	113	113	113	113	106	106	106	99	99	99	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67
2	92	82	73	66	88	79	71	65	74	67	62	69	63	59	64	60	56	53
3	83	70	61	53	79	68	59	52	63	56	50	59	53	48	55	50	46	43
4	75	62	52	44	72	60	50	43	56	48	41	52	45	40	49	43	38	35
5	69	54	44	37	66	53	43	36	49	41	35	46	39	34	43	37	32	30
6	63	49	39	32	60	47	38	31	44	36	30	41	34	29	39	33	28	26
7	58	44	34	28	56	42	34	27	40	32	26	38	31	25	35	29	25	22
8	54	40	31	24	52	39	30	24	36	29	23	34	27	22	32	26	22	20
9	50	36	28	22	48	35	27	21	33	26	21	31	25	20	30	24	19	17
10	47	33	25	19	45	32	24	19	31	24	19	29	23	18	28	22	17	16

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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	26.1	27.6	26.6	28.1	28.7	15.3	16.9	15.8	17.4	18.0
	3H	29.1	30.6	29.6	31.1	31.7	16.5	17.9	17.0	18.5	19.0
	4H	30.5	31.9	31.1	32.4	33.0	16.9	18.2	17.4	18.8	19.4
	6H	32.0	33.3	32.5	33.8	34.4	17.1	18.4	17.7	18.9	19.6
	8H	32.7	33.9	33.3	34.5	35.1	17.2	18.4	17.7	19.0	19.6
	12H	33.4	34.6	34.0	35.2	35.8	17.2	18.4	17.8	19.0	19.6

UGR Viewed Endwise

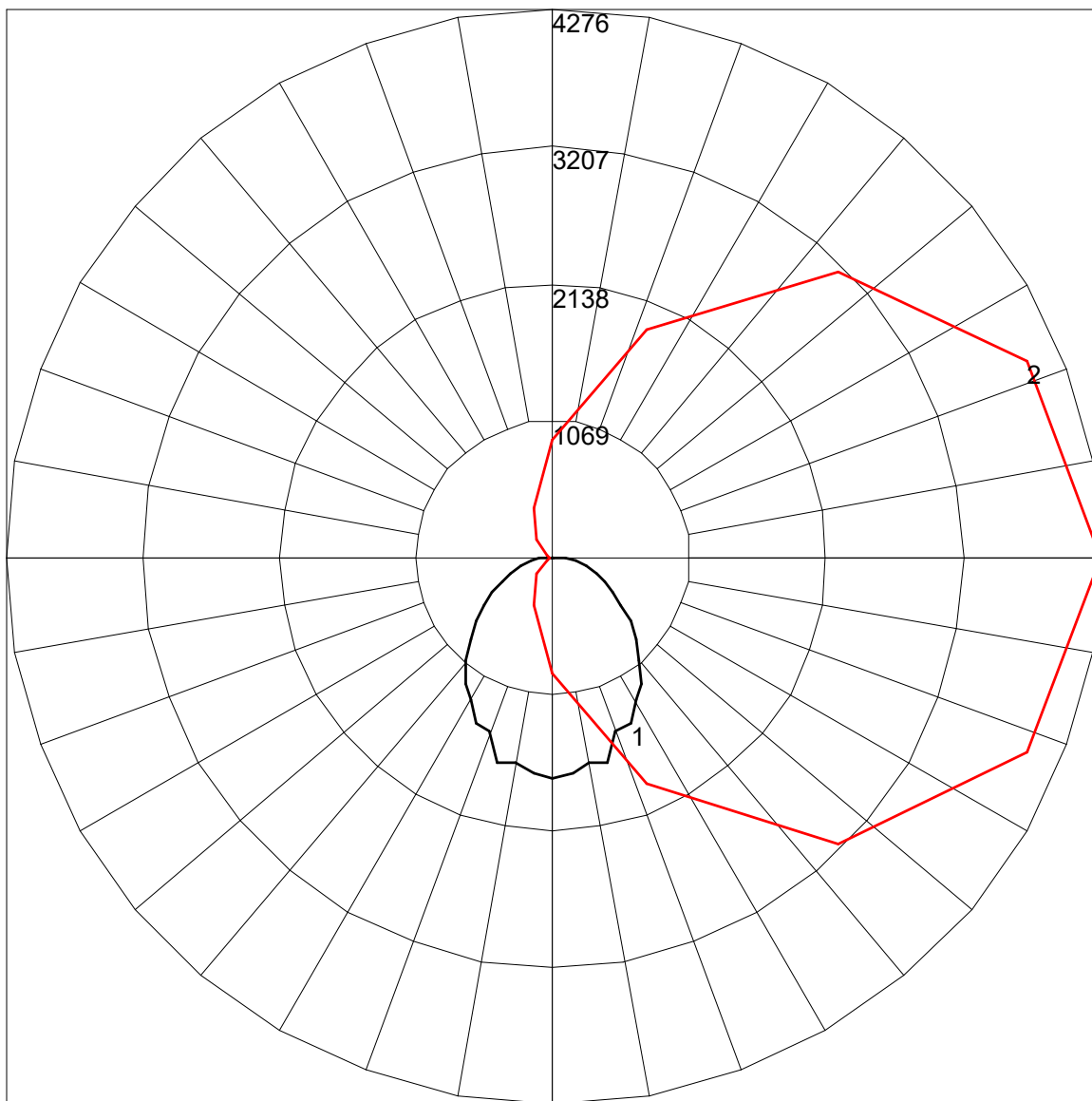
4H	2H	26.3	27.7	26.8	28.2	28.8	18.3	19.7	18.8	20.2	20.8
	3H	29.6	30.8	30.1	31.3	32.0	19.7	20.9	20.2	21.5	22.1
	4H	31.1	32.2	31.7	32.8	33.5	20.1	21.2	20.7	21.8	22.5
	6H	32.8	33.8	33.4	34.4	35.0	20.4	21.4	21.0	22.0	22.7
	8H	33.6	34.5	34.2	35.2	35.8	20.5	21.4	21.1	22.0	22.7
	12H	34.5	35.4	35.1	36.0	36.7	20.6	21.4	21.2	22.0	22.7

8H	4H	31.3	32.2	31.9	32.8	33.5	22.0	22.9	22.6	23.5	24.2
	6H	33.1	33.8	33.7	34.5	35.2	22.6	23.4	23.2	24.0	24.7
	8H	34.0	34.7	34.7	35.4	36.1	22.7	23.5	23.4	24.1	24.8
	12H	35.1	35.7	35.7	36.4	37.1	22.9	23.5	23.5	24.2	24.9

12H	4H	31.2	32.1	31.9	32.7	33.4	22.6	23.4	23.2	24.1	24.7
	6H	33.1	33.8	33.7	34.4	35.2	23.3	24.0	24.0	24.7	25.4
	8H	34.1	34.7	34.7	35.4	36.1	23.6	24.3	24.3	24.9	25.7

Maximum UGR = 37.1

POLAR GRAPH



Maximum Candela = 4276.202 Located At Horizontal Angle = 0, Vertical Angle = 45
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (45) (Through Max. Cd.)