



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-8-L130-940-HIAFR-(L120)-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 19227.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 06/07/2023

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 8' SUSPENDED ENCLOSED & GASKETED LED LUMINAIRE

[MORE] WHITE REFLECTOR w/FROSTED ACRYLIC LINEAR RIBBED DIFFUSER

[LUMCAT] 96-8-L130-940-HIAFR-(L120)-DIM-UNV

[LAMPCAT] HLM 90 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10199
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	129
Total Luminaire Watts	78.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	8.30 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.18 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7988	6245	6012
55	6852	5333	5189
65	5089	4353	4607
75	3207	3697	3973
85	1312	2941	3390

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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	3603.049	3603.049	3603.049	3603.049	3603.049
5	3634.640	3588.085	3564.807	3548.181	3543.192
10	3586.422	3528.228	3491.649	3478.348	3465.046
15	3496.637	3430.130	3375.261	3343.670	3325.380
20	3366.947	3298.777	3217.305	3150.798	3149.135
25	3213.980	3140.821	3021.108	2936.311	2909.708
30	3021.108	2927.997	2766.716	2741.776	2745.101
35	2783.343	2688.570	2535.602	2610.423	2650.328
40	2512.325	2425.865	2351.044	2434.178	2467.432
45	2226.342	2144.870	2156.509	2174.799	2221.354
50	1905.443	1827.296	1897.129	1928.720	1958.649
55	1562.929	1523.024	1627.774	1690.956	1729.198
60	1213.764	1255.331	1353.430	1464.830	1519.699
65	867.924	990.963	1114.002	1275.283	1321.839
70	593.580	728.258	921.130	1089.062	1117.328
75	345.840	507.120	734.909	891.202	921.130
80	162.944	337.526	550.350	699.993	728.258
85	54.869	214.487	399.046	545.362	575.291
90	23.278	129.690	290.971	409.022	438.950
95	18.290	89.785	232.777	322.562	350.828
100	16.627	54.869	191.209	269.356	284.320
105	13.302	33.254	144.654	216.150	231.114
110	8.313	9.976	101.424	167.932	184.559
115	4.988	4.988	66.508	124.702	144.654
120	0.000	0.000	33.254	89.785	108.075
125	0.000	0.000	9.976	54.869	71.496
130	0.000	0.000	0.000	28.266	39.905
135	0.000	0.000	0.000	6.651	14.964
140	0.000	0.000	0.000	0.000	0.000
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
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	1293.75	N.A.	12.70
0-30	2694.33	N.A.	26.40
0-40	4344.24	N.A.	42.60
0-60	7472.95	N.A.	73.30
0-80	9323.09	N.A.	91.40
0-90	9734.87	N.A.	95.40
10-90	9395.87	N.A.	92.10
20-40	3050.49	N.A.	29.90
20-50	4724.93	N.A.	46.30
40-70	4242.11	N.A.	41.60
60-80	1850.14	N.A.	18.10
70-80	736.74	N.A.	7.20
80-90	411.77	N.A.	4.00
90-110	368.37	N.A.	3.60
90-120	436.55	N.A.	4.30
90-130	460.68	N.A.	4.50
90-150	464.49	N.A.	4.60
90-180	464.49	N.A.	4.60
110-180	96.11	N.A.	0.90
0-180	10199.35	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	339.00
10-20	954.75
20-30	1400.58
30-40	1649.91
40-50	1674.44
50-60	1454.27
60-70	1113.4
70-80	736.74
80-90	411.77
90-100	231.00
100-110	137.37
110-120	68.18
120-130	24.13
130-140	3.80
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	118	118	118	118	115	115	115	115	109	109	109	103	103	103	98	98	98	95
1	107	102	97	93	104	99	95	91	94	90	87	89	86	84	85	83	81	78
2	97	89	82	76	94	86	80	74	82	77	72	78	73	70	74	71	67	65
3	89	78	69	63	86	76	68	62	72	66	60	69	63	59	66	61	57	55
4	81	69	60	53	78	67	59	53	64	57	51	61	55	50	59	53	49	47
5	75	62	53	46	72	60	52	46	58	50	45	55	49	44	53	47	43	41
6	69	56	47	40	67	54	46	40	52	45	39	50	43	38	48	42	38	36
7	64	50	42	36	62	49	41	35	47	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	32	44	36	31	42	35	31	40	35	30	28
9	56	42	34	29	54	42	34	28	40	33	28	39	32	28	37	32	27	25
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

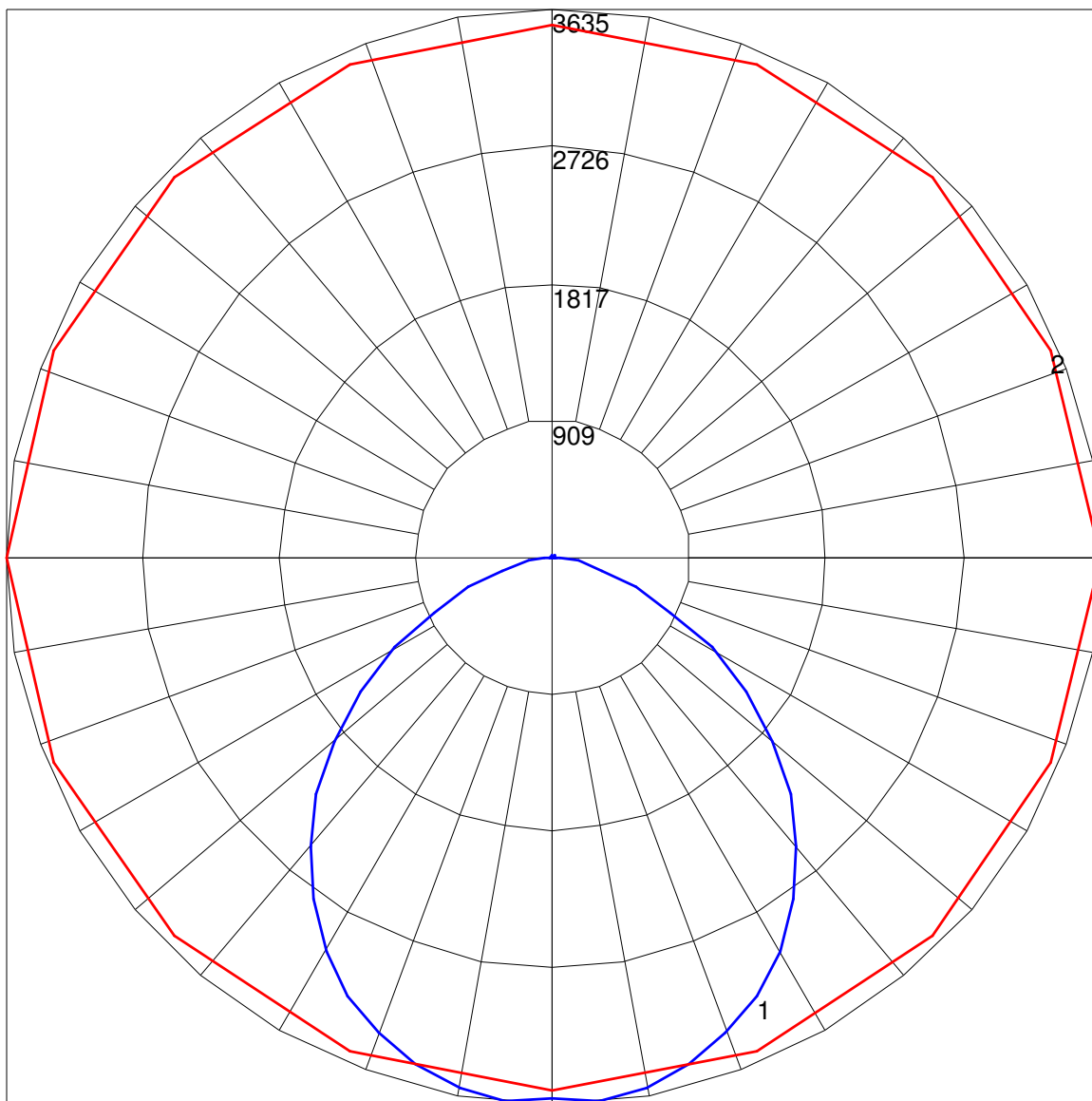
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UGR TABLE - CORRECTED

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	16.5	18.0	16.9	18.4	18.8	18.2	19.8	18.7	20.2	20.6
	3H	17.6	19.0	18.1	19.4	19.9	20.5	21.9	21.0	22.3	22.8
	4H	17.9	19.2	18.4	19.6	20.1	21.6	22.9	22.1	23.3	23.8
	6H	18.0	19.2	18.5	19.7	20.2	22.6	23.8	23.1	24.3	24.8
	8H	18.0	19.2	18.5	19.7	20.2	23.1	24.3	23.6	24.8	25.3
	12H	18.0	19.1	18.5	19.6	20.2	23.7	24.8	24.2	25.3	25.8
4H	2H	17.2	18.5	17.7	18.9	19.4	18.6	19.9	19.1	20.4	20.9
	3H	18.6	19.7	19.1	20.2	20.7	21.1	22.2	21.6	22.7	23.3
	4H	19.0	20.0	19.5	20.5	21.1	22.4	23.4	22.9	23.9	24.4
	6H	19.2	20.1	19.8	20.7	21.2	23.6	24.5	24.1	25.0	25.6
	8H	19.3	20.1	19.8	20.6	21.2	24.2	25.0	24.7	25.6	26.1
	12H	19.3	20.0	19.8	20.6	21.2	24.9	25.6	25.4	26.2	26.8
8H	4H	19.6	20.4	20.1	21.0	21.6	22.5	23.4	23.1	23.9	24.5
	6H	20.0	20.7	20.6	21.3	21.9	23.9	24.6	24.5	25.2	25.8
	8H	20.1	20.8	20.7	21.3	21.9	24.6	25.3	25.2	25.9	26.5
	12H	20.2	20.8	20.8	21.3	22.0	25.5	26.0	26.1	26.6	27.3
12H	4H	19.8	20.5	20.3	21.1	21.7	22.5	23.3	23.1	23.9	24.4
	6H	20.3	20.9	20.9	21.4	22.1	23.9	24.6	24.5	25.1	25.8
	8H	20.5	21.0	21.0	21.6	22.3	24.7	25.3	25.3	25.9	26.5

Maximum UGR = 27.3

POLAR GRAPH



Maximum Candela = 3634.64 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.)