



IES INDOOR REPORT

PHOTOMETRIC FILENAME : GLN-4-L150-840-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 20912.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 15-OCT-2020

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

[LUMINAIRE] LED 22" ARRAYS 1X4' NARROW INDUSTRIAL LUMINAIRE

[MORE] WHITE HOUSING w/WHITE REFLECTOR & NO LENS

[LUMCAT] GLN-4-L150/840-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	15043
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	149
Total Luminaire Watts	101.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.44
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.01 ft
Luminous Width (90-270)	0.65 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23029	23184	23429
55	21995	23021	13101
65	19541	12307	12890
75	14526	3667	4248
85	2303	5026	4816

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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	5483.270	5483.270	5483.270	5483.270	5483.270
5	5570.097	5468.982	5442.604	5437.109	5433.812
10	5511.846	5421.722	5401.939	5401.939	5393.146
15	5406.335	5331.598	5317.310	5306.320	5299.725
20	5260.158	5189.818	5185.422	5177.728	5172.233
25	5057.929	5015.065	5000.778	5018.363	5010.669
30	4829.322	4787.558	4790.855	4809.539	4817.232
35	4582.031	4533.672	4525.978	4561.149	4582.031
40	4261.102	4238.022	4289.678	4279.786	4299.570
45	3922.588	3890.715	3948.966	3979.740	3990.730
50	3513.733	3521.427	3585.173	3653.315	3665.405
55	3038.934	3088.392	3180.714	2770.760	1810.172
60	2521.271	2583.918	2775.157	1556.286	1572.772
65	1989.320	2055.265	1252.942	1306.797	1312.292
70	1392.524	1627.726	997.957	403.359	302.245
75	905.635	606.688	228.607	252.787	264.876
80	392.369	320.929	182.446	214.319	215.418
85	48.359	78.034	105.511	97.817	101.115
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2024.57	N.A.	13.50
0-30	4338.07	N.A.	28.80
0-40	7187.43	N.A.	47.80
0-60	12814.12	N.A.	85.20
0-80	14924.56	N.A.	99.20
0-90	15042.53	N.A.	100.00
10-90	14522.38	N.A.	96.50
20-40	5162.87	N.A.	34.30
20-50	8205.95	N.A.	54.60
40-70	7194.2	N.A.	47.80
60-80	2110.45	N.A.	14.00
70-80	542.93	N.A.	3.60
80-90	117.96	N.A.	0.80
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	15042.53	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	520.15
10-20	1504.42
20-30	2313.5
30-40	2849.37
40-50	3043.08
50-60	2583.6
60-70	1567.52
70-80	542.93
80-90	117.96
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
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	280	280	280	280	274	274	274	274	261	261	261	250	250	250	240	240	240	235
1	258	248	239	231	252	243	235	227	233	226	220	224	218	213	216	211	207	202
2	236	218	203	191	230	214	200	189	206	194	184	198	189	180	191	183	176	171
3	216	193	175	160	211	189	172	159	182	168	156	176	164	153	170	160	151	146
4	198	171	151	136	193	168	150	135	162	146	134	157	143	132	152	140	130	125
5	182	153	133	118	178	151	131	117	146	129	116	141	126	114	137	124	113	108
6	168	138	117	103	164	136	116	102	131	114	101	128	112	100	124	110	100	95
7	156	125	105	91	152	123	104	90	119	102	90	116	101	89	113	99	88	84
8	145	114	94	81	142	112	94	81	109	92	80	106	91	80	104	90	79	75
9	136	104	85	73	132	103	85	72	100	84	72	98	83	72	95	82	71	67
10	127	96	78	66	124	95	77	66	93	76	65	91	76	65	88	75	65	61

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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	20.4	22.0	20.7	22.3	22.6	18.2	19.7	18.5	20.1	20.4
	3H	22.0	23.5	22.4	23.8	24.1	18.6	20.0	19.0	20.4	20.7
	4H	22.4	23.8	22.8	24.1	24.5	18.7	20.0	19.1	20.3	20.7
	6H	22.6	23.9	23.0	24.2	24.6	18.8	20.0	19.2	20.4	20.8
	8H	22.7	23.8	23.1	24.2	24.6	18.8	20.0	19.2	20.4	20.8
	12H	22.7	23.8	23.1	24.2	24.6	18.9	20.0	19.3	20.3	20.8

UGR Viewed Endwise

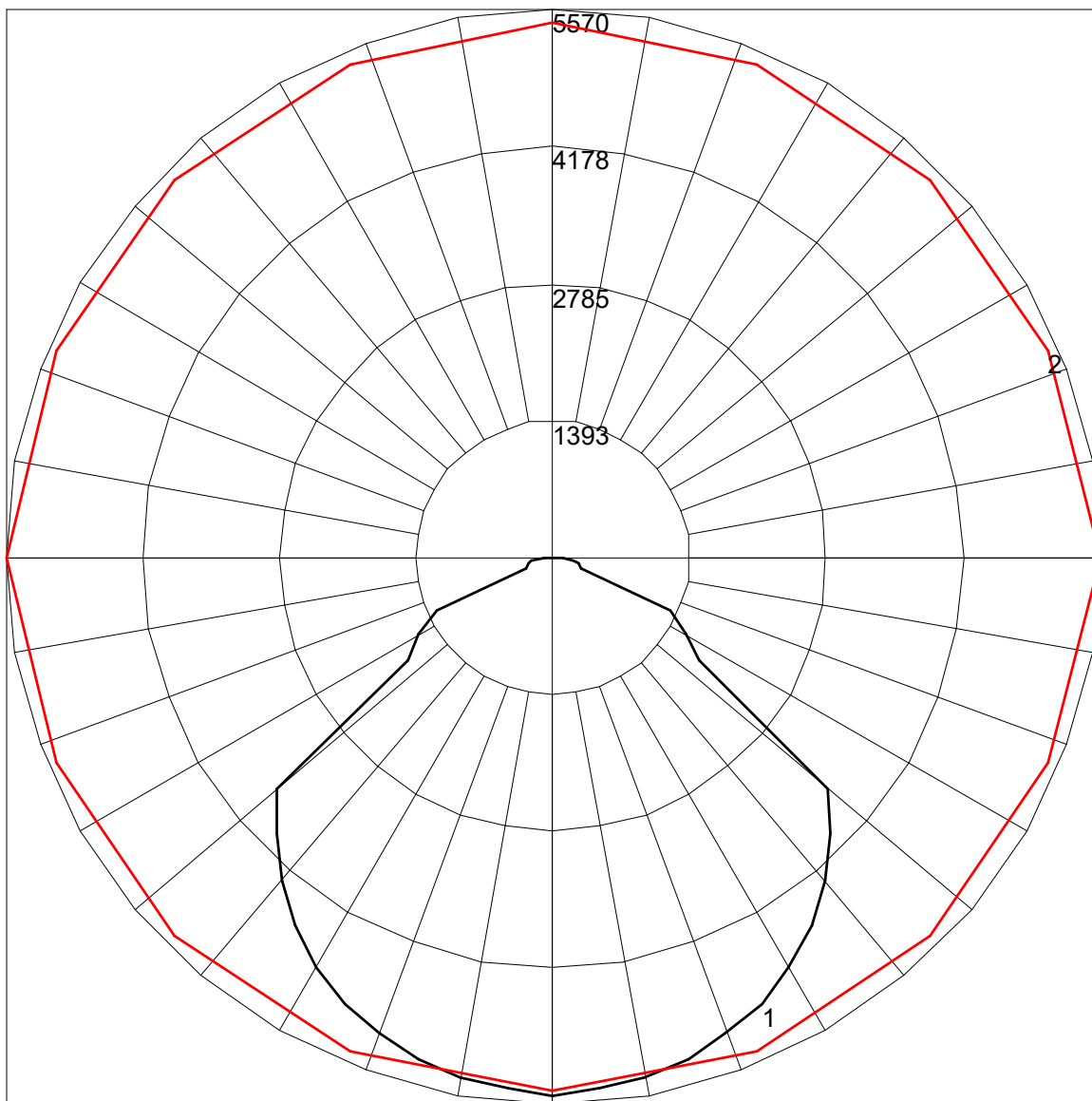
4H	2H	20.5	21.9	20.9	22.2	22.6	18.6	19.9	19.0	20.3	20.7
	3H	22.5	23.6	22.9	24.0	24.4	19.2	20.3	19.6	20.7	21.1
	4H	22.9	23.9	23.3	24.3	24.7	19.3	20.3	19.7	20.7	21.1
	6H	23.2	24.0	23.6	24.5	24.9	19.4	20.3	19.9	20.7	21.2
	8H	23.2	24.0	23.7	24.5	24.9	19.5	20.3	20.0	20.8	21.2
	12H	23.2	23.9	23.7	24.4	24.9	19.6	20.3	20.0	20.8	21.2

8H	4H	22.8	23.7	23.3	24.1	24.6	19.4	20.2	19.9	20.7	21.2
	6H	23.2	23.8	23.7	24.3	24.8	19.7	20.3	20.2	20.8	21.3
	8H	23.2	23.8	23.7	24.3	24.8	19.8	20.4	20.3	20.9	21.4
	12H	23.3	23.8	23.8	24.3	24.8	19.9	20.4	20.4	20.9	21.5

12H	4H	22.8	23.5	23.3	24.0	24.5	19.4	20.2	19.9	20.6	21.1
	6H	23.1	23.7	23.7	24.2	24.7	19.7	20.3	20.2	20.7	21.3
	8H	23.2	23.7	23.7	24.2	24.8	19.8	20.3	20.3	20.8	21.4

Maximum UGR = 24.9

POLAR GRAPH



Maximum Candela = 5570.097 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)