



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : GLN-4-L105-840-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-L105/840-DIM-UNV

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	10612
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	163
Total Luminaire Watts	65.3
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	16246	16355	16528
55	15516	16240	9242
65	13785	8682	9094
75	10247	2587	2997
85	1625	3545	3398

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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>
<b>0</b>	3868.142	3868.142	3868.142	3868.142	3868.142
<b>5</b>	3929.394	3858.063	3839.455	3835.578	3833.252
<b>10</b>	3888.301	3824.724	3810.767	3810.767	3804.565
<b>15</b>	3813.869	3761.146	3751.067	3743.313	3738.661
<b>20</b>	3710.749	3661.128	3658.027	3652.599	3648.723
<b>25</b>	3568.088	3537.850	3527.771	3540.176	3534.749
<b>30</b>	3406.818	3377.356	3379.682	3392.862	3398.290
<b>35</b>	3232.368	3198.253	3192.826	3217.637	3232.368
<b>40</b>	3005.971	2989.689	3026.129	3019.151	3033.107
<b>45</b>	2767.168	2744.683	2785.776	2807.485	2815.238
<b>50</b>	2478.743	2484.171	2529.140	2577.211	2585.739
<b>55</b>	2143.799	2178.689	2243.817	1954.617	1276.975
<b>60</b>	1778.617	1822.811	1957.719	1097.873	1109.503
<b>65</b>	1403.355	1449.875	883.881	921.872	925.749
<b>70</b>	982.348	1148.270	704.003	284.548	213.217
<b>75</b>	638.875	427.984	161.270	178.327	186.856
<b>80</b>	276.794	226.398	128.705	151.190	151.965
<b>85</b>	34.115	55.049	74.432	69.005	71.331
<b>90</b>	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	1428.22	N.A.	13.50
0-30	3060.27	N.A.	28.80
0-40	5070.33	N.A.	47.80
0-60	9039.65	N.A.	85.20
0-80	10528.45	N.A.	99.20
0-90	10611.67	N.A.	100.00
10-90	10244.73	N.A.	96.50
20-40	3642.11	N.A.	34.30
20-50	5788.84	N.A.	54.60
40-70	5075.11	N.A.	47.80
60-80	1488.8	N.A.	14.00
70-80	383.00	N.A.	3.60
80-90	83.22	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	10611.67	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	366.93
10-20	1061.29
20-30	1632.05
30-40	2010.07
40-50	2146.73
50-60	1822.59
60-70	1105.8
70-80	383.00
80-90	83.22
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	198	198	198	198	193	193	193	193	184	184	184	177	177	177	169	169	169	166
1	182	175	169	163	178	171	166	160	164	160	155	158	154	151	152	149	146	143
2	167	154	144	135	162	151	141	133	145	137	130	140	133	127	135	129	124	121
3	153	136	123	113	149	133	122	112	129	118	110	124	115	108	120	113	106	103
4	140	121	107	96	136	119	106	95	115	103	94	111	101	93	107	99	92	88
5	129	108	94	83	125	106	93	83	103	91	82	99	89	81	96	87	80	76
6	119	97	83	72	116	96	82	72	93	81	71	90	79	71	87	78	70	67
7	110	88	74	64	107	87	73	64	84	72	63	82	71	63	80	70	62	59
8	102	80	66	57	100	79	66	57	77	65	56	75	64	56	73	63	56	53
9	96	74	60	51	93	73	60	51	71	59	51	69	58	51	67	57	50	47
10	90	68	55	46	87	67	55	46	65	54	46	64	53	46	62	53	46	43

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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

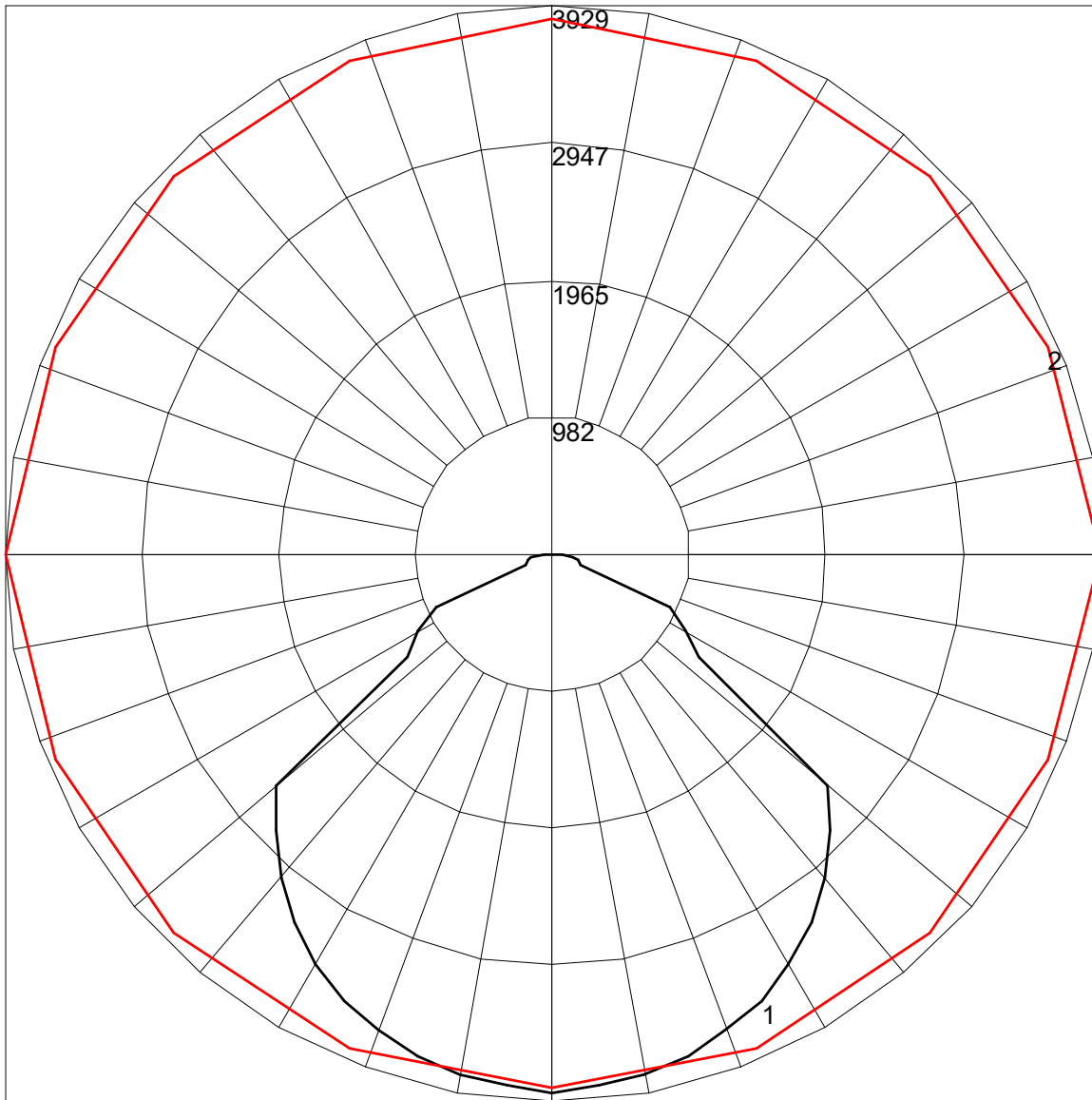
4H	2H	20.5	21.9	20.9	22.2	22.6	18.6	19.9	19.0	20.3	20.7
	3H	22.5	23.6	22.9	24.0	24.4	19.2	20.3	19.6	20.7	21.1
	4H	22.9	23.9	23.3	24.3	24.7	19.3	20.3	19.7	20.7	21.1
	6H	23.2	24.0	23.6	24.5	24.9	19.4	20.3	19.9	20.7	21.2
	8H	23.2	24.0	23.7	24.5	24.9	19.5	20.3	20.0	20.8	21.2
	12H	23.2	23.9	23.7	24.4	24.9	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 = 3929.394 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.)