H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-840-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19438.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-07-17
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 48 INCH, LOW PROFILE HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/OPEN BOTTOM
[MORE] 0-10V DIMMING DRIVERS
[LUMCAT] GL-4-L400-840-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, Warehouse, High Bay
[_SEARCH_MOUNTING] Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	40185
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	267
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.42
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	37335	37418	37829
55	34468	35970	27116
65	32420	25970	26439
75	24849	16563	15301
85	13631	8822	10032

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14615.927	14615.927	14615.927	14615.927	14615.927
5	14405.619	14401.594	14405.619	14410.650	14414.675
10	14392.537	14382.475	14392.537	14410.650	14410.650
15	14091.666	14109.778	14150.029	14155.060	14150.029
20	13544.260	13557.341	13580.485	13598.598	13598.598
25	12769.440	12805.665	12832.834	12782.521	12782.521
30	12030.845	12072.102	12039.901	12030.845	12025.814
35	11241.937	11296.275	11260.050	11283.194	11287.219
40	10740.820	10809.245	10753.901	10786.101	10818.302
45	10330.266	10384.604	10353.410	10430.892	10467.117
50	9130.804	9217.342	9299.855	9363.250	9304.887
55	7736.127	7867.947	8073.224	6350.507	6085.861
60	6482.327	6610.122	6615.153	5237.583	5260.727
65	5361.353	5429.779	4294.718	4422.513	4372.200
70	3929.445	4111.579	3359.902	2940.292	2356.661
75	2516.656	2078.933	1677.435	1709.636	1549.640
80	1399.708	1253.800	720.482	501.117	441.748
85	464.892	300.872	300.872	337.097	342.128
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5353.55	N.A.	13.30
0-30	11263.71	N.A.	28.00
0-40	18377.82	N.A.	45.70
0-60	32970.02	N.A.	82.00
0-80	39770.79	N.A.	99.00
0-90	40184.56	N.A.	100.00
10-90	38807.2	N.A.	96.60
20-40	13024.27	N.A.	32.40
20-50	20918.72	N.A.	52.10
40-70	19288.35	N.A.	48.00
60-80	6800.76	N.A.	16.90
70-80	2104.61	N.A.	5.20
80-90	413.78	N.A.	1.00
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	40184.56	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1377.36
10-20	3976.19
20-30	5910.16
30-40	7114.11
40-50	7894.46
50-60	6697.74
60-70	4696.15
70-80	2104.61
80-90	413.78
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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	24.7	26.4	25.1	26.7	27.0	23.2	24.8	23.6	25.1	25.4
	3H	26.5	28.0	26.9	28.3	28.7	24.7	26.1	25.0	26.4	26.8
	4H	27.0	28.4	27.4	28.7	29.1	25.0	26.4	25.4	26.7	27.1
	6H	27.3	28.6	27.8	29.0	29.4	25.1	26.4	25.5	26.8	27.2
	8H	27.4	28.6	27.9	29.0	29.4	25.1	26.4	25.6	26.7	27.1
	12H	27.5	28.6	27.9	29.0	29.4	25.2	26.3	25.6	26.7	27.1
4H	2H	25.1	26.5	25.5	26.8	27.2	23.9	25.2	24.2	25.6	25.9
	3H	27.1	28.3	27.5	28.7	29.1	25.5	26.7	25.9	27.1	27.5
	4H	27.7	28.7	28.1	29.1	29.6	26.0	27.0	26.4	27.4	27.9
	6H	28.2	29.0	28.6	29.5	29.9	26.1	27.0	26.6	27.5	27.9
	8H	28.3	29.1	28.7	29.6	30.0	26.2	27.0	26.6	27.4	27.9
	12H	28.3	29.1	28.8	29.6	30.0	26.2	26.9	26.7	27.4	27.9
8H	4H	27.8	28.6	28.3	29.1	29.5	26.2	27.1	26.7	27.5	28.0
	6H	28.3	29.0	28.8	29.5	30.0	26.4	27.1	26.9	27.6	28.1
	8H	28.5	29.1	29.0	29.6	30.1	26.4	27.1	26.9	27.6	28.0
	12H	28.6	29.1	29.1	29.6	30.2	26.5	27.1	27.0	27.6	28.1
12H	4H	27.8	28.5	28.3	29.0	29.5	26.2	27.0	26.7	27.5	27.9
	6H	28.3	28.9	28.8	29.4	29.9	26.4	27.1	26.9	27.5	28.0
	8H	28.5	29.0	29.0	29.5	30.1	26.5	27.0	27.0	27.5	28.1

Maximum UGR = 30.2

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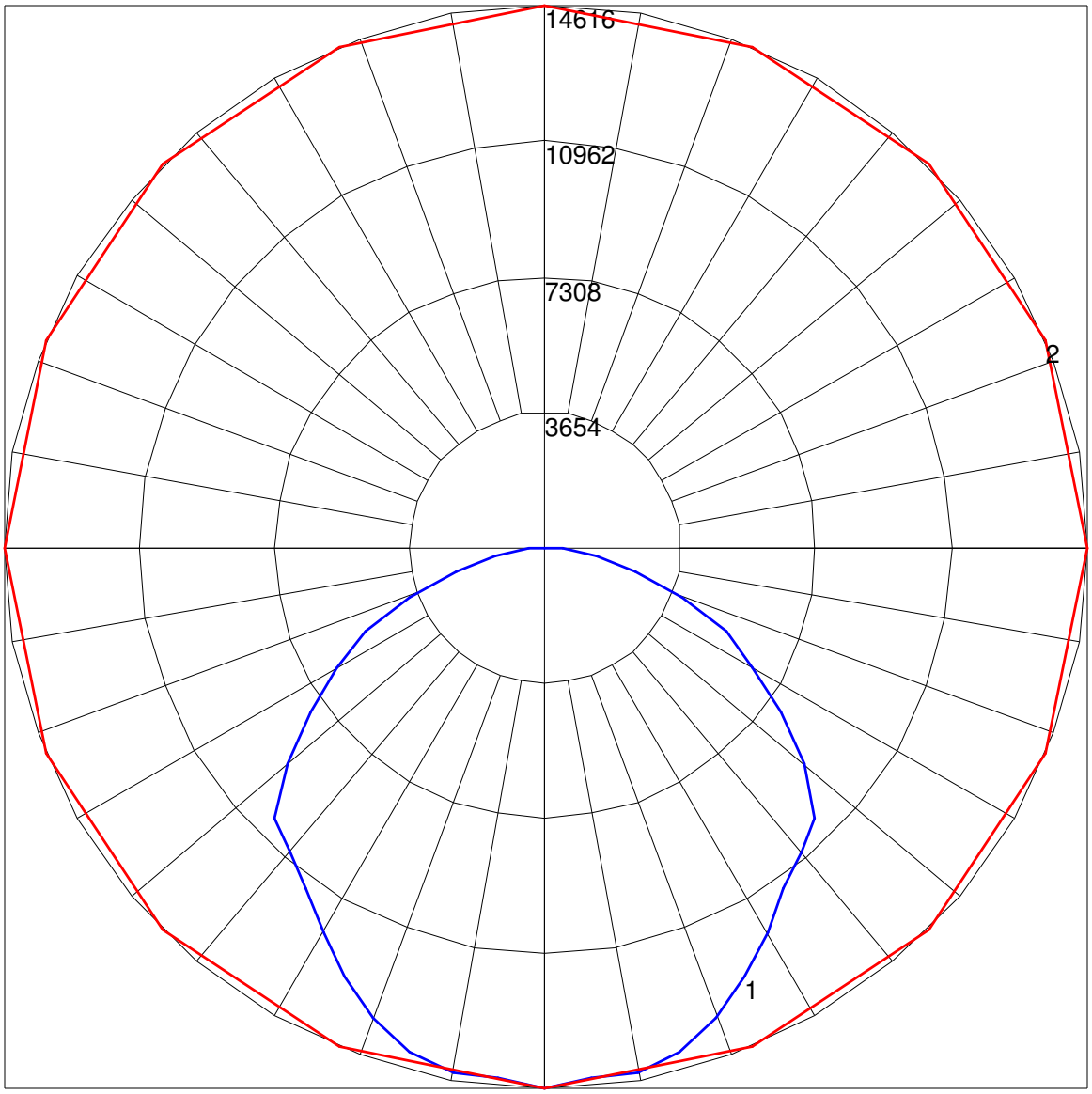
POLAR GRAPH



Maximum Candela = 14615.927 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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