H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-940-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-L400-940-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	33353
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
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	30988	31057	31398
55	28609	29855	22506
65	26909	21555	21944
75	20625	13747	12700
85	11314	7322	8326

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	12131.222	12131.222	12131.222	12131.222	12131.222
5	11956.666	11953.325	11956.666	11960.842	11964.183
10	11945.809	11937.457	11945.809	11960.842	11960.842
15	11696.085	11711.119	11744.526	11748.702	11744.526
20	11241.738	11252.596	11271.805	11286.839	11286.839
25	10598.637	10628.705	10651.255	10609.495	10609.495
30	9985.604	10019.847	9993.120	9985.604	9981.428
35	9330.810	9375.911	9345.843	9365.053	9368.394
40	8914.882	8971.676	8925.740	8952.466	8979.192
45	8574.122	8619.223	8593.332	8657.642	8687.709
50	7578.569	7650.396	7718.882	7771.499	7723.058
55	6420.987	6530.398	6700.778	5270.922	5051.266
60	5380.333	5486.403	5490.579	4347.195	4366.405
65	4449.924	4506.718	3564.617	3670.687	3628.927
70	3261.440	3412.611	2788.720	2440.443	1956.029
75	2088.825	1725.515	1392.272	1418.998	1286.202
80	1161.758	1040.654	598.000	415.928	366.651
85	385.861	249.724	249.724	279.791	283.967
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4443.45	N.A.	13.30
0-30	9348.88	N.A.	28.00
0-40	15253.6	N.A.	45.70
0-60	27365.13	N.A.	82.00
0-80	33009.76	N.A.	99.00
0-90	33353.2	N.A.	100.00
10-90	32209.98	N.A.	96.60
20-40	10810.14	N.A.	32.40
20-50	17362.54	N.A.	52.10
40-70	16009.34	N.A.	48.00
60-80	5644.63	N.A.	16.90
70-80	1746.83	N.A.	5.20
80-90	343.43	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	33353.2	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1143.21
10-20	3300.24
20-30	4905.43
30-40	5904.71
40-50	6552.4
50-60	5559.13
60-70	3897.81
70-80	1746.83
80-90	343.43
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	24.1	25.8	24.5	26.1	26.4	22.6	24.2	23.0	24.5	24.8
	3H	25.9	27.4	26.3	27.7	28.1	24.1	25.5	24.4	25.8	26.2
	4H	26.4	27.8	26.8	28.1	28.5	24.4	25.8	24.8	26.1	26.5
	6H	26.7	28.0	27.2	28.4	28.8	24.5	25.8	24.9	26.2	26.6
	8H	26.8	28.0	27.3	28.4	28.8	24.5	25.8	25.0	26.1	26.5
	12H	26.9	28.0	27.3	28.4	28.8	24.6	25.7	25.0	26.1	26.5
4H	2H	24.5	25.9	24.9	26.2	26.6	23.3	24.6	23.6	25.0	25.3
	3H	26.5	27.7	26.9	28.1	28.5	24.9	26.1	25.3	26.5	26.9
	4H	27.1	28.1	27.5	28.5	29.0	25.4	26.4	25.8	26.8	27.3
	6H	27.6	28.4	28.0	28.9	29.3	25.5	26.4	26.0	26.9	27.3
	8H	27.7	28.5	28.1	29.0	29.4	25.6	26.4	26.0	26.8	27.3
	12H	27.7	28.5	28.2	29.0	29.4	25.6	26.3	26.1	26.8	27.3
8H	4H	27.2	28.0	27.7	28.5	28.9	25.6	26.5	26.1	26.9	27.4
	6H	27.7	28.4	28.2	28.9	29.4	25.8	26.5	26.3	27.0	27.5
	8H	27.9	28.5	28.4	29.0	29.5	25.8	26.5	26.3	27.0	27.4
	12H	28.0	28.5	28.5	29.0	29.6	25.9	26.5	26.4	27.0	27.5
12H	4H	27.2	27.9	27.7	28.4	28.9	25.6	26.4	26.1	26.9	27.3
	6H	27.7	28.3	28.2	28.8	29.3	25.8	26.5	26.3	26.9	27.4
	8H	27.9	28.4	28.4	28.9	29.5	25.9	26.4	26.4	26.9	27.5

Maximum UGR = 29.6

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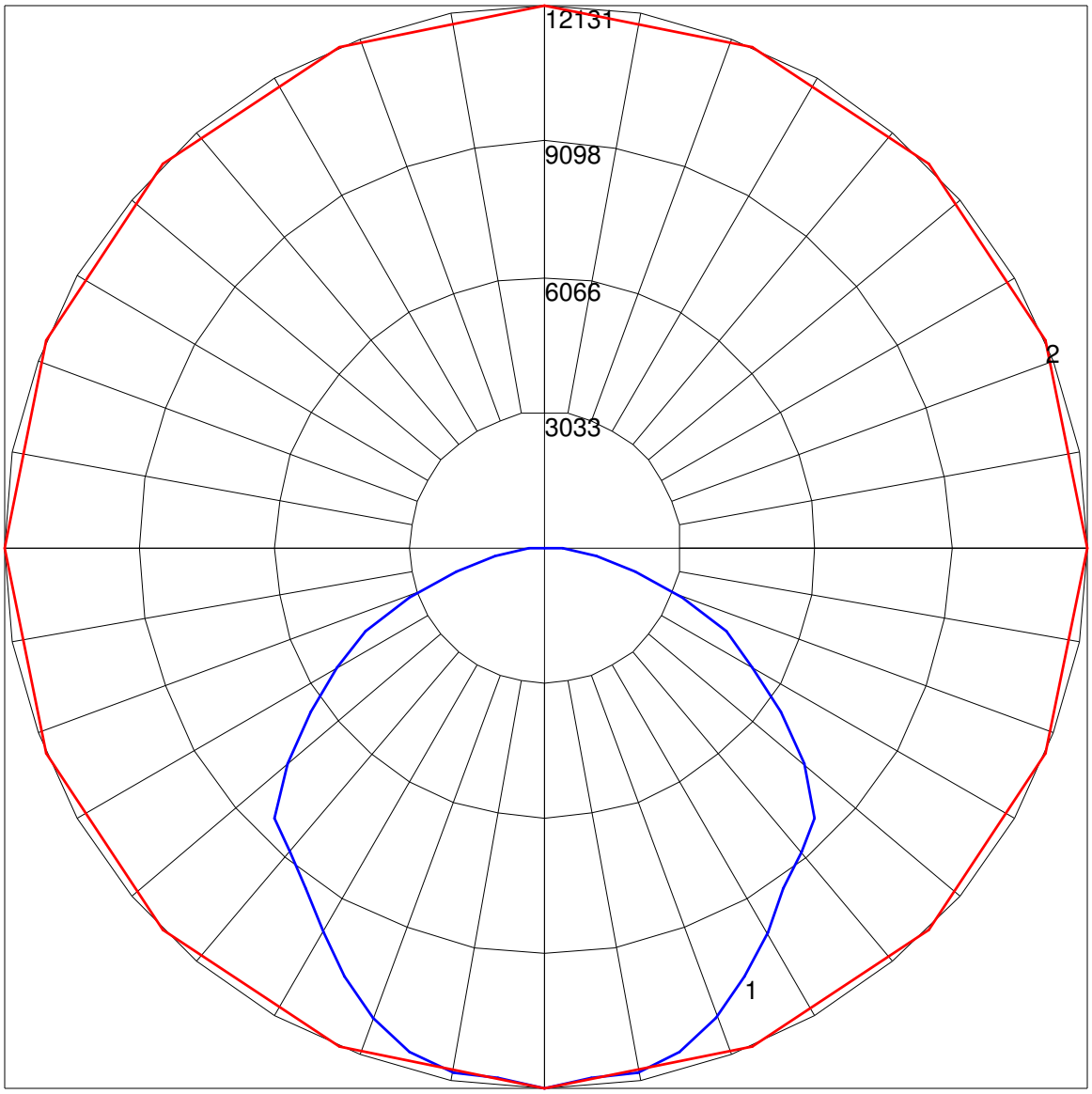
POLAR GRAPH



Maximum Candela = 12131.222 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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