H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-935-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-L400-935-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	32148
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
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	29868	29935	30264
55	27575	28776	21692
65	25936	20776	21151
75	19879	13250	12241
85	10905	7058	8025

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	11692.743	11692.743	11692.743	11692.743	11692.743
5	11524.496	11521.276	11524.496	11528.521	11531.741
10	11514.031	11505.981	11514.031	11528.521	11528.521
15	11273.334	11287.824	11320.024	11324.049	11320.024
20	10835.409	10845.874	10864.389	10878.880	10878.880
25	10215.553	10244.533	10266.268	10226.018	10226.018
30	9624.677	9657.682	9631.922	9624.677	9620.652
35	8993.551	9037.021	9008.041	9026.556	9029.776
40	8592.657	8647.397	8603.122	8628.882	8654.642
45	8264.213	8307.684	8282.728	8344.714	8373.694
50	7304.644	7373.874	7439.885	7490.600	7443.910
55	6188.902	6294.358	6458.580	5080.406	4868.689
60	5185.862	5288.098	5292.123	4190.067	4208.582
65	4289.083	4343.824	3435.775	3538.011	3497.760
70	3143.557	3289.263	2687.922	2352.234	1885.329
75	2013.325	1663.147	1341.949	1367.709	1239.712
80	1119.766	1003.040	576.386	400.894	353.399
85	371.914	240.697	240.697	269.678	273.703
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4282.84	N.A.	13.30
0-30	9010.97	N.A.	28.00
0-40	14702.26	N.A.	45.70
0-60	26376.02	N.A.	82.00
0-80	31816.63	N.A.	99.00
0-90	32147.65	N.A.	100.00
10-90	31045.76	N.A.	96.60
20-40	10419.42	N.A.	32.40
20-50	16734.98	N.A.	52.10
40-70	15430.68	N.A.	48.00
60-80	5440.61	N.A.	16.90
70-80	1683.69	N.A.	5.20
80-90	331.02	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	32147.65	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1101.89
10-20	3180.95
20-30	4728.13
30-40	5691.29
40-50	6315.56
50-60	5358.2
60-70	3756.92
70-80	1683.69
80-90	331.02
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	24.0	25.7	24.4	26.0	26.3	22.5	24.1	22.9	24.4	24.7
	3H	25.8	27.3	26.2	27.6	28.0	24.0	25.4	24.3	25.7	26.1
	4H	26.3	27.7	26.7	28.0	28.4	24.3	25.7	24.7	26.0	26.4
	6H	26.6	27.9	27.1	28.3	28.7	24.4	25.7	24.8	26.1	26.5
	8H	26.7	27.9	27.2	28.3	28.7	24.4	25.7	24.9	26.0	26.4
	12H	26.8	27.9	27.2	28.3	28.7	24.5	25.6	24.9	26.0	26.4
4H	2H	24.4	25.8	24.8	26.1	26.5	23.2	24.5	23.5	24.9	25.2
	3H	26.4	27.6	26.8	28.0	28.4	24.8	26.0	25.2	26.4	26.8
	4H	27.0	28.0	27.4	28.4	28.9	25.3	26.3	25.7	26.7	27.2
	6H	27.5	28.3	27.9	28.8	29.2	25.4	26.3	25.9	26.8	27.2
	8H	27.6	28.4	28.0	28.9	29.3	25.5	26.3	25.9	26.7	27.2
	12H	27.6	28.4	28.1	28.9	29.3	25.5	26.2	26.0	26.7	27.2
8H	4H	27.1	27.9	27.6	28.4	28.8	25.5	26.4	26.0	26.8	27.3
	6H	27.6	28.3	28.1	28.8	29.3	25.7	26.4	26.2	26.9	27.4
	8H	27.8	28.4	28.3	28.9	29.4	25.7	26.4	26.2	26.9	27.3
	12H	27.9	28.4	28.4	28.9	29.5	25.8	26.4	26.3	26.9	27.4
12H	4H	27.1	27.8	27.6	28.3	28.8	25.5	26.3	26.0	26.8	27.2
	6H	27.6	28.2	28.1	28.7	29.2	25.7	26.4	26.2	26.8	27.3
	8H	27.8	28.3	28.3	28.8	29.4	25.8	26.3	26.3	26.8	27.4

Maximum UGR = 29.5

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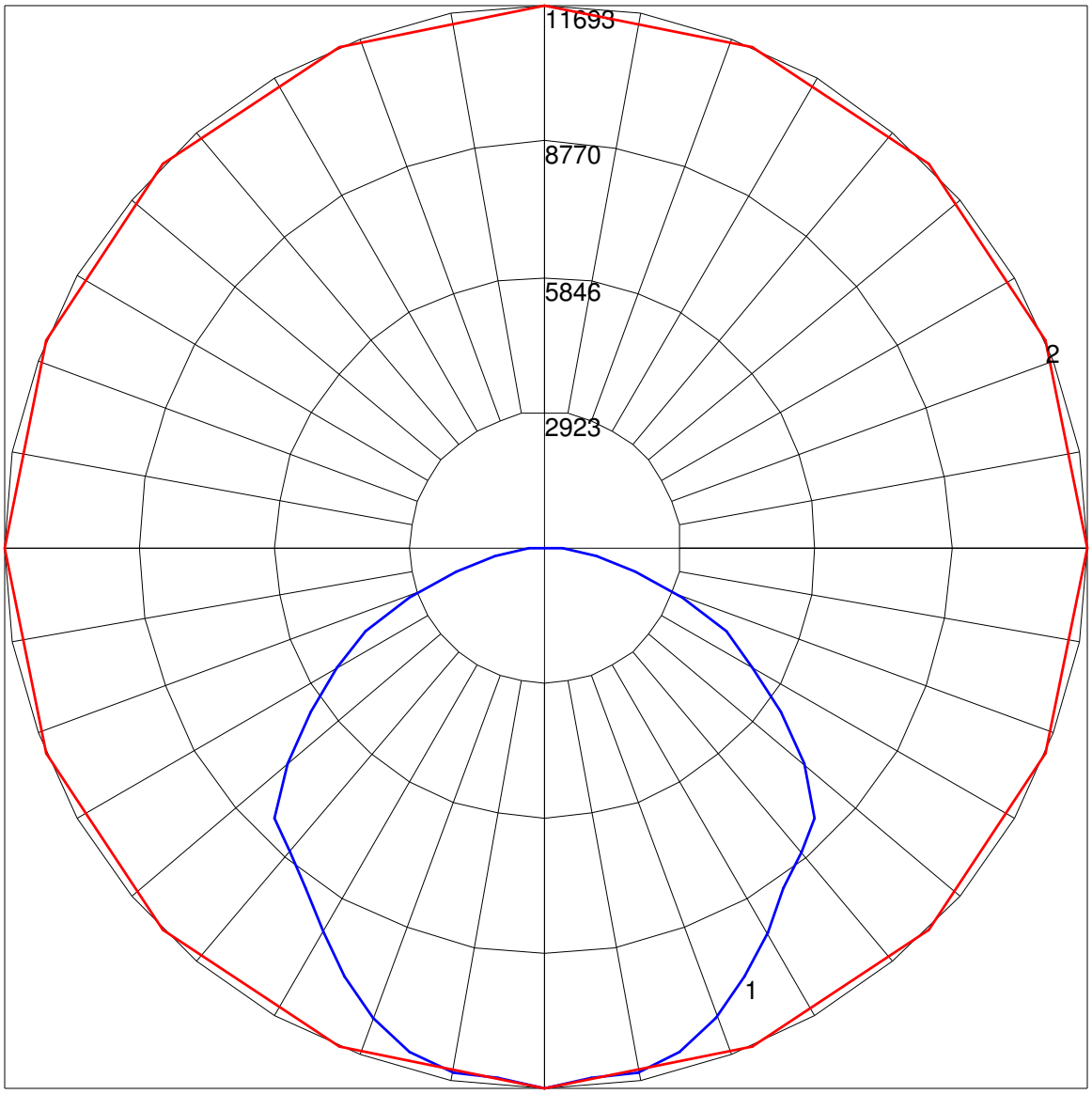
POLAR GRAPH



Maximum Candela = 11692.743 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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