H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-835-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-L400-835-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	38979
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	146
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	36215	36296	36695
55	33434	34891	26302
65	31447	25191	25645
75	24104	16066	14842
85	13223	8557	9731

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	14177.451	14177.451	14177.451	14177.451	14177.451
5	13973.452	13969.548	13973.452	13978.332	13982.237
10	13960.763	13951.002	13960.763	13978.332	13978.332
15	13668.917	13686.487	13725.530	13730.410	13725.530
20	13137.934	13150.623	13173.073	13190.642	13190.642
25	12386.358	12421.497	12447.851	12399.047	12399.047
30	11669.921	11709.940	11678.706	11669.921	11665.041
35	10904.681	10957.388	10922.250	10944.699	10948.604
40	10418.596	10484.969	10431.285	10462.520	10493.754
45	10020.359	10073.067	10042.809	10117.966	10153.105
50	8856.881	8940.823	9020.861	9082.353	9025.741
55	7504.044	7631.910	7831.029	6159.993	5903.286
60	6287.858	6411.819	6416.700	5080.457	5102.906
65	5200.514	5266.887	4165.877	4289.838	4241.034
70	3811.563	3988.232	3259.106	2852.083	2285.961
75	2441.157	2016.566	1627.113	1658.347	1503.151
80	1357.717	1216.186	698.868	486.084	428.496
85	450.945	291.846	291.846	326.984	331.865
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5192.95	N.A.	13.30
0-30	10925.8	N.A.	28.00
0-40	17826.49	N.A.	45.70
0-60	31980.93	N.A.	82.00
0-80	38577.67	N.A.	99.00
0-90	38979.03	N.A.	100.00
10-90	37642.99	N.A.	96.60
20-40	12633.54	N.A.	32.40
20-50	20291.16	N.A.	52.10
40-70	18709.7	N.A.	48.00
60-80	6596.74	N.A.	16.90
70-80	2041.47	N.A.	5.20
80-90	401.36	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	38979.03	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1336.04
10-20	3856.91
20-30	5732.86
30-40	6900.69
40-50	7657.62
50-60	6496.81
60-70	4555.27
70-80	2041.47
80-90	401.36
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	24.6	26.3	25.0	26.6	26.9	23.1	24.7	23.5	25.0	25.3
	3H	26.4	27.9	26.8	28.2	28.6	24.6	26.0	24.9	26.3	26.7
	4H	26.9	28.3	27.3	28.6	29.0	24.9	26.3	25.3	26.6	27.0
	6H	27.2	28.5	27.7	28.9	29.3	25.0	26.3	25.4	26.7	27.1
	8H	27.3	28.5	27.8	28.9	29.3	25.0	26.3	25.5	26.6	27.0
	12H	27.4	28.5	27.8	28.9	29.3	25.1	26.2	25.5	26.6	27.0
4H	2H	25.0	26.4	25.4	26.7	27.1	23.8	25.1	24.1	25.5	25.8
	3H	27.0	28.2	27.4	28.6	29.0	25.4	26.6	25.8	27.0	27.4
	4H	27.6	28.6	28.0	29.0	29.5	25.9	26.9	26.3	27.3	27.8
	6H	28.1	28.9	28.5	29.4	29.8	26.0	26.9	26.5	27.4	27.8
	8H	28.2	29.0	28.6	29.5	29.9	26.1	26.9	26.5	27.3	27.8
	12H	28.2	29.0	28.7	29.5	29.9	26.1	26.8	26.6	27.3	27.8
8H	4H	27.7	28.5	28.2	29.0	29.4	26.1	27.0	26.6	27.4	27.9
	6H	28.2	28.9	28.7	29.4	29.9	26.3	27.0	26.8	27.5	28.0
	8H	28.4	29.0	28.9	29.5	30.0	26.3	27.0	26.8	27.5	27.9
	12H	28.5	29.0	29.0	29.5	30.1	26.4	27.0	26.9	27.5	28.0
12H	4H	27.7	28.4	28.2	28.9	29.4	26.1	26.9	26.6	27.4	27.8
	6H	28.2	28.8	28.7	29.3	29.8	26.3	27.0	26.8	27.4	27.9
	8H	28.4	28.9	28.9	29.4	30.0	26.4	26.9	26.9	27.4	28.0

Maximum UGR = 30.1

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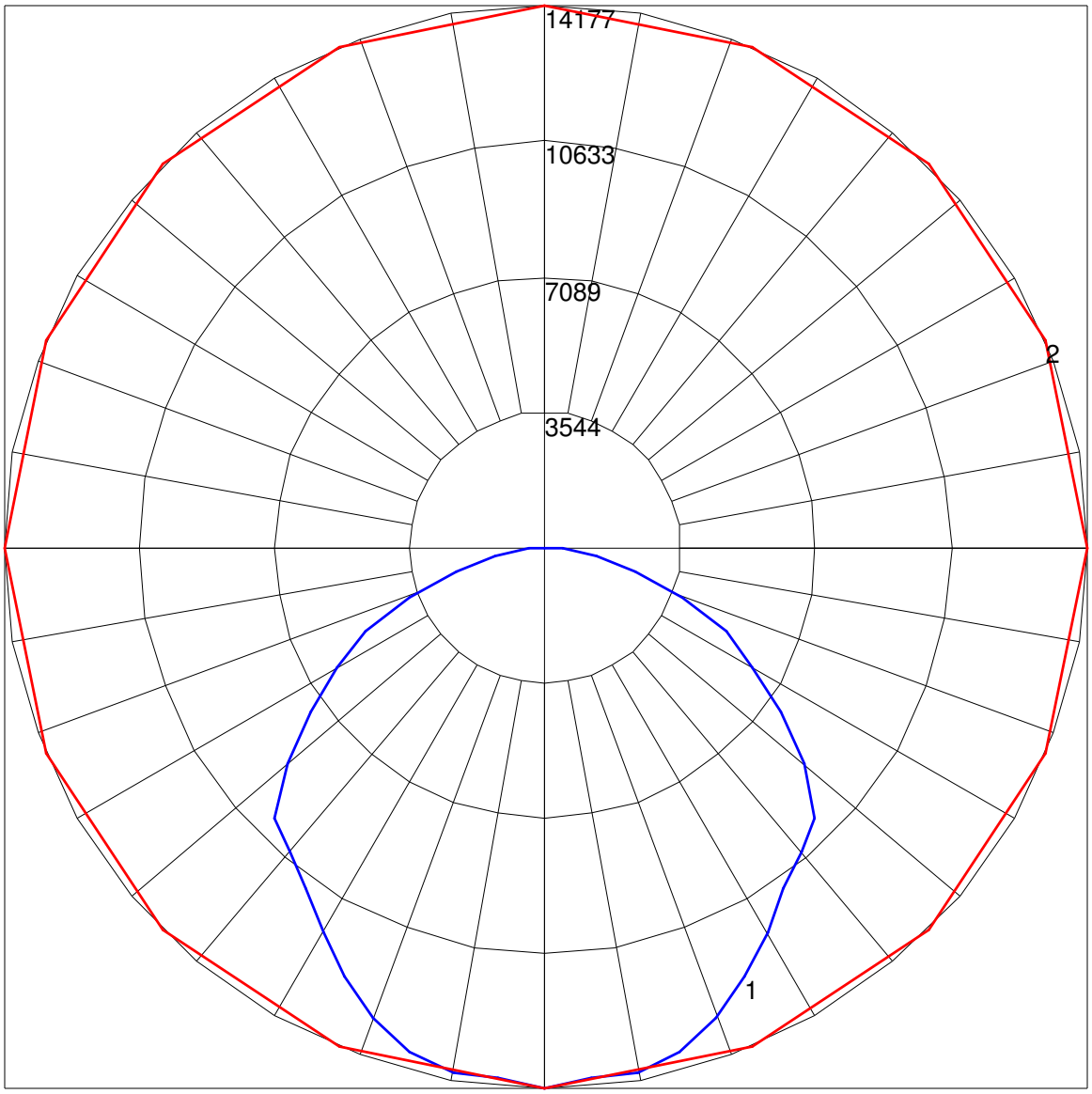
POLAR GRAPH



Maximum Candela = 14177.451 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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