H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-830-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-L200-830-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	19291
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	133
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	17923	17963	18160
55	16547	17268	13017
65	15564	12467	12692
75	11929	7951	7345
85	6544	4235	4816

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	7016.519	7016.519	7016.519	7016.519	7016.519
5	6915.559	6913.626	6915.559	6917.974	6919.906
10	6909.279	6904.448	6909.279	6917.974	6917.974
15	6764.842	6773.538	6792.860	6795.275	6792.860
20	6502.055	6508.335	6519.445	6528.141	6528.141
25	6130.095	6147.485	6160.528	6136.375	6136.375
30	5775.525	5795.331	5779.873	5775.525	5773.110
35	5396.802	5422.888	5405.497	5416.608	5418.540
40	5156.236	5189.084	5162.516	5177.974	5193.432
45	4959.145	4985.231	4970.256	5007.452	5024.842
50	4383.332	4424.875	4464.487	4494.920	4466.902
55	3713.804	3777.085	3875.631	3048.623	2921.577
60	3111.905	3173.254	3175.669	2514.353	2525.464
65	2573.770	2606.619	2061.721	2123.071	2098.917
70	1886.369	1973.804	1612.954	1411.516	1131.338
75	1208.146	998.012	805.269	820.727	743.920
80	671.943	601.899	345.875	240.566	212.066
85	223.176	144.436	144.436	161.827	164.242
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2570.03	N.A.	13.30
0-30	5407.26	N.A.	28.00
0-40	8822.45	N.A.	45.70
0-60	15827.58	N.A.	82.00
0-80	19092.36	N.A.	99.00
0-90	19290.99	N.A.	100.00
10-90	18629.78	N.A.	96.60
20-40	6252.43	N.A.	32.40
20-50	10042.24	N.A.	52.10
40-70	9259.56	N.A.	48.00
60-80	3264.77	N.A.	16.90
70-80	1010.34	N.A.	5.20
80-90	198.64	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	19290.99	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	661.22
10-20	1908.81
20-30	2837.23
30-40	3415.2
40-50	3789.81
50-60	3215.32
60-70	2254.43
70-80	1010.34
80-90	198.64
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	22.2	23.9	22.6	24.2	24.5	20.7	22.3	21.1	22.6	22.9
	3H	24.0	25.5	24.4	25.8	26.2	22.2	23.6	22.5	23.9	24.3
	4H	24.5	25.9	24.9	26.2	26.6	22.5	23.9	22.9	24.2	24.6
	6H	24.8	26.1	25.3	26.5	26.9	22.6	23.9	23.0	24.3	24.7
	8H	24.9	26.1	25.4	26.5	26.9	22.6	23.9	23.1	24.2	24.6
	12H	25.0	26.1	25.4	26.5	26.9	22.7	23.8	23.1	24.2	24.6
4H	2H	22.6	24.0	23.0	24.3	24.7	21.4	22.7	21.7	23.1	23.4
	3H	24.6	25.8	25.0	26.2	26.6	23.0	24.2	23.4	24.6	25.0
	4H	25.2	26.2	25.6	26.6	27.1	23.5	24.5	23.9	24.9	25.4
	6H	25.7	26.5	26.1	27.0	27.4	23.6	24.5	24.1	25.0	25.4
	8H	25.8	26.6	26.2	27.1	27.5	23.7	24.5	24.1	24.9	25.4
	12H	25.8	26.6	26.3	27.1	27.5	23.7	24.4	24.2	24.9	25.4
8H	4H	25.3	26.1	25.8	26.6	27.0	23.7	24.6	24.2	25.0	25.5
	6H	25.8	26.5	26.3	27.0	27.5	23.9	24.6	24.4	25.1	25.6
	8H	26.0	26.6	26.5	27.1	27.6	23.9	24.6	24.4	25.1	25.5
	12H	26.1	26.6	26.6	27.1	27.7	24.0	24.6	24.5	25.1	25.6
12H	4H	25.3	26.0	25.8	26.5	27.0	23.7	24.5	24.2	25.0	25.4
	6H	25.8	26.4	26.3	26.9	27.4	23.9	24.6	24.4	25.0	25.5
	8H	26.0	26.5	26.5	27.0	27.6	24.0	24.5	24.5	25.0	25.6

Maximum UGR = 27.7

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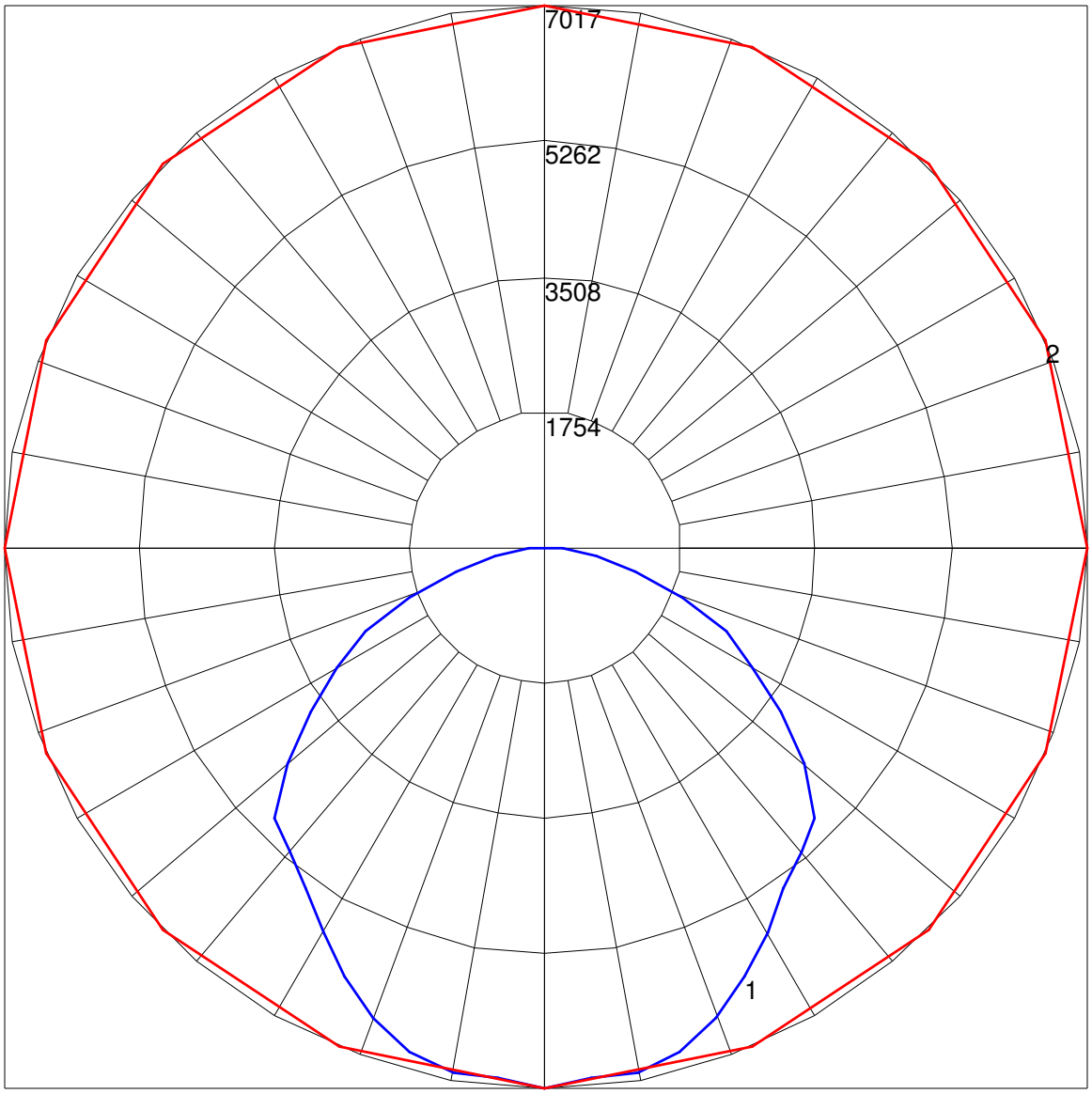
POLAR GRAPH



Maximum Candela = 7016.519 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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