H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-830-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-L300-830-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	28933
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	145
Total Luminaire Watts	200
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	26881	26942	27237
55	24817	25899	19523
65	23343	18699	19036
75	17892	11925	11017
85	9815	6352	7223

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	10523.557	10523.557	10523.557	10523.557	10523.557
5	10372.134	10369.236	10372.134	10375.757	10378.655
10	10362.715	10355.470	10362.715	10375.757	10375.757
15	10146.086	10159.127	10188.108	10191.730	10188.108
20	9751.951	9761.369	9778.033	9791.074	9791.074
25	9194.075	9220.158	9239.720	9203.494	9203.494
30	8662.282	8691.987	8668.803	8662.282	8658.660
35	8094.264	8133.388	8107.305	8123.969	8126.867
40	7733.456	7782.723	7742.875	7766.059	7789.244
45	7437.855	7476.978	7454.518	7510.306	7536.389
50	6574.235	6636.543	6695.953	6741.597	6699.576
55	5570.059	5664.970	5812.771	4572.404	4381.857
60	4667.315	4759.329	4762.951	3771.092	3787.756
65	3860.207	3909.474	3092.223	3184.236	3148.011
70	2829.225	2960.362	2419.150	2117.028	1696.810
75	1812.008	1496.845	1207.764	1230.948	1115.751
80	1007.798	902.744	518.752	360.808	318.061
85	334.725	216.630	216.630	242.712	246.335
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3854.59	N.A.	13.30
0-30	8109.94	N.A.	28.00
0-40	13232.14	N.A.	45.70
0-60	23738.62	N.A.	82.00
0-80	28635.21	N.A.	99.00
0-90	28933.13	N.A.	100.00
10-90	27941.42	N.A.	96.60
20-40	9377.55	N.A.	32.40
20-50	15061.61	N.A.	52.10
40-70	13887.73	N.A.	48.00
60-80	4896.59	N.A.	16.90
70-80	1515.33	N.A.	5.20
80-90	297.92	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	28933.13	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	991.71
10-20	2862.88
20-30	4255.35
30-40	5122.2
40-50	5684.06
50-60	4822.42
60-70	3381.26
70-80	1515.33
80-90	297.92
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	23.6	25.3	24.0	25.6	25.9	22.1	23.7	22.5	24.0	24.3
	3H	25.4	26.9	25.8	27.2	27.6	23.6	25.0	23.9	25.3	25.7
	4H	25.9	27.3	26.3	27.6	28.0	23.9	25.3	24.3	25.6	26.0
	6H	26.2	27.5	26.7	27.9	28.3	24.0	25.3	24.4	25.7	26.1
	8H	26.3	27.5	26.8	27.9	28.3	24.0	25.3	24.5	25.6	26.0
	12H	26.4	27.5	26.8	27.9	28.3	24.1	25.2	24.5	25.6	26.0
4H	2H	24.0	25.4	24.4	25.7	26.1	22.8	24.1	23.1	24.5	24.8
	3H	26.0	27.2	26.4	27.6	28.0	24.4	25.6	24.8	26.0	26.4
	4H	26.6	27.6	27.0	28.0	28.5	24.9	25.9	25.3	26.3	26.8
	6H	27.1	27.9	27.5	28.4	28.8	25.0	25.9	25.5	26.4	26.8
	8H	27.2	28.0	27.6	28.5	28.9	25.1	25.9	25.5	26.3	26.8
	12H	27.2	28.0	27.7	28.5	28.9	25.1	25.8	25.6	26.3	26.8
8H	4H	26.7	27.5	27.2	28.0	28.4	25.1	26.0	25.6	26.4	26.9
	6H	27.2	27.9	27.7	28.4	28.9	25.3	26.0	25.8	26.5	27.0
	8H	27.4	28.0	27.9	28.5	29.0	25.3	26.0	25.8	26.5	26.9
	12H	27.5	28.0	28.0	28.5	29.1	25.4	26.0	25.9	26.5	27.0
12H	4H	26.7	27.4	27.2	27.9	28.4	25.1	25.9	25.6	26.4	26.8
	6H	27.2	27.8	27.7	28.3	28.8	25.3	26.0	25.8	26.4	26.9
	8H	27.4	27.9	27.9	28.4	29.0	25.4	25.9	25.9	26.4	27.0

Maximum UGR = 29.1

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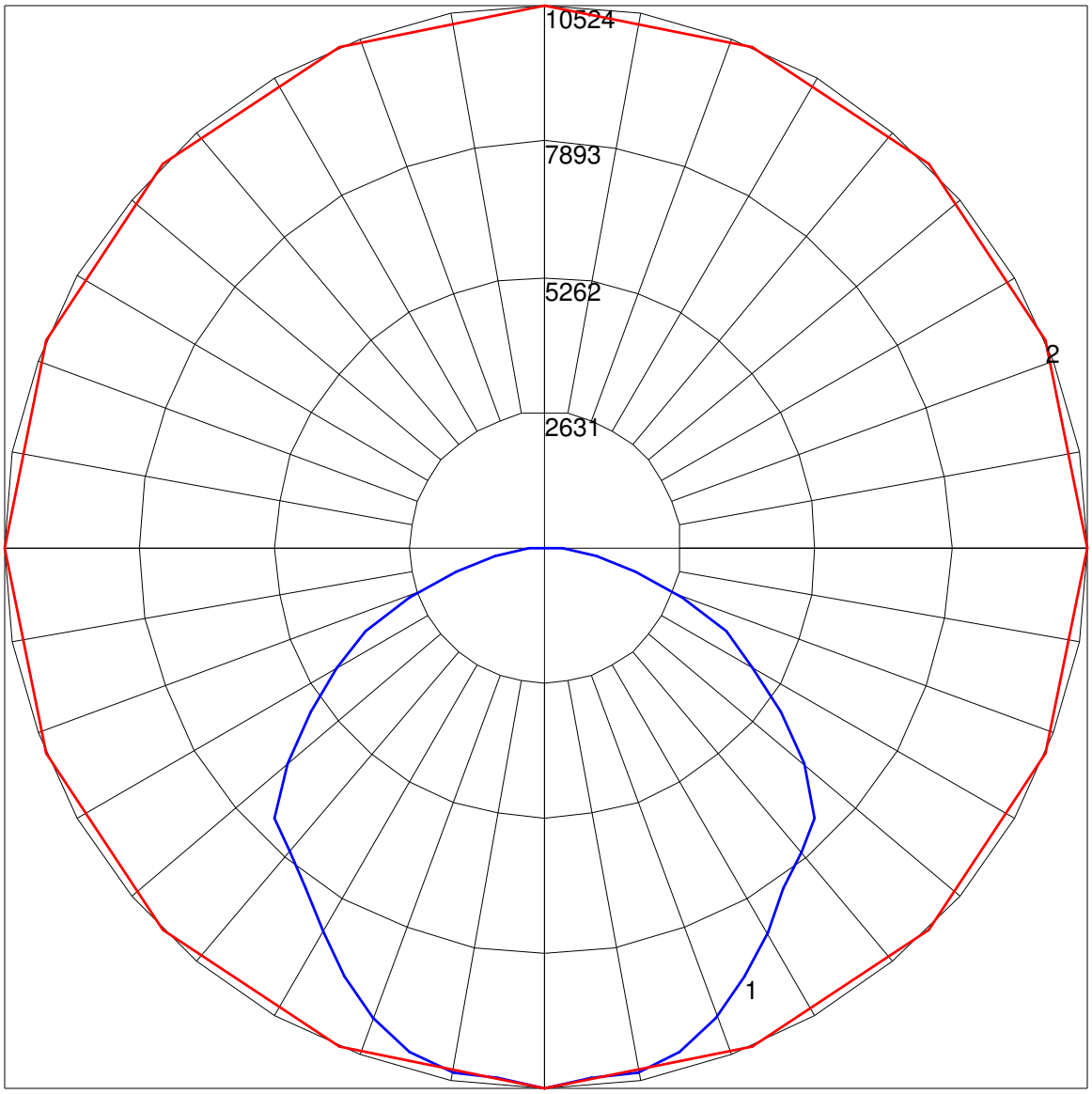
POLAR GRAPH



Maximum Candela = 10523.557 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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