H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-835-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-L300-835-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	29235
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	146
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	27161	27222	27521
55	25076	26169	19727
65	23586	18893	19234
75	18078	12050	11132
85	9917	6418	7298

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	10633.177	10633.177	10633.177	10633.177	10633.177
5	10480.176	10477.248	10480.176	10483.837	10486.765
10	10470.660	10463.339	10470.660	10483.837	10483.837
15	10251.773	10264.951	10294.233	10297.893	10294.233
20	9853.533	9863.049	9879.887	9893.064	9893.064
25	9289.846	9316.200	9335.966	9299.363	9299.363
30	8752.514	8782.528	8759.102	8752.514	8748.854
35	8178.578	8218.110	8191.756	8208.593	8211.521
40	7814.012	7863.793	7823.529	7846.955	7870.381
45	7515.332	7554.863	7532.169	7588.538	7614.892
50	6642.716	6705.673	6765.702	6811.822	6769.362
55	5628.080	5723.980	5873.320	4620.033	4427.501
60	4715.933	4808.905	4812.565	3810.374	3827.212
65	3900.418	3950.198	3124.434	3217.405	3180.802
70	2858.696	2991.199	2444.350	2139.080	1714.485
75	1830.883	1512.437	1220.345	1243.771	1127.373
80	1018.296	912.147	524.155	364.566	321.375
85	338.212	218.886	218.886	245.240	248.901
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3894.74	N.A.	13.30
0-30	8194.42	N.A.	28.00
0-40	13369.98	N.A.	45.70
0-60	23985.9	N.A.	82.00
0-80	28933.49	N.A.	99.00
0-90	29234.52	N.A.	100.00
10-90	28232.48	N.A.	96.60
20-40	9475.24	N.A.	32.40
20-50	15218.5	N.A.	52.10
40-70	14032.39	N.A.	48.00
60-80	4947.6	N.A.	16.90
70-80	1531.12	N.A.	5.20
80-90	301.02	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	29234.52	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1002.04
10-20	2892.7
20-30	4299.68
30-40	5175.56
40-50	5743.26
50-60	4872.65
60-70	3416.48
70-80	1531.12
80-90	301.02
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	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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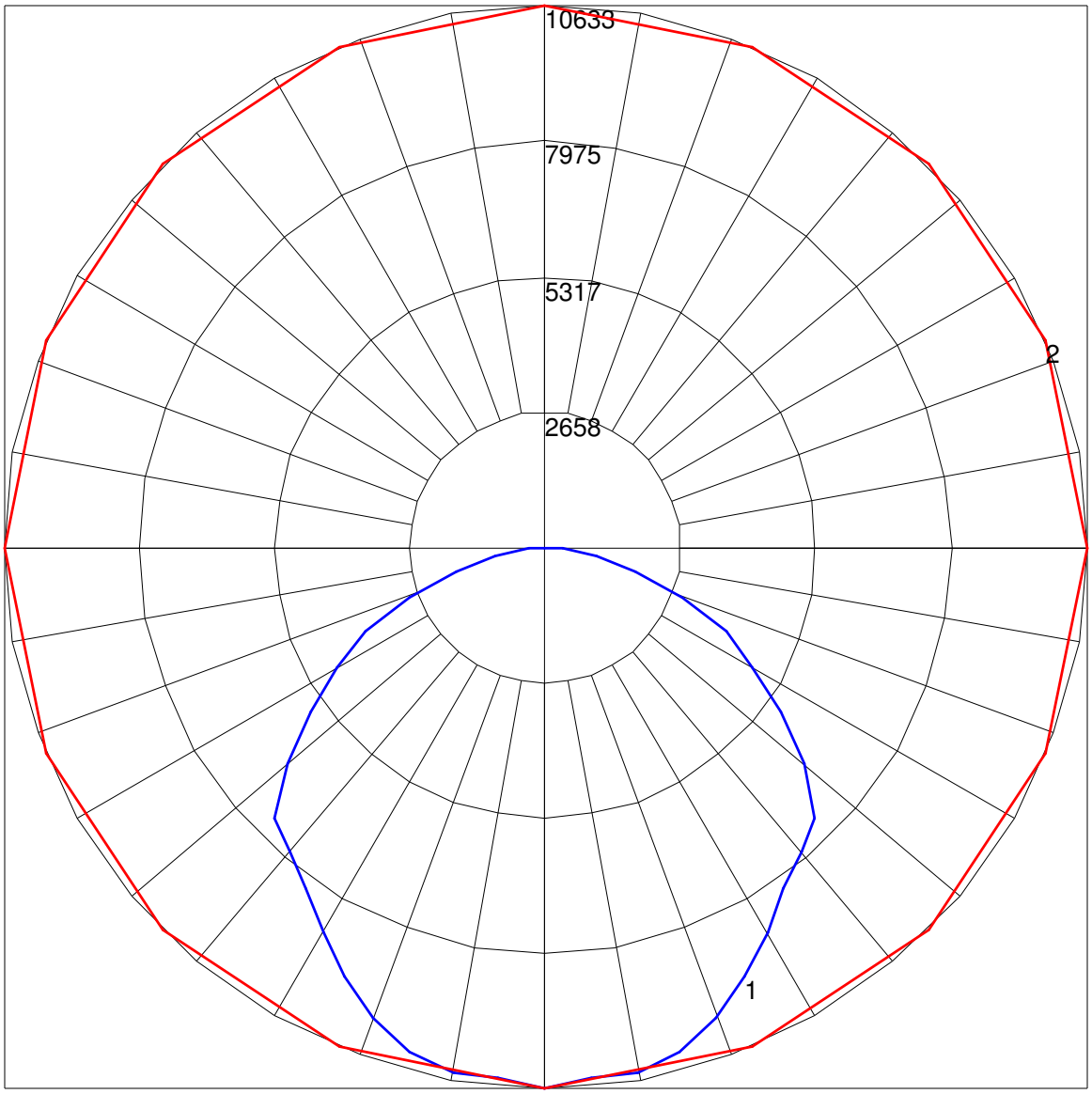
POLAR GRAPH



Maximum Candela = 10633.177 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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