H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-940-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-L200-940-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	16679
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
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	15496	15531	15701
55	14306	14930	11254
65	13456	10779	10973
75	10314	6874	6351
85	5658	3662	4164

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	6066.365	6066.365	6066.365	6066.365	6066.365
5	5979.076	5977.405	5979.076	5981.164	5982.835
10	5973.646	5969.470	5973.646	5981.164	5981.164
15	5848.769	5856.287	5872.993	5875.081	5872.993
20	5621.568	5626.997	5636.603	5644.121	5644.121
25	5299.977	5315.013	5326.289	5305.407	5305.407
30	4993.422	5010.546	4997.181	4993.422	4991.334
35	4665.985	4688.538	4673.502	4683.108	4684.779
40	4457.995	4486.395	4463.424	4476.789	4490.154
45	4287.594	4310.147	4297.200	4329.359	4344.394
50	3789.755	3825.673	3859.920	3886.232	3862.009
55	3210.892	3265.605	3350.805	2635.788	2525.947
60	2690.501	2743.542	2745.630	2173.868	2183.474
65	2225.239	2253.639	1782.530	1835.571	1814.689
70	1630.923	1706.517	1394.533	1220.373	978.136
75	1044.542	862.865	696.222	709.587	643.181
80	580.951	520.392	299.037	207.990	183.348
85	192.954	124.877	124.877	139.913	142.001
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2222.00	N.A.	13.30
0-30	4675.02	N.A.	28.00
0-40	7627.75	N.A.	45.70
0-60	13684.26	N.A.	82.00
0-80	16506.93	N.A.	99.00
0-90	16678.67	N.A.	100.00
10-90	16106.99	N.A.	96.60
20-40	5405.74	N.A.	32.40
20-50	8682.35	N.A.	52.10
40-70	8005.66	N.A.	48.00
60-80	2822.67	N.A.	16.90
70-80	873.52	N.A.	5.20
80-90	171.74	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	16678.67	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	571.68
10-20	1650.32
20-30	2453.02
30-40	2952.72
40-50	3276.61
50-60	2779.91
60-70	1949.15
70-80	873.52
80-90	171.74
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	21.7	23.4	22.1	23.7	24.0	20.2	21.8	20.6	22.1	22.4
	3H	23.5	25.0	23.9	25.3	25.7	21.7	23.1	22.0	23.4	23.8
	4H	24.0	25.4	24.4	25.7	26.1	22.0	23.4	22.4	23.7	24.1
	6H	24.3	25.6	24.8	26.0	26.4	22.1	23.4	22.5	23.8	24.2
	8H	24.4	25.6	24.9	26.0	26.4	22.1	23.4	22.6	23.7	24.1
	12H	24.5	25.6	24.9	26.0	26.4	22.2	23.3	22.6	23.7	24.1
4H	2H	22.1	23.5	22.5	23.8	24.2	20.9	22.2	21.2	22.6	22.9
	3H	24.1	25.3	24.5	25.7	26.1	22.5	23.7	22.9	24.1	24.5
	4H	24.7	25.7	25.1	26.1	26.6	23.0	24.0	23.4	24.4	24.9
	6H	25.2	26.0	25.6	26.5	26.9	23.1	24.0	23.6	24.5	24.9
	8H	25.3	26.1	25.7	26.6	27.0	23.2	24.0	23.6	24.4	24.9
	12H	25.3	26.1	25.8	26.6	27.0	23.2	23.9	23.7	24.4	24.9
8H	4H	24.8	25.6	25.3	26.1	26.5	23.2	24.1	23.7	24.5	25.0
	6H	25.3	26.0	25.8	26.5	27.0	23.4	24.1	23.9	24.6	25.1
	8H	25.5	26.1	26.0	26.6	27.1	23.4	24.1	23.9	24.6	25.0
	12H	25.6	26.1	26.1	26.6	27.2	23.5	24.1	24.0	24.6	25.1
12H	4H	24.8	25.5	25.3	26.0	26.5	23.2	24.0	23.7	24.5	24.9
	6H	25.3	25.9	25.8	26.4	26.9	23.4	24.1	23.9	24.5	25.0
	8H	25.5	26.0	26.0	26.5	27.1	23.5	24.0	24.0	24.5	25.1

Maximum UGR = 27.2

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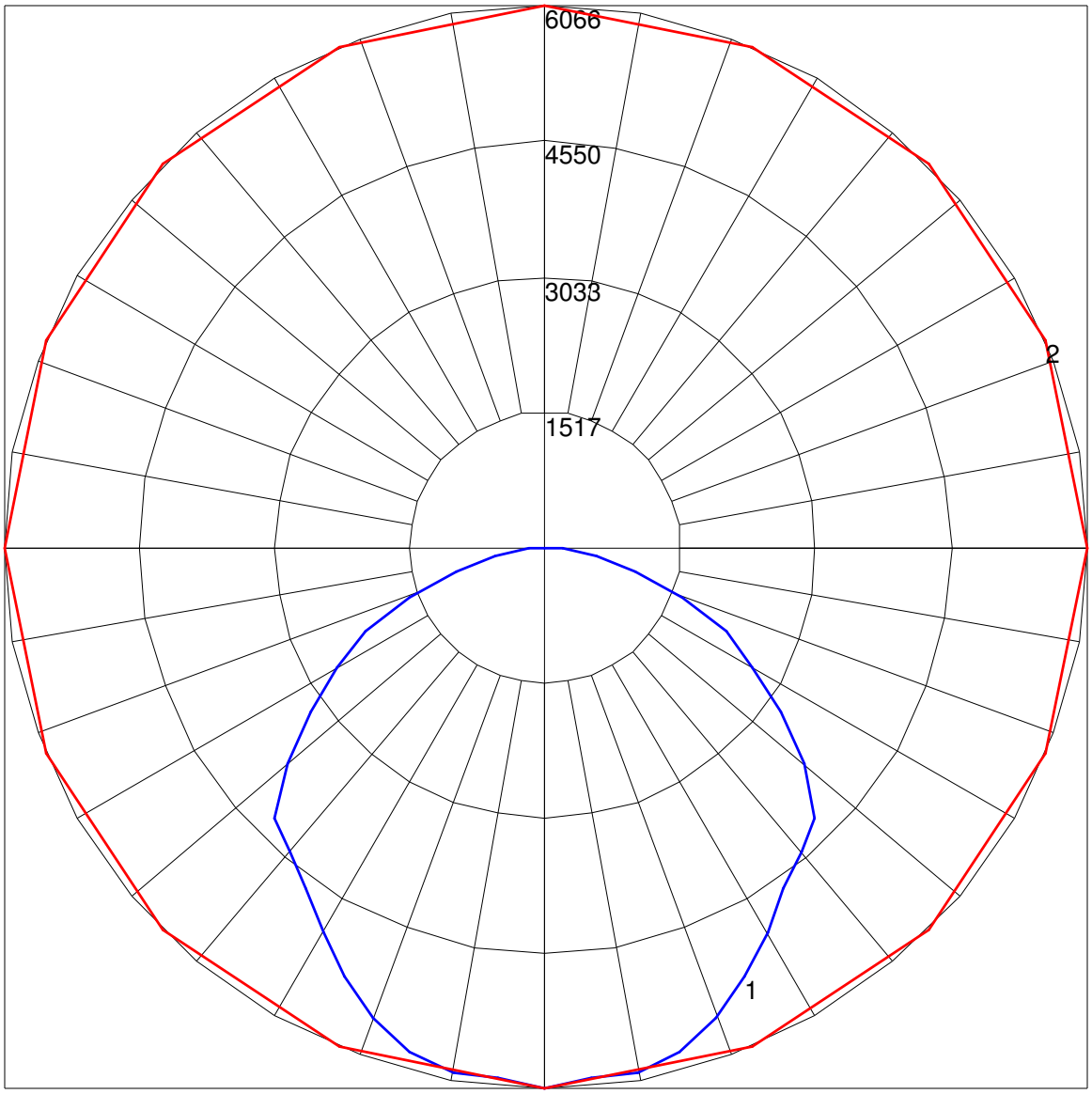
POLAR GRAPH



Maximum Candela = 6066.365 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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