H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-840-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-L150-840-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	15049
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	157
Total Luminaire Watts	96
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	13982	14013	14167
55	12908	13471	10155
65	12141	9726	9901
75	9306	6203	5730
85	5105	3304	3757

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5473.563	5473.563	5473.563	5473.563	5473.563
5	5394.804	5393.297	5394.804	5396.688	5398.196
10	5389.905	5386.137	5389.905	5396.688	5396.688
15	5277.231	5284.014	5299.088	5300.972	5299.088
20	5072.231	5077.130	5085.798	5092.581	5092.581
25	4782.067	4795.633	4805.807	4786.966	4786.966
30	4505.468	4520.918	4508.860	4505.468	4503.584
35	4210.027	4230.377	4216.811	4225.478	4226.985
40	4022.362	4047.987	4027.261	4039.320	4051.379
45	3868.613	3888.962	3877.280	3906.297	3919.863
50	3419.423	3451.831	3482.731	3506.472	3484.615
55	2897.126	2946.492	3023.366	2378.221	2279.113
60	2427.587	2475.445	2477.329	1961.439	1970.106
65	2007.790	2033.415	1608.342	1656.200	1637.359
70	1471.550	1539.758	1258.260	1101.119	882.553
75	942.470	778.546	628.188	640.247	580.330
80	524.181	469.539	269.816	187.665	165.432
85	174.099	112.674	112.674	126.241	128.125
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2004.87	N.A.	13.30
0-30	4218.18	N.A.	28.00
0-40	6882.37	N.A.	45.70
0-60	12347.04	N.A.	82.00
0-80	14893.88	N.A.	99.00
0-90	15048.84	N.A.	100.00
10-90	14533.03	N.A.	96.60
20-40	4877.5	N.A.	32.40
20-50	7833.92	N.A.	52.10
40-70	7223.35	N.A.	48.00
60-80	2546.84	N.A.	16.90
70-80	788.16	N.A.	5.20
80-90	154.96	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	15048.84	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	515.81
10-20	1489.06
20-30	2213.31
30-40	2664.18
40-50	2956.42
50-60	2508.26
60-70	1758.68
70-80	788.16
80-90	154.96
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	21.3	23.0	21.7	23.3	23.6	19.8	21.4	20.2	21.7	22.0
	3H	23.1	24.6	23.5	24.9	25.3	21.3	22.7	21.6	23.0	23.4
	4H	23.6	25.0	24.0	25.3	25.7	21.6	23.0	22.0	23.3	23.7
	6H	23.9	25.2	24.4	25.6	26.0	21.7	23.0	22.1	23.4	23.8
	8H	24.0	25.2	24.5	25.6	26.0	21.7	23.0	22.2	23.3	23.7
	12H	24.1	25.2	24.5	25.6	26.0	21.8	22.9	22.2	23.3	23.7
4H	2H	21.7	23.1	22.1	23.4	23.8	20.5	21.8	20.8	22.2	22.5
	3H	23.7	24.9	24.1	25.3	25.7	22.1	23.3	22.5	23.7	24.1
	4H	24.3	25.3	24.7	25.7	26.2	22.6	23.6	23.0	24.0	24.5
	6H	24.8	25.6	25.2	26.1	26.5	22.7	23.6	23.2	24.1	24.5
	8H	24.9	25.7	25.3	26.2	26.6	22.8	23.6	23.2	24.0	24.5
	12H	24.9	25.7	25.4	26.2	26.6	22.8	23.5	23.3	24.0	24.5
8H	4H	24.4	25.2	24.9	25.7	26.1	22.8	23.7	23.3	24.1	24.6
	6H	24.9	25.6	25.4	26.1	26.6	23.0	23.7	23.5	24.2	24.7
	8H	25.1	25.7	25.6	26.2	26.7	23.0	23.7	23.5	24.2	24.6
	12H	25.2	25.7	25.7	26.2	26.8	23.1	23.7	23.6	24.2	24.7
12H	4H	24.4	25.1	24.9	25.6	26.1	22.8	23.6	23.3	24.1	24.5
	6H	24.9	25.5	25.4	26.0	26.5	23.0	23.7	23.5	24.1	24.6
	8H	25.1	25.6	25.6	26.1	26.7	23.1	23.6	23.6	24.1	24.7

Maximum UGR = 26.8

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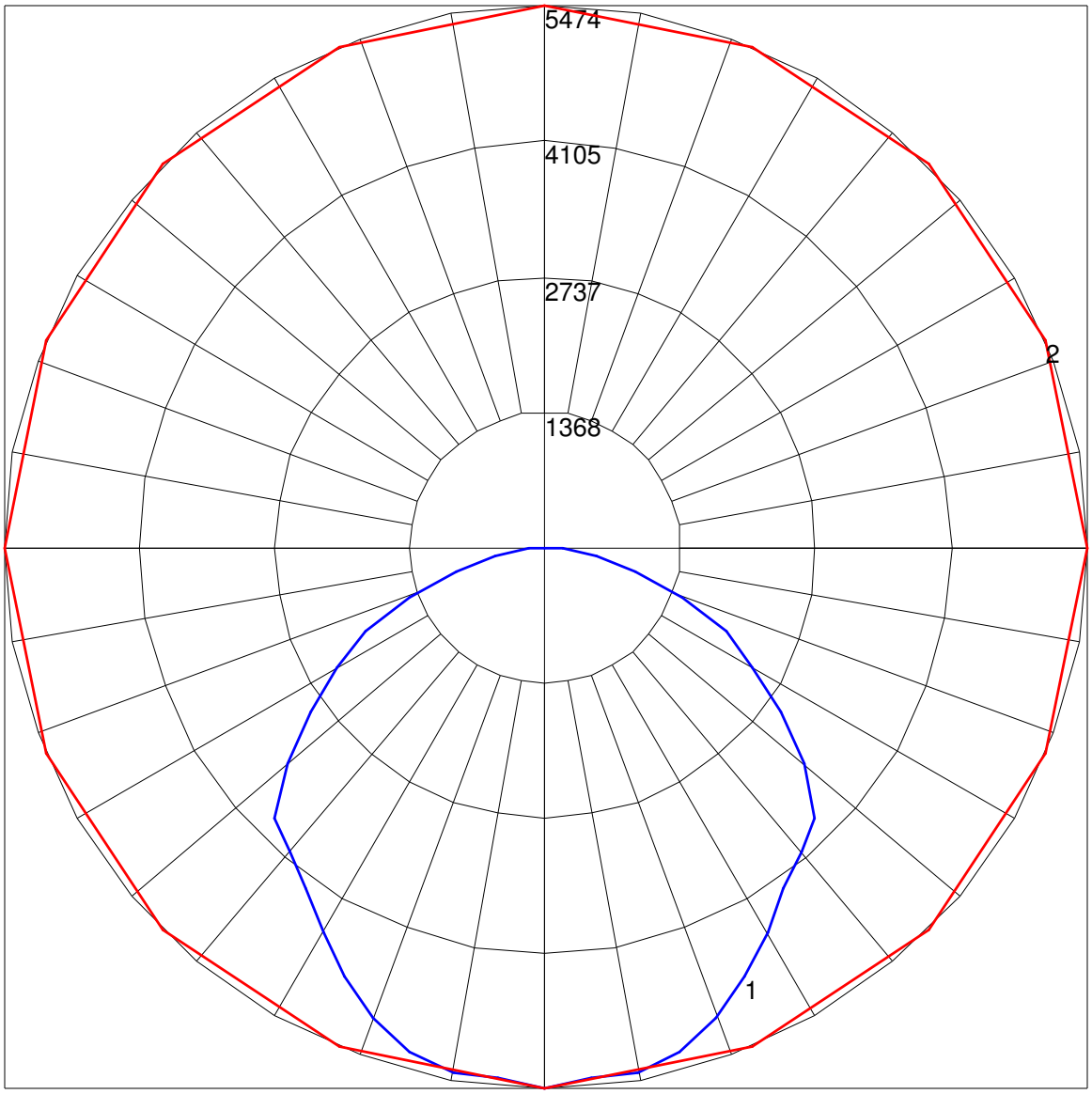
POLAR GRAPH



Maximum Candela = 5473.563 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.)