H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L400-850-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-L400-850-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	41390
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	155
Total Luminaire Watts	267
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	38455	38541	38964
55	35502	37049	27929
65	33393	26749	27232
75	25595	17060	15760
85	14040	9087	10333

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	15054.407	15054.407	15054.407	15054.407	15054.407
5	14837.790	14833.644	14837.790	14842.972	14847.118
10	14824.316	14813.951	14824.316	14842.972	14842.972
15	14514.418	14533.074	14574.532	14579.714	14574.532
20	13950.590	13964.064	13987.902	14006.558	14006.558
25	13152.525	13189.837	13217.821	13165.999	13165.999
30	12391.772	12434.267	12401.100	12391.772	12386.590
35	11579.197	11635.165	11597.853	11621.691	11625.837
40	11063.046	11133.524	11076.520	11109.686	11142.852
45	10640.175	10696.143	10664.013	10743.820	10781.132
50	9404.729	9493.864	9578.852	9644.149	9584.035
55	7968.212	8103.987	8315.422	6541.023	6268.438
60	6676.798	6808.427	6813.609	5394.712	5418.550
65	5522.195	5592.673	4423.560	4555.189	4503.367
70	4047.329	4234.927	3460.700	3028.501	2427.361
75	2592.156	2141.302	1727.759	1760.925	1596.130
80	1441.699	1291.414	742.097	516.151	455.001
85	478.839	309.898	309.898	347.210	352.392
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5514.16	N.A.	13.30
0-30	11601.63	N.A.	28.00
0-40	18929.16	N.A.	45.70
0-60	33959.13	N.A.	82.00
0-80	40963.91	N.A.	99.00
0-90	41390.11	N.A.	100.00
10-90	39971.42	N.A.	96.60
20-40	13415.00	N.A.	32.40
20-50	21546.29	N.A.	52.10
40-70	19867.01	N.A.	48.00
60-80	7004.79	N.A.	16.90
70-80	2167.75	N.A.	5.20
80-90	426.19	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	41390.11	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1418.69
10-20	4095.48
20-30	6087.47
30-40	7327.53
40-50	8131.29
50-60	6898.68
60-70	4837.04
70-80	2167.75
80-90	426.19
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	24.8	26.5	25.2	26.8	27.1	23.3	24.9	23.7	25.2	25.5
	3H	26.6	28.1	27.0	28.4	28.8	24.8	26.2	25.1	26.5	26.9
	4H	27.1	28.5	27.5	28.8	29.2	25.1	26.5	25.5	26.8	27.2
	6H	27.4	28.7	27.9	29.1	29.5	25.2	26.5	25.6	26.9	27.3
	8H	27.5	28.7	28.0	29.1	29.5	25.2	26.5	25.7	26.8	27.2
	12H	27.6	28.7	28.0	29.1	29.5	25.3	26.4	25.7	26.8	27.2
4H	2H	25.2	26.6	25.6	26.9	27.3	24.0	25.3	24.3	25.7	26.0
	3H	27.2	28.4	27.6	28.8	29.2	25.6	26.8	26.0	27.2	27.6
	4H	27.8	28.8	28.2	29.2	29.7	26.1	27.1	26.5	27.5	28.0
	6H	28.3	29.1	28.7	29.6	30.0	26.2	27.1	26.7	27.6	28.0
	8H	28.4	29.2	28.8	29.7	30.1	26.3	27.1	26.7	27.5	28.0
	12H	28.4	29.2	28.9	29.7	30.1	26.3	27.0	26.8	27.5	28.0
8H	4H	27.9	28.7	28.4	29.2	29.6	26.3	27.2	26.8	27.6	28.1
	6H	28.4	29.1	28.9	29.6	30.1	26.5	27.2	27.0	27.7	28.2
	8H	28.6	29.2	29.1	29.7	30.2	26.5	27.2	27.0	27.7	28.1
	12H	28.7	29.2	29.2	29.7	30.3	26.6	27.2	27.1	27.7	28.2
12H	4H	27.9	28.6	28.4	29.1	29.6	26.3	27.1	26.8	27.6	28.0
	6H	28.4	29.0	28.9	29.5	30.0	26.5	27.2	27.0	27.6	28.1
	8H	28.6	29.1	29.1	29.6	30.2	26.6	27.1	27.1	27.6	28.2

Maximum UGR = 30.3

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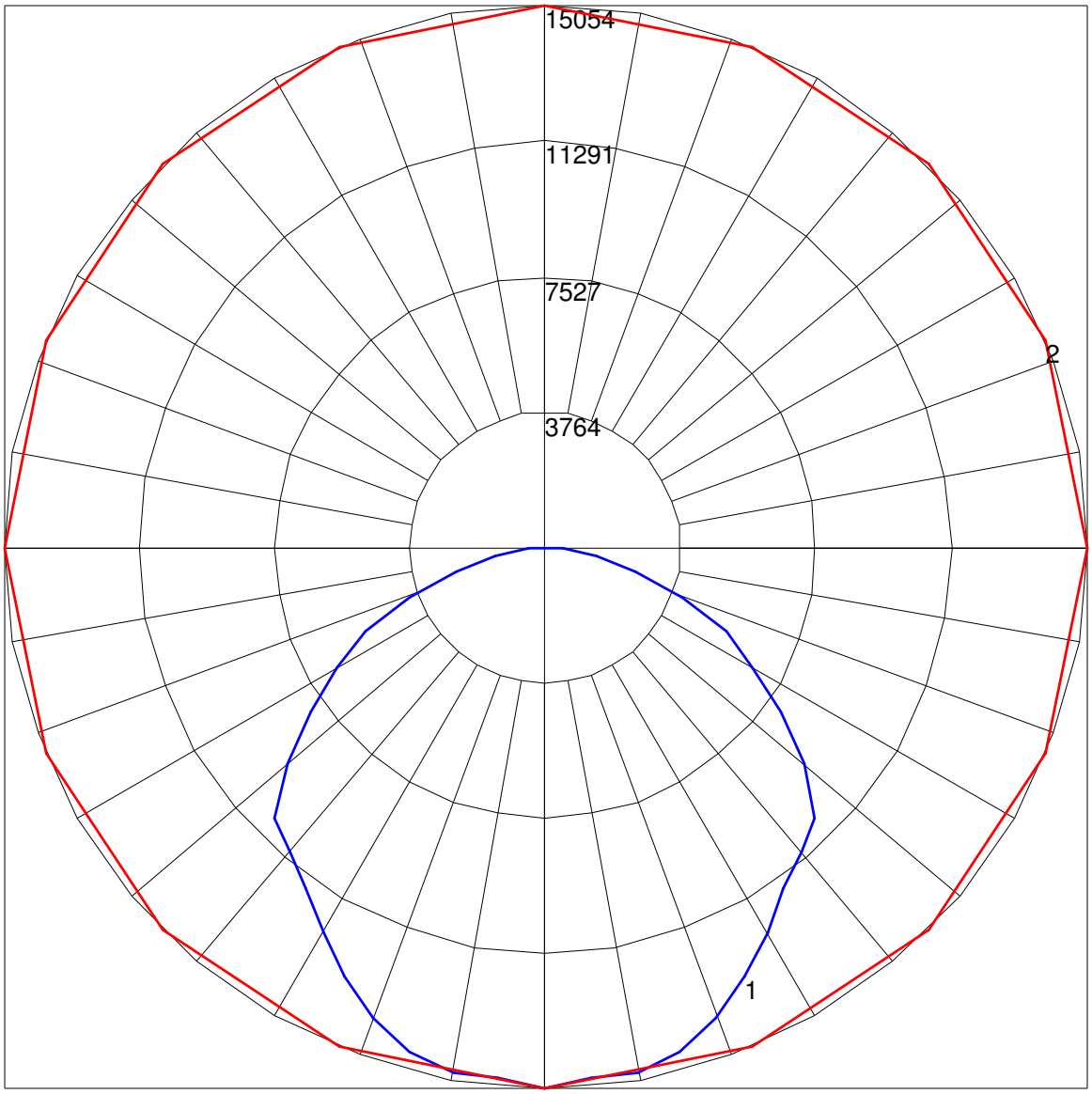
POLAR GRAPH



Maximum Candela = 15054.407 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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