H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L150-850-SAF118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19726.0
[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 LED HIGHBAY LUMINAIRE
[MORE] WHITE REFLECTOR w/.118"THK FROSTED ACRYLIC LENS
[MORE] 0-10V LED DRIVERS
[LUMCAT] GL-4-L150-850-SAF118-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Commercial, Industrial, Manufacturing, High Bay
[_SEARCH_MOUNTING] Cable, Pendant, Suspended

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	13297
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	139
Total Luminaire Watts	96
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.83 ft
Luminous Width (90-270)	1.00 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	14128	13462	11719
55	12773	10921	10099
65	10058	8351	8005
75	6934	5678	5663
85	2476	2272	2460

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	5134.686	5134.686	5134.686	5134.686	5134.686
5	5213.067	5138.093	5104.502	5077.725	5069.936
10	5168.764	5083.568	5061.660	5030.989	5024.173
15	5085.515	5001.779	4984.252	4944.819	4939.950
20	4947.253	4887.372	4861.569	4802.175	4813.372
25	4769.070	4725.741	4689.715	4620.584	4637.137
30	4549.993	4512.993	4485.730	4398.586	4386.902
35	4279.310	4224.298	4217.482	4101.614	4016.418
40	3951.181	3896.655	3859.656	3679.525	3500.856
45	3560.737	3518.869	3392.777	3137.674	2953.649
50	3112.358	3072.925	2830.479	2602.639	2500.402
55	2611.402	2556.876	2232.641	2119.695	2064.682
60	2059.327	2009.182	1708.316	1609.001	1623.120
65	1515.041	1460.029	1257.991	1190.807	1205.899
70	1048.163	947.875	875.336	824.704	834.928
75	639.706	555.483	523.838	496.088	522.378
80	304.274	262.406	247.314	241.959	257.051
85	76.920	71.565	70.592	73.513	76.434
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1894.5	N.A.	14.20
0-30	4053.44	N.A.	30.50
0-40	6654.25	N.A.	50.00
0-60	11281.85	N.A.	84.80
0-80	13187.27	N.A.	99.20
0-90	13297.27	N.A.	100.00
10-90	12810.43	N.A.	96.30
20-40	4759.75	N.A.	35.80
20-50	7321.19	N.A.	55.10
40-70	5944.24	N.A.	44.70
60-80	1905.42	N.A.	14.30
70-80	588.78	N.A.	4.40
80-90	110.00	N.A.	0.80
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	13297.27	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	486.84
10-20	1407.66
20-30	2158.94
30-40	2600.8
40-50	2561.44
50-60	2066.16
60-70	1316.64
70-80	588.78
80-90	110.00
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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62
4	85	73	65	59	82	72	64	58	69	63	57	67	61	57	65	60	56	54
5	78	66	57	51	76	65	57	50	63	55	50	61	54	49	59	53	49	47
6	72	59	51	45	70	58	50	44	57	49	44	55	48	44	53	48	43	41
7	67	54	45	39	65	53	45	39	52	44	39	50	44	39	49	43	38	37
8	62	49	41	35	61	49	41	35	47	40	35	46	40	35	45	39	35	33
9	58	45	37	32	57	45	37	32	44	36	32	42	36	31	41	36	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

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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	21.0	22.6	21.4	22.9	23.2	19.6	21.1	19.9	21.5	21.8
	3H	22.3	23.7	22.7	24.0	24.4	20.8	22.2	21.2	22.6	22.9
	4H	22.6	24.0	23.0	24.3	24.7	21.2	22.6	21.6	22.9	23.3
	6H	22.8	24.1	23.3	24.4	24.8	21.5	22.7	21.9	23.0	23.4
	8H	22.9	24.0	23.3	24.4	24.8	21.5	22.7	21.9	23.1	23.5
	12H	22.9	24.0	23.3	24.4	24.8	21.5	22.6	21.9	23.0	23.4
4H	2H	21.3	22.6	21.7	23.0	23.4	20.1	21.4	20.5	21.8	22.1
	3H	22.8	23.8	23.2	24.2	24.6	21.5	22.6	22.0	23.0	23.4
	4H	23.2	24.2	23.6	24.6	25.0	22.0	23.0	22.5	23.4	23.9
	6H	23.5	24.3	23.9	24.8	25.2	22.3	23.2	22.8	23.6	24.1
	8H	23.5	24.3	24.0	24.8	25.2	22.4	23.2	22.8	23.6	24.1
	12H	23.6	24.3	24.0	24.7	25.2	22.4	23.1	22.9	23.6	24.1
8H	4H	23.3	24.1	23.8	24.5	25.0	22.2	23.0	22.7	23.4	23.9
	6H	23.6	24.3	24.1	24.8	25.2	22.5	23.2	23.0	23.7	24.2
	8H	23.7	24.3	24.2	24.8	25.3	22.6	23.2	23.2	23.7	24.2
	12H	23.8	24.3	24.3	24.8	25.3	22.7	23.2	23.2	23.7	24.3
12H	4H	23.3	24.0	23.8	24.5	24.9	22.2	22.9	22.7	23.4	23.9
	6H	23.6	24.2	24.1	24.7	25.2	22.6	23.2	23.1	23.6	24.2
	8H	23.7	24.2	24.2	24.7	25.3	22.7	23.2	23.2	23.7	24.3

Maximum UGR = 25.3

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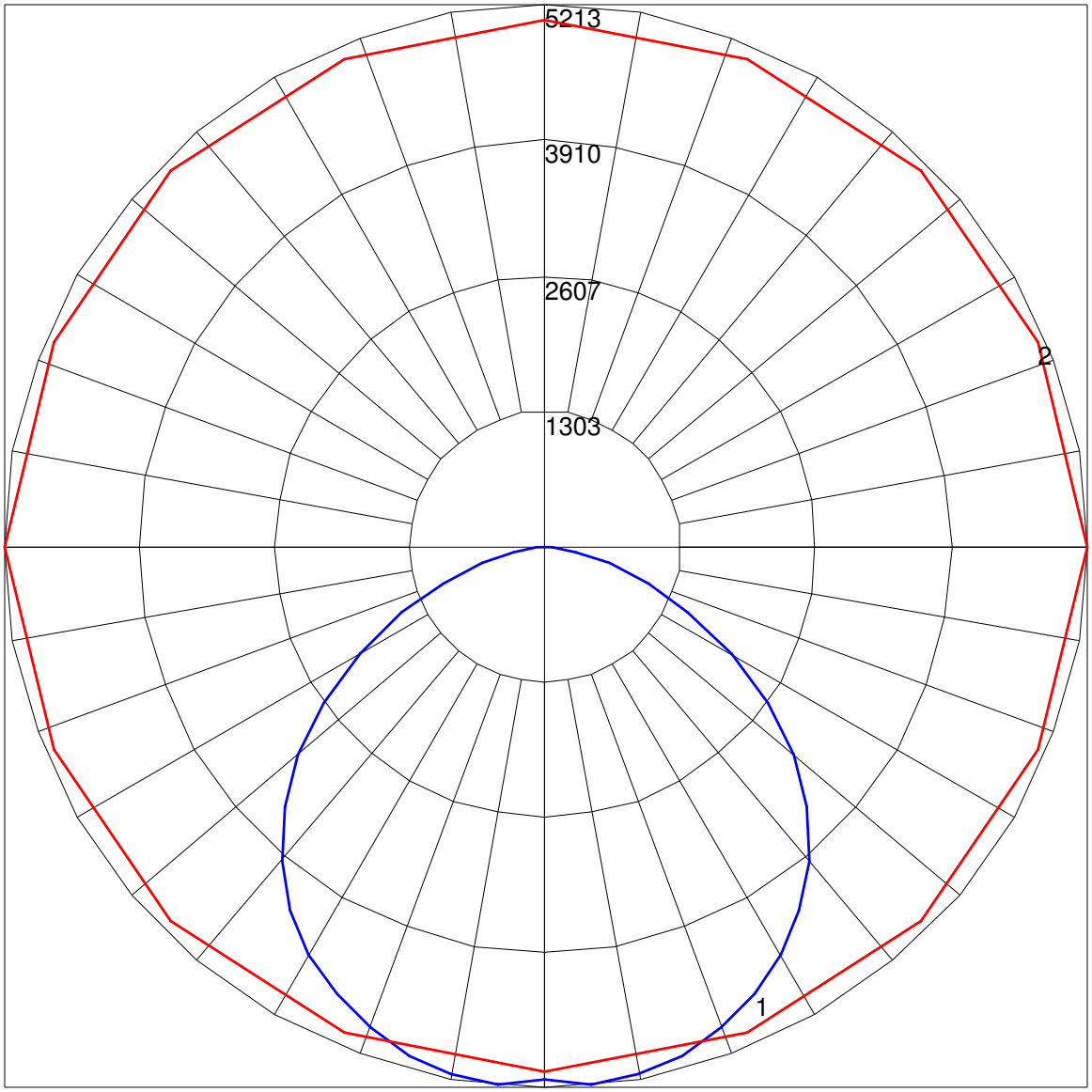
POLAR GRAPH



Maximum Candela = 5213.067 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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