H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-950-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-L300-950-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	22235
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	111
Total Luminaire Watts	200
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	23624	22509	19596
55	21359	18261	16887
65	16818	13964	13386
75	11595	9495	9468
85	4140	3800	4114

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	8585.816	8585.816	8585.816	8585.816	8585.816
5	8716.878	8591.514	8535.344	8490.572	8477.547
10	8642.799	8500.340	8463.708	8412.422	8401.026
15	8503.596	8363.579	8334.273	8268.335	8260.195
20	8272.405	8172.277	8129.132	8029.818	8048.541
25	7974.462	7902.011	7841.771	7726.176	7753.854
30	7608.138	7546.270	7500.683	7354.968	7335.430
35	7155.525	7063.537	7052.140	6858.396	6715.936
40	6606.853	6515.679	6453.811	6152.612	5853.854
45	5953.983	5883.974	5673.135	5246.571	4938.859
50	5204.240	5138.302	4732.903	4351.927	4180.976
55	4366.580	4275.406	3733.247	3544.386	3452.398
60	3443.444	3359.596	2856.512	2690.445	2714.052
65	2533.333	2441.345	2103.513	1991.173	2016.409
70	1752.656	1584.961	1463.667	1379.006	1396.101
75	1069.665	928.834	875.921	829.520	873.479
80	508.783	438.775	413.539	404.584	429.820
85	128.620	119.666	118.038	122.922	127.806
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3167.84	N.A.	14.20
0-30	6777.85	N.A.	30.50
0-40	11126.71	N.A.	50.00
0-60	18864.61	N.A.	84.80
0-80	22050.71	N.A.	99.20
0-90	22234.64	N.A.	100.00
10-90	21420.59	N.A.	96.30
20-40	7958.87	N.A.	35.80
20-50	12241.91	N.A.	55.10
40-70	9939.49	N.A.	44.70
60-80	3186.09	N.A.	14.30
70-80	984.51	N.A.	4.40
80-90	183.93	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	22234.64	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	814.05
10-20	2353.78
20-30	3610.01
30-40	4348.86
40-50	4283.04
50-60	3454.87
60-70	2201.58
70-80	984.51
80-90	183.93
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	22.8	24.4	23.2	24.7	25.0	21.4	22.9	21.7	23.3	23.6
	3H	24.1	25.5	24.5	25.8	26.2	22.6	24.0	23.0	24.4	24.7
	4H	24.4	25.8	24.8	26.1	26.5	23.0	24.4	23.4	24.7	25.1
	6H	24.6	25.9	25.1	26.2	26.6	23.3	24.5	23.7	24.8	25.2
	8H	24.7	25.8	25.1	26.2	26.6	23.3	24.5	23.7	24.9	25.3
	12H	24.7	25.8	25.1	26.2	26.6	23.3	24.4	23.7	24.8	25.2
4H	2H	23.1	24.4	23.5	24.8	25.2	21.9	23.2	22.3	23.6	23.9
	3H	24.6	25.6	25.0	26.0	26.4	23.3	24.4	23.8	24.8	25.2
	4H	25.0	26.0	25.4	26.4	26.8	23.8	24.8	24.3	25.2	25.7
	6H	25.3	26.1	25.7	26.6	27.0	24.1	25.0	24.6	25.4	25.9
	8H	25.3	26.1	25.8	26.6	27.0	24.2	25.0	24.7	25.4	25.9
	12H	25.4	26.1	25.8	26.5	27.0	24.2	24.9	24.7	25.4	25.9
8H	4H	25.1	25.9	25.6	26.3	26.8	24.0	24.8	24.5	25.2	25.7
	6H	25.4	26.1	25.9	26.6	27.0	24.3	25.0	24.8	25.5	26.0
	8H	25.5	26.1	26.0	26.6	27.1	24.4	25.0	25.0	25.5	26.0
	12H	25.6	26.1	26.1	26.6	27.1	24.5	25.0	25.0	25.5	26.1
12H	4H	25.1	25.8	25.6	26.3	26.8	24.0	24.7	24.5	25.2	25.7
	6H	25.4	26.0	25.9	26.5	27.0	24.4	25.0	24.9	25.4	26.0
	8H	25.5	26.0	26.0	26.5	27.1	24.5	25.0	25.0	25.5	26.1

Maximum UGR = 27.1

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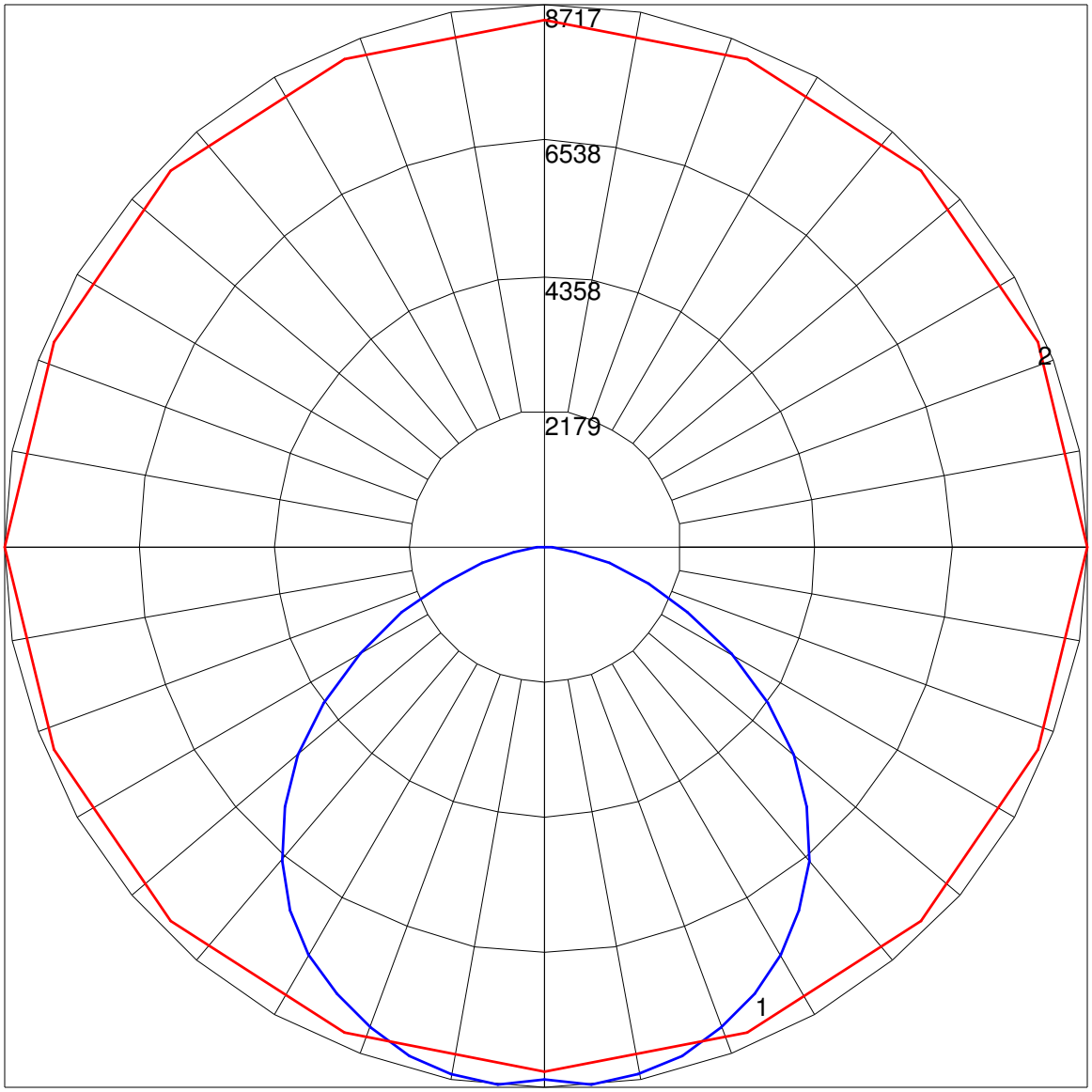
POLAR GRAPH



Maximum Candela = 8716.878 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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