H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-850-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-L200-850-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	17755
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	133
Total Luminaire Watts	133
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	18864	17974	15648
55	17056	14582	13485
65	13430	11151	10689
75	9259	7582	7561
85	3306	3034	3285

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	6856.071	6856.071	6856.071	6856.071	6856.071
5	6960.729	6860.621	6815.768	6780.015	6769.614
10	6901.574	6787.816	6758.563	6717.610	6708.510
15	6790.416	6678.607	6655.206	6602.552	6596.051
20	6605.802	6525.846	6491.393	6412.087	6427.038
25	6367.884	6310.029	6261.926	6169.619	6191.720
30	6075.362	6025.958	5989.555	5873.196	5857.595
35	5713.934	5640.479	5631.378	5476.666	5362.907
40	5275.801	5202.995	5153.592	4913.073	4674.505
45	4754.461	4698.557	4530.194	4189.568	3943.850
50	4155.766	4103.112	3779.387	3475.164	3338.654
55	3486.865	3414.059	2981.126	2830.315	2756.859
60	2749.709	2682.754	2281.023	2148.413	2167.265
65	2022.954	1949.498	1679.728	1590.021	1610.172
70	1399.556	1265.646	1168.789	1101.184	1114.835
75	854.165	741.706	699.453	662.400	697.503
80	406.281	350.377	330.225	323.075	343.226
85	102.708	95.557	94.257	98.157	102.058
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2529.63	N.A.	14.20
0-30	5412.35	N.A.	30.50
0-40	8885.06	N.A.	50.00
0-60	15064.05	N.A.	84.80
0-80	17608.25	N.A.	99.20
0-90	17755.13	N.A.	100.00
10-90	17105.08	N.A.	96.30
20-40	6355.43	N.A.	35.80
20-50	9775.59	N.A.	55.10
40-70	7937.02	N.A.	44.70
60-80	2544.2	N.A.	14.30
70-80	786.17	N.A.	4.40
80-90	146.88	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	17755.13	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	650.05
10-20	1879.58
20-30	2882.72
30-40	3472.71
40-50	3420.16
50-60	2758.83
60-70	1758.04
70-80	786.17
80-90	146.88
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	22.0	23.6	22.4	23.9	24.2	20.6	22.1	20.9	22.5	22.8
	3H	23.3	24.7	23.7	25.0	25.4	21.8	23.2	22.2	23.6	23.9
	4H	23.6	25.0	24.0	25.3	25.7	22.2	23.6	22.6	23.9	24.3
	6H	23.8	25.1	24.3	25.4	25.8	22.5	23.7	22.9	24.0	24.4
	8H	23.9	25.0	24.3	25.4	25.8	22.5	23.7	22.9	24.1	24.5
	12H	23.9	25.0	24.3	25.4	25.8	22.5	23.6	22.9	24.0	24.4
4H	2H	22.3	23.6	22.7	24.0	24.4	21.1	22.4	21.5	22.8	23.1
	3H	23.8	24.8	24.2	25.2	25.6	22.5	23.6	23.0	24.0	24.4
	4H	24.2	25.2	24.6	25.6	26.0	23.0	24.0	23.5	24.4	24.9
	6H	24.5	25.3	24.9	25.8	26.2	23.3	24.2	23.8	24.6	25.1
	8H	24.5	25.3	25.0	25.8	26.2	23.4	24.2	23.9	24.6	25.1
	12H	24.6	25.3	25.0	25.7	26.2	23.4	24.1	23.9	24.6	25.1
8H	4H	24.3	25.1	24.8	25.5	26.0	23.2	24.0	23.7	24.4	24.9
	6H	24.6	25.3	25.1	25.8	26.2	23.5	24.2	24.0	24.7	25.2
	8H	24.7	25.3	25.2	25.8	26.3	23.6	24.2	24.2	24.7	25.2
	12H	24.8	25.3	25.3	25.8	26.3	23.7	24.2	24.2	24.7	25.3
12H	4H	24.3	25.0	24.8	25.5	25.9	23.2	23.9	23.7	24.4	24.9
	6H	24.6	25.2	25.1	25.7	26.2	23.6	24.2	24.1	24.6	25.2
	8H	24.7	25.2	25.2	25.7	26.3	23.7	24.2	24.2	24.7	25.3

Maximum UGR = 26.3

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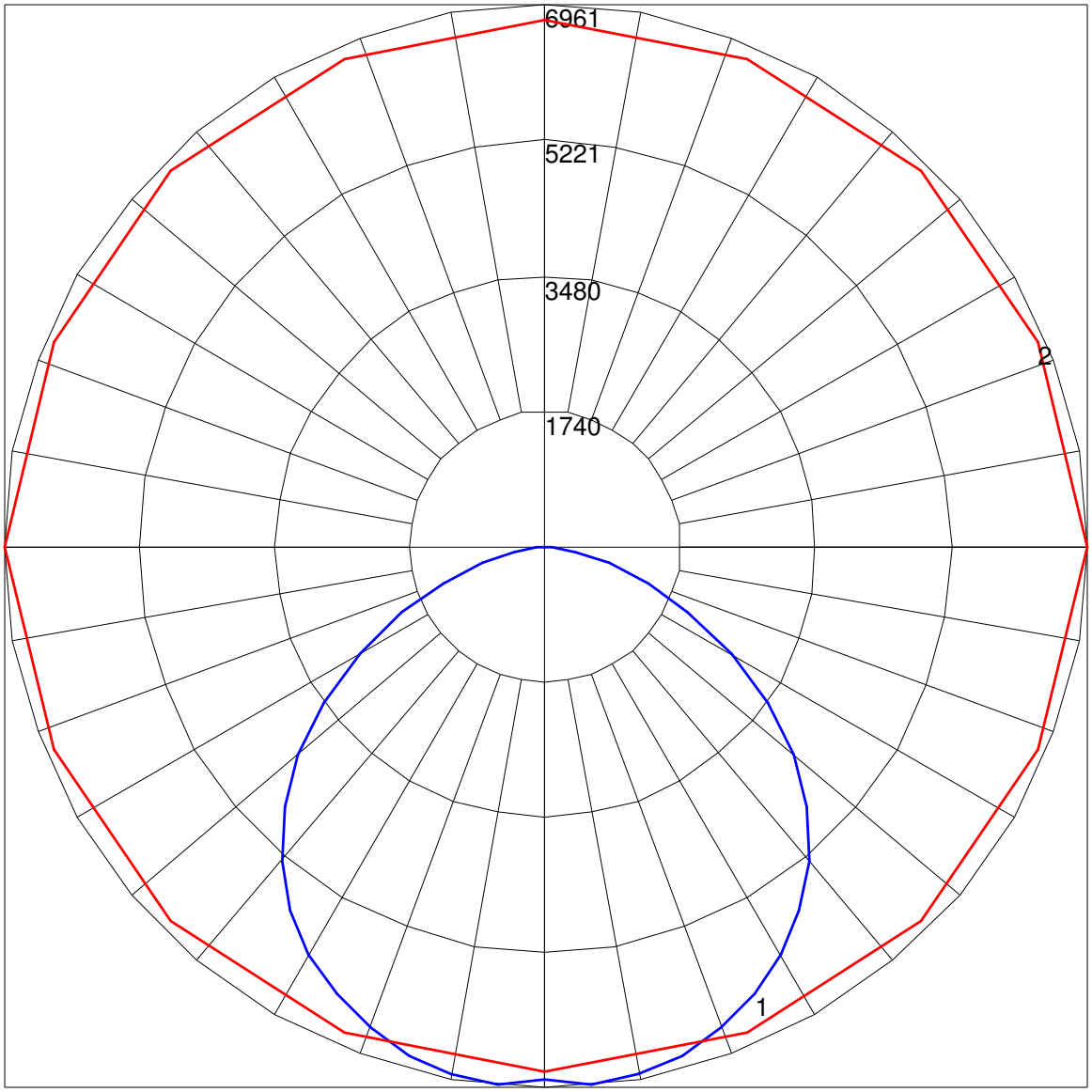
POLAR GRAPH



Maximum Candela = 6960.729 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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