H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-830-SCHA118-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19725.0
[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 CLEAR ACRYLIC LENS
[MORE] 0-10V UNIVERSAL VOLTAGE 122-277V DRIVERS
[LUMCAT] GL-4-L200-830-SCHA118-DIM-UNV_
[LAMPCAT] 22 INCH HLM LINEAR 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	17844
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	133
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.34
Spacing Criterion (90-270)	1.32
Spacing Criterion (Diagonal)	1.42
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	19140	18748	14310
55	18159	13312	13487
65	15225	11807	11545
75	9885	6652	4911
85	1969	2010	1682

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	6687.095	6687.095	6687.095	6687.095	6687.095
5	6761.650	6684.546	6636.116	6611.264	6617.636
10	6702.388	6625.283	6584.500	6557.100	6566.021
15	6587.049	6531.610	6490.190	6444.947	6461.515
20	6441.761	6362.107	6328.971	6288.826	6313.678
25	6247.406	6145.449	6137.165	6118.685	6122.509
30	5983.592	5889.919	5895.017	5866.979	5883.547
35	5645.860	5534.982	5590.421	5577.039	5580.863
40	5267.983	5143.723	5169.849	5237.396	5227.200
45	4823.833	4707.857	4725.063	4366.939	3606.723
50	4292.383	4224.837	4233.758	3119.242	3149.192
55	3712.504	3676.181	2721.611	2759.207	2757.295
60	3067.627	3036.402	2274.912	2318.881	2318.881
65	2293.392	2330.351	1778.510	1839.684	1739.001
70	1563.763	1238.776	1268.725	1167.406	922.709
75	911.877	716.247	613.653	562.674	453.071
80	362.584	315.429	230.677	188.620	175.238
85	61.174	54.802	62.449	63.086	52.253
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2468.63	N.A.	13.80
0-30	5302.22	N.A.	29.70
0-40	8790.37	N.A.	49.30
0-60	15087.78	N.A.	84.60
0-80	17743.8	N.A.	99.40
0-90	17844.31	N.A.	100.00
10-90	17210.61	N.A.	96.40
20-40	6321.74	N.A.	35.40
20-50	9801.29	N.A.	54.90
40-70	8224.39	N.A.	46.10
60-80	2656.02	N.A.	14.90
70-80	729.04	N.A.	4.10
80-90	100.51	N.A.	0.60
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	17844.31	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	633.70
10-20	1834.93
20-30	2833.59
30-40	3488.15
40-50	3479.55
50-60	2817.86
60-70	1926.98
70-80	729.04
80-90	100.51
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	78	84	80	77	81	78	75	73
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	53
5	78	65	57	50	76	64	56	50	62	55	50	60	54	49	58	53	49	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	48	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

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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	22.7	24.2	23.0	24.5	24.9	20.7	22.3	21.1	22.6	22.9
	3H	23.9	25.3	24.2	25.6	26.0	21.9	23.3	22.3	23.7	24.0
	4H	24.2	25.5	24.6	25.9	26.3	22.1	23.5	22.5	23.8	24.2
	6H	24.4	25.6	24.8	25.9	26.3	22.2	23.4	22.6	23.8	24.2
	8H	24.4	25.5	24.8	25.9	26.3	22.2	23.3	22.6	23.7	24.1
	12H	24.4	25.5	24.8	25.8	26.3	22.2	23.3	22.6	23.7	24.1
4H	2H	22.9	24.2	23.3	24.6	25.0	21.3	22.6	21.7	22.9	23.3
	3H	24.3	25.4	24.7	25.8	26.2	22.7	23.8	23.1	24.2	24.6
	4H	24.7	25.7	25.1	26.1	26.5	23.0	23.9	23.4	24.4	24.8
	6H	24.9	25.7	25.4	26.2	26.7	23.1	23.9	23.5	24.3	24.8
	8H	24.9	25.7	25.4	26.2	26.6	23.0	23.8	23.5	24.3	24.7
	12H	24.9	25.6	25.4	26.1	26.6	23.0	23.7	23.5	24.2	24.7
8H	4H	24.7	25.5	25.2	26.0	26.4	23.1	23.9	23.6	24.3	24.8
	6H	25.0	25.6	25.5	26.1	26.6	23.2	23.9	23.7	24.3	24.8
	8H	25.0	25.6	25.5	26.1	26.6	23.2	23.8	23.7	24.3	24.8
	12H	25.0	25.5	25.5	26.0	26.6	23.2	23.7	23.7	24.2	24.8
12H	4H	24.7	25.4	25.2	25.9	26.4	23.1	23.8	23.6	24.3	24.7
	6H	24.9	25.5	25.5	26.0	26.5	23.2	23.8	23.7	24.2	24.8
	8H	25.0	25.5	25.5	26.0	26.6	23.2	23.7	23.7	24.2	24.8

Maximum UGR = 26.7

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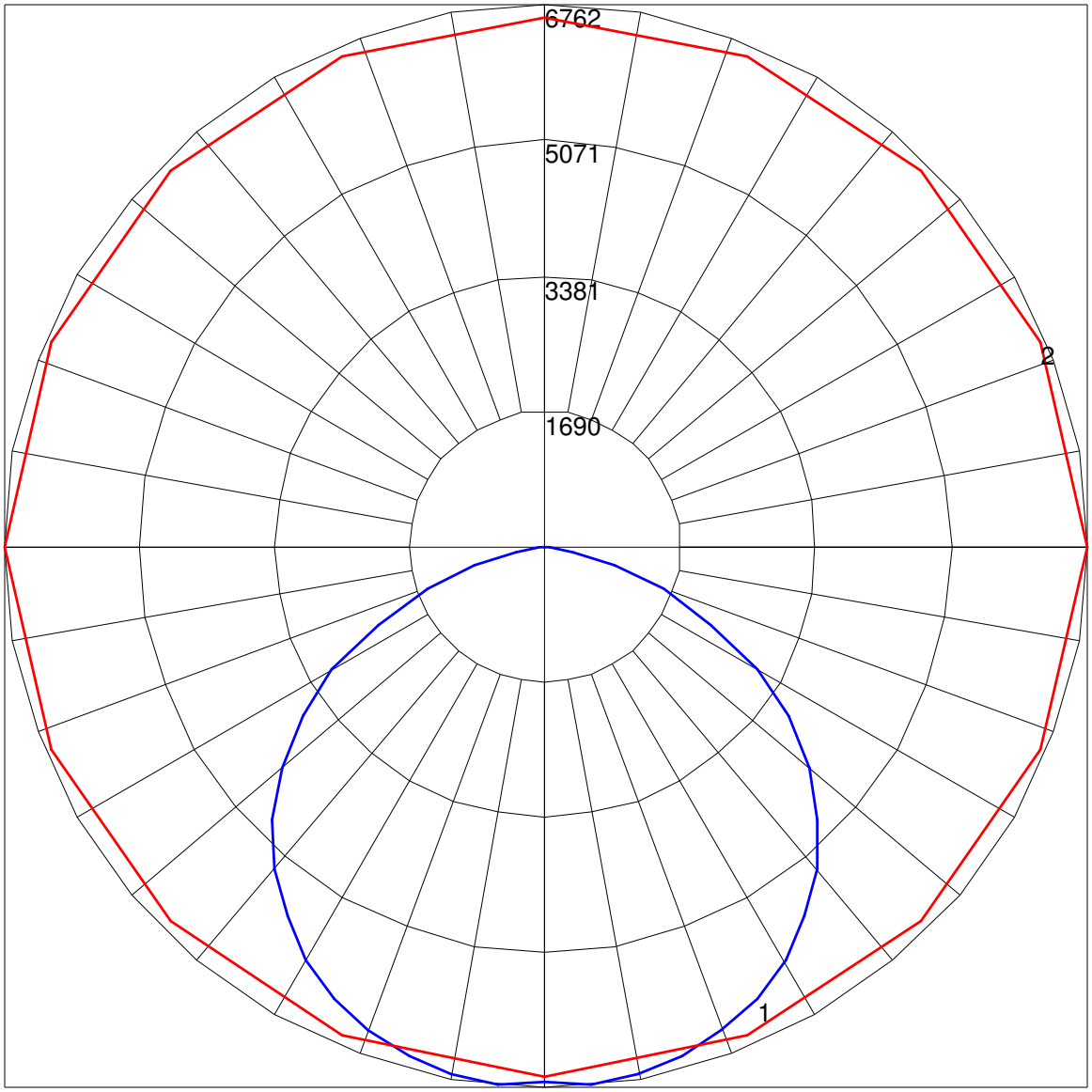
POLAR GRAPH



Maximum Candela = 6761.65 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.)