H.E. WILLIAMS, INC.

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

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19459.0
[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 REFL w/CLEAR ACRYLIC ROD DIFFUSERS OVER LED
[MORE] 0-10V UNIVERSAL VOLTAGE 120-277 DRIVERS
[LUMCAT] GL-4-L200-830-ND-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	18326
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
Total Luminaire Watts	131
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.32
Spacing Criterion (90-270)	0.58
Spacing Criterion (Diagonal)	0.72
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	1.04 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	45136	4817	3561
55	30932	3575	2673
65	18718	2711	2751
75	9166	2994	2497
85	3514	1107	1107

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	18483.142	18483.142	18483.142	18483.142	18483.142
5	18069.971	17926.346	17638.438	17400.373	17262.650
10	17926.346	17338.070	16036.255	14916.760	14710.175
15	17682.378	16387.122	13909.412	12019.322	11393.664
20	17982.747	15010.543	10493.215	7658.735	6757.630
25	17168.867	12939.445	7683.656	5193.485	4455.025
30	16781.273	10373.854	4667.513	2865.959	2471.808
35	15304.354	7439.689	2759.060	1808.112	1639.565
40	14309.466	5099.702	1789.749	1357.560	1270.335
45	12370.188	3178.788	1320.178	1032.270	975.869
50	9541.611	2133.402	1038.828	844.704	794.861
55	6876.335	1583.164	794.861	650.579	594.178
60	4730.472	1126.053	619.755	544.336	506.953
65	3065.986	694.520	443.994	469.571	450.552
70	1814.670	500.395	381.691	394.151	350.211
75	919.468	375.132	300.368	268.889	250.525
80	443.994	275.447	187.566	118.704	100.341
85	118.704	87.881	37.382	37.382	37.382
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5552.35	N.A.	30.30
0-30	9736.6	N.A.	53.10
0-40	13027.25	N.A.	71.10
0-60	16956.52	N.A.	92.50
0-80	18235.35	N.A.	99.50
0-90	18326.18	N.A.	100.00
10-90	16684.63	N.A.	91.00
20-40	7474.89	N.A.	40.80
20-50	9862.68	N.A.	53.80
40-70	4794.61	N.A.	26.20
60-80	1278.83	N.A.	7.00
70-80	413.49	N.A.	2.30
80-90	90.83	N.A.	0.50
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	18326.18	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1641.55
10-20	3910.8
20-30	4184.25
30-40	3290.64
40-50	2387.78
50-60	1541.49
60-70	865.33
70-80	413.49
80-90	90.83
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	92	82	76	70	90	81	75	70	79	73	69	77	72	68	75	71	67	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	69	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	51
8	72	61	54	49	71	60	54	49	59	53	49	58	53	49	57	52	48	47
9	68	57	50	46	67	57	50	46	56	50	45	55	49	45	54	49	45	44
10	65	54	47	43	64	53	47	43	52	46	42	51	46	42	51	46	42	41

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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	19.5	20.8	19.8	21.1	21.4	10.5	11.8	10.8	12.1	12.4
	3H	21.3	22.5	21.7	22.8	23.2	12.5	13.7	12.9	14.0	14.4
	4H	21.8	22.9	22.2	23.3	23.6	13.3	14.3	13.7	14.7	15.1
	6H	22.1	23.1	22.6	23.5	23.9	13.6	14.6	14.0	14.9	15.3
	8H	22.2	23.2	22.6	23.5	23.9	13.6	14.6	14.1	15.0	15.4
	12H	22.2	23.1	22.7	23.5	23.9	13.6	14.5	14.1	14.9	15.4
4H	2H	19.3	20.4	19.7	20.7	21.1	11.1	12.2	11.5	12.5	12.9
	3H	21.2	22.1	21.6	22.5	22.9	13.5	14.3	13.9	14.7	15.1
	4H	21.8	22.6	22.2	23.0	23.4	14.3	15.1	14.7	15.5	16.0
	6H	22.2	22.9	22.7	23.3	23.8	14.7	15.4	15.2	15.8	16.3
	8H	22.3	22.9	22.8	23.4	23.9	14.8	15.4	15.2	15.9	16.3
	12H	22.4	22.9	22.9	23.4	23.9	14.8	15.4	15.3	15.9	16.3
8H	4H	21.7	22.3	22.2	22.8	23.2	14.7	15.4	15.2	15.8	16.3
	6H	22.2	22.7	22.7	23.2	23.7	15.2	15.8	15.7	16.3	16.7
	8H	22.3	22.8	22.8	23.3	23.8	15.4	15.8	15.9	16.3	16.8
	12H	22.4	22.8	22.9	23.3	23.9	15.4	15.8	15.9	16.3	16.9
12H	4H	21.7	22.2	22.2	22.7	23.2	14.8	15.4	15.3	15.9	16.4
	6H	22.1	22.6	22.7	23.1	23.6	15.4	15.9	15.9	16.3	16.9
	8H	22.3	22.7	22.8	23.2	23.8	15.5	15.9	16.1	16.4	17.0

Maximum UGR = 23.9

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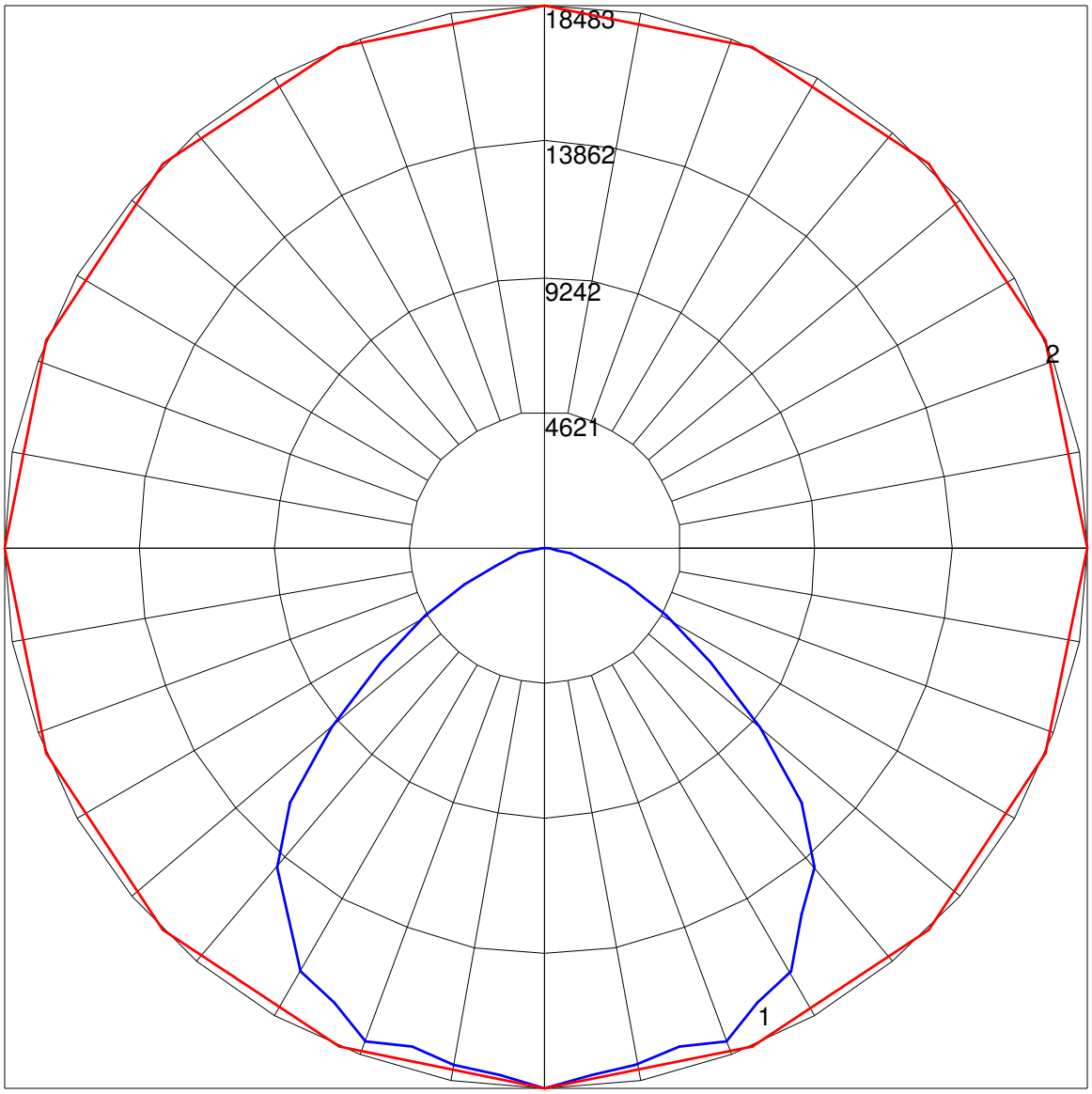
POLAR GRAPH



Maximum Candela = 18483.142 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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