H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-850-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-L200-850-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	19662
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	150
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	48428	5168	3820
55	33187	3836	2868
65	20083	2908	2951
75	9834	3213	2680
85	3770	1187	1187

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	19830.872	19830.872	19830.872	19830.872	19830.872
5	19387.575	19233.476	18924.575	18669.152	18521.386
10	19233.476	18602.305	17205.567	16004.442	15782.793
15	18971.720	17582.018	14923.641	12895.731	12224.452
20	19293.990	16105.063	11258.346	8217.185	7250.375
25	18420.764	13882.947	8243.924	5572.177	4779.871
30	18004.909	11130.282	5007.853	3074.936	2652.044
35	16420.297	7982.167	2960.241	1939.954	1759.117
40	15352.865	5471.556	1920.252	1456.548	1362.963
45	13272.182	3410.575	1416.441	1107.540	1047.026
50	10237.354	2288.962	1114.576	906.297	852.820
55	7377.735	1698.603	852.820	698.017	637.504
60	5075.403	1208.161	664.946	584.027	543.919
65	3289.548	745.162	476.369	503.811	483.405
70	1946.990	536.882	409.522	422.892	375.747
75	986.513	402.486	322.270	288.495	268.793
80	476.369	295.532	201.243	127.360	107.658
85	127.360	94.289	40.108	40.108	40.108
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5957.21	N.A.	30.30
0-30	10446.57	N.A.	53.10
0-40	13977.15	N.A.	71.10
0-60	18192.94	N.A.	92.50
0-80	19565.01	N.A.	99.50
0-90	19662.47	N.A.	100.00
10-90	17901.22	N.A.	91.00
20-40	8019.94	N.A.	40.80
20-50	10581.83	N.A.	53.80
40-70	5144.22	N.A.	26.20
60-80	1372.08	N.A.	7.00
70-80	443.64	N.A.	2.30
80-90	97.45	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	19662.47	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1761.25
10-20	4195.96
20-30	4489.35
30-40	3530.59
40-50	2561.89
50-60	1653.89
60-70	928.43
70-80	443.64
80-90	97.45
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	47	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	19.8	21.1	20.1	21.4	21.7	10.8	12.1	11.1	12.4	12.7
	3H	21.6	22.8	22.0	23.1	23.5	12.8	14.0	13.2	14.3	14.7
	4H	22.1	23.2	22.5	23.6	23.9	13.6	14.6	14.0	15.0	15.4
	6H	22.4	23.4	22.9	23.8	24.2	13.9	14.9	14.3	15.2	15.6
	8H	22.5	23.5	22.9	23.8	24.2	13.9	14.9	14.4	15.3	15.7
	12H	22.5	23.4	23.0	23.8	24.2	13.9	14.8	14.4	15.2	15.7
4H	2H	19.6	20.7	20.0	21.0	21.4	11.4	12.5	11.8	12.8	13.2
	3H	21.5	22.4	21.9	22.8	23.2	13.8	14.6	14.2	15.0	15.4
	4H	22.1	22.9	22.5	23.3	23.7	14.6	15.4	15.0	15.8	16.3
	6H	22.5	23.2	23.0	23.6	24.1	15.0	15.7	15.5	16.1	16.6
	8H	22.6	23.2	23.1	23.7	24.2	15.1	15.7	15.5	16.2	16.6
	12H	22.7	23.2	23.2	23.7	24.2	15.1	15.7	15.6	16.2	16.6
8H	4H	22.0	22.6	22.5	23.1	23.5	15.0	15.7	15.5	16.1	16.6
	6H	22.5	23.0	23.0	23.5	24.0	15.5	16.1	16.0	16.6	17.0
	8H	22.6	23.1	23.1	23.6	24.1	15.7	16.1	16.2	16.6	17.1
	12H	22.7	23.1	23.2	23.6	24.2	15.7	16.1	16.2	16.6	17.2
12H	4H	22.0	22.5	22.5	23.0	23.5	15.1	15.7	15.6	16.2	16.7
	6H	22.4	22.9	23.0	23.4	23.9	15.7	16.2	16.2	16.6	17.2
	8H	22.6	23.0	23.1	23.5	24.1	15.8	16.2	16.4	16.7	17.3

Maximum UGR = 24.2

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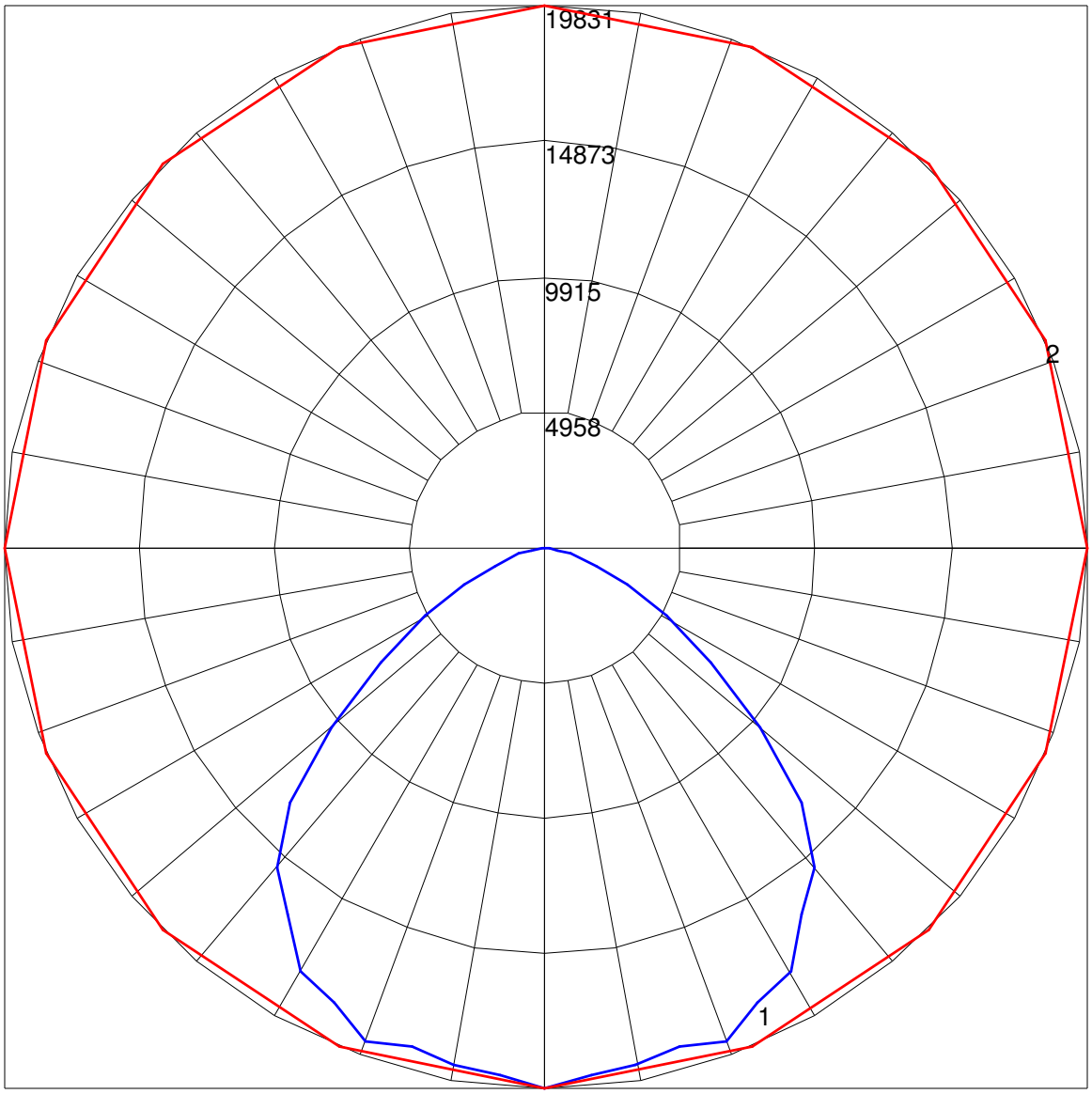
POLAR GRAPH



Maximum Candela = 19830.872 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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