H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-835-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-L200-835-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	18517
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	45607	4867	3598
55	31254	3613	2701
65	18913	2739	2779
75	9261	3025	2523
85	3551	1118	1118

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	18675.673	18675.673	18675.673	18675.673	18675.673
5	18258.199	18113.077	17822.170	17581.626	17442.468
10	18113.077	17518.673	16203.298	15072.142	14863.405
15	17866.568	16557.820	14054.300	12144.522	11512.347
20	18170.065	15166.902	10602.518	7738.513	6828.022
25	17347.708	13074.230	7763.694	5247.584	4501.432
30	16956.077	10481.914	4716.133	2895.813	2497.556
35	15463.773	7517.185	2787.800	1826.946	1656.643
40	14458.521	5152.824	1808.392	1371.701	1283.567
45	12499.044	3211.900	1333.929	1043.023	986.034
50	9641.002	2155.624	1049.649	853.503	803.141
55	6947.963	1599.655	803.141	657.356	600.368
60	4779.748	1137.783	626.211	550.006	512.234
65	3097.923	701.754	448.619	474.463	455.246
70	1833.573	505.608	385.667	398.257	353.859
75	929.046	379.040	303.497	271.690	253.135
80	448.619	278.316	189.520	119.941	101.387
85	119.941	88.796	37.771	37.771	37.771
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	5610.19	N.A.	30.30
0-30	9838.03	N.A.	53.10
0-40	13162.95	N.A.	71.10
0-60	17133.15	N.A.	92.50
0-80	18425.3	N.A.	99.50
0-90	18517.08	N.A.	100.00
10-90	16858.43	N.A.	91.00
20-40	7552.76	N.A.	40.80
20-50	9965.41	N.A.	53.80
40-70	4844.55	N.A.	26.20
60-80	1292.15	N.A.	7.00
70-80	417.80	N.A.	2.30
80-90	91.78	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	18517.08	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1658.65
10-20	3951.54
20-30	4227.84
30-40	3324.92
40-50	2412.66
50-60	1557.55
60-70	874.35
70-80	417.80
80-90	91.78
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	19.6	20.9	19.9	21.2	21.5	10.6	11.9	10.9	12.2	12.5
	3H	21.4	22.6	21.8	22.9	23.3	12.6	13.8	13.0	14.1	14.5
	4H	21.9	23.0	22.3	23.4	23.7	13.4	14.4	13.8	14.8	15.2
	6H	22.2	23.2	22.7	23.6	24.0	13.7	14.7	14.1	15.0	15.4
	8H	22.3	23.3	22.7	23.6	24.0	13.7	14.7	14.2	15.1	15.5
	12H	22.3	23.2	22.8	23.6	24.0	13.7	14.6	14.2	15.0	15.5
4H	2H	19.4	20.5	19.8	20.8	21.2	11.2	12.3	11.6	12.6	13.0
	3H	21.3	22.2	21.7	22.6	23.0	13.6	14.4	14.0	14.8	15.2
	4H	21.9	22.7	22.3	23.1	23.5	14.4	15.2	14.8	15.6	16.1
	6H	22.3	23.0	22.8	23.4	23.9	14.8	15.5	15.3	15.9	16.4
	8H	22.4	23.0	22.9	23.5	24.0	14.9	15.5	15.3	16.0	16.4
	12H	22.5	23.0	23.0	23.5	24.0	14.9	15.5	15.4	16.0	16.4
8H	4H	21.8	22.4	22.3	22.9	23.3	14.8	15.5	15.3	15.9	16.4
	6H	22.3	22.8	22.8	23.3	23.8	15.3	15.9	15.8	16.4	16.8
	8H	22.4	22.9	22.9	23.4	23.9	15.5	15.9	16.0	16.4	16.9
	12H	22.5	22.9	23.0	23.4	24.0	15.5	15.9	16.0	16.4	17.0
12H	4H	21.8	22.3	22.3	22.8	23.3	14.9	15.5	15.4	16.0	16.5
	6H	22.2	22.7	22.8	23.2	23.7	15.5	16.0	16.0	16.4	17.0
	8H	22.4	22.8	22.9	23.3	23.9	15.6	16.0	16.2	16.5	17.1

Maximum UGR = 24.0

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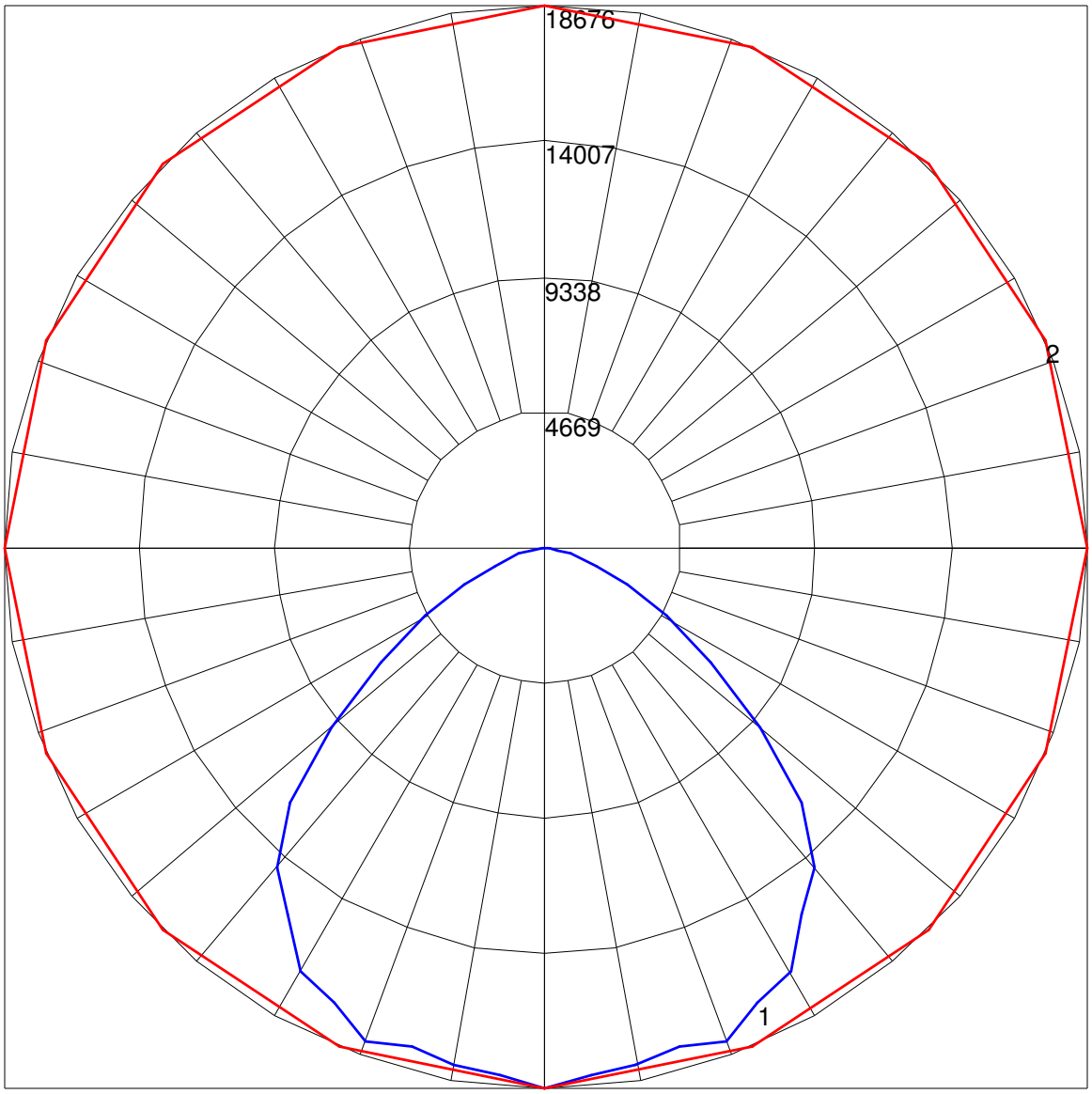
POLAR GRAPH



Maximum Candela = 18675.673 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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