H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L300-840-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-L300-840-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	28632
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	195
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	70518	7526	5563
55	48325	5586	4176
65	29244	4235	4297
75	14320	4678	3902
85	5490	1729	1729

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	28876.894	28876.894	28876.894	28876.894	28876.894
5	28231.383	28006.991	27557.182	27185.245	26970.074
10	28006.991	27087.906	25054.033	23305.005	22982.249
15	27625.832	25602.205	21731.187	18778.229	17800.741
20	28095.108	23451.526	16393.936	11965.524	10557.695
25	26823.553	20215.773	12004.460	8113.974	6960.251
30	26218.002	16207.455	7292.228	4477.594	3861.797
35	23910.556	11623.301	4310.581	2824.880	2561.553
40	22356.206	7967.453	2796.191	2120.965	1984.691
45	19326.401	4966.338	2062.562	1612.753	1524.636
50	14907.211	3333.092	1623.000	1319.712	1241.841
55	10743.151	2473.435	1241.841	1016.424	928.307
60	7390.591	1759.274	968.267	850.435	792.032
65	4790.103	1085.074	693.668	733.629	703.915
70	2835.126	781.786	596.329	615.797	547.148
75	1436.519	586.083	469.276	420.095	391.405
80	693.668	430.341	293.042	185.456	156.767
85	185.456	137.299	58.403	58.403	58.403
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	8674.65	N.A.	30.30
0-30	15211.86	N.A.	53.10
0-40	20352.95	N.A.	71.10
0-60	26491.8	N.A.	92.50
0-80	28489.76	N.A.	99.50
0-90	28631.67	N.A.	100.00
10-90	26067.01	N.A.	91.00
20-40	11678.3	N.A.	40.80
20-50	15408.83	N.A.	53.80
40-70	7490.79	N.A.	26.20
60-80	1997.96	N.A.	7.00
70-80	646.02	N.A.	2.30
80-90	141.91	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	28631.67	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2564.66
10-20	6109.99
20-30	6537.21
30-40	5141.1
40-50	3730.52
50-60	2408.33
60-70	1351.94
70-80	646.02
80-90	141.91
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	21.1	22.4	21.4	22.7	23.0	12.1	13.4	12.4	13.7	14.0
	3H	22.9	24.1	23.3	24.4	24.8	14.1	15.3	14.5	15.6	16.0
	4H	23.4	24.5	23.8	24.9	25.2	14.9	15.9	15.3	16.3	16.7
	6H	23.7	24.7	24.2	25.1	25.5	15.2	16.2	15.6	16.5	16.9
	8H	23.8	24.8	24.2	25.1	25.5	15.2	16.2	15.7	16.6	17.0
	12H	23.8	24.7	24.3	25.1	25.5	15.2	16.1	15.7	16.5	17.0
4H	2H	20.9	22.0	21.3	22.3	22.7	12.7	13.8	13.1	14.1	14.5
	3H	22.8	23.7	23.2	24.1	24.5	15.1	15.9	15.5	16.3	16.7
	4H	23.4	24.2	23.8	24.6	25.0	15.9	16.7	16.3	17.1	17.6
	6H	23.8	24.5	24.3	24.9	25.4	16.3	17.0	16.8	17.4	17.9
	8H	23.9	24.5	24.4	25.0	25.5	16.4	17.0	16.8	17.5	17.9
	12H	24.0	24.5	24.5	25.0	25.5	16.4	17.0	16.9	17.5	17.9
8H	4H	23.3	23.9	23.8	24.4	24.8	16.3	17.0	16.8	17.4	17.9
	6H	23.8	24.3	24.3	24.8	25.3	16.8	17.4	17.3	17.9	18.3
	8H	23.9	24.4	24.4	24.9	25.4	17.0	17.4	17.5	17.9	18.4
	12H	24.0	24.4	24.5	24.9	25.5	17.0	17.4	17.5	17.9	18.5
12H	4H	23.3	23.8	23.8	24.3	24.8	16.4	17.0	16.9	17.5	18.0
	6H	23.7	24.2	24.3	24.7	25.2	17.0	17.5	17.5	17.9	18.5
	8H	23.9	24.3	24.4	24.8	25.4	17.1	17.5	17.7	18.0	18.6

Maximum UGR = 25.5

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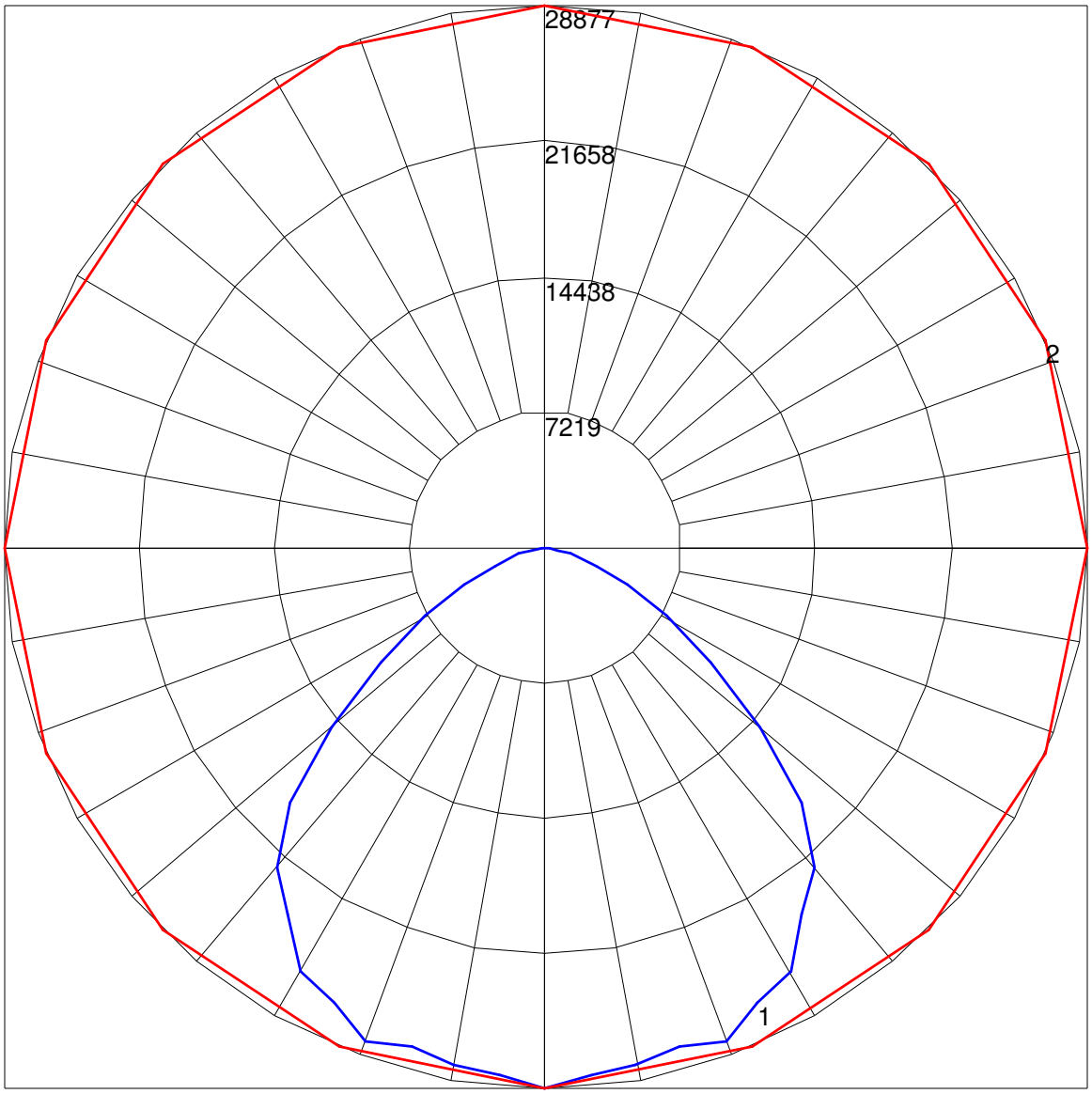
POLAR GRAPH



Maximum Candela = 28876.894 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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