H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : GL-4-L200-940-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-L200-940-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	15845
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
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	39024	4165	3079
55	26743	3091	2311
65	16183	2344	2378
75	7925	2589	2159
85	3038	957	957

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	15980.217	15980.217	15980.217	15980.217	15980.217
5	15622.997	15498.820	15249.900	15044.073	14925.000
10	15498.820	14990.207	13864.680	12896.783	12718.173
15	15287.890	14168.033	12025.846	10391.706	9850.772
20	15547.584	12977.866	9072.259	6621.615	5842.535
25	14843.917	11187.229	6643.162	4490.201	3851.741
30	14508.810	8969.062	4035.454	2477.861	2137.084
35	13231.890	6432.232	2385.437	1563.264	1417.540
40	12371.726	4409.118	1547.387	1173.724	1098.310
45	10695.059	2748.327	1141.404	892.483	843.720
50	8249.518	1844.504	898.154	730.317	687.224
55	5945.165	1368.777	687.224	562.480	513.717
60	4089.888	973.567	535.830	470.623	438.304
65	2650.801	600.470	383.870	405.984	389.540
70	1568.934	432.633	330.003	340.777	302.787
75	794.957	324.333	259.693	232.477	216.600
80	383.870	238.147	162.167	102.630	86.753
85	102.630	75.980	32.320	32.320	32.320
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4800.47	N.A.	30.30
0-30	8418.11	N.A.	53.10
0-40	11263.14	N.A.	71.10
0-60	14660.33	N.A.	92.50
0-80	15765.98	N.A.	99.50
0-90	15844.51	N.A.	100.00
10-90	14425.25	N.A.	91.00
20-40	6462.67	N.A.	40.80
20-50	8527.11	N.A.	53.80
40-70	4145.34	N.A.	26.20
60-80	1105.65	N.A.	7.00
70-80	357.50	N.A.	2.30
80-90	78.53	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	15844.51	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1419.26
10-20	3381.21
20-30	3617.63
30-40	2845.04
40-50	2064.44
50-60	1332.75
60-70	748.15
70-80	357.50
80-90	78.53
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	19.0	20.3	19.3	20.6	20.9	10.0	11.3	10.3	11.6	11.9
	3H	20.8	22.0	21.2	22.3	22.7	12.0	13.2	12.4	13.5	13.9
	4H	21.3	22.4	21.7	22.8	23.1	12.8	13.8	13.2	14.2	14.6
	6H	21.6	22.6	22.1	23.0	23.4	13.1	14.1	13.5	14.4	14.8
	8H	21.7	22.7	22.1	23.0	23.4	13.1	14.1	13.6	14.5	14.9
	12H	21.7	22.6	22.2	23.0	23.4	13.1	14.0	13.6	14.4	14.9
4H	2H	18.8	19.9	19.2	20.2	20.6	10.6	11.7	11.0	12.0	12.4
	3H	20.7	21.6	21.1	22.0	22.4	13.0	13.8	13.4	14.2	14.6
	4H	21.3	22.1	21.7	22.5	22.9	13.8	14.6	14.2	15.0	15.5
	6H	21.7	22.4	22.2	22.8	23.3	14.2	14.9	14.7	15.3	15.8
	8H	21.8	22.4	22.3	22.9	23.4	14.3	14.9	14.7	15.4	15.8
	12H	21.9	22.4	22.4	22.9	23.4	14.3	14.9	14.8	15.4	15.8
8H	4H	21.2	21.8	21.7	22.3	22.7	14.2	14.9	14.7	15.3	15.8
	6H	21.7	22.2	22.2	22.7	23.2	14.7	15.3	15.2	15.8	16.2
	8H	21.8	22.3	22.3	22.8	23.3	14.9	15.3	15.4	15.8	16.3
	12H	21.9	22.3	22.4	22.8	23.4	14.9	15.3	15.4	15.8	16.4
12H	4H	21.2	21.7	21.6	22.2	22.7	14.3	14.9	14.8	15.4	15.9
	6H	21.6	22.1	22.2	22.6	23.1	14.9	15.4	15.4	15.8	16.4
	8H	21.8	22.2	22.3	22.7	23.3	15.0	15.4	15.6	15.9	16.5

Maximum UGR = 23.4

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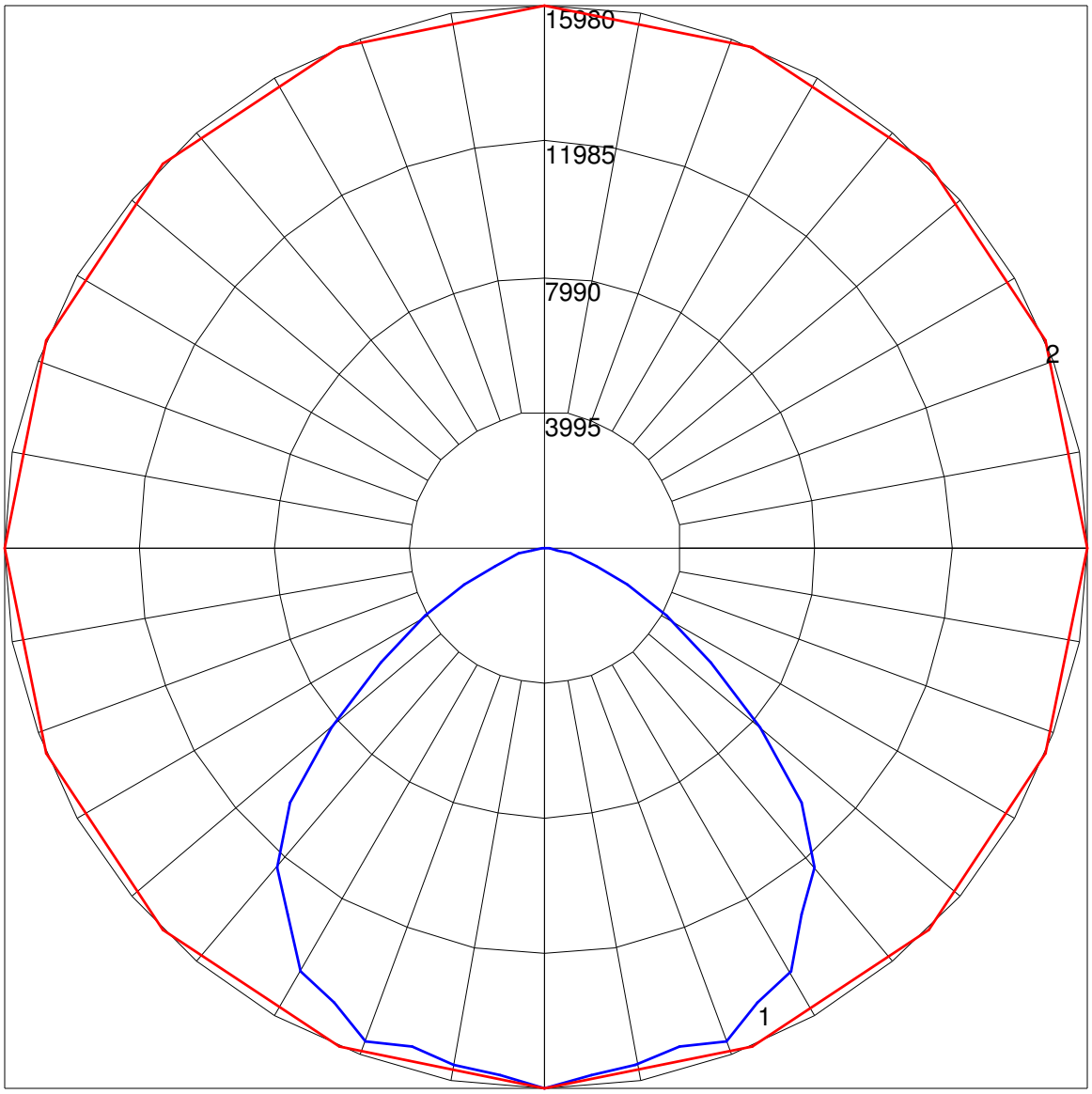
POLAR GRAPH



Maximum Candela = 15980.217 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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