H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-950-SA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20790.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1 X 4 RECESSED LED LUMINAIRE
[MORE] W/ FROSTED SQUARE RIBBED LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-950-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	7396
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	119
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.16
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.98 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6608	6403	6356
55	5947	5982	6114
65	5196	5750	6298
75	4195	5806	7244
85	1944	6267	7571

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2880.176	2880.176	2880.176	2880.176	2880.176
5	2894.486	2862.687	2846.787	2807.039	2843.608
10	2838.838	2804.654	2783.985	2780.010	2785.575
15	2745.031	2711.643	2693.358	2686.999	2682.229
20	2620.221	2587.627	2557.418	2542.314	2544.699
25	2464.407	2437.378	2424.658	2384.910	2369.805
30	2282.359	2254.535	2225.916	2204.452	2192.527
35	2093.156	2067.717	2033.533	2004.119	1987.425
40	1876.129	1855.460	1819.686	1796.632	1783.118
45	1666.257	1642.408	1614.584	1601.865	1602.659
50	1444.460	1437.306	1407.097	1412.662	1419.816
55	1216.304	1216.304	1223.459	1242.538	1250.488
60	1004.047	1008.817	1041.411	1074.004	1093.879
65	783.045	811.664	866.517	922.960	949.194
70	570.788	618.487	697.189	772.711	803.715
75	387.150	436.439	535.810	633.591	668.570
80	202.717	286.984	390.330	493.676	526.270
85	60.418	135.940	194.768	221.002	235.311
90	0.000	2.385	3.180	5.565	3.180

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1030.56	N.A.	13.90
0-30	2141.27	N.A.	29.00
0-40	3413.92	N.A.	46.20
0-60	5769.57	N.A.	78.00
0-80	7195.35	N.A.	97.30
0-90	7395.94	N.A.	100.00
10-90	7125.66	N.A.	96.30
20-40	2383.36	N.A.	32.20
20-50	3637.32	N.A.	49.20
40-70	3215.19	N.A.	43.50
60-80	1425.79	N.A.	19.30
70-80	566.25	N.A.	7.70
80-90	200.59	N.A.	2.70
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	7395.94	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	270.28
10-20	760.28
20-30	1110.7
30-40	1272.65
40-50	1253.96
50-60	1101.68
60-70	859.54
70-80	566.25
80-90	200.59
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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	83	70	62	55	80	69	61	55	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	54	47	60	52	47	58	51	46	56	50	46	44
6	70	57	48	42	68	56	48	41	54	47	41	53	46	41	51	45	40	38
7	65	52	43	37	64	51	43	37	49	42	36	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

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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	18.0	19.6	18.4	20.0	20.3	18.3	19.9	18.7	20.3	20.6
	3H	19.7	21.1	20.0	21.5	21.8	20.6	22.1	21.0	22.4	22.7
	4H	20.3	21.6	20.7	22.0	22.4	21.7	23.1	22.1	23.4	23.8
	6H	20.6	21.9	21.1	22.3	22.7	22.7	24.0	23.1	24.4	24.8
	8H	20.7	22.0	21.2	22.4	22.8	23.1	24.4	23.5	24.8	25.2
	12H	20.8	22.0	21.2	22.4	22.8	23.4	24.6	23.8	25.0	25.4
4H	2H	18.7	20.1	19.1	20.5	20.8	19.0	20.3	19.4	20.7	21.1
	3H	20.6	21.8	21.0	22.2	22.6	21.5	22.6	21.9	23.0	23.4
	4H	21.4	22.4	21.8	22.8	23.3	22.7	23.8	23.2	24.2	24.6
	6H	21.9	22.8	22.4	23.3	23.7	24.0	24.9	24.4	25.4	25.8
	8H	22.1	22.9	22.5	23.4	23.8	24.5	25.4	24.9	25.8	26.3
	12H	22.1	22.9	22.6	23.4	23.9	24.8	25.6	25.3	26.1	26.6
8H	4H	21.9	22.8	22.3	23.2	23.7	23.1	23.9	23.5	24.4	24.8
	6H	22.6	23.3	23.1	23.8	24.3	24.5	25.3	25.0	25.7	26.2
	8H	22.9	23.5	23.4	24.0	24.5	25.1	25.8	25.6	26.3	26.8
	12H	23.0	23.6	23.5	24.1	24.7	25.6	26.2	26.1	26.7	27.2
12H	4H	22.0	22.8	22.5	23.3	23.7	23.1	23.9	23.6	24.4	24.8
	6H	22.8	23.5	23.3	23.9	24.5	24.6	25.3	25.1	25.7	26.3
	8H	23.1	23.7	23.7	24.2	24.8	25.3	25.8	25.8	26.3	26.9

Maximum UGR = 27.2

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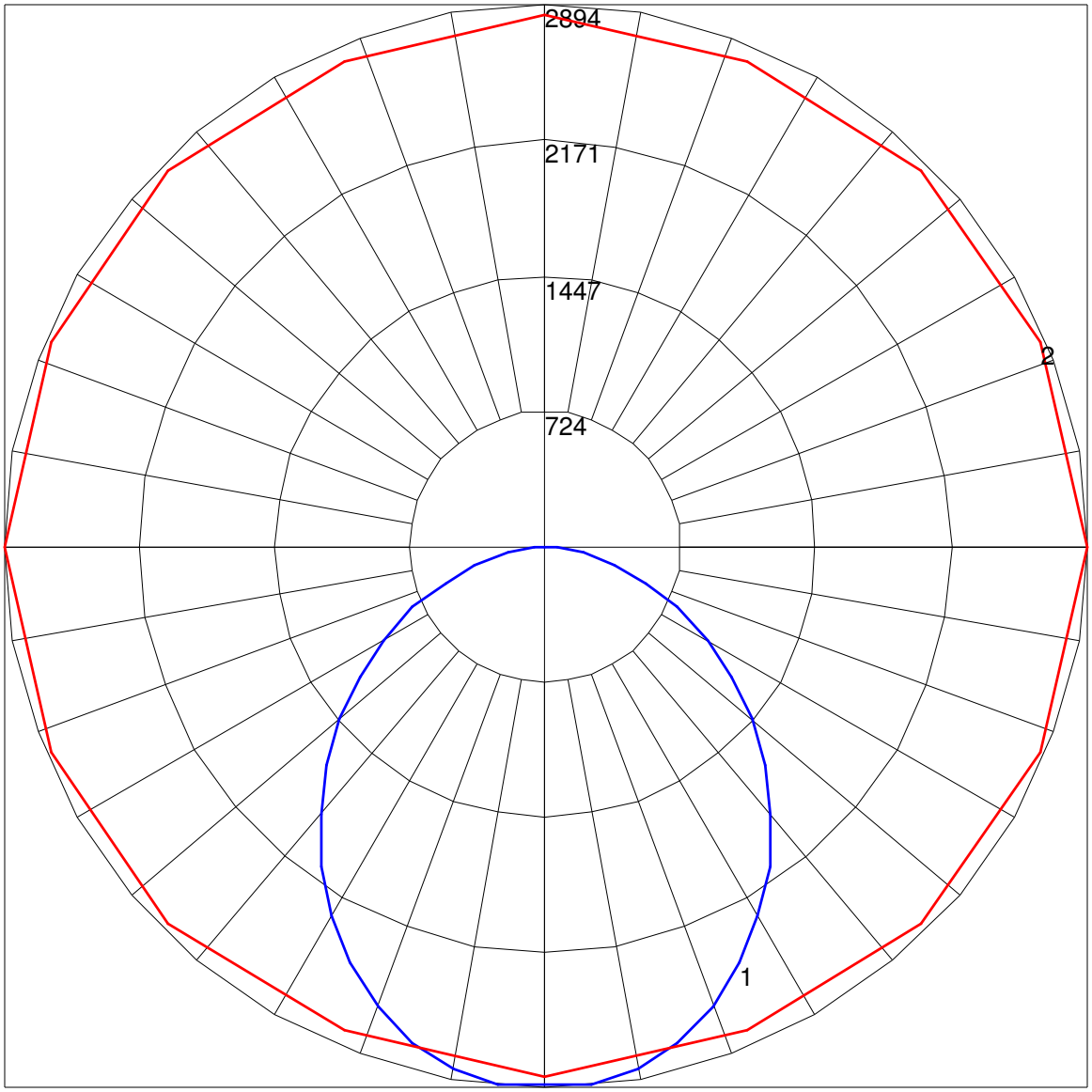
POLAR GRAPH



Maximum Candela = 2894.486 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)

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