H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-935-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-L80-935-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6903
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
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	6168	5976	5932
55	5550	5583	5706
65	4850	5367	5879
75	3915	5418	6761
85	1814	5849	7067

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2688.165	2688.165	2688.165	2688.165	2688.165
5	2701.520	2671.841	2657.002	2619.903	2654.034
10	2649.582	2617.677	2598.386	2594.676	2599.870
15	2562.029	2530.867	2513.801	2507.865	2503.414
20	2445.540	2415.119	2386.924	2372.827	2375.052
25	2300.113	2274.886	2263.015	2225.916	2211.819
30	2130.202	2104.233	2077.522	2057.488	2046.359
35	1953.612	1929.869	1897.964	1870.511	1854.930
40	1751.054	1731.763	1698.374	1676.857	1664.243
45	1555.173	1532.914	1506.945	1495.074	1495.816
50	1348.163	1341.485	1313.290	1318.484	1325.162
55	1135.217	1135.217	1141.895	1159.702	1167.122
60	937.111	941.563	971.983	1002.404	1020.954
65	730.842	757.553	808.750	861.430	885.915
70	532.736	577.254	650.709	721.197	750.134
75	361.340	407.343	500.089	591.352	623.998
80	189.203	267.852	364.308	460.765	491.185
85	56.390	126.877	181.783	206.268	219.624
90	0.000	2.226	2.968	5.194	2.968

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	961.86	N.A.	13.90
0-30	1998.52	N.A.	29.00
0-40	3186.32	N.A.	46.20
0-60	5384.93	N.A.	78.00
0-80	6715.66	N.A.	97.30
0-90	6902.88	N.A.	100.00
10-90	6650.62	N.A.	96.30
20-40	2224.47	N.A.	32.20
20-50	3394.83	N.A.	49.20
40-70	3000.84	N.A.	43.50
60-80	1330.73	N.A.	19.30
70-80	528.50	N.A.	7.70
80-90	187.22	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	6902.88	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	252.26
10-20	709.60
20-30	1036.66
30-40	1187.81
40-50	1170.37
50-60	1028.24
60-70	802.24
70-80	528.50
80-90	187.22
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	82	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	17.7	19.3	18.1	19.7	20.0	18.0	19.6	18.4	20.0	20.3
	3H	19.4	20.8	19.7	21.2	21.5	20.3	21.8	20.7	22.1	22.4
	4H	20.0	21.3	20.4	21.7	22.1	21.4	22.8	21.8	23.1	23.5
	6H	20.3	21.6	20.8	22.0	22.4	22.4	23.7	22.8	24.1	24.5
	8H	20.4	21.7	20.9	22.1	22.5	22.8	24.1	23.2	24.5	24.9
	12H	20.5	21.7	20.9	22.1	22.5	23.1	24.3	23.5	24.7	25.1
4H	2H	18.4	19.8	18.8	20.2	20.5	18.7	20.0	19.1	20.4	20.8
	3H	20.3	21.5	20.7	21.9	22.3	21.2	22.3	21.6	22.7	23.1
	4H	21.1	22.1	21.5	22.5	23.0	22.4	23.5	22.9	23.9	24.3
	6H	21.6	22.5	22.1	23.0	23.4	23.7	24.6	24.1	25.1	25.5
	8H	21.8	22.6	22.2	23.1	23.5	24.2	25.1	24.6	25.5	26.0
	12H	21.8	22.6	22.3	23.1	23.6	24.5	25.3	25.0	25.8	26.3
8H	4H	21.6	22.5	22.0	22.9	23.4	22.8	23.6	23.2	24.1	24.5
	6H	22.3	23.0	22.8	23.5	24.0	24.2	25.0	24.7	25.4	25.9
	8H	22.6	23.2	23.1	23.7	24.2	24.8	25.5	25.3	26.0	26.5
	12H	22.7	23.3	23.2	23.8	24.4	25.3	25.9	25.8	26.4	26.9
12H	4H	21.7	22.5	22.2	23.0	23.4	22.8	23.6	23.3	24.1	24.5
	6H	22.5	23.2	23.0	23.6	24.2	24.3	25.0	24.8	25.4	26.0
	8H	22.8	23.4	23.4	23.9	24.5	25.0	25.5	25.5	26.0	26.6

Maximum UGR = 26.9

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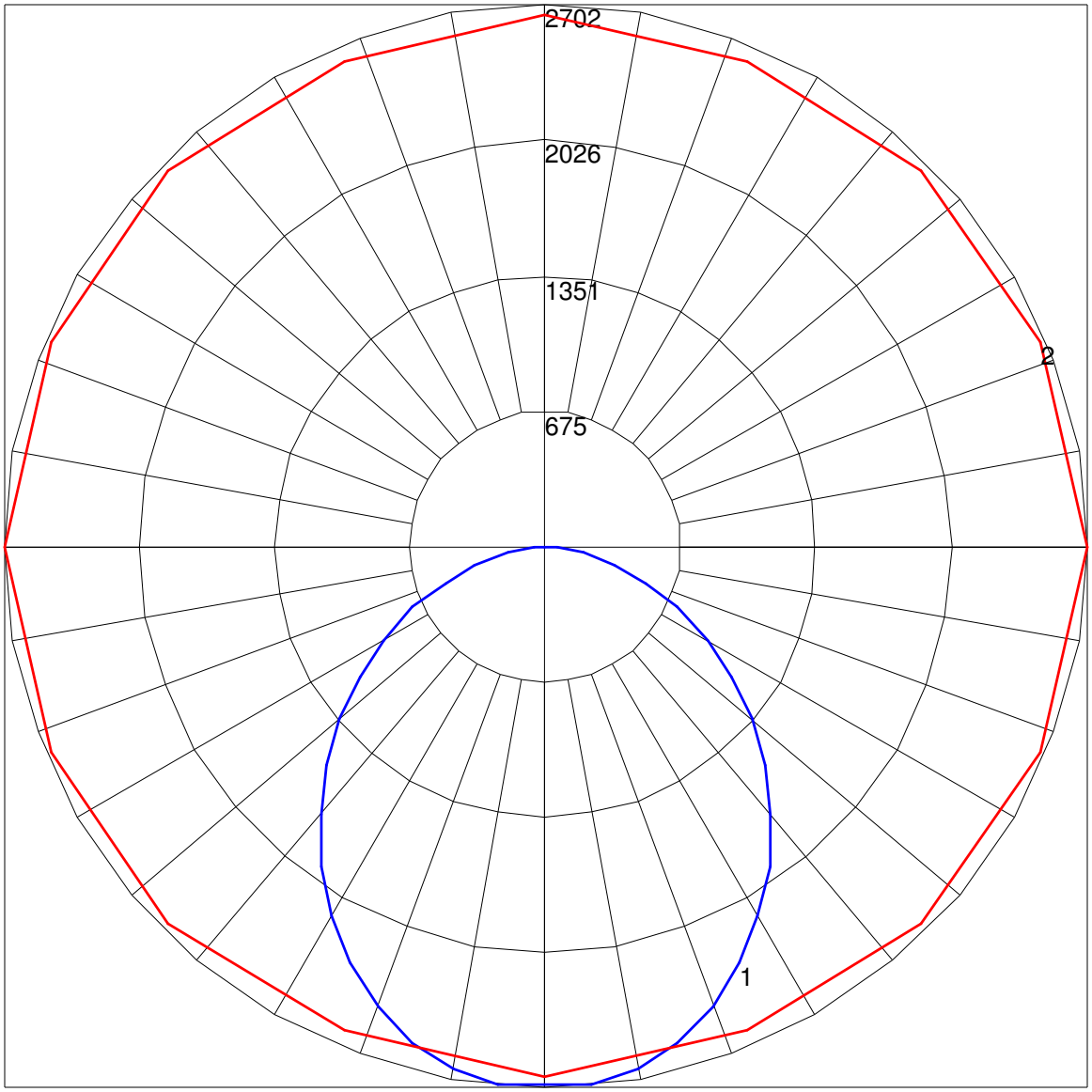
POLAR GRAPH



Maximum Candela = 2701.52 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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