H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-830-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-L80-830-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8136
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
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	7269	7044	6992
55	6541	6580	6725
65	5716	6325	6928
75	4614	6386	7968
85	2138	6893	8328

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3168.194	3168.194	3168.194	3168.194	3168.194
5	3183.934	3148.956	3131.466	3087.743	3127.969
10	3122.722	3085.120	3062.383	3058.011	3064.132
15	3019.535	2982.807	2962.694	2955.699	2950.452
20	2882.243	2846.390	2813.160	2796.546	2799.169
25	2710.848	2681.116	2667.124	2623.401	2606.786
30	2510.595	2479.988	2448.508	2424.897	2411.780
35	2302.472	2274.489	2236.887	2204.531	2186.168
40	2063.742	2041.006	2001.655	1976.295	1961.430
45	1832.883	1806.649	1776.043	1762.051	1762.926
50	1588.907	1581.036	1547.807	1553.928	1561.798
55	1337.935	1337.935	1345.805	1366.792	1375.537
60	1104.452	1109.699	1145.552	1181.405	1203.267
65	861.350	892.831	953.169	1015.256	1044.114
70	627.867	680.335	766.908	849.982	884.086
75	425.865	480.082	589.391	696.950	735.427
80	222.989	315.683	429.363	543.044	578.897
85	66.459	149.534	214.244	243.102	258.842
90	0.000	2.623	3.498	6.121	3.498

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1133.62	N.A.	13.90
0-30	2355.39	N.A.	29.00
0-40	3755.31	N.A.	46.20
0-60	6346.52	N.A.	78.00
0-80	7914.89	N.A.	97.30
0-90	8135.53	N.A.	100.00
10-90	7838.23	N.A.	96.30
20-40	2621.69	N.A.	32.20
20-50	4001.05	N.A.	49.20
40-70	3536.7	N.A.	43.50
60-80	1568.37	N.A.	19.30
70-80	622.87	N.A.	7.70
80-90	220.65	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	8135.53	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	297.31
10-20	836.31
20-30	1221.78
30-40	1399.92
40-50	1379.36
50-60	1211.85
60-70	945.49
70-80	622.87
80-90	220.65
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	18.3	19.9	18.7	20.3	20.6	18.6	20.2	19.0	20.6	20.9
	3H	20.0	21.4	20.3	21.8	22.1	20.9	22.4	21.3	22.7	23.0
	4H	20.6	21.9	21.0	22.3	22.7	22.0	23.4	22.4	23.7	24.1
	6H	20.9	22.2	21.4	22.6	23.0	23.0	24.3	23.4	24.7	25.1
	8H	21.0	22.3	21.5	22.7	23.1	23.4	24.7	23.8	25.1	25.5
	12H	21.1	22.3	21.5	22.7	23.1	23.7	24.9	24.1	25.3	25.7
4H	2H	19.0	20.4	19.4	20.8	21.1	19.3	20.6	19.7	21.0	21.4
	3H	20.9	22.1	21.3	22.5	22.9	21.8	22.9	22.2	23.3	23.7
	4H	21.7	22.7	22.1	23.1	23.6	23.0	24.1	23.5	24.5	24.9
	6H	22.2	23.1	22.7	23.6	24.0	24.3	25.2	24.7	25.7	26.1
	8H	22.4	23.2	22.8	23.7	24.1	24.8	25.6	25.2	26.1	26.6
	12H	22.4	23.2	22.9	23.7	24.2	25.1	25.9	25.6	26.4	26.9
8H	4H	22.2	23.1	22.6	23.5	24.0	23.4	24.2	23.8	24.7	25.1
	6H	22.9	23.6	23.4	24.1	24.6	24.8	25.6	25.3	26.0	26.5
	8H	23.2	23.8	23.7	24.3	24.8	25.4	26.1	25.9	26.6	27.1
	12H	23.3	23.9	23.8	24.4	25.0	25.9	26.5	26.4	27.0	27.5
12H	4H	22.3	23.1	22.8	23.6	24.0	23.4	24.2	23.9	24.7	25.1
	6H	23.1	23.8	23.6	24.2	24.8	24.9	25.6	25.4	26.0	26.6
	8H	23.4	24.0	24.0	24.5	25.1	25.6	26.1	26.1	26.6	27.2

Maximum UGR = 27.5

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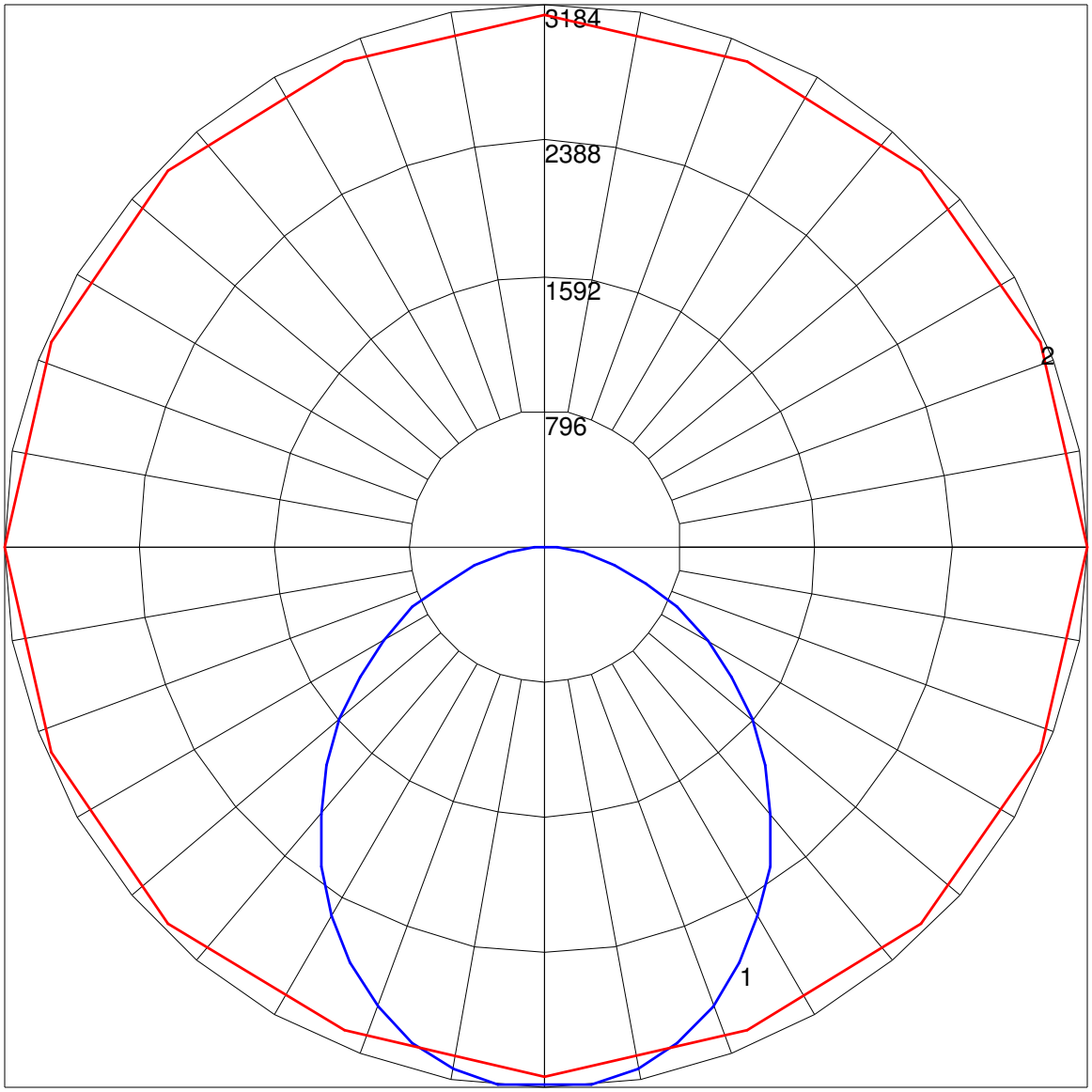
POLAR GRAPH



Maximum Candela = 3183.934 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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