H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-850-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-L80-850-SA-DIM-UNV
[LAMPCAT] HLM 22" LED ARRAYS

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8711
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	141
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	7783	7542	7486
55	7004	7045	7201
65	6120	6772	7418
75	4941	6838	8532
85	2290	7381	8917

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3392.208	3392.208	3392.208	3392.208	3392.208
5	3409.061	3371.609	3352.883	3306.068	3349.138
10	3343.520	3303.259	3278.916	3274.234	3280.788
15	3233.037	3193.713	3172.178	3164.687	3159.069
20	3086.038	3047.650	3012.071	2994.281	2997.090
25	2902.524	2870.690	2855.709	2808.894	2791.104
30	2688.112	2655.341	2621.634	2596.354	2582.310
35	2465.273	2435.311	2395.050	2360.407	2340.745
40	2209.663	2185.320	2143.186	2116.034	2100.116
45	1962.481	1934.392	1901.621	1886.640	1887.577
50	1701.253	1692.827	1657.247	1663.802	1672.228
55	1432.536	1432.536	1440.963	1463.434	1472.797
60	1182.544	1188.162	1226.550	1264.939	1288.346
65	922.254	955.960	1020.565	1087.042	1117.940
70	672.262	728.440	821.133	910.082	946.597
75	455.977	514.028	631.065	746.230	787.427
80	238.756	338.004	459.722	581.441	619.829
85	71.159	160.107	229.393	260.291	277.144
90	0.000	2.809	3.745	6.554	3.745

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1213.77	N.A.	13.90
0-30	2521.94	N.A.	29.00
0-40	4020.84	N.A.	46.20
0-60	6795.27	N.A.	78.00
0-80	8474.53	N.A.	97.30
0-90	8710.77	N.A.	100.00
10-90	8392.45	N.A.	96.30
20-40	2807.07	N.A.	32.20
20-50	4283.96	N.A.	49.20
40-70	3786.77	N.A.	43.50
60-80	1679.26	N.A.	19.30
70-80	666.91	N.A.	7.70
80-90	236.25	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	8710.77	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	318.33
10-20	895.45
20-30	1308.16
30-40	1498.9
40-50	1476.89
50-60	1297.54
60-70	1012.34
70-80	666.92
80-90	236.25
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	18.5	20.1	18.9	20.5	20.8	18.8	20.4	19.2	20.8	21.1
	3H	20.2	21.6	20.5	22.0	22.3	21.1	22.6	21.5	22.9	23.2
	4H	20.8	22.1	21.2	22.5	22.9	22.2	23.6	22.6	23.9	24.3
	6H	21.1	22.4	21.6	22.8	23.2	23.2	24.5	23.6	24.9	25.3
	8H	21.2	22.5	21.7	22.9	23.3	23.6	24.9	24.0	25.3	25.7
	12H	21.3	22.5	21.7	22.9	23.3	23.9	25.1	24.3	25.5	25.9
4H	2H	19.2	20.6	19.6	21.0	21.3	19.5	20.8	19.9	21.2	21.6
	3H	21.1	22.3	21.5	22.7	23.1	22.0	23.1	22.4	23.5	23.9
	4H	21.9	22.9	22.3	23.3	23.8	23.2	24.3	23.7	24.7	25.1
	6H	22.4	23.3	22.9	23.8	24.2	24.5	25.4	24.9	25.9	26.3
	8H	22.6	23.4	23.0	23.9	24.3	25.0	25.8	25.4	26.3	26.8
	12H	22.6	23.4	23.1	23.9	24.4	25.3	26.1	25.8	26.6	27.1
8H	4H	22.4	23.3	22.8	23.7	24.2	23.6	24.4	24.0	24.9	25.3
	6H	23.1	23.8	23.6	24.3	24.8	25.0	25.8	25.5	26.2	26.7
	8H	23.4	24.0	23.9	24.5	25.0	25.6	26.3	26.1	26.8	27.3
	12H	23.5	24.1	24.0	24.6	25.2	26.1	26.7	26.6	27.2	27.7
12H	4H	22.5	23.3	23.0	23.8	24.2	23.6	24.4	24.1	24.9	25.3
	6H	23.3	24.0	23.8	24.4	25.0	25.1	25.8	25.6	26.2	26.8
	8H	23.6	24.2	24.2	24.7	25.3	25.8	26.3	26.3	26.8	27.4

Maximum UGR = 27.7

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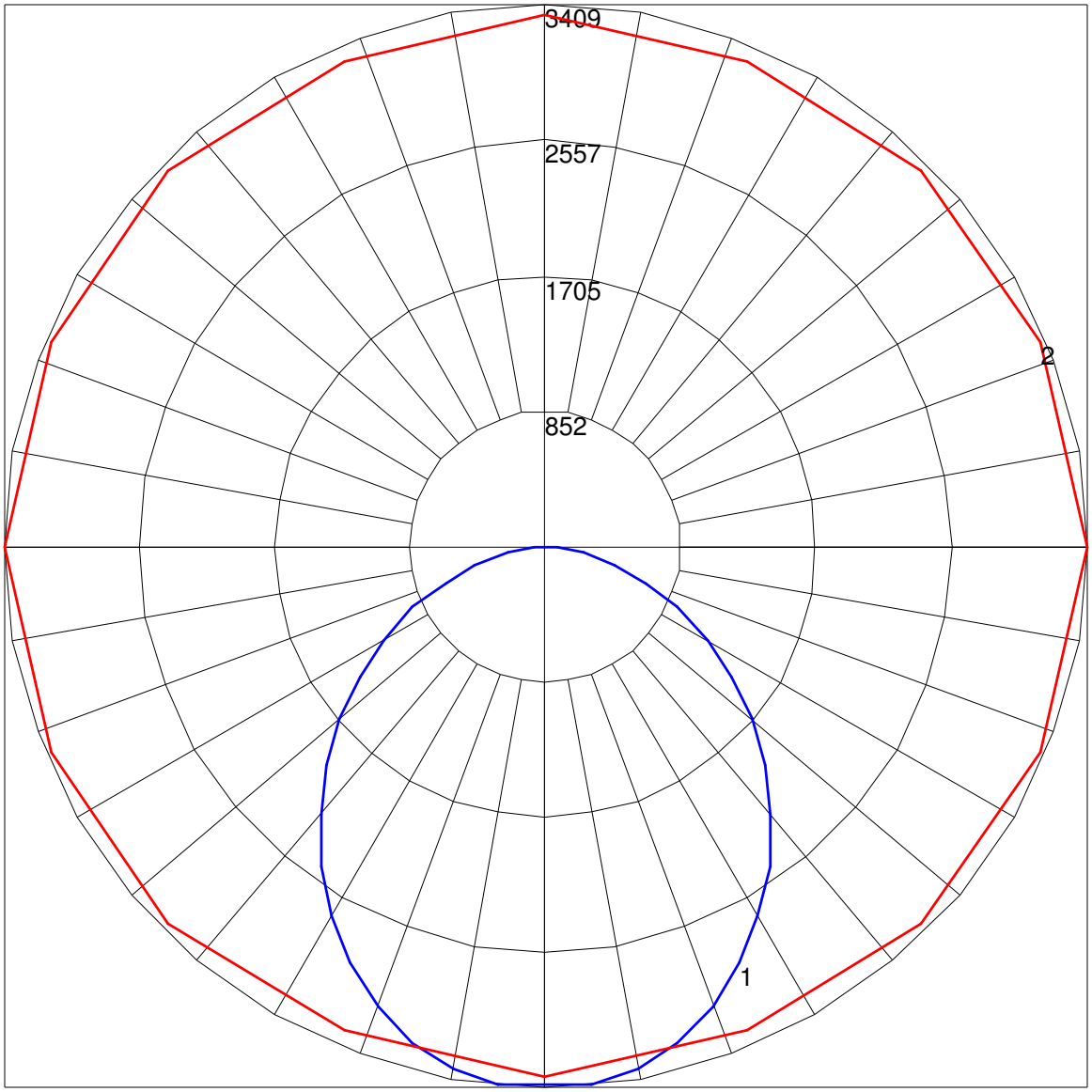
POLAR GRAPH



Maximum Candela = 3409.061 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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