H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-935-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-935-RA-DIM-UNV
[LAMPCAT] 22" LED ARRAYS
[_SEARCH_SOURCETYPE] LED
[_SEARCH_APPLICATION] Indoor, Architectural, Office, Direct
[_SEARCH_MOUNTING] Recessed

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6702
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	108
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6272	6551	6646
55	5535	6083	6341
65	4817	5709	5857
75	3500	4903	5111
85	1595	2624	3087

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2442.209	2442.209	2442.209	2442.209	2442.209
5	2497.365	2478.980	2469.787	2446.805	2433.016
10	2454.466	2440.677	2436.080	2411.566	2399.309
15	2387.052	2374.795	2380.924	2351.813	2351.813
20	2290.528	2285.932	2296.657	2269.079	2278.271
25	2183.279	2172.555	2194.004	2174.087	2167.958
30	2057.645	2037.728	2068.370	2057.645	2054.581
35	1899.836	1884.515	1924.350	1916.690	1925.882
40	1715.981	1712.917	1755.816	1761.945	1754.284
45	1515.273	1519.869	1582.686	1596.475	1605.668
50	1302.307	1325.289	1391.170	1424.877	1424.877
55	1084.745	1127.645	1191.994	1257.875	1242.554
60	888.633	925.404	1002.010	1055.635	1047.974
65	695.585	727.760	824.284	862.587	845.734
70	496.409	556.162	635.832	654.218	646.557
75	309.489	389.160	433.592	451.977	451.977
80	157.809	231.351	248.204	261.994	251.269
85	47.496	90.395	78.138	85.799	91.928
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	901.85	N.A.	13.50
0-30	1905.77	N.A.	28.40
0-40	3098.73	N.A.	46.20
0-60	5364.49	N.A.	80.00
0-80	6593.09	N.A.	98.40
0-90	6701.55	N.A.	100.00
10-90	6467.81	N.A.	96.50
20-40	2196.88	N.A.	32.80
20-50	3403.36	N.A.	50.80
40-70	3054.17	N.A.	45.60
60-80	1228.6	N.A.	18.30
70-80	440.19	N.A.	6.60
80-90	108.46	N.A.	1.60
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	6701.55	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	233.74
10-20	668.11
20-30	1003.92
30-40	1192.96
40-50	1206.49
50-60	1059.27
60-70	788.41
70-80	440.19
80-90	108.46
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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
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	17.9	19.5	18.2	19.8	20.1	18.7	20.3	19.1	20.7	21.0
	3H	19.4	20.9	19.8	21.2	21.6	20.5	22.0	20.9	22.3	22.7
	4H	19.9	21.3	20.3	21.7	22.0	21.2	22.5	21.6	22.9	23.3
	6H	20.2	21.5	20.7	21.9	22.3	21.6	22.9	22.0	23.2	23.6
	8H	20.3	21.5	20.7	21.9	22.3	21.7	22.9	22.1	23.3	23.7
	12H	20.3	21.5	20.8	21.9	22.3	21.8	23.0	22.2	23.3	23.8
4H	2H	18.6	20.0	19.0	20.3	20.7	19.3	20.7	19.7	21.0	21.4
	3H	20.4	21.6	20.8	22.0	22.4	21.3	22.5	21.7	22.9	23.3
	4H	21.1	22.1	21.5	22.5	23.0	22.1	23.1	22.5	23.6	24.0
	6H	21.5	22.4	22.0	22.9	23.3	22.7	23.6	23.1	24.0	24.5
	8H	21.6	22.5	22.1	22.9	23.4	22.8	23.7	23.3	24.1	24.6
	12H	21.7	22.5	22.2	22.9	23.4	22.9	23.7	23.4	24.2	24.7
8H	4H	21.5	22.3	21.9	22.8	23.2	22.4	23.2	22.8	23.7	24.1
	6H	22.1	22.8	22.5	23.2	23.7	23.1	23.8	23.6	24.3	24.7
	8H	22.2	22.9	22.7	23.4	23.9	23.3	23.9	23.8	24.4	24.9
	12H	22.4	22.9	22.9	23.4	24.0	23.4	24.0	23.9	24.5	25.1
12H	4H	21.5	22.3	22.0	22.8	23.2	22.4	23.2	22.9	23.6	24.1
	6H	22.1	22.8	22.6	23.2	23.8	23.1	23.7	23.6	24.2	24.7
	8H	22.4	22.9	22.9	23.4	24.0	23.4	23.9	23.9	24.4	25.0

Maximum UGR = 25.1

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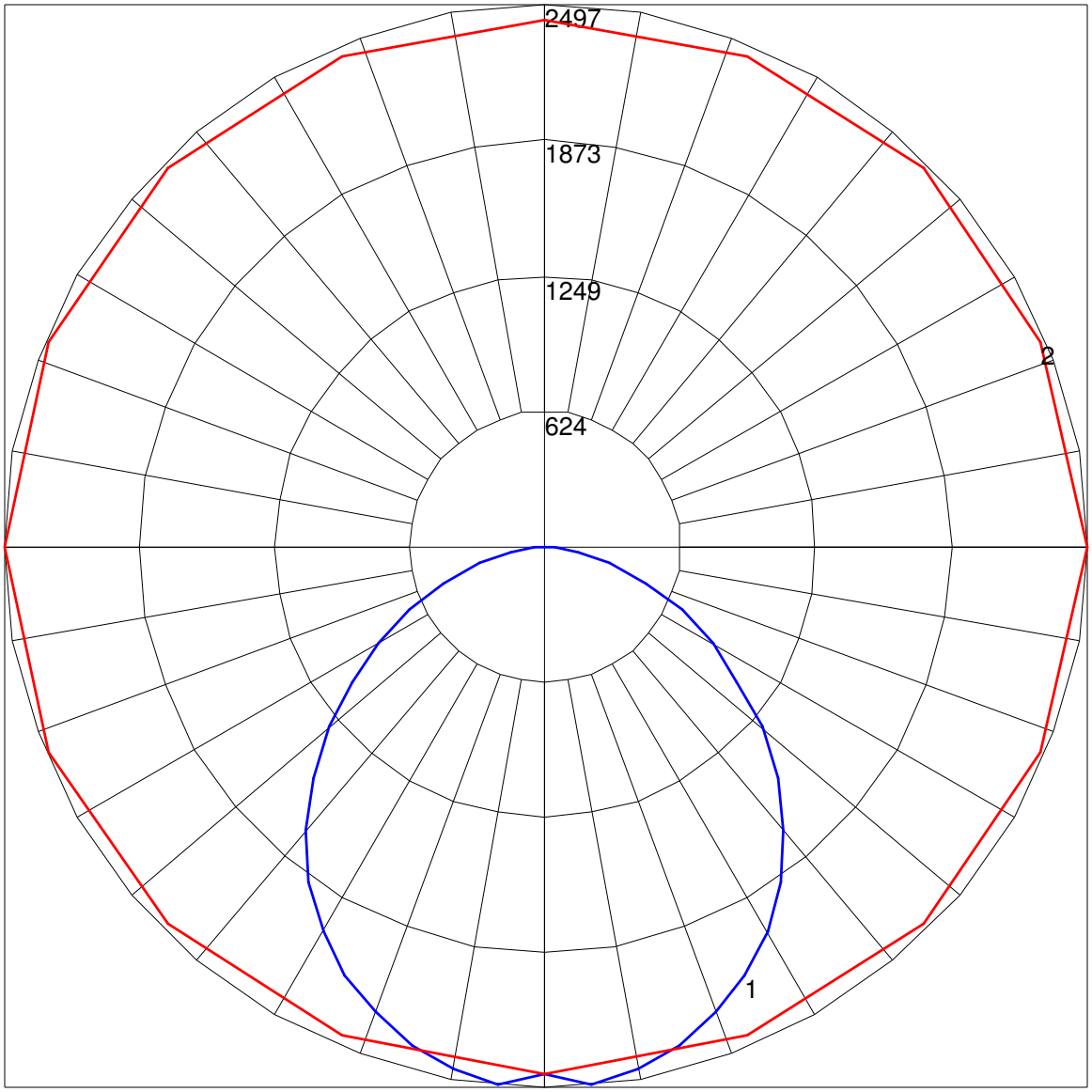
POLAR GRAPH



Maximum Candela = 2497.365 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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