H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-940-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-L27-940-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	2258
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	18.8
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	2114	2208	2240
55	1865	2050	2137
65	1623	1924	1974
75	1179	1652	1722
85	538	884	1040

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	823.006	823.006	823.006	823.006	823.006
5	841.593	835.397	832.299	824.554	819.908
10	827.136	822.489	820.940	812.679	808.549
15	804.418	800.288	802.353	792.543	792.543
20	771.890	770.341	773.956	764.662	767.760
25	735.748	732.134	739.363	732.650	730.585
30	693.411	686.698	697.025	693.411	692.378
35	640.230	635.067	648.491	645.910	649.007
40	578.272	577.240	591.697	593.762	591.180
45	510.635	512.184	533.353	538.000	541.098
50	438.867	446.612	468.814	480.173	480.173
55	365.551	380.008	401.693	423.894	418.731
60	299.462	311.854	337.670	355.741	353.159
65	234.407	245.249	277.777	290.685	285.006
70	167.286	187.422	214.271	220.466	217.885
75	104.296	131.144	146.117	152.313	152.313
80	53.180	77.964	83.643	88.290	84.676
85	16.006	30.463	26.332	28.914	30.979
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	303.92	N.A.	13.50
0-30	642.23	N.A.	28.40
0-40	1044.25	N.A.	46.20
0-60	1807.79	N.A.	80.00
0-80	2221.82	N.A.	98.40
0-90	2258.37	N.A.	100.00
10-90	2179.6	N.A.	96.50
20-40	740.33	N.A.	32.80
20-50	1146.91	N.A.	50.80
40-70	1029.23	N.A.	45.60
60-80	414.03	N.A.	18.30
70-80	148.34	N.A.	6.60
80-90	36.55	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	2258.37	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	78.77
10-20	225.15
20-30	338.31
30-40	402.02
40-50	406.58
50-60	356.97
60-70	265.69
70-80	148.34
80-90	36.55
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	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	55	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	55	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	14.1	15.7	14.4	16.0	16.3	14.9	16.5	15.3	16.9	17.2
	3H	15.6	17.1	16.0	17.4	17.8	16.7	18.2	17.1	18.5	18.9
	4H	16.1	17.5	16.5	17.9	18.2	17.4	18.7	17.8	19.1	19.5
	6H	16.4	17.7	16.9	18.1	18.5	17.8	19.1	18.2	19.4	19.8
	8H	16.5	17.7	16.9	18.1	18.5	17.9	19.1	18.3	19.5	19.9
	12H	16.5	17.7	17.0	18.1	18.5	18.0	19.2	18.4	19.5	20.0
4H	2H	14.8	16.2	15.2	16.5	16.9	15.5	16.9	15.9	17.2	17.6
	3H	16.6	17.8	17.0	18.2	18.6	17.5	18.7	17.9	19.1	19.5
	4H	17.3	18.3	17.7	18.7	19.2	18.3	19.3	18.7	19.8	20.2
	6H	17.7	18.6	18.2	19.1	19.5	18.9	19.8	19.3	20.2	20.7
	8H	17.8	18.7	18.3	19.1	19.6	19.0	19.9	19.5	20.3	20.8
	12H	17.9	18.7	18.4	19.1	19.6	19.1	19.9	19.6	20.4	20.9
8H	4H	17.7	18.5	18.1	19.0	19.4	18.6	19.4	19.0	19.9	20.3
	6H	18.3	19.0	18.7	19.4	19.9	19.3	20.0	19.8	20.5	20.9
	8H	18.4	19.1	18.9	19.6	20.1	19.5	20.1	20.0	20.6	21.1
	12H	18.6	19.1	19.1	19.6	20.2	19.6	20.2	20.1	20.7	21.3
12H	4H	17.7	18.5	18.2	19.0	19.4	18.6	19.4	19.1	19.8	20.3
	6H	18.3	19.0	18.8	19.4	20.0	19.3	19.9	19.8	20.4	20.9
	8H	18.6	19.1	19.1	19.6	20.2	19.6	20.1	20.1	20.6	21.2

Maximum UGR = 21.3

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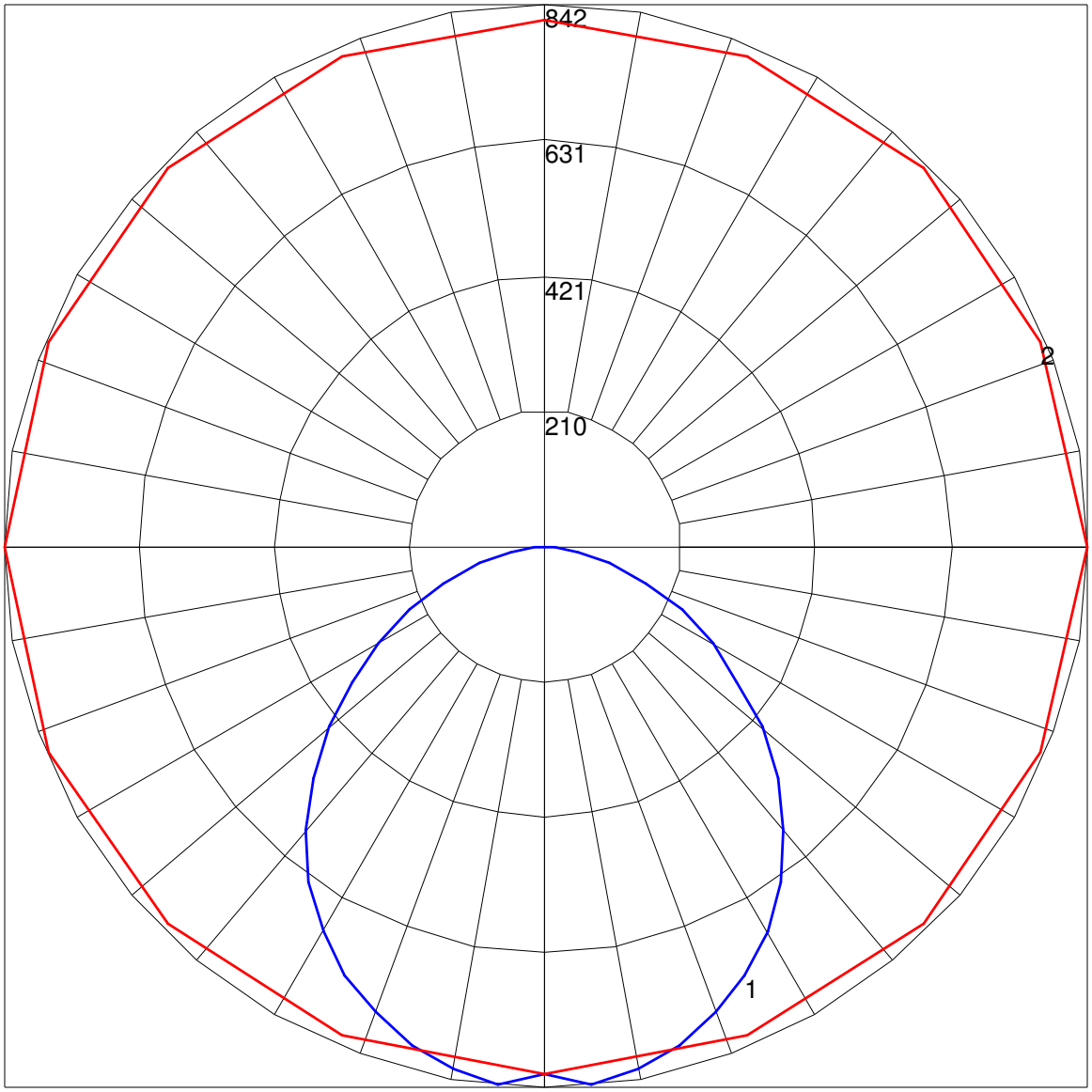
POLAR GRAPH



Maximum Candela = 841.593 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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