H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-935-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-L27-935-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	2206
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	117
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	2064	2156	2188
55	1822	2002	2087
65	1586	1879	1928
75	1152	1614	1682
85	525	864	1016

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	803.866	803.866	803.866	803.866	803.866
5	822.021	815.969	812.943	805.379	800.840
10	807.900	803.362	801.849	793.780	789.745
15	785.711	781.676	783.694	774.112	774.112
20	753.939	752.427	755.957	746.879	749.905
25	718.638	715.108	722.168	715.612	713.595
30	677.285	670.729	680.815	677.285	676.276
35	625.341	620.298	633.410	630.888	633.914
40	564.824	563.816	577.936	579.953	577.432
45	498.760	500.273	520.949	525.488	528.514
50	428.661	436.226	457.911	469.006	469.006
55	357.050	371.170	392.351	414.036	408.993
60	292.498	304.602	329.817	347.468	344.946
65	228.956	239.546	271.317	283.925	278.378
70	163.396	183.064	209.288	215.339	212.818
75	101.870	128.094	142.719	148.771	148.771
80	51.944	76.150	81.698	86.237	82.706
85	15.634	29.754	25.720	28.241	30.258
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	296.85	N.A.	13.50
0-30	627.29	N.A.	28.40
0-40	1019.96	N.A.	46.20
0-60	1765.75	N.A.	80.00
0-80	2170.15	N.A.	98.40
0-90	2205.85	N.A.	100.00
10-90	2128.91	N.A.	96.50
20-40	723.11	N.A.	32.80
20-50	1120.24	N.A.	50.80
40-70	1005.3	N.A.	45.60
60-80	404.40	N.A.	18.30
70-80	144.89	N.A.	6.60
80-90	35.70	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	2205.85	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	76.94
10-20	219.91
20-30	330.44
30-40	392.67
40-50	397.12
50-60	348.67
60-70	259.51
70-80	144.89
80-90	35.70
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	14.0	15.6	14.3	15.9	16.2	14.8	16.4	15.2	16.8	17.1
	3H	15.5	17.0	15.9	17.3	17.7	16.6	18.1	17.0	18.4	18.7
	4H	16.0	17.4	16.4	17.8	18.1	17.3	18.6	17.7	19.0	19.4
	6H	16.3	17.6	16.8	18.0	18.4	17.7	19.0	18.1	19.3	19.7
	8H	16.4	17.6	16.8	18.0	18.4	17.8	19.0	18.2	19.4	19.8
	12H	16.4	17.6	16.9	18.0	18.4	17.9	19.1	18.3	19.4	19.9
4H	2H	14.7	16.1	15.1	16.4	16.8	15.4	16.8	15.8	17.1	17.5
	3H	16.5	17.7	16.9	18.1	18.5	17.4	18.6	17.8	19.0	19.4
	4H	17.2	18.2	17.6	18.6	19.1	18.2	19.2	18.6	19.7	20.1
	6H	17.6	18.5	18.1	19.0	19.4	18.8	19.7	19.2	20.1	20.6
	8H	17.7	18.6	18.2	19.0	19.5	18.9	19.8	19.4	20.2	20.7
	12H	17.8	18.6	18.3	19.0	19.5	19.0	19.8	19.5	20.3	20.8
8H	4H	17.6	18.4	18.0	18.9	19.3	18.5	19.3	18.9	19.8	20.2
	6H	18.2	18.9	18.6	19.3	19.8	19.2	19.9	19.7	20.4	20.8
	8H	18.3	19.0	18.8	19.5	20.0	19.4	20.0	19.9	20.5	21.0
	12H	18.5	19.0	19.0	19.5	20.1	19.5	20.1	20.0	20.6	21.2
12H	4H	17.6	18.4	18.1	18.9	19.3	18.5	19.3	19.0	19.7	20.2
	6H	18.2	18.9	18.7	19.3	19.9	19.2	19.8	19.7	20.3	20.8
	8H	18.5	19.0	19.0	19.5	20.1	19.5	20.0	20.0	20.5	21.1

Maximum UGR = 21.2

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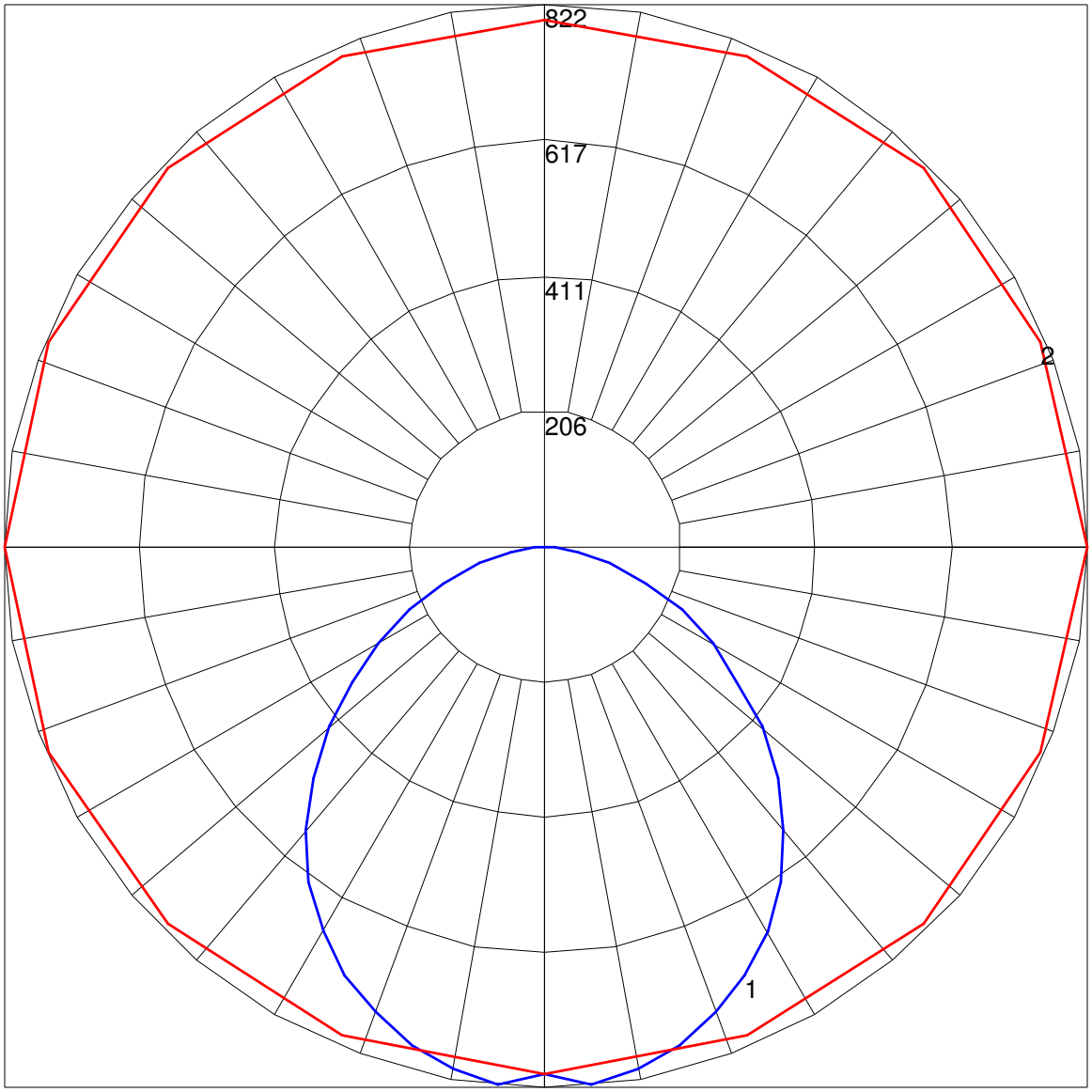
POLAR GRAPH



Maximum Candela = 822.021 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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