H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-835-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-L27-835-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	2626
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	140
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	2458	2567	2604
55	2169	2383	2485
65	1888	2237	2295
75	1371	1921	2003
85	625	1028	1210

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	956.983	956.983	956.983	956.983	956.983
5	978.596	971.392	967.790	958.784	953.381
10	961.786	956.383	954.582	944.976	940.173
15	935.370	930.567	932.968	921.562	921.562
20	897.547	895.746	899.948	889.142	892.744
25	855.521	851.319	859.724	851.919	849.518
30	806.291	798.487	810.494	806.291	805.091
35	744.454	738.450	754.059	751.058	754.660
40	672.410	671.209	688.019	690.421	687.419
45	593.762	595.563	620.178	625.581	629.183
50	510.311	519.316	545.132	558.340	558.340
55	425.059	441.869	467.085	492.900	486.897
60	348.212	362.621	392.639	413.652	410.650
65	272.566	285.174	322.997	338.006	331.402
70	194.519	217.933	249.152	256.356	253.354
75	121.274	152.493	169.904	177.108	177.108
80	61.838	90.655	97.259	102.663	98.460
85	18.611	35.422	30.619	33.620	36.022
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	353.39	N.A.	13.50
0-30	746.78	N.A.	28.40
0-40	1214.24	N.A.	46.20
0-60	2102.08	N.A.	80.00
0-80	2583.51	N.A.	98.40
0-90	2626.01	N.A.	100.00
10-90	2534.42	N.A.	96.50
20-40	860.85	N.A.	32.80
20-50	1333.61	N.A.	50.80
40-70	1196.78	N.A.	45.60
60-80	481.43	N.A.	18.30
70-80	172.49	N.A.	6.60
80-90	42.50	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	2626.01	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	91.59
10-20	261.80
20-30	393.39
30-40	467.46
40-50	472.76
50-60	415.08
60-70	308.94
70-80	172.49
80-90	42.50
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	78	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	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	14.7	16.3	15.0	16.6	16.9	15.5	17.1	15.9	17.5	17.8
	3H	16.2	17.7	16.6	18.0	18.4	17.3	18.8	17.7	19.1	19.5
	4H	16.7	18.1	17.1	18.5	18.8	18.0	19.3	18.4	19.7	20.1
	6H	17.0	18.3	17.5	18.7	19.1	18.4	19.7	18.8	20.0	20.4
	8H	17.1	18.3	17.5	18.7	19.1	18.5	19.7	18.9	20.1	20.5
	12H	17.1	18.3	17.6	18.7	19.1	18.6	19.8	19.0	20.1	20.6
4H	2H	15.4	16.8	15.8	17.1	17.5	16.1	17.5	16.5	17.8	18.2
	3H	17.2	18.4	17.6	18.8	19.2	18.1	19.3	18.5	19.7	20.1
	4H	17.9	18.9	18.3	19.3	19.8	18.9	19.9	19.3	20.4	20.8
	6H	18.3	19.2	18.8	19.7	20.1	19.5	20.4	19.9	20.8	21.3
	8H	18.4	19.3	18.9	19.7	20.2	19.6	20.5	20.1	20.9	21.4
	12H	18.5	19.3	19.0	19.7	20.2	19.7	20.5	20.2	21.0	21.5
8H	4H	18.3	19.1	18.7	19.6	20.0	19.2	20.0	19.6	20.5	20.9
	6H	18.9	19.6	19.3	20.0	20.5	19.9	20.6	20.4	21.1	21.5
	8H	19.0	19.7	19.5	20.2	20.7	20.1	20.7	20.6	21.2	21.7
	12H	19.2	19.7	19.7	20.2	20.8	20.2	20.8	20.7	21.3	21.9
12H	4H	18.3	19.1	18.8	19.6	20.0	19.2	20.0	19.7	20.4	20.9
	6H	18.9	19.6	19.4	20.0	20.6	19.9	20.5	20.4	21.0	21.5
	8H	19.2	19.7	19.7	20.2	20.8	20.2	20.7	20.7	21.2	21.8

Maximum UGR = 21.9

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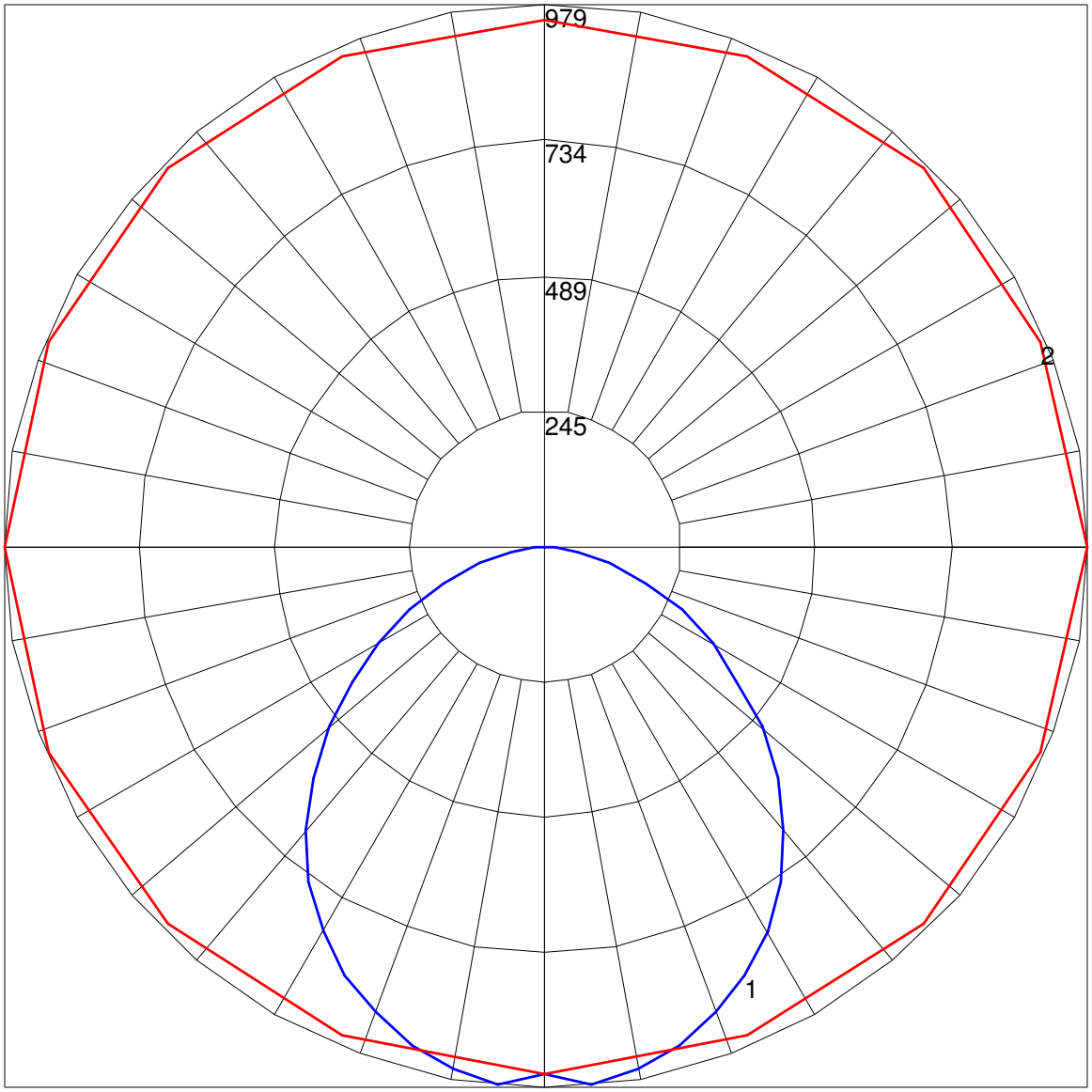
POLAR GRAPH



Maximum Candela = 978.596 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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