H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-850-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-L27-850-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	2784
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	148
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	2605	2721	2761
55	2299	2526	2634
65	2001	2371	2433
75	1454	2037	2123
85	663	1090	1282

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1014.402	1014.402	1014.402	1014.402	1014.402
5	1037.312	1029.676	1025.857	1016.311	1010.584
10	1019.493	1013.766	1011.857	1001.674	996.583
15	991.492	986.401	988.947	976.855	976.855
20	951.400	949.491	953.945	942.490	946.309
25	906.853	902.398	911.307	903.034	900.489
30	854.669	846.396	859.124	854.669	853.396
35	789.121	782.757	799.303	796.121	799.939
40	712.754	711.482	729.300	731.846	728.664
45	629.388	631.297	657.389	663.116	666.934
50	540.930	550.475	577.840	591.841	591.841
55	450.563	468.381	495.110	522.474	516.111
60	369.105	384.378	416.198	438.471	435.289
65	288.920	302.284	342.377	358.286	351.286
70	206.190	231.009	264.101	271.738	268.556
75	128.550	161.643	180.098	187.734	187.734
80	65.548	96.095	103.095	108.822	104.368
85	19.728	37.547	32.456	35.638	38.183
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	374.59	N.A.	13.50
0-30	791.58	N.A.	28.40
0-40	1287.1	N.A.	46.20
0-60	2228.21	N.A.	80.00
0-80	2738.52	N.A.	98.40
0-90	2783.57	N.A.	100.00
10-90	2686.49	N.A.	96.50
20-40	912.50	N.A.	32.80
20-50	1413.63	N.A.	50.80
40-70	1268.59	N.A.	45.60
60-80	510.31	N.A.	18.30
70-80	182.84	N.A.	6.60
80-90	45.05	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	2783.57	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	97.09
10-20	277.51
20-30	416.99
30-40	495.51
40-50	501.13
50-60	439.98
60-70	327.48
70-80	182.84
80-90	45.05
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	70	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	14.9	16.5	15.2	16.8	17.1	15.7	17.3	16.1	17.7	18.0
	3H	16.4	17.9	16.8	18.2	18.6	17.5	19.0	17.9	19.3	19.7
	4H	16.9	18.3	17.3	18.7	19.0	18.2	19.5	18.6	19.9	20.3
	6H	17.2	18.5	17.7	18.9	19.3	18.6	19.9	19.0	20.2	20.6
	8H	17.3	18.5	17.7	18.9	19.3	18.7	19.9	19.1	20.3	20.7
	12H	17.3	18.5	17.8	18.9	19.3	18.8	20.0	19.2	20.3	20.8
4H	2H	15.6	17.0	16.0	17.3	17.7	16.3	17.7	16.7	18.0	18.4
	3H	17.4	18.6	17.8	19.0	19.4	18.3	19.5	18.7	19.9	20.3
	4H	18.1	19.1	18.5	19.5	20.0	19.1	20.1	19.5	20.6	21.0
	6H	18.5	19.4	19.0	19.9	20.3	19.7	20.6	20.1	21.0	21.5
	8H	18.6	19.5	19.1	19.9	20.4	19.8	20.7	20.3	21.1	21.6
	12H	18.7	19.5	19.2	19.9	20.4	19.9	20.7	20.4	21.2	21.7
8H	4H	18.5	19.3	18.9	19.8	20.2	19.4	20.2	19.8	20.7	21.1
	6H	19.1	19.8	19.5	20.2	20.7	20.1	20.8	20.6	21.3	21.7
	8H	19.2	19.9	19.7	20.4	20.9	20.3	20.9	20.8	21.4	21.9
	12H	19.4	19.9	19.9	20.4	21.0	20.4	21.0	20.9	21.5	22.1
12H	4H	18.5	19.3	19.0	19.8	20.2	19.4	20.2	19.9	20.6	21.1
	6H	19.1	19.8	19.6	20.2	20.8	20.1	20.7	20.6	21.2	21.7
	8H	19.4	19.9	19.9	20.4	21.0	20.4	20.9	20.9	21.4	22.0

Maximum UGR = 22.1

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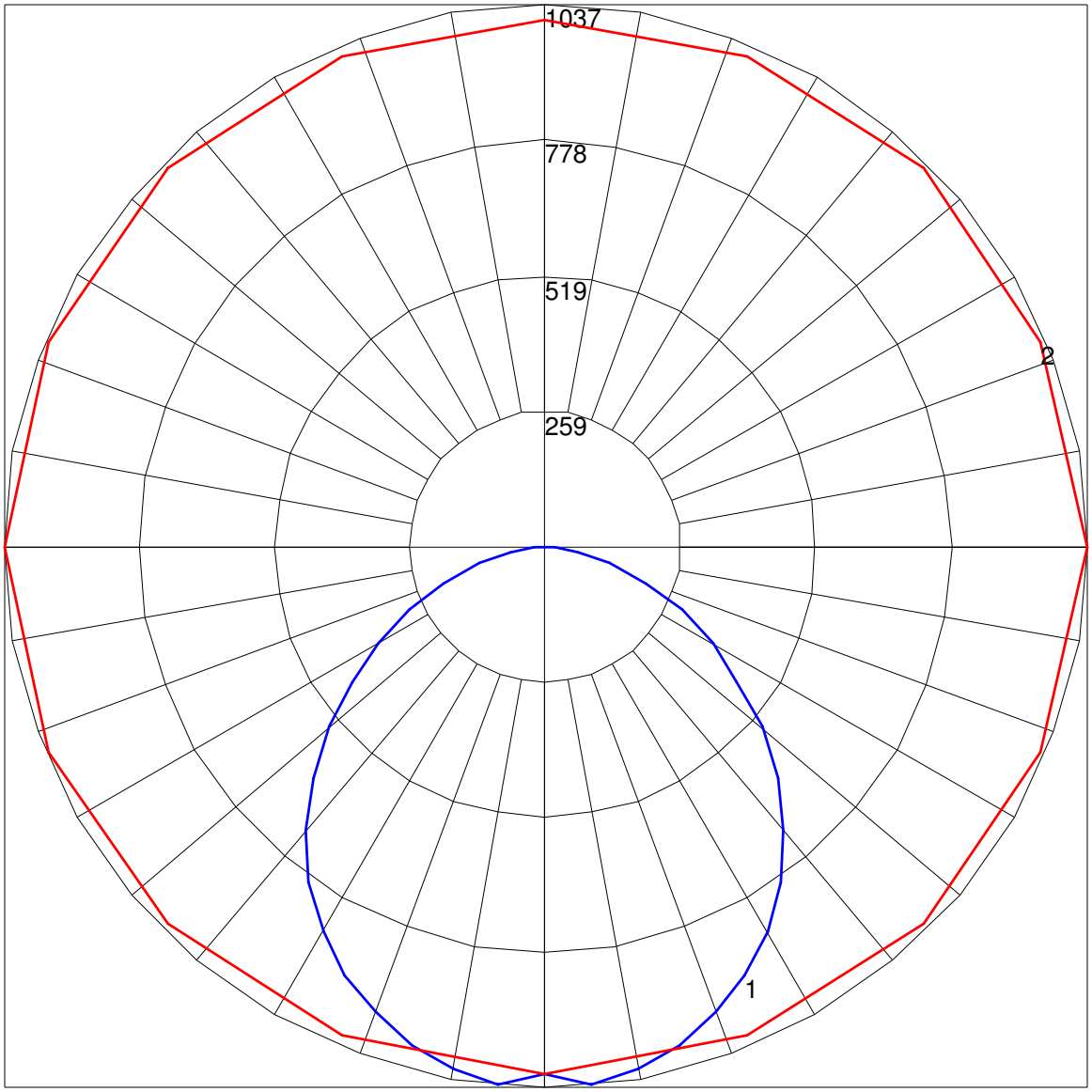
POLAR GRAPH



Maximum Candela = 1037.312 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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