H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L27-827-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-L27-827-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	2547
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
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	2384	2490	2526
55	2104	2312	2410
65	1831	2170	2226
75	1330	1864	1943
85	606	997	1173

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	928.274	928.274	928.274	928.274	928.274
5	949.238	942.250	938.756	930.021	924.779
10	932.932	927.691	925.944	916.626	911.968
15	907.309	902.650	904.979	893.915	893.915
20	870.620	868.873	872.950	862.467	865.962
25	829.856	825.779	833.932	826.361	824.032
30	782.102	774.532	786.179	782.102	780.938
35	722.120	716.296	731.438	728.526	732.020
40	652.237	651.073	667.379	669.708	666.796
45	575.949	577.696	601.572	606.814	610.308
50	495.002	503.737	528.778	541.590	541.590
55	412.307	428.613	453.072	478.113	472.290
60	337.766	351.742	380.860	401.242	398.331
65	264.389	276.619	313.307	327.866	321.460
70	188.683	211.395	241.677	248.665	245.754
75	117.636	147.918	164.806	171.795	171.795
80	59.983	87.936	94.341	99.583	95.506
85	18.053	34.359	29.700	32.612	34.941
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	342.79	N.A.	13.50
0-30	724.37	N.A.	28.40
0-40	1177.81	N.A.	46.20
0-60	2039.02	N.A.	80.00
0-80	2506.01	N.A.	98.40
0-90	2547.23	N.A.	100.00
10-90	2458.39	N.A.	96.50
20-40	835.02	N.A.	32.80
20-50	1293.6	N.A.	50.80
40-70	1160.88	N.A.	45.60
60-80	466.99	N.A.	18.30
70-80	167.31	N.A.	6.60
80-90	41.23	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	2547.23	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	88.84
10-20	253.95
20-30	381.58
30-40	453.44
40-50	458.58
50-60	402.63
60-70	299.67
70-80	167.31
80-90	41.23
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	14.5	16.1	14.8	16.4	16.7	15.3	16.9	15.7	17.3	17.6
	3H	16.0	17.5	16.4	17.8	18.2	17.1	18.6	17.5	18.9	19.3
	4H	16.5	17.9	16.9	18.3	18.6	17.8	19.1	18.2	19.5	19.9
	6H	16.8	18.1	17.3	18.5	18.9	18.2	19.5	18.6	19.8	20.2
	8H	16.9	18.1	17.3	18.5	18.9	18.3	19.5	18.7	19.9	20.3
	12H	16.9	18.1	17.4	18.5	18.9	18.4	19.6	18.8	19.9	20.4
4H	2H	15.2	16.6	15.6	16.9	17.3	15.9	17.3	16.3	17.6	18.0
	3H	17.0	18.2	17.4	18.6	19.0	17.9	19.1	18.3	19.5	19.9
	4H	17.7	18.7	18.1	19.1	19.6	18.7	19.7	19.1	20.2	20.6
	6H	18.1	19.0	18.6	19.5	19.9	19.3	20.2	19.7	20.6	21.1
	8H	18.2	19.1	18.7	19.5	20.0	19.4	20.3	19.9	20.7	21.2
	12H	18.3	19.1	18.8	19.5	20.0	19.5	20.3	20.0	20.8	21.3
8H	4H	18.1	18.9	18.5	19.4	19.8	19.0	19.8	19.4	20.3	20.7
	6H	18.7	19.4	19.1	19.8	20.3	19.7	20.4	20.2	20.9	21.3
	8H	18.8	19.5	19.3	20.0	20.5	19.9	20.5	20.4	21.0	21.5
	12H	19.0	19.5	19.5	20.0	20.6	20.0	20.6	20.5	21.1	21.7
12H	4H	18.1	18.9	18.6	19.4	19.8	19.0	19.8	19.5	20.2	20.7
	6H	18.7	19.4	19.2	19.8	20.4	19.7	20.3	20.2	20.8	21.3
	8H	19.0	19.5	19.5	20.0	20.6	20.0	20.5	20.5	21.0	21.6

Maximum UGR = 21.7

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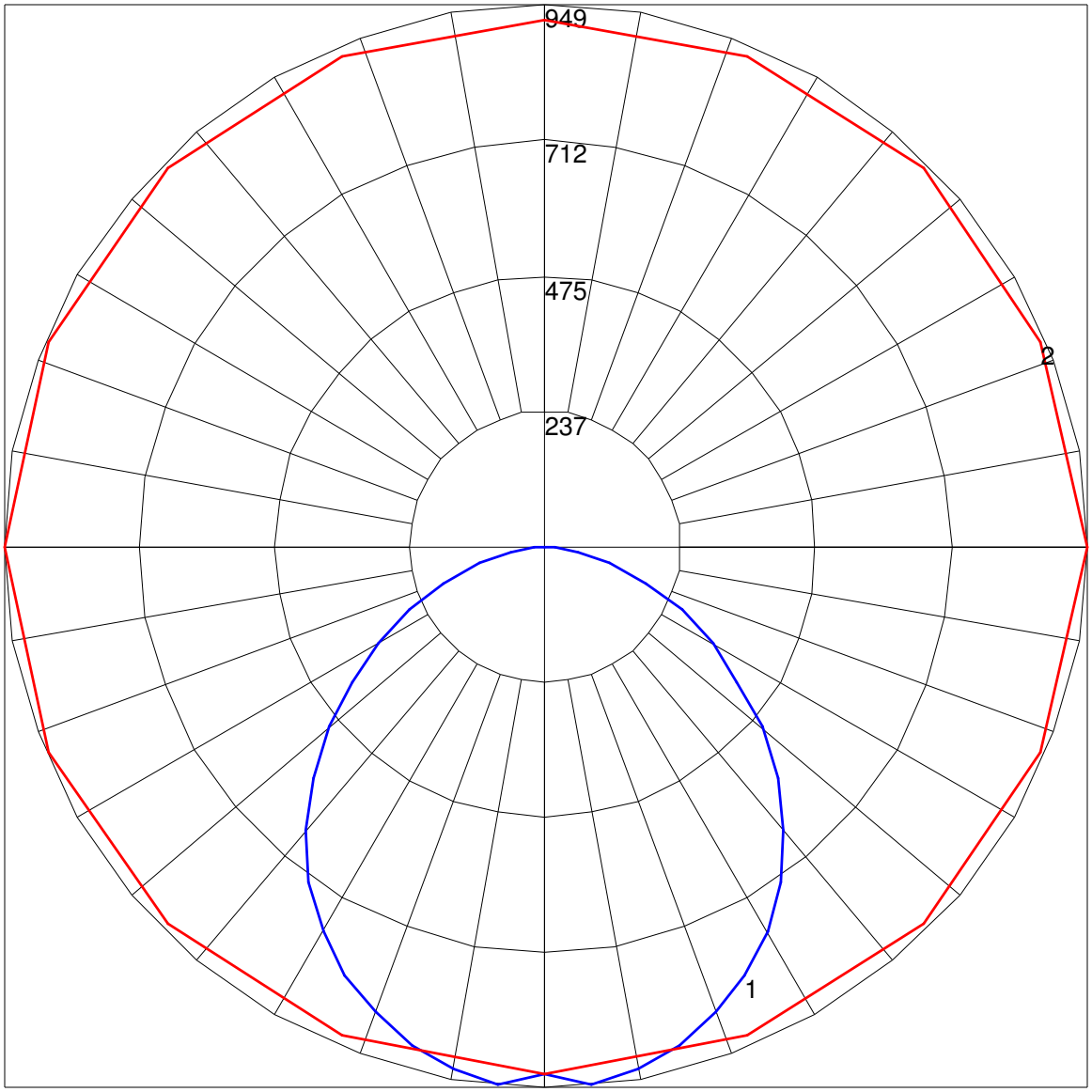
POLAR GRAPH



Maximum Candela = 949.238 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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