H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L45-850-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-L45-850-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	4575
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	150
Total Luminaire Watts	30.4
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	4282	4472	4537
55	3779	4152	4329
65	3289	3897	3999
75	2389	3347	3489
85	1089	1791	2108

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1667.235	1667.235	1667.235	1667.235	1667.235
5	1704.889	1692.337	1686.062	1670.373	1660.959
10	1675.602	1666.189	1663.051	1646.316	1637.948
15	1629.581	1621.213	1625.397	1605.524	1605.524
20	1563.686	1560.548	1567.870	1549.043	1555.319
25	1490.470	1483.149	1497.792	1484.195	1480.011
30	1404.703	1391.105	1412.024	1404.703	1402.611
35	1296.971	1286.511	1313.706	1308.476	1314.752
40	1171.457	1169.365	1198.652	1202.836	1197.606
45	1034.439	1037.576	1080.460	1089.874	1096.149
50	889.052	904.742	949.717	972.728	972.728
55	740.528	769.815	813.744	858.720	848.261
60	606.648	631.750	684.047	720.655	715.426
65	474.859	496.823	562.718	588.866	577.361
70	338.886	379.678	434.067	446.618	441.388
75	211.281	265.670	296.002	308.553	308.553
80	107.732	157.938	169.443	178.856	171.535
85	32.424	61.711	53.343	58.573	62.757
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	615.67	N.A.	13.50
0-30	1301.02	N.A.	28.40
0-40	2115.42	N.A.	46.20
0-60	3662.2	N.A.	80.00
0-80	4500.94	N.A.	98.40
0-90	4574.98	N.A.	100.00
10-90	4415.41	N.A.	96.50
20-40	1499.75	N.A.	32.80
20-50	2323.39	N.A.	50.80
40-70	2085.01	N.A.	45.60
60-80	838.73	N.A.	18.30
70-80	300.51	N.A.	6.60
80-90	74.04	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	4574.98	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	159.57
10-20	456.10
20-30	685.35
30-40	814.41
40-50	823.64
50-60	723.14
60-70	538.23
70-80	300.51
80-90	74.04
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	16.6	18.2	16.9	18.5	18.8	17.4	19.0	17.8	19.4	19.7
	3H	18.1	19.6	18.5	19.9	20.3	19.2	20.7	19.6	21.0	21.4
	4H	18.6	20.0	19.0	20.4	20.7	19.9	21.2	20.3	21.6	22.0
	6H	18.9	20.2	19.4	20.6	21.0	20.3	21.6	20.7	21.9	22.3
	8H	19.0	20.2	19.4	20.6	21.0	20.4	21.6	20.8	22.0	22.4
	12H	19.0	20.2	19.5	20.6	21.0	20.5	21.7	20.9	22.0	22.5
4H	2H	17.3	18.7	17.7	19.0	19.4	18.0	19.4	18.4	19.7	20.1
	3H	19.1	20.3	19.5	20.7	21.1	20.0	21.2	20.4	21.6	22.0
	4H	19.8	20.8	20.2	21.2	21.7	20.8	21.8	21.2	22.3	22.7
	6H	20.2	21.1	20.7	21.6	22.0	21.4	22.3	21.8	22.7	23.2
	8H	20.3	21.2	20.8	21.6	22.1	21.5	22.4	22.0	22.8	23.3
	12H	20.4	21.2	20.9	21.6	22.1	21.6	22.4	22.1	22.9	23.4
8H	4H	20.2	21.0	20.6	21.5	21.9	21.1	21.9	21.5	22.4	22.8
	6H	20.8	21.5	21.2	21.9	22.4	21.8	22.5	22.3	23.0	23.4
	8H	20.9	21.6	21.4	22.1	22.6	22.0	22.6	22.5	23.1	23.6
	12H	21.1	21.6	21.6	22.1	22.7	22.1	22.7	22.6	23.2	23.8
12H	4H	20.2	21.0	20.7	21.5	21.9	21.1	21.9	21.6	22.3	22.8
	6H	20.8	21.5	21.3	21.9	22.5	21.8	22.4	22.3	22.9	23.4
	8H	21.1	21.6	21.6	22.1	22.7	22.1	22.6	22.6	23.1	23.7

Maximum UGR = 23.8

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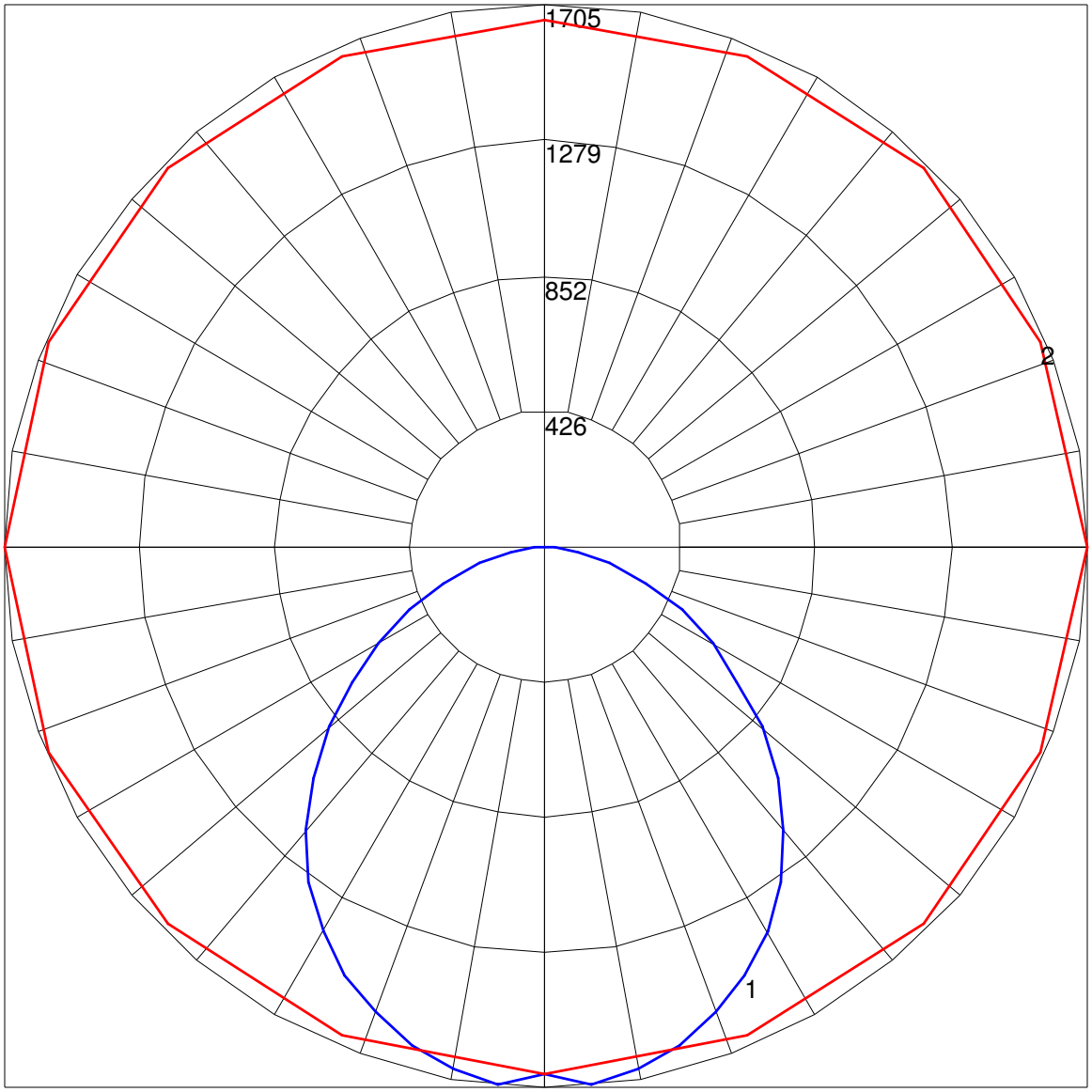
POLAR GRAPH



Maximum Candela = 1704.889 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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