H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-830-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19562.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x2'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/CENTER FROSTED RIBBED ACRYLIC LENS
[MORE] ELECTRONIC 0-10V LED DRIVER
[LUMCAT] PT-22-L61-830-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6012
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	50.2
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.24
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.93 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5649	5859	6050
55	4776	5262	5615
65	3651	4566	5077
75	2537	4049	5005
85	1445	3303	4129

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2297.674	2297.674	2297.674	2297.674	2297.674
5	2305.400	2291.493	2288.403	2280.677	2280.677
10	2274.496	2260.590	2259.044	2251.319	2249.773
15	2220.415	2204.963	2203.418	2200.328	2198.783
20	2143.156	2129.250	2127.705	2129.250	2129.250
25	2034.994	2021.088	2030.359	2036.539	2030.359
30	1902.109	1895.929	1905.200	1916.016	1908.290
35	1749.137	1747.592	1767.679	1775.405	1783.131
40	1572.987	1572.987	1606.981	1620.888	1633.249
45	1372.115	1372.115	1423.105	1455.554	1469.460
50	1160.426	1161.971	1229.959	1273.223	1293.311
55	941.011	958.008	1036.812	1083.167	1106.345
60	726.232	760.226	839.029	890.020	914.743
65	529.995	574.805	662.880	718.506	737.048
70	356.935	412.561	500.636	557.808	579.440
75	225.595	279.676	360.026	417.197	445.010
80	122.069	168.424	239.502	279.676	307.490
85	43.265	75.714	98.891	98.891	123.614
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	839.49	N.A.	14.00
0-30	1773.95	N.A.	29.50
0-40	2875.81	N.A.	47.80
0-60	4885.57	N.A.	81.30
0-80	5901.99	N.A.	98.20
0-90	6011.97	N.A.	100.00
10-90	5794.49	N.A.	96.40
20-40	2036.32	N.A.	33.90
20-50	3128.92	N.A.	52.00
40-70	2655.00	N.A.	44.20
60-80	1016.42	N.A.	16.90
70-80	371.18	N.A.	6.20
80-90	109.98	N.A.	1.80
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	6011.97	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	217.47
10-20	622.01
20-30	934.46
30-40	1101.86
40-50	1092.6
50-60	917.16
60-70	645.23
70-80	371.18
80-90	109.98
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	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	62	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	58	44	36	31	56	44	36	31	43	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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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	17.0	18.6	17.3	18.9	19.2	18.0	19.6	18.4	19.9	20.2
	3H	18.3	19.7	18.6	20.0	20.4	19.8	21.3	20.2	21.6	22.0
	4H	18.7	20.0	19.1	20.4	20.8	20.6	22.0	21.0	22.3	22.7
	6H	18.9	20.2	19.4	20.6	21.0	21.3	22.6	21.7	22.9	23.3
	8H	19.0	20.2	19.4	20.6	21.0	21.5	22.7	22.0	23.1	23.5
	12H	19.0	20.2	19.5	20.6	21.0	21.7	22.8	22.1	23.2	23.7
4H	2H	17.7	19.0	18.1	19.4	19.8	18.5	19.9	18.9	20.2	20.6
	3H	19.2	20.3	19.6	20.7	21.1	20.6	21.7	21.0	22.1	22.5
	4H	19.8	20.8	20.2	21.2	21.6	21.5	22.5	21.9	22.9	23.4
	6H	20.1	21.0	20.6	21.5	21.9	22.4	23.3	22.8	23.7	24.2
	8H	20.2	21.1	20.7	21.5	22.0	22.7	23.5	23.1	23.9	24.4
	12H	20.3	21.1	20.8	21.5	22.0	22.9	23.6	23.4	24.1	24.6
8H	4H	20.2	21.0	20.7	21.5	22.0	21.8	22.6	22.2	23.0	23.5
	6H	20.7	21.4	21.2	21.9	22.4	22.7	23.4	23.2	23.9	24.4
	8H	20.9	21.5	21.4	22.1	22.5	23.1	23.8	23.7	24.3	24.8
	12H	21.0	21.6	21.5	22.1	22.6	23.4	24.0	23.9	24.4	25.0
12H	4H	20.3	21.0	20.8	21.5	22.0	21.8	22.5	22.2	23.0	23.5
	6H	20.9	21.5	21.4	22.0	22.5	22.8	23.4	23.3	23.9	24.4
	8H	21.1	21.7	21.6	22.2	22.7	23.2	23.8	23.7	24.3	24.8

Maximum UGR = 25.0

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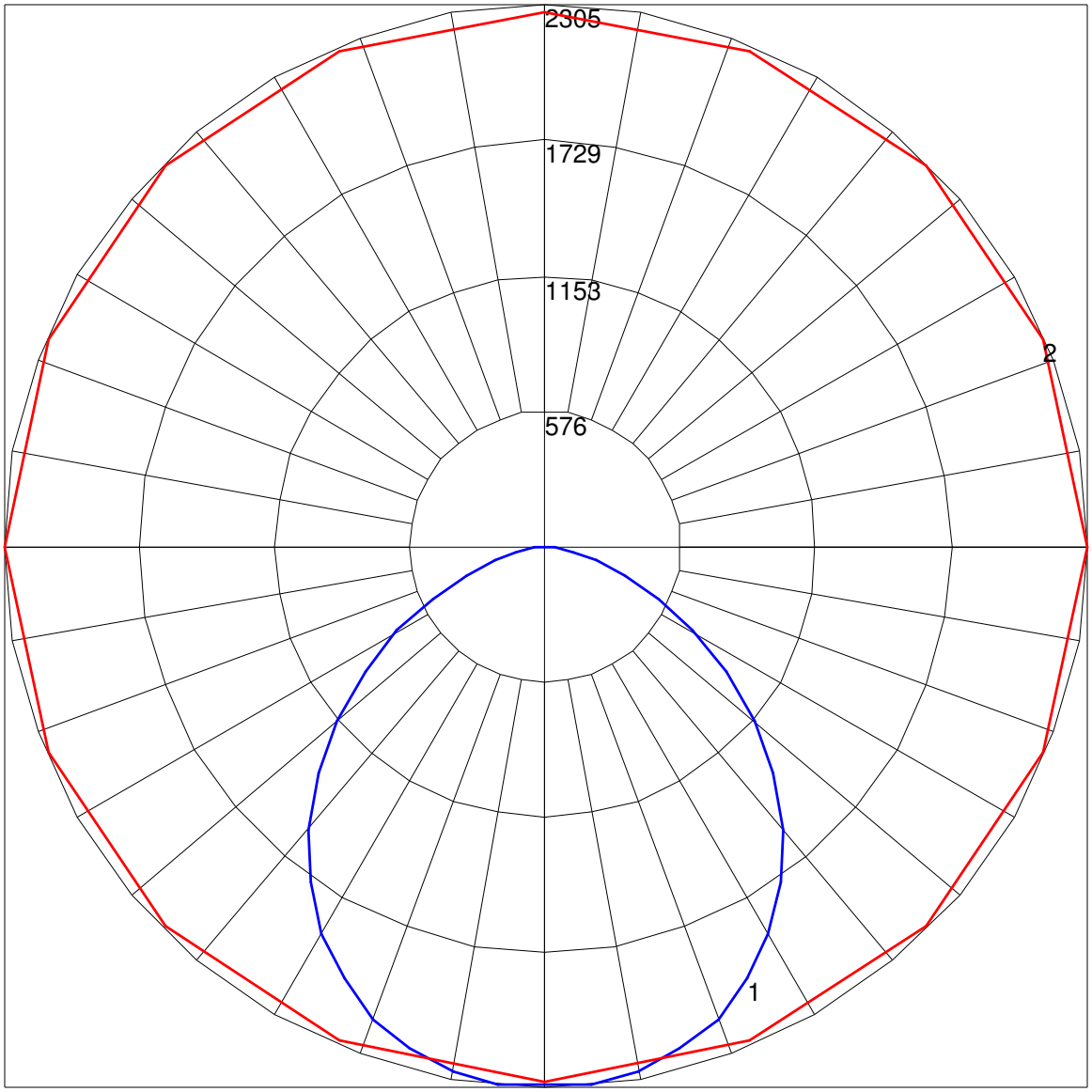
POLAR GRAPH



Maximum Candela = 2305.4 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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