H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L61-840-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-L61-840-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	6255
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
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	5877	6096	6294
55	4969	5475	5842
65	3798	4751	5282
75	2640	4213	5208
85	1503	3437	4296

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2390.509	2390.509	2390.509	2390.509	2390.509
5	2398.547	2384.078	2380.863	2372.825	2372.825
10	2366.395	2351.926	2350.318	2342.280	2340.673
15	2310.128	2294.052	2292.445	2289.229	2287.622
20	2229.748	2215.280	2213.672	2215.280	2215.280
25	2117.216	2102.747	2112.393	2118.823	2112.393
30	1978.962	1972.531	1982.177	1993.430	1985.392
35	1819.809	1818.201	1839.100	1847.138	1855.176
40	1636.542	1636.542	1671.909	1686.378	1699.238
45	1427.553	1427.553	1480.604	1514.364	1528.832
50	1207.311	1208.919	1279.654	1324.667	1345.565
55	979.031	996.715	1078.703	1126.931	1151.045
60	755.574	790.942	872.930	925.980	951.702
65	551.409	598.029	689.663	747.536	766.828
70	371.357	429.231	520.864	580.345	602.852
75	234.710	290.977	374.572	434.053	462.990
80	127.001	175.229	249.179	290.977	319.913
85	45.013	78.773	102.887	102.887	128.608
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	873.41	N.A.	14.00
0-30	1845.62	N.A.	29.50
0-40	2992.00	N.A.	47.80
0-60	5082.97	N.A.	81.30
0-80	6140.45	N.A.	98.20
0-90	6254.88	N.A.	100.00
10-90	6028.61	N.A.	96.40
20-40	2118.59	N.A.	33.90
20-50	3255.34	N.A.	52.00
40-70	2762.27	N.A.	44.20
60-80	1057.48	N.A.	16.90
70-80	386.18	N.A.	6.20
80-90	114.42	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	6254.88	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	226.26
10-20	647.14
20-30	972.22
30-40	1146.38
40-50	1136.75
50-60	954.22
60-70	671.30
70-80	386.18
80-90	114.42
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	17.2	18.8	17.5	19.1	19.4	18.2	19.8	18.6	20.1	20.4
	3H	18.5	19.9	18.8	20.2	20.6	20.0	21.5	20.4	21.8	22.2
	4H	18.9	20.2	19.3	20.6	21.0	20.8	22.2	21.2	22.5	22.9
	6H	19.1	20.4	19.6	20.8	21.2	21.5	22.8	21.9	23.1	23.5
	8H	19.2	20.4	19.6	20.8	21.2	21.7	22.9	22.2	23.3	23.7
	12H	19.2	20.4	19.7	20.8	21.2	21.9	23.0	22.3	23.4	23.9
4H	2H	17.9	19.2	18.3	19.6	20.0	18.7	20.1	19.1	20.4	20.8
	3H	19.4	20.5	19.8	20.9	21.3	20.8	21.9	21.2	22.3	22.7
	4H	20.0	21.0	20.4	21.4	21.8	21.7	22.7	22.1	23.1	23.6
	6H	20.3	21.2	20.8	21.7	22.1	22.6	23.5	23.0	23.9	24.4
	8H	20.4	21.3	20.9	21.7	22.2	22.9	23.7	23.3	24.1	24.6
	12H	20.5	21.3	21.0	21.7	22.2	23.1	23.8	23.6	24.3	24.8
8H	4H	20.4	21.2	20.9	21.7	22.2	22.0	22.8	22.4	23.2	23.7
	6H	20.9	21.6	21.4	22.1	22.6	22.9	23.6	23.4	24.1	24.6
	8H	21.1	21.7	21.6	22.3	22.7	23.3	24.0	23.9	24.5	25.0
	12H	21.2	21.8	21.7	22.3	22.8	23.6	24.2	24.1	24.6	25.2
12H	4H	20.5	21.2	21.0	21.7	22.2	22.0	22.7	22.4	23.2	23.7
	6H	21.1	21.7	21.6	22.2	22.7	23.0	23.6	23.5	24.1	24.6
	8H	21.3	21.9	21.8	22.4	22.9	23.4	24.0	23.9	24.5	25.0

Maximum UGR = 25.2

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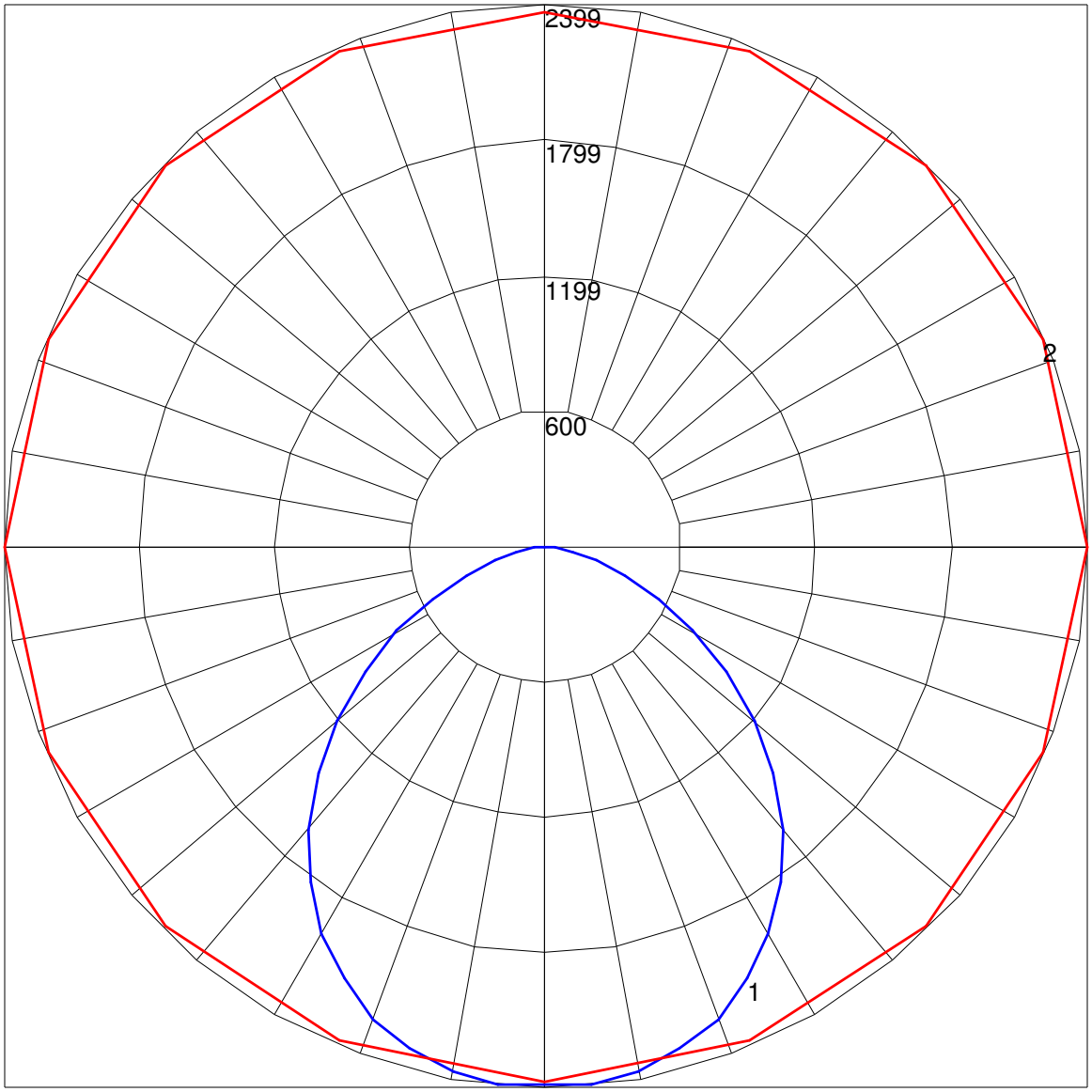
POLAR GRAPH



Maximum Candela = 2398.547 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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