H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-22-L26-850-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-L26-850-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM LED ARRAY

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	3099
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	144
Total Luminaire Watts	21.5
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	2912	3020	3119
55	2462	2713	2895
65	1882	2354	2617
75	1308	2088	2580
85	745	1703	2128

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1184.494	1184.494	1184.494	1184.494	1184.494
5	1188.477	1181.308	1179.715	1175.732	1175.732
10	1172.546	1165.377	1164.580	1160.597	1159.801
15	1144.666	1136.700	1135.904	1134.311	1133.514
20	1104.838	1097.669	1096.872	1097.669	1097.669
25	1049.078	1041.909	1046.688	1049.875	1046.688
30	980.573	977.387	982.166	987.742	983.760
35	901.713	900.917	911.272	915.255	919.238
40	810.905	810.905	828.429	835.598	841.971
45	707.351	707.351	733.638	750.366	757.535
50	598.221	599.018	634.067	656.371	666.726
55	485.109	493.871	534.496	558.393	570.342
60	374.386	391.911	432.536	458.822	471.567
65	273.222	296.323	341.727	370.403	379.962
70	184.007	212.683	258.088	287.560	298.712
75	116.299	144.179	185.600	215.073	229.411
80	62.929	86.826	123.468	144.179	158.517
85	22.304	39.032	50.980	50.980	63.725
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	432.77	N.A.	14.00
0-30	914.50	N.A.	29.50
0-40	1482.53	N.A.	47.80
0-60	2518.61	N.A.	81.30
0-80	3042.59	N.A.	98.20
0-90	3099.28	N.A.	100.00
10-90	2987.17	N.A.	96.40
20-40	1049.76	N.A.	33.90
20-50	1613.02	N.A.	52.00
40-70	1368.7	N.A.	44.20
60-80	523.98	N.A.	16.90
70-80	191.35	N.A.	6.20
80-90	56.70	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	3099.28	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	112.11
10-20	320.66
20-30	481.73
30-40	568.03
40-50	563.26
50-60	472.82
60-70	332.63
70-80	191.35
80-90	56.70
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	34	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	14.7	16.3	15.0	16.6	16.9	15.7	17.3	16.1	17.6	17.9
	3H	16.0	17.4	16.3	17.7	18.1	17.5	19.0	17.9	19.3	19.7
	4H	16.4	17.7	16.8	18.1	18.5	18.3	19.7	18.7	20.0	20.4
	6H	16.6	17.9	17.1	18.3	18.7	19.0	20.3	19.4	20.6	21.0
	8H	16.7	17.9	17.1	18.3	18.7	19.2	20.4	19.7	20.8	21.2
	12H	16.7	17.9	17.2	18.3	18.7	19.4	20.5	19.8	20.9	21.4
4H	2H	15.4	16.7	15.8	17.1	17.5	16.2	17.6	16.6	17.9	18.3
	3H	16.9	18.0	17.3	18.4	18.8	18.3	19.4	18.7	19.8	20.2
	4H	17.5	18.5	17.9	18.9	19.3	19.2	20.2	19.6	20.6	21.1
	6H	17.8	18.7	18.3	19.2	19.6	20.1	21.0	20.5	21.4	21.9
	8H	17.9	18.8	18.4	19.2	19.7	20.4	21.2	20.8	21.6	22.1
	12H	18.0	18.8	18.5	19.2	19.7	20.6	21.3	21.0	21.8	22.3
8H	4H	17.9	18.7	18.4	19.2	19.7	19.5	20.3	19.9	20.7	21.2
	6H	18.4	19.1	18.9	19.6	20.1	20.4	21.1	20.9	21.6	22.1
	8H	18.6	19.2	19.1	19.8	20.2	20.8	21.5	21.4	22.0	22.5
	12H	18.7	19.3	19.2	19.8	20.3	21.1	21.7	21.6	22.1	22.7
12H	4H	18.0	18.7	18.5	19.2	19.7	19.5	20.2	19.9	20.7	21.2
	6H	18.6	19.2	19.1	19.7	20.2	20.5	21.1	21.0	21.6	22.1
	8H	18.8	19.4	19.3	19.9	20.4	20.9	21.5	21.4	22.0	22.5

Maximum UGR = 22.7

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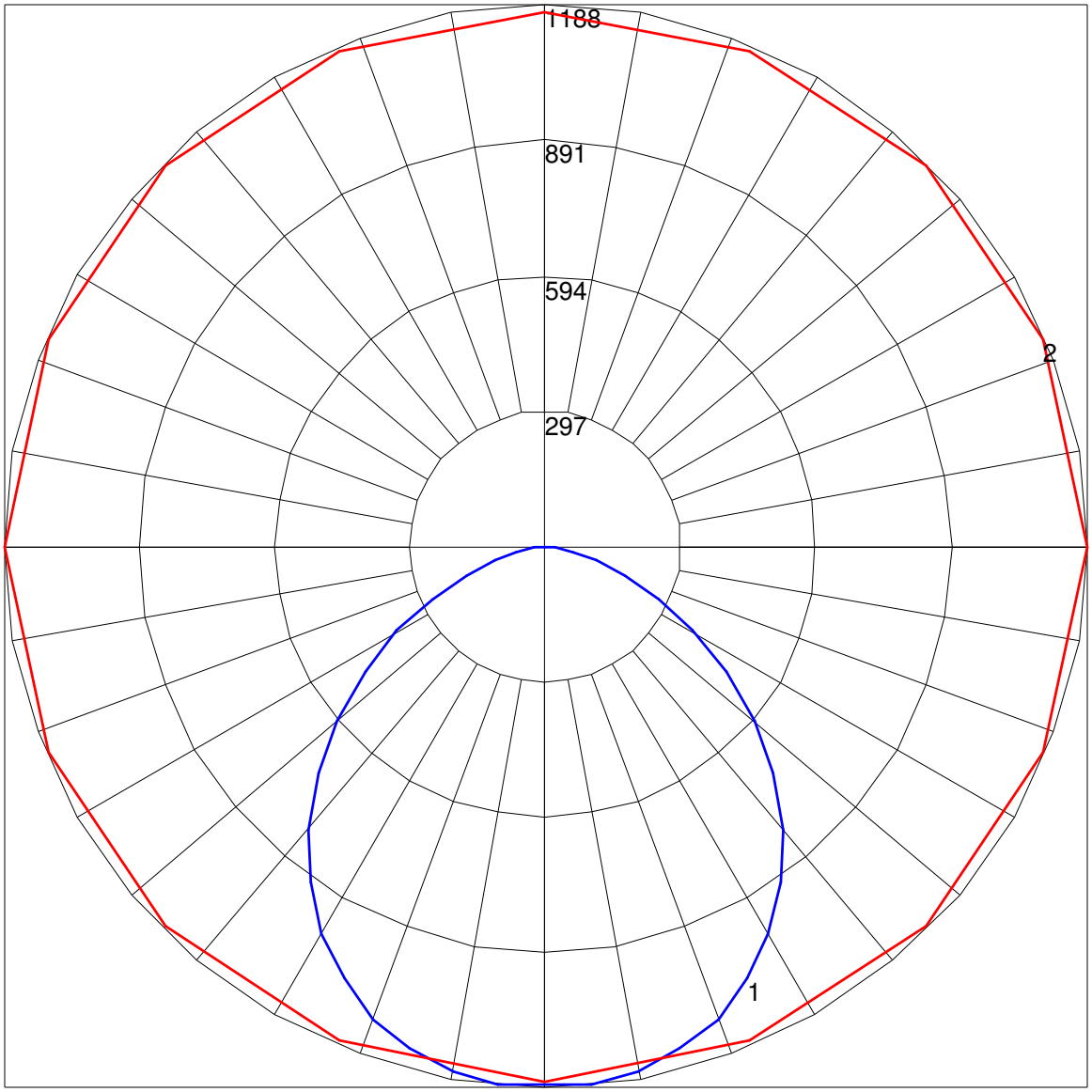
POLAR GRAPH



Maximum Candela = 1188.477 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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