H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-P65-835-RA-(P44)-POE PR_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19235.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 11-MAR-2022
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2-22" LED ARRAYS 2x4'RECESSED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC LENS
[LUMCAT] PT-24-P65-835-RA-(P44)-POE PR
[LAMPCAT] HLM 80 CRI 3500K CCT
[_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	4453
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	151
Total Luminaire Watts	29.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.14
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.28
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1910	2015	2118
55	1712	1874	2024
65	1505	1783	2026
75	1164	1788	2214
85	703	2346	2688

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1703.621	1703.621	1703.621	1703.621	1703.621
5	1677.607	1675.294	1675.294	1669.513	1666.623
10	1672.404	1672.404	1675.294	1677.607	1677.607
15	1628.469	1630.782	1633.672	1637.719	1640.609
20	1520.945	1526.726	1533.663	1542.913	1545.803
25	1434.810	1440.013	1453.887	1466.027	1471.808
30	1257.338	1218.606	1377.002	1331.333	1324.396
35	1159.641	1170.625	1196.639	1218.606	1227.277
40	1031.884	1045.758	1074.663	1103.567	1114.551
45	942.859	954.999	994.887	1031.884	1045.758
50	819.148	838.225	882.160	920.892	934.188
55	685.610	706.422	750.356	794.291	810.477
60	559.010	580.977	630.692	675.783	692.547
65	443.970	472.875	526.059	578.664	597.741
70	327.197	361.304	424.315	479.812	498.889
75	210.423	252.624	323.150	379.225	400.036
80	115.617	170.535	251.468	306.386	323.150
85	42.778	97.697	142.787	160.708	163.598
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	617.56	N.A.	13.90
0-30	1279.89	N.A.	28.70
0-40	2026.51	N.A.	45.50
0-60	3460.85	N.A.	77.70
0-80	4319.94	N.A.	97.00
0-90	4453.11	N.A.	100.00
10-90	4292.97	N.A.	96.40
20-40	1408.95	N.A.	31.60
20-50	2170.49	N.A.	48.70
40-70	1953.7	N.A.	43.90
60-80	859.10	N.A.	19.30
70-80	339.73	N.A.	7.60
80-90	133.17	N.A.	3.00
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	4453.11	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	160.14
10-20	457.42
20-30	662.33
30-40	746.62
40-50	761.54
50-60	672.80
60-70	519.36
70-80	339.73
80-90	133.17
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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	85	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	52	43	37	63	51	42	37	49	42	36	48	41	36	46	40	36	34
8	61	47	39	33	59	46	38	33	45	38	32	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	33	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	13.5	15.2	13.9	15.5	15.8	14.6	16.2	14.9	16.5	16.8
	3H	15.2	16.7	15.6	17.0	17.4	16.7	18.2	17.1	18.6	18.9
	4H	15.8	17.2	16.2	17.5	17.9	17.7	19.1	18.1	19.5	19.9
	6H	16.1	17.5	16.6	17.8	18.2	18.8	20.1	19.2	20.4	20.8
	8H	16.3	17.5	16.7	17.9	18.3	19.2	20.4	19.6	20.8	21.2
	12H	16.3	17.5	16.8	17.9	18.3	19.5	20.7	20.0	21.1	21.5
4H	2H	14.3	15.7	14.7	16.1	16.5	15.1	16.5	15.5	16.9	17.2
	3H	16.2	17.4	16.7	17.8	18.2	17.6	18.8	18.0	19.1	19.5
	4H	16.9	18.0	17.4	18.4	18.9	18.7	19.8	19.2	20.2	20.7
	6H	17.5	18.4	17.9	18.9	19.3	20.0	20.9	20.4	21.4	21.8
	8H	17.6	18.5	18.1	19.0	19.4	20.5	21.4	21.0	21.8	22.3
	12H	17.8	18.6	18.3	19.0	19.5	20.9	21.7	21.4	22.2	22.7
8H	4H	17.5	18.4	18.0	18.9	19.3	19.1	20.0	19.5	20.4	20.9
	6H	18.3	19.0	18.8	19.5	20.0	20.5	21.3	21.0	21.8	22.2
	8H	18.6	19.2	19.1	19.7	20.2	21.2	21.9	21.7	22.4	22.8
	12H	18.8	19.4	19.3	19.9	20.4	21.8	22.3	22.3	22.8	23.4
12H	4H	17.7	18.5	18.2	19.0	19.4	19.1	19.9	19.6	20.4	20.9
	6H	18.5	19.2	19.1	19.7	20.2	20.6	21.3	21.2	21.8	22.3
	8H	18.9	19.5	19.4	20.0	20.6	21.4	21.9	21.9	22.4	23.0

Maximum UGR = 23.4

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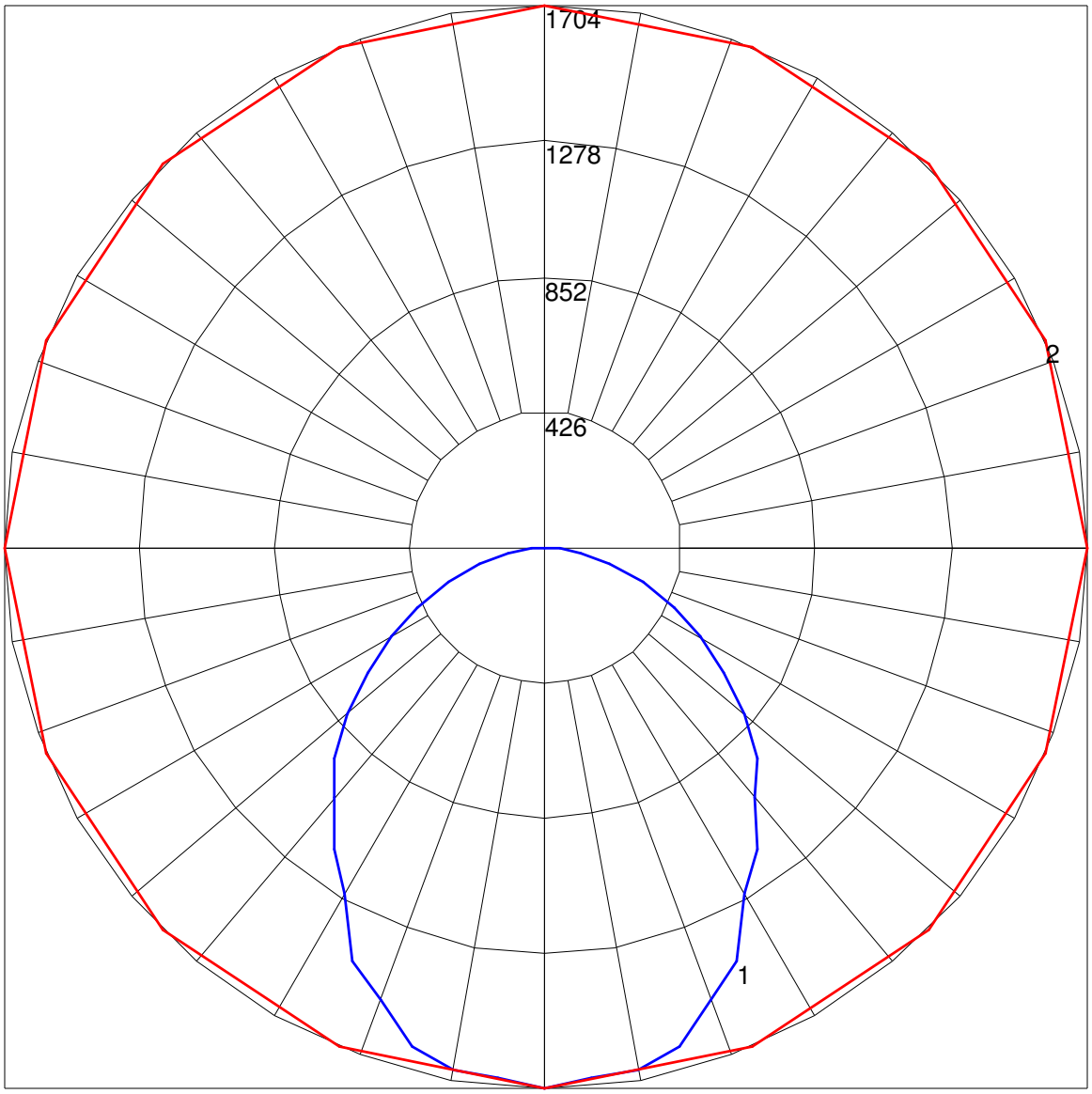
POLAR GRAPH



Maximum Candela = 1703.621 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)

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