H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L61-830-RA-DIM-UNV_.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] 2023-06-27
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[MORE] 0-10V DRIVER
[LUMCAT] PT-24-L61-830-RA-DIM-UNV
[LAMPCAT] 22 INCH HLM 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	6119
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	45.5
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	2624	2769	2911
55	2352	2575	2781
65	2067	2450	2784
75	1600	2457	3042
85	966	3224	3694

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2341.069	2341.069	2341.069	2341.069	2341.069
5	2305.321	2302.144	2302.144	2294.200	2290.228
10	2298.172	2298.172	2302.144	2305.321	2305.321
15	2237.798	2240.976	2244.948	2250.508	2254.480
20	2090.041	2097.985	2107.518	2120.228	2124.200
25	1971.677	1978.827	1997.892	2014.574	2022.518
30	1727.799	1674.575	1892.238	1829.481	1819.949
35	1593.547	1608.641	1644.388	1674.575	1686.491
40	1417.987	1437.052	1476.772	1516.491	1531.585
45	1295.651	1312.333	1367.146	1417.987	1437.052
50	1125.651	1151.866	1212.240	1265.464	1283.735
55	942.147	970.745	1031.119	1091.493	1113.735
60	768.176	798.362	866.680	928.642	951.680
65	610.092	649.811	722.895	795.185	821.400
70	449.625	496.494	583.083	659.344	685.559
75	289.158	347.149	444.064	521.120	549.718
80	158.878	234.345	345.560	421.027	444.064
85	58.785	134.252	196.214	220.841	224.813
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	848.63	N.A.	13.90
0-30	1758.79	N.A.	28.70
0-40	2784.78	N.A.	45.50
0-60	4755.8	N.A.	77.70
0-80	5936.34	N.A.	97.00
0-90	6119.35	N.A.	100.00
10-90	5899.28	N.A.	96.40
20-40	1936.14	N.A.	31.60
20-50	2982.63	N.A.	48.70
40-70	2684.71	N.A.	43.90
60-80	1180.55	N.A.	19.30
70-80	466.85	N.A.	7.60
80-90	183.00	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	6119.35	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	220.06
10-20	628.57
20-30	910.15
30-40	1025.99
40-50	1046.48
50-60	924.54
60-70	713.69
70-80	466.85
80-90	183.00
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	14.6	16.3	15.0	16.6	16.9	15.7	17.3	16.0	17.6	17.9
	3H	16.3	17.8	16.7	18.1	18.5	17.8	19.3	18.2	19.7	20.0
	4H	16.9	18.3	17.3	18.6	19.0	18.8	20.2	19.2	20.6	21.0
	6H	17.2	18.6	17.7	18.9	19.3	19.9	21.2	20.3	21.5	21.9
	8H	17.4	18.6	17.8	19.0	19.4	20.3	21.5	20.7	21.9	22.3
	12H	17.4	18.6	17.9	19.0	19.4	20.6	21.8	21.1	22.2	22.6
4H	2H	15.4	16.8	15.8	17.2	17.6	16.2	17.6	16.6	18.0	18.3
	3H	17.3	18.5	17.8	18.9	19.3	18.7	19.9	19.1	20.3	20.7
	4H	18.0	19.1	18.5	19.5	20.0	19.8	20.9	20.3	21.3	21.8
	6H	18.6	19.5	19.0	20.0	20.4	21.1	22.0	21.5	22.5	22.9
	8H	18.7	19.6	19.2	20.1	20.5	21.6	22.5	22.1	22.9	23.4
	12H	18.9	19.7	19.4	20.1	20.6	22.0	22.8	22.5	23.3	23.8
8H	4H	18.6	19.5	19.1	20.0	20.4	20.2	21.1	20.6	21.5	22.0
	6H	19.4	20.1	19.9	20.6	21.1	21.6	22.4	22.1	22.9	23.3
	8H	19.7	20.3	20.2	20.8	21.3	22.3	23.0	22.8	23.5	23.9
	12H	19.9	20.5	20.4	21.0	21.5	22.9	23.4	23.4	23.9	24.5
12H	4H	18.8	19.6	19.3	20.1	20.5	20.2	21.0	20.7	21.5	22.0
	6H	19.6	20.3	20.2	20.8	21.3	21.7	22.4	22.3	22.9	23.4
	8H	20.0	20.6	20.5	21.1	21.7	22.5	23.0	23.0	23.5	24.1

Maximum UGR = 24.5

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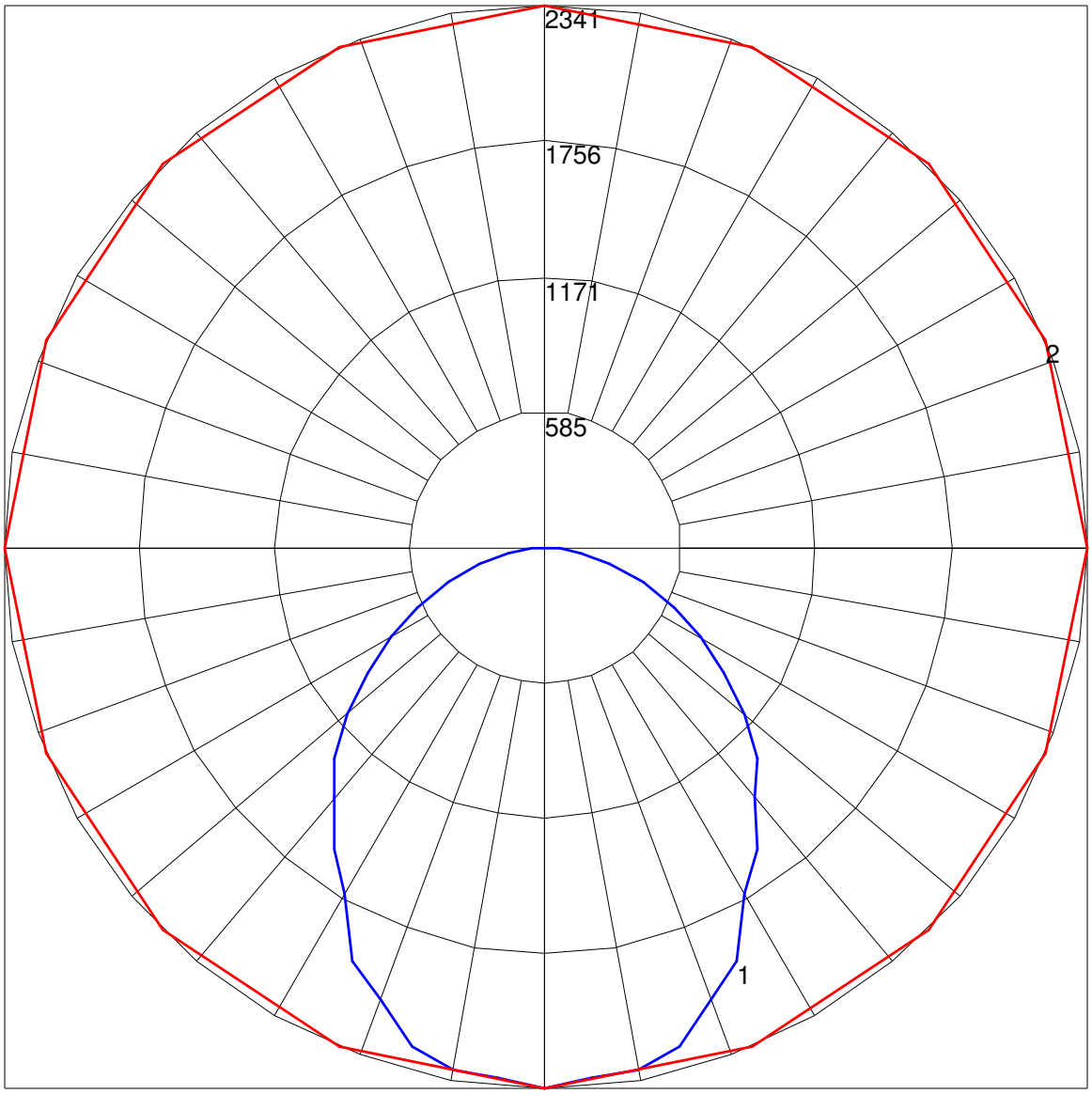
POLAR GRAPH



Maximum Candela = 2341.069 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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