H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-24-L61-835-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-L61-835-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	6181
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	136
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	2651	2797	2940
55	2376	2601	2809
65	2088	2474	2812
75	1616	2482	3073
85	976	3257	3731

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2364.716	2364.716	2364.716	2364.716	2364.716
5	2328.608	2325.398	2325.398	2317.374	2313.362
10	2321.386	2321.386	2325.398	2328.608	2328.608
15	2260.402	2263.612	2267.624	2273.241	2277.253
20	2111.153	2119.177	2128.806	2141.645	2145.657
25	1991.593	1998.815	2018.073	2034.924	2042.948
30	1745.252	1691.490	1911.352	1847.961	1838.332
35	1609.644	1624.890	1660.998	1691.490	1703.526
40	1432.310	1451.568	1491.689	1531.810	1547.056
45	1308.738	1325.589	1380.956	1432.310	1451.568
50	1137.022	1163.501	1224.485	1278.247	1296.702
55	951.664	980.551	1041.534	1102.518	1124.985
60	775.935	806.427	875.434	938.023	961.293
65	616.255	656.375	730.197	803.217	829.697
70	454.167	501.509	588.972	666.004	692.484
75	292.079	350.655	448.550	526.384	555.271
80	160.483	236.712	349.050	425.280	448.550
85	59.379	135.608	198.196	223.071	227.083
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	857.21	N.A.	13.90
0-30	1776.55	N.A.	28.70
0-40	2812.91	N.A.	45.50
0-60	4803.84	N.A.	77.70
0-80	5996.31	N.A.	97.00
0-90	6181.16	N.A.	100.00
10-90	5958.87	N.A.	96.40
20-40	1955.7	N.A.	31.60
20-50	3012.75	N.A.	48.70
40-70	2711.83	N.A.	43.90
60-80	1192.47	N.A.	19.30
70-80	471.57	N.A.	7.60
80-90	184.85	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	6181.16	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	222.28
10-20	634.92
20-30	919.35
30-40	1036.36
40-50	1057.05
50-60	933.88
60-70	720.90
70-80	471.57
80-90	184.85
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	20.6
	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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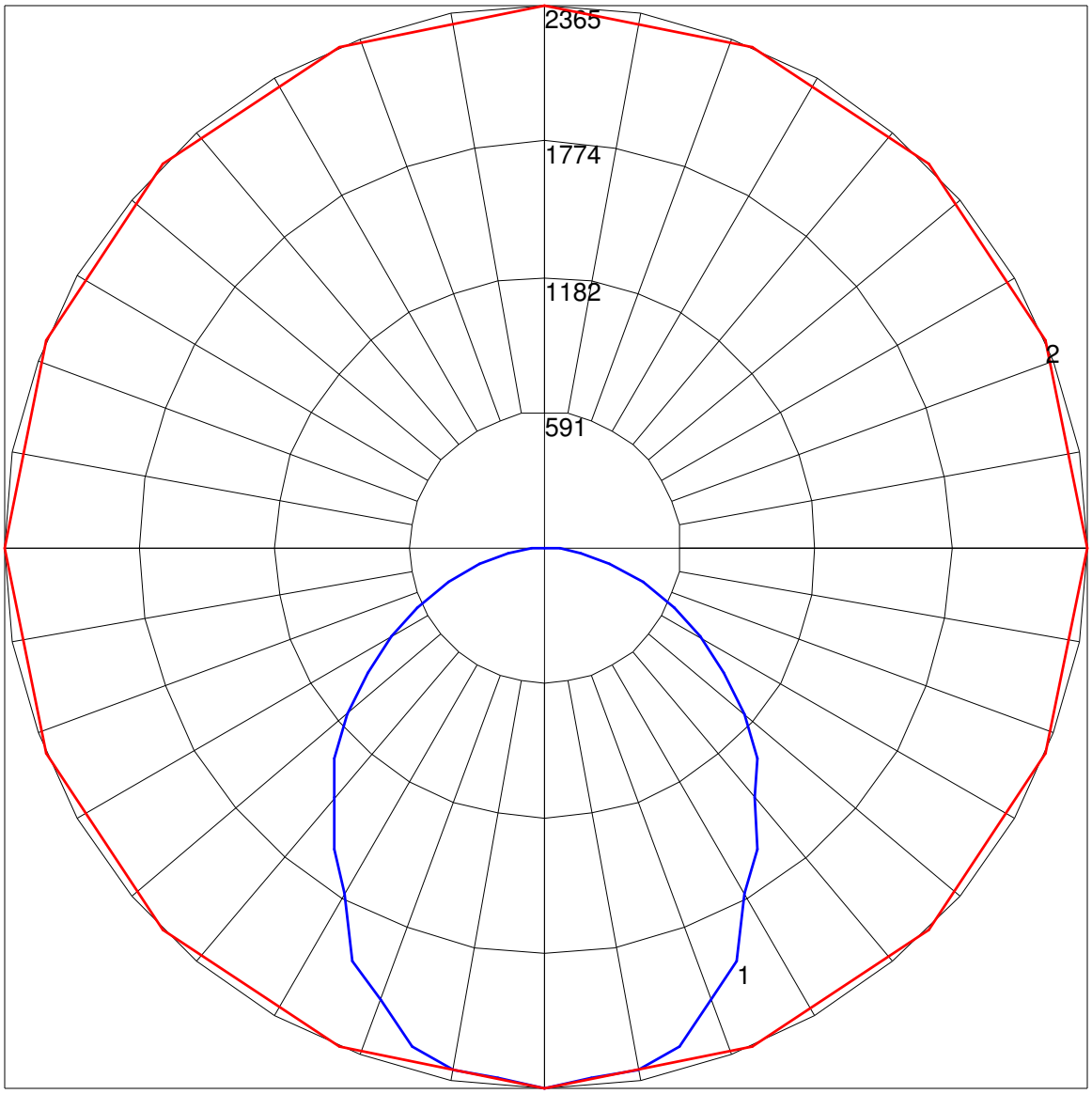
POLAR GRAPH



Maximum Candela = 2364.716 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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