H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L90-850-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] 2022-05-06
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x4' RECESSED LED LUMINAIRE
[MORE] w/RIBBED FROSTED ACRYLIC CENTER DIFFUSER
[LUMCAT] PTDC-24-L90-850-RA-DIM-UNV
[LAMPCAT] HLM 80 CRI 5000K 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	9559
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	134
Total Luminaire Watts	71.4
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	4099	4326	4547
55	3675	4022	4344
65	3230	3827	4348
75	2499	3838	4752
85	1509	5037	5771

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	3657.094	3657.094	3657.094	3657.094	3657.094
5	3601.251	3596.288	3596.288	3583.878	3577.673
10	3590.083	3590.083	3596.288	3601.251	3601.251
15	3495.770	3500.734	3506.939	3515.626	3521.830
20	3264.953	3277.362	3292.254	3312.109	3318.314
25	3080.050	3091.219	3121.002	3147.062	3159.471
30	2699.077	2615.933	2955.955	2857.919	2843.028
35	2489.356	2512.934	2568.777	2615.933	2634.547
40	2215.105	2244.888	2306.935	2368.983	2392.561
45	2023.998	2050.058	2135.684	2215.105	2244.888
50	1758.433	1799.385	1893.697	1976.841	2005.383
55	1471.773	1516.447	1610.760	1705.072	1739.819
60	1200.003	1247.160	1353.882	1450.676	1486.664
65	953.053	1015.101	1129.269	1242.196	1283.147
70	702.381	775.597	910.861	1029.993	1070.944
75	451.708	542.297	693.694	814.066	858.741
80	248.191	366.082	539.815	657.706	693.694
85	91.831	209.721	306.516	344.985	351.190
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1325.69	N.A.	13.90
0-30	2747.48	N.A.	28.70
0-40	4350.23	N.A.	45.50
0-60	7429.26	N.A.	77.70
0-80	9273.44	N.A.	97.00
0-90	9559.32	N.A.	100.00
10-90	9215.55	N.A.	96.40
20-40	3024.54	N.A.	31.60
20-50	4659.3	N.A.	48.70
40-70	4193.92	N.A.	43.90
60-80	1844.19	N.A.	19.30
70-80	729.29	N.A.	7.60
80-90	285.87	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	9559.32	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	343.77
10-20	981.92
20-30	1421.79
30-40	1602.75
40-50	1634.76
50-60	1444.27
60-70	1114.9
70-80	729.29
80-90	285.87
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	16.2	17.8	16.5	18.1	18.4	17.2	18.8	17.5	19.1	19.4
	3H	17.8	19.3	18.2	19.6	20.0	19.3	20.8	19.7	21.2	21.5
	4H	18.4	19.8	18.8	20.1	20.5	20.3	21.7	20.7	22.1	22.5
	6H	18.7	20.1	19.2	20.4	20.8	21.4	22.7	21.8	23.0	23.4
	8H	18.9	20.1	19.3	20.5	20.9	21.8	23.0	22.2	23.4	23.8
	12H	18.9	20.1	19.4	20.5	20.9	22.1	23.3	22.6	23.7	24.1
4H	2H	16.9	18.3	17.3	18.7	19.1	17.7	19.1	18.1	19.5	19.8
	3H	18.8	20.0	19.3	20.4	20.8	20.2	21.4	20.6	21.8	22.2
	4H	19.5	20.6	20.0	21.0	21.5	21.3	22.4	21.8	22.8	23.3
	6H	20.1	21.0	20.5	21.5	21.9	22.6	23.5	23.0	24.0	24.4
	8H	20.2	21.1	20.7	21.6	22.0	23.1	24.0	23.6	24.4	24.9
	12H	20.4	21.2	20.9	21.6	22.1	23.5	24.3	24.0	24.8	25.3
8H	4H	20.1	21.0	20.6	21.5	21.9	21.7	22.6	22.1	23.0	23.5
	6H	20.9	21.6	21.4	22.1	22.6	23.1	23.9	23.6	24.4	24.8
	8H	21.2	21.8	21.7	22.3	22.8	23.8	24.5	24.3	25.0	25.4
	12H	21.4	22.0	21.9	22.5	23.0	24.4	24.9	24.9	25.4	26.0
12H	4H	20.3	21.1	20.8	21.6	22.0	21.7	22.5	22.2	23.0	23.5
	6H	21.1	21.8	21.7	22.3	22.8	23.2	23.9	23.8	24.4	24.9
	8H	21.5	22.1	22.0	22.6	23.2	24.0	24.5	24.5	25.0	25.6

Maximum UGR = 26.0

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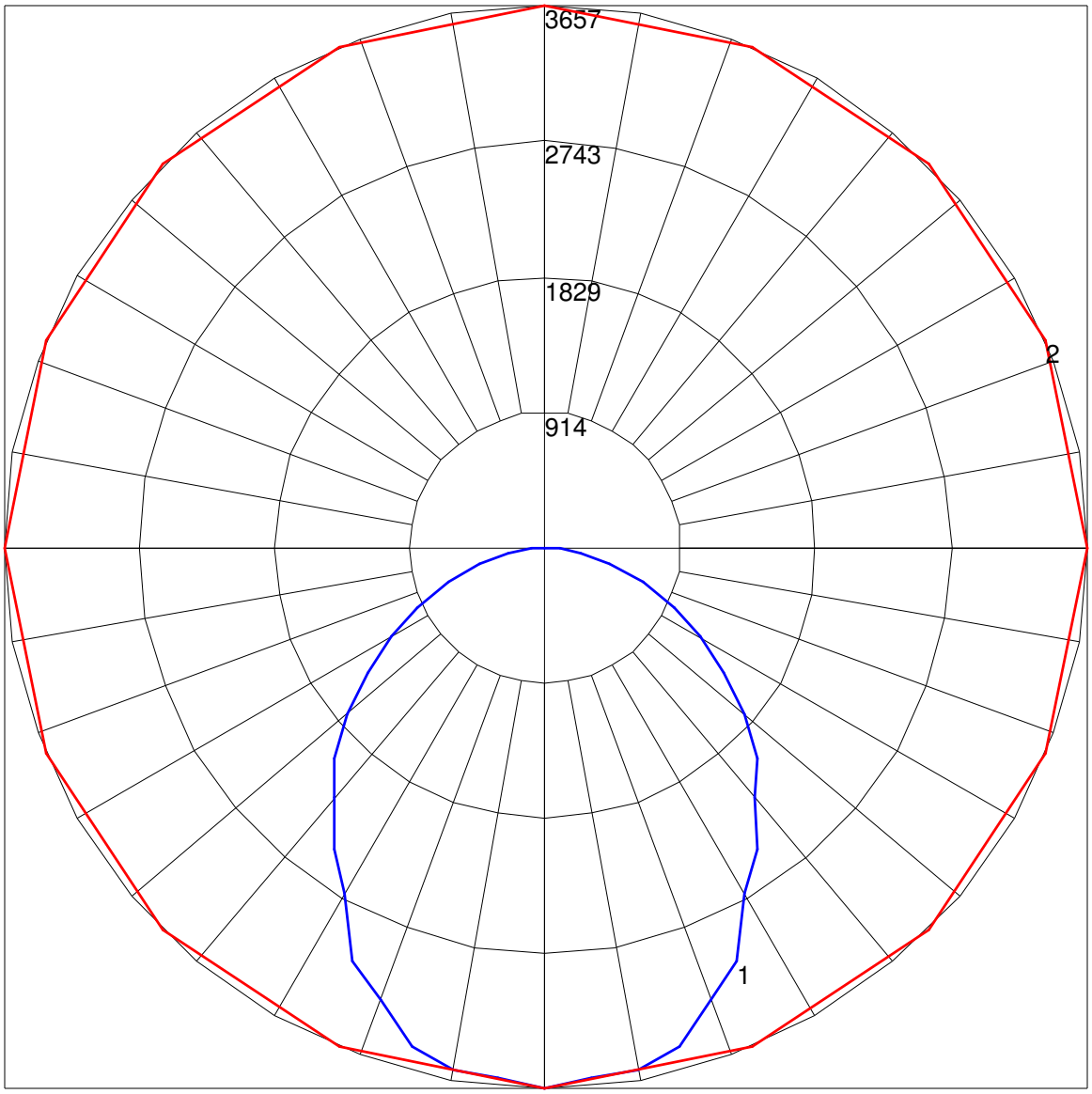
POLAR GRAPH



Maximum Candela = 3657.094 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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