H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PT-14-L80-827-RA-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 19323.0
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2023-06-23
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 1x4'RECESSED LED LUMINAIRE
[MORE] WHITE REFLECTOR w/WHITE RIBBED ACRYLIC LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] PT-14-L80-827-RA-DIM-UNV
[LAMPCAT] 22" 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	7739
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	125
Total Luminaire Watts	61.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.92 ft
Luminous Width (90-270)	0.94 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7243	7565	7675
55	6392	7024	7322
65	5563	6592	6764
75	4042	5662	5902
85	1842	3030	3565

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	2820.170	2820.170	2820.170	2820.170	2820.170
5	2883.863	2862.632	2852.016	2825.478	2809.555
10	2834.324	2818.401	2813.093	2784.785	2770.631
15	2756.477	2742.324	2749.400	2715.785	2715.785
20	2645.015	2639.708	2652.092	2620.246	2630.861
25	2521.168	2508.784	2533.553	2510.553	2503.476
30	2376.091	2353.090	2388.475	2376.091	2372.552
35	2193.859	2176.166	2222.167	2213.320	2223.936
40	1981.550	1978.011	2027.550	2034.627	2025.781
45	1749.779	1755.087	1827.626	1843.549	1854.165
50	1503.855	1530.393	1606.471	1645.394	1645.394
55	1252.623	1302.161	1376.469	1452.547	1434.854
60	1026.160	1068.622	1157.084	1219.007	1210.161
65	803.235	840.389	951.852	996.083	976.621
70	573.234	642.234	734.235	755.466	746.620
75	357.387	449.387	500.695	521.926	521.926
80	182.232	267.155	286.617	302.540	290.156
85	54.846	104.385	90.231	99.077	106.154
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1041.42	N.A.	13.50
0-30	2200.71	N.A.	28.40
0-40	3578.29	N.A.	46.20
0-60	6194.71	N.A.	80.00
0-80	7613.45	N.A.	98.40
0-90	7738.7	N.A.	100.00
10-90	7468.78	N.A.	96.50
20-40	2536.87	N.A.	32.80
20-50	3930.08	N.A.	50.80
40-70	3526.84	N.A.	45.60
60-80	1418.74	N.A.	18.30
70-80	508.31	N.A.	6.60
80-90	125.25	N.A.	1.60
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	7738.7	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	269.91
10-20	771.51
20-30	1159.28
30-40	1377.59
40-50	1393.21
50-60	1223.21
60-70	910.43
70-80	508.31
80-90	125.25
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	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70
3	91	80	72	66	88	78	71	65	76	69	64	73	67	63	70	66	62	59
4	83	71	62	56	81	70	62	55	67	60	54	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	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	18.4	20.0	18.7	20.3	20.6	19.2	20.8	19.6	21.2	21.5
	3H	19.9	21.4	20.3	21.7	22.1	21.0	22.5	21.4	22.8	23.2
	4H	20.4	21.8	20.8	22.2	22.5	21.7	23.0	22.1	23.4	23.8
	6H	20.7	22.0	21.2	22.4	22.8	22.1	23.4	22.5	23.7	24.1
	8H	20.8	22.0	21.2	22.4	22.8	22.2	23.4	22.6	23.8	24.2
	12H	20.8	22.0	21.3	22.4	22.8	22.3	23.5	22.7	23.8	24.3
4H	2H	19.1	20.5	19.5	20.8	21.2	19.8	21.2	20.2	21.5	21.9
	3H	20.9	22.1	21.3	22.5	22.9	21.8	23.0	22.2	23.4	23.8
	4H	21.6	22.6	22.0	23.0	23.5	22.6	23.6	23.0	24.1	24.5
	6H	22.0	22.9	22.5	23.4	23.8	23.2	24.1	23.6	24.5	25.0
	8H	22.1	23.0	22.6	23.4	23.9	23.3	24.2	23.8	24.6	25.1
	12H	22.2	23.0	22.7	23.4	23.9	23.4	24.2	23.9	24.7	25.2
8H	4H	22.0	22.8	22.4	23.3	23.7	22.9	23.7	23.3	24.2	24.6
	6H	22.6	23.3	23.0	23.7	24.2	23.6	24.3	24.1	24.8	25.2
	8H	22.7	23.4	23.2	23.9	24.4	23.8	24.4	24.3	24.9	25.4
	12H	22.9	23.4	23.4	23.9	24.5	23.9	24.5	24.4	25.0	25.6
12H	4H	22.0	22.8	22.5	23.3	23.7	22.9	23.7	23.4	24.1	24.6
	6H	22.6	23.3	23.1	23.7	24.3	23.6	24.2	24.1	24.7	25.2
	8H	22.9	23.4	23.4	23.9	24.5	23.9	24.4	24.4	24.9	25.5

Maximum UGR = 25.6

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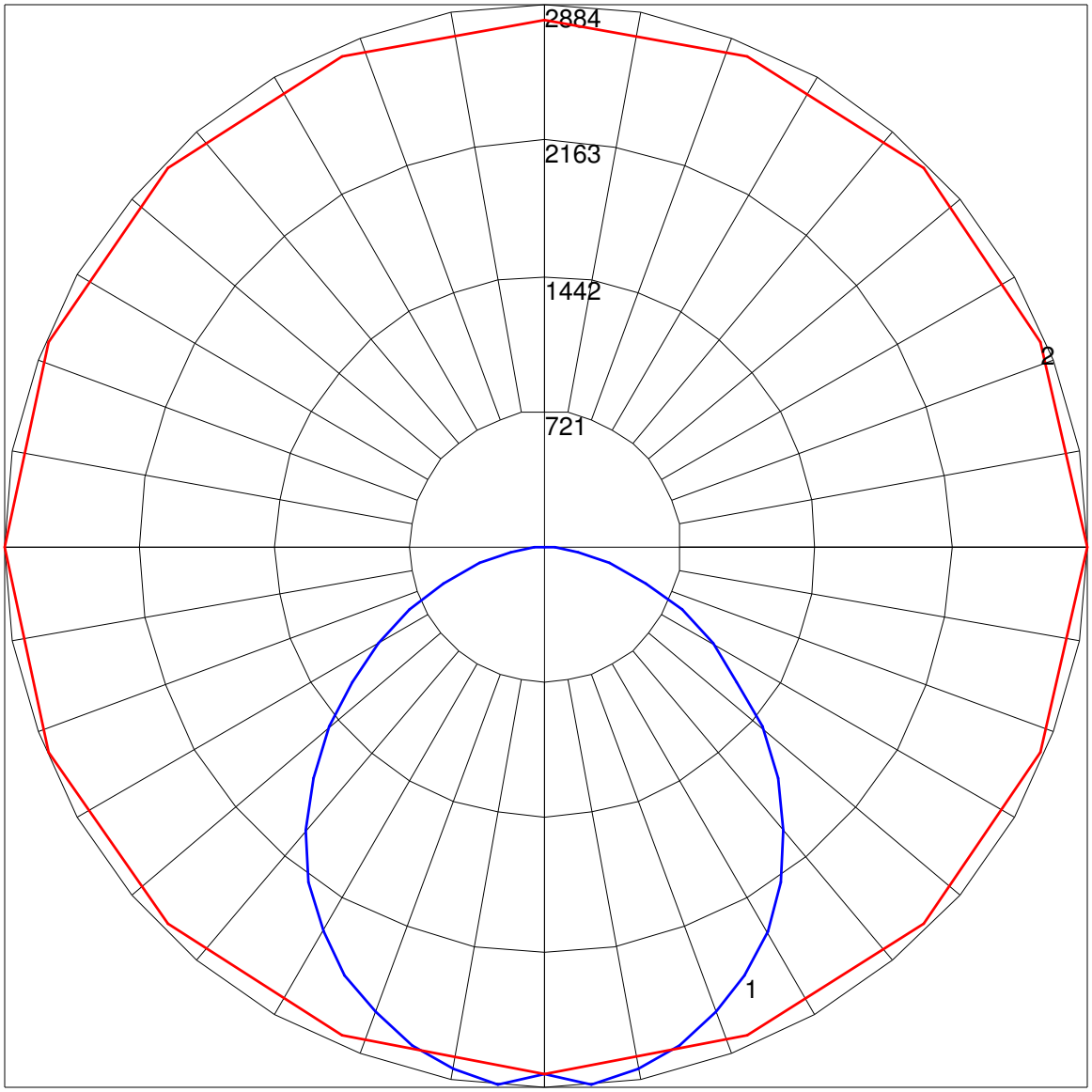
POLAR GRAPH



Maximum Candela = 2883.863 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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