H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L38-835-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] 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-L38-835-RA-DIM-UNV
[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	3763
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	120
Total Luminaire Watts	31.4
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	1614	1703	1790
55	1447	1583	1710
65	1271	1506	1712
75	984	1511	1871
85	594	1983	2272

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1439.642	1439.642	1439.642	1439.642	1439.642
5	1417.659	1415.705	1415.705	1410.820	1408.377
10	1413.262	1413.262	1415.705	1417.659	1417.659
15	1376.135	1378.090	1380.532	1383.952	1386.394
20	1285.272	1290.158	1296.020	1303.836	1306.278
25	1212.484	1216.881	1228.605	1238.864	1243.749
30	1062.511	1029.781	1163.633	1125.041	1119.179
35	979.953	989.235	1011.218	1029.781	1037.109
40	871.992	883.716	908.142	932.567	941.849
45	796.761	807.020	840.727	871.992	883.716
50	692.220	708.341	745.468	778.198	789.434
55	579.374	596.960	634.087	671.214	684.892
60	472.390	490.954	532.965	571.069	585.236
65	375.176	399.602	444.545	489.000	505.120
70	276.497	305.319	358.567	405.464	421.585
75	177.818	213.479	273.078	320.463	338.050
80	97.702	144.111	212.502	258.911	273.078
85	36.150	82.558	120.662	135.806	138.249
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	521.87	N.A.	13.90
0-30	1081.57	N.A.	28.70
0-40	1712.5	N.A.	45.50
0-60	2924.58	N.A.	77.70
0-80	3650.56	N.A.	97.00
0-90	3763.1	N.A.	100.00
10-90	3627.77	N.A.	96.40
20-40	1190.63	N.A.	31.60
20-50	1834.17	N.A.	48.70
40-70	1650.97	N.A.	43.90
60-80	725.98	N.A.	19.30
70-80	287.09	N.A.	7.60
80-90	112.54	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	3763.1	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	135.33
10-20	386.54
20-30	559.70
30-40	630.93
40-50	643.53
50-60	568.55
60-70	438.89
70-80	287.09
80-90	112.54
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	13.0	14.6	13.3	14.9	15.2	14.0	15.6	14.3	15.9	16.2
	3H	14.6	16.1	15.0	16.4	16.8	16.1	17.6	16.5	18.0	18.3
	4H	15.2	16.6	15.6	16.9	17.3	17.1	18.5	17.5	18.9	19.3
	6H	15.5	16.9	16.0	17.2	17.6	18.2	19.5	18.6	19.8	20.2
	8H	15.7	16.9	16.1	17.3	17.7	18.6	19.8	19.0	20.2	20.6
	12H	15.7	16.9	16.2	17.3	17.7	18.9	20.1	19.4	20.5	20.9
4H	2H	13.7	15.1	14.1	15.5	15.9	14.5	15.9	14.9	16.3	16.6
	3H	15.6	16.8	16.1	17.2	17.6	17.0	18.2	17.4	18.6	19.0
	4H	16.3	17.4	16.8	17.8	18.3	18.1	19.2	18.6	19.6	20.1
	6H	16.9	17.8	17.3	18.3	18.7	19.4	20.3	19.8	20.8	21.2
	8H	17.0	17.9	17.5	18.4	18.8	19.9	20.8	20.4	21.2	21.7
	12H	17.2	18.0	17.7	18.4	18.9	20.3	21.1	20.8	21.6	22.1
8H	4H	16.9	17.8	17.4	18.3	18.7	18.5	19.4	18.9	19.8	20.3
	6H	17.7	18.4	18.2	18.9	19.4	19.9	20.7	20.4	21.2	21.6
	8H	18.0	18.6	18.5	19.1	19.6	20.6	21.3	21.1	21.8	22.2
	12H	18.2	18.8	18.7	19.3	19.8	21.2	21.7	21.7	22.2	22.8
12H	4H	17.1	17.9	17.6	18.4	18.8	18.5	19.3	19.0	19.8	20.3
	6H	17.9	18.6	18.5	19.1	19.6	20.0	20.7	20.6	21.2	21.7
	8H	18.3	18.9	18.8	19.4	20.0	20.8	21.3	21.3	21.8	22.4

Maximum UGR = 22.8

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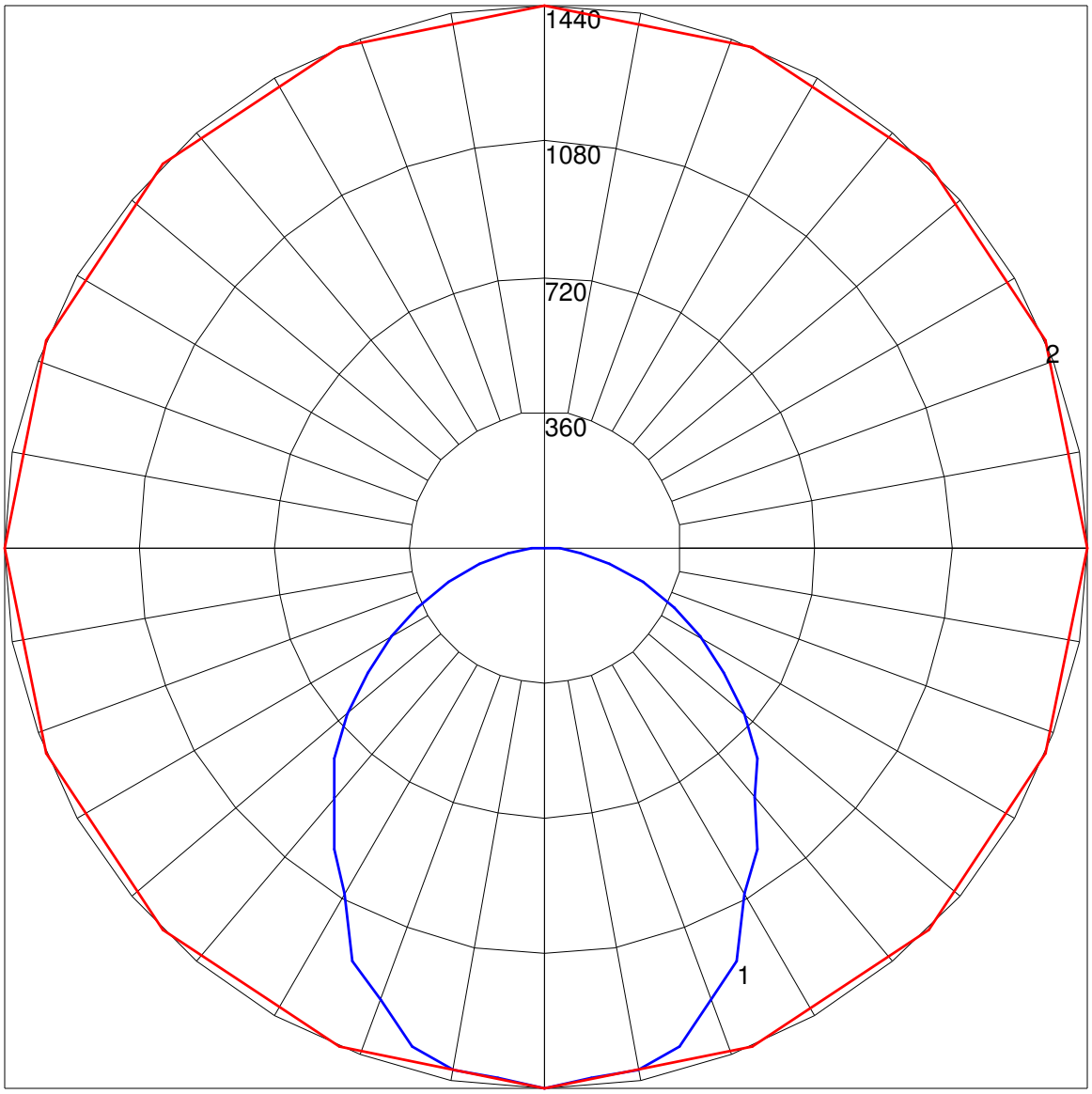
POLAR GRAPH



Maximum Candela = 1439.642 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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