H.E. WILLIAMS, INC.

IES INDOOR REPORT
PHOTOMETRIC FILENAME : PTDC-24-L49-835-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-L49-835-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	4928
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	37.2
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	2113	2230	2344
55	1894	2073	2240
65	1665	1973	2242
75	1289	1979	2450
85	778	2597	2975

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0
0	1885.345	1885.345	1885.345	1885.345	1885.345
5	1856.557	1853.998	1853.998	1847.600	1844.401
10	1850.799	1850.799	1853.998	1856.557	1856.557
15	1802.178	1804.737	1807.936	1812.414	1815.613
20	1683.184	1689.582	1697.259	1707.495	1710.693
25	1587.861	1593.619	1608.973	1622.408	1628.805
30	1391.458	1348.595	1523.886	1473.346	1465.669
35	1283.340	1295.495	1324.284	1348.595	1358.191
40	1141.955	1157.309	1189.297	1221.284	1233.439
45	1043.433	1056.868	1101.011	1141.955	1157.309
50	906.527	927.639	976.260	1019.123	1033.837
55	758.744	781.775	830.396	879.017	896.931
60	618.639	642.949	697.968	747.869	766.421
65	491.329	523.316	582.173	640.390	661.502
70	362.099	399.844	469.577	530.993	552.105
75	232.869	279.571	357.621	419.676	442.707
80	127.950	188.726	278.292	339.068	357.621
85	47.342	108.118	158.018	177.851	181.049
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	683.43	N.A.	13.90
0-30	1416.41	N.A.	28.70
0-40	2242.68	N.A.	45.50
0-60	3830.01	N.A.	77.70
0-80	4780.75	N.A.	97.00
0-90	4928.12	N.A.	100.00
10-90	4750.9	N.A.	96.40
20-40	1559.25	N.A.	31.60
20-50	2402.01	N.A.	48.70
40-70	2162.1	N.A.	43.90
60-80	950.73	N.A.	19.30
70-80	375.97	N.A.	7.60
80-90	147.38	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	4928.12	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	177.22
10-20	506.21
20-30	732.98
30-40	826.27
40-50	842.77
50-60	744.56
60-70	574.76
70-80	375.97
80-90	147.38
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	13.8	15.5	14.2	15.8	16.1	14.9	16.5	15.2	16.8	17.1
	3H	15.5	17.0	15.9	17.3	17.7	17.0	18.5	17.4	18.9	19.2
	4H	16.1	17.5	16.5	17.8	18.2	18.0	19.4	18.4	19.8	20.2
	6H	16.4	17.8	16.9	18.1	18.5	19.1	20.4	19.5	20.7	21.1
	8H	16.6	17.8	17.0	18.2	18.6	19.5	20.7	19.9	21.1	21.5
	12H	16.6	17.8	17.1	18.2	18.6	19.8	21.0	20.3	21.4	21.8
4H	2H	14.6	16.0	15.0	16.4	16.8	15.4	16.8	15.8	17.2	17.5
	3H	16.5	17.7	17.0	18.1	18.5	17.9	19.1	18.3	19.5	19.8
	4H	17.2	18.3	17.7	18.7	19.2	19.0	20.1	19.5	20.5	21.0
	6H	17.8	18.7	18.2	19.2	19.6	20.3	21.2	20.7	21.7	22.1
	8H	17.9	18.8	18.4	19.3	19.7	20.8	21.7	21.3	22.1	22.6
	12H	18.1	18.9	18.6	19.3	19.8	21.2	22.0	21.7	22.5	23.0
8H	4H	17.8	18.7	18.3	19.2	19.6	19.4	20.3	19.8	20.7	21.2
	6H	18.6	19.3	19.1	19.8	20.3	20.8	21.6	21.3	22.1	22.5
	8H	18.9	19.5	19.4	20.0	20.5	21.5	22.2	22.0	22.7	23.1
	12H	19.1	19.7	19.6	20.2	20.7	22.1	22.6	22.6	23.1	23.7
12H	4H	18.0	18.8	18.5	19.3	19.7	19.4	20.2	19.9	20.7	21.2
	6H	18.8	19.5	19.4	20.0	20.5	20.9	21.6	21.5	22.1	22.6
	8H	19.2	19.8	19.7	20.3	20.9	21.7	22.2	22.2	22.7	23.3

Maximum UGR = 23.7

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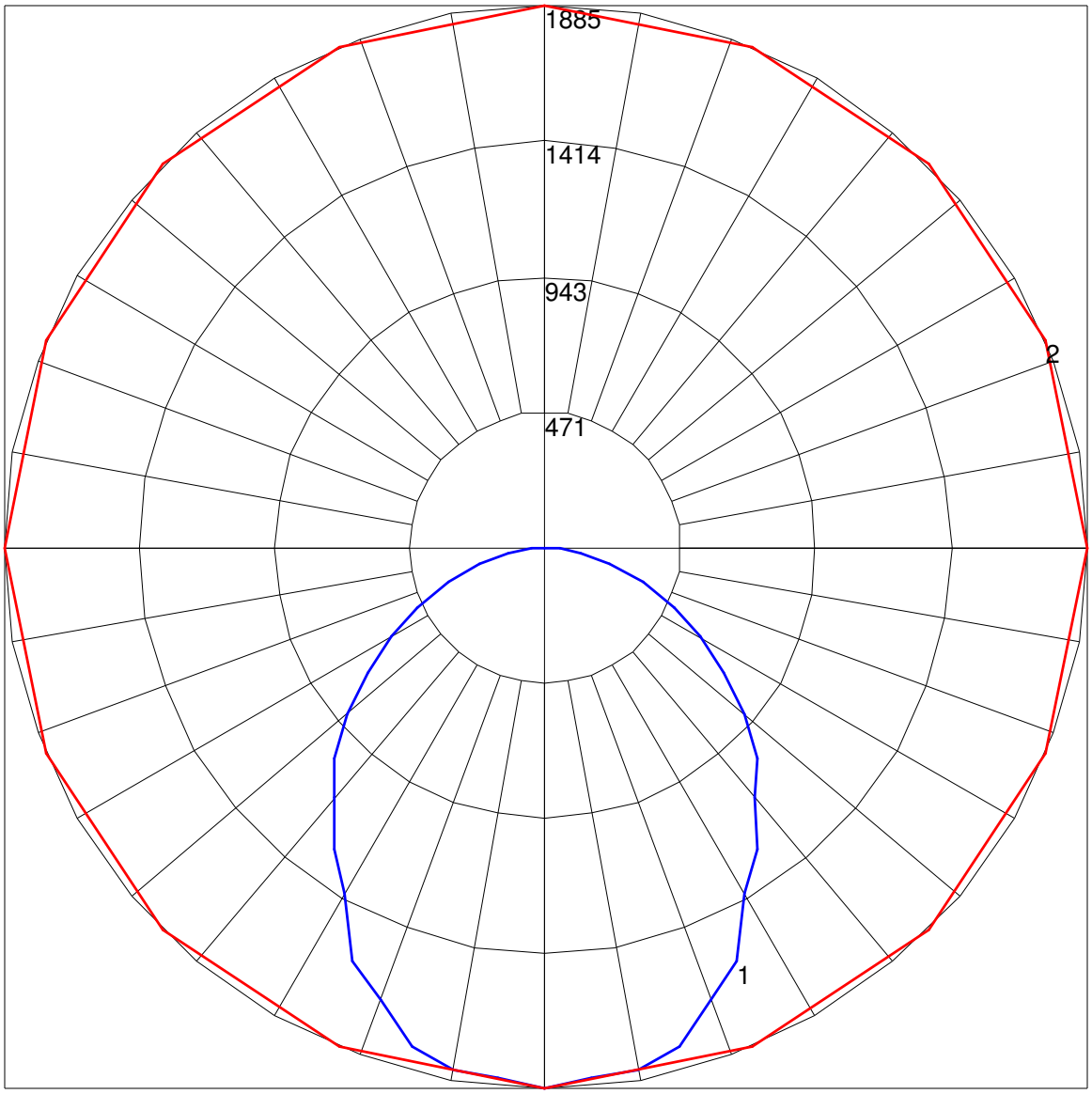
POLAR GRAPH



Maximum Candela = 1885.345 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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