



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-4-L62-835-PCFR-(L46)-EM10W-DIM-UNV_(EM MODE).IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 20009.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUE DATE] 06-12-2023
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 2-56 LED 22"ARRAYS 4'VAPORTITE LUMINAIRE
 [MORE] WHITE FLAT REFLECTOR w/PCFR LENS
 [MORE] EVERLINE LED DRIVER #D15CC55UNVTW-C @ 1029mA
 [LUMCAT] 96-4-L62-835-PCFR-(L46)-EM10W-DIM-UNV
 [LAMPCAT] HLM 80 CRI 3500K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1470
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	147
Total Luminaire Watts	10
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.30
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.25 ft
Luminous Width (90-270)	0.50 ft
Luminous Height	0.17 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2007	1674	1686
55	1712	1468	1559
65	1362	1264	1417
75	938	1060	1256
85	301	886	1104

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	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	513.850	513.850	513.850	513.850	513.850
5	521.855	511.098	507.095	505.344	504.593
10	512.349	502.342	497.088	492.335	491.835
15	498.839	487.832	482.328	478.826	476.824
20	477.325	464.316	462.064	452.808	452.558
25	448.555	437.047	432.794	428.792	427.791
30	414.782	406.527	401.523	399.021	399.021
35	376.756	371.753	365.999	369.501	371.002
40	334.478	332.726	330.725	340.482	342.733
45	291.448	292.699	295.701	310.711	314.214
50	248.169	252.922	263.179	281.441	287.446
55	204.889	214.896	229.156	252.172	260.928
60	163.361	175.870	196.884	222.902	231.908
65	123.334	138.844	165.363	194.883	203.138
70	87.810	106.573	135.592	166.363	173.118
75	55.037	77.052	107.573	137.343	144.348
80	26.768	52.035	83.057	109.825	115.579
85	7.505	31.772	61.292	85.808	91.562
90	2.252	19.263	46.031	66.295	74.050
95	2.001	12.759	35.274	54.287	61.542
100	1.751	7.505	27.519	44.280	50.785
105	0.751	3.002	19.763	34.774	41.028
110	0.751	0.751	14.010	26.768	32.772
115	0.500	0.250	8.756	19.763	25.017
120	0.000	0.000	3.502	13.509	18.262
125	0.000	0.000	0.751	7.755	12.258
130	0.000	0.000	0.000	3.252	6.755
135	0.000	0.000	0.000	0.500	2.252
140	0.000	0.000	0.000	0.250	0.250
145	0.000	0.000	0.000	0.000	0.000
150	0.000	0.000	0.000	0.000	0.000
155	0.000	0.000	0.000	0.000	0.000
160	0.000	0.000	0.000	0.000	0.000
165	0.000	0.000	0.000	0.000	0.000
170	0.000	0.000	0.000	0.000	0.000
175	0.000	0.000	0.000	0.000	0.000
180	0.000	0.000	0.000	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	184.47	N.A.	12.50
0-30	384.37	N.A.	26.10
0-40	616.09	N.A.	41.90
0-60	1056.36	N.A.	71.90
0-80	1333.00	N.A.	90.70
0-90	1397.24	N.A.	95.00
10-90	1348.96	N.A.	91.80
20-40	431.63	N.A.	29.40
20-50	663.94	N.A.	45.20
40-70	604.78	N.A.	41.10
60-80	276.64	N.A.	18.80
70-80	112.13	N.A.	7.60
80-90	64.24	N.A.	4.40
90-110	58.32	N.A.	4.00
90-120	68.75	N.A.	4.70
90-130	72.26	N.A.	4.90
90-150	72.79	N.A.	5.00
90-180	72.79	N.A.	5.00
110-180	14.47	N.A.	1.00
0-180	1470.03	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	48.28
10-20	136.19
20-30	199.90
30-40	231.72
40-50	232.32
50-60	207.95
60-70	164.51
70-80	112.13
80-90	64.24
90-100	37.08
100-110	21.24
110-120	10.43
120-130	3.51
130-140	0.51
140-150	0.02
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	118	118	118	118	115	115	115	115	108	108	108	103	103	103	97	97	97	95
1	107	101	97	92	103	99	94	90	93	90	87	89	86	83	84	82	80	77
2	97	88	81	75	94	86	79	74	81	76	71	77	73	69	74	70	66	64
3	88	77	69	62	85	75	68	61	72	65	60	68	63	58	65	60	56	54
4	81	68	60	53	78	67	59	52	64	56	51	61	55	50	58	53	48	46
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	52	47	42	40
6	69	55	46	40	66	54	46	39	52	44	39	50	43	38	47	42	37	35
7	64	50	41	35	62	49	41	35	47	40	34	45	39	34	43	38	33	31
8	59	46	37	31	57	45	37	31	43	36	31	41	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	28	38	32	27	37	31	27	25
10	52	39	31	26	50	38	31	26	37	30	25	36	29	25	34	29	24	23

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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

X=2H	Y=2H	11.8	13.3	12.2	13.7	14.2	14.0	15.6	14.5	16.0	16.4
	3H	13.0	14.4	13.5	14.8	15.3	16.3	17.7	16.8	18.2	18.7
	4H	13.4	14.7	13.8	15.1	15.6	17.4	18.8	17.9	19.2	19.7
	6H	13.5	14.8	14.0	15.2	15.7	18.5	19.7	19.0	20.2	20.7
	8H	13.6	14.7	14.1	15.2	15.7	19.0	20.2	19.5	20.7	21.2
	12H	13.6	14.7	14.1	15.2	15.7	19.5	20.7	20.0	21.1	21.7

UGR Viewed Endwise

4H	2H	12.6	13.9	13.1	14.4	14.9	14.4	15.7	14.9	16.1	16.6
	3H	14.1	15.2	14.6	15.7	16.2	17.0	18.1	17.4	18.6	19.1
	4H	14.6	15.6	15.1	16.1	16.6	18.2	19.2	18.7	19.7	20.3
	6H	14.9	15.8	15.4	16.3	16.9	19.4	20.3	20.0	20.9	21.4
	8H	14.9	15.8	15.4	16.3	16.9	20.1	20.9	20.6	21.4	22.0
	12H	14.9	15.7	15.5	16.3	16.8	20.7	21.5	21.3	22.0	22.6

8H	4H	15.2	16.1	15.7	16.6	17.2	18.4	19.2	18.9	19.8	20.3
	6H	15.7	16.4	16.2	17.0	17.6	19.8	20.5	20.3	21.1	21.7
	8H	15.8	16.5	16.4	17.0	17.6	20.5	21.2	21.1	21.8	22.4
	12H	15.9	16.5	16.5	17.0	17.7	21.4	21.9	21.9	22.5	23.2

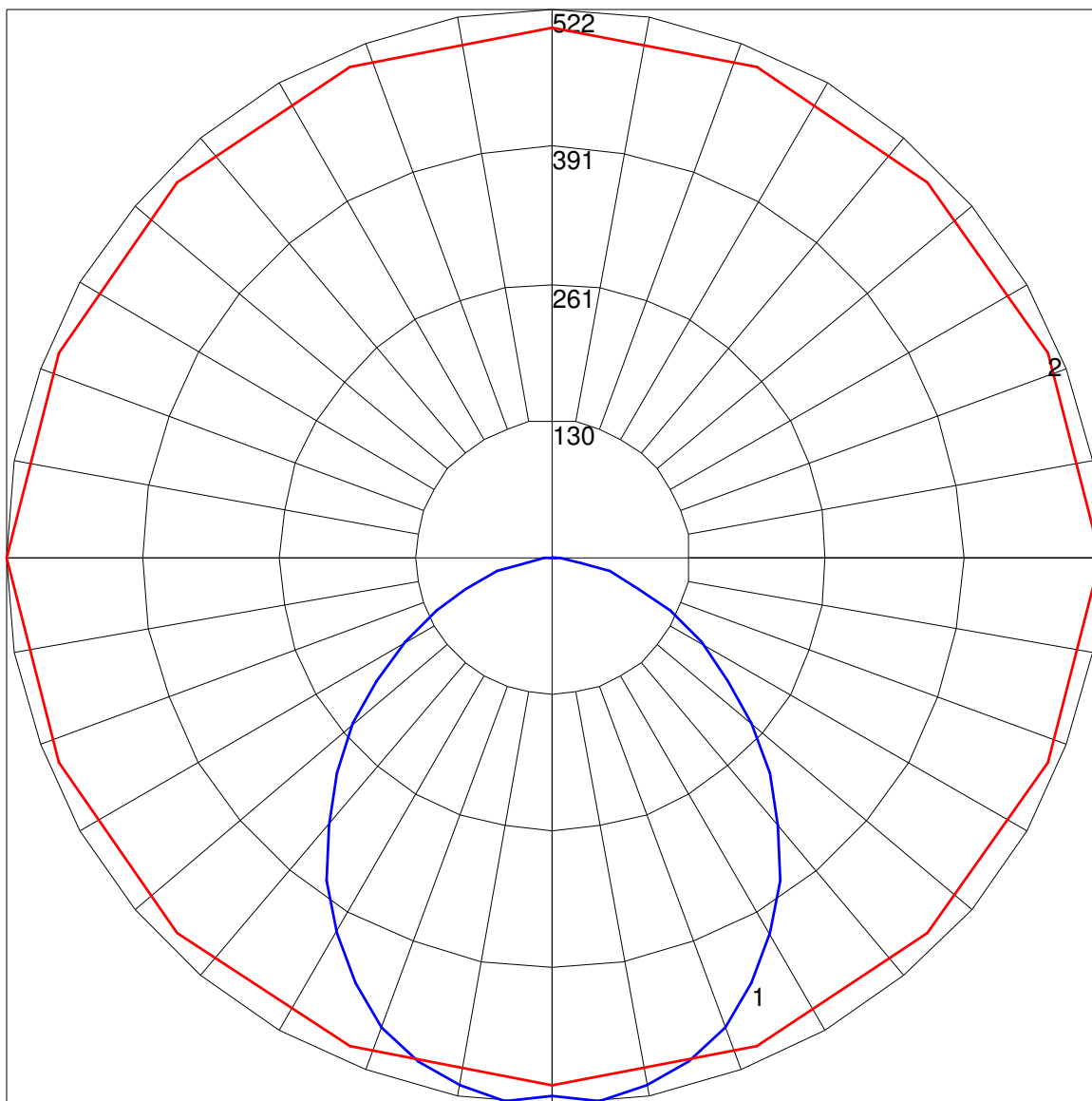
12H	4H	15.4	16.2	15.9	16.7	17.3	18.4	19.1	18.9	19.7	20.3
	6H	15.9	16.6	16.5	17.1	17.8	19.8	20.5	20.4	21.0	21.6
	8H	16.2	16.7	16.7	17.3	18.0	20.6	21.2	21.2	21.8	22.4

Maximum UGR = 23.2

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POLAR GRAPH



Maximum Candela = 521.855 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.)