



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-22-LS-8CS-DIM-UNV_20W_3500K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] GEN FROM BALLABS TEST NO. 20530
[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
[ISSUEDATE] 2025-09-09
[MANUFAC] WILLIAMS INDOOR
[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
[LUMINAIRE] 2x2' ULTRA THIN SEAMLESS FLAT PANEL LIGHT
[MORE] .39" ALUMINUM FRAME w/DIFFUSE LENS
[MORE] 0-10V LED DRIVER
[LUMCAT] BP-22-LS-8CS-DIM-UNV_20W_3500K_
[LAMPCAT] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2442
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	20.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.80 ft
Luminous Width (90-270)	1.80 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2716	2690	2698
55	2592	2554	2573
65	2383	2366	2335
75	2031	1967	1960
85	1181	1054	1076

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CANDELA TABULATION

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>
0	859.695	859.695	859.695	859.695	859.695
5	860.250	858.030	856.365	855.255	854.145
10	849.150	846.930	845.265	843.045	842.490
15	831.390	829.170	826.395	825.285	824.730
20	805.860	804.195	801.975	799.755	799.755
25	774.225	772.560	769.785	768.675	768.675
30	734.820	730.935	732.045	729.270	729.270
35	686.535	683.205	683.760	683.205	683.205
40	636.030	634.365	634.365	633.255	632.145
45	579.975	579.975	574.425	574.425	576.090
50	515.040	515.595	513.375	510.045	511.155
55	448.995	445.665	442.335	445.665	445.665
60	375.180	374.625	372.960	372.405	371.850
65	304.140	302.475	301.920	301.920	298.035
70	228.660	230.325	227.550	224.220	224.220
75	158.730	154.845	153.735	153.735	153.180
80	86.580	88.245	86.580	86.580	84.915
85	31.080	31.080	27.750	27.750	28.305
90	0.000	0.000	0.555	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	314.90	N.A.	12.90
0-30	669.90	N.A.	27.40
0-40	1098.11	N.A.	45.00
0-60	1940.06	N.A.	79.40
0-80	2402.51	N.A.	98.40
0-90	2441.98	N.A.	100.00
10-90	2360.58	N.A.	96.70
20-40	783.20	N.A.	32.10
20-50	1227.58	N.A.	50.30
40-70	1140.05	N.A.	46.70
60-80	462.44	N.A.	18.90
70-80	164.35	N.A.	6.70
80-90	39.48	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	2441.98	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	81.40
10-20	233.50
20-30	355.00
30-40	428.21
40-50	444.38
50-60	397.58
60-70	298.09
70-80	164.35
80-90	39.48
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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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	94	98	94	91	94	91	89	90	88	86	84
2	99	91	84	78	96	89	83	77	85	80	75	82	78	74	79	75	72	70
3	90	80	71	65	88	78	70	64	75	69	63	72	67	62	70	65	61	59
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	47	58	51	46	56	50	46	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

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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	15.5	17.1	15.8	17.4	17.7	15.4	17.1	15.8	17.4	17.7
	3H	17.2	18.7	17.6	19.0	19.4	17.2	18.6	17.5	19.0	19.3
	4H	17.9	19.3	18.3	19.6	20.0	17.8	19.2	18.2	19.5	19.9
	6H	18.3	19.6	18.7	19.9	20.3	18.2	19.5	18.6	19.8	20.2
	8H	18.4	19.6	18.8	20.0	20.4	18.3	19.5	18.7	19.9	20.3
	12H	18.5	19.6	18.9	20.0	20.5	18.3	19.5	18.8	19.9	20.3

UGR Viewed Endwise

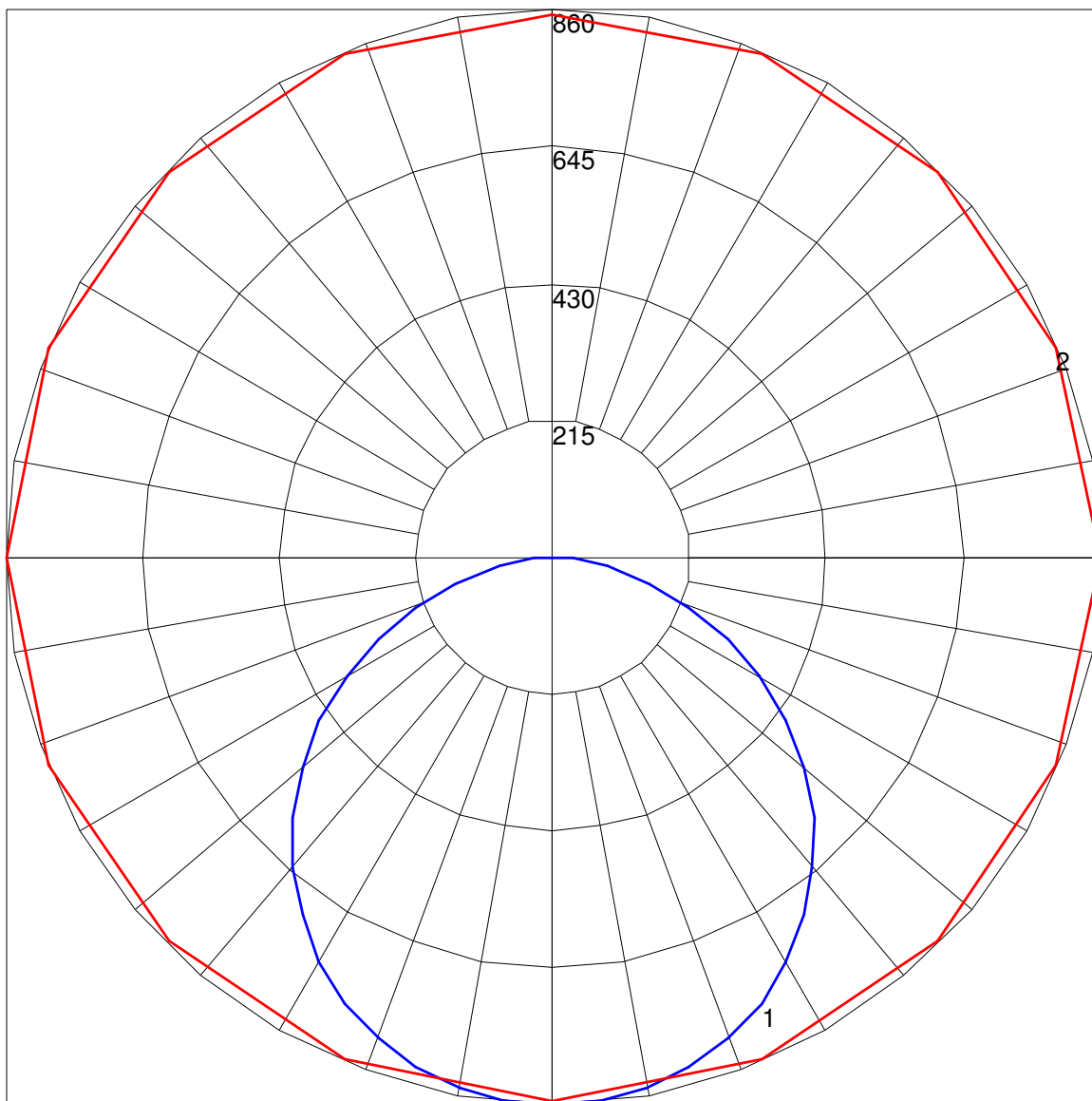
4H	2H	16.1	17.5	16.5	17.8	18.2	16.1	17.5	16.5	17.8	18.2
	3H	18.1	19.2	18.5	19.6	20.0	18.0	19.2	18.4	19.6	20.0
	4H	18.8	19.9	19.2	20.3	20.7	18.7	19.8	19.2	20.2	20.6
	6H	19.3	20.3	19.8	20.7	21.2	19.3	20.2	19.7	20.6	21.1
	8H	19.5	20.4	20.0	20.8	21.3	19.4	20.3	19.9	20.7	21.2
	12H	19.6	20.4	20.1	20.9	21.3	19.5	20.3	20.0	20.8	21.2

8H	4H	19.1	20.0	19.6	20.4	20.9	19.0	19.9	19.5	20.3	20.8
	6H	19.7	20.5	20.2	20.9	21.4	19.6	20.4	20.1	20.9	21.3
	8H	20.0	20.6	20.5	21.1	21.6	19.9	20.5	20.4	21.0	21.5
	12H	20.1	20.7	20.6	21.2	21.7	20.0	20.6	20.5	21.1	21.6

12H	4H	19.1	19.9	19.6	20.4	20.8	19.1	19.8	19.5	20.3	20.8
	6H	19.8	20.4	20.3	20.9	21.4	19.7	20.4	20.2	20.8	21.4
	8H	20.1	20.6	20.6	21.1	21.7	20.0	20.5	20.5	21.0	21.6

Maximum UGR = 21.7

POLAR GRAPH



Maximum Candela = 860.25 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.)