



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-22-LS-8CS-DIM-UNV_20W_4000K_.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_4000K_
[LAMPCAT] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2548
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	19.5
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	2834	2807	2815
55	2705	2665	2685
65	2487	2469	2437
75	2119	2053	2045
85	1232	1100	1122

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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	897.012	897.012	897.012	897.012	897.012
5	897.591	895.275	893.537	892.379	891.221
10	886.009	883.693	881.955	879.639	879.060
15	867.478	865.162	862.266	861.108	860.529
20	840.840	839.103	836.786	834.470	834.470
25	807.832	806.095	803.199	802.041	802.041
30	766.716	762.663	763.821	760.925	760.925
35	716.335	712.861	713.440	712.861	712.861
40	663.638	661.901	661.901	660.743	659.585
45	605.150	605.150	599.359	599.359	601.096
50	537.396	537.975	535.659	532.185	533.343
55	468.485	465.010	461.535	465.010	465.010
60	391.465	390.886	389.149	388.570	387.991
65	317.342	315.605	315.025	315.025	310.972
70	238.585	240.323	237.427	233.953	233.953
75	165.620	161.566	160.408	160.408	159.829
80	90.338	92.075	90.338	90.338	88.601
85	32.429	32.429	28.955	28.955	29.534
90	0.000	0.000	0.579	0.000	0.000

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Zone	Lumens	%Lamp	%Fixt
0-20	328.57	N.A.	12.90
0-30	698.98	N.A.	27.40
0-40	1145.77	N.A.	45.00
0-60	2024.28	N.A.	79.40
0-80	2506.79	N.A.	98.40
0-90	2547.98	N.A.	100.00
10-90	2463.05	N.A.	96.70
20-40	817.20	N.A.	32.10
20-50	1280.86	N.A.	50.30
40-70	1189.54	N.A.	46.70
60-80	482.51	N.A.	18.90
70-80	171.48	N.A.	6.70
80-90	41.19	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	2547.98	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	84.94
10-20	243.63
20-30	370.41
30-40	446.79
40-50	463.66
50-60	414.84
60-70	311.03
70-80	171.48
80-90	41.19
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	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	15.6	17.2	15.9	17.5	17.8	15.5	17.2	15.9	17.5	17.8
	3H	17.3	18.8	17.7	19.1	19.5	17.3	18.7	17.6	19.1	19.4
	4H	18.0	19.4	18.4	19.7	20.1	17.9	19.3	18.3	19.6	20.0
	6H	18.4	19.7	18.8	20.0	20.4	18.3	19.6	18.7	19.9	20.3
	8H	18.5	19.7	18.9	20.1	20.5	18.4	19.6	18.8	20.0	20.4
	12H	18.6	19.7	19.0	20.1	20.6	18.4	19.6	18.9	20.0	20.4

UGR Viewed Endwise

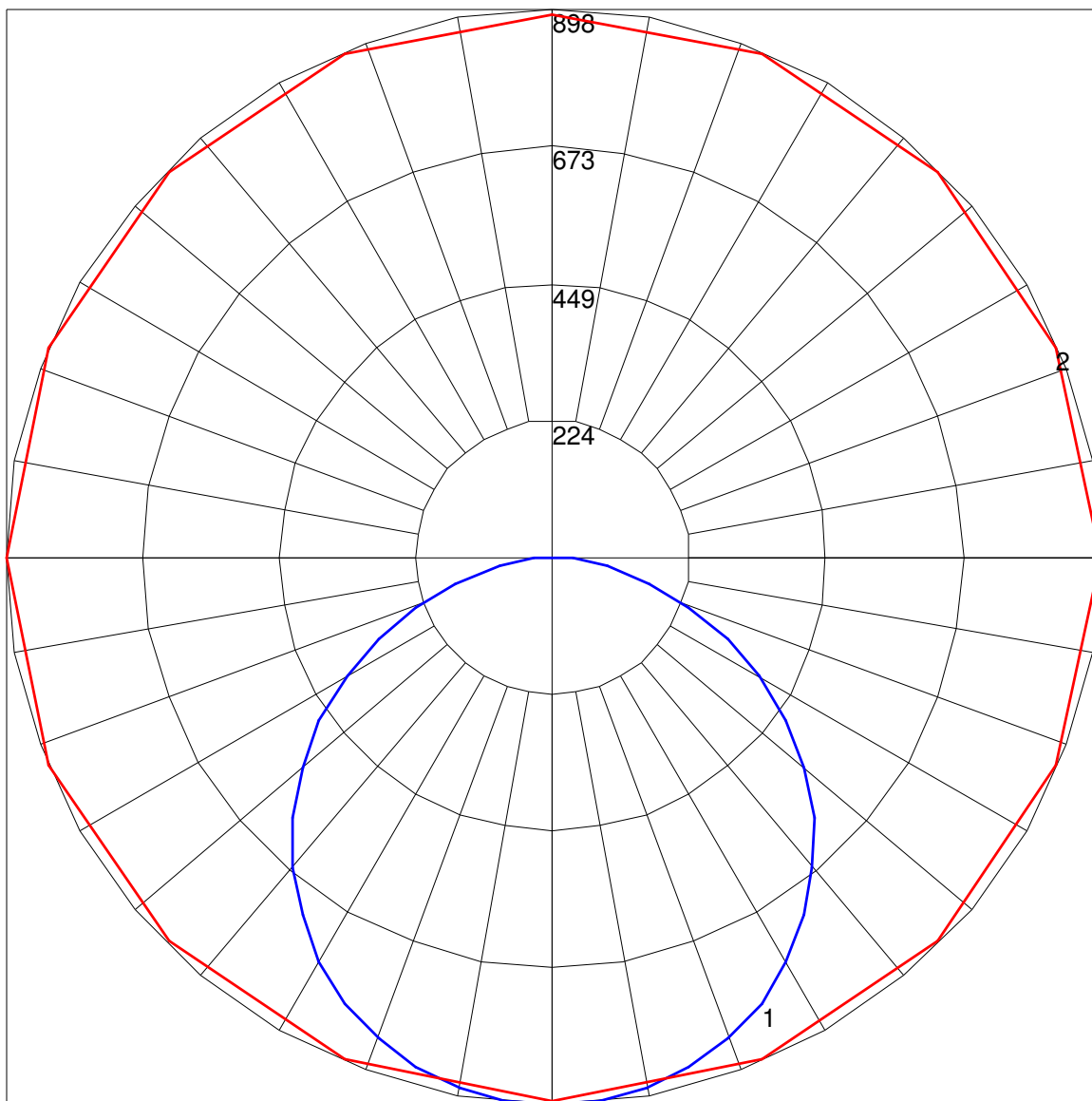
4H	2H	16.2	17.6	16.6	17.9	18.3	16.2	17.6	16.6	17.9	18.3
	3H	18.2	19.3	18.6	19.7	20.1	18.1	19.3	18.5	19.7	20.1
	4H	18.9	20.0	19.3	20.4	20.8	18.8	19.9	19.3	20.3	20.7
	6H	19.4	20.4	19.9	20.8	21.3	19.4	20.3	19.8	20.7	21.2
	8H	19.6	20.5	20.1	20.9	21.4	19.5	20.4	20.0	20.8	21.3
	12H	19.7	20.5	20.2	21.0	21.4	19.6	20.4	20.1	20.9	21.3

8H	4H	19.2	20.1	19.7	20.5	21.0	19.1	20.0	19.6	20.4	20.9
	6H	19.8	20.6	20.3	21.0	21.5	19.7	20.5	20.2	21.0	21.4
	8H	20.1	20.7	20.6	21.2	21.7	20.0	20.6	20.5	21.1	21.6
	12H	20.2	20.8	20.7	21.3	21.8	20.1	20.7	20.6	21.2	21.7

12H	4H	19.2	20.0	19.7	20.5	20.9	19.2	19.9	19.6	20.4	20.9
	6H	19.9	20.5	20.4	21.0	21.5	19.8	20.5	20.3	20.9	21.5
	8H	20.2	20.7	20.7	21.2	21.8	20.1	20.6	20.6	21.1	21.7

Maximum UGR = 21.8

POLAR GRAPH



Maximum Candela = 897.591 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.)