



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-14-LS-8CS-DIM-UNV_20W_3500K_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20531

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 2025-09-09

[MANUFAC] WILLIAMS INDOOR

[OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO

[LUMINAIRE] 1x4 ULTRA THIN SEAMLESS FLAT PANEL LIGHT

[MORE] .39" ALUMINUM FRAME w/PS 1mm DIFFUSE LENS PMMA 2mm LIGHT

[MORE] GUIDE PANEL, LED DRIVER

[LUMCAT] BP-14-LS-8CS-DIM-UNV_20W_3500K_

[LAMPCAT] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2591
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	19.8
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	3.81 ft
Luminous Width (90-270)	0.83 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2907	2936	2948
55	2746	2750	2768
65	2610	2610	2595
75	2206	2159	2174
85	1845	1750	1679

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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	921.164	921.164	921.164	921.164	921.164
5	921.769	921.769	921.769	921.769	921.769
10	910.270	910.875	910.875	911.480	911.480
15	886.665	886.665	887.876	889.086	890.297
20	840.668	840.668	843.694	843.694	845.510
25	817.669	819.485	821.906	824.327	824.327
30	763.198	763.198	765.014	769.250	769.856
35	708.122	708.122	711.753	715.385	716.595
40	657.888	659.703	662.124	663.335	666.361
45	603.417	604.627	609.469	610.680	611.890
50	538.657	539.262	542.288	545.920	545.314
55	462.398	463.003	463.003	464.213	466.029
60	386.138	386.744	386.138	384.928	387.349
65	323.799	323.799	323.799	322.589	321.984
70	245.724	245.724	245.119	245.119	243.303
75	167.649	165.834	164.018	164.018	165.228
80	105.916	105.310	102.890	101.074	102.890
85	47.208	45.998	44.787	43.577	42.972
90	3.026	3.631	3.631	3.026	3.026

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Zone	Lumens	%Lamp	%Fixt
0-20	336.96	N.A.	13.00
0-30	712.45	N.A.	27.50
0-40	1159.28	N.A.	44.70
0-60	2042.03	N.A.	78.80
0-80	2537.47	N.A.	97.90
0-90	2590.96	N.A.	100.00
10-90	2503.36	N.A.	96.60
20-40	822.32	N.A.	31.70
20-50	1289.93	N.A.	49.80
40-70	1199.13	N.A.	46.30
60-80	495.44	N.A.	19.10
70-80	179.06	N.A.	6.90
80-90	53.49	N.A.	2.10
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	2590.96	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	87.60
10-20	249.36
20-30	375.49
30-40	446.83
40-50	467.61
50-60	415.15
60-70	316.38
70-80	179.06
80-90	53.49
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	97	94	91	93	91	88	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	88	78	70	64	75	68	63	72	66	62	69	65	61	59
4	82	70	61	55	80	69	61	54	66	59	54	64	58	53	62	57	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	45	40	50	45	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	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	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	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	15.6	17.2	15.9	17.5	17.8
	3H	17.4	18.9	17.8	19.2	19.6	17.4	18.9	17.8	19.2	19.6
	4H	18.1	19.5	18.5	19.8	20.2	18.1	19.5	18.4	19.8	20.2
	6H	18.6	19.9	19.0	20.3	20.7	18.6	19.8	19.0	20.2	20.6
	8H	18.8	20.0	19.2	20.4	20.8	18.7	20.0	19.1	20.3	20.7
	12H	18.9	20.1	19.3	20.5	20.9	18.8	20.0	19.3	20.4	20.8

UGR Viewed Endwise

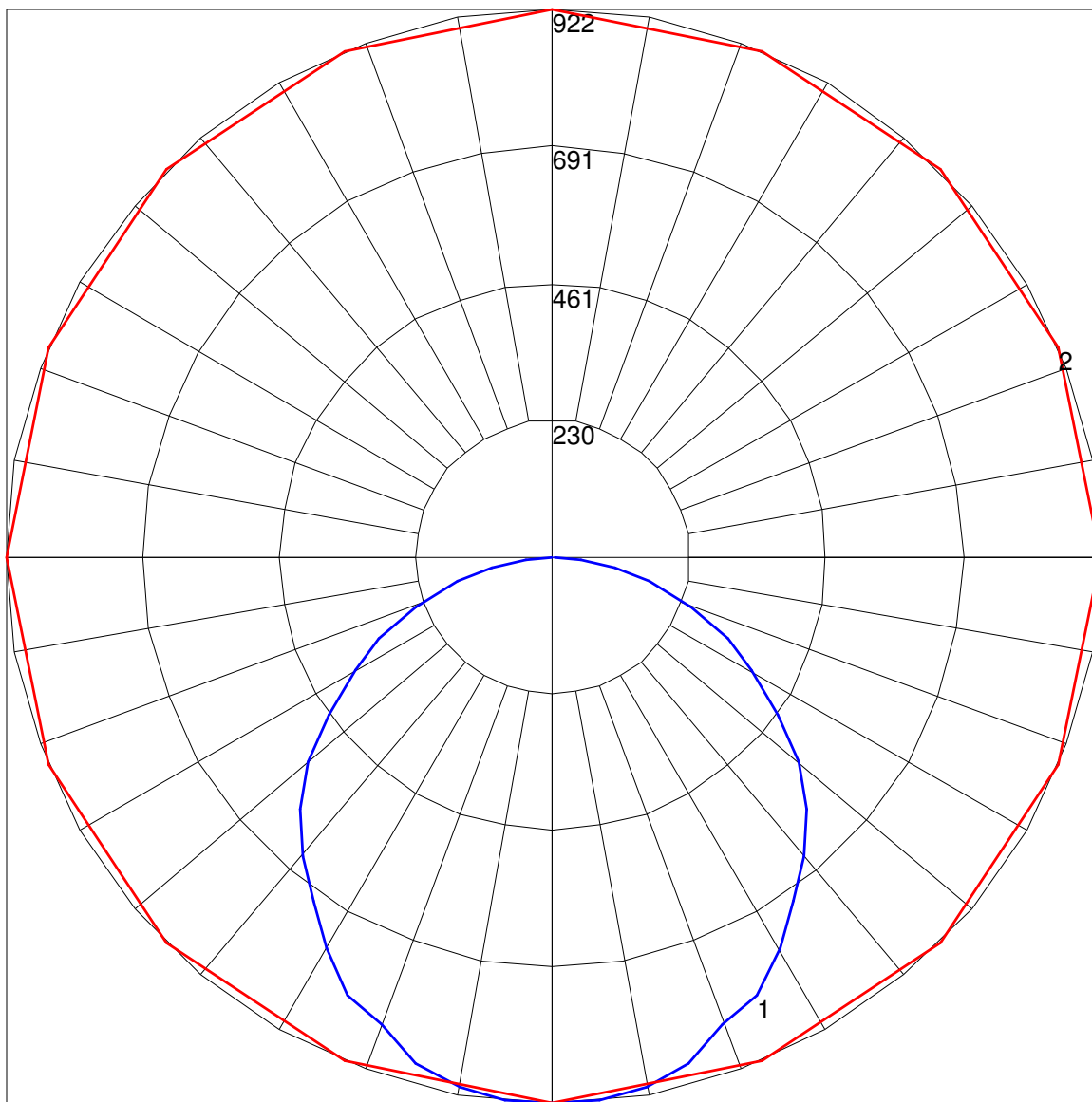
4H	2H	16.2	17.6	16.6	18.0	18.4	16.2	17.6	16.6	18.0	18.4
	3H	18.3	19.5	18.7	19.9	20.3	18.3	19.5	18.7	19.9	20.3
	4H	19.1	20.1	19.5	20.6	21.0	19.1	20.1	19.5	20.5	21.0
	6H	19.7	20.6	20.2	21.1	21.5	19.7	20.6	20.1	21.0	21.5
	8H	19.9	20.8	20.4	21.3	21.7	19.9	20.7	20.3	21.2	21.7
	12H	20.1	20.9	20.6	21.4	21.8	20.0	20.8	20.5	21.3	21.8

8H	4H	19.4	20.2	19.8	20.7	21.2	19.3	20.2	19.8	20.7	21.1
	6H	20.1	20.9	20.6	21.4	21.8	20.1	20.8	20.6	21.3	21.8
	8H	20.4	21.1	21.0	21.6	22.1	20.4	21.0	20.9	21.5	22.0
	12H	20.7	21.3	21.2	21.8	22.3	20.6	21.2	21.1	21.7	22.2

12H	4H	19.4	20.2	19.9	20.7	21.1	19.4	20.2	19.9	20.6	21.1
	6H	20.2	20.9	20.7	21.3	21.9	20.2	20.8	20.7	21.3	21.8
	8H	20.6	21.2	21.1	21.6	22.2	20.5	21.1	21.0	21.6	22.1

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 921.769 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.)