



IES INDOOR REPORT

PHOTOMETRIC FILENAME : BP-14-LS-8CS-DIM-UNV_20W_4000K_.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_4000K_

[LAMPCAT] LED

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2508
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	19.3
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	2814	2842	2853
55	2658	2661	2679
65	2526	2526	2512
75	2136	2089	2105
85	1786	1694	1626

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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	891.655	891.655	891.655	891.655	891.655
5	892.241	892.241	892.241	892.241	892.241
10	881.110	881.696	881.696	882.282	882.282
15	858.262	858.262	859.434	860.606	861.777
20	813.738	813.738	816.667	816.667	818.425
25	791.476	793.233	795.577	797.920	797.920
30	738.750	738.750	740.507	744.608	745.194
35	685.438	685.438	688.953	692.468	693.640
40	636.813	638.571	640.914	642.086	645.015
45	584.087	585.259	589.945	591.117	592.289
50	521.402	521.987	524.917	528.432	527.846
55	447.585	448.171	448.171	449.343	451.100
60	373.769	374.355	373.769	372.597	374.940
65	313.427	313.427	313.427	312.255	311.669
70	237.853	237.853	237.267	237.267	235.509
75	162.279	160.521	158.764	158.764	159.936
80	102.523	101.937	99.594	97.836	99.594
85	45.696	44.524	43.352	42.181	41.595
90	2.929	3.515	3.515	2.929	2.929

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Zone	Lumens	%Lamp	%Fixt
0-20	326.16	N.A.	13.00
0-30	689.63	N.A.	27.50
0-40	1122.14	N.A.	44.70
0-60	1976.62	N.A.	78.80
0-80	2456.19	N.A.	97.90
0-90	2507.96	N.A.	100.00
10-90	2423.17	N.A.	96.60
20-40	795.98	N.A.	31.70
20-50	1248.61	N.A.	49.80
40-70	1160.72	N.A.	46.30
60-80	479.57	N.A.	19.10
70-80	173.32	N.A.	6.90
80-90	51.77	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	2507.96	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	84.79
10-20	241.37
20-30	363.46
30-40	432.51
40-50	452.63
50-60	401.85
60-70	306.24
70-80	173.32
80-90	51.77
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	15.5	17.1	15.8	17.4	17.7	15.5	17.1	15.8	17.4	17.7
	3H	17.3	18.8	17.7	19.1	19.5	17.3	18.8	17.7	19.1	19.5
	4H	18.0	19.4	18.4	19.7	20.1	18.0	19.4	18.3	19.7	20.1
	6H	18.5	19.8	18.9	20.2	20.6	18.5	19.7	18.9	20.1	20.5
	8H	18.7	19.9	19.1	20.3	20.7	18.6	19.9	19.0	20.2	20.6
	12H	18.8	20.0	19.2	20.4	20.8	18.7	19.9	19.2	20.3	20.7

UGR Viewed Endwise

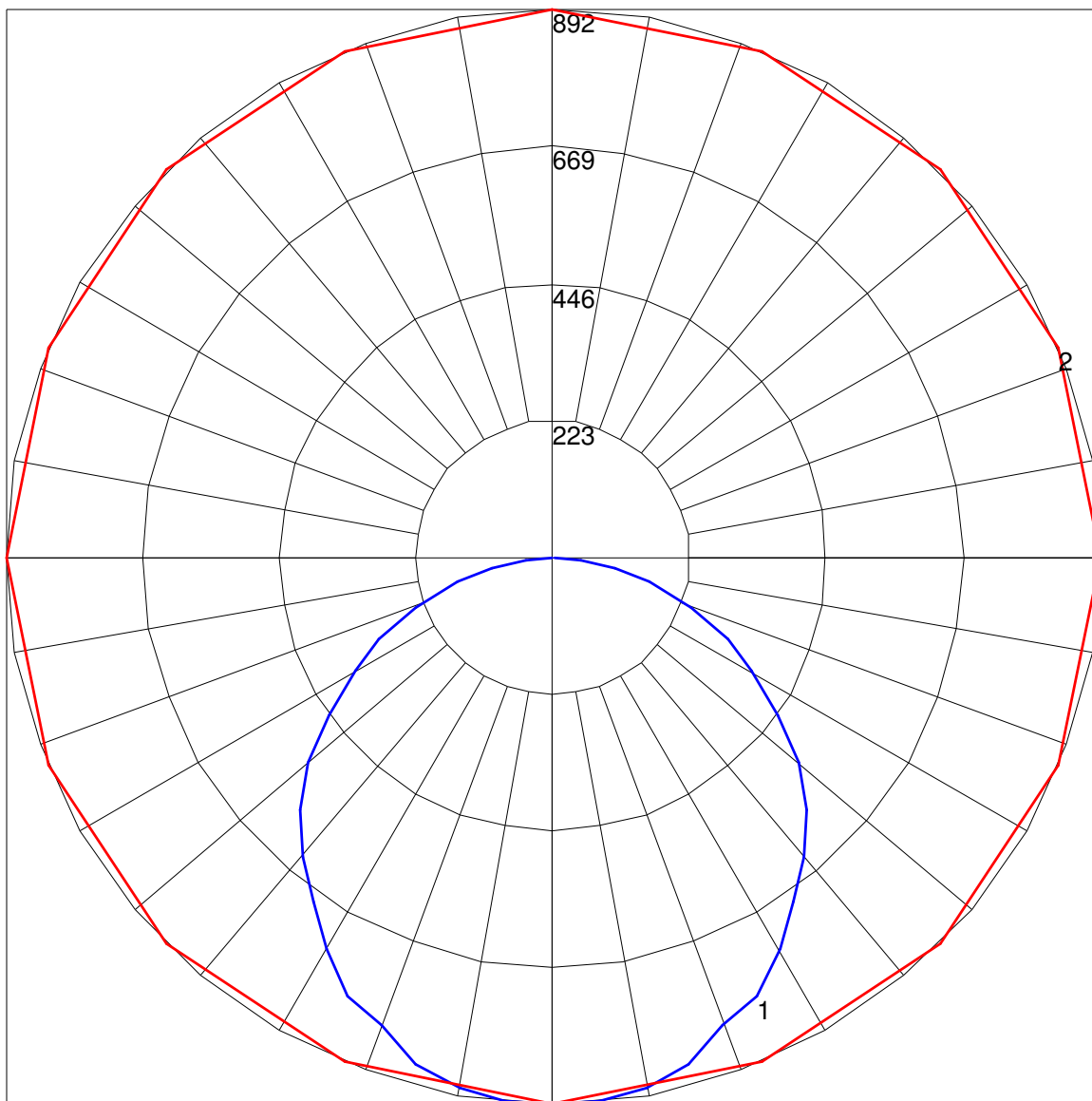
4H	2H	16.1	17.5	16.5	17.9	18.3	16.1	17.5	16.5	17.9	18.3
	3H	18.2	19.4	18.6	19.8	20.2	18.2	19.4	18.6	19.8	20.2
	4H	19.0	20.0	19.4	20.5	20.9	19.0	20.0	19.4	20.4	20.9
	6H	19.6	20.5	20.1	21.0	21.4	19.6	20.5	20.0	20.9	21.4
	8H	19.8	20.7	20.3	21.2	21.6	19.8	20.6	20.2	21.1	21.6
	12H	20.0	20.8	20.5	21.3	21.7	19.9	20.7	20.4	21.2	21.7

8H	4H	19.3	20.1	19.7	20.6	21.1	19.2	20.1	19.7	20.6	21.0
	6H	20.0	20.8	20.5	21.3	21.7	20.0	20.7	20.5	21.2	21.7
	8H	20.3	21.0	20.9	21.5	22.0	20.3	20.9	20.8	21.4	21.9
	12H	20.6	21.2	21.1	21.7	22.2	20.5	21.1	21.0	21.6	22.1

12H	4H	19.3	20.1	19.8	20.6	21.0	19.3	20.1	19.8	20.5	21.0
	6H	20.1	20.8	20.6	21.2	21.8	20.1	20.7	20.6	21.2	21.7
	8H	20.5	21.1	21.0	21.5	22.1	20.4	21.0	20.9	21.5	22.0

Maximum UGR = 22.2

POLAR GRAPH



Maximum Candela = 892.241 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.)