



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 96-8-L80-850-HIAFR-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN FROM BALLABS TEST NO. 20206.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 09/10/2021

[MANUFAC] WILLIAMS INDOOR

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

[LUMINAIRE] 8' ENCLOSED & GASKETED LED LUMINAIRE

[MORE] w/HIAFR RIBBED ACRYLIC DROP LENS

[LUMCAT] 96-8-L80-850-HIAFR-DRV-UNV

[LAMPCAT] HLM 80 CRI 5000K CCT

[_SEARCH_SOURCETYPE] LED

[_SEARCH_APPLICATION] Indoor, Industrial, Manufacturing, Direct, Linear, Hose Down, Wet Location

[_SEARCH_MOUNTING] Surface, Suspended, Wall

[_SEARCH_CLASSIFICATION] IP65, IP66, IP67

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8257
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	135
Total Luminaire Watts	61
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.12
Spacing Criterion (Diagonal)	1.26
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	8.29 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	6701	5040	5110
55	5518	4446	4495
65	4294	3906	3794
75	2882	2932	2917
85	1553	2278	2254

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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	3093.370	3093.370	3093.370	3093.370	3093.370
5	3069.718	3061.271	3046.066	3037.618	3040.997
10	3029.171	3005.519	2976.799	2951.457	2943.010
15	2980.177	2968.351	2919.357	2846.711	2885.569
20	2865.295	2809.544	2757.171	2642.289	2679.457
25	2728.450	2684.525	2593.295	2453.071	2512.202
30	2490.239	2378.736	2277.369	2186.139	2292.574
35	2253.717	2121.940	2049.294	2035.779	2133.766
40	2035.779	1897.244	1865.145	1907.381	1971.580
45	1863.456	1751.952	1718.164	1802.636	1858.387
50	1564.424	1525.567	1525.567	1653.965	1691.132
55	1255.256	1245.119	1334.660	1452.921	1468.126
60	966.361	1010.287	1138.685	1231.604	1233.293
65	729.839	821.069	978.187	1052.523	1060.970
70	498.386	635.231	773.765	837.964	851.479
75	309.168	429.119	565.963	630.162	653.814
80	162.187	288.895	420.671	473.044	498.386
85	64.199	184.149	295.653	342.957	364.920
90	20.273	97.988	180.770	228.075	239.901
95	3.379	64.199	138.534	184.149	197.665
100	0.000	43.926	114.882	153.739	167.255
105	0.000	27.031	91.230	128.398	141.913
110	0.000	20.273	76.025	108.124	116.572
115	0.000	13.516	52.373	82.783	94.609
120	0.000	0.000	38.857	67.578	76.025
125	0.000	0.000	21.963	47.304	52.373
130	0.000	0.000	0.000	35.478	38.857
135	0.000	0.000	0.000	0.000	27.031
140	0.000	0.000	0.000	0.000	0.000
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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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	1105.59	N.A.	13.40
0-30	2284.56	N.A.	27.70
0-40	3604.22	N.A.	43.60
0-60	6178.02	N.A.	74.80
0-80	7670.95	N.A.	92.90
0-90	7958.8	N.A.	96.40
10-90	7669.64	N.A.	92.90
20-40	2498.63	N.A.	30.30
20-50	3864.32	N.A.	46.80
40-70	3496.00	N.A.	42.30
60-80	1492.93	N.A.	18.10
70-80	570.73	N.A.	6.90
80-90	287.84	N.A.	3.50
90-110	222.65	N.A.	2.70
90-120	272.38	N.A.	3.30
90-130	294.42	N.A.	3.60
90-150	298.50	N.A.	3.60
90-180	298.50	N.A.	3.60
110-180	75.84	N.A.	0.90
0-180	8257.29	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	289.16
10-20	816.44
20-30	1178.97
30-40	1319.66
40-50	1365.69
50-60	1208.11
60-70	922.20
70-80	570.73
80-90	287.84
90-100	136.98
100-110	85.67
110-120	49.72
120-130	22.04
130-140	4.08
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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	98	94	104	100	96	92	95	91	88	90	88	85	86	84	82	80
2	98	89	82	76	95	87	81	75	83	78	73	79	75	71	75	72	69	66
3	89	78	70	64	86	77	69	63	73	67	61	70	64	60	67	62	58	56
4	82	70	61	54	79	68	60	54	65	58	52	62	56	51	60	55	50	48
5	75	62	53	47	73	61	53	46	58	51	45	56	50	45	54	48	44	42
6	70	56	47	41	67	55	47	41	53	45	40	51	44	39	49	43	39	37
7	65	51	42	36	63	50	42	36	48	41	35	46	40	35	45	39	34	32
8	60	47	38	32	58	46	38	32	44	37	32	43	36	31	41	35	31	29
9	56	43	35	29	55	42	34	29	41	34	29	39	33	28	38	32	28	26
10	53	40	32	27	51	39	31	26	38	31	26	37	30	26	35	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	15.8	17.3	16.2	17.7	18.1	UGR Viewed Endwise			
	3H	17.0	18.4	17.5	18.8	19.3	17.8	19.4	18.3	19.8
	4H	17.4	18.7	17.8	19.1	19.6	19.9	21.3	20.3	21.7
	6H	17.5	18.8	18.0	19.2	19.7	20.7	22.0	21.2	22.4
	8H	17.6	18.7	18.1	19.2	19.7	21.5	22.7	22.0	23.2
	12H	17.6	18.7	18.0	19.1	19.7	21.9	23.1	22.4	23.5
							22.3	23.4	22.8	23.9

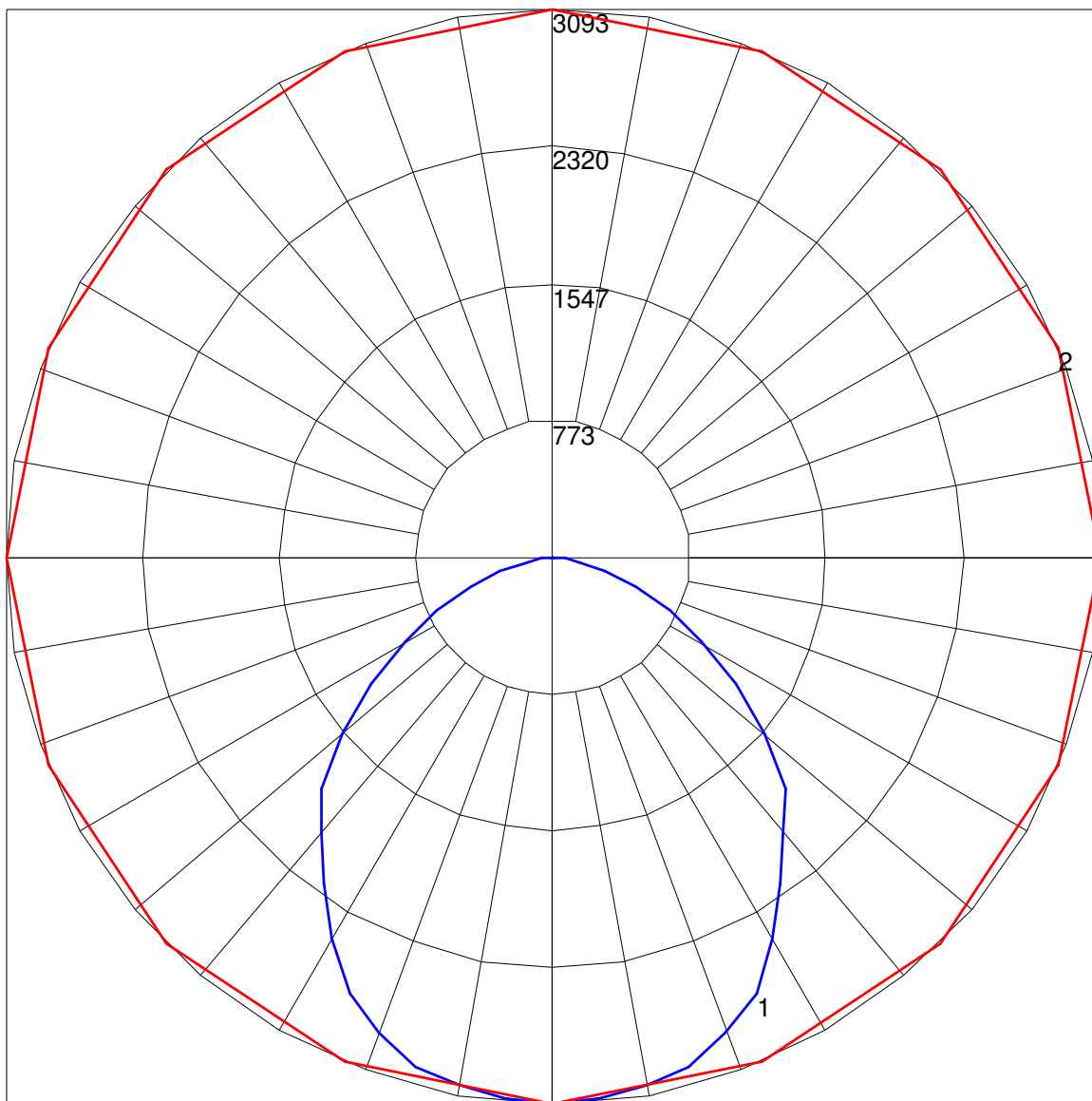
4H	2H	16.6	17.9	17.1	18.4	18.8	18.2	19.6	18.7	20.0
	3H	18.1	19.2	18.6	19.7	20.2	20.5	21.6	21.0	22.1
	4H	18.6	19.6	19.1	20.1	20.6	21.4	22.5	21.9	22.9
	6H	18.8	19.7	19.4	20.2	20.8	22.4	23.3	22.9	23.8
	8H	18.9	19.7	19.4	20.3	20.8	22.9	23.7	23.4	24.2
	12H	18.9	19.7	19.5	20.2	20.8	23.4	24.1	24.0	24.7

8H	4H	19.1	19.9	19.6	20.4	21.0	21.6	22.5	22.2	23.0
	6H	19.5	20.2	20.1	20.8	21.3	22.7	23.4	23.3	24.0
	8H	19.7	20.3	20.2	20.9	21.4	23.3	23.9	23.9	24.5
	12H	19.7	20.3	20.3	20.9	21.5	23.9	24.5	24.5	25.1

12H	4H	19.2	19.9	19.7	20.5	21.1	21.6	22.4	22.2	22.9
	6H	19.7	20.3	20.3	20.9	21.5	22.8	23.4	23.4	23.9
	8H	19.9	20.5	20.5	21.0	21.7	23.4	23.9	24.0	24.5

Maximum UGR = 25.7

POLAR GRAPH



Maximum Candela = 3093.37 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)