



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80-8-L230-840-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] GEN FROM BALLABS TEST NO. 18635.0
 [TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC
 [ISSUEDATE] 21-SEP-2020
 [MANUFAC] WILLIAMS INDOOR
 [OTHER] H.E. WILLIAMS, INC - CARTHAGE, MO
 [LUMINAIRE] 32 LED 22" ARRAYS 8' INDUSTRIAL LUMINAIRE
 [MORE] WHITE REFLECTOR w/OPEN BOTTOM
 [LUMCAT] 80-8-L230-840-DIM-UNV
 [LAMPCAT] 80 CRI 4000K CCT

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	23026
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	158
Total Luminaire Watts	146.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.22
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	8.00 ft
Luminous Width (90-270)	0.88 ft
Luminous Height	0.00 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	12490	12186	12155
55	12035	11769	11720
65	11463	11209	5992
75	9217	5120	981
85	4141	1812	1359

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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	8652.354	8652.354	8652.354	8652.354	8652.354
5	8549.568	8520.201	8494.504	8527.542	8564.252
10	8377.035	8347.668	8479.821	8501.846	8417.415
15	8182.476	8266.907	8175.134	8109.058	8109.058
20	7936.525	8120.071	7859.435	7819.055	7819.055
25	7617.155	7657.535	7529.053	7507.027	7507.027
30	7209.683	7147.277	7099.555	7073.859	7066.517
35	6776.515	6714.109	6659.045	6651.703	6637.020
40	6299.295	6196.510	6167.142	6156.129	6148.788
45	5748.658	5631.188	5609.163	5601.821	5594.479
50	5106.247	5021.816	4996.119	4988.778	4988.778
55	4493.204	4401.431	4394.089	4375.734	4375.734
60	3795.729	3725.982	3718.640	3703.956	3692.943
65	3153.319	3090.913	3083.571	2375.084	1648.242
70	2408.122	2353.058	1883.181	1277.479	1303.176
75	1552.798	1552.798	862.666	745.196	165.191
80	822.286	532.283	150.508	124.811	124.811
85	234.939	124.811	102.786	77.089	77.089
90	0.000	0.000	0.000	0.000	0.000

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	3123.29	N.A.	13.60
0-30	6604.77	N.A.	28.70
0-40	10783.64	N.A.	46.80
0-60	19046.66	N.A.	82.70
0-80	22875.78	N.A.	99.30
0-90	23025.64	N.A.	100.00
10-90	22213.71	N.A.	96.50
20-40	7660.34	N.A.	33.30
20-50	11998.24	N.A.	52.10
40-70	10993.33	N.A.	47.70
60-80	3829.12	N.A.	16.60
70-80	1098.81	N.A.	4.80
80-90	149.86	N.A.	0.70
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	23025.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	811.93
10-20	2311.36
20-30	3481.48
30-40	4178.87
40-50	4337.9
50-60	3925.12
60-70	2730.3
70-80	1098.81
80-90	149.86
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	411	411	411	411	402	402	402	402	384	384	384	368	368	368	353	353	353	346
1	379	363	350	337	369	356	343	332	341	331	321	328	319	312	315	309	302	295
2	346	318	296	277	337	312	291	274	300	283	268	289	274	261	278	266	256	248
3	316	280	253	232	307	275	250	229	265	243	225	255	237	221	247	231	218	210
4	289	249	219	197	281	244	217	195	236	212	193	228	207	190	220	202	187	180
5	266	222	192	169	259	218	190	169	211	186	167	204	182	165	198	179	163	156
6	246	200	170	148	239	197	168	147	191	165	146	185	162	145	179	159	143	136
7	228	181	152	131	222	179	150	130	173	148	129	168	145	128	164	143	127	121
8	212	166	137	117	206	163	135	116	159	133	115	154	131	115	150	130	114	107
9	198	152	124	105	193	150	123	105	146	121	104	142	120	103	139	118	103	97
10	185	140	113	95	181	138	112	95	135	111	94	132	110	94	129	108	94	88

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UGR TABLE - CORRECTED

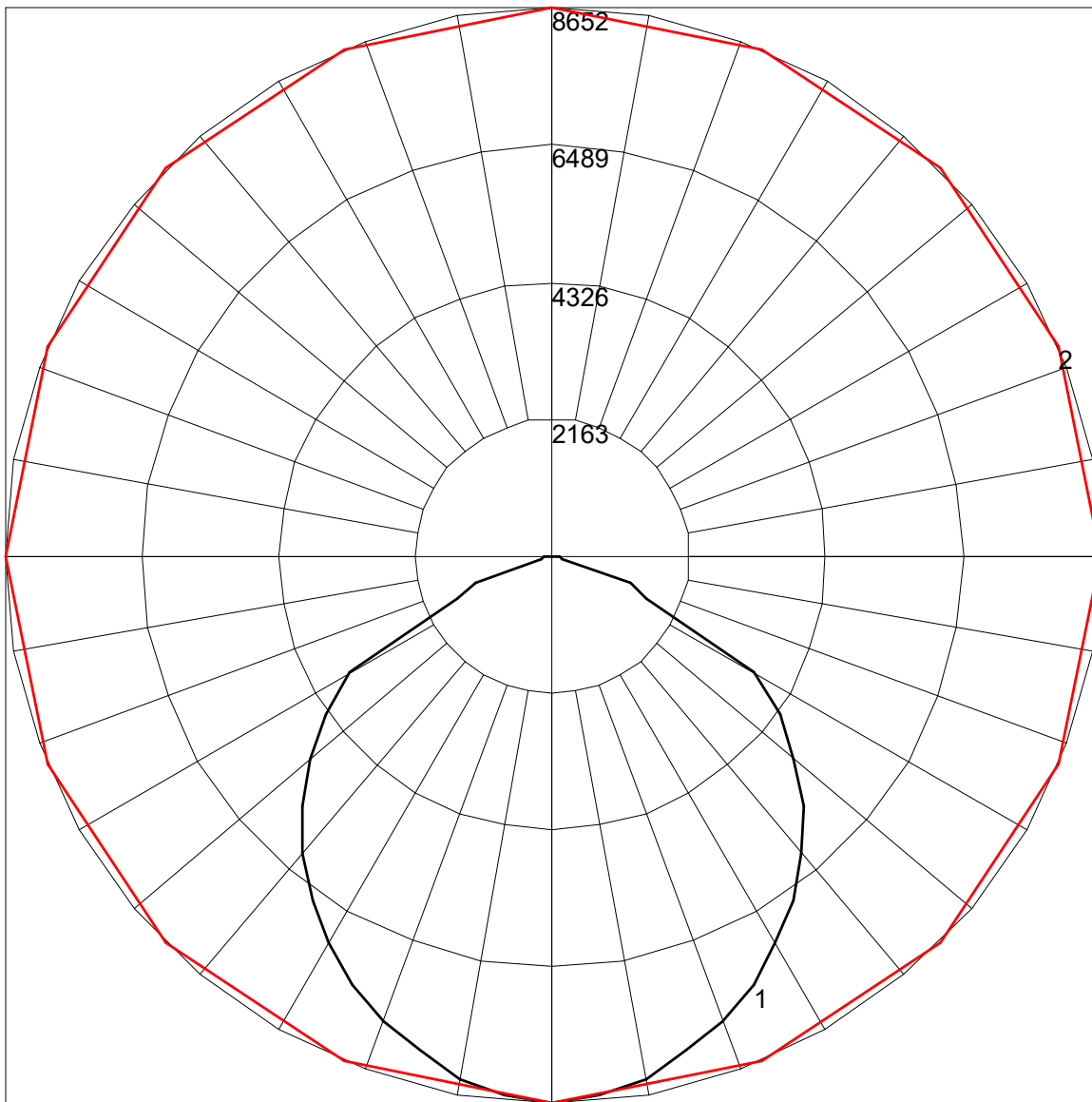
Reflectances

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					UGR Viewed Endwise				
X=2H	Y=2H	16.7	18.3	17.1	18.6	18.9	16.6	18.2	17.0	18.5	18.9
	3H	18.6	20.0	19.0	20.4	20.7	17.3	18.8	17.7	19.1	19.5
	4H	19.2	20.6	19.6	20.9	21.3	17.4	18.7	17.8	19.1	19.4
	6H	19.6	20.8	20.0	21.2	21.6	17.3	18.6	17.7	18.9	19.3
	8H	19.6	20.8	20.1	21.2	21.6	17.3	18.5	17.7	18.9	19.3
	12H	19.7	20.8	20.1	21.2	21.6	17.3	18.4	17.7	18.8	19.2
4H	2H	17.4	18.7	17.8	19.1	19.4	17.3	18.7	17.7	19.0	19.4
	3H	19.4	20.5	19.8	20.9	21.3	18.1	19.3	18.5	19.7	20.1
	4H	20.1	21.1	20.5	21.5	22.0	18.3	19.3	18.7	19.7	20.1
	6H	20.5	21.4	20.9	21.8	22.3	18.2	19.1	18.7	19.6	20.0
	8H	20.6	21.4	21.1	21.9	22.3	18.2	19.0	18.7	19.5	20.0
	12H	20.6	21.4	21.1	21.8	22.3	18.2	18.9	18.7	19.4	19.9
8H	4H	20.1	21.0	20.6	21.4	21.9	18.4	19.3	18.9	19.7	20.2
	6H	20.6	21.2	21.0	21.7	22.2	18.4	19.1	18.9	19.6	20.1
	8H	20.7	21.3	21.2	21.8	22.3	18.4	19.0	18.9	19.5	20.0
	12H	20.7	21.3	21.2	21.8	22.3	18.4	18.9	18.9	19.4	20.0
12H	4H	20.1	20.8	20.6	21.3	21.8	18.4	19.2	18.9	19.6	20.1
	6H	20.5	21.1	21.1	21.6	22.1	18.4	19.0	18.9	19.5	20.0
	8H	20.7	21.2	21.2	21.7	22.2	18.4	18.9	18.9	19.4	20.0

Maximum UGR = 22.3

POLAR GRAPH



Maximum Candela = 8652.354 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)