



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80R-4-L85-840-DIM-UNV_.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] GEN from BALLABS TEST NO. 21046.0

[TESTLAB] BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC

[ISSUEDATE] 18-SEP-2020

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

[LUMINAIRE] 22" LED ARRAY 4' WHITE INDUSTRIAL LUMINAIRE

[MORE] WHITE SIDE REFL w/CENTER 4.5" RADIUS FROST/RIB ACRYLIC LEN

[LUMCAT] 80R-4-L85/840-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8563
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
Total Luminaire Watts	65.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.20
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.36
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	3.98 ft
Luminous Width (90-270)	1.05 ft
Luminous Height	0.21 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	5690	5767	6213
55	4902	5187	5838
65	4014	4578	5302
75	3114	4120	4958
85	1394	3669	4389

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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	2929.906	2929.906	2929.906	2929.906	2929.906
5	2953.159	2907.622	2906.653	2901.808	2903.746
10	2898.902	2861.115	2865.960	2868.866	2871.773
15	2810.733	2774.885	2799.107	2815.578	2821.391
20	2684.778	2661.525	2706.094	2734.191	2751.631
25	2525.881	2521.037	2583.046	2632.459	2646.023
30	2342.762	2357.295	2442.557	2502.628	2521.037
35	2120.888	2160.612	2277.847	2361.171	2395.082
40	1900.951	1947.457	2083.101	2198.398	2237.154
45	1648.072	1730.427	1868.009	2004.622	2048.221
50	1416.509	1494.020	1672.294	1827.316	1864.133
55	1176.226	1267.301	1450.420	1615.130	1671.325
60	958.227	1039.613	1249.861	1418.447	1451.389
65	734.414	837.116	1038.644	1189.790	1242.110
70	549.357	646.246	837.116	1004.733	1046.395
75	374.958	477.660	688.877	820.645	868.120
80	216.061	334.265	539.669	654.966	692.752
85	75.573	214.123	375.927	461.189	485.411
90	1.938	85.262	210.248	280.976	295.510
95	0.000	9.689	57.164	122.079	155.990
100	0.000	4.844	7.751	4.844	12.595
105	0.000	0.000	5.813	3.876	1.938
110	0.000	0.000	3.876	3.876	3.876
115	0.000	0.000	1.938	0.969	0.969
120	0.000	0.000	1.938	0.000	0.000
125	0.000	0.000	0.969	0.000	0.000
130	0.000	0.000	0.000	0.000	0.000
135	0.000	0.000	0.000	0.000	0.000
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	1066.9	N.A.	12.50
0-30	2255.82	N.A.	26.30
0-40	3671.54	N.A.	42.90
0-60	6402.17	N.A.	74.80
0-80	8104.11	N.A.	94.60
0-90	8470.1	N.A.	98.90
10-90	8193.46	N.A.	95.70
20-40	2604.65	N.A.	30.40
20-50	4045.2	N.A.	47.20
40-70	3740.2	N.A.	43.70
60-80	1701.94	N.A.	19.90
70-80	692.37	N.A.	8.10
80-90	366.00	N.A.	4.30
90-110	91.29	N.A.	1.10
90-120	92.44	N.A.	1.10
90-130	92.66	N.A.	1.10
90-150	92.66	N.A.	1.10
90-180	92.66	N.A.	1.10
110-180	1.37	N.A.	0.00
0-180	8562.77	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	276.65
10-20	790.25
20-30	1188.92
30-40	1415.73
40-50	1440.55
50-60	1290.08
60-70	1009.57
70-80	692.37
80-90	366.00
90-100	87.66
100-110	3.63
110-120	1.15
120-130	0.22
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	336	336	336	336	327	327	327	327	312	312	312	298	298	298	285	285	285	279
1	303	289	275	263	295	282	270	259	269	259	250	257	249	242	247	240	234	228
2	275	250	230	213	267	245	226	210	234	218	205	224	211	199	215	204	194	188
3	250	219	195	176	243	215	192	174	206	187	171	197	181	167	190	176	164	158
4	229	194	169	149	222	190	166	148	183	162	145	176	158	143	169	154	141	134
5	211	174	148	128	204	170	146	127	164	142	126	158	139	124	152	136	122	116
6	195	156	131	112	189	153	129	111	148	126	110	143	124	109	138	121	108	102
7	181	142	117	99	175	139	115	98	135	113	97	130	111	97	126	109	96	90
8	168	129	105	88	163	127	104	88	123	102	87	119	100	86	116	99	86	80
9	157	119	95	79	153	117	95	79	113	93	79	110	91	78	107	90	77	72
10	147	110	87	72	144	108	86	72	105	85	71	102	84	71	99	83	70	65

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UGR TABLE - CORRECTED

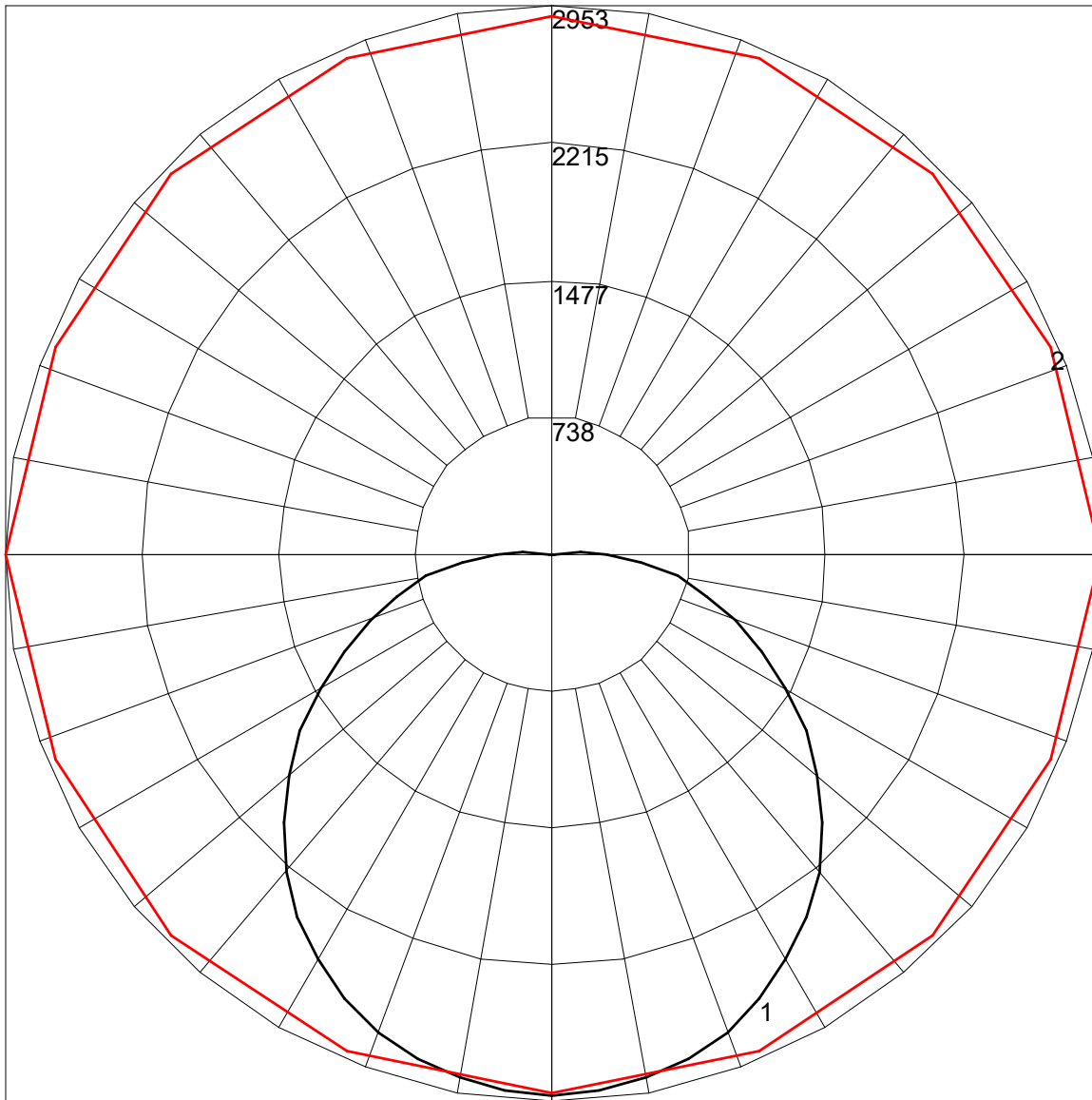
Reflectances

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	12.7	14.3	13.1	14.7	15.0	15.1	16.8	15.5	17.1	17.5
	3H	14.1	15.6	14.5	15.9	16.3	17.3	18.8	17.7	19.1	19.5
	4H	14.6	16.0	15.0	16.3	16.7	18.3	19.7	18.7	20.1	20.5
	6H	14.9	16.2	15.3	16.6	17.0	19.3	20.6	19.7	21.0	21.4
	8H	14.9	16.2	15.4	16.6	17.0	19.7	21.0	20.2	21.4	21.8
	12H	15.0	16.2	15.4	16.6	17.0	20.1	21.3	20.6	21.8	22.2
4H	2H	13.6	15.0	14.0	15.4	15.8	15.6	17.0	16.0	17.3	17.7
	3H	15.3	16.5	15.7	16.9	17.3	18.0	19.2	18.4	19.6	20.0
	4H	15.9	16.9	16.3	17.4	17.8	19.1	20.2	19.6	20.7	21.1
	6H	16.3	17.2	16.7	17.7	18.2	20.3	21.3	20.8	21.7	22.2
	8H	16.4	17.3	16.9	17.8	18.2	20.9	21.8	21.3	22.2	22.7
	12H	16.4	17.3	16.9	17.8	18.3	21.4	22.2	21.9	22.7	23.2
8H	4H	16.6	17.5	17.0	17.9	18.4	19.4	20.3	19.8	20.7	21.2
	6H	17.2	17.9	17.7	18.4	18.9	20.7	21.5	21.2	22.0	22.5
	8H	17.4	18.0	17.9	18.6	19.1	21.4	22.1	21.9	22.6	23.1
	12H	17.5	18.1	18.0	18.6	19.2	22.1	22.7	22.6	23.2	23.8
12H	4H	16.7	17.5	17.2	18.0	18.5	19.4	20.2	19.9	20.7	21.2
	6H	17.4	18.1	18.0	18.6	19.2	20.8	21.5	21.3	21.9	22.5
	8H	17.7	18.3	18.2	18.9	19.4	21.5	22.1	22.0	22.6	23.2

Maximum UGR = 23.8

POLAR GRAPH



Maximum Candela = 2953.159 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (90 - 270)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)