



IES INDOOR REPORT

PHOTOMETRIC FILENAME : 80R-4-L30-835-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] 11-17-2021

[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-L30-835-DIM-UNV

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2940
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	143
Total Luminaire Watts	20.5
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	1954	1980	2133
55	1683	1781	2004
65	1378	1572	1821
75	1069	1415	1702
85	479	1260	1507

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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	1005.971	1005.971	1005.971	1005.971	1005.971
5	1013.955	998.320	997.987	996.324	996.989
10	995.326	982.352	984.015	985.013	986.011
15	965.054	952.745	961.062	966.717	968.713
20	921.808	913.824	929.126	938.773	944.761
25	867.251	865.588	886.878	903.844	908.501
30	804.378	809.368	838.642	859.267	865.588
35	728.198	741.837	782.089	810.698	822.341
40	652.684	668.651	715.224	754.811	768.117
45	565.859	594.135	641.373	688.279	703.248
50	486.352	512.965	574.175	627.401	640.042
55	403.852	435.122	497.996	554.548	573.843
60	329.003	356.947	429.135	487.018	498.328
65	252.158	287.420	356.614	408.509	426.473
70	188.620	221.886	287.420	344.971	359.275
75	128.740	164.003	236.523	281.765	298.066
80	74.184	114.769	185.293	224.880	237.854
85	25.948	73.518	129.073	158.347	166.664
90	0.665	29.274	72.188	96.472	101.462
95	0.000	3.327	19.627	41.915	53.559
100	0.000	1.663	2.661	1.663	4.325
105	0.000	0.000	1.996	1.331	0.665
110	0.000	0.000	1.331	1.331	1.331
115	0.000	0.000	0.665	0.333	0.333
120	0.000	0.000	0.665	0.000	0.000
125	0.000	0.000	0.333	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	366.31	N.A.	12.50
0-30	774.53	N.A.	26.30
0-40	1260.61	N.A.	42.90
0-60	2198.16	N.A.	74.80
0-80	2782.51	N.A.	94.60
0-90	2908.17	N.A.	98.90
10-90	2813.19	N.A.	95.70
20-40	894.29	N.A.	30.40
20-50	1388.9	N.A.	47.20
40-70	1284.18	N.A.	43.70
60-80	584.35	N.A.	19.90
70-80	237.72	N.A.	8.10
80-90	125.66	N.A.	4.30
90-110	31.34	N.A.	1.10
90-120	31.74	N.A.	1.10
90-130	31.82	N.A.	1.10
90-150	31.82	N.A.	1.10
90-180	31.82	N.A.	1.10
110-180	0.47	N.A.	0.00
0-180	2939.99	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	94.99
10-20	271.33
20-30	408.21
30-40	486.08
40-50	494.61
50-60	442.94
60-70	346.63
70-80	237.72
80-90	125.66
90-100	30.10
100-110	1.25
110-120	0.40
120-130	0.08
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	101	101	101	99
1	107	102	97	93	104	100	95	92	95	92	88	91	88	86	87	85	83	81
2	97	89	81	75	95	87	80	74	83	77	72	79	75	71	76	72	69	67
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	54	50	48
5	75	61	52	45	72	60	52	45	58	50	45	56	49	44	54	48	43	41
6	69	55	46	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23

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UGR TABLE - CORRECTED

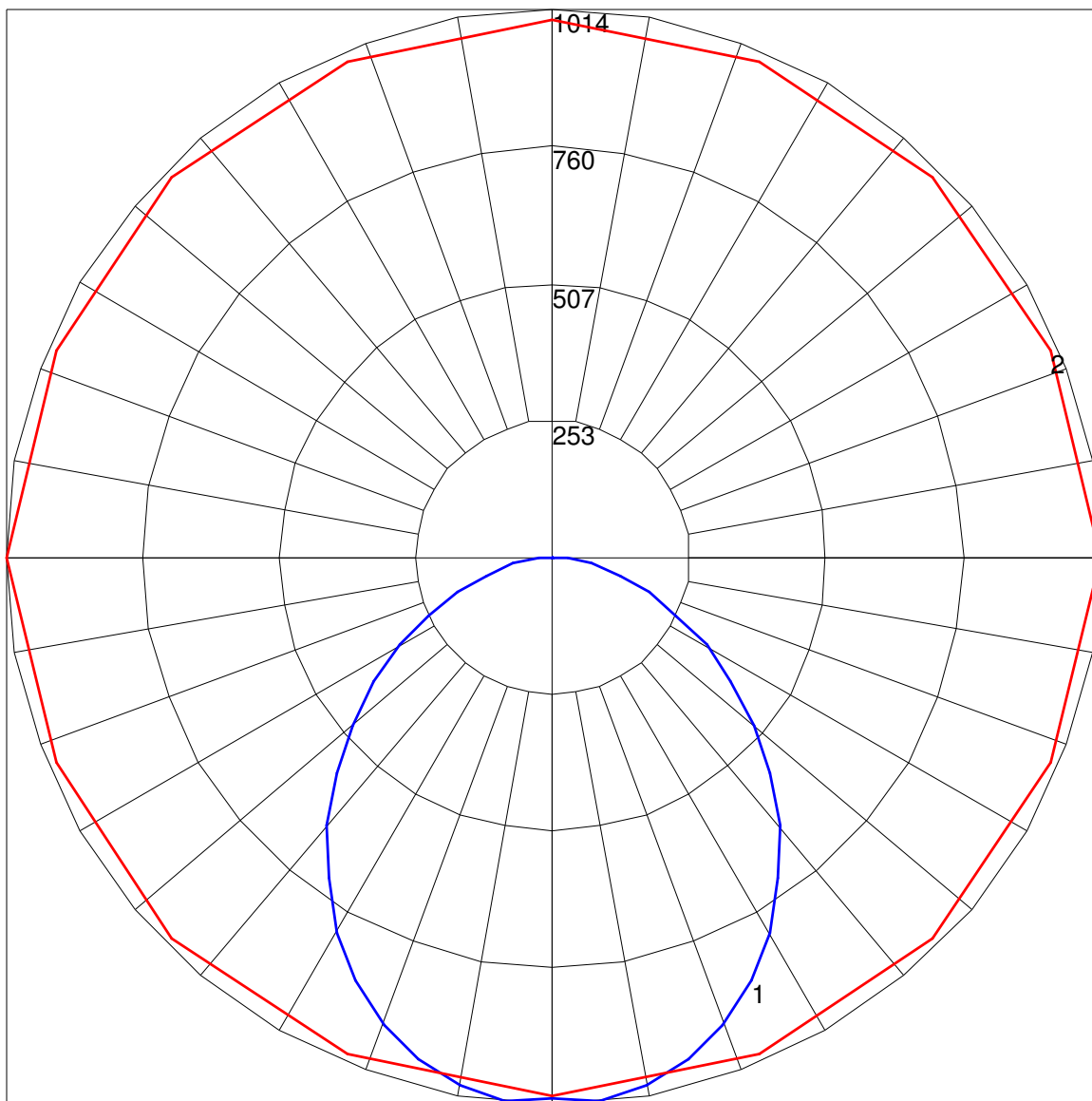
Reflectances

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	12.5	14.1	12.9	14.5	14.8	14.9	16.6	15.3	16.9	17.3
	3H	13.9	15.4	14.3	15.7	16.1	17.1	18.6	17.5	18.9	19.3
	4H	14.4	15.8	14.8	16.1	16.5	18.1	19.5	18.5	19.9	20.3
	6H	14.7	16.0	15.1	16.4	16.8	19.1	20.4	19.5	20.8	21.2
	8H	14.7	16.0	15.2	16.4	16.8	19.5	20.8	20.0	21.2	21.6
	12H	14.8	16.0	15.2	16.4	16.8	19.9	21.1	20.4	21.6	22.0
4H	2H	13.4	14.8	13.8	15.2	15.6	15.4	16.8	15.8	17.1	17.5
	3H	15.1	16.3	15.5	16.7	17.1	17.8	19.0	18.2	19.4	19.8
	4H	15.7	16.7	16.1	17.2	17.6	18.9	20.0	19.4	20.5	20.9
	6H	16.1	17.0	16.5	17.5	18.0	20.1	21.1	20.6	21.5	22.0
	8H	16.2	17.1	16.7	17.6	18.0	20.7	21.6	21.1	22.0	22.5
	12H	16.2	17.1	16.7	17.6	18.1	21.2	22.0	21.7	22.5	23.0
8H	4H	16.4	17.3	16.8	17.7	18.2	19.2	20.1	19.6	20.5	21.0
	6H	17.0	17.7	17.5	18.2	18.7	20.5	21.3	21.0	21.8	22.3
	8H	17.2	17.8	17.7	18.4	18.9	21.2	21.9	21.7	22.4	22.9
	12H	17.3	17.9	17.8	18.4	19.0	21.9	22.5	22.4	23.0	23.6
12H	4H	16.5	17.3	17.0	17.8	18.3	19.2	20.0	19.7	20.5	21.0
	6H	17.2	17.9	17.8	18.4	19.0	20.6	21.3	21.1	21.7	22.3
	8H	17.5	18.1	18.0	18.7	19.2	21.3	21.9	21.8	22.4	23.0

Maximum UGR = 23.6

POLAR GRAPH



Maximum Candela = 1013.955 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.)