



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BAR-22-L20-940-DIM-UNV\_.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] GENERATED FROM 15729805.02  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUEDATE] 2025-05-02  
 [TESTDATE] 3/21/2025  
 [MANUFAC] WILLIAMS INDOOR  
 [MORE] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] BAR-22-L20-940-DIM-UNV\_  
 [LUMINAIRE] Recessed 2 x 2 Indirect LED luminaire  
 [MORE] with centered LED rail & white painted housing  
 [LAMP] 56 White LEDs  
 [BALLAST] 0-10v LED DRIVER  
 [\_SEARCH\_SOURCETYPE] LED  
 [\_SEARCH\_APPLICATION] INDOOR  
 [\_SEARCH\_MOUNTING] RECESSED

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1743
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	112
Total Luminaire Watts	15.5
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.28
Spacing Criterion (90-270)	1.38
Spacing Criterion (Diagonal)	1.46
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	1.92 ft
Luminous Width (90-270)	1.92 ft
Luminous Height	0.00 ft

### LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1585	1724	1831
55	1540	1757	1869
65	1463	1749	1711
75	1226	1280	707
85	870	747	418

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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>
0.0	566.399	566.399	566.399	566.399	566.399
0.5	565.945	567.307	566.399	565.945	565.945
1.0	565.491	567.307	566.399	565.945	565.945
1.5	565.491	566.853	566.399	565.491	565.945
2.0	565.491	566.853	565.945	565.491	565.491
2.5	565.491	566.853	565.491	565.038	565.038
3.0	565.038	566.399	565.038	564.584	565.038
3.5	564.584	565.945	564.584	564.584	564.584
4.0	564.130	565.491	564.584	564.130	564.130
4.5	563.676	565.038	563.676	563.676	563.676
5.0	563.222	564.130	563.222	563.222	563.676
5.5	562.768	563.676	562.768	562.768	563.222
6.0	561.861	563.222	562.314	562.314	562.768
6.5	561.407	562.314	561.861	562.314	562.314
7.0	560.953	561.861	561.407	561.861	562.314
7.5	560.045	560.953	560.499	561.407	561.861
8.0	559.591	560.499	560.045	560.953	561.407
8.5	558.684	559.591	559.591	560.499	560.953
9.0	557.776	558.684	558.684	560.045	560.953
9.5	556.868	557.776	558.230	559.591	560.499
10.0	556.414	557.322	557.776	559.138	560.045
10.5	555.507	556.414	556.868	558.684	560.045
11.0	554.599	555.507	556.414	558.230	559.591
11.5	553.691	554.599	555.507	557.776	559.138
12.0	552.784	553.691	555.053	557.322	558.684
12.5	551.876	552.784	554.145	556.868	558.684
13.0	550.514	551.876	553.691	556.414	558.230
13.5	549.607	550.968	552.784	555.961	557.776
14.0	548.245	549.607	551.876	555.507	557.322
14.5	547.338	548.699	550.968	554.599	556.868
15.0	545.976	547.338	550.061	554.145	556.414
15.5	544.614	545.976	549.153	553.238	555.507
16.0	543.253	544.614	548.245	552.330	555.053
16.5	541.891	543.253	546.884	551.876	554.145
17.0	540.076	541.891	545.976	550.514	553.691
17.5	538.715	540.530	544.614	549.607	552.330
18.0	536.899	538.715	543.253	548.699	551.422
18.5	535.084	536.899	541.891	547.338	550.514
19.0	533.268	535.538	540.530	546.430	549.607
19.5	531.907	533.722	539.168	545.068	548.245
20.0	529.638	531.907	537.807	544.161	547.338
20.5	527.822	530.091	535.991	542.799	546.430
21.0	526.007	528.276	534.630	541.438	545.068
21.5	524.191	526.461	532.815	540.076	543.707
22.0	521.922	524.645	530.999	538.715	542.345
22.5	519.653	522.376	529.638	537.353	540.984
23.0	517.838	520.561	527.822	535.991	540.076
23.5	515.568	518.745	526.461	534.630	538.715
24.0	513.753	516.930	524.645	533.268	537.353
24.5	511.030	514.661	523.284	531.907	536.445
25.0	509.215	512.391	521.468	530.545	535.084
25.5	506.945	510.576	520.107	529.184	534.176
26.0	504.676	508.307	518.291	527.822	532.815
26.5	502.407	506.491	516.476	526.461	531.907

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**CANDELA TABULATION - (Cont.)**

27.0	499.684	504.222	514.661	525.099	530.545
27.5	497.415	501.953	513.299	523.738	529.184
28.0	495.145	499.684	511.484	521.922	527.368
28.5	492.422	497.415	509.215	520.107	526.007
29.0	489.699	494.691	507.399	518.291	524.191
29.5	487.430	492.422	505.130	516.476	522.376
30.0	484.707	490.153	502.861	514.661	520.561
30.5	481.984	487.430	500.591	512.391	518.745
31.0	479.261	485.161	498.322	510.576	516.476
31.5	476.084	482.438	496.053	508.307	514.661
32.0	473.361	479.715	493.330	506.038	512.391
32.5	470.638	476.992	491.061	503.768	510.122
33.0	467.461	473.815	488.338	501.499	507.853
33.5	464.284	471.092	486.068	499.230	505.584
34.0	461.107	467.915	483.345	496.507	503.315
34.5	457.930	465.192	480.622	494.238	501.045
35.0	454.753	462.015	477.899	491.968	498.776
35.5	451.622	459.292	475.176	489.699	496.507
36.0	448.445	456.115	472.453	486.976	494.238
36.5	445.086	453.074	470.184	484.707	491.968
37.0	441.819	449.988	467.007	481.984	489.699
37.5	438.369	446.856	464.284	479.715	486.976
38.0	434.829	443.725	461.561	476.992	484.253
38.5	431.335	440.412	458.384	474.268	481.984
39.0	427.795	437.189	455.661	471.545	479.261
39.5	424.255	433.922	452.620	468.822	476.084
40.0	420.715	430.472	449.488	465.645	473.361
40.5	417.084	427.114	446.312	462.468	470.638
41.0	413.226	423.665	443.316	459.745	467.461
41.5	409.641	420.170	440.094	456.568	464.738
42.0	405.874	416.630	436.826	453.346	461.561
42.5	402.198	413.090	433.468	450.215	458.384
43.0	398.386	409.595	430.200	447.083	455.207
43.5	394.573	405.874	426.932	443.906	452.257
44.0	390.852	402.152	423.529	440.639	448.989
44.5	387.039	398.522	420.125	437.416	445.722
45.0	383.046	394.846	416.675	434.103	442.363
45.5	379.233	391.079	413.226	430.745	438.959
46.0	375.285	387.402	409.686	427.386	435.555
46.5	371.382	383.590	406.146	423.937	432.288
47.0	367.297	379.778	402.561	420.442	428.884
47.5	363.076	375.966	399.021	416.812	425.253
48.0	358.992	372.153	395.345	413.181	421.759
48.5	356.178	368.250	391.669	409.595	417.946
49.0	354.726	364.529	387.856	405.919	414.452
49.5	350.550	361.397	384.135	402.334	410.685
50.0	346.284	358.084	380.322	398.522	406.872
50.5	342.063	355.134	376.510	394.619	403.105
51.0	337.661	351.367	372.698	390.716	399.248
51.5	333.349	347.373	368.840	386.767	395.118
52.0	328.947	344.151	365.391	382.819	391.079
52.5	324.590	340.157	362.214	378.825	386.949
53.0	320.097	336.027	358.402	374.559	382.819
53.5	315.513	331.806	355.316	370.383	378.371
54.0	310.929	327.586	351.912	366.072	373.878
54.5	306.346	323.365	347.736	362.713	369.476

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**CANDELA TABULATION - (Cont.)**

55.0	301.898	319.099	344.287	359.173	366.299
55.5	297.360	314.878	340.248	354.726	362.350
56.0	292.821	310.521	335.936	350.369	357.449
56.5	288.237	306.164	331.489	347.192	352.456
57.0	283.608	301.671	326.996	342.563	347.373
57.5	278.979	297.269	322.503	337.706	344.151
58.0	274.440	292.912	318.055	332.850	338.841
58.5	269.947	288.600	313.562	327.949	333.531
59.0	265.318	284.289	309.023	322.820	328.039
59.5	260.734	279.796	304.394	317.646	322.503
60.0	256.060	275.439	299.810	312.336	316.693
60.5	251.476	271.036	295.226	307.163	310.748
61.0	247.028	266.725	290.643	301.807	304.757
61.5	242.490	262.550	286.195	296.452	298.676
62.0	238.087	258.420	281.611	291.006	292.503
62.5	233.594	254.153	276.982	285.242	285.923
63.0	229.192	249.887	272.353	279.387	279.024
63.5	224.744	245.712	267.587	273.260	271.581
64.0	220.251	241.491	262.776	266.816	263.820
64.5	215.849	237.134	257.784	260.053	255.742
65.0	211.220	232.777	252.656	252.883	247.164
65.5	206.454	228.239	247.391	245.349	238.087
66.0	201.644	223.519	241.718	237.316	228.420
66.5	196.787	218.708	235.773	228.829	218.073
67.0	191.614	213.716	229.737	220.024	207.861
67.5	186.485	208.633	223.519	211.084	197.150
68.0	181.266	203.459	217.165	201.644	186.394
68.5	176.092	198.194	210.539	192.067	175.366
69.0	170.510	192.839	203.686	182.219	164.519
69.5	165.018	187.484	196.787	172.234	153.536
70.0	159.663	182.083	189.889	162.250	143.097
70.5	154.262	176.637	182.627	152.719	132.841
71.0	149.043	171.281	175.320	143.007	122.947
71.5	143.869	165.926	167.787	133.657	113.461
72.0	138.695	160.571	160.298	124.671	104.566
72.5	133.476	155.124	152.537	116.048	96.079
73.0	128.393	149.724	144.459	107.743	88.409
73.5	123.355	144.323	136.471	99.982	81.102
74.0	118.408	138.967	128.665	92.539	74.385
74.5	113.371	133.385	120.904	85.686	68.213
75.0	108.424	127.894	113.234	79.423	62.540
75.5	103.658	122.266	105.791	73.523	57.457
76.0	98.893	116.729	98.711	67.895	52.555
76.5	94.173	111.192	91.994	62.858	48.335
77.0	89.589	105.701	85.641	58.274	44.522
77.5	85.005	100.300	79.650	54.098	41.028
78.0	80.467	94.854	74.158	50.241	37.896
78.5	76.201	89.680	69.030	46.655	34.991
79.0	72.116	84.642	64.219	43.297	32.359
79.5	68.168	79.786	59.771	40.301	29.999
80.0	64.355	75.248	55.596	37.488	27.866
80.5	60.407	70.936	51.693	34.810	25.960
81.0	56.458	66.670	48.017	32.359	24.145
81.5	52.691	62.404	44.477	29.999	22.556
82.0	48.834	58.274	41.073	27.821	20.877
82.5	44.976	54.053	37.805	25.597	19.198

**IES INDOOR REPORT**  
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**CANDELA TABULATION - (Cont.)**

83.0	41.028	49.741	34.628	23.328	17.655
83.5	37.261	45.521	31.497	21.195	16.248
84.0	33.448	41.300	28.456	19.152	14.886
84.5	29.681	36.898	25.370	17.110	13.615
85.0	25.915	32.495	22.238	15.204	12.435
85.5	22.375	28.048	19.198	13.434	11.528
86.0	18.880	23.645	16.248	11.891	10.756
86.5	15.522	19.288	13.343	10.438	9.848
87.0	12.481	15.158	10.620	8.895	8.623
87.5	9.712	11.346	8.260	7.125	6.853
88.0	7.307	8.033	6.036	5.718	5.945
88.5	5.083	5.401	4.402	4.584	4.902
89.0	3.132	3.495	3.086	3.041	3.132
89.5	2.587	2.678	2.632	3.041	2.995
90.0	0.000	0.000	0.000	0.000	0.000
90.5	0.000	0.000	0.000	0.000	0.000
91.0	0.000	0.000	0.000	0.000	0.000
91.5	0.000	0.000	0.000	0.000	0.000
92.0	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000
93.0	0.000	0.000	0.000	0.000	0.000
93.5	0.000	0.000	0.000	0.000	0.000
94.0	0.000	0.000	0.000	0.000	0.000
94.5	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000
95.5	0.000	0.000	0.000	0.000	0.000
96.0	0.000	0.000	0.000	0.000	0.000
96.5	0.000	0.000	0.000	0.000	0.000
97.0	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000
98.0	0.000	0.000	0.000	0.000	0.000
98.5	0.000	0.000	0.000	0.000	0.000
99.0	0.000	0.000	0.000	0.000	0.000
99.5	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000
100.5	0.000	0.000	0.000	0.000	0.000
101.0	0.000	0.000	0.000	0.000	0.000
101.5	0.000	0.000	0.000	0.000	0.000
102.0	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000
103.0	0.000	0.000	0.000	0.000	0.000
103.5	0.000	0.000	0.000	0.000	0.000
104.0	0.000	0.000	0.000	0.000	0.000
104.5	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000
105.5	0.000	0.000	0.000	0.000	0.000
106.0	0.000	0.000	0.000	0.000	0.000
106.5	0.000	0.000	0.000	0.000	0.000
107.0	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000
108.0	0.000	0.000	0.000	0.000	0.000
108.5	0.000	0.000	0.000	0.000	0.000
109.0	0.000	0.000	0.000	0.000	0.000
109.5	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000
110.5	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

111.0	0.000	0.000	0.000	0.000	0.000
111.5	0.000	0.000	0.000	0.000	0.000
112.0	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000
113.0	0.000	0.000	0.000	0.000	0.000
113.5	0.000	0.000	0.000	0.000	0.000
114.0	0.000	0.000	0.000	0.000	0.000
114.5	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000
115.5	0.000	0.000	0.000	0.000	0.000
116.0	0.000	0.000	0.000	0.000	0.000
116.5	0.000	0.000	0.000	0.000	0.000
117.0	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000
118.0	0.000	0.000	0.000	0.000	0.000
118.5	0.000	0.000	0.000	0.000	0.000
119.0	0.000	0.000	0.000	0.000	0.000
119.5	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000
120.5	0.000	0.000	0.000	0.000	0.000
121.0	0.000	0.000	0.000	0.000	0.000
121.5	0.000	0.000	0.000	0.000	0.000
122.0	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000
123.0	0.000	0.000	0.000	0.000	0.000
123.5	0.000	0.000	0.000	0.000	0.000
124.0	0.000	0.000	0.000	0.000	0.000
124.5	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000
125.5	0.000	0.000	0.000	0.000	0.000
126.0	0.000	0.000	0.000	0.000	0.000
126.5	0.000	0.000	0.000	0.000	0.000
127.0	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000
128.0	0.000	0.000	0.000	0.000	0.000
128.5	0.000	0.000	0.000	0.000	0.000
129.0	0.000	0.000	0.000	0.000	0.000
129.5	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000
130.5	0.000	0.000	0.000	0.000	0.000
131.0	0.000	0.000	0.000	0.000	0.000
131.5	0.000	0.000	0.000	0.000	0.000
132.0	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000
133.0	0.000	0.000	0.000	0.000	0.000
133.5	0.000	0.000	0.000	0.000	0.000
134.0	0.000	0.000	0.000	0.000	0.000
134.5	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000
135.5	0.000	0.000	0.000	0.000	0.000
136.0	0.000	0.000	0.000	0.000	0.000
136.5	0.000	0.000	0.000	0.000	0.000
137.0	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000
138.0	0.000	0.000	0.000	0.000	0.000
138.5	0.000	0.000	0.000	0.000	0.000

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CANDELA TABULATION - (Cont.)

139.0	0.000	0.000	0.000	0.000	0.000
139.5	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000
140.5	0.000	0.000	0.000	0.000	0.000
141.0	0.000	0.000	0.000	0.000	0.000
141.5	0.000	0.000	0.000	0.000	0.000
142.0	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000
143.0	0.000	0.000	0.000	0.000	0.000
143.5	0.000	0.000	0.000	0.000	0.000
144.0	0.000	0.000	0.000	0.000	0.000
144.5	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000
145.5	0.000	0.000	0.000	0.000	0.000
146.0	0.000	0.000	0.000	0.000	0.000
146.5	0.000	0.000	0.000	0.000	0.000
147.0	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000
148.0	0.000	0.000	0.000	0.000	0.000
148.5	0.000	0.000	0.000	0.000	0.000
149.0	0.000	0.000	0.000	0.000	0.000
149.5	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000
150.5	0.000	0.000	0.000	0.000	0.000
151.0	0.000	0.000	0.000	0.000	0.000
151.5	0.000	0.000	0.000	0.000	0.000
152.0	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000
153.0	0.000	0.000	0.000	0.000	0.000
153.5	0.000	0.000	0.000	0.000	0.000
154.0	0.000	0.000	0.000	0.000	0.000
154.5	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000
155.5	0.000	0.000	0.000	0.000	0.000
156.0	0.000	0.000	0.000	0.000	0.000
156.5	0.000	0.000	0.000	0.000	0.000
157.0	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000
158.0	0.000	0.000	0.000	0.000	0.000
158.5	0.000	0.000	0.000	0.000	0.000
159.0	0.000	0.000	0.000	0.000	0.000
159.5	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000
160.5	0.000	0.000	0.000	0.000	0.000
161.0	0.000	0.000	0.000	0.000	0.000
161.5	0.000	0.000	0.000	0.000	0.000
162.0	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000
163.0	0.000	0.000	0.000	0.000	0.000
163.5	0.000	0.000	0.000	0.000	0.000
164.0	0.000	0.000	0.000	0.000	0.000
164.5	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000
165.5	0.000	0.000	0.000	0.000	0.000
166.0	0.000	0.000	0.000	0.000	0.000
166.5	0.000	0.000	0.000	0.000	0.000

IES INDOOR REPORT  
PHOTOMETRIC FILENAME : BAR-22-L20-940-DIM-UNV\_.IES

CANDELA TABULATION - (Cont.)

167.0	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000
168.0	0.000	0.000	0.000	0.000	0.000
168.5	0.000	0.000	0.000	0.000	0.000
169.0	0.000	0.000	0.000	0.000	0.000
169.5	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000
170.5	0.000	0.000	0.000	0.000	0.000
171.0	0.000	0.000	0.000	0.000	0.000
171.5	0.000	0.000	0.000	0.000	0.000
172.0	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000
173.0	0.000	0.000	0.000	0.000	0.000
173.5	0.000	0.000	0.000	0.000	0.000
174.0	0.000	0.000	0.000	0.000	0.000
174.5	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000
175.5	0.000	0.000	0.000	0.000	0.000
176.0	0.000	0.000	0.000	0.000	0.000
176.5	0.000	0.000	0.000	0.000	0.000
177.0	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000
178.0	0.000	0.000	0.000	0.000	0.000
178.5	0.000	0.000	0.000	0.000	0.000
179.0	0.000	0.000	0.000	0.000	0.000
179.5	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BAR-22-L20-940-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	209.14	N.A.	12.00
0-30	449.94	N.A.	25.80
0-40	748.70	N.A.	42.90
0-60	1371.02	N.A.	78.60
0-80	1717.66	N.A.	98.50
0-90	1743.44	N.A.	100.00
10-90	1689.82	N.A.	96.90
20-40	539.56	N.A.	30.90
20-50	859.46	N.A.	49.30
40-70	858.05	N.A.	49.20
60-80	346.64	N.A.	19.90
70-80	110.91	N.A.	6.40
80-90	25.79	N.A.	1.50
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	1743.44	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	53.62
10-20	155.52
20-30	240.80
30-40	298.76
40-50	319.91
50-60	302.41
60-70	235.73
70-80	110.91
80-90	25.79
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

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BAR-22-L20-940-DIM-UNV\_.IES**

**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	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	41	33	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BAR-22-L20-940-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

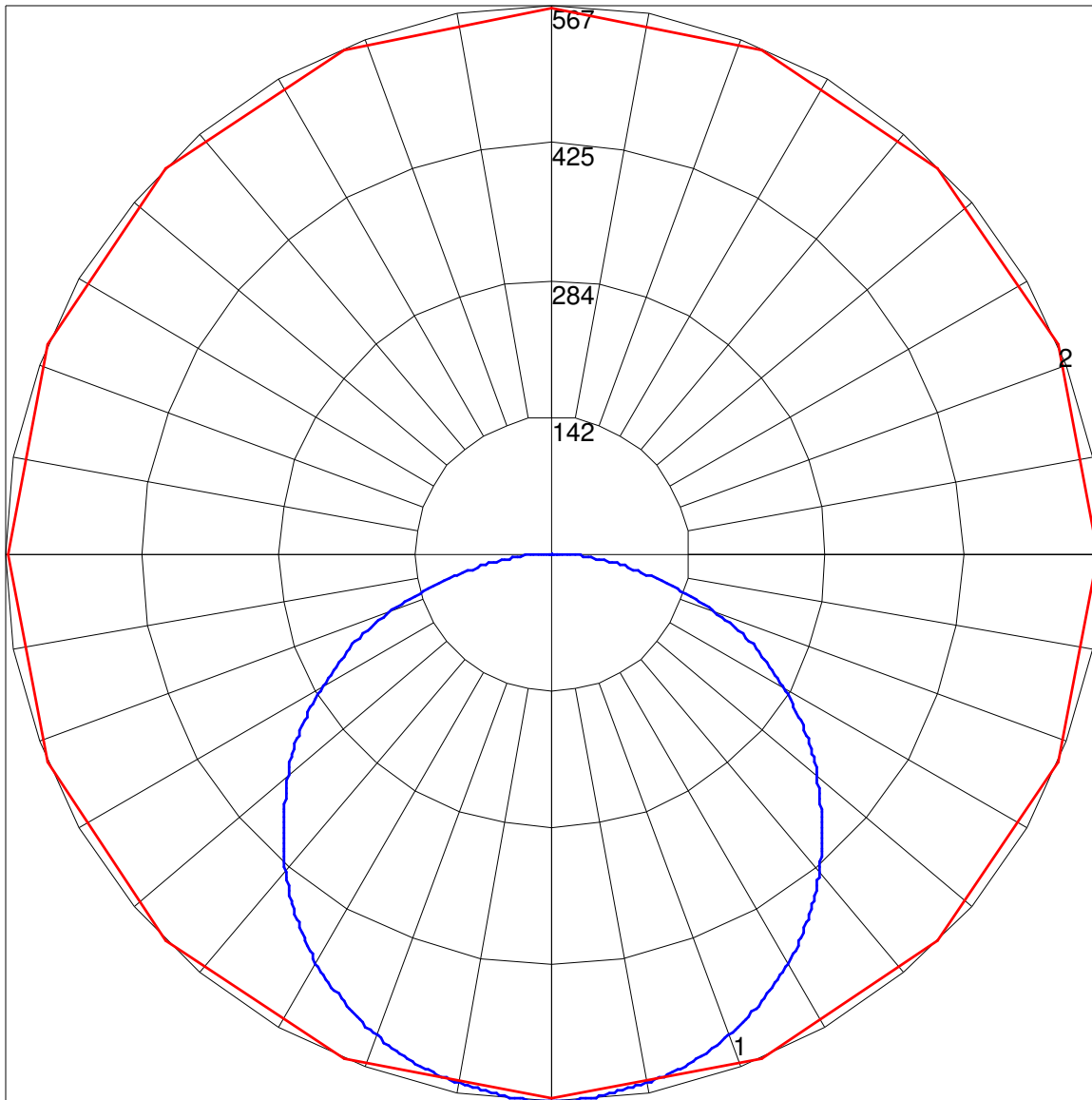
Reflectances

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	13.8	15.5	14.2	15.8	16.1	14.8	16.5	15.2	16.8	17.1
	3H	15.7	17.2	16.1	17.5	17.9	16.2	17.8	16.6	18.1	18.4
	4H	16.4	17.8	16.8	18.1	18.5	16.5	17.9	16.9	18.2	18.6
	6H	16.8	18.1	17.2	18.5	18.9	16.5	17.8	16.9	18.2	18.6
	8H	16.9	18.2	17.4	18.6	19.0	16.5	17.8	16.9	18.2	18.6
	12H	17.0	18.2	17.4	18.6	19.0	16.5	17.7	16.9	18.1	18.5
4H	2H	14.7	16.1	15.1	16.5	16.8	15.5	16.9	15.9	17.2	17.6
	3H	16.8	18.0	17.2	18.4	18.8	17.1	18.3	17.5	18.7	19.1
	4H	17.6	18.6	18.0	19.0	19.5	17.3	18.4	17.8	18.8	19.3
	6H	18.1	19.1	18.6	19.5	20.0	17.5	18.4	17.9	18.8	19.3
	8H	18.3	19.2	18.8	19.6	20.1	17.5	18.4	17.9	18.8	19.3
	12H	18.4	19.2	18.9	19.7	20.2	17.5	18.3	18.0	18.8	19.2
8H	4H	17.8	18.7	18.3	19.1	19.6	17.6	18.5	18.1	18.9	19.4
	6H	18.5	19.2	19.0	19.7	20.2	17.8	18.5	18.3	19.0	19.5
	8H	18.8	19.4	19.3	19.9	20.4	17.8	18.5	18.4	19.0	19.5
	12H	19.0	19.6	19.5	20.0	20.6	17.9	18.5	18.4	18.9	19.5
12H	4H	17.8	18.6	18.3	19.1	19.5	17.6	18.4	18.1	18.9	19.4
	6H	18.5	19.2	19.1	19.6	20.2	17.9	18.5	18.4	19.0	19.5
	8H	18.8	19.4	19.3	19.9	20.5	17.9	18.5	18.4	19.0	19.5

Maximum UGR = 20.6

POLAR GRAPH



Maximum Candela = 567.307 Located At Horizontal Angle = 22.5, Vertical Angle = .5  
# 1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (.5) (Through Max. Cd.)