



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : BAR-22-L20-835-DIM-UNV\_.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] GENERATED FROM 15729805.02  
 [TESTLAB] UL Verification Services Inc.  
 [ISSUE DATE] 2025-05-02  
 [TEST DATE] 3/21/2025  
 [MANUFAC] WILLIAMS INDOOR  
 [MORE] H.E. WILLIAMS, INC. - CARTHAGE, MO.  
 [LUMCAT] BAR-22-L20-835-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	2027
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	131
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	1843	2005	2129
55	1791	2042	2173
65	1701	2034	1990
75	1425	1489	822
85	1012	868	486

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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	658.603	658.603	658.603	658.603	658.603
0.5	658.076	659.659	658.603	658.076	658.076
1.0	657.548	659.659	658.603	658.076	658.076
1.5	657.548	659.131	658.603	657.548	658.076
2.0	657.548	659.131	658.076	657.548	657.548
2.5	657.548	659.131	657.548	657.020	657.020
3.0	657.020	658.603	657.020	656.493	657.020
3.5	656.493	658.076	656.493	656.493	656.493
4.0	655.965	657.548	656.493	655.965	655.965
4.5	655.437	657.020	655.437	655.437	655.437
5.0	654.909	655.965	654.909	654.909	655.437
5.5	654.382	655.437	654.382	654.382	654.909
6.0	653.326	654.909	653.854	653.854	654.382
6.5	652.798	653.854	653.326	653.854	653.854
7.0	652.271	653.326	652.798	653.326	653.854
7.5	651.215	652.271	651.743	652.798	653.326
8.0	650.688	651.743	651.215	652.271	652.798
8.5	649.632	650.688	650.688	651.743	652.271
9.0	648.577	649.632	649.632	651.215	652.271
9.5	647.521	648.577	649.104	650.688	651.743
10.0	646.993	648.049	648.577	650.160	651.215
10.5	645.938	646.993	647.521	649.632	651.215
11.0	644.883	645.938	646.993	649.104	650.688
11.5	643.827	644.883	645.938	648.577	650.160
12.0	642.772	643.827	645.410	648.049	649.632
12.5	641.716	642.772	644.355	647.521	649.632
13.0	640.133	641.716	643.827	646.993	649.104
13.5	639.078	640.661	642.772	646.466	648.577
14.0	637.494	639.078	641.716	645.938	648.049
14.5	636.439	638.022	640.661	644.883	647.521
15.0	634.856	636.439	639.605	644.355	646.993
15.5	633.273	634.856	638.550	643.299	645.938
16.0	631.689	633.273	637.494	642.244	645.410
16.5	630.106	631.689	635.911	641.716	644.355
17.0	627.995	630.106	634.856	640.133	643.827
17.5	626.412	628.523	633.273	639.078	642.244
18.0	624.301	626.412	631.689	638.022	641.188
18.5	622.190	624.301	630.106	636.439	640.133
19.0	620.079	622.190	628.523	635.383	639.078
19.5	618.496	620.607	626.940	633.800	637.494
20.0	615.858	618.496	625.357	632.745	636.439
20.5	613.747	616.385	623.246	631.162	635.383
21.0	611.636	614.274	621.663	629.578	633.800
21.5	609.525	612.163	619.552	627.995	632.217
22.0	606.886	610.053	617.441	626.412	630.634
22.5	604.248	607.414	615.858	624.829	629.051
23.0	602.137	605.303	613.747	623.246	627.995
23.5	599.498	603.192	612.163	621.663	626.412
24.0	597.387	601.081	610.053	620.079	624.829
24.5	594.221	598.443	608.469	618.496	623.773
25.0	592.110	595.804	606.358	616.913	622.190
25.5	589.471	593.693	604.775	615.330	621.135
26.0	586.833	591.054	602.664	613.747	619.552
26.5	584.194	588.943	600.553	612.163	618.496

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**CANDELA TABULATION - (Cont.)**

27.0	581.028	586.305	598.443	610.580	616.913
27.5	578.389	583.666	596.859	608.997	615.330
28.0	575.750	581.028	594.748	606.886	613.219
28.5	572.584	578.389	592.110	604.775	611.636
29.0	569.418	575.223	589.999	602.664	609.525
29.5	566.779	572.584	587.360	600.553	607.414
30.0	563.613	569.945	584.722	598.443	605.303
30.5	560.446	566.779	582.083	595.804	603.192
31.0	557.280	564.140	579.444	593.693	600.553
31.5	553.586	560.974	576.806	591.054	598.443
32.0	550.419	557.808	573.639	588.416	595.804
32.5	547.253	554.641	571.001	585.777	593.165
33.0	543.559	550.947	567.834	583.138	590.527
33.5	539.865	547.781	565.196	580.500	587.888
34.0	536.171	544.087	562.029	577.333	585.249
34.5	532.477	540.920	558.863	574.695	582.611
35.0	528.783	537.226	555.697	572.056	579.972
35.5	525.141	534.060	552.530	569.418	577.333
36.0	521.447	530.366	549.364	566.251	574.695
36.5	517.542	526.830	546.725	563.613	572.056
37.0	513.742	523.241	543.031	560.446	569.418
37.5	509.732	519.600	539.865	557.808	566.251
38.0	505.615	515.959	536.698	554.641	563.085
38.5	501.552	512.106	533.004	551.475	560.446
39.0	497.436	508.360	529.838	548.308	557.280
39.5	493.319	504.560	526.302	545.142	553.586
40.0	489.203	500.549	522.661	541.448	550.419
40.5	484.981	496.644	518.967	537.754	547.253
41.0	480.496	492.633	515.484	534.588	543.559
41.5	476.327	488.570	511.737	530.893	540.393
42.0	471.946	484.454	507.937	527.147	536.698
42.5	467.672	480.337	504.032	523.505	533.004
43.0	463.239	476.274	500.233	519.864	529.310
43.5	458.806	471.946	496.433	516.170	525.880
44.0	454.479	467.619	492.475	512.370	522.080
44.5	450.046	463.397	488.517	508.623	518.281
45.0	445.402	459.123	484.506	504.771	514.376
45.5	440.969	454.742	480.496	500.866	510.418
46.0	436.378	450.468	476.379	496.961	506.460
46.5	431.839	446.035	472.263	492.950	502.660
47.0	427.090	441.602	468.094	488.886	498.702
47.5	422.182	437.169	463.978	484.665	494.480
48.0	417.432	432.736	459.703	480.443	490.417
48.5	414.160	428.198	455.429	476.274	485.984
49.0	412.472	423.870	450.996	471.999	481.920
49.5	407.616	420.229	446.668	467.830	477.540
50.0	402.656	416.377	442.235	463.397	473.107
50.5	397.748	412.946	437.802	458.859	468.727
51.0	392.629	408.566	433.370	454.320	464.242
51.5	387.616	403.922	428.884	449.729	459.439
52.0	382.497	400.175	424.873	445.138	454.742
52.5	377.430	395.531	421.179	440.494	449.940
53.0	372.206	390.729	416.746	435.533	445.138
53.5	366.876	385.821	413.158	430.678	439.966
54.0	361.546	380.913	409.200	425.665	434.742
54.5	356.216	376.006	404.345	421.760	429.623

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**CANDELA TABULATION - (Cont.)**

55.0	351.044	371.045	400.334	417.643	425.929
55.5	345.767	366.137	395.637	412.472	421.337
56.0	340.490	361.071	390.624	407.405	415.638
56.5	335.159	356.005	385.452	403.711	409.833
57.0	329.777	350.780	380.227	398.328	403.922
57.5	324.394	345.661	375.003	392.682	400.175
58.0	319.117	340.595	369.831	387.035	394.001
58.5	313.892	335.582	364.607	381.336	387.827
59.0	308.509	330.568	359.329	375.372	381.441
59.5	303.179	325.344	353.947	369.356	375.003
60.0	297.744	320.278	348.617	363.182	368.248
60.5	292.414	315.159	343.286	357.166	361.335
61.0	287.242	310.145	337.956	350.939	354.369
61.5	281.965	305.290	332.785	344.711	347.297
62.0	276.846	300.488	327.455	338.379	340.120
62.5	271.621	295.527	322.072	331.676	332.468
63.0	266.502	290.567	316.689	324.869	324.447
63.5	261.330	285.711	311.148	317.745	315.792
64.0	256.106	280.804	305.554	310.251	306.768
64.5	250.987	275.737	299.749	302.388	297.374
65.0	245.604	270.671	293.786	294.050	287.400
65.5	240.063	265.394	287.664	285.289	276.846
66.0	234.469	259.906	281.067	275.949	265.605
66.5	228.822	254.312	274.154	266.080	253.573
67.0	222.806	248.507	267.135	255.842	241.699
67.5	216.843	242.596	259.906	245.446	229.245
68.0	210.774	236.580	252.517	234.469	216.738
68.5	204.758	230.458	244.813	223.334	203.914
69.0	198.267	224.231	236.844	211.882	191.301
69.5	191.882	218.004	228.822	200.272	178.530
70.0	185.654	211.724	220.801	188.662	166.392
70.5	179.374	205.391	212.357	177.580	154.466
71.0	173.306	199.164	203.861	166.287	142.961
71.5	167.289	192.937	195.101	155.416	131.932
72.0	161.273	186.710	186.393	144.967	121.588
72.5	155.205	180.377	177.369	134.940	111.720
73.0	149.294	174.097	167.976	125.282	102.801
73.5	143.436	167.817	158.688	116.258	94.305
74.0	137.684	161.590	149.611	107.604	86.494
74.5	131.826	155.099	140.587	99.635	79.317
75.0	126.074	148.714	131.668	92.352	72.721
75.5	120.533	142.170	123.013	85.492	66.810
76.0	114.992	135.731	114.781	78.948	61.111
76.5	109.503	129.293	106.970	73.090	56.203
77.0	104.173	122.908	99.582	67.760	51.770
77.5	98.843	116.628	92.616	62.905	47.707
78.0	93.566	110.295	86.231	58.419	44.065
78.5	88.605	104.279	80.267	54.250	40.688
79.0	83.856	98.421	74.673	50.345	37.627
79.5	79.265	92.774	69.502	46.862	34.883
80.0	74.832	87.497	64.647	43.590	32.402
80.5	70.240	82.484	60.108	40.477	30.186
81.0	65.649	77.523	55.834	37.627	28.075
81.5	61.269	72.562	51.717	34.883	26.228
82.0	56.783	67.760	47.759	32.350	24.275
82.5	52.298	62.852	43.960	29.764	22.323

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

83.0	47.707	57.839	40.266	27.125	20.529
83.5	43.326	52.931	36.624	24.645	18.893
84.0	38.893	48.023	33.088	22.270	17.309
84.5	34.513	42.904	29.500	19.895	15.832
85.0	30.133	37.785	25.859	17.679	14.460
85.5	26.017	32.614	22.323	15.621	13.404
86.0	21.953	27.495	18.893	13.826	12.507
86.5	18.048	22.428	15.515	12.138	11.452
87.0	14.512	17.626	12.349	10.343	10.027
87.5	11.293	13.193	9.605	8.285	7.969
88.0	8.496	9.341	7.019	6.649	6.913
88.5	5.911	6.280	5.119	5.330	5.699
89.0	3.641	4.063	3.589	3.536	3.641
89.5	3.008	3.114	3.061	3.536	3.483
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-L20-835-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-L20-835-DIM-UNV\_.IES**

**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	243.19	N.A.	12.00
0-30	523.19	N.A.	25.80
0-40	870.58	N.A.	42.90
0-60	1594.21	N.A.	78.60
0-80	1997.27	N.A.	98.50
0-90	2027.26	N.A.	100.00
10-90	1964.91	N.A.	96.90
20-40	627.39	N.A.	30.90
20-50	999.38	N.A.	49.30
40-70	997.73	N.A.	49.20
60-80	403.07	N.A.	19.90
70-80	128.97	N.A.	6.40
80-90	29.98	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	2027.26	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	62.35
10-20	180.84
20-30	280.00
30-40	347.39
40-50	371.98
50-60	351.64
60-70	274.10
70-80	128.97
80-90	29.98
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-L20-835-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	62	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	45	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-L20-835-DIM-UNV\_.IES**

**UGR TABLE - CORRECTED**

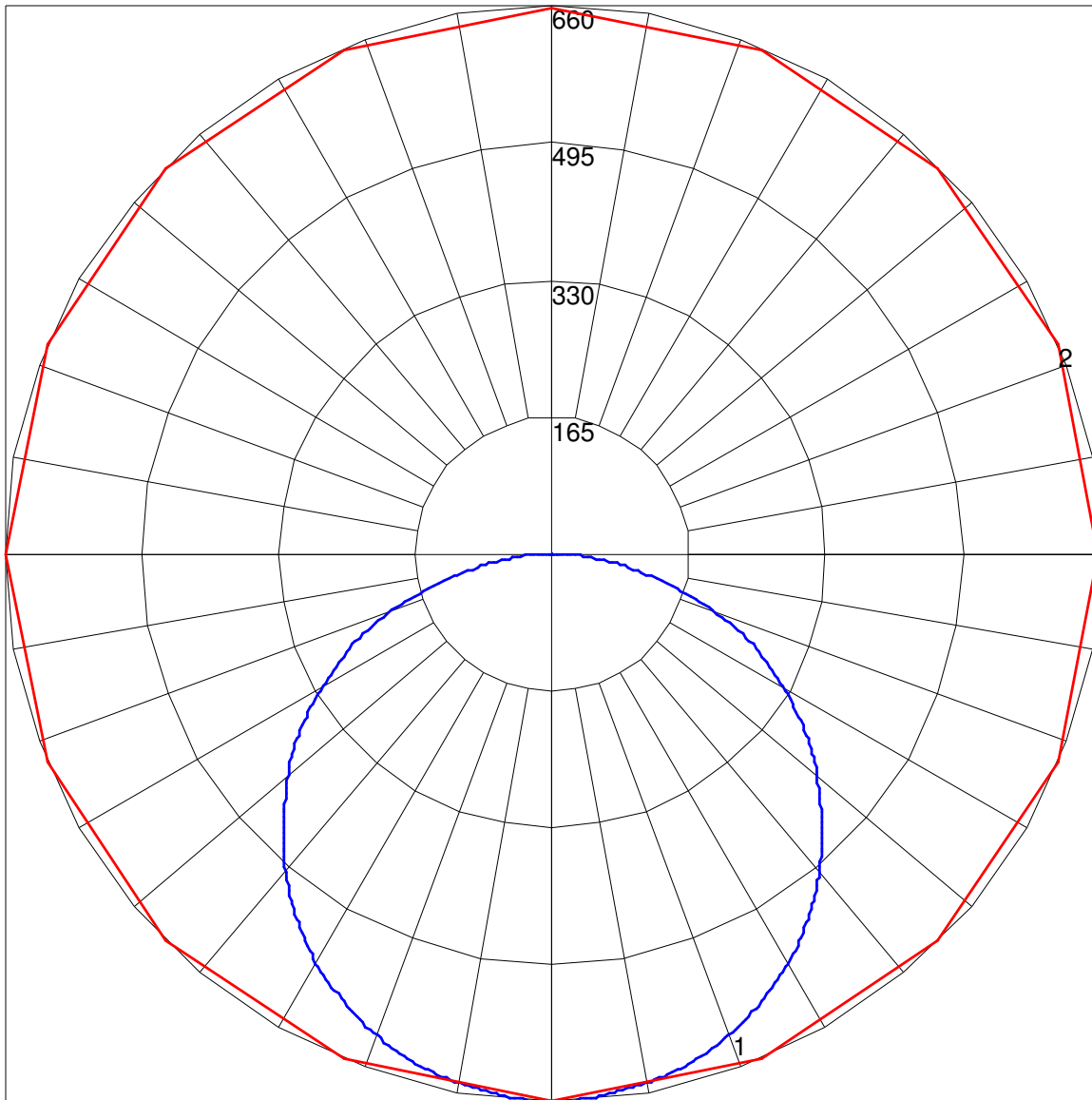
Reflectances

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	14.4	16.1	14.8	16.4	16.7	15.4	17.1	15.8	17.4	17.7
	3H	16.3	17.8	16.7	18.1	18.5	16.8	18.4	17.2	18.7	19.0
	4H	17.0	18.4	17.4	18.7	19.1	17.1	18.5	17.5	18.8	19.2
	6H	17.4	18.7	17.8	19.1	19.5	17.1	18.4	17.5	18.8	19.2
	8H	17.5	18.8	18.0	19.2	19.6	17.1	18.4	17.5	18.8	19.2
	12H	17.6	18.8	18.0	19.2	19.6	17.1	18.3	17.5	18.7	19.1
4H	2H	15.3	16.7	15.7	17.1	17.4	16.1	17.5	16.5	17.8	18.2
	3H	17.4	18.6	17.8	19.0	19.4	17.7	18.9	18.1	19.3	19.7
	4H	18.2	19.2	18.6	19.6	20.1	17.9	19.0	18.4	19.4	19.9
	6H	18.7	19.7	19.2	20.1	20.6	18.1	19.0	18.5	19.4	19.9
	8H	18.9	19.8	19.4	20.2	20.7	18.1	19.0	18.5	19.4	19.9
	12H	19.0	19.8	19.5	20.3	20.8	18.1	18.9	18.6	19.4	19.8
8H	4H	18.4	19.3	18.9	19.7	20.2	18.2	19.1	18.7	19.5	20.0
	6H	19.1	19.8	19.6	20.3	20.8	18.4	19.1	18.9	19.6	20.1
	8H	19.4	20.0	19.9	20.5	21.0	18.4	19.1	19.0	19.6	20.1
	12H	19.6	20.2	20.1	20.6	21.2	18.5	19.1	19.0	19.5	20.1
12H	4H	18.4	19.2	18.9	19.7	20.1	18.2	19.0	18.7	19.5	20.0
	6H	19.1	19.8	19.7	20.2	20.8	18.5	19.1	19.0	19.6	20.1
	8H	19.4	20.0	19.9	20.5	21.1	18.5	19.1	19.0	19.6	20.1

Maximum UGR = 21.2

POLAR GRAPH



Maximum Candela = 659.659 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.)