

### Channel Study

REFERENCE CH# 203D - 88.5 MHz, Pwr= 0.25 kW, HAAT= 62.8 M, COR= 291.4 M DISPLAY DATES  
 39 11 44.2 N. Average Protected F(50-50)= 10.4 km DATA 07-12-21  
 86 33 28.0 W. Omni-directional SEARCH 07-13-21

CH CITY	CALL	TYPE	ANT STATE	AZI. <--	DIST FILE #	LAT. LNG.	Pwr (kW) HAAT (M)	INT (km) COR (M)	PRO (km) LICENSEE	*IN* (Overlap in km)	*OUT*
203D Kirksville	W203BL!	LIC	CN IN	169.6 349.6	12.59 BLFT20070212AAU	39 05 03.20 86 31 53.00	0.013 82	299	---Reference---		
202B New Whiteland	WHZN	LIC	DEN IN	56.8 237.0	42.41 BLED20080821AAJ	39 24 14.20 86 08 41.00	7.800 221	29.9 460	19.8 Olivet Nazarene University	0.0	3.7
205A Oolitic	WMYJ-FM	LIC	CN IN	159.7 339.8	24.69 BMLLED20120710AAT	38 59 14.10 86 27 30.90	5.200 78	2.3 277	23.1 Spirit Educational Radio,	11.4	0.2
204B Indianapolis	WICR	LIC	CN IN	21.1 201.3	83.35 BLED20091103ABQ	39 53 40.10 86 12 21.00	8.000 209	64.1 462	43.2 University Of Indianapolis	7.5	24.3
203A Terre Haute	WCRT-FM	LIC	DCN IN	294.5 114.0	83.51 BLED19951020KB	39 30 14.10 87 26 37.00	1.050 98	59.2 262	18.1 University Of Northwestern	13.8	30.5
201A Mitchell	WMBL	LIC	VN IN	176.2 356.2	48.10 BMLLED20030806ABZ	38 45 50.10 86 31 14.90	1.000 122	1.7 313	21.7 The Moody Bible Institute	35.5	25.2
204B1 Loogootee	WBHW	LIC	CN IN	219.3 38.9	89.90 BLED20070918ABS	38 34 04.80 87 12 46.20	5.300 146	48.9 289	32.3 Music Ministries, Inc.	32.2	47.0
206B Cloverdale	WSPM	LIC	DEN IN	347.4 167.3	56.17 BLED20030716ADL	39 41 19.20 86 42 03.00	22.500 129	1.6 385	20.4 Inter Mirifica, Inc.	42.7	34.5
203B Oxford	WMUB	LIC	DCN OH	74.6 255.7	156.90 BLED19940407KB	39 33 26.10 84 47 34.80	24.500 147	101.3 449	36.8 The President & Trustees O	44.4	84.5

Terrain database is GLOBE 30 Sec, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM  
 In & Out distances between contours are shown at closest points. Reference Zone= East Zone, Co to 3rd adjacent.  
 All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.  
 Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E),  
 Beamtilt (Y,N,X)

FMCommander Single Allocation Study - 07-13-2021 - GLOBE 30 Sec  
W203BL's Overlaps (In= 0.05 km, Out= 3.66 km)

W203BL CH 203 D

Lat= 39 11 44.20, Lng= 86 33 28.00

0.25 kW 63.4 m HAAT, 291.4 m COR

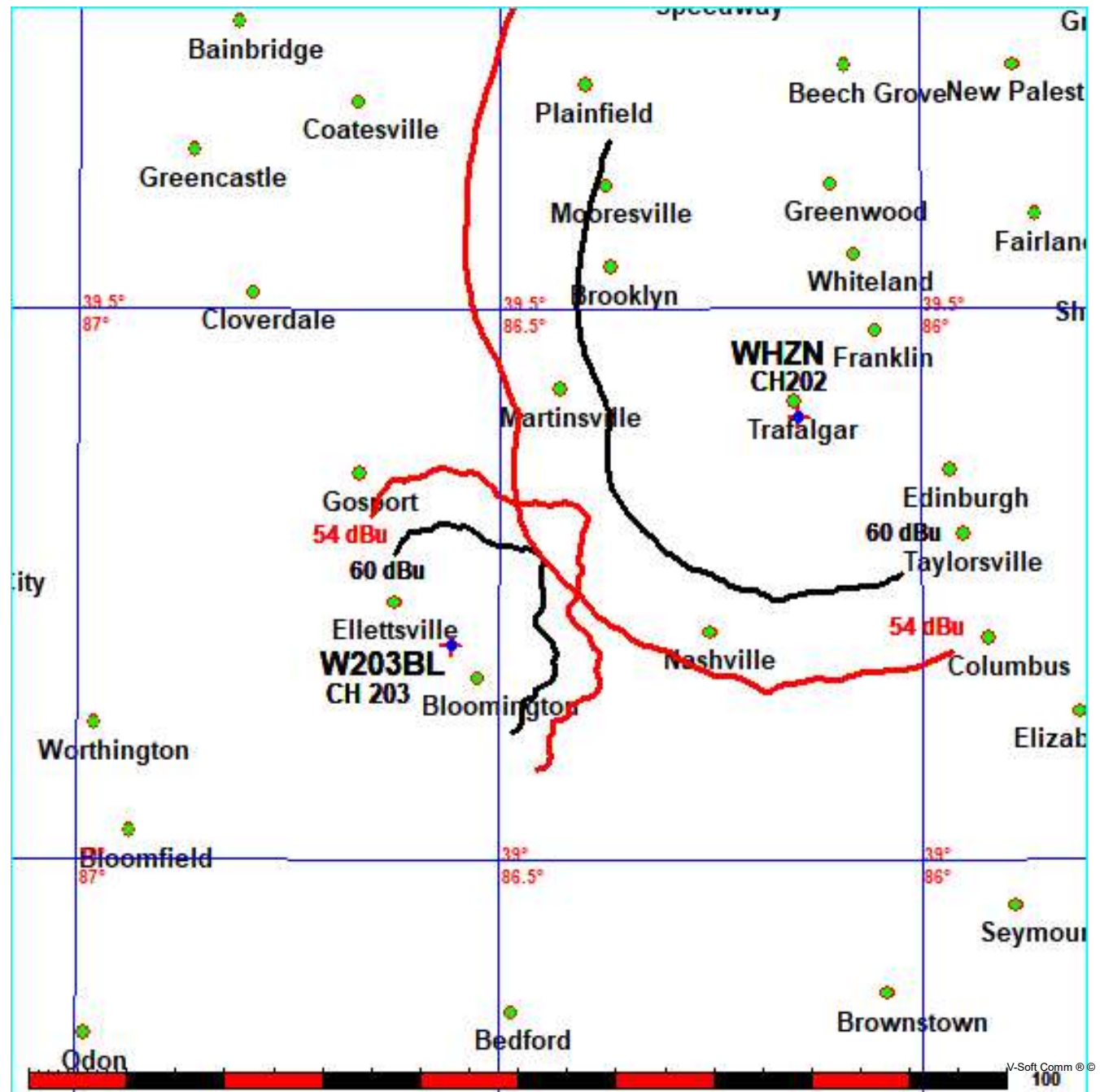
Prot.= 60 dBu, Intef.= 54 dBu

WHZN CH 202 B DA BLED20080821AAJ

Lat= 39 24 14.20, Lng= 86 08 41.00

7.8 kW 221 m HAAT, 460 m COR

Prot.= 60 dBu, Intef.= 54 dBu



Educational Media Foundation

FMCommander Single Allocation Study - 07-13-2021 - GLOBE 30 Sec  
W203BL's Overlaps (In= 11.44 km, Out= 0.22 km)

W203BL CH 203 D

Lat= 39 11 44.20, Lng= 86 33 28.00

0.25 kW 63.4 m HAAT, 291.4 m COR

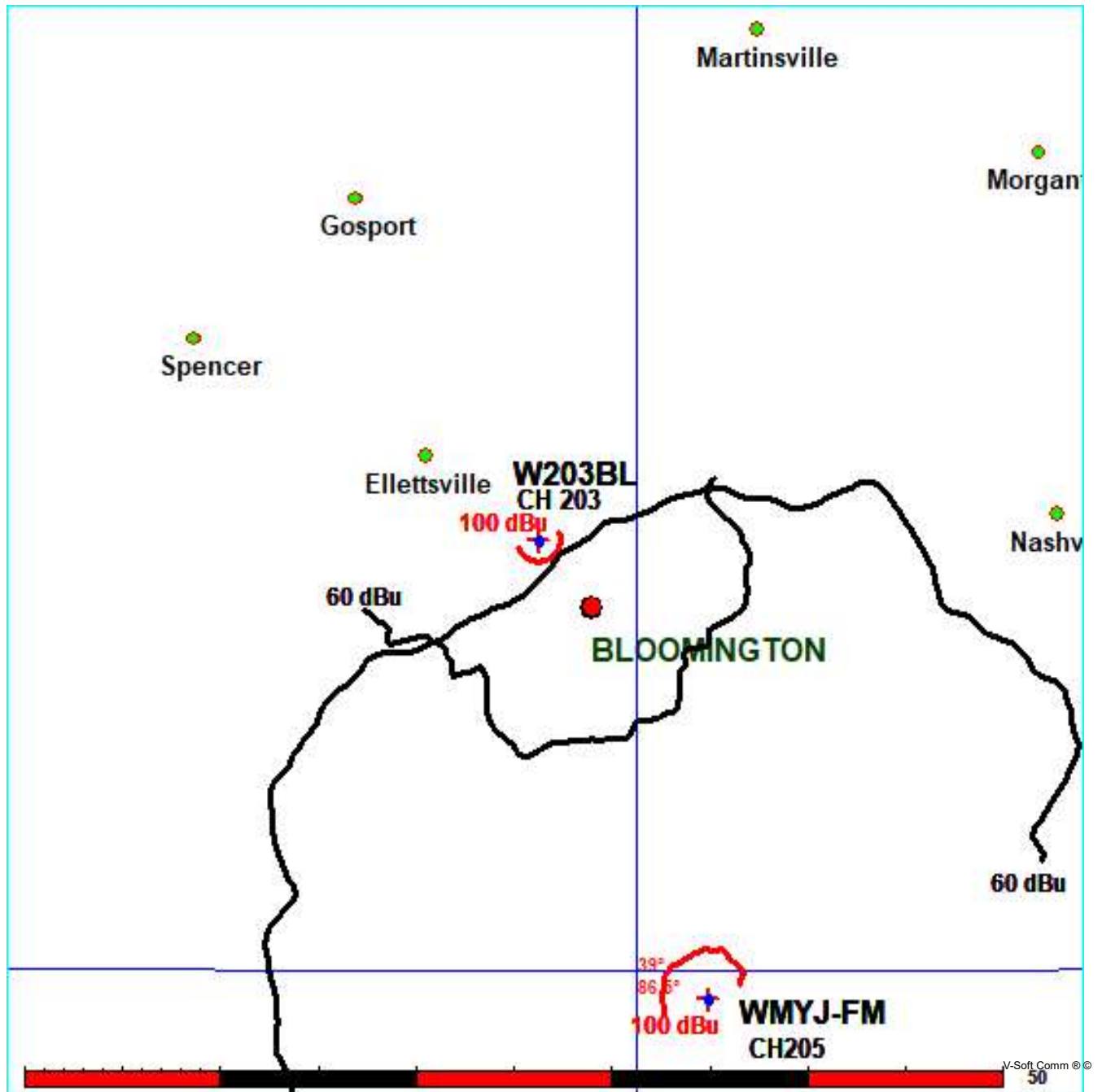
Prot.= 60 dBu, Intef.= 100 dBu

WMYJ-FM CH 205 A BMLED20120710AAT

Lat= 38 59 14.10, Lng= 86 27 30.90

5.2 kW 78 m HAAT, 277 m COR

Prot.= 60 dBu, Intef.= 100 dBu



FMCommander Single Allocation Study - 07-13-2021 - GLOBE 30 Sec  
W203BL's Overlaps (In= 11.44 km, Out= 0.22 km)

W203BL CH 203 D

Lat= 39 11 44.20, Lng= 86 33 28.00

0.25 kW 63.4 m HAAT, 291.4 m COR

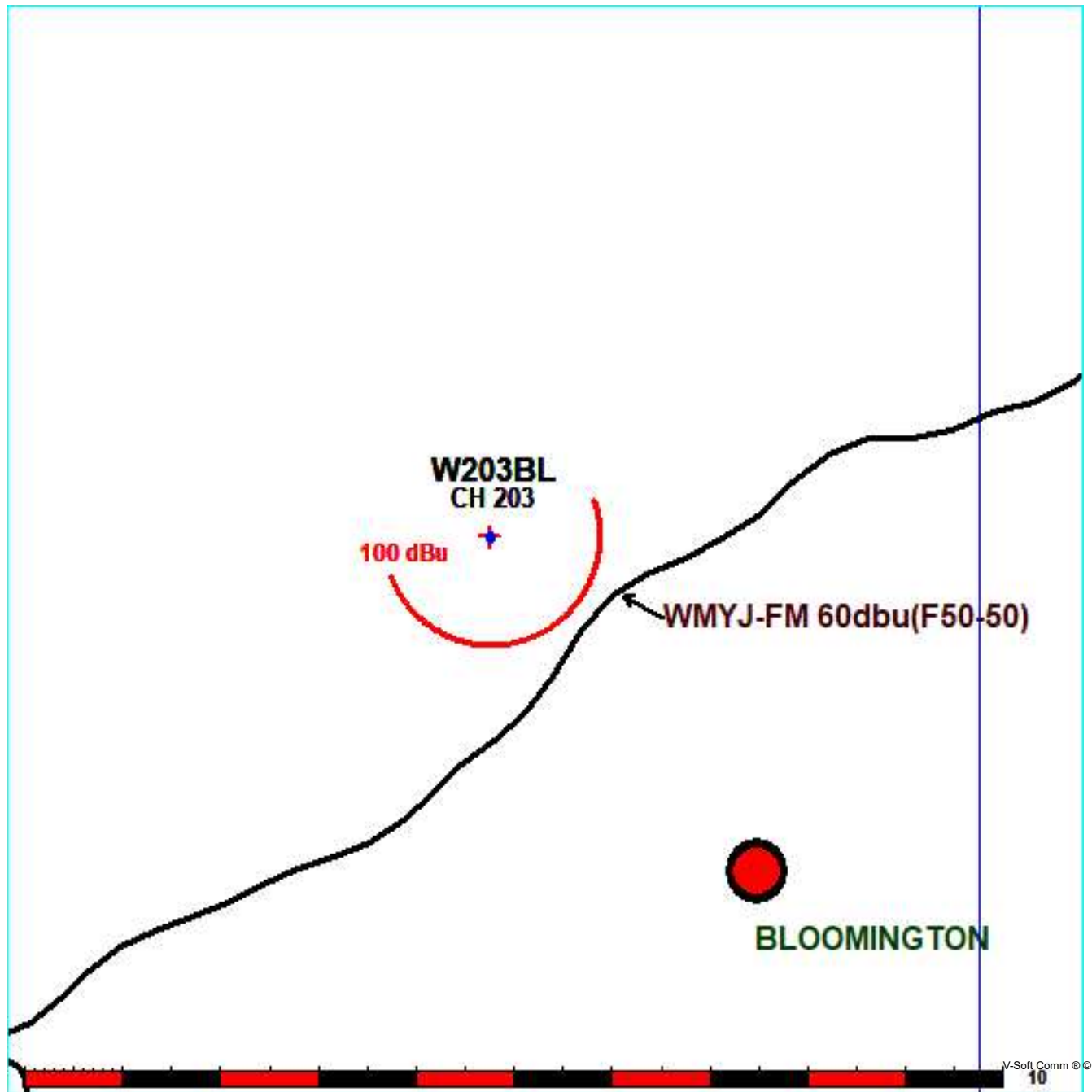
Prot.= 60 dBu, Intef.= 100 dBu

WMYJ-FM CH 205 A BMLED20120710AAT

Lat= 38 59 14.10, Lng= 86 27 30.90

5.2 kW 78 m HAAT, 277 m COR

Prot.= 60 dBu, Intef.= 100 dBu



### **Human exposure to excess levels of radiofrequency radiation**

The proposed facility is to be built using a 1-bay circularly polarized antenna.

According to OET 65, "Applicants and licensees should be able to calculate, based on considerations of frequency, power and antenna characteristics the distance from their transmitter where their signal produces an RF field equal to, or greater than, the 5% threshold limit. The applicant or licensee then shares responsibility for compliance in any accessible area or areas within this 5% "contour" where the appropriate limits are found to be exceeded."

As can be seen in Exhibit 2-A, the proposed facility's maximum contribution to RF on the site is  $1.79\mu\text{W}/\text{cm}^2$  at a distance of 52 meters from the tower, which is less than 0.9% of the uncontrolled (public) exposure limit.

Therefore, because the proposed facility will not cause an RF field that is equal to or greater than 5% of the  $200\mu\text{W}/\text{cm}^2$  limit for uncontrolled exposure at any point, the proposed facility complies with the requirements of OET 65.

EMF will fully cooperate with other site users to temporarily reduce power or cease broadcasting, as necessary, to protect workers and others having access to the site from excessive levels of RF Radiation.

**RF Analysis:** Kirksville, IN  
**W203BL**  
**203**  
**D**  
**W203BL**

**Site type:** Application

**Channel:** 203

**Class:** D

**ERP:** .25kw

**Antenna:** Nicom  
 BKG77  
 1 bay

**COR AGL:** 50.0m AG

**Polarization:** Circular Polarization

Distance From Tower (m)	W203BL Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
0	0.4568	0.46	0.23
1	0.4629	0.46	0.23
2	0.4693	0.47	0.23
3	0.4759	0.48	0.24
4	0.4827	0.48	0.24
5	0.5041	0.50	0.25
6	0.5366	0.54	0.27
7	0.5693	0.57	0.28
8	0.6023	0.60	0.30
9	0.6358	0.64	0.32
10	0.6756	0.68	0.34
11	0.7162	0.72	0.36
12	0.7572	0.76	0.38
13	0.7986	0.80	0.40
14	0.8412	0.84	0.42
15	0.8855	0.89	0.44
16	0.9299	0.93	0.46
17	0.9744	0.97	0.49
18	1.0187	1.02	0.51
19	1.0650	1.07	0.53
20	1.1133	1.11	0.56
21	1.1617	1.16	0.58
22	1.2100	1.21	0.60
23	1.2580	1.26	0.63
24	1.3009	1.30	0.65
25	1.3361	1.34	0.67
26	1.3698	1.37	0.68
27	1.4021	1.40	0.70
28	1.4329	1.43	0.72
29	1.4621	1.46	0.73
30	1.4933	1.49	0.75
31	1.5240	1.52	0.76
32	1.5532	1.55	0.78
33	1.5809	1.58	0.79
34	1.6071	1.61	0.80
35	1.6317	1.63	0.82
36	1.6477	1.65	0.82
37	1.6569	1.66	0.83
38	1.6647	1.66	0.83
39	1.6713	1.67	0.84
40	1.6766	1.68	0.84
41	1.6806	1.68	0.84
42	1.6836	1.68	0.84
43	1.6948	1.69	0.85
44	1.7126	1.71	0.86
45	1.7290	1.73	0.86

Distance From Tower (m)	W203BL Facility	Total RF (uW/cm2)	Percent of 200uW/cm2
46	1.7438	1.74	0.87
47	1.7573	1.76	0.88
48	1.7693	1.77	0.88
49	1.7799	1.78	0.89
50	1.7892	1.79	0.89
51	1.7946	1.79	0.90
<b>52</b>	<b>1.7948</b>	<b>1.79</b>	<b>0.90</b>
53	1.7942	1.79	0.90
54	1.7927	1.79	0.90
55	1.7903	1.79	0.90
56	1.7871	1.79	0.89
57	1.7833	1.78	0.89
58	1.7787	1.78	0.89
59	1.7734	1.77	0.89
60	1.7675	1.77	0.88
61	1.7568	1.76	0.88
62	1.7440	1.74	0.87
63	1.7309	1.73	0.87
64	1.7175	1.72	0.86
65	1.7038	1.70	0.85
66	1.6899	1.69	0.84
67	1.6758	1.68	0.84
68	1.6615	1.66	0.83
69	1.6471	1.65	0.82
70	1.6325	1.63	0.82
71	1.6178	1.62	0.81
72	1.6030	1.60	0.80
73	1.5876	1.59	0.79
74	1.5718	1.57	0.79
75	1.5561	1.56	0.78
76	1.5404	1.54	0.77
77	1.5247	1.52	0.76
78	1.5090	1.51	0.75
79	1.4934	1.49	0.75
80	1.4779	1.48	0.74
81	1.4624	1.46	0.73
82	1.4470	1.45	0.72
83	1.4317	1.43	0.72
84	1.4165	1.42	0.71
85	1.4014	1.40	0.70
86	1.3863	1.39	0.69
87	1.3715	1.37	0.69
88	1.3565	1.36	0.68
89	1.3414	1.34	0.67
90	1.3264	1.33	0.66
91	1.3116	1.31	0.66
92	1.2969	1.30	0.65
93	1.2824	1.28	0.64
94	1.2680	1.27	0.63
95	1.2538	1.25	0.63
96	1.2398	1.24	0.62
97	1.2259	1.23	0.61
98	1.2122	1.21	0.61
99	1.1987	1.20	0.60
100	1.1853	1.19	0.59